



2024 EARLY EDUCATION AND CARE REPORT

Strengthening the Foundation:

A Profile of Early Childhood Educators in Boston and Beyond

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ABOUT THE BOSTON OPPORTUNITY AGENDA

The Boston Opportunity Agenda is a public/private partnership that works urgently and strategically to transform the Boston education landscape from cradle to career. Our focus is on removing the systemic barriers that create unacceptable outcomes and lack of opportunity for historically oppressed and economically disadvantaged populations and creating a just, equitable education system.

ABOUT THE BOSTON BIRTH TO EIGHT COLLABORATIVE

Convened by the Boston Opportunity Agenda and the United Way of Massachusetts Bay, the Birth to Eight Collaborative includes parents and more than 200 representatives from early education centers, family child care, nonprofit organizations, schools, public health, philanthropy, and medical institutions. We focus on ensuring all young children are ready for sustained success in kindergarten and beyond.

2024 STATE OF EARLY EDUCATION AND CARE REPORT

Strengthening the Foundation:

A Profile of Early Childhood Educators in Boston and Beyond

AUTHORS

Pratima A. Patil, A.M., Ed.M., Boston Opportunity Agenda

Paula Gaviria Villarreal, MPP, Office of Early Childhood, City of Boston

Fernanda Q. Campbell, Ph.D., Boston Opportunity Agenda

Birth to Eight Collaborative Data Committee

EDITOR

Sandy Kendall, The Boston Foundation

DESIGN

Kate Canfield, Canfield Design

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The Boston Foundation

We know from decades of research that the first thousand days of life are pivotal in defining an individual's future health and success—and their ability to contribute to our communities' civic and economic vitality.

At the Boston Foundation, *Nurturing Strong Beginnings* is a top priority in our critical efforts to advance equity in Boston and beyond. We believe stronger and more equitable systems of early education and care will ensure our children are physically and emotionally healthy, on track, and prepared to thrive in school and adulthood.

Ensuring that all families have access to educational resources they need to help their children flourish can be immensely difficult. High costs are a well-known barrier to access for many, and yet other key factors that we don't hear about as often also impact the quality and availability of early childhood education offerings. While we need to build a more affordable system, that system must also address the needs and challenges of our early childhood educators—one of our most essential workforces.

This 2024 Early Education and Care Report, *Strengthening the Foundation: A Profile of Early Childhood Educators in Boston and Beyond*, produced by the Boston Opportunity Agenda and Birth to Eight Collaborative, offers us a chance to more deeply understand the lives and work of those who care for our youngest children, sharing results from an extensive survey taken among members of that workforce. The numbers reveal that early education and care professionals are compensated too little for demanding roles in a system that is already considered unaffordable for most families. It's clear that the system is in desperate need of change.

As President and CEO of the Boston Foundation and the Chair of the Boston Opportunity Agenda, I've learned a great deal about the struggling ecosystem of early education and care. Each piece of the system is intricately linked to all others. This means that the most promising solutions must take the entirety of the system into account and may need to be more profound than we initially imagined.

This report, while it illuminates dismaying trends and grounds us in a challenging reality, also shares an important outline for action, exploration and change. The authors' recommendations will inform efforts at TBF as well as the Boston Opportunity Agenda. My hope is that the recommendations will also inspire many advocates to tackle this issue from their own spheres of influence.

The need for equity starts early. I believe that in order to nurture strong beginnings for our children, we must also nurture and support a healthy and thriving workforce of early childhood teaching professionals. I'm so pleased we can offer this report to help all of us find ways to do just that.

M. Lee Pelton

President and CEO of the Boston Foundation

Chair of the Boston Opportunity Agenda

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1. Accelerate efforts toward an equitable, high-quality early education and care system through long-term sustained and improved funding
2. Define career trajectory options with articulated educational, credentialing, and apprenticeship pathways
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WORD FROM THE PROS

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INTRODUCTION

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The current use of ecosystem to describe families, centers, family child care, schools, employers, and community supports demonstrates progress in our understanding of the interdependence of each part of the early education and care sector. But this metaphor can extend even further to better represent the early education and care field.¹ Ecosystem is borrowed from those studying our earth's biological diversity. For decades, ecologists have understood that some parts of an ecosystem have an outsized influence on the health and viability of the whole, rather than all parts being equal. These are the "keystones" of an ecosystem. There is little to no functional redundancy of a keystone; meaning if this part of the ecosystem diminishes, there is nothing similar to take its place, resulting in the loss of the existing ecosystem.² The keystone impacts every other part of an ecological system. Based on this understanding, contemporary conservation efforts are focused on keystones to ensure the resilience of our environmental ecosystems.³

As we consider the resilience of our early childhood ecosystem, it seems prudent to consider what may be its keystones. During the COVID pandemic, the piece that supported children, families, schools, the rest of our essential workforce, and employers well beyond the early childhood sector, were early educators. It was early education and care centers and family child-care businesses that we needed to remain open to ensure that workers like cleaners, drivers, or doctors could continue serving our most vital needs.⁴ Early educators are the keystone of our early education and care ecosystem. This makes the current early educator workforce crisis especially alarming.

The early educator workforce crisis is not new; only our realization of its centrality to our economy is new. Still, the sector continues to face the same systemic challenges of low wages, long hours, low retention and high turnover as before the pandemic. Following the pandemic, however, early educators are less willing to stay in these jobs.⁵ Remember, when the keystone is lost, the rest crumbles.

Early educators are the keystone of our early education and care ecosystem. This makes the current early educator workforce crisis especially alarming.

An equitable high-quality system supporting early childhood educators' entry, advancement and well-being is a prerequisite to high quality early education and care for our children. We must move away from a piecemeal approach to job improvements and invest in a system that values our early educators. "System Indicators," as defined by StriveTogether, serve as a way to measure and track how system factors (such as wages, professional development opportunities, job benefits) influence equitable outcomes for a group—in our case, early educators and, indirectly, children and families. Thus we developed a survey to identify system factors impacting the early childhood workforce. Where are the places to invest and support at the system level? What is the career path of an early educator? Responses shared in this report come from a 2022 survey taken by professionals working in licensed early education and care programs, including family child care and center-based care. The survey was shared state-wide, with our primary focus being Boston. This report presents data about the demographics, career paths, and compensation of early education and care professionals in Boston and beyond in 2022 and offers insights on what the data say about the condition of this keystone of our economy.

SUMMARY OF FINDINGS

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he findings illuminate critical issues within this vital sector, identifying trends, challenges, and opportunities that shape the experiences of educators and, consequently, the early learning environments they create. Below, we present a concise summary of topline insights, each contributing to our understanding of the current state and potential future directions of early education in our region.

- ★ **High turnover:** More than 50 percent of Boston-based centers have a turnover rate above 20 percent, which U.S. Health and Human Services defines as high. High turnover leads to reduced quality, reduced income, and increased stress in the sector.
- ★ **Aging workforce:** The early education and care workforce skews older, particularly in leadership positions and family child care. With 64 percent being over age 45, experienced directors/administrators and FCC owners are retiring without being replaced, threatening a loss of seasoned and diverse educators and small businesses.
- ★ **Limited association between wages and experience/education:** Early educators are not being adequately compensated for their experience and qualifications. This makes the high cost of further education a risky investment.
- ★ **Lack of diversity in leadership:** Leadership positions in the early education and care sector in Boston and across Massachusetts are disproportionately occupied by White individuals, highlighting a critical need for BIPOC leadership pathways. Several institutions are notable for graduating educators with diverse linguistic and cultural backgrounds, indicating their vital role in enhancing the sector's inclusivity and addressing leadership diversity gaps.

20%

"HIGH TURNOVER" AS
DEFINED BY U.S. HEALTH AND
HUMAN SERVICES

52%

BOSTON-BASED CENTERS
REPORTING TURNOVER RATES
OF 20% OR MORE

55%

BOSTON-BASED EARLY
EDUCATION LEADERS
AGED 45 OR OLDER

SURVEY SCOPE AND FOCUS: Unveiling the Landscape of Early Education in Boston and Beyond

This report presents the findings of an exploratory survey conducted in 2022, aimed at acquiring a broad understanding of the early education and care workforce across Massachusetts, with a particular focus on Boston. We included both child-care center workers and those operating family child care (FCC). The survey's exploratory nature was instrumental in identifying key questions and areas that warrant deeper investigation into this critical sector. While the initial objective of the survey was to profile the workforce in licensed child-care programs within Boston, the scope was expanded to include respondents from across the state in response to requests from key stakeholders. It is important to note that this report primarily highlights selected findings from Boston and does not offer an exhaustive analysis of the data from other regions.

CONTEXT

Skills necessary for children's school success begin developing in infancy and grow rapidly over the first few years of life. This early development is predictive of math and reading in the early grades, performance in middle and high school, and college completion, even when controlling for socioeconomic status.⁶ Learning these skills before entering kindergarten sets the foundation upon which to build complex cognitive and socioemotional skills to succeed in school and life.

The quality of early education and care environments is critical to the development of these cognitive and behavioral skills. Components of early childhood programs associated with the development of these skills include having structured schedules, varied learning activities and responsive early educator interactions with children. Strategies that scaffold open-ended play and positive social interactions are especially important.⁷ Early educators need to be sensitive to the child's needs and encourage the development of the child's perspective. These expectations for classroom quality place high expectations on the early educator's training and well-being, which inform teacher-child relationships.

When educators, and in this case early educators, experience high levels of stress, they may be less able to manage their own emotions and reactions, thus undermining supportive teacher-child relationships.⁸ Having high workplace demands coupled with low resources has been shown to increase educator stress and negatively impact children's development.⁹ This research points to the importance of classroom quality and, more broadly, high-quality systems to support early educators' well-being. The Buffet Early Childhood Institute defines early educator well-being within an ecological framework. This framework includes the environments they work in, policies that affect them, and society and culture. Also included are role, personal, and professional learning. Together, these contextual and individual elements provide guidance on how to systematically assess the well-being of the early education workforce.¹⁰

This framework centers child well-being within educator well-being, compelling us to consider the two in relationship with each other.

If we want high-quality early education and care, then we have to want early educator well-being. Currently, educator well-being is negatively impacted by low wages, shortages, and lack of benefits. These persistent challenges have fueled high turnover rates, further adding to the stress and burnout of the remaining workforce.¹¹ Our efforts to address these challenges will be limited unless we consider system-level factors contributing to this crisis. To better understand the state of our early educator workforce, and to elucidate systemic challenges, we developed a survey to collect individual and contextual information. To have high-quality early education, we need a high-quality system supporting early educators' careers and well-being. This report presents insights into the demographics, career paths, and compensation of early education and care professionals in Boston and beyond in 2022.

MAIN FINDINGS

Responses analyzed in this report come from professionals working in both family child care (FCC) and center-based programs in Massachusetts. The analytical sample includes 653 early education and care professionals, representing a range of roles (center-based directors/administrators, teachers, and assistants; and FCC educators) and regions within the state. A significant portion of the respondents, 54 percent of the total sample (n=354), work in the city of Boston. This distribution aligns with our original aim of surveying Boston's workforce while also acknowledging contributions from other areas in Massachusetts.

For a more detailed understanding of the survey design, data collection methods, sample characteristics, and limitations, readers are encouraged to refer to the Methods section. Additionally, **Appendix Table 1** provides further details on the distribution of survey participants by region and role.

Who Is Caring for Our Children?

This section presents a detailed analysis of the demographics of early education professionals in Boston and beyond. We delve into age, gender identity, race, Hispanic/Latino ethnicity, primary language, years of experience, education level, and professional credentials. These data offer a nuanced understanding of the people shaping the early learning environment, and reveal trends such as an aging workforce, growing gender and racial diversity, and varied educational backgrounds across different roles. This section aims to provide a demographic profile of those entrusted with the crucial task of early childhood education and care in Boston and other regions of Massachusetts.

AGE

Of our sample, the proportion of those in each age group in Boston and the rest of Massachusetts were similar except for the oldest age group of 60 years and older, at 22.8 percent and 12.7 percent, respectively.¹² The smallest proportion of respondents for both Boston (8.8 percent) and the rest of Massachusetts (8.7 percent) was those 18–29 years old.

WORD FROM THE PROS

[Mis] amigas educadoras tuvieron problemas de salud; solo les quedó cerrar su FCC y buscar un part-time de limpieza. Después de ... 17 y 20 años en la educación temprana."



[My] teacher friends had health problems; all they could do was close their FCC and look for a part-time cleaning job. After ... 17 and 20 years in early education."

In Boston, the age distribution across different early educator roles reveals a high proportion of individuals aged 45 and older. (**Table 1**) This trend in our sample is primarily influenced by the age demographics of Boston-based center directors/administrators, where 65.4 percent are 45 years or older, and FCC educators, with 75.5 percent in this age bracket. The relatively lower number of younger entrants in the workforce within Boston is predominantly seen among FCC educators (1.1 percent) and center directors/administrators (5.0 percent). **Appendix Table 2** shows the age distribution by role for the rest of Massachusetts. With these trends, we expect the early education sector to lose highly experienced, early educator leadership more quickly than will be replenished in the coming years.

The significant proportion of educators aged 45 and older mirrors the general aging pattern of the American workforce. The older workforce has nearly quadrupled since the mid-1980s, a trend largely attributed to the aging of the Baby Boom generation.¹³ This national trend is reflected in our

TABLE 1
Age Distribution of Boston Early Educators by Role
[2022 Survey Respondents, n = 354*]

How old are you?	Role		
	Center-based Directors/ Administrators	Center-based Teachers	FCC Educators
18-29 (n=31)	4.94%	29.41%	1.06%
30-44 (n=98)	29.62%	35.29%	23.40%
45-59 (n=144)	37.04%	27.06%	48.40%
Over 60 (n=81)	28.40%	8.24%	27.14%

FCC = Family Childcare

* Sample distribution by role: 81 Center-based Directors/Administrators; 85 Center-based Teachers; and 188 FCC Educators.

local findings, with Massachusetts exhibiting in 2022 a median age of 40.3.¹⁴ These demographic shifts have implications for the sustainability of the early education and care workforce, its leadership, and the training of younger early educators. Our study's indication of a lower number of younger entrants underscores the need for targeted strategies to attract and retain younger talent and build leadership pathways to ensure the vitality and sustainability of the early education workforce.

GENDER IDENTITY

In our sample, the majority of respondents were female: 97.7 percent. The representation of men is notably lower. A small percentage of respondents identify as non-binary.

(Appendix Table 3) While males are not well represented in early educator roles, the roles that they are in tend to be in leadership. (**Table 2**)

We further explored the intersectionality between age distribution and gender identity. (**Appendix Table 4**) Non-binary individuals in our sample tended to be younger: 83.0 percent of non-binary respondents were in the 18–44 age group. While the early education workforce remains predominantly female, there is a gradual emergence of gender diversity at the younger end. The field can benefit from efforts to support the entry of diverse gender identities within the early education sector.

TABLE 2
Gender Identity of Boston Providers by Role
[2022 Survey Respondents, n = 354]

How do you define your gender?	Role		
	Center-based Directors/ Administrators	Center-based Teachers	FCC Educators
Female (n=344)	22.09%	23.84%	54.07%
Male (n=8)	50.00%	25.00%	25.00%
Non-binary (n=2)	50.00%	50.00%	0.00%

FCC = Family Childcare

RACE

Among our respondents working in Boston, a notably smaller percentage identified as White (36.2 percent) compared to their counterparts in the rest of Massachusetts (89.6 percent).¹⁵ **Figure 1** illustrates the distribution of race categories among respondents in both Boston and other regions of Massachusetts.

Appendix Table 5 provides a detailed breakdown of the race of respondents in various roles in both Boston and other parts of Massachusetts. Due to small numbers in some categories, respondents were combined under “Other,”¹⁶ reflecting a diverse range of backgrounds. Our sample of respondents show Boston having a more diverse workforce in comparison to the rest of the state. Yet, center leadership in both Boston and all of Massachusetts are disproportionately White: 55.6 percent and 96.2 percent, respectively. These findings suggest the need for creating leadership pathways for BIPOC early educators.

CENTER LEADERSHIP IS DISPROPORTIONATELY WHITE:

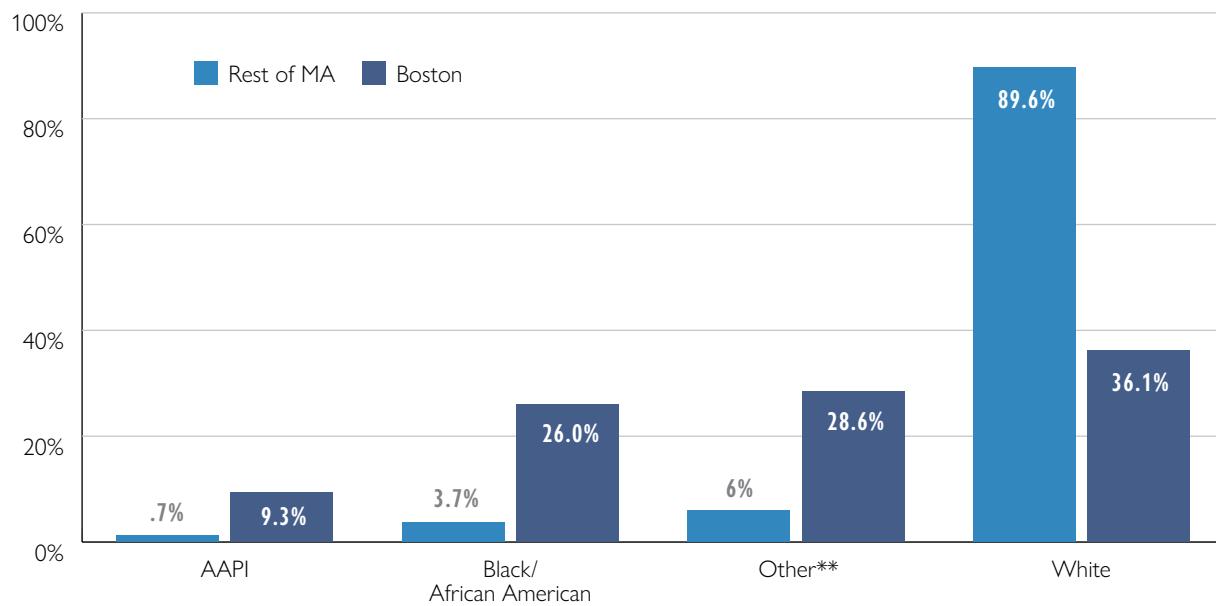
55.6%

BOSTON PERCENTAGE OF WHITE LEADERSHIP

96.2%

REST OF MASSACHUSETTS PERCENTAGE OF WHITE LEADERSHIP

FIGURE 1
Racial Composition of Respondents: Comparison Between Boston and Rest of Massachusetts
(2022 Survey Respondents, n = 653*)



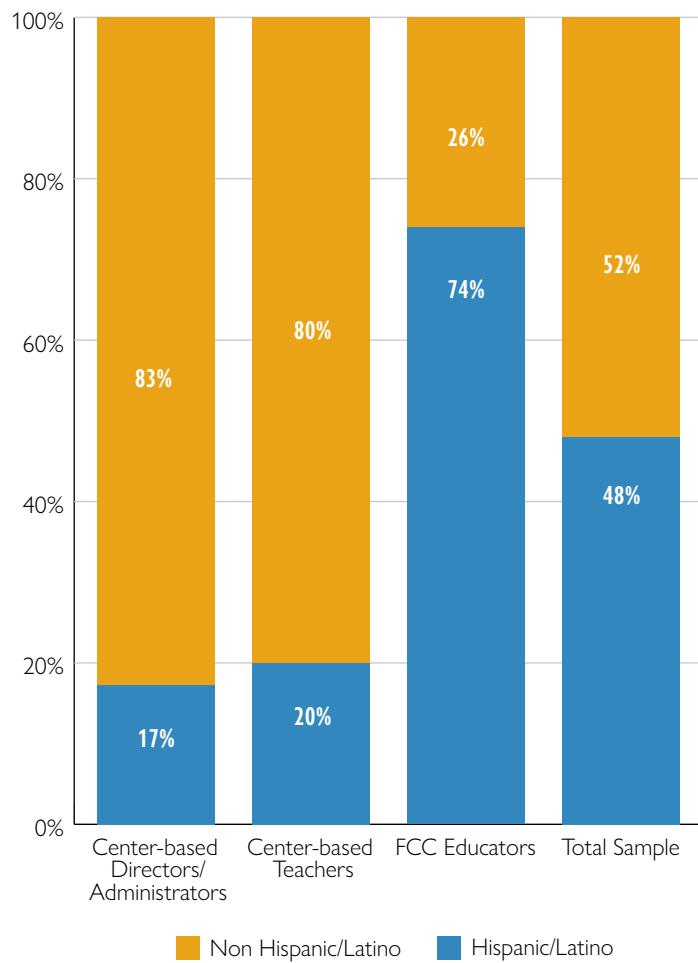
* Sample distribution by Race and Location

Boston (n=354): 33 AAPI; 92 Black/African-American; 101 Other; and 128 White

Rest of MA (n=299): 2 AAPI; 11 Black/African-American; 18 Other; and 268 White

** Other: This category combines ‘Biracial/Multiracial’, ‘Middle Eastern or North African’, and other self-identified categories, including “Hispanic/Latino”. Refer to the Methods section for details about the Race variable.

FIGURE 2
Hispanic/Latino Ethnicity of Boston Respondents by Workforce Group
 [2022 Survey Data]



FCC = Family Childcare

* Sample distribution by Role: 81 Center-based Directors/Administrators; 85 Center-based Teachers; and 188 FCC Educators.

HISPANIC/LATINO ETHNICITY

Consistent with the findings discussed in the previous section, our data indicate that Boston has a higher number of early educators who identify as Hispanic/Latino in comparison to the rest of Massachusetts. In our overall sample ($n=653$), 30.0 percent of respondents identified with Hispanic/Latino identity. However, within the Boston subsample ($n=354$), this proportion was significantly higher at 48.0 percent.¹⁷

Among the workforce groups in Boston, a higher proportion of Hispanic/Latino identity was observed among FCC educators, with 73.9 percent identifying as such. This

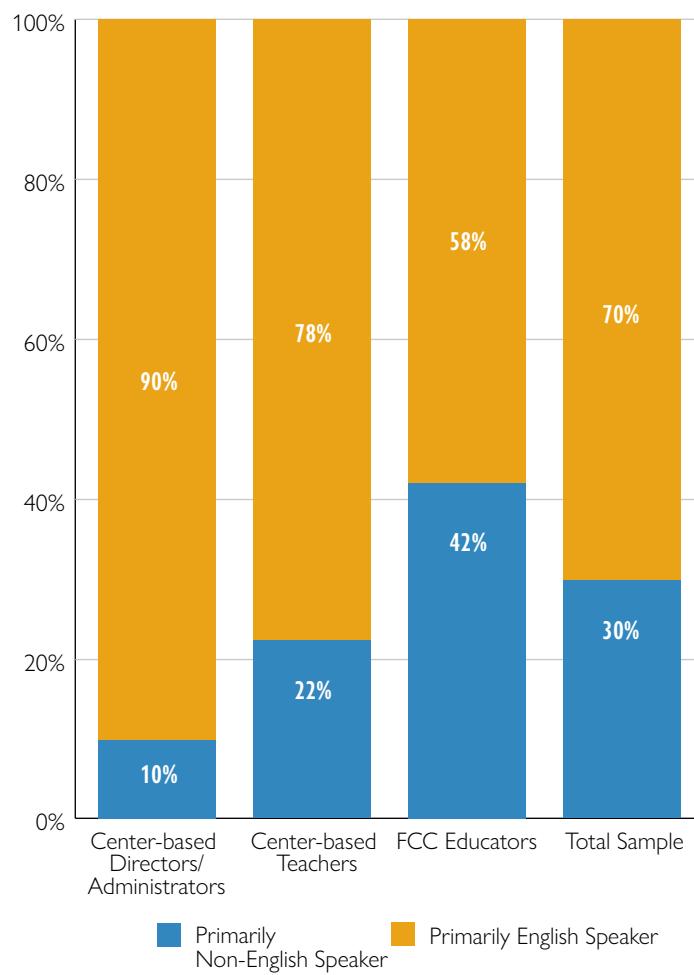
contrasts with the lower percentages in other roles, where only 17.3 percent of center-based directors/administrators and 20 percent of center-based teachers reported being Hispanic/Latino. (Figure 2) These numbers suggest that a larger proportion of Hispanic/Latino educators might be predominantly engaged in the FCC sector. This observation warrants further investigation. Although FCC educators were oversampled in the Boston area, it is important to note that these results reflect the existing distribution within each specific workforce group. Readers should consider this aspect of the sample composition while interpreting these findings.

PRIMARY LANGUAGE

Mirroring the trends seen in the ethnicity data, the distribution of primary language differs significantly between Boston and the rest of Massachusetts. In Boston, 29.9 percent of respondents reported primarily using a language other than English, a contrast to just 4.3 percent in other parts of the state.¹⁸

Among the three workforce groups in Boston, FCC educators had the highest proportion of respondents speaking a non-English primary language, at 42.0 percent. This is considerably higher than center-based directors/administrators and center-based teachers, at 9.9 percent and 22.3 percent, respectively. See Figure 3 next page. It is also essential to reiterate, as previously mentioned regarding Hispanic/Latino identity, that despite the oversampling of FCC educators in the Boston area, the results accurately represent the distribution within each distinct workforce group. This factor should be borne in mind by readers for a nuanced interpretation of these language distribution findings. Further investigation is needed to understand barriers to entry to center-based positions for individuals whose primary language is a language other than English.

FIGURE 3
Primary Language Among Boston Respondents by Workforce Group
[2022 Survey Data]



FCC = Family Childcare

* Sample distribution by Role: 81 Center-based Directors/Administrators; 85 Center-based teachers; and 188 FCC educators.

YEARS OF EXPERIENCE

When examining the experience levels of early educators, a distinct contrast emerges between Boston and the rest of Massachusetts. (**Appendix Table 6**) A significant portion of survey respondents in Boston, amounting to 34.2 percent, has 10 or fewer years of experience. In contrast, the rest of Massachusetts hosts a more veteran workforce, with 50.2 percent of educators having more than 20 years of experience, as opposed to 32.8 percent in Boston.¹⁹

In the Boston subsample, we observed a high level of experience among center directors/administrators, 60.5 percent of whom have more than 20 years in the sector. (**Table 3**) Only 13.2 percent of center teachers have 20+ years of experience, while 29.8 percent of FCC educators fall into this same experience bracket.

HIGHEST LEVEL OF EDUCATION ATTAINED

In our survey, we also asked about the highest educational level achieved by early educators. The findings for the overall sample, detailed in **Appendix Table 7**, show that approximately 20 percent of respondents, both in Boston and across Massachusetts, reported not completing their diplomas or degrees. This suggests the presence of potential barriers to educational completion as well as an opportunity to support the completion of degrees. Specifically, 18.6 percent in Boston and 16.9 percent in the rest of Massachusetts fell into this category. There are a significant portion of FCC educators with some college education but no completed degree.

TABLE 3
Years of Experience by Role Among Boston Early Education Professionals
[2022 Survey Respondents, n = 354*]

Years of Experience	Role		
	Center-based Directors/Administrators	Center-based Teachers	FCC Educators
Less than 5 years (n=60)	9.88%	25.88%	15.96%
6-10 years (n=61)	7.41%	36.47%	12.77%
11-20 years (n=117)	22.22%	24.71%	41.49%
21-30 years (n=80)	35.80%	8.24%	23.40%
31 years or more (n=36)	24.69%	4.70%	6.38%

FCC = Family Childcare

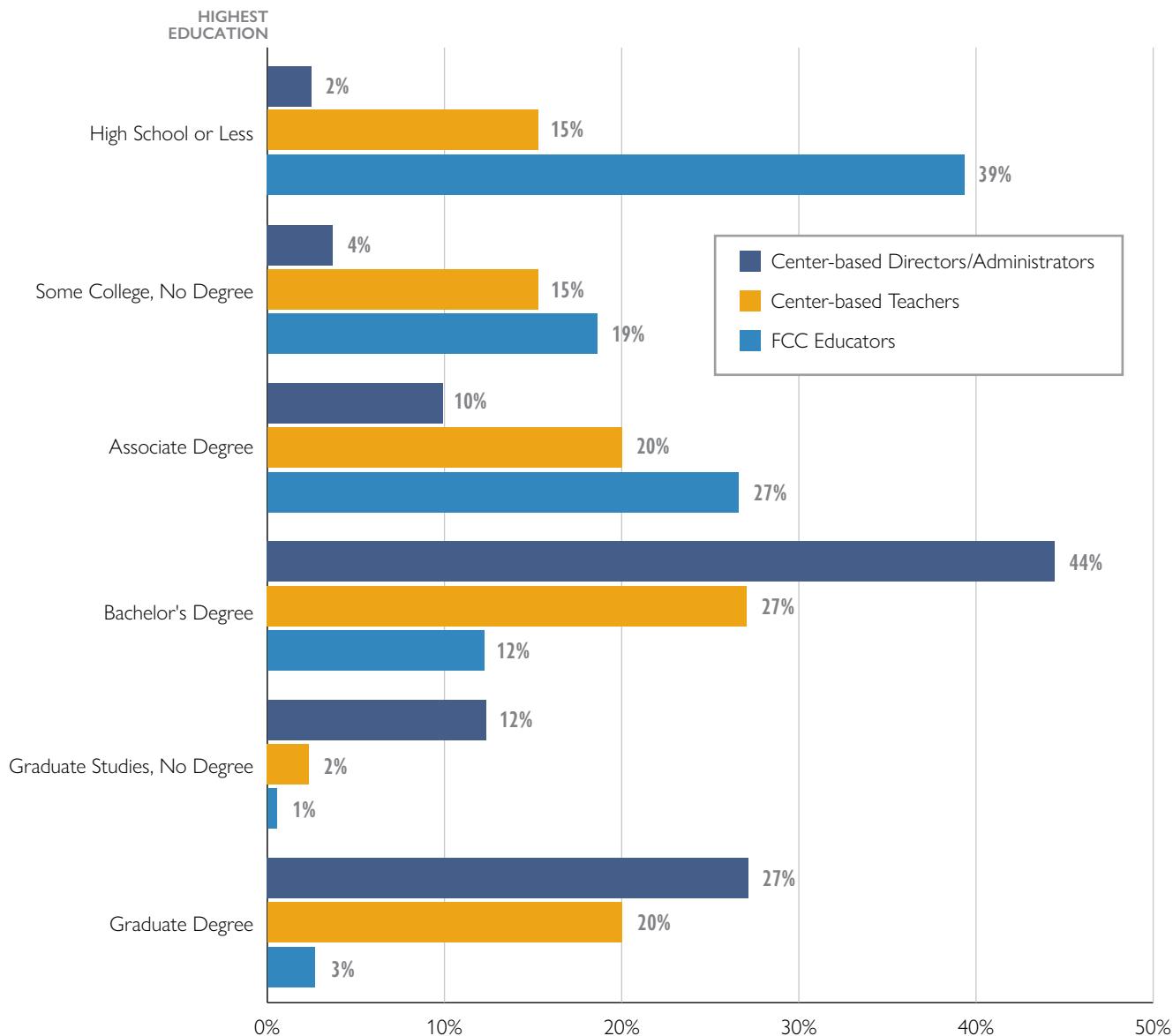
* Sample distribution by role: 81 Center-based Directors/Administrators; 85 Center-based teachers; and 188 FCC educators.

Figure 4 presents the educational attainment of early education professionals in Boston, categorized by role. It reveals a trend where early educators with high school diplomas as their highest degree predominantly work in FCC settings, where they make up 39.4 percent of staff, compared to 15.3 percent of center teachers and 2.5 percent of center directors. However, it's also observed that FCC educators attain educational levels up to graduate degrees.

Respondents in all early educator roles in Boston reported some level of college education without obtaining a degree; 19.1 percent of FCC educators, 17.6 percent of center teachers, and 16 percent of center directors.

Similarly, the educational background of center directors and administrators in Boston is diverse, ranging from high school diplomas to graduate degrees. A larger proportion of those

FIGURE 4
Educational Attainment of Early Education Professionals in Boston by Role
(2022 Survey Respondents, n=354*)



FCC = Family Childcare

* Sample distribution by role: 81 Center-based Directors/Administrators; 85 Center-based Teachers; and 188 FCC Educators.

Note: Due to rounding in the graphical depiction, the total percentage of all categories combined may not precisely equal 100%.

WORD FROM THE PROS

"Please stop referring to us as child care/child-care workers/daycare.

We teach and work in the field of early education. We are early education teachers.

It is insulting to our profession when we are referred to in any other way.

I would ask also that our license structure change. Instead of labeling us

large group or small group, license us for what age we are teaching,

i.e., Preschool license, infant license, toddler license."

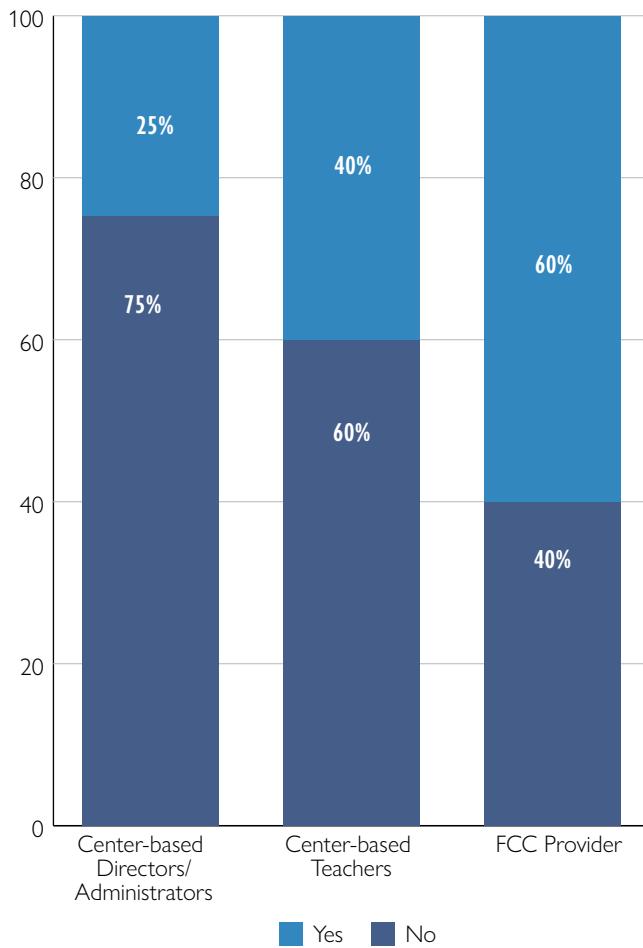
holding graduate degrees are found among center directors/administrators. Overall, these findings illustrate a field where educational attainment does not have a strong association with trajectories.

CDA CREDENTIAL

A CDA, or Child Development Associate, provides an opportunity to receive a professional credential through observations, a professional portfolio, and an exam.²⁰ As depicted in **Figure 5**, this credential is held by professionals across all roles in the Boston early education sector. Among our Boston respondents, FCC educators have the highest rate of CDA credential holders at 60.1 percent. While the CDA is focused on early education training and provides a flexible pathway to certification, the higher proportion of FCC educators getting the CDA may also indicate a disparity in the accessibility of higher education as a pathway to credentials such as a degree. This finding underscores the importance of offering diverse, inclusive educational and training pathways within the field.

FIGURE 5
Distribution of Child Development Associate (CDA) Credential Holders by Role Among Boston Early Education Professionals

[2022 Survey Respondents, n = 354*]



FCC = Family Childcare

* Sample distribution by role: 881 Center-based Directors/Administrators; 85 Center-based Teachers; and 188 FCC Educators.

TABLE 4
Top 10 Higher Education Institutions Attended by Boston's Survey Respondents
 (2022)

Rank (Boston Respondents)	Institution	Number of Attendances Reported per Institution
1	Urban College of Boston	157
2	Roxbury Community College	48
3	Bunker Hill Community College	44
4	Boston University Wheelock College of Education	42
5	Lesley University	28
6	University of Massachusetts	25
7	Childcare Education Institute	23
8	Northeastern University	16
9	Quincy College	14
10	MassBay Community College	13

Note: Respondents were able to select all institutions they attended. We computed how many times each institution was selected by respondents in our sample to create the rank. Total does not add up to the sample size. Please, refer to the Methods section for more details.

Higher Education: Challenges and Opportunities

Transitioning from our exploration of demographic trends, we now look into the higher education institutions attended by early educators in our sample, as well as the intersection of linguistic and racial diversity and financial aspects of pursuing higher education in this field.

HIGHER EDUCATION INSTITUTIONS ATTENDED

Our survey asked respondents which higher education institutions they attended to better identify the institutions that have served as gateways for the early educational workforce. We primarily listed institutions in the Greater Boston area but provided an “Other” option for respondents to add additional institutions. The list of institutions shared here is not exhaustive. (**Table 4**)

The majority (58.5 percent) of our respondents attended community colleges, with Urban College of Boston serving the highest numbers in Boston, followed by Roxbury Community College and Bunker Hill Community College. These two-year institutions were followed by four-year institutions, including Boston University Wheelock College of Education, Lesley University, and University of Massachusetts.

When disaggregated by age of respondents to discern whether these trends had shifted over decades, there were no patterns. (*Results not shown.*) Understanding these institutions provides an opportunity to further invest in their efforts and to learn how they recruit, retain, and support early educators entering the field.

Studies show dual language learning children can have advantageous development of skills necessary for kindergarten readiness when their earliest educators are bilingual.^{21,22} Further research has shown that having diversity and representation among educators, especially for Black and Latinx children, can be a protective factor with better learning outcomes. The early risks for diverse learners, especially Black children, make early childhood a critical time for children to experience diverse educators.²³

Our analysis revealed a notable trend among Boston respondents who primarily speak a language other than English. This demographic was significantly higher among graduates of Urban College of Boston, Childcare Education Institute, Bunker Hill Community College, and Roxbury Community College. This pattern stands out in comparison to other higher education institutions that appear in the top

EMPOWERING EDUCATORS: Urban College's Community-Driven Approach to Early Childhood Education



At the core of our program is connection, support, and communication. We believe our community, predominantly working adults of color, thrive when they feel connected to the program and its people. To develop this connection, we host orientations and remain in contact with our students throughout the semester and beyond. When a student misses a class, they receive communications from the professor or a phone call to identify the cause of the absence and what supports the student needs to remain on track. Our courses include a robust student advising and support system in multiple languages.

Our connection to our students begins with how we recruit early childhood educators. Urban College relies on community partners. Over the years, we have developed partnerships with nonprofit organizations as well as private centers. We connect with schools, centers, family child-care providers, and nonprofit organizations to share information regarding the Lead Teacher and CDA Plus programs at Urban College.

Getting registered is only the first step for educators. We have identified technology and primary language other than English as potential barriers to our students' higher education success. After being registered, students are supported with access to technology and language supports. Students are provided with a computer for coursework, in-person/Zoom and Brightspace (LMS) training, and ESOL courses. Many of our course options for CDA Plus and Teacher credentialing are taught in Spanish, Mandarin, and Portuguese, as well as English.

We truly meet our students where they are while pushing them to excel and grow by providing clear expectations for academic rigor to our professors and offering strategies and tools to support our students when they are not meeting the expectations. Because of the strong relationship and connection we build with our students, they are vulnerable, and lines of communication are open and honest. This allows us to support students to achieve their goals and therefore continue making a dent in the lack of available quality child-care options in Massachusetts.

We encourage our students to bring their voice, perspectives, and knowledge to influence the greater good of the early childhood profession. The message is clear: Their contributions are essential to the larger movement of advocates in Massachusetts and across the nation who are advancing equity and racial and social justice in early childhood education.

—José Rivas, Ph.D., Director of Early Childhood Education at Urban College

10 list attended by Boston survey respondents. (**Table 5**) Furthermore, Urban College of Boston and Roxbury Community College exhibit a distinct trend in educating

a higher proportion of non-White respondents, in contrast to their counterparts in the same list. (**Table 6**)

TABLE 5
English as Primary Language Distribution by Higher Education Institutions Attended
Top 10 Institutions Attended by Boston's Survey Respondents (2022)

Institution	English as Primary Language	
	No	Yes
1. Urban College of Boston	45%	55%
2. Roxbury Community College	15%	85%
3. Bunker Hill Community College	23%	77%
4. Boston University Wheelock College of Education	2%	98%
5. Lesley University	7%	93%
6. University of Massachusetts	0%	100%
7. Childcare Education Institute	26%	74%
8. Northeastern University	0%	100%
9. Quincy College	7%	93%
10. MassBay Community College	8%	92%
Boston	30%	70%
Rest of Massachusetts	4%	96%

TABLE 6
Race Distribution by Higher Education Institutions Attended
Top 10 Institutions Attended by Boston's Survey Respondents (2022)

Institution	Race			
	AAPI	Black/AA	Other	White
1. Urban College of Boston	11%	27%	39%	22%
2. Roxbury Community College	2%	54%	33%	10%
3. Bunker Hill Community College	11%	23%	23%	43%
4. Boston University Wheelock College of Education	2%	21%	19%	57%
5. Lesley University	11%	21%	7%	61%
6. University of Massachusetts	16%	24%	16%	44%
7. Childcare Education Institute	4%	35%	17%	43%
8. Northeastern University	6%	38%	13%	44%
9. Quincy College	7%	36%	14%	43%
10. MassBay Community College	0%	31%	0%	69%
Boston	9%	26%	29%	36%
Rest of Massachusetts	1%	4%	6%	90%

EMPOWERING CHILD-CARE ENTREPRENEURS: United Way's Shared Services MA and the Growth of Family Child-Care Businesses



United Way's Shared Services MA is a proven economic development initiative that invests in the workforce needs of family child-care (FCC) businesses and increases the sustainability of the early education sector. FCC entrepreneurs, primarily women of color and immigrants, are an integral part of the state's economy. They provide culturally relevant education and care in neighborhood settings, allowing parents to return to work and neighborhood economies to thrive. Child-care educators who reflect the home cultures and speak the primary languages of children and families help support the healthy development of children. Yet, despite their indispensable roles, these women lack the business support that other types of entrepreneurs receive such as budgeting, rate setting, and marketing, to maximize income and facilitate savings.

Our programs are specifically designed for family child-care business owners taught by peer instructors and coaches in English and Spanish. Our business training courses are also taught in Portuguese and Mandarin. Having a peer instructor can make some feel more comfortable and more willing to ask for the help they need. FCC educators may also experience an increased sense of motivation because they are being taught by someone they can identify with who has experienced similar learning and is excited about the material.

Our trainings include a Licensing Support Program, Business Training 101, Marketing 201, and Early Developmental Screening Training using the Ages and Stages Questionnaire (ASQ/DRIVE). We have trained more than 1,500 FCC educators in business and marketing across Massachusetts and supported 25 new FCC educators in Boston through the licensing process and the opening of their family child-care businesses. We have addressed our goal of increasing quality by training 119 FCC educators on early screening using the ASQ tool and the United Way DRIVE database. This training includes information on developmentally appropriate practices in all learning domains as well as engaging with families to support the home-school connection. This further enables FCC educators to provide specialized supports to children and their families.

—**Melinda Weber**, Vice President, Shared Services MA, United Way of Massachusetts Bay

我想继续学习和进修，请问有更多的支持吗？

...

*"I want to continue studying and furthering my education.
Is there more support available?"*

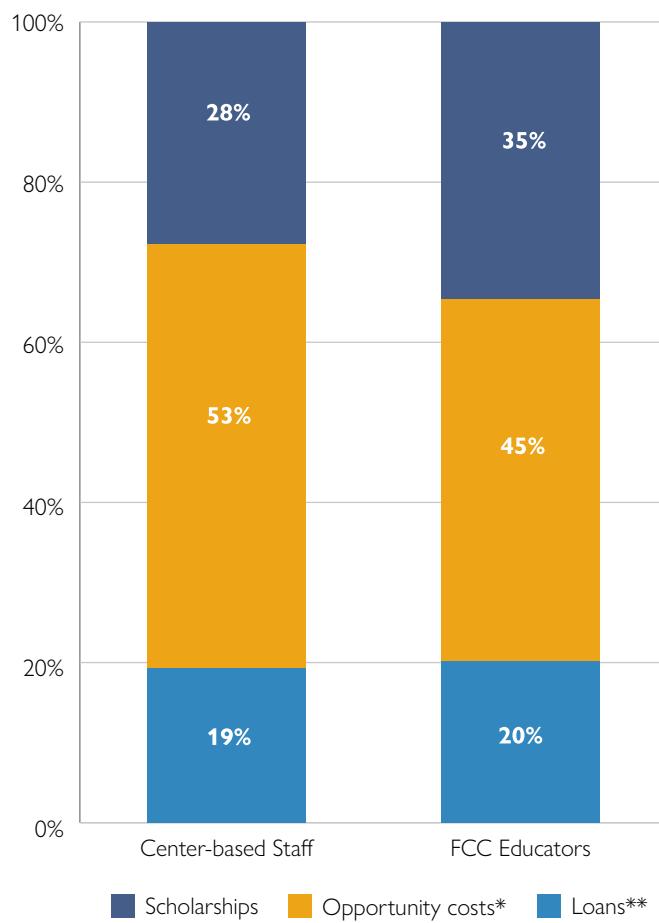
FUNDING FOR HIGHER EDUCATION

The child-care sector's poverty-level wages do not incentivize investment in higher education by those interested in the field.²⁴ Under this circumstance, required degrees are a barrier to early educator recruitment and advancement. This section focuses on the systemic issue of the economic burden of educational expenses for early educators.

Our survey asked early educators how they paid for their education. Of FCC educator respondents in Boston, 20.2 percent took out bank and school loans; 34.6 percent had scholarships; and 45.2 percent were supported by a parent, partner, or through work study (**Figure 6**). The trends for center-based staff were similar, with 19.3 percent taking out loans; 27.7 percent getting scholarships; and 53 percent supported by parent, partners, or work/study.

Recognizing the particularly heavy financial burdens represented by higher education for these professionals, the Massachusetts Department of Early Education and Care created the Early Childhood Career Pathways program in 2019. This fund provides grants to the 15 Massachusetts community colleges. Each of these institutions has a designated representative who works with early education students to ensure tuition-free coursework and materials, as well as tailored support services. This program aims to reduce the burdens for entry and further education for early educators as they work toward an EEC Certification for Teacher, Lead Teacher, or Director. Educators can also earn a Child Development Associate credential or a college-level Early Childhood Education Certificate. If early educators seek to acquire higher degrees, then the Early Childhood Educators Scholarship is available, with funding to pursue associates, bachelor's, or master's degrees at a public or private institution of higher education in the Commonwealth.²⁵

FIGURE 6
Methods Used by FCC Educators and Center-Based Staff to Pay for Higher Education
Boston Respondents (2022 Survey)



FCC = Family Childcare

* Opportunity costs include personal savings or salary, as well as financial support from parents, partners, or relatives.

** Loans include both student and bank loans.

See the Methods section for more details.

Similarly, the City of Boston's Office of Early Childhood (OEC) has been working to address these needs. The OEC has provided grants to Bunker Hill Community College, Urban College of Boston, University of Massachusetts Boston, and Neighborhood Villages to provide tuition-free coursework and personalized supports. These grants support acquiring a Child Development Associate, associate or bachelor's degree, ECE certificate, and apprenticeships. Uniquely, educators who are supported through these grants commit to working in Boston following the completion of their education. The EEC-supported entry-level course presently has waitlists, limiting the number of potential early educators who can enter the field. Thus, OEC investment is necessary to alleviate bottlenecks. Urban College is an example of innovation in the field. It has combined both funding streams to support a greater number of multilingual early educators for Boston and the rest of Massachusetts.

As this report is about to be published, the Healey-Driscoll administration, in coordination with EEC, has released the third round of the MA Repay Program that now supports student loan repayment for early educators and others who qualify. Additionally, MassReconnect is a new program led by the Department of Higher Education to support certificates and degrees for higher education for those who qualify.

These state and city level government initiatives are much needed and we hope will lead to greater coordination and investment to reduce economic burdens in this field.

Challenges to Sustainability: Turnover Rates, Compensation, and Career Trajectories

We now turn our focus to system-level factors impacting the stability and effectiveness of early education in Massachusetts, particularly in Boston. These factors reside less with individual decisions and are indicative of system-level factors that can serve to sustain or undermine the workforce. Better understanding and addressing these factors can inform a high-quality system to support a high-quality early education and care workforce.

In a survey of nine of the largest early education and care center groups in Boston, representing 1,236 child-care seats, respondents reported a total of 61 vacant positions as of February 6, 2024. The lack of early educators and staff

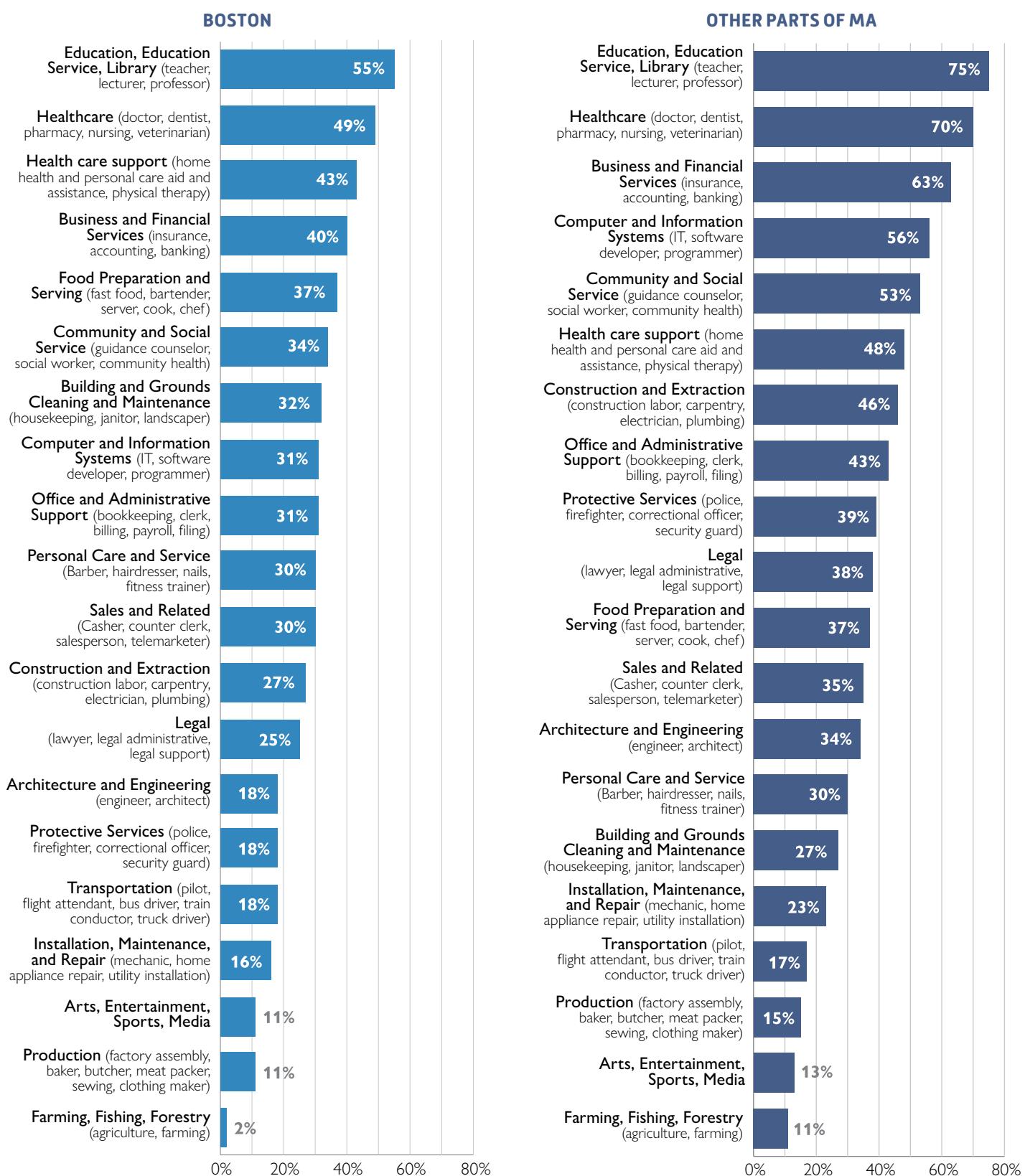
means 10 classrooms are closed, representing almost 100 infant, toddler, and preschool seats that cannot be offered to working parents. Centers are capping enrollment in open classrooms below licensed capacity to ensure they can meet existing classroom needs. Center leaders echoed one another's concerns of needing to pay educators what they deserve and provide time off, and have enough staffing to minimize burnout. High turnover rates reflect the demanding nature of the profession and highlight systemic issues related to job quality and satisfaction. These factors are intertwined with the demographic trends previously discussed and are fundamental to understanding the broader context of the challenges faced by early educators. As we examine these aspects, we reveal the profound implications for the sustainability of early education and care centers and FCCs, the well-being of educators, and the overall quality of care provided to children.

TURNOVER RATES

A primary challenge for early education and care centers in Massachusetts is hiring and retaining early educators. The U.S. Department of Health & Human Services defines high turnover as the loss of 20 percent or more early educators in a given year.²⁶ Our survey found that 52.8 percent of the centers in our sample had experienced a turnover rate of 20 percent or more. There were no significant differences between Boston and the rest of Massachusetts. In Boston, 52 percent of the surveyed centers reported turnover rates of 20 percent. Coupled with these turnover rates are the closures of early education and care centers and FCC programs. Between 2017 to 2022, the city of Boston lost 157 seats in centers and 763 seats in family child-care programs for 0–5-year-olds.²⁷

High early educator turnover results in economic, developmental, and well-being consequences for centers, children, and staff. Centers lose their investment in hiring and training staff. Children remaining in the center experience shifting relationships, which runs counter to their need for consistent, trusting relationships to foster early development and learning. Remaining staff can experience higher stress, longer hours and reduced morale.²⁸ When centers cannot find new educators, classrooms close, reducing the supply of seats for working parents and their children.

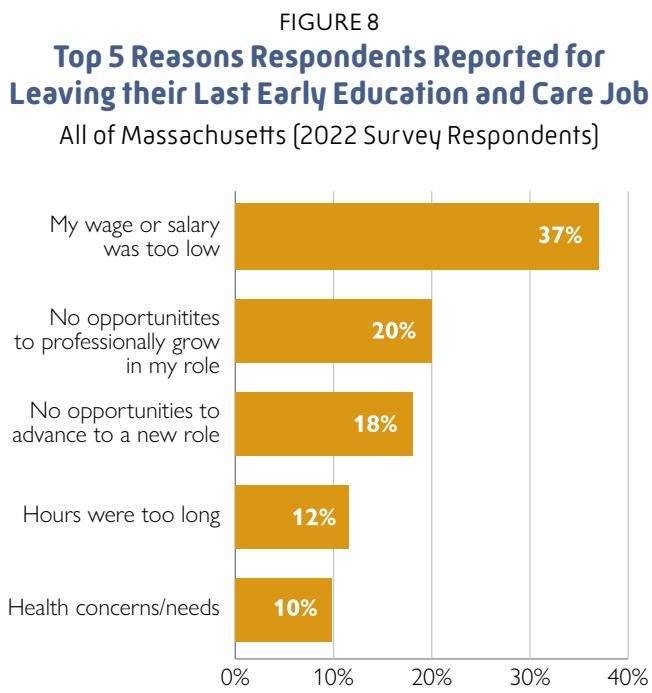
FIGURE 7
Industries Supported by Survey Respondents
 Boston and Other Parts of Massachusetts [2022]



Note: Respondents were able to select all industries they are serving. Each percentage reflects the proportion of participants who selected each specific industry.

The trends in closures and turnover impact all of us. Center directors and FCCs were asked which industries the parents of children in their care work in. **Figure 7** (previous page) shows which industries are supported by programs in our sample. Both FCCs and Centers are important to supporting Boston's and the rest of the Commonwealth's workforce needs. Losing more early educators, and experiencing program closures and reduced quality of care due to high turnover can impact the state's labor force in other sectors.

Early educator turnover has been a challenge since before the pandemic. Nearly a quarter of surveyed centers across Massachusetts, including in Boston, reported the same turnover rates in 2022 as prior to the pandemic. This points to long-standing, systemic challenges. High turnover rates are a symptom of deeper problems. Our survey asked early educators why they left their last job in the early education and care field. The most frequent answers were low wages/salaries, no opportunities for professional growth in their role, no opportunities to advance to a new role, and that their hours were too long. (**Figure 8**)



These findings point to the reality of work for early educators being concentrated in low quality jobs. Job quality can be defined by family-sustaining wages, benefits, and the availability of a training and career ladder.²⁹ We asked early educators about these factors.

Well-Being in Wages, Benefits and Hours Worked: Analyzing Early Educator Compensation

Good jobs attract and retain a workforce and ensure its members' well-being. So we ask, What is a good job? The Aspen Institute's Good Jobs Champions Group released a statement defining Good Jobs. This group, comprising the heads of companies, philanthropies, policymakers and researchers, have stated Good Jobs are necessary for their sectors to thrive and to have strong communities. Good Jobs include family-sustaining wages, sufficient range of benefits, economic mobility through defined career pathways, as well as equity, respect, and voice.³⁰ These components involve system-level factors that inform workforce well-being.

Instead of beginning at the system level, the overarching narrative is that the way we are going to have high quality early education and care is with additional trainings and degrees of individual educators. But these efforts to improve quality through increased standards and educational requirements are limited without being coupled with increased compensation, benefits, better work hours and workplace supports.³¹ Professional development focused on classroom improvements show little to no impact on child outcomes.³² Early education is a high demand, highly regulated job with limited autonomy and resources. Without a high-quality system supporting good jobs and the well-being of early educators, their current circumstances make them vulnerable to burnout and ultimately risk the development of children's language, literacy, and behavioral skills.³³

HOURS WORKED

In Boston, 73.8 percent of center directors/administrators reported working more than 40 hours per week. (**Figure 9**) That percentage is similar for center directors/administrators in other parts of Massachusetts (73.7 percent). (**Figure 10**) The data also suggest that center teachers typically work full-time hours (30 to 40 hours), with a substantial portion in both Boston and the rest of Massachusetts working over 40 hours weekly. Additionally, 67.9 percent of FCC educators in Boston and 83.3 percent in the rest of Massachusetts

reported working over 40 hours per week. This suggests long work hours are a problem across the state.

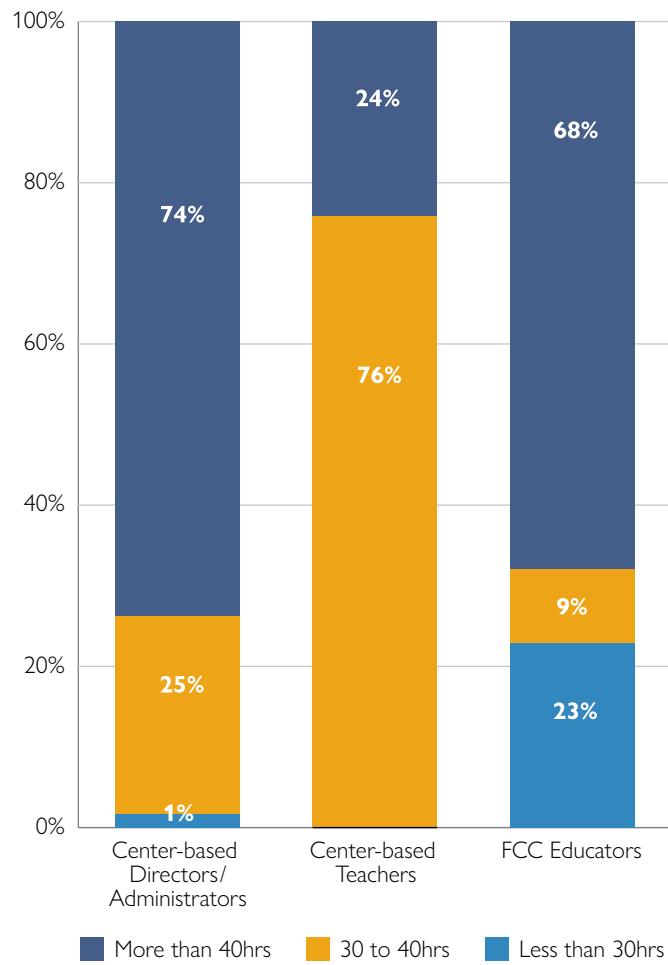
WAGES

We explored the system-level factor of salary/wages. These wages reflect amounts prior to the advent of the Commonwealth Cares for Children (C3) program.³⁴ The C3 grants have been impactful in ensuring centers and FCCs stay open, though they are still struggling with educators leaving the field and the dearth of early educators entering the workforce. In 2019, the national median wage for a full-time, center-based educator was \$14.85/hour.³⁵

FIGURE 9

Distribution by Role of Weekly Hours Worked by Boston Early Education Professionals

[2022 Survey Respondents, n = 221*]



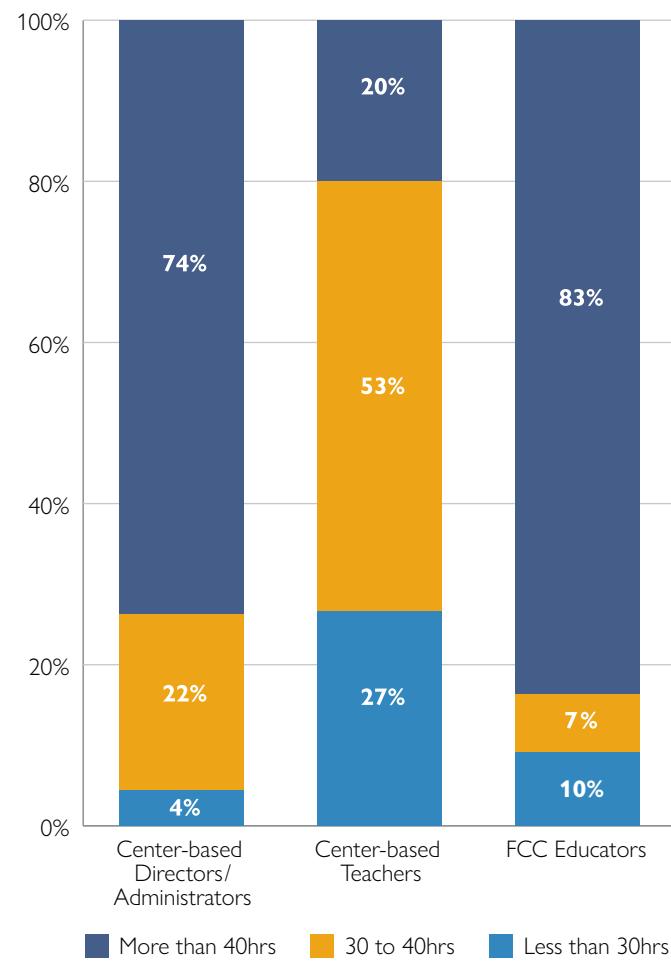
FCC = Family Childcare

* Sample distribution by role: 61 Center-based Directors/Administrators; 29 Center-based Teachers; and 131 FCC Educators..

FIGURE 10

Distribution by Role of Weekly Hours Worked by Early Education Professionals in the Rest of Massachusetts

[2022 Survey Respondents, n = 183*]



FCC = Family Childcare

* Sample distribution by role: 114 Center-based Directors/Administrators; 15 Center-based Teachers; and 54 FCC Educators.

Based on our survey, Boston-based FCC educator wages are extremely variable, with an average of \$14.30 ($\pm \7.80) per hour. For this group, there was no significant association of hourly wages with race, Hispanic/Latino ethnicity, primary language, years of experience or highest degree attained. The center-based staff wages for Boston providers also vary widely, with an average of \$21.50 ($\pm \5.20) per hour for center-based teachers and \$23.30 ($\pm \6.80) per hour for center-based directors/administrators. For center-based staff in Boston, there was no significant association of hourly wages with race, Hispanic/Latino ethnicity, and primary language. However, there was a significant association between hourly wage with years of experience³⁶ and highest degree attained.³⁷ To exemplify the wide variation of wages, Figures 11 (below) and 12 (next page) show the distribution of hourly wages by years of experience (FCCs and centers separately) for Boston and the rest of Massachusetts, respectively.

According to the MIT Living Wage Calculator, for Boston the living wage for a one-adult household with no children is \$22.59; with one child, it is \$47.38. For two working adults with no children, the living wage is \$15.93 and with one child, it is \$25.56.³⁸ Based on our respondents in Boston, a significant proportion of FCC respondents and many center-based educators are likely not making living wages, with many in the range of poverty wages.

WORD FROM THE PROS

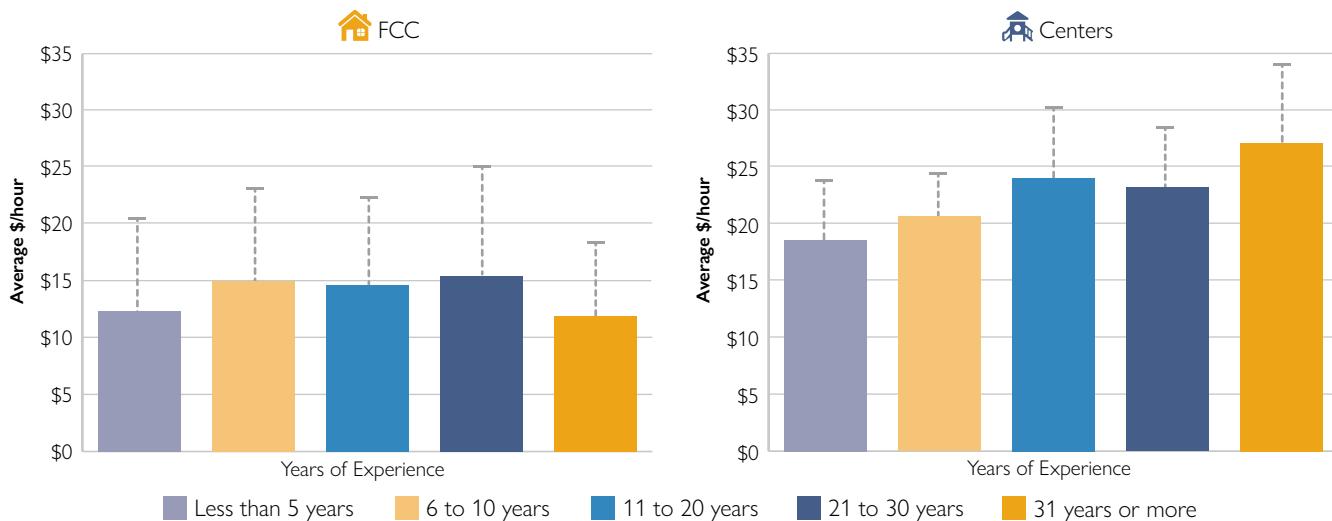
"Ayudarnos a que seamos pagadas dignamente del trabajo que hacemos día a día. [Tener un] sueldo justo para poder contratar personal y podamos turnarnos para poder tomar vacaciones. [Por ahora], no tenemos vacaciones pagadas, y el sueldo es menos de \$5 la hora en los FCC. Es muy penoso y a la vez es un trabajo muy valioso."

...

"Help us to get dignified salaries for the daily work we do. Have a fair wage so we can hire new personnel and have the option to take vacations. Currently we don't have any paid vacations and our salaries are less than \$5 an hour in the FCC. It is shameful but we know that the work is very valuable."

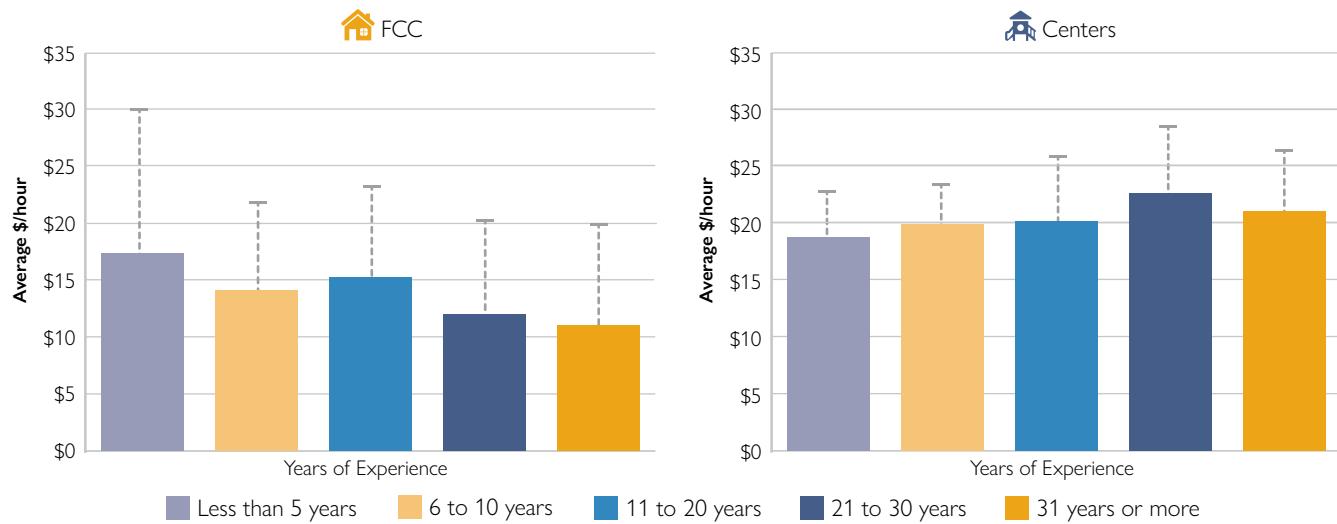
FIGURE 11

Average Hourly Wage by Years of Experience for FCC and Center-Based Educators in Boston
(2022 Survey Respondents)



Note: Dotted lines represent the standard deviation from the average hourly wage.

FIGURE 12
Average Hourly Wage by Years of Experience for FCC and Center-Based Educators in the Rest of Massachusetts
 (2022 Survey Respondents)



Note: Dotted lines represent the standard deviation from the average hourly wage. In the FCC graph, the categories "Less than 5 years" and "6 to 10 years" received fewer than 10 responses. Please interpret these findings with caution.

FCC educators' average wages in other parts of Massachusetts display considerable variability as well, with an average of \$13.20 ($\pm \8.70) per hour. For this group, there was no significant association of hourly wages with race, Hispanic/Latino ethnicity, primary language, years of experience or highest degree attained. The center-based staff wages for other parts of Massachusetts also vary widely, with an average of \$19.70 ($\pm \3.80) per hour for center-based teachers and \$21.60 ($\pm \6.20) per hour for center-based directors/administrators. For center-based staff in other parts of Massachusetts, there was no significant association of hourly wages with race, Hispanic/Latino ethnicity, primary language, and years of experience. There was, however, a trend of an association between hourly wage and highest education attained, nearing statistical significance ($p = .002$). Although this does not meet our established threshold for significance ($p < .001$), it suggests a potential trend warranting further investigation.

According to the MIT Living Wage Calculation for Massachusetts, for a household with one working adult and no children, the living wage is \$21.35 and with one child it is \$45.57. For a household with two working adults, the living wage with no children is \$15.87 and with one child it is \$24.72.³⁹ Similar to our sample in Boston, early educators in the rest of Massachusetts are not making living wages.

Considering the previous section on hours worked, these wages do not take into account the extra hours of unpaid work of early educators. This is especially the case for FCCs, who do not have a crew to help with cleaning, cooking, and preparing activities. FCCs limit their tuition charge to parents based on their neighborhoods and what parents can afford. Many view themselves as serving their communities. In this case, an FCC cannot raise their tuition based on years of experience, but are rather limited to the socioeconomic status of the families they serve. In this case, FCC educators are penalized for serving families most in need because they cannot raise their fees in accordance with years of experience, additional degrees and certifications, and other program quality improvements.

Many centers work to make up the difference between what parents can afford to pay and their operating costs with grants and fundraising, both of which vary. Centers can offer modest salary increases to their staff, but ones which are not competitive with other sectors. Thus, highly trained and experienced educators leave for other sectors.

The University of Massachusetts survey of the early education and care workforce found the majority of early educators are concerned about affording basic needs, such as paying bills, having enough food, and reducing the debt they carry.⁴⁰

WORD FROM THE PROS

"They need to find a way for us to give workers of all levels a livable wage. Our aides and teachers should not be paid basically the same amount as a McDonald's worker, paid less than a Walmart employee; and directors should not be paid barely more, especially with a bachelor's degree and other higher education. The current wage is what makes me [and all of the employees that I've lost over the past year] want to leave the field!"

Based on the prior discussed definition of Good Jobs, early educator wages do not meet the criteria for stable family support and economic mobility.

Horizons for Homeless Children has taken the initiative to develop and implement a workforce well-being survey.

BENEFITS

Benefits are rarely discussed when considering compensation for early education and care professionals. Yet, benefits are important to attracting new early educators, and to employee retention and well-being.⁴¹ A number of early education sector stakeholders stated they do not know early educator preferences for benefits. Our survey asked providers to share which benefits they currently have and to rank which they prefer.

MENTAL HEALTH

MASSAIMH/MSPCC PARTNERSHIP: Elevating UPK Workforce Development through Reflective Practice in Infant & Early Childhood Mental Health



MassAIMH
MASSACHUSETTS ASSOCIATION FOR
INFANT MENTAL HEALTH



The Massachusetts Society for the Prevention of Cruelty to Children has collaborated with the Boston Public Schools Universal PreK (UPK) to offer communities of practice in Reflective Consultation (RC), with support from the City of Boston and Boston Public Schools. This opportunity trains staff in the best practices of relationship-based care with the goal of expanding the workforce capacity to respond to young children's needs and behaviors focused on social emotional well-being and early relational health. Ongoing support facilitates the integration of these skills within the organization to create a culture of reflection for individuals serving families and young children. The offering increases participants' proficiency with reflective practice, including the consideration of family, culture, and language as central to supporting the whole child's social-emotional and relational well-being. Additionally, this creates pathways for the UPK workforce to seek the professional development credential of the Massachusetts Association for Infant Mental Health (MassAIMH) Endorsement for Culturally Sensitive, Relationship-Focused Practice Promoting Infant & Early Childhood Mental Health.[®]

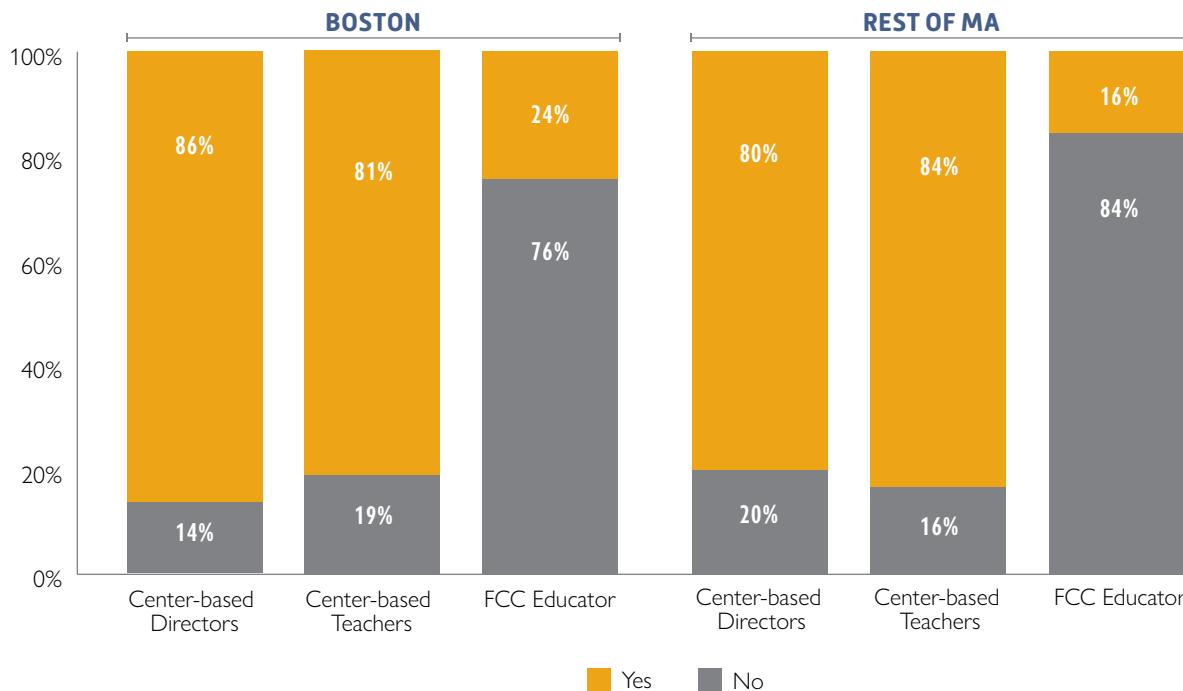
—Aditi Subramaniam, Infant and Early Childhood Mental Health Mentor
Clinical Associate Director, Infant and Early Childhood Mental Health, MCPCC

In Boston, only 24.5 percent of FCC educators reported having workplace benefits. In contrast, a significantly larger share of center directors/administrators (86.4 percent) and center teachers (81.2 percent) reported receiving some type of benefits. The trend is similar in other parts of Massachusetts. (**Figure 13**) This distribution highlights a notable disparity in the provision of workplace benefits among different roles within the early education sector. Additionally, many FCCs are part of a family child care system or a network of centralized administrative supports. These systems do not directly employ FCCs, though they could support access to benefits through a shared services approach. Being part of a system was not associated with having health insurance: 96 percent of our Boston FCC educator respondents said they do not have health insurance and 31 percent of center educators said the same. Paid time off is not much different: 91 percent of FCC educators and 43 percent of center educator respondents in Boston do not have paid leave. Unlike center educators, FCC educators function as independent businesses and make decisions within the constraints of what they can access and afford.

Our findings match general trends that show early educators being less likely to have benefits. A recent report revealed that child care and early education (CCEE) teachers outside public school settings were less likely to receive private health insurance provided by an employer compared to the general U.S. working adult population. Uninsured rates for CCEE teachers not in public schools were higher than the uninsured rates of the general population of working-age adults (18 percent vs. 14 percent). This trend was consistent even after the expansion of Medicaid, employer-sponsored insurance, and the availability of subsidized plans under the Affordable Care Act.⁴²

Figure 14, a Bump Chart, illustrates the prioritization of various benefits across different early education workforce groups in Boston. This type of chart allows for a clear comparison of rankings among multiple categories. In the chart, each benefit is listed vertically, while the horizontal axis represents ranked importance as perceived by different job roles. In this visualization, health insurance consistently emerges as the most prioritized benefit across all Boston workforce groups, as indicated by its top position across all roles.

FIGURE 13
Benefits Receipt Rates by Role for Respondents in Boston and Other Parts of Massachusetts
(2022 Survey)



Paid leave and sick time are highly valued but with varying degrees of priority. In Boston, FCC educators particularly emphasize the importance of paid leave as a primary benefit. This could reflect the unique challenges of their roles.

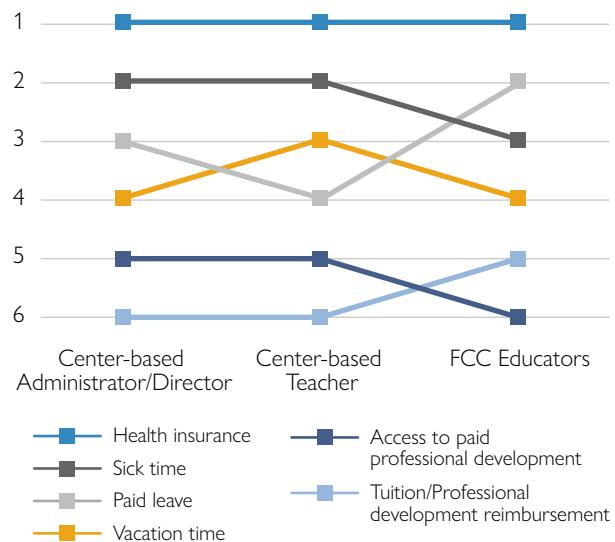
We did not ask about retirement benefits in the survey, but many educators wrote this in as a concern. The majority of Massachusetts early educators, including directors and administrators, center teachers, and FCC educators reported that having enough savings for retirement was a key concern.⁴³ Retirement benefits are not prioritized for early educators, which can hurt retention efforts.⁴⁴ Retirement plan options are part of a broad range of benefits that define Good Jobs and serve the well-being of early educators to provide high-quality care.

Professional development opportunities that directly inform early educator well-being benefit them and the children they care for. The Boston Public Health Commission is conducting health-related classes.

Career Trajectories

Career trajectories and pathways are necessary to ensure the long-term engagement of a workforce. Professions with career pathways have coordinated local and system level initiatives for education and training. Ideally, the professional

FIGURE 14
Importance of Benefits by Job Role, as Ranked by Boston Respondents
(2022 Survey)



development opportunities are coupled with supports to traverse clearly defined levels of advancement with specific careers. These elements incentivize investment in learning opportunities for Good Jobs and family-sustaining wages.⁴⁵

APPRENTICESHIPS

YMCA OF GREATER BOSTON: Empowering Early Educators Through an Innovative Apprenticeship Program



The YMCA of Greater Boston (YGB) created the Early Childhood Apprenticeship Program as a cornerstone of our mission to support Boston communities by providing innovative workforce development and adult education opportunities. Throughout 2023, YGB partnered with the Commonwealth and the Department of Labor to creatively increase equitable access to high-quality care within Boston's early childhood landscape. YBG's apprentice program supports child-care centers in building capacity by placing apprentices full-time in programs across Boston. Throughout the year-long program, our Early Education Academy also provides the training, education, and mentorship that leads to a professional career as an EEC Teacher Certified Early Childhood Educator. By recruiting diverse apprentices and partnering with programs throughout Greater Boston, YGB's Early Childhood Academy hopes to serve as a model in driving equity of access to high-quality child care for the children, families, and educators we serve.

—Robert Lowell, Senior Director of Workforce Development, YMCA of Greater Boston

WORD FROM THE PROS

"The pay needs to match the educational qualifications that some have in ECE. Many ECE workers have college degrees, and they should be compensated accordingly. There are some that have years of experience and several professional certificates with lifelong learning in the industry and they too need to be compensated. In short [we need]: Compensation for the industry. More education institutions that cater to the ECE industry and scholarships. A drive to get people back into the industry with real perks... not just a little bit of money but maybe a full degree and adequate job placement."

To explore the current career trajectories of the Massachusetts early educator workforce, our survey asked educators to list their sequence of jobs or roles in the field. **Figure 15** (see next page) provides an illustration of how early educators progress through the field.

Center-based and family child-care educators are often thought of as two unrelated career trajectories. But what we see are early educators moving between the two. Career pathways to support early educators moving between FCCs (green shades) and centers (blue shades) as they learn which context is the best fit for themselves and their families deserve attention and can help retention.

An additional learning is that interns, volunteers and assistants are an important gateway into the field. Of our respondents, 50.8 percent reported their first role in the field as an intern, volunteer, or assistant in FCCs (12.7 percent) and center-based settings (38.1 percent). These entry positions have limited systemic supports and incentives for continuing to build a career in the field. These positions, often not granted much significance/status, are an important pathway for new early educators. The next primary point of entry into the early educator workforce is as a center-based teacher (14.2 percent) or FCC provider (25.3 percent), both of which have a higher bar for licensing, degrees, and credentialing supports.

WELL-BEING

EMPOWERING EDUCATORS: Horizons for Homeless Children's Comprehensive Approach to Workforce Well-Being



Horizons for Homeless Children developed a Workforce Well-Being Survey to understand the needs of their early childhood educators. The survey (available upon request) was developed by borrowing from a variety of economic and social well-being surveys. It uniquely approaches workforce well-being from several angles, including basic economic, food, social, and emotional well-being. Findings from this Workforce Well-Being Survey were used to create center-wide supports to systematically address these needs. Thanks to this, the center has experienced increased staff engagement.

—Kate Barrand, President & CEO, Horizons for Homeless Children

FIGURE 15.1
Career Trajectory Starting in Center-Based Settings by All Respondents
(2022 Survey)

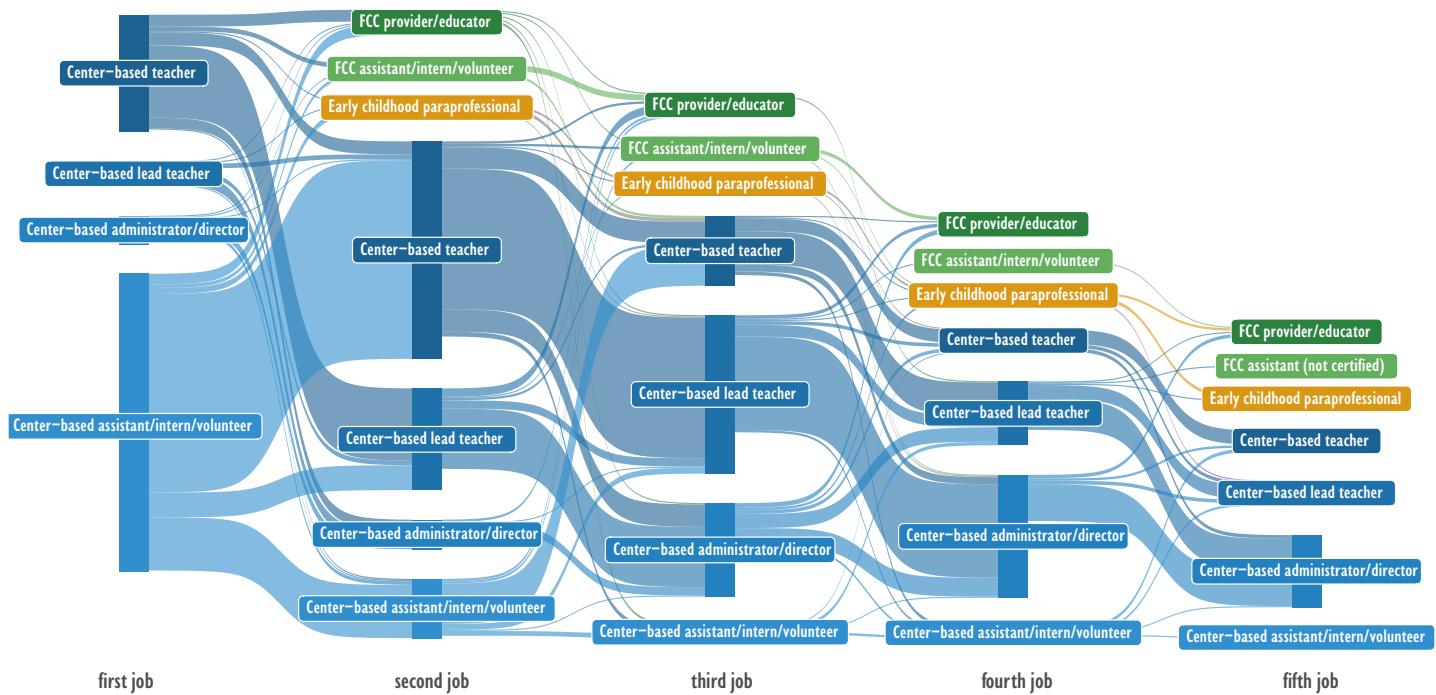
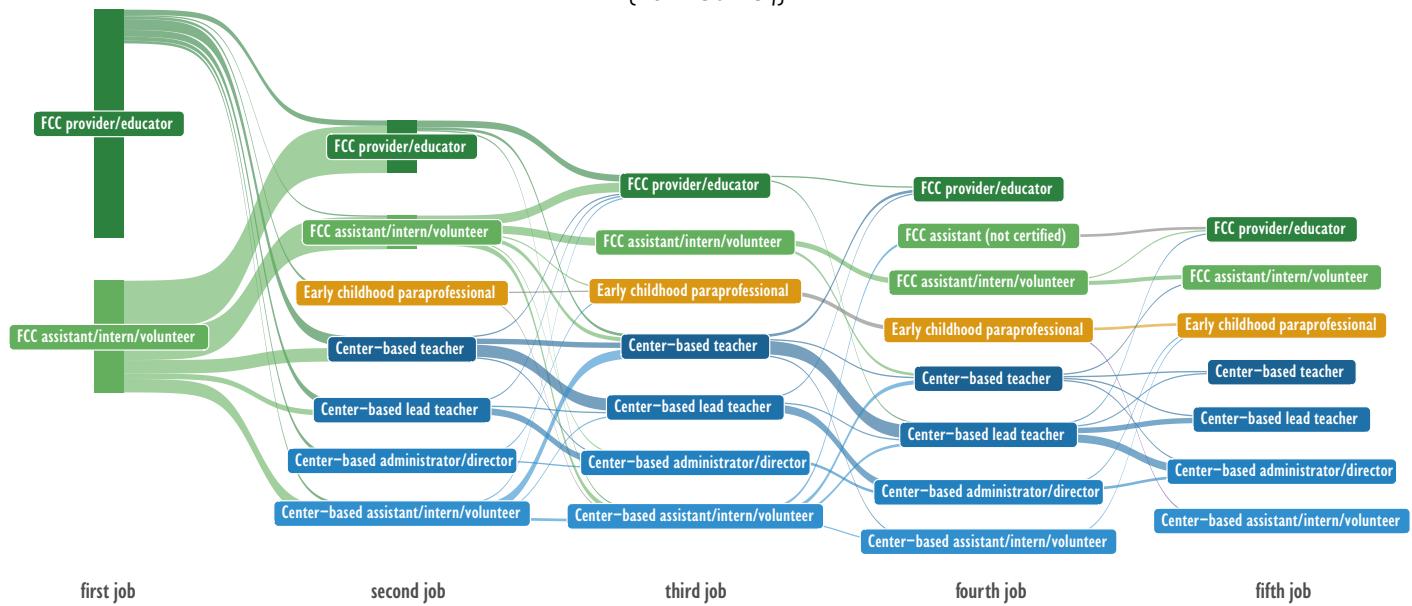


FIGURE 15.2
Career Trajectories Starting in FCC Settings by All Respondents
(2022 Survey)



Note: This Sankey diagram shows the workforce flow from one job to the next. Each 'node' represents a different job in the early education and care system. Thicker waves represent more respondents. Where the wave stops represents the last role the respondent held.

We created an additional plot of paraprofessionals (orange), such as support staff and developmental specialists. We found those who started as paraprofessionals also went on to transition to roles in centers and FCCs, in addition to center educators and FCC educators moving into paraprofessional roles. The adjacency of these sectors and evidence of related career trajectories warrants specific cross-sector career pathways.

A primary reason early educators leave the field is limited opportunities within their existing role and for advancement. Either they may not know about opportunities, cannot access opportunities, or there are limited opportunities. To build a thriving early educator workforce for Boston and Massachusetts, the diversity of career trajectories needs defining, with clearly delineated roles, pathways, and supports.

We reflect on the multifaceted nature of the early education workforce in Massachusetts, particularly in Boston. From our exploration of demographics to the complexities of wages, benefits, and educational backgrounds, a picture emerges of a dedicated yet challenged sector. We have seen that the workforce is diverse in terms of age, race, and ethnicity, yet faces significant disparities in compensation and benefits that impact individuals' well-being and, by extension, the quality

of care provided to children. The findings underscore the high variability in wages with inconsistent correlation to experience or education level, highlighting systemic issues that transcend individual qualifications.

The stark differences in benefit distribution and the notable emphasis on health insurance and paid leave as prioritized benefits reveal the crucial role that comprehensive support systems play in sustaining the workforce. These insights collectively point to the need for a holistic approach in addressing the challenges faced by early educators. Such an approach should not only focus on enhancing educational opportunities but also improving job quality, support, and compensation. Personal well-being is central to early educator performance. High-quality early education requires an educator to be receptive to a child's needs in order to develop a nurturing relationship. The health of this relationship sets the foundation for physical, socioemotional, and cognitive growth. Collectively, early educators' well-being influences the overall quality of a program.⁴⁶ Ultimately, the system supporting the early education and care workforce—and the factors within it that ensure educators' well-being—is foundational to the growth and development of the youngest members of our society.

HEALTH

BPHC NURTURING WELLNESS: The Boston Healthy Child Care Initiative's Vision for Child and Educator Health



The Boston Healthy Child Care Initiative (BHCCI) is a program in The Division of Chronic Disease Prevention and Control at the Boston Public Health Commission, whose goal is to promote policy, systems, and environmental change strategies in child-care settings to increase the number of child-care programs that provide access to healthy food and beverages, physical activity, and breastfeeding opportunities and to decrease screen time. The BHCCI Learning Collaborative is offered in English and Spanish to early child-care programs in Boston. Educators participate in group learning and action-planning sessions to create goals and action steps to ensure a healthy environment for children and themselves. Educator wellness is essential to improving the health of children, and so they also develop action steps to create goals for their own wellness. In addition, child-care programs can request a wellness workshop from BPHC's Healthy Boston Speaker Series.

—**Sonia Carter**, Division Program Director of Quality Improvement and Community Nutrition, Boston Public Health Commission

RECOMMENDATIONS

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The recommendations that follow are derived from our key findings—encompassing the aging workforce, educational pathways, compensation challenges, and the need for systemic support in the profession. While there's an urgent need to increase pay and benefits for early educators to ensure high-quality care, everyone knows that the cost of early education is already a significant burden for many families. Increasing these costs could lead to families opting out of formal early education, further straining the sector and potentially driving educators out of the workforce. This conundrum highlights a deeper societal issue: If we truly value our children and our collective future, there must be a broader investment in early education—an investment that extends beyond the confines of the current system.

With this in mind, the following recommendations aim to provide strategic directives that not only address the immediate concerns but also lay a foundation for a sustainable and high-quality early education system. These recommendations are tailored to strengthen the profession, enhance the well-being of educators, and ultimately enrich the quality of care and education provided to our youngest learners.

1. Accelerate efforts toward a high-quality early education and care system through long-term sustained and improved funding.

Early educators need a high-quality system of supports to provide high-quality care. Living wages and a broad range of benefits are necessary to attract new educators, retain existing educators, and ensure these are good jobs leading to economic mobility.

- The C3 grants have helped to provide some stability to the workforce. But the uncertainty of annual renewals by the legislature makes it difficult for centers and FCCCs to make long-term investments in wages and benefits. *Codify and increase state investments, including C3 funding.*
- Our findings on the wide variability of wages point to gross wage inequities for early educators. FCCC educators and centers serving low-income, private

WORD FROM THE PROS

"I think that [policymakers] should be visiting different programs to see where the needs are. My program has many different needs than the program next door. There is not a one size fits all model to ECE and this needs to be considered when making policies."

pay and voucher families should not be penalized for serving neighborhoods with families needing the most supports. Families cannot pay more to rectify wage inequities. *Conduct further research on the cost of high-quality care coupled with the cost of family-sustaining wages and benefits for early educators and align C3 grants with these costs.*

- Whether or not specific centers and FCCCs are caring for children with subsidies and other financial supports, they are all serving the broader workforce and every other sector of the Commonwealth's economy.

Leverage the state's bargaining power to make affordable benefits—including health insurance, paid sick leave, vacation, and retirement plans—available to early educators.

2. Define career trajectory options with articulated educational, credentialing and apprenticeship pathways for the Massachusetts early education and care sector.

- Build upon the Healey-Driscoll "whole of government approach" for EEC to coordinate resources and initiatives with offices such as Labor and Workforce Development to support the early education and care sector.

- The City of Boston's Office of Early Childhood and EEC have invested in innovations to create career pathways through partnerships with higher education institutions and community-based organizations. *Leverage these efforts by coordinating state and municipal resources to reduce waitlists for introductory courses and further subsidize learning.*
 - Replicate the efforts of the City of Boston across the Commonwealth to support educational and apprenticeship pathways with local higher education institutions and community-based organizations and philanthropies. *Ensure linguistic, socioeconomic, and racial equity in the accessibility of all pathways.*
 - *Expand and replicate successful policies and programs from institutions like Urban College to other parts of the state, ensuring accessible and diverse educational opportunities.*
 - The lack of 18–29-year-olds in the field is of critical concern. *Develop specific career pathways for those in entry-level positions, including assistants, volunteers, and interns in centers and family child-care settings. Subsidize education and certifications, while providing mentorship as practitioners navigate the field. Design new workforce development programs and recruitment campaigns exclusively for Gen Z.*
3. **Develop data systems to track educator-level and system-level factors.**
- Descriptive data on the early education and care workforce is critical to inform policy and workforce development strategies.
 - EEC should collect deeper educator-level data via a state-wide registry to better understand the demographics and experiences of the educator workforce over time.
- Ensure that early educator data results are shared widely to inform collective understanding.
 - Collect data that can be disaggregated to the municipal level for cities to develop regionally specific strategies to support the early education workforce.
4. **Amplify advocacy for federal investment to sustain wage increases and support the Commonwealth's early education and care system.**
- In many ways, we are fortunate to live where the City of Boston, the Massachusetts Department of Early Education and Care, and the Commonwealth of Massachusetts more broadly are investing in stabilizing centers and FCCs and some career pathways. But the current early childhood educator crisis in Boston makes clear that this is not enough. Federal investments are imperative to ensure sustained living wages for early childhood educators to attract and retain educators to grow to meet the demands of working parents supporting the broader economy. There were substantial increases for Child Care and Development Fund in recent years but that followed a decade or more of little to no spending growth. *Continue to increase these investments.*

The recommendations are a starting point for strategies to catalyze positive transformations in Boston and across Massachusetts. By focusing on the development of a high-quality support system for early educators, defining clear career paths, and investing in robust data systems and workforce development, we can elevate the standard of early education and care. It is imperative that all stakeholders—from policymakers to educational institutions to community partners—collaborate to implement these recommendations, ensuring a brighter future for our early educators and the children they nurture.

WORD FROM THE PROS

"I am concerned that Congress, legislators, policymakers, funders, and advocates do not truly understand the meaning of using a mixed delivery system and in their thinking are pitting child care against preschool. Not only does this greatly affect small businesses, often operated by women, but it takes choices away from parents, which ultimately hurts children."

METHODS

Survey and Survey Development

In response to the expressed interest of the Boston Opportunity Agenda's Birth to Eight Data Committee, we developed the "MA Early Education Professional Survey." The committee members emphasized the need for a deeper understanding of the early education and care workforce, recognizing its critical importance for high-quality child care. This survey was thus crafted to address these informational needs and provide valuable insights about and for the sector in Boston. This was an exploratory survey intended to gain a broad understanding of the workforce to highlight to our stakeholders, including the workforce itself and government officials, questions that need deeper investigation leading to improved policies and practices.

The development of the survey involved several steps. First, Boston Opportunity Agenda (BOA) staff with training and experience in quantitative and qualitative research interviewed several stakeholders in the early education and care field to ascertain what information was needed by early educators, researchers, policymakers, funders, and advocates. These informants represented institutions and organizations across the Commonwealth. Next, BOA reviewed existing state⁴⁷ and federal surveys⁴⁸ of the early education workforce in addition to the literature. The survey was developed by triangulating this information and sorting the most relevant information for Boston and Massachusetts. After a draft of the survey was developed, it was shared with the BOA's Birth to Eight Collaborative's Data Committee and additional stakeholders for feedback. Informants shared feedback on the content and structure of questions.

The survey was further revised and piloted with collaborators, with feedback further incorporated into the final survey format. Once finalized, the survey was professionally translated into seven languages spoken by early educators in Massachusetts, including Arabic, Cape Verdean Creole, Chinese, English, Haitian Creole, Portuguese, Spanish, and

Vietnamese. The process of translation was iterative between the first author and professional translators.

The survey had 10 distinct sections. All sections combined amounted to 145 questions, with branching logic, which means that participants only answered a smaller number of questions based on their current job role. The items were organized to ask respondents questions based on their role in the early education settings, such as teacher, lead teacher, director, and FCC. Additionally, the survey collected demographic information (age, race, ethnicity, language(s) spoken, education), career trajectories, institutions attended, workplace compensation, and benefits information. Survey questions were added to Microsoft Forms and respondents were able to choose the language in which they took the survey. A list with all survey questions is available upon request.

Survey Procedure and Data Collection

As mentioned above, the survey was designed with the primary objective of profiling the workforce in licensed child-care programs across Boston. However, following requests from several key stakeholders, we expanded its scope to include respondents from across the state. The survey link was shared by multiple organizations and institutions, including the Massachusetts Department of Early Education and Care, Strategies for Children, Boston Opportunity Agenda, Shared Services and Boston's Office of Early Childhood (OEC).

Additionally, BOA and OEC conducted specific outreach to center directors to share the survey with teachers, and OEC reached out directly to FCC educators. We oversampled Boston FCC educators in Boston, which allows us to have a solid characterization of this subset of the workforce given the bulk of the city government's investment in the sector over the past five years. These investments include marketing and communications training, business training, and licensure training and support. Using ARPA funds and City budget, the

City of Boston invested nearly \$1.5 million directly into FCC programs and more recently nearly \$7.5 million through the “Growing Workforce Grant” to train educators (including FCC educators or individuals interested in becoming FCC educators) willing to work in Boston for three years after completing their training.

The survey was released during the spring of 2022 and was closed during the fall of 2022. Survey respondents were able to share their contact information to enter a raffle. Five winners received a \$150 gift certificate each.

In addition to the survey data, we conducted interviews with leaders in the field who are innovating to support early childhood educators. Their work has been highlighted throughout the report.

Survey Participants

The participants of this survey were early educators or paraprofessionals working in the early education sector within the Commonwealth of Massachusetts in 2022. These participants represented various roles within both center-based and home-based care settings at the time of the survey.

Study Sample

In the process of data cleaning and analysis of the 793 recorded responses at the close of our survey, we initially identified and removed 111 duplicates. These were detected using variables like Name, Phone, Email, and ZIP Code, ensuring they were from the same respondent. In cases of duplicates, we retained the most recent entry based on its timestamp, while discarding the earlier submissions. Additionally, we chose to exclude 29 respondents categorized as Paraprofessionals, who identified their current job function as Other. This decision was due to the substantial heterogeneity within this group, which encompassed a wide array of roles including office assistants, home visitors, coaches, and transportation staff, among others. Consequently, our final analytical sample comprised 653 unique respondents—early educators who work across all regions in Massachusetts.

Of this total, 32.5 percent serve as center-based directors/administrators, 26 percent are center-based educators, and 41.5 percent are FCC educators. Of our total sample, 54 percent (n=354) work in Boston. Of those who work in Boston, 22.9 percent (n=81) are center-based directors/administrators, 24 percent (n=85) are center-based educators, and 53.1 percent (n=188) are FCC educators. See **Appendix Table 1** for more details on the distribution of survey participants by region and role.

While we present certain findings from outside Boston, the report does not comprehensively cover this broader data. For stakeholders within our Birth to Eight Collaborative interested in a more in-depth analysis of the data from respondents outside Boston, de-identified data can be made available upon request.

Data Analysis

To address the oversampling of FCC educators in our study, we utilized subsample analyses. This approach allowed us to carefully examine the data specific to this group. In instances where the subsample analysis revealed no significant differences across various groups, we have presented unstratified results in the Main Findings section of this report.

Data preparation and preliminary analysis were performed using Microsoft Excel. For more complex procedures, such as cross-tabulations and inferential statistical analyses, Stata 18.0 SE was used. We defined statistical significance at a p-value of less than .001. For evaluating relationships between categorical variables, chi-square tests were applied. A detailed overview of all variables included in this report is outlined below.

BOSTON SUBSAMPLE

A binary variable was created to distinguish between ZIP Codes in Boston and those in other parts of Massachusetts. This categorization was based on a list of 29 Boston ZIP Codes, as recognized by the Office of Early Childhood and other City departments.

WORKFORCE GROUPS

Respondents were grouped into three workgroup categories based on their answers for the “current job function” question for clearer analysis. These included Center-Based Teacher (combining teacher assistants, teachers, and lead

teachers in center-based settings), Director/Administrator (grouping center directors and administrators), and Family Child Care (including assistants and educators in family child-care programs).

AGE

Categorical variable with the following options: 18–29; 30–44; 45–59; 60–70; and Over 70.

GENDER IDENTITY

Participants were asked, “How do you define your gender?” and response options were: Female, Male, and Non-binary.

RACE

In addressing the “race” question, which initially provided eight categories, we had to reduce the number of categories. This approach was taken to ensure meaningful analysis while acknowledging that, ideally, we aim to report on all categories independently. However, when comparing the relationship between two or more categories, we faced limitations with categories having 10 responses or fewer, impacting our ability to report them separately.

We merged the American Indian or Alaskan Native category (with four responses) with Asian/Pacific Islander (31 responses) to form a consolidated AAPI category. The categories Biracial/Multiracial (27 responses), and Middle Eastern or North African (two responses) were combined into an expanded Other category. Initially, the Other category had 92 responses, of which 83 identified as Hispanic/Latino when describing their race. For the remaining nine responses in the Other category, descriptors included African, Middle Eastern or North African, Arabic, Semitic, West Indian, and Haitian-American.

Consequently, the restructured Race variable for our analysis included the following categories: AAPI, Black/African American, Other, and White. This categorization aimed to capture the respondents’ diverse backgrounds while addressing the challenges posed by lower response rates in certain racial categories.

HISPANIC/LATINO ETHNICITY

Participants were asked a separate question, “Are you of Hispanic, Latino, or Spanish ethnicity?” which led to the creation of a Yes/No variable.

PRIMARY LANGUAGE

We asked which languages participants spoke at home. Given the overlap between English and several other languages, in order to simplify the analysis for this report we opted to utilize a binary (Yes/No) variable that identified participants who primarily spoke English at home.

YEARS OF EXPERIENCE

We utilized a variable with the following categories: Less than 5 years; 6–10 years; 11–20 years; 21–30 years; and 31 years or more.

HIGHEST LEVEL OF EDUCATION ATTAINED

For this variable we combined a few categories due to very low numbers in some of them. Only eight respondents in the entire sample reported having less than a high school diploma. Even lower was the number who reported having a doctorate degree ($n=4$). Thus, we combined the High School Diploma ($n=55$) and Less Than a HS Diploma categories and also combined Master’s ($n=114$) and Ph.D. degree groups, leading to the following categories:

- High School Diploma or Less;
- Some College, No Degree;
- Associate Degree;
- Bachelor’s Degree;
- Graduate Studies, No Degree; and
- Graduate Degree.

CHILD DEVELOPMENT ASSOCIATE (CDA) CREDENTIAL

Binary variable (Yes/No) to identify respondents who had a CDA credential.

TURNOVER RATES

Center Directors were asked about their rates of turnover pre- and post-pandemic. We grouped responses into five categories: None, Less than 10%, 10–19%, 20–39%, and Over 40%.

INDUSTRIES SUPPORTED BY SURVEY RESPONDENTS

Participants were asked to select the kinds of jobs that parents/caregivers in the families they serve had and were asked to mark all that applied. We utilized the U.S. Bureau of Labor and Statistics’ 2018 Standard Occupational Classification System.⁴⁹

HOURLY WAGES

In the survey, participants were requested to report their compensation as either an hourly wage or an annual salary. Out of 653 respondents, 226 provided their earnings in the form of an hourly wage. For the 427 respondents who did not provide hourly wages, we focused on the 341 individuals reporting annual salaries to estimate equivalent hourly wages. The conversion from annual salary to hourly wage was accomplished using the formula: Hourly Wage = Annual Salary/Hours Worked Per Week * 52.

Participants reported annual salaries in nine categorical ranges, with the lowest being \$10,000 or Less and the highest being Above \$51,000. For the highest category, we adjusted it to Between \$51,000 and \$60,000. The midpoints of these ranges were employed to represent each salary category for conversion purposes. Similarly, hours worked per week were also reported in categorical ranges, leading to the assignment of midpoints for each category for a numerical hourly wage calculation.

A Shapiro-Wilk test was performed to evaluate the normality of the hourly wage distribution. The results showed a non-normal distribution, $W(530) = 0.97560$, $p < .001$. Consequently, to compare hourly wages across different years of experience, the non-parametric Kruskal-Wallis test was utilized.

HOURS WORKED

In defining work hours, we referred to established standards. According to the IRS, full-time employment is classified as “an employee employed on average at least 30 hours of service per week.”⁵⁰ Furthermore, the Fair Labor Standards Act (FLSA) defines a standard workweek as “a maximum 40-hour workweek applicable to most covered nonexempt employees.”⁵¹ Utilizing these guidelines, we categorized employment hours into three distinct groups for our analysis: Less than 30 hours per week, which we classify as part-time; 30 to 40 hours per week, reflecting regular full-time hours; and more than 40 hours per week, indicating overtime hours.

HIGHER EDUCATION INSTITUTIONS ATTENDED

In our survey, participants were initially provided with a pre-compiled list of 20 higher education institutions from the Greater Boston area and across Massachusetts, identified through expert consultation. Respondents had the flexibility

to select multiple institutions from this list and were also given the option to select Other and specify additional institutions in response to the query, “Which institutions have you attended?” This question was inclusively designed, not just for individuals who obtained a degree but also for those who participated in any class or training program. This approach was aimed at gaining a broader understanding of the educational and training backgrounds contributing to our workforce. From the responses, more than 50 organizations were identified, a diverse range encompassing both American and international institutions. For reporting purposes, we focused on the top 10 institutions as identified by Boston-based respondents.

METHODS USED TO PAY FOR HIGHER EDUCATION

In order to understand the financial strategies employed by respondents who attended higher education institutions, we included a question in our survey: “How have you paid for tuition and educational expenses for any certifications, coursework, and degrees? Please mark ALL that apply.” The responses to this question were organized into three primary categories for our analysis. The first category is Loans, which encompasses both student and bank loans. The second category, Opportunity Costs, includes payments made through personal savings or salary, as well as financial support from parents, partners, or relatives. The third category is Scholarship, which covers various forms of educational funding such as awards, fellowships, and scholarships. We then calculated the frequency with which each of these payment methods was selected by the respondents, providing insight into the financial approaches used in pursuing higher education and professional development.

LIMITATIONS

As outlined at the beginning of this Methods section, the results of this study are exploratory in nature. Regarding the distribution of respondents, 54.2 percent (354 individuals) were based in Boston, with the remaining 45.8 percent (299 individuals) from other regions of Massachusetts. This composition aligns with our survey’s primary emphasis on Boston. Nevertheless, caution should be exercised when drawing comparisons between Boston and other areas of Massachusetts due to the unweighted nature of the data. The substantial response rate from Boston participants not only reflects the success of our targeted outreach initiatives,

including direct contact with FCC educators via phone and email, but also sheds light on the specific challenges and opportunities faced by the early education and care workforce in this urban context.

It is important to note that our survey sample may not perfectly represent the broader early education and care workforce, limiting the generalizability of our findings due to the unweighted sampling method. However, the trends and patterns observed should serve as a valuable guide for future focused research.

Additionally, the data in this report are based on self-reported information. This approach inherently carries challenges such as recall bias and variable interpretations of survey questions by different respondents. Our survey design, influenced by formats in prior studies, consistently included an Other option to provide respondents with the opportunity to share their perspectives and experiences more accurately. This feature was intended to capture a wider range of responses, thereby enriching the depth and relevance of our findings.

APPENDIX

APPENDIX TABLE 1
Distribution of Survey Participants by Region and Role
[2022]

ROLE	Rest of MA	Rest of MA (%)	Boston	Boston (%)	Total	Total (%)
Center-based administrator/director	131	43.81%	81	22.88%	212	32.47%
Center-based teacher	85	28.43%	85	24.01%	170	26.03%
FCC Educators	83	27.76%	188	53.11%	271	41.50%
TOTAL	299		354		653	

APPENDIX TABLE 2
Age Distribution by Role of Early Education Workforce in Other Areas of Massachusetts
[2022]

AGE	Center-Based Administrator/ Director	Center-Based Administrator/ Director (%)	Center-Based Teacher	Center-Based Teacher (%)	FCC Educator	FCC Educator (%)	Total	Total (%)
18-29	4	3.05%	22	25.88%	0	0.00%	26	8.70%
30-44	48	36.64%	29	34.12%	22	26.50	99	33.11%
45-59	62	47.33%	23	27.06%	51	61.45%	136	45.48%
Over 60	17	12.98%	11	12.94%	10	12.05%	38	12.71%
TOTAL	131		85		83		299	

APPENDIX TABLE 3
Gender Identity by Role of Early Education Workforce in Boston and Other Areas of Massachusetts
[2022]

GENDER IDENTITY	Rest of MA	Rest of MA (%)	Boston	Boston (%)	Total	Total (%)
Female	294	98.33%	344	97.18%	638	97.70%
Male	1	0.33%	8	2.26%	9	1.38%
Non-binary	4	1.34%	2	0.56%	6	0.92%
TOTAL	299		354		653	

MA = Massachusetts FCC = Family Childcare

APPENDIX CONTINUED

APPENDIX TABLE 4
**Gender Identity by Age Group of Early Education Workforce
in Boston and Other Areas of Massachusetts**
[2022]

GENDER IDENTITY	AGE							
	18-29	18-29 (%)	30-44	30-44 (%)	45-59	45-59 (%)	Over 60	Over 60 (%)
Female (n=638)	53	8.31%	191	29.94%	278	43.57%	116	18.18%
Male (n=9)	2	22.22%	3	33.33%	2	22.22%	2	22.22%
Non-binary (n=6)	2	33.33%	3	50.00%	0	0%	1	16.67%
TOTAL (n=653)	57	8.73%	197	30.17%	280	42.88%	119	18.22%

APPENDIX TABLE 5
**Breakdown of the Race of Respondents in Various Job Roles
in Both Boston and Other Parts of Massachusetts**
[2022]

RACE	Center-Based Administrator/ Director	Center-Based Administrator/ Director (%)	Center-Based Teacher	Center-Based Teacher (%)	FCC Educator	FCC Educator (%)	Total	Total (%)
Boston								
AAPI	8	9.87%	21	24.70%	4	2.12%	33	9.32%
Black/ African American	15	18.52%	15	17.65%	62	32.98%	92	25.99%
Other	13	16.05%	12	14.12%	76	40.43%	101	28.53%
White	45	55.56%	37	43.53%	46	24.47%	128	36.16%
TOTAL	81		85		188		354	
Other Massachusetts Regions								
AAPI	0	0.00%	1	1.17%	1	1.20%	2	0.67%
Black/ African American	2	1.53%	7	8.24%	2	2.41%	11	3.68%
Other	3	2.29%	9	10.59%	6	7.23%	18	6.02%
White	126	96.18%	68	80.00%	74	89.16%	268	89.63%
TOTAL	131		85		83		299	

APPENDIX CONTINUED

APPENDIX TABLE 6
Comparison of Educator Years of Experience in Boston and Rest of Massachusetts
 [2022 Survey Respondents]

YEARS OF EXPERIENCE	Rest of MA	Rest of MA (%)	Boston	Boston (%)
Less than 5 years (n=93)	33	35.48%	60	64.52%
6-10 years (n=94)	33	35.11%	61	64.89%
11-20 years (n=200)	83	41.50%	117	58.50%
21-30 years (n=189)	109	57.67%	80	42.33%
31 years or more (n=77)	41	53.25%	36	46.75%
TOTAL (n=653)	299		354	

APPENDIX TABLE 7
Educational Attainment of Early Education Professionals in Boston and Rest of Massachusetts
 [2022 Survey Respondents]

HIGHEST EDUCATION	Rest of MA	Rest of MA (%)	Boston	Boston (%)	Total	Total (%)
High school or less	28	9.36%	89	25.14%	117	17.92%
Some college, no degree	41	13.72%	51	14.41%	92	14.09%
Associate	40	13.38%	75	21.19%	115	17.61%
Bachelor's	100	33.44%	82	23.16%	182	27.87%
Graduate studies, no degree	16	5.35%	13	3.67%	29	4.44%
Graduate degree	74	24.75%	44	12.43%	118	18.07%
TOTAL	299		354		653	

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17. The chi-square test revealed a statistically significant difference in the proportion of Hispanic/Latino ethnicity among survey respondents between Boston and the rest of Massachusetts, $\chi^2(1) = 114.6545$, $p < .0001$.
18. The chi-square test showed a statistically significant difference in the proportion of respondents primarily speaking a language other than English at home between Boston and the rest of Massachusetts, $\chi^2(1) = 71.2578$, $p < .0001$.
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37. Kruskal-Wallis H test revealed statistically significant differences in mean hourly wages for center-based educators in Boston based on their highest educational level attained, $\chi^2(5) = 29.020$, $p < .00001$. This finding remained consistent when accounting for ties, $\chi^2(5)$ with ties = 26.368, $p < .00001$.
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