



2023 STATE OF EARLY EDUCATION AND CARE REPORT

(Re)Building Boston's Early Education and Care Sector: Supply, Affordability and Quality Needed

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The Boston Opportunity Agenda (BOA) 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 and Merrimack Valley, 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, higher education and medical institutions. We focus on ensuring all young children are ready for sustained success in kindergarten and beyond.

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(Re)Building Boston's Early Education and Care Sector: Supply, Affordability and Quality Needed

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- 1. Advocate for increased and sustained public investment in the early education and care field.*
- 2. Continue to invest in and expand UPK for 3- and 4-year-olds.*
- 3. Building on UPK's work, create a Boston initiative that expands access to high-quality early education and care for infants and toddlers.*
- 4. Leverage the new City of Boston's Office of Early Childhood to define indicators and house data for tracking and improving Boston's early education and care field. Advance equity in data collection, access, and utilization to create a robust data system.*
- 5. Coordinate with state-level advocacy to help fund and sustain city-level efforts.*

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City of Boston, Massachusetts
Office of the Mayor
Michelle Wu



Dear friends,

Boston should be the best place in the country to raise a family, with high-quality, supportive child care programs and facilities accessible to all our residents. But too often, parents and caregivers across Boston's neighborhoods face immense challenges finding quality, affordable care for their children. These challenges are not new, but the data in this report provide timely information about issues of access, affordability, and quality that will continue to guide our administration's commitment to becoming a family-friendly city.

In the past year, we have launched the Office of Early Childhood, expanded our Childcare Entrepreneurship Fund to support family-based childcare providers, and invested more than \$15 million in federal funds to increase wages for childcare providers and stabilize the sector, expand child care access to essential workers, and grow our child care workforce by enabling nearly 800 aspiring early educators to graduate from training programs free of debt. Together with Boston Public Schools, we have also expanded our Universal Pre-Kindergarten (UPK) programs to serve 350 more 3- and 4-year olds, including in community-based organizations and, for the first time ever, in family-based child care programs.

These investments are important, but we know they are not sufficient to fully address the challenges outlined in this report. Guided by this latest data, we will continue to partner with families, early educators, and community-based organizations to ensure all of our youngest learners have everything they need to grow and thrive.

Sincerely,

Michelle Wu
Mayor of Boston

INTRODUCTION

In our 2020 brief of the COVID-19 pandemic's immediate impact on the supply of child-care seats in Boston, we set the context by sharing a simple statistic: the number of results from a Google search of the phrase *childcare crisis in America*. Before March 1, 2020, the search yielded approximately 318,000 results. On October 15, 2020, the number jumped to about 1,640,000.¹ Repeating the same search on January 23, 2023, returned a staggering 7,370,000 results. The 23-fold increase in the number of reports, articles, and opinions published since before the 2020 pandemic shows that the child-care crisis is having a far-reaching impact on our society. The findings in this report indicate this crisis is far from nearing an end. The past three pandemic years have been a struggle for so many, leaving no one unscathed. State and local officials, as well as individual households, had to learn about the risks of COVID-19 while making professional and personal decisions to ensure safety and somehow continuing to move forward. Our effort here is to focus on the data to help us reflect on how previous policy and funding decisions have unevenly served Boston's early education and care providers and working parents with young children.

While this report appears to show a recovery of child-care supply to nearly pre-pandemic levels, our measurement of licensed seats and programs, rather than open classrooms, masks the child-care workforce shortage impacting enrollment. As of 2021, Massachusetts had almost 5,000 fewer early educators, on average, than before the pandemic. Fewer early educators means programs have to close classrooms and cannot offer their full supply of seats. Statewide, the proportion of center-based providers unable to serve their full capacity has increased from 28 to 35 percent since the spring of 2022 and family child care (FCC) capacity remains below pre-pandemic levels.² Federal pandemic relief funds have helped to stabilize the system, but longer-term reform and investment are needed.

New research exploring the economic impact of an inadequate supply of early education and care seats for infants and young children in the United States estimates that losses in earnings, productivity, and revenue across all sectors have more than doubled compared to pre-pandemic estimates. In 2018, the estimated yearly loss was around \$50 billion. The current figure is closer to \$122 billion annually.³ Massachusetts loses nearly \$2.7 billion a year due to lost earnings for employees, additional costs and lower productivity for employers, and in reduced tax revenues (in spite of an additional investment in the child-care sector of around \$1 billion since the start of the COVID-19 pandemic).⁴ Both the national and state-level estimates reiterate the need for continuous and increased investment to prevent worsening the economic, social, and human impacts linked to inadequate access to early education and care for young children.

This report follows past publications guided by the Boston Opportunity Agenda's Birth to Eight Collaborative's Data Committee (B-8 Data Committee) since 2019. Prior to the pandemic, we computed gaps between the total number of children birth to 5 years and available formal early education and care seats in their neighborhood. We identified that disparities existed across Boston neighborhoods, ranging from 4 percent to over 50 percent.⁵ When counting only licensed seats designated as "high quality," the gap increased to as much as 74 percent in some neighborhoods, and 93 percent when only considering seats for infants and toddlers.⁶ By "high quality" we meant programs that had one of a few quality indicators for which data were available at the time. A caveat was that programs without these indicators could be offering high quality seats, but were not captured by existing data. While a citywide definition for high quality seats exists for 3- and 4-year-olds, a similar definition of high quality for infant and toddler seats has not been developed.

New research exploring the economic impact of an inadequate supply of early education and care seats for infants and young children in the United States estimates that losses in earnings, productivity, and revenue across all sectors have more than doubled compared to pre-pandemic estimates.

The B-8 Data Committee used the 2019 report as a baseline in assessing the pandemic-associated impacts on the supply of Boston's child care. Two subsequent briefs analyzed child-care supply trends, as well as the association between receiving public funds (subsidies) and the likelihood of a child-care program remaining open throughout the pandemic.^{7, 8} Following the mandated child-care closures in March 2020, the sector experienced some recovery, but remained below pre-pandemic levels. By 2021, Boston had lost 13 percent of its licensed child-care programs, driven primarily by closures of family child care (FCC) programs. Both briefs confirmed that child-care providers receiving public funds, in this case through subsidies,⁹ were almost five times more likely to have reopened by March 2021. It is important to note that since the beginning of the COVID-19 pandemic, providers accepting subsidies have been reimbursed based on the number of children enrolled. Switching from daily attendance-based to enrollment-based subsidy reimbursements helped stabilize the child care sector.

This publication is building on the baseline established by the 2019 report and updates estimates on access and quality gaps. We also revisit the likely impact of public funds on the sustainability of child-care programs throughout the pandemic. In our research we explored:

- 1)** 2022 supply-demand access and quality gaps by program type (family child care, center-based programs and schools), children's age groups (birth–2 and 3–5 year-olds), and 15 census tract–defined neighborhoods;
- 2)** the comparison between the number of programs that remain open and those that closed between March 2020 and June 2022, and whether they receive subsidies, Commonwealth Cares for Children (C3) grants, or a combination of both; and
- 3)** 2017–2022 trends on the number of licensed child-care programs (family child care and center-based only) by program type, age groups, and neighborhoods.



SUMMARY OF FINDINGS

In 2022, access to formal high-quality early education and care seats remained a citywide problem in Boston, **especially for children ages birth to 2 years**. Neighborhood disparities continued to exist, but families in all 15 neighborhoods faced this challenge. Child care in Boston remains unaffordable for the majority of families.

Our analysis using 2017 and 2020–2022 data found the following:

76%

CHILDREN
AGED BIRTH
TO 2 YEARS
DID NOT
HAVE
ACCESS
TO FORMAL
CHILD CARE
IN 2022

- ✦ **Ninety-four percent of licensed child-care programs operating in Boston in June 2022 received public funds—through subsidies and Commonwealth Cares for Children (C3) grants.** Of those, 99 percent of the center-based and 98 percent of the family child-care providers were receiving C3 grants. This suggests that continuous public funding for all programs is essential for licensed child-care providers to continue operating.
- ✦ **An estimated 39 percent of children aged birth to 5 years in Boston did not have access to formal early education and care in 2022, on average at the city level.** The population of children aged 5 years or younger in Boston (demand) was 39,992. We identified 747 formal early education and care providers (supply), including public and non-public schools, offering 24,276 seats for that age group. The access gap varied across neighborhoods, ranging from 5 percent in Roxbury to 61 percent in Charlestown.
- ✦ **An estimated 76 percent of children aged birth to 2 years old in Boston did not have access to formal early education and care in 2022.** All 15 neighborhoods experienced an access gap in this age group, varying from 35 percent in Fenway/Kenmore to 86 percent in Roslindale and Mattapan. This access gap, as in prior years, continued to drive the overall gap in the birth to 5 age population.
- ✦ **For ages 3–5, the number of reported early education and care seats in Boston is 2 percent higher than the number of resident children.** However, this estimate camouflages the inequitable distribution of seats for this age group across neighborhoods. While seven neighborhoods had more seats than resident children, eight neighborhoods had gaps ranging from 3 (Mission Hill/Jamaica Plain) to 33 percent (West Roxbury).
- ✦ **The estimated “quality gap” (see *Glossary, page 7*) for children ages birth to 5 in 2022 was 70 percent, driven by the quality gap for children birth to 2 years old (95 percent).** All Boston neighborhoods had a quality gap for this age group, ranging from 57 percent in Fenway/Kenmore to 100 percent in Mattapan and Roslindale. Twelve of the 15 neighborhoods had quality gaps between 90 and 99 percent for infants and young toddlers.
- ✦ **The overall quality gap for Boston children aged 3–5 years was 42 percent in 2022,** ranging from 20 percent in Roxbury to 80 percent in Fenway/Kenmore. Only three neighborhoods had more quality seats than resident children for this age group: Downtown (31 percent), Back Bay/Beacon Hill (39 percent), and Allston/Brighton (6 percent).
- ✦ **Boston had a net loss of 15 percent of its child-care programs, a trend driven by the 20 percent loss of FCC providers,** when examining only licensed child-care supply trends (2017–2022), excluding school-based seats.

15%

NET LOSS
OF
CHILD-CARE
PROGRAMS

Glossary

Readers must be aware that all gaps computed are potential, not absolute estimates given limitations of available data. For ease of reading, we are not including the terms *potential* or *possible* throughout the text. In the report, we utilized 2017–2022 EEC-licensed capacity, 2017–18 and 2022–23 DESE enrollment, and 2012–16 and 2016–2020 ACS census data. **Please refer to the Methods section for detailed definitions of terms, time frame of data used, assumptions, analytical approach, and limitations.**

Access gap: The difference between the total number of formal early education and care seats (potential supply) and the number of children birth to 5 years of age (maximum potential demand) in a given geographical location, assuming all of these families would desire formal care near their homes.

Age groups: Age group birth to 2 years includes infants (ages birth to 15 months) and toddlers (ages 15–33 months), while the age group 3–5 years refers to preschoolers and kindergartners (ages 33 months to 5 years).

Centers: Programs that offer licensed early education and care for children in non-school, non-residential settings. The term *centers* in this report includes community-based organizations (CBOs). Universal Pre-Kindergarten (UPK) seats offered through CBOs appear in this report as *centers*. Boston’s UPK is a mixed-delivery system, offering seats through the Boston Public Schools and CBOs.

Child-care financial assistance (subsidies): Financial support from the Department of Early Education and Care (EEC) for families that need assistance to pay for child care and child-care programs, and meet certain requirements.

Commonwealth Cares for Children (C3) Grants: Grants awarded by the Department of Early Education and Care (EEC) since September 2021 for all eligible EEC-licensed and funded child-care providers open and serving families in Massachusetts through a non-competitive grant application.

Demand: We utilized the methodology proposed by the Center for American Progress and considered our demand for early education and care seats as the population of children ages birth through 5 years living in Boston in 2020 (2016–2020 ACS data). To the best of our knowledge, there is no available data on the actual number of families who are seeking licensed care for their young children in the city.

Family child care (FCC): Programs that offer licensed early education and care for children in a residential unit.

High-quality seats: Formal early education and care seats in programs that had at least one of the following quality indicators: Quality Rating and Improvement System (QRIS) rating of 3 or 4; UPK participation; accreditation from the National Association for the Education of Young Children (NAEYC); or accreditation from any other associations focused on assuring quality in early education and care. Acquiring these accreditations is costly and time intensive, which disincentivizes many providers who cannot afford to apply and do not have extra administrative staffing. Centers and FCCs without these indicators may be providing high quality seats that are not captured by currently available indicators used in our analyses.

Neighborhoods: We utilized 15 census tract–defined neighborhoods using a framework that sees neighborhoods as “spatial units” defined by their boundaries.

Quality gap: The difference between the total number of identified “high-quality” early education and care seats (potential “high-quality” supply) and the number of children birth to 5 years of age (maximum potential demand) in a given geographical location, assuming all of these families would desire formal care near their homes.

Supply: Total number of seats for children birth to 5 years of age in licensed early education and care programs (June 2022 EEC-licensed capacity in family child care and center-based care) and licensed-exempt seats in schools (2022–2023 DESE enrollment data for public and non-public schools). It is important to note that the supply of licensed child-care seats is overestimated in this report due to the loss of the early education and care workforce after the COVID-19 pandemic. This continues to limit programs’ abilities to fill their licensed capacity.

MAIN FINDINGS

Demand

As of 2020, the City of Boston had approximately 39,992 children aged 0–5 years old, and 53 percent of them (21,222) were 2 years old or younger.¹⁰ This report uses the estimated population of children ages birth to 5 living in Boston to define the demand for formal early education and care seats in the city.

There is no robust estimate of true demand for formal early education and care seats in Boston. The true demand is certainly smaller than the total population of children ages 0 to 5, as some families may not desire formal early education and care for their children. National data on early childhood program participation in 2019 indicated 59 percent of surveyed families reported at least one weekly non-parental arrangement.¹¹ Fifty-five percent of non-parental arrangements included children ages 1-2 years old and 42 percent for children younger than one year. This distribution by age group is likely higher in Massachusetts: Findings from the same survey by country region showed that 66 percent of young children in the Northeast had at least one weekly nonparental arrangement.

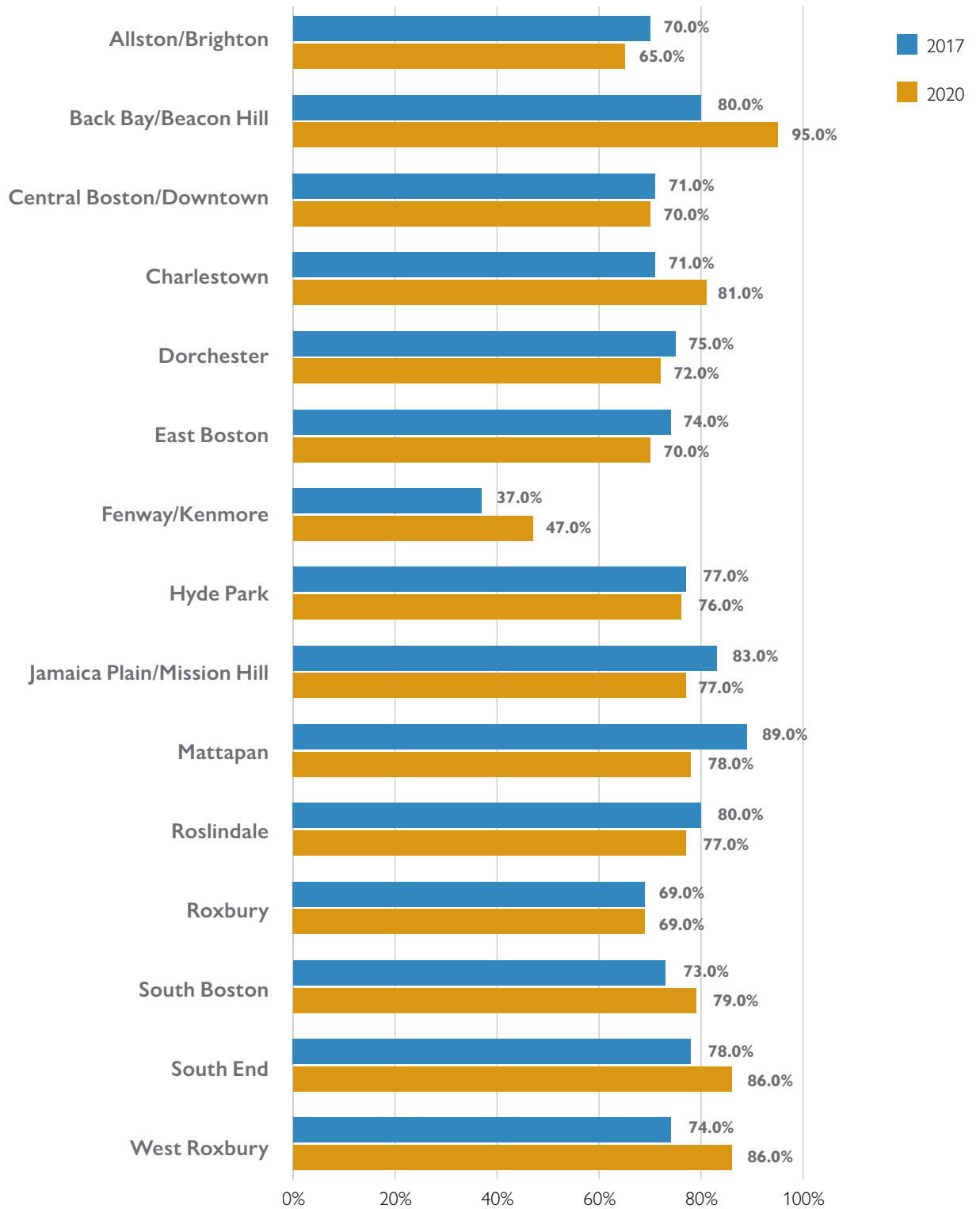
One benchmark of demand for child care is parental labor force participation: 75 percent of Boston children ages 0–5 live with only parent(s) who are in the labor force—down from 90 percent in 2017. The percentage of children with working parents (all parents in the labor force) by neighborhood is shown in **Figure 1** (p.9). Boston continues to have high rates of parental participation in the labor force, despite the overall decline observed between 2017 and 2020. Working parents/caregivers rely heavily on formal early education and care to continue in the workforce. However, parental decisions about labor force participation and demand for early education and care are not made in isolation from issues of accessibility, quality, and affordability. Ultimately, sufficient formal early education and care seats in a community is an equity indicator. To address the limitation of not knowing families' preferences and to center equity in our methodological approach, we continued to utilize the Center for American Progress'

methodology by computing gaps as the difference between number of children and number of available seats.¹² Note that our analysis does not include additional potential demand from commuters who work in Boston and place their children in care near their workplace.

CITY OF BOSTON'S CHILD-CARE SURVEY

In 2019, the City of Boston launched a child-care survey, available in eight languages, to gain a better understanding of families' existing early education and care arrangements for their children ages 0 to 5 years old. The survey was mailed to all Boston residents with the City's annual census, a creative attempt to better estimate demand for early education and care in the city. In 2021, 44 percent of families with infants and toddlers (ages 0 to 2) and 61 percent of families with preschoolers (ages 3 to 5) were using a formal early education and care provider as their primary arrangement.¹³ When asked about their preferences, however, 64 percent of families with infants and toddlers and 82 percent of families with preschoolers would choose a formal arrangement. The conclusion: In 2021, an additional 46 percent of families with infants and toddlers and 34 percent of families with preschoolers living in Boston wanted to have their young children in formal care. These findings came from a sample of 3,006 families living in Boston, representing 3,539 children. The response rate for the 2021 survey was 11 percent, which is comparable to similar surveys. However, findings are not representative of Boston's population because several neighborhoods were underrepresented in the sample.

FIGURE 1
Populations of Children 0-5 with All Parents in Labor Force by Neighborhood
 (Boston, 2017 & 2020)



Data Source: U.S. Census Bureau, 2013-2017 and 2016–2020 American Community Survey, BPDA Research Division Analysis, 2019 and 2023; Boston Opportunity Agenda Analysis, 2019 and OEC/BOA Analysis, 2023.

FIGURE 2
Population of Children 0 - 5 by Age Group and Neighborhood
 (Boston, 2017)

Neighborhood	Population 0 - 2		Population 3 - 5		Population 0 - 5	
	Birth to 2	Share of sub-population	3 to 5	Share of sub-population	Birth to 5	Share of population
Allston/Brighton	1,527	7.3%	1,092	5.5%	2,619	6.4%
Back Bay/Beacon Hill	760	3.6%	299	1.5%	1,059	2.6%
Charlestown	999	4.8%	857	4.3%	1,856	4.5%
Dorchester	4,162	19.8%	4,432	22.2%	8,594	21.0%
Downtown	787	3.7%	473	2.4%	1,260	3.1%
East Boston	1,789	8.5%	1,952	9.8%	3,741	9.2%
Fenway/Kenmore	430	2.0%	503	2.5%	833	2.0%
Hyde Park	859	4.1%	1,220	6.1%	2,079	5.1%
Mattapan	1,410	6.7%	1,205	6.0%	2,615	6.4%
Mission Hill /Jamaica Plain	1,086	5.2%	1,118	5.6%	2,204	5.4%
Roslindale	1,392	6.6%	1,083	5.4%	2,475	6.1%
Roxbury	2,347	11.2%	2,709	13.6%	5,056	12.4%
South Boston	1,026	4.9%	918	4.6%	1,944	4.8%
South End	964	4.6%	800	4.0%	1,764	4.3%
West Roxbury	1,482	7.1%	1,267	6.4%	2,749	6.7%
Boston	21,020		19,928		40,848	

(Boston, 2020)

Neighborhood	Population 0 - 2		Population 3 - 5		Population 0 - 5	
	Birth to 2	Share of sub-population	3 to 5	Share of sub-population	Birth to 5	Share of population
Allston/Brighton	1,337	6.3%	721	3.8%	2,058	5.1%
Back Bay/Beacon Hill	438	2.1%	247	1.3%	685	1.7%
Charlestown	1,187	5.6%	902	4.8%	2,089	5.2%
Dorchester	4,682	22.1%	4,186	22.3%	8,868	22.2%
Downtown	855	4.0%	474	2.5%	1,329	3.3%
East Boston	1,440	6.8%	1,669	8.9%	3,109	7.8%
Fenway/Kenmore	168	0.8%	300	1.6%	468	1.2%
Hyde Park	1,238	5.8%	1,554	8.3%	2,792	7.0%
Mattapan	1,296	6.1%	961	5.1%	2,257	5.6%
Mission Hill /Jamaica Plain	2,213	10.4%	1,742	9.3%	3,955	9.9%
Roslindale	1,275	6.0%	1,053	5.6%	2,328	5.8%
Roxbury	1,364	6.4%	1,735	9.2%	3,099	7.7%
South Boston	1,422	6.7%	957	5.1%	2,379	5.9%
South End	1,140	5.4%	751	4.0%	1,891	4.7%
West Roxbury	1,167	5.5%	1,518	8.1%	2,685	6.7%
Boston	21,222		18,770		39,992	

Note: ACS 5-year estimates have a 90% confidence interval. Neighborhood definitions changed from ZIP-Code-defined (2017 data) to census-tract-defined (2020 data).
 Source (2017 data): U.S. Census Bureau, 2013-2017 American Community Survey, BPDA Research Division Analysis, 2019; Boston Opportunity Agenda Analysis, 2019.
 Source (2020 data): U.S. Census Bureau, 2016-2020 American Community Survey, BPDA Research Division Analysis, 2022; OEC/BOA Analysis, 2023.

The neighborhood with the highest population of children 0–5 years old was Dorchester (8,868), followed by Jamaica Plain/Mission Hill (3,955), East Boston (3,109), Roxbury (3,099), Hyde Park (2,792), West Roxbury (2,685), and South Boston (2,379). Compared to 2017 data, we noticed an increase in the number of children in Jamaica Plain/Mission Hill and South Boston. In Jamaica Plain/Mission Hill the share of the population for this age group went from 6.4 to 9.9 percent, and in South Boston from 4.8 to 5.9 percent during this five-year period.

For most neighborhoods, the population of children ages 0 to 2 was higher than the population of preschoolers (ages 3 to 5), and the difference between the age groups’ sizes varied across the city, ranging from 10 percent in Roslindale to 30 percent in Allston/Brighton.

Only five of the 15 neighborhoods had a higher population in the 3- to 5-year-old age group. The neighborhoods with the highest share of children in this age group were Fenway/Kenmore, West Roxbury, and Roxbury. See **Figure 2** (p.10) for the numerical distribution of children by neighborhood and the comparison to 2017 data.

Supply

PROGRAM TYPE

We identified 747 providers in Boston, with an estimated capacity of 24,276 seats for children ages 0 to 5. **Note that the number of licensed seats in child-care programs likely overestimates actual available capacity.** Statewide survey data from recipients of the Commonwealth Cares for Children (C3) grants showed that staffing limitations have reduced actual capacity in many programs.¹⁴ A total of 35 percent of center-based programs reported that they were unable to serve their full licensed capacity, a limitation driven by the inability to fill staff openings.

In 2022, family child care (FCC) and center-based providers accounted for 62 percent of all identified formal early education and care seats for children ages 0 to 5 in Boston. School-based providers, which include public and non-public schools, accounted for 38 percent of the preschool and pre-kindergarten seats. **Figure 3** gives an overview of the distribution of seats for children 0–5 years by provider type.

FIGURE 3
Early Education and Care Seats by Provider Type
[Boston, December 2017 & June 2022]

Provider Type	Number of Providers		Number of Seats (%)	
	2017-2018	2021-2022	2017-2018	2021-2022
CHILDCARE PROVIDERS (0 to 5 years)	757	642	15,991 (62%)	15,071 (62%)
Centers	186	184	11,516 (72%)	11,359 (75%)
Family Child Care	571	458	4,475 (28%)	3,712 (25%)
SCHOOL PROVIDERS	110	105	9,950 (38%)	9,205 (38%)
Public School	85	88	8,095 (81%)	7,374 (80%)
BPS School	76	78	7,040 (87%)	6,252 (85%)
Charter School	9	10	1,055 (13%)	1,122 (15%)
Non-Public School	25	17	1,855 (19%)	1,831 (20%)
Independent School	6	5	336 (18.1%)	533 (29.1%)
Nonprofit Organization	3	0	8 (0.4%)	0
Parochial School	16	12	1,511 (81.5%)	1,298 (70.9%)
Boston	867	747	25,941	24,276

Source: MA Department of Early Education and Care, 2017, 2022 & MA Department of Elementary and Secondary Education, 2017, 2022; OEC/BOA Analysis, 2023. BPS = Boston Public Schools

Note: Schools only serve children ages 3 - 5 years.

AGE GROUPS: 0–2 AND 3–5 YEARS

Disaggregating the total supply of seats by age group reveals disparities in their availability. See **Figure 4** for a detailed distribution of seats by age group and program type.

Formal early education and care seats for children 0–2 years are primarily available through licensed child-care providers. While the demand for care for ages 0 to 2 and 3 to 5 was equivalent, only 21 percent of all seats (5,161) were available for infants and toddlers. Center-based providers offered

77 percent of the seats for ages 0 to 2 (3,951), and FCC providers accounted for the remaining 23 percent (1,210).

Formal early education and care seats for children 3 to 5 years of age are offered by centers, FCCs, and license exempt school programs. For this age group, most of the seats are through either center-based (39 percent) or school-based (48 percent) providers, while the remaining 13 percent are accounted for by FCC providers.

FIGURE 4
Supply of Early Education and Care Seats by Provider Type and Age Group
 (Boston, 2022)

Provider Type	Number of Seats (%) 0 - 5 years	Number of Seats (%) 0- 2 years	Number of Seats (%) 3 - 5 years	Number of Programs
Centers	11,359	3,951	7,408	184
Family Child Care	3,712	1210	2,502	458
BPS	6,252	N/A	6,252	78
Charter School	1,122	N/A	1,122	10
Non-Public School	1,831	N/A	1,831	17
Boston	24,276	5,161	19,115	747

Source: MA Department of Early Education and Care, 2017, 2022 & MA Department of Elementary and Secondary Education, 2017, 2022; OEC/BOA Analysis, 2023. BPS = Boston Public Schools; N/A = Not Applicable
 Note: Schools only serve children ages 3 - 5 years.

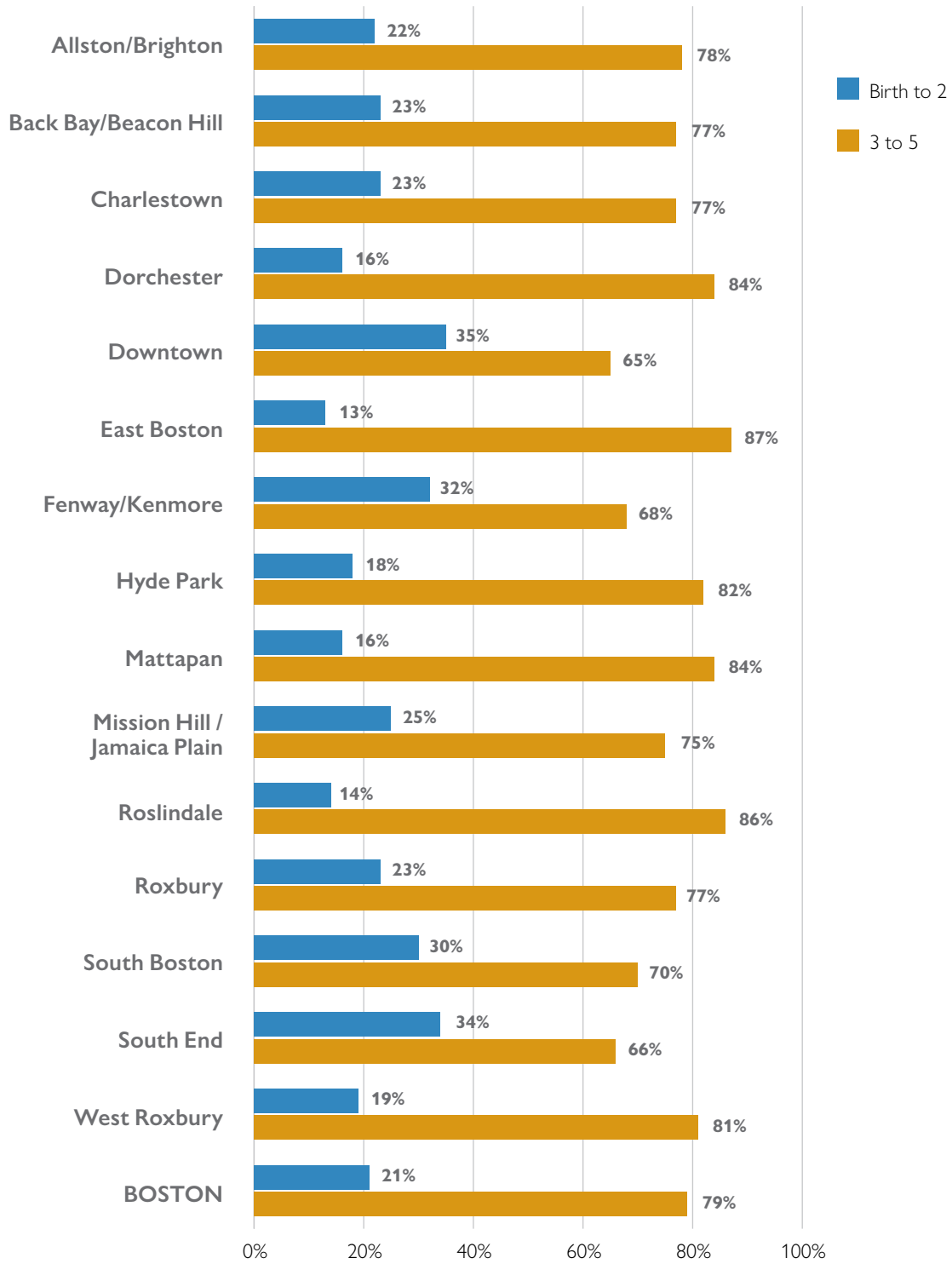
“Incredibly difficult to find an available spot at daycare for our son. I stayed home with him for an extra six months after maternity leave until we could find full-time care.”

—2022 Boston Childcare Survey respondent

NEIGHBORHOODS

As noted above, only 21 percent of all licensed seats for children 0 to 5 at the city level were available for children ages 0 to 2. However, only seven of the city’s 15 neighborhoods mirrored that 21 percent average (**Figure 5**, p. 13). The share of seats available for infants and toddlers was lower than the city’s average in four neighborhoods: Dorchester (16 percent), Mattapan (16 percent), Roslindale (14 percent), and East Boston (13 percent). Conversely, four neighborhoods had a higher share of seats available for infants and toddlers when compared to the city’s average: Downtown (35 percent), South End (34 percent), Fenway/Kenmore South End (32 percent), and South Boston (30 percent).

FIGURE 5
Proportion of Formal Early Education and Care Seats for Children Ages 0 to 5
by Age Group and Neighborhood
 [Boston, 2022]



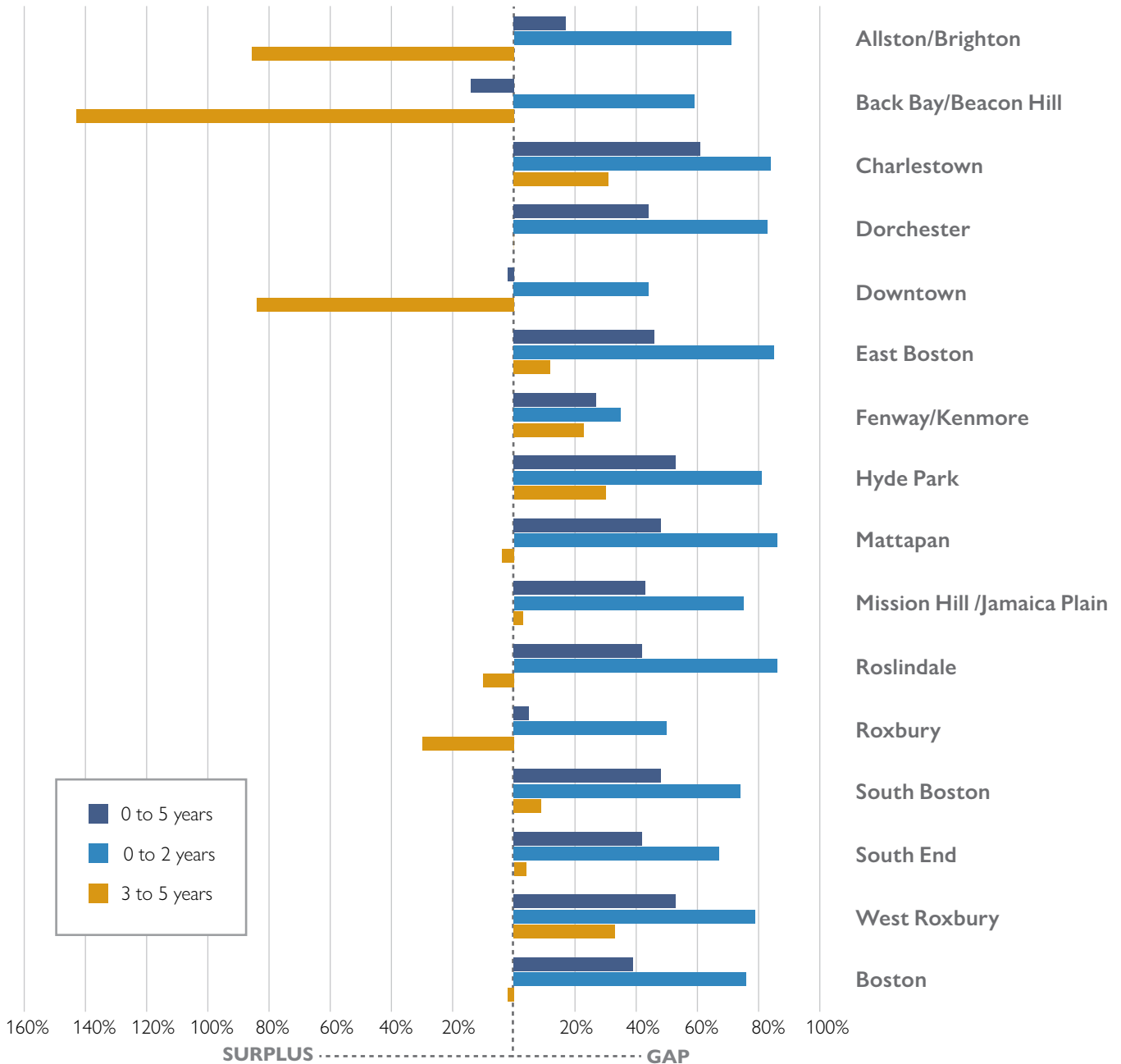
Source: MA Department of Early Education and Care, 2022 ; OEC/BOA Analysis, 2023.

Gaps: The Access Gap

Boston had an average 39 percent access gap for children ages 0 to 5 in 2022. In other words, if all families of the estimated 39,992 children ages 0 to 5 living in Boston wanted to access formal early education and care programs, the

existing supply of seats (24,276) would leave 39 percent out of these formal settings. Analysis by age groups and neighborhoods revealed wider disparities (**Figure 6**).

FIGURE 6
Early Education and Care Access Gap by Age Group and Neighborhood
 (Boston, 2022)



Note: No gap for ages 3 to 5 years observed in Dorchester.
 Source: MA Department of Early Education and Care, 2022 U.S. Census Bureau, 2016-2020 American Community Survey, BPDA Research Division Analysis, 2022; OEC/BOA Analysis, 2023.

AGE GROUPS: 0–2 AND 3–5 YEARS

The citywide access gap is driven by the lack of seats for infants and toddlers. There were only an estimated 5,161 formal early education and care seats located in Boston to serve the more than 21,000 children ages 0 to 2 living in the city. **If all Boston resident children ages 0 to 2 needed to be enrolled in a formal setting, 76 percent would not have a seat.** As explained in the Methods section, estimations on the number of seats available at FCC programs by age group are not exact and can change. State regulations defining how FCC programs can fill their available seats depend on existing enrollment based on age.¹⁵

For preschoolers, there were 19,115 seats in 2022 to serve approximately 18,770 children. While a small surplus of seats (2 percent) was estimated for this age group at the city level, the average estimate masks gaps in eight of Boston's 15 neighborhoods.

NEIGHBORHOODS

Of the 15 neighborhoods, the access gap was greatest in Charlestown, Hyde Park, and West Roxbury, where more than half of the resident children ages 0 to 5 would not have a seat in a formal early education and care setting if desired by all families. Roxbury had the lowest gap (5 percent), and only Back Bay/Beacon Hill and Downtown had more seats than resident children. (See *Figure 6*.) Both neighborhoods with a surplus, however, are more expensive and have fewer families with young children when compared to the rest of the city. We hypothesize that seats in these neighborhoods are also more likely to be used by non-resident parents choosing child care near their workplaces.

All 15 neighborhoods had gaps for infants and toddlers; eight of them had an access gap larger than 75 percent. Roslindale, Mattapan, East Boston, Charlestown, Dorchester, and Hyde Park had gaps between 81 and 86 percent. Downtown and Fenway/Kenmore had the lowest gaps, 44 and 35 percent, respectively. As previously noted, these neighborhoods also have higher potential demand for early education and care seats from families living outside the neighborhood who work in the area.

Eight of 15 neighborhoods had access gaps for children ages 3 to 5. West Roxbury, Charlestown, Hyde Park, and East Boston had the largest gaps for this age group, ranging between 12 and 33 percent.

Gaps: The Quality Gap

Access to early education and care seats is not all that matters. It is quality early education and care that benefits a child's long-term school and life outcomes. Research has shown that quality early education and care is associated with long-term success, including reductions in educational and socioeconomic disparities.¹⁶ High-quality early education and care has been found to have immediate benefits with a “school entry boost,” or reduced disparities in skills when starting kindergarten.¹⁷ In addition to this research, Boston parents prefer education and care provided by highly trained and supported professional early educators.¹⁸

Recognizing the benefits to children, Boston Universal Pre-K (UPK) has been focused on expanding the availability of high-quality seats. UPK requires educators to have a bachelor's degree in early education and care and be trained to support children of diverse backgrounds and needs, and it provides educators with ongoing professional development and support. In addition to small student to teacher ratios and a nationally recognized *Focus on Pre-K* curriculum, each UPK program has a family engagement coordinator to meet the specific needs of families. To join UPK, programs are required to be (or willing to become) accredited by the National Association for the Education of Young Children (NAEYC). These supports are essential, but also resource intensive, necessitating Boston UPK to have a measured expansion of seats. In school year (SY) 2019–20, Boston UPK had 36 classrooms in center-based programs. This number has increased to 66 in the current SY (2022–23).¹⁹

The criteria utilized by UPK to define quality, however, are not used by all early education and care programs serving young Boston children. Centers, schools, and FCCs searching for high quality standards turn to several associations to get accreditation. To compare current findings with those of 2019, we defined “high quality” as those seats available from programs, including schools, with at least one of the following quality indicators: QRIS rating of 3 or 4; UPK participation; accreditation from NAEYC or the National Association of Family Childcare (NAFCC); or accreditation from any other associations focused on assuring quality in early education and care. These mechanisms are the only objective indicators for defining quality in the city, but are limited in terms of providing an accurate count of high-quality seats. Additionally, Boston

does not have an agreed-upon citywide definition of “high quality” early education and care for infants and toddlers. A citywide definition of high quality exists only for programs serving 3- and 4-year-olds who join Boston UPK.

Acquiring these “high quality” accreditations is costly and time intensive, which disincentivizes many providers who cannot afford to apply and do not have extra administrative staffing. Providers accepting subsidies have been required to comply with QRIS, while compliance has been voluntary for those without subsidized seats. Additionally, UPK does not include infants and toddlers (ages 0 to 2), only contributing to quality for children ages 3 to 5. For these reasons, **centers and FCCs without these indicators may be providing high quality seats that are not captured by currently available indicators used in our analyses.**

It is important to note that EEC paused its QRIS processes during the COVID-19 pandemic. The current analyses are based on QRIS ratings prior to the pandemic. For this reason and the ones discussed above, we caution readers to remember that our current results on high-quality seats in formal early education and care settings are limited. The current quality gap analysis highlights the inequitable distribution of resources and family access to seats by age and neighborhood. As one Boston resident observed, “The ZIP Code where you live ends up dictating the quality of your day care.”²⁰

Accessing early education and care seats is a challenge for families in Boston, but accessing high-quality care is even harder. **In 2022, the city-level quality gap for 0–5-year-olds in Boston was 69 percent.** This modest decrease in the quality gap, when compared to the 2017 estimate (74 percent),²¹ is driven by an increase in the number of quality seats available to children ages 3 to 5 through the public-private partnerships of those centers participating in Boston UPK. As shown in **Figure 7** (p.17), the quality gap for the age group 0–2 remains high across the entire city.

AGE GROUPS: 0–2 AND 3–5 YEARS

The scale of the quality gap for infants and toddlers was striking at the city level: **95 percent of Boston families with children ages 0 to 2 would not find a high-quality seat in a formal early education and care setting in 2022.** If the families of all infants and toddlers residing in the city in 2022 tried to access a high-quality seat, only 5 percent would find one.

The quality gap for children ages 3 to 5 was lower, but still significant: **In 2022, 42 percent of Boston families with children ages 3 to 5 would not have been able to find high quality seats in a formal early education and care setting,** and this gap varied by neighborhood.

NEIGHBORHOODS

We found quality gaps for children ages 0 to 5 across all Boston neighborhoods. Hyde Park, Charlestown, South Boston, Mattapan, South End, Roslindale, and West Roxbury had gaps that ranged from 77 to 86 percent. East Boston, Mission Hill/Jamaica Plain, Fenway/Kenmore, Dorchester, and Allston/Brighton’s gaps ranged from 61 to 72 percent. Back Bay/Beacon Hill, Roxbury, and Downtown had the lowest gaps: 49, 45, and 41 percent, respectively.

In 12 of Boston’s 15 neighborhoods, there were 90 percent more children under 2 years old than quality early education and care seats available for them. Two neighborhoods (Mattapan and Roslindale) did not have any quality seats for this age group identified by our methodology. Downtown, Roxbury, and Fenway/Kenmore were the neighborhoods with the lowest quality gaps for this age group, ranging from 57 to 80 percent.

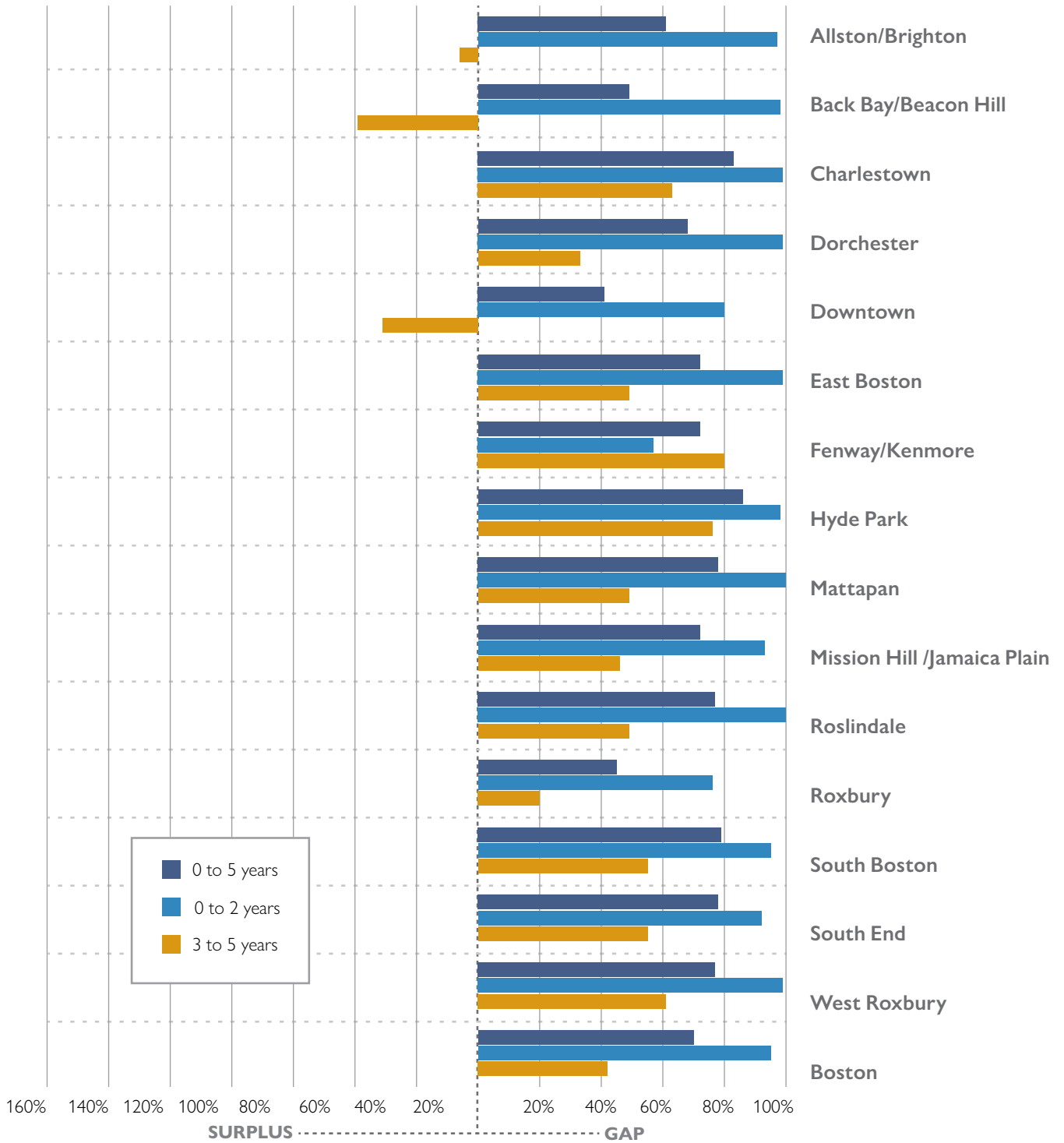
A quality gap for children ages 3 to 5 was also identified in 12 of the 15 neighborhoods, with gaps ranging from 20 percent in Roxbury to 80 percent in Fenway/Kenmore. Only three neighborhoods (Allston/Brighton, Back Bay/Beacon Hill, and Downtown) had sufficient quality seats to serve resident children in this age group.

Affordability

Our analysis heavily focused on geography: We assumed that a seat must be in the neighborhood in which a child lives in order to serve that child. That is the chosen methodology based on similar work done at the national level.²² Equity informs this methodological choice, which is based on the premise that every family should be able to access formal early education and care near their home, if that is their preference. Our results clearly indicate that most neighborhoods in Boston would not fulfill that need.

However, we acknowledge that affordability is as important as geographic convenience for caregivers and cannot be ignored in the decision-making process that families of young children must go through to make early education and care arrangements.

FIGURE 7
Early Education and Care Quality Gap by Age Group and Neighborhood
 (Boston, 2022)



Data Source: MA EEC, NAEYC, and Non-public schools websites, 2022; BPS UPK data 2022, BPDA Research Division Analysis, 2022; OEC/BOA Analysis, 2023. Quality was defined as UPK participation, having at least a QRIS of 3 or 4 or accreditation from NAEYC or any other association that assess quality in school programs offering early education and care.

In 2018, the average annual cost of full-time center-based child care in Massachusetts was \$19,887 for an infant and \$13,771 for a toddler.²³ In 2021, these figures went up to \$21,269 and \$19,402, respectively.²⁴ The average yearly cost of center-based care in Massachusetts continues to be higher than yearly in-state tuition at the University of Massachusetts Boston (\$14,542 for school year 2022–23).²⁵ Infant care in Massachusetts costs nearly 67 percent more than in-state college tuition and 31 percent more than average rent.²⁶ Even if all Boston families could find formal early education and care near their homes, clearly many of them would not be able to afford it.

The Department of Labor released The National Database of Childcare Prices (NDCP) in 2023, a comprehensive federal source of child-care prices at the county level.²⁷ Analysis utilizing this database shows that Massachusetts continues to be one of the most expensive states in the nation for infant and toddler care. In Suffolk County, which includes Boston, families sending an infant to center-based care should be prepared to spend, on average, 28 percent of their annual family income. The only county with a higher figure (32 percent) is Kings County in New York (comprising Brooklyn and surrounds).²⁸

In our first supply and demand report this tool did not exist and we included Boston-specific analyses to map the same indicator across Boston. We repeated the analyses and the results were, unfortunately, very comparable (data not shown).²⁹ Now, readers can easily access the NDCP database to track how child-care affordability evolves over time.

COVID-19 & PUBLIC FUNDING IMPACT ON CHILDCARE PROGRAMS

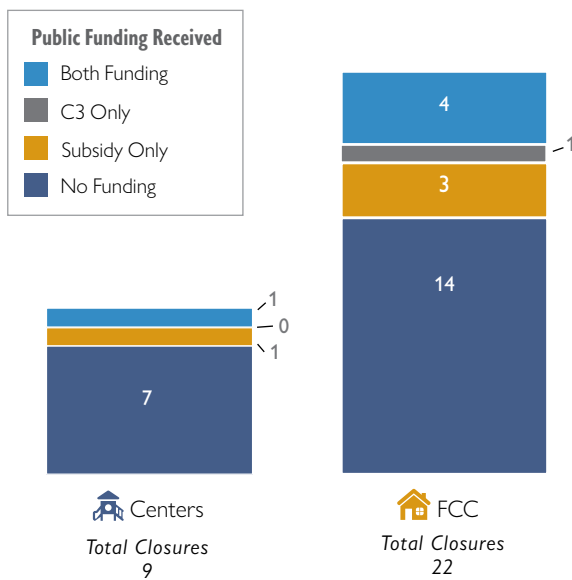
In previous publications, we covered the ongoing impact of COVID-19 on the supply of center-based and FCC programs by tracking the number of programs that were reopening after the statewide closure in March 2020.^{30,31} In those two briefs we also assessed the association between acceptance of child-care financial assistance (subsidies) and the likelihood of a program to continue serving children. For the current publication, we continued to monitor the impact of the pandemic on child-care programs by reporting on the share of programs open pre-pandemic that were still operating in 2022. We also looked at the association between several variables, including the receipt of public funding and the likelihood that a program operating in March 2020 would still be open in 2022.

EEC currently offers two main types of public funding: child-care financial assistance (subsidies) and Commonwealth Cares for Children (C3) grants. Families that need assistance to pay for child care and child-care programs need to meet certain requirements to qualify for subsidies.³² Many families are ineligible for child-care subsidies, but still struggle to afford basic needs. Before the COVID-19 pandemic, EEC reimbursed providers that accepted subsidies based on children's daily attendance. However, since March 2020 the agency has been basing reimbursements on enrollment. This new enrollment-based policy was formalized in December 2020 when language was included in the FY 2021 budget (line items 3000–3060 and 3000-4060).³³ The agency is proposing revisions in the existing regulations to simplify the process for families and administrators and also to increase the number of providers and children utilizing the resource.³⁴ On the other hand, C3 grants have been awarded since September 2021 through a non-competitive grant application available for all eligible EEC-licensed and funded child-care providers open and serving families in Massachusetts. C3 grants aim to stabilize the sector by supporting operational and workforce costs.³⁵

Since the start of the pandemic, the city of Boston has lost 120 licensed providers (90 FCCs and 30 center-based programs). Half of these programs (21 centers and 41 FCCs) closed between March 2021 and June 2022. Because the first C3 grant payments started in September 2021, we created two time frames to compare programs that closed since March 2021. Between March 2021 and September 2021 (first time frame), before C3 grants were available, of the 31 programs permanently closed, 74 percent did not receive public funding.³⁶ In contrast, among the other 31 licensed programs that permanently closed *after* September 2021 (second time frame), 68 percent received no public funding.

At first glance, the slight decrease in licensed programs that received no public funding and closed might make it seem like C3 grants had no impact. But once we separate the total number of closures by provider type and specific source of public funding, as shown in **Figure 8**, we see the impact of C3 grants and subsidies on center-based and family child care providers. Overall, 25 of the 31 programs permanently closed after September 2021 did not receive C3 grants, equivalent to 81 percent of the total closures between September 2021 and June 2022. Of these 25 programs, 16 percent accepted subsidies (one center-based and three FCCs), while the other 84 percent (seven center-based and 14 FCCs) did not. The difference between these numbers demonstrates that subsidies are protective but insufficient to keep licensed programs open. Licensed child-care programs need C3 grants to survive, especially center-based providers.

FIGURE 8
Number of Licensed Childcare Programs That Closed after September 2021
 By public funding receipt (Boston 2022)



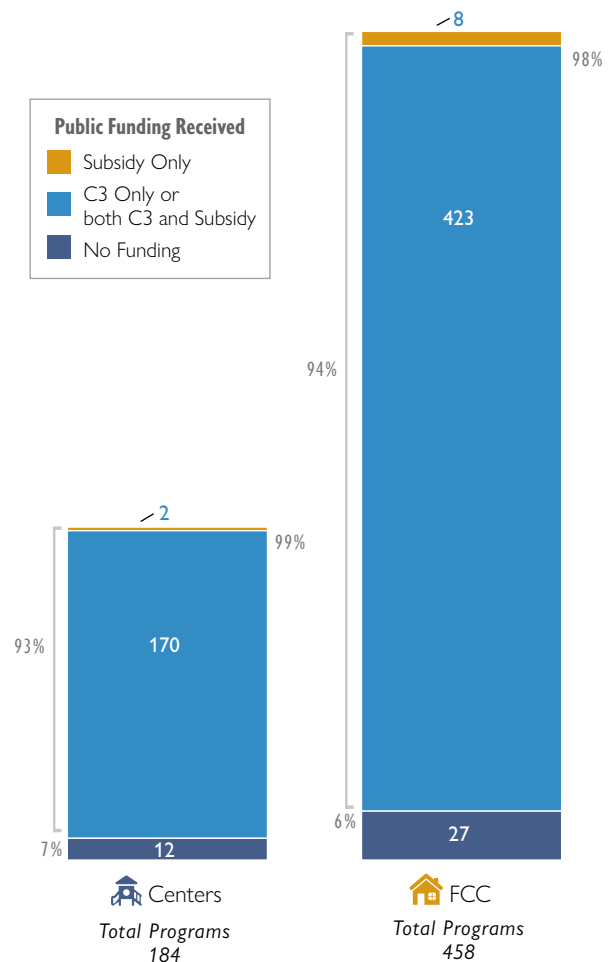
Source: MA Department of Early Education and Care, 2020-2022. OEC/BOA Analysis, 2023.

Note: C3 refers to Commonwealth Cares for Children grants; Subsidy refers to child-care financial assistance. These two programs are offered by the MA Department of Early Education and Care.

No Center receiving C3 grants only closed in the analyzed period.

The large number of providers accepting C3 grants highlights how critical they are to maintain a stable supply of child care in the city. **Figure 8.1** shows that out of 642 licensed child-care programs active in June 2022, 603 (94 percent) received public funding. Of these, 170 out of 172 centers (99 percent) and 423 out of 431 family child-care providers (98 percent) received C3 grants (and some of these programs also accepted subsidies), whereas the remaining programs did not apply for C3 grants and were receiving only subsidies.

FIGURE 8.1
Number of Licensed Childcare Programs Open on June 2022
 By public funding receipt (Boston 2022)



Source: MA Department of Early Education and Care, 2020-2022. OEC/BOA Analysis, 2023.

Note: C3 refers to Commonwealth Cares for Children grants; Subsidy refers to child-care financial assistance. These two programs are offered by the MA Department of Early Education and Care.

See text for more details.

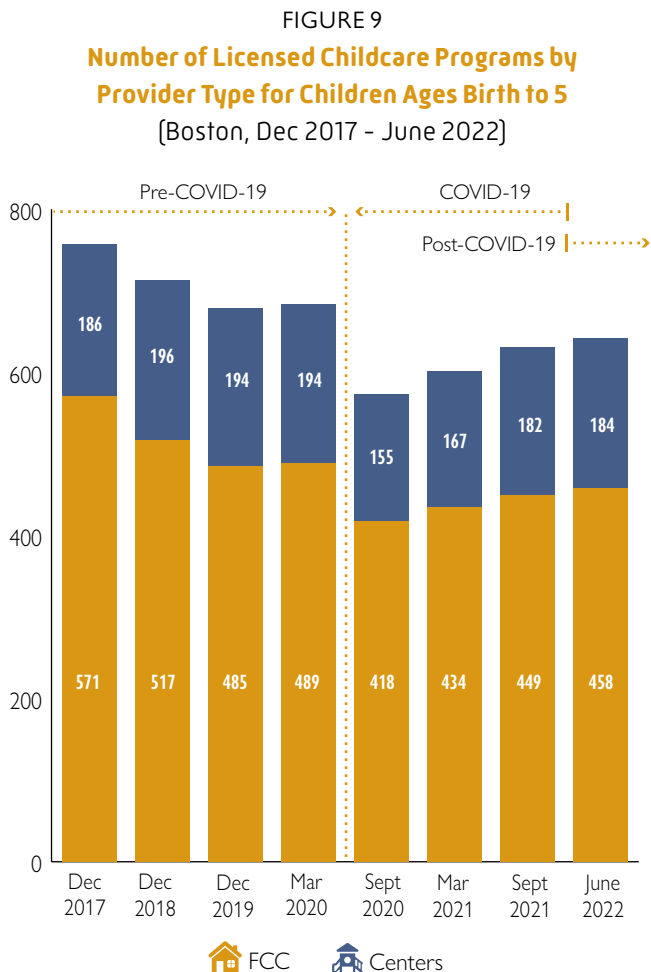
Supply Trends³⁷

[CENTERS AND FCC PROGRAMS ONLY]

Figure 9 shows the number of programs in the city between December 2017 and June 2022 and **Figure 10** shows the number of seats in these programs. The trends presented here are for licensed early education and care programs (FCCs, UPK and non-UPK centers) only. *Note that analysis in this section does not include school-based programs.*

PROGRAM TYPE

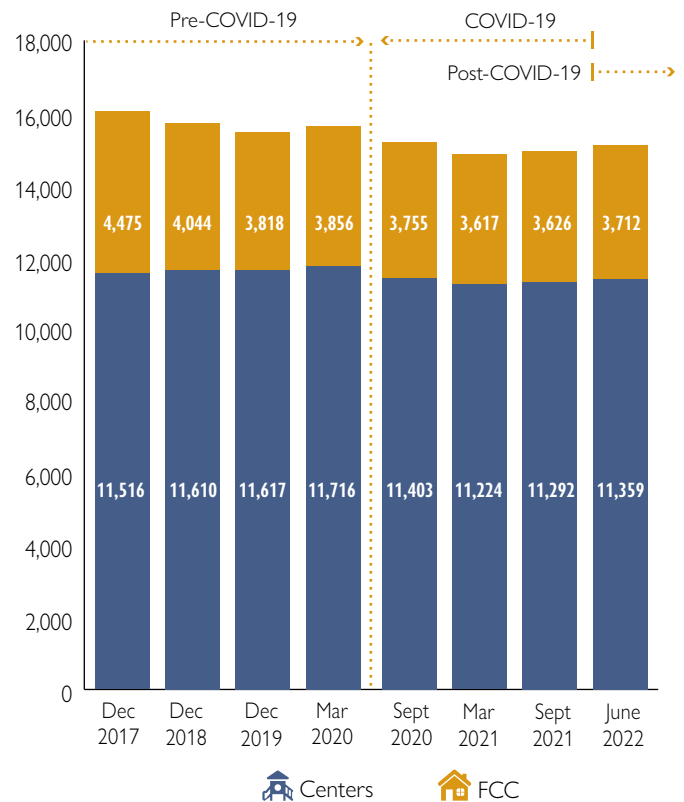
Trend analyses show that between 2017 and 2022 Boston had lost 15 percent of its child-care providers, a trend driven by the loss of FCC providers (Figure 9).



Note: FCC = Family Childcare

Source: MA Department of Early Education and Care, December 2017 to June 2022. OEC/BOA Analysis, 2023.

FIGURE 10
Number of Licensed Childcare Seats by Provider Type for Children Ages Birth to 5
(Boston, Dec 2017 - June 2022)



Note: FCC = Family Childcare

Source: MA Department of Early Education and Care, December 2017 to June 2022. OEC/BOA Analysis, 2023.

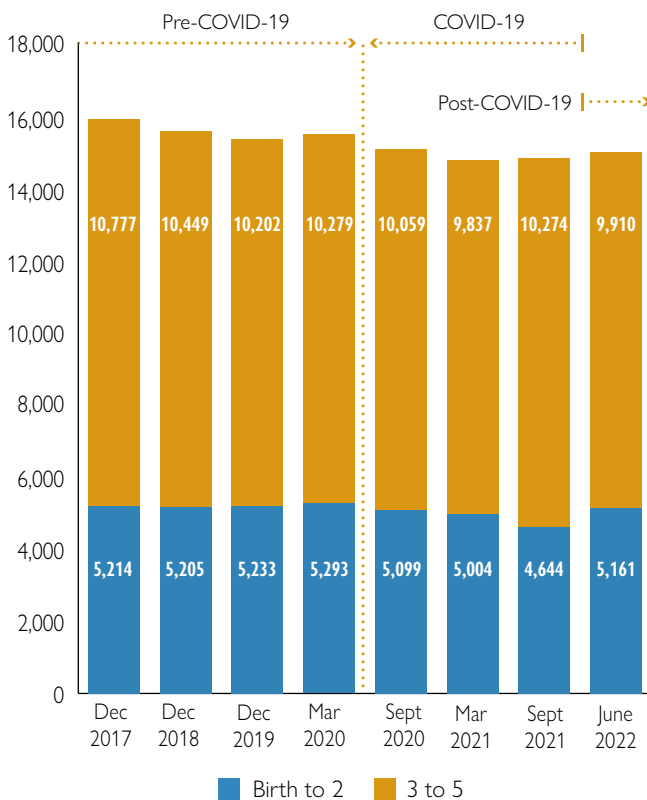
In the past five years, the city lost nearly 20 percent of its FCC programs. Over the course of nine years, 36 percent of FCC programs have been lost, reported from data compiled by Boston EQUIP in 2013 (721 programs) to 2017 (571 programs) and 458 FCC operating programs in 2022.³⁸ Loss of FCC programs is particularly concerning from an equity perspective. Research has shown that FCC is utilized more by families with working mothers, young children, low-income families, families with parents working non-traditional hours, and families of color.^{39,40,41,42,43}

When looking at the number of seats associated with childcare programs in Boston, there was a decrease of 6 percent between 2017 and 2022: Supply of licensed seats went from 15,991 to 15,071. This decrease was higher in FCC programs, which saw a decrease of almost 17 percent of their licensed capacity during that period (Figure 10).

AGE GROUPS: 0–2 AND 3–5 YEARS

The 6 percent decrease in the number of seats over the past five years was driven by losses of seats for children ages 3 to 5 (**Figure 11**). This finding is a reminder of the COVID-19 pandemic’s impact on the availability of all seats citywide. While the current 2022 access and quality gaps are driven by lack of infant and toddler seats, between March 2020 and June 2022 child-care providers lost seats that serve both age groups. And since there were disproportionately more seats for preschoolers than for infants and toddlers, the pandemic’s impact stands out in the number of seats lost for this older age group.

FIGURE 11
Number of Licensed Childcare Seats for Children
Ages Birth to 5
 (Boston, Dec 2017 - June 2022)



Note: Licensed child care includes seats in Family Childcare and Center-based
 Source: MA Department of Early Education and Care, December 2017 to June 2022. OEC/BOA Analysis, 2023.

“Child care is very hard to find in Boston. Our lives are basically arranged around daycare. It is very challenging raising children in this city.”

—2022 Boston Childcare Survey respondent

“We currently have one working parent, one at home. If costs were lower, mom could afford to have a job.”

—2022 Boston Childcare Survey respondent

“The cost of child care is very stressful. I am a BPS teacher and it’s frustrating to not be able to find care near where we live for a reasonable price.”

—2022 Boston Childcare Survey respondent

POLICY RECOMMENDATIONS

The Boston Opportunity Agenda's Birth to Eight Collaborative Data Committee's first annual *State of Early Education and Care in Boston* report, published in 2019, now seems to have been prescient. The report provided a critical understanding of the supply landscape to support leaders who had to make quick policy and funding decisions early in the pandemic, and it served as a baseline to track the pandemic's impact on the field. Our pandemic briefs have highlighted how unprecedented levels of funding were needed to prevent further losses of early education and care providers, and this "post-pandemic" report continues this work, showing the importance of the C3 grants. These grants have had a significant impact on stabilizing the early education and care field.

The deeper learning here is that the early care sector's funding structure was inadequate well before the pandemic, leaving the sector to operate on shoestring budgets, slim margins, and little to no savings to weather a crisis.

For generations, parents and early educators have been subsidizing the sector to make up for these inequities. As our research work evolves from finding what kinds of data exist and answering basic questions, we seek to more actively incorporate an equity lens in our analyses.⁴⁴ While we are not discussing root causes in this publication, we acknowledge the need to investigate the overlap between our findings and historical inequities.

In this same vein, how are we as a society going to improve the ways we view, support, and elevate the early education and care field? Public discourse is focused on pandemic recovery, but the early education and care field has not been able to move past the pandemic experience. The loss of so many early educators and uncertain future funding mean ongoing inadequate staffing, low wages for the educators who remain, closed classrooms, burnout, and a limited supply of quality seats. In a push for equitable societal recovery, we recommend the following:

1. Advocate for increased and sustained public investment in the early education and care field.

- a. The Governor's FY24 state budget proposal includes \$475 million for the continuation of the Commonwealth Cares for Children (C3) grants program.⁴⁵ Our findings

show the grants have had a significant impact on stabilizing Boston's early education and care field. The impact is significant for both programs that accept subsidies and programs that do not utilize subsidies. Our data indicates that the so-called "private-pay only" providers would not be able to stay in business if they were not receiving C3 grants. Therefore, we recommend that this funding level is approved into the final budget and continues to go to all providers.

- b. Subsidies play an important role in helping families afford child care, but the current subsidy system reimburses providers at a fraction of the market cost. While our previous research showed the positive impact of subsidies on the survival of programs throughout the pandemic, current findings suggest that once C3 grants were disbursed, the protective impact of subsidies on licensed child-care programs diminished. Subsidy payments based on the cost of care are necessary to sustain the supply of child care.⁴⁶ This requires an increase in the current subsidy rate. We also recommend the continuation and expansion of the state's Early Childhood Educator Pilot program that funds child care financial assistance (subsidies) to educators with young children who earn less than 85 percent of the state median income (SMI).
- c. The City of Boston's Office of Early Childhood has partnered with local organizations and higher education programs to provide no-cost education opportunities for individuals to receive their child development associate (CDA), associate, or bachelor's degree in early education in order to make it easier for educators to join and advance in the child-care workforce. These efforts need to be sustained and scaled to rebuild and expand the early education workforce.

2. Continue to invest in and expand UPK for 3- and 4-year-olds.

Our current findings highlight increases in the number of high-quality seats for preschoolers in Boston between 2017 and 2022. The distribution of these seats, however, still does not meet the needs of most neighborhoods in Boston. The City needs to continue the investment in UPK to achieve universal access to high-quality early education and care at a faster pace.

3. Building on UPK’s work, create a Boston initiative that expands access to high-quality education and care for infants and toddlers.

Our efforts to accurately report on the supply of quality early education and care are limited by current inequitable systems.⁴⁷ The only indicators available are national accreditations and QRIS. Many providers face financial, administrative, and linguistic barriers to acquiring these accreditations and pursuing QRIS advancement. Yet, many of these providers may still be providing high-quality early education and care which we cannot report on without data.

A Boston initiative to ensure every child accesses high-quality early education and care would begin by centering the children of Boston and their needs.⁴⁸ Boston has a socioeconomically, culturally, ethnically, and linguistically diverse population of 0–5 year olds, including children with developmental needs. Current calls for rethinking quality must also center equity to ensure early educator training and curricula prepare the field to meet every child’s specific needs, from birth to the age of 5 years.

A Boston initiative would develop a common, citywide definition of high-quality early education and care indicators for Boston’s children, and couple these expectations with public investment in professional development, early education curricula, physical infrastructure and expansion. Financial and administrative barriers would be removed for early educators seeking national accreditations and QRIS advancement.

4. Leverage the City of Boston’s new Office of Early Childhood to define indicators and house data for tracking and improving Boston’s early education and care field. Advance equity in data collection, access, and utilization to create a robust data system.

- a. Early education and care stakeholders need more accurate data to make informed policy decisions. A strong data infrastructure is lacking in the early childhood ecosystem. Basic questions are difficult to answer on several fronts, including: true demand for care, family experiences and preferences, enrollment and attendance, referral for services and workforce needs, among others. We need better quantitative and qualitative data to know where public and private investment is necessary and to continue to monitor the successful implementation of early education and care–related efforts.

- b. Our demand estimates can be improved if better data becomes available to inform a different methodological approach. The Childcare Survey has been developed with the intent of offering such data. However, to date, its sample has not been representative of all Boston neighborhoods. The City of Boston needs to partner across its agencies and with local community organizations to increase participation in the Boston Childcare Survey. In its recently launched 2023 version,⁴⁹ the City continues to pioneer this innovative approach to collect information about child-care preferences and arrangements directly from Boston families. Targeted efforts are needed to improve response rates and ensure equitable representation across Boston’s neighborhoods.
- c. We observed changes in the distribution of our population of children ages birth to 5 years between 2017 and 2020. Future research should explore what might be influencing these changes across neighborhoods: Are we losing or retaining families with young children over time? Do we have neighborhoods that are more welcoming to families with young children? If yes, what are the family-friendly resources in these neighborhoods that could be replicated across the city? Answers to these questions can guide policy decisions for the development of public spaces and planning for the supply of early education and care efforts—leading the way for Boston to become a family-friendly city.

5. Coordinate with state-level advocacy to help fund and sustain city-level efforts.

Strategies for Children’s Early Childhood Agenda has worked with more than 1,000 stakeholders across the state to surface common priorities for the field. These state priorities are also Boston’s priorities: family affordability, career pathways, and increased early educator compensation and benefits packages, among others.⁵⁰ Birth to Eight Collaborative partners should continue to participate in the Early Childhood Agenda, and advocacy efforts to increase public investments in early education and care through the state budget and legislation, including the Common Start Coalition.

We hope that, bolstered by research that will continue to track trends, public and private shareholders will pursue efforts along these lines. The resulting improvements in our early education and care sector will not only help young people and families right now but will prepare us for a thriving future.

METHODS

This report focuses on non-relative, formal early education and care offered through family child-care providers (FCC), centers, and schools. We did not look at other types of care, including nannies and family, friends and neighbors (FFN), due to lack of data available at the census tract level. Utilization of non-formal care arrangements data remains a challenge for studies aiming to offer timely policy insights about the supply of early education and care seats using secondary data sources.

We used data from the Massachusetts Department of Early Education and Care (EEC), Massachusetts Department of Elementary and Secondary Education (DESE), and American Community Survey to estimate supply of and potential demand for formal early education and care seats, as well as supply

trends between 2017 and 2022, in the city of Boston.

Information utilized to identify high-quality programs came from EEC and the National Association for the Education of Young Children (NAEYC), among others. **Figure 12** offers detailed information for the data sources utilized in this report.

All analyses are presented by neighborhoods created from the aggregation of census tracts, as opposed to previous analyses we conducted using ZIP Code–defined neighborhoods.

Neighborhood information for the previous year’s data was adjusted to match those used in the current analysis. A list with census tracts included in each one of the 15 neighborhoods we presented is available upon request.

FIGURE 12

Data Sources for Estimation and Characterization of Childcare Supply and Demand in Boston

SUPPLY	
Agency	Data Type
Massachusetts Department of Early Education and Care (EEC), 2017 – 2022	Licensed providers (capacity – supply); QRIS (quality)
Massachusetts Department of Elementary and Secondary Education (DESE), 2021 – 22	Public and non-public schools (enrollment - supply)
National Association for Family Child Care (NAFCC), 2023	NAFCC accreditation (quality)
National Association for the Education of Young Children (NAEYC), 2023	NAEYC accreditation (quality)
Non-Public Schools websites, 2023 (accreditations): Association of Independent Schools in New England (AISNE); New England Association of Schools and Colleges (NEASC); National Association of Independent Schools (NAIS); Commission of Independent Schools (CIS)	AISNE, NEASC, NAIS, and CIS accreditation (quality)
DEMAND	
Agency	Data Type
Boston Planning and Development Agency (BPDA) – American Community Survey 2016-20	Population estimates by census-tract-neighborhoods (demand)

Note: QRIS = Quality Rating and Improvement System

DEFINITION OF NEIGHBORHOOD

What is a neighborhood? The response depends on whom we ask: Academics, policymakers, and residents may define a neighborhood in different ways depending on their age, cultural background, field of expertise, and time lived in a geographical location. In an extensive literature review, Robert Chaskin (1997) states that many agree strongly on the concept that neighborhoods or communities are “viable units of action.”⁵¹ Yet he acknowledges difficulties defining these units and the existence of a wide variation of definitions. Neighborhoods can be described as social units, which are places of connections, or spatial units defined by boundaries. Definitions of neighborhoods, of course, is a key challenge for researchers, policymakers, and government entities. We first faced the challenge of defining Boston neighborhoods in initial discussions leading to our first supply-demand report.

To publish replicable results, we had to agree on definitions that abide by ethical research principles. We used the framework that sees neighborhoods as “spatial units” defined by their boundaries. We recognize that not all residents may feel represented by the 15 census tract–defined neighborhoods presented here. For them, neighborhood boundaries may be more meaningful when defined as “social units” or places of connections. The B-8 Data Committee started to discuss how to include Boston residents in the task of balancing replicability of findings over time, comparability of definitions across agencies, and community impact of a chosen definition of neighborhoods. We plan to gather community input in order to create future publications that better center equity and inclusion, grounding our work on a foundation of empathy.⁵²

Demand

Demand is the term used throughout this publication to refer to the *potential demand* for child-care services, which assumes that all families with children ages 0 and 5 would want a formal, licensed seat. It is known that not all families would choose formal early education and care. To the best of our knowledge, there is no available data on the actual number of families who are seeking licensed care for their young children. While several factors play a role in families’ preferences for early education and care arrangements, the absence of sufficient formal, licensed care in a community is an important equity measure and means it is not an accessible option for families in that community. To address the limitation of not knowing families’ preferences, we continued to utilize the Center for American Progress’ methodology by considering the demand as the total population of children ages 0 to 5.⁵³

Supply

Our supply analysis included seats for children 0–5 years of age in licensed early education and care programs (family child care and centers) and seats in schools (public: Boston Public Schools and charter, and non-public: independent and parochial). To

estimate the supply of seats in center-based and FCC programs we used EEC-licensed capacity data, which indicates the maximum number of seats a program could offer. For the supply of school-based pre-kindergarten seats, we used DESE enrollment data that indicates the number of seats occupied (enrollment). Although EEC started to collect enrollment data for programs participating in C3 grants, there is no public data available on enrollment for all licensed programs. DESE also does not provide public data on the total number of available school seats (capacity). *Centers* refers to licensed providers who care for children in non-residential settings, while family child care (FCC) refers to licensed providers who care for children in a residential unit.

For licensed center-based and FCC programs, we used yearly data dating back to 2017. For seats in schools, we used 2022 and 2017 data. In regard to the supply of licensed seats in centers and FCC programs, we are overestimating the number of available seats for families. Providers locally and nationally have been reporting their inability to keep all licensed spots available for families due to higher operating costs and a shortage of qualified professionals.

Age Group Adjustments

For age group adjustments, we utilized the same methodology proposed in 2019 for our subgroup analysis of children 0–2 years and 3–5 years. Seats in FCC programs are not divided by age groups as they are in center-based programs. All analyses looking into the two subgroups were adjusted for FCC seats, adding 1/3 of these seats to the total of 0–2 years seats and the other 2/3 of FCC seats to the total of 3–5 years seats. Data analysis details, rationale, and limitations with our assumptions are discussed in great depth in a previous publication.⁵⁴ Age group 0–2 years includes infants (ages 0–15 months) and toddlers (ages 15–33 months), while the age group 3–5 years refers to preschoolers and kindergartners (ages 33 months to 5 years).⁵⁵

Quality

There is no common definition of *quality* utilized across stakeholders in the Boston early education and care sector. To allow for comparisons with our first supply-demand analyses, we used a slightly modified definition of high-quality. Available seats were considered “high-quality” when a program had at least one of the following quality indicators: QRIS rating of 3 or 4; accreditation from the National Association for the Education of Young Children (NAEYC); accreditation from other associations focused on quality in early education and care; or participation in the city’s UPK program. Acquiring these accreditations is costly and time intensive, which disincentivizes many providers who cannot afford to apply and do not have extra administrative staffing.

Readers should be aware that the EEC paused Massachusetts QRIS during the COVID-19 pandemic, and the available quality ratings date back to a pre-pandemic period. Providers accepting subsidies have been required to participate in the QRIS, while this compliance has been voluntary for those without subsidized seats. Additionally, UPK does not include infants and toddlers (ages 0 to 2), only contributing to quality for children ages 3 to 5. For these reasons, centers and FCCs without these indicators may be providing high quality seats that are not captured by currently available indicators used in our analyses.

Gaps

We computed access and quality gaps. Access gaps are the difference between the total number of formal seats (supply) and children (demand) in a given geographical location. Quality gaps represent the same difference for a subset of seats identified as high-quality.

We provided descriptive statistics for the number of programs and seats in the city by program type (center, family child care, and school), age groups (0–2 and 3–5 years of age), and 15 census tract–defined neighborhoods. Analyses were conducted in R 4.2.1, the statistical computing and graphics software.

There are other factors that play a role in a licensed child-care program’s likelihood of closing, such as enrollment, private financial investments, and personal decisions associated with health and safety, for which we did not have available measures for our secondary data analysis.

Trend Analysis

Finally, we included child-care trend analysis to show changes between 2017 and 2022 in the number of child-care programs and seats by provider type (center-based and FCC only) and age group (0–2 and 3–5 years of age).

ENDNOTES

1. After entering the term *childcare crisis in America* on the main Google search page ([google.com](https://www.google.com)), we used the Tools button to Customize the date range. For the first search, we left the “From” field blank and added “3/1/2020” in the “To” field. For the second search, we changed the “To” field to “10/15/2020.” For the third search, we added “1/23/2023” in the “To” field.
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