Caring For Our Youngest
Gaps in Licensed Child Care for Families in Greater Boston

BACKGROUND & QUESTION
Licensed child care is a basic necessity. However, there are more than 18,000 children on waiting lists for child care slots in Massachusetts, suggesting a gap between child care need and supply. Subsidy-eligible families working nonstandard hours, such as early mornings, are especially unlikely to find adequate options. Center-based providers can be licensed for up to 325 children but are less likely to operate during early morning hours than smaller providers. Family child care providers, licensed to operate in their own homes, tend to offer more flexible scheduling options, but have a limited capacity of up to 10 children.

This poster explores the question: What kinds of gaps exist in the child care system in Region 6 (Boston, Cambridge, Chelsea, Somerville, and Revere) in terms of supply and demand for child care slots overall and early morning options?

METHODS
Child care provider addresses from the MA Department of Early Education and Care database were geo-coded using TIGERLINE 2018 files and joined to Greater Boston census tracts. Next, data from the 2016 American Community Survey on children under age six and people leaving for work at or before 6:29 a.m. was joined to the tracts. The Field Calculator was used to calculate the difference between the number of children under age six and total child care capacity per census tract (map at bottom left). The Field Calculator was also used to measure the difference between the number of workers commuting at or before 6:29 a.m. and cumulative slots available at or before 6:30 a.m. (map at bottom right). An average commute time of 30 minutes was used, but to account for longer trips, an additional hour was added, with “early morning” commutes starting at 5:00 a.m. The above definition of “child care desert” was used to create the map at the center.

DISCUSSION & LIMITATIONS
Analysis around child care deserts focused on Boston, Chelsea and Revere because these areas have the lowest median incomes of the five study areas. The final results show that child care deserts, defined as ratios of children under age six to child care slots that are higher than 3:1, are prevalent in Boston, Chelsea, and Revere. In census tracts defined as child care deserts, ratios of children to slots ranged from 4:1 to 97:1. These deserts appear throughout Revere, Chelsea and in Boston neighborhoods of Brighton, Dorchester, Mattapan, West Roxbury, and Charlestown. In terms of early morning child care availability, high concentrations of people leaving for work before 6:30 a.m. are located in Revere and in the Boston neighborhoods of Brighton, Charlestown, Dorchester, Hyde Park, Mattapan, Mission Hill, Readville, Roxbury, and West Roxbury. Many of the same areas also have gaps in early morning offerings. These findings suggest that families in these areas may be relying on family, friends, and neighbors to care for their children.

Several limitations exist. First, the project assumes that parents are looking for child care near their homes, while some may prefer care near work or school. The project also assumes that slots in the MA EEC database were reserved for children under 6, however some slots may be reserved for school-age children, from ages 7-13. Finally, the project assumes that every person leaving for work before 6:29 a.m. needs child care. In reality, some of these people may not be parents.

Gaps for Children Under 6

Gaps for Families

Gaps for Children Under 6 Without a Child Care Slot

Gaps for Families

Number of people leaving for work before 6:30 a.m.

Adults Unable to Access Morning Care Slots

Number of people unable to access a child care slot

Data Sources:
- MA Department of Early Education and Care
- American Community Survey 2016
- Tufts University

Cartography: Zoë Ackerman

UEP 232: Introduction to GIS

Map Created: December 17, 2019

NAD 1983 StatePlane Massachusetts FIPS 2001 (US Feet), Lambert Conformal Conic Projection