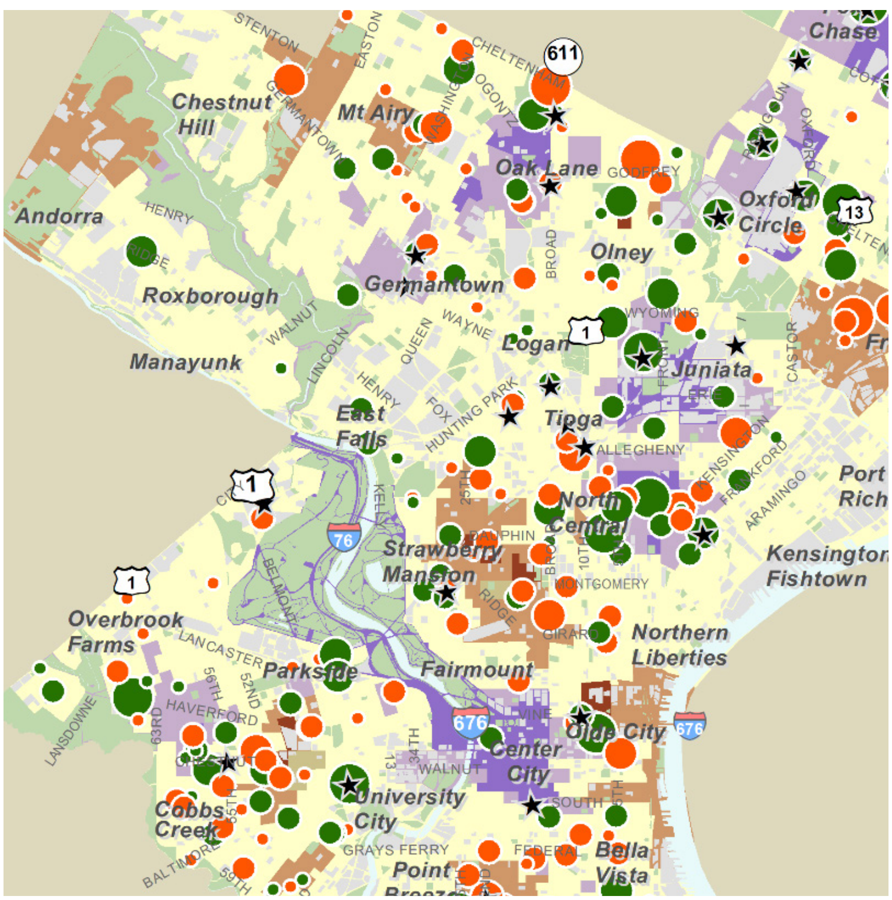
Estimating Changes in the Supply of and Demand for Child Care in Philadelphia

Prepared by **REINVESTMENT FUND**

Published **OCTOBER 2021**



RESEARCH CONDUCTED BY

Policy Solutions at Reinvestment Fund

Jacob Rosch, Senior Policy Analyst
Emily Dowdall, Policy Director
Ira Goldstein, President, Policy Solutions

This work was supported by a grant from The William Penn Foundation. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The William Penn Foundation.

Introduction

In 2014, with support from The William Penn Foundation, Reinvestment Fund conducted an initial analysis of the supply of and demand for child care in Philadelphia to identify areas of the city where targeted investments could help address shortages of high-quality child care.

Now in its seventh update, Reinvestment Fund's 2021 childcare analysis provides updated estimates to track the change over time in the supply of, demand for, and shortages in child care. Reinvestment Fund's Childcare Map is an interactive online tool, www.childcaremap.org, that makes the results of this work accessible to the public at no cost. The tool identifies neighborhoods where high-quality child care is scarce in absolute and relative terms, while also providing actionable information for funders, practitioners, and childcare advocates.

The 2021 report captures the conditions of the city's childcare market at an unstable point in time. The data presented in this report captures supply and demand for childcare in the first quarter of 2021 as the impacts of the first wave of the COVID-19 pandemic were beginning to wane, reopening was gaining steam, and the impact of the second-wave Delta variant was not yet fully understood.[1] In addition to the typical level of data validation performed each year, Reinvestment Fund conducted a phone survey and cross-referenced OCDEL license data with state-provided lists of permanently and temporarily closed programs. Data were further compared with state Child Care Works subsidy records to identify active sites that were still enrolling subsidized children. The purpose of these additional validation steps was to identify and remove sites that had an active license but were not actively providing childcare.

The following pages present the results of descriptive and spatial analyses of the childcare landscape in Philadelphia at the start of 2021. It details both short- and long-term changes in the supply of, demand for, and gaps in care; the year-to-year changes from 2020 to 2021; and shifts following the initial analyses conducted in 2014.

It is important to note that various factors could have contributed to the observed changes. For example, demographic shifts and economic changes (e.g., rises in the level of labor force participation) can affect demand, operational costs can affect supply, and new policy initiatives and investments can directly impact gaps. To this last point, this analysis also presents the location of strategic investments made in facilities in high-gap areas through the Fund for Quality (FFQ).

[1] In particular, data on the capacity of OCDEL licensed programs represents capacity on March 5, 2021. Data on enrollment in School District of Philadelphia associated programs and private schools reflect enrollments during the 2020-2021 school year. Additional supply data are collected on a rolling basis, but reflect information collected prior to March 2021. Operation status of licensed programs reflects their status on May 26, 2021.

2020 Key Findings

- **The gap in unmet demand for childcare grew as a result of program closures caused by the COVID-19 pandemic.** Philadelphia registered an absolute shortage of childcare capacity of 12,816 in 2021 (up from 9,615 in 2020), with an estimated total supply of 92,713 and a *maximum potential demand* of 105,529. Absolute shortage measures the raw difference between supply and maximum potential demand, not accounting for parents that choose in-home or informal care arrangements.

- **Both total supply and demand declined slightly from 2020 to 2021.** The estimated total supply of childcare declined by 5% between 2020 and 2021, while the *maximum potential demand* declined by 2%.

- **The growth of high-quality supply slowed.** The number of high-quality seats has continued to rise, but more slowly. Only 99 new high-quality seats were added in the city between 2020 and 2021; however, the number of high-quality seats has increased by 11,254 since 2014. As a result, high-quality seats met 32% of demand in 2021, compared to 21% in 2014.

- **The most severe shortages in high-quality supply persist in specific neighborhoods.** In 2021, the most severe relative shortages in high-quality child care continued to be in many of the same areas: parts of Northwest Philadelphia (Roxborough, Germantown); the River Wards (Kensington/Fishtown, Port Richmond, Frankford); and several neighborhoods in the Northeast (Bustleton and Holmesburg). The largest growth in high-quality seats occurred in the Fox Chase and Juniata neighborhoods. New high shortage areas were observed in Olney, Mt. Airy, and Southwest Philadelphia.

Estimating the Supply of Child Care

Table 1 presents the changes over time in the number and share of seats in total, certified, and high-quality providers across the city. There was an estimated supply of 92,713 childcare seats in 2021.[2] Since 2020, the total supply of childcare declined by over 5,000 seats, or 5%. Notwithstanding the 2020 – 2021 loss, between 2014 and 2021, the total supply of child care still increased by 2,441, or 3%.

In recognition of the multiple disruptions and challenges impacting many childcare providers during this time period, Reinvestment Fund conducted additional validation to ensure that the figures and estimates included in this year's report accurately represent the number of providers actually operating in Q1 2021. This validation included cross checking OCDEL license data with more current state subsidy records and a phone survey to confirm if providers were operational.[3]

Table 1: Estimated Supply of Total Child Care[4]

	2021 CHILDCARE ANALYSIS		CHANGE FROM 2020		CHANGE FROM 2014	
	Total Seats	Share of Total Seats	Total Seats	Share of Total Seats (Percentage Points)	Total Seats	Share of Total Seats (Percentage Points)
Certified	79,409	86%	-3,847	+0.6%	+6,405	+4.8%
High-Quality	33,998	37%	+99	+2.0%	+11,254	+11.5%
STARS 1-2	45,411	49%	-3,946	-1.4%	-4,849	-6.7%
Not Certified	13,304	14%	-1,329	-0.6%	-3,964	-4.8%
Total Seats	92,713	100%	-5,176		+2,441	

Certified operators provided approximately 86% of the supply. This share has been steadily increasing—between 2014 and 2021, the share of certified seats increased by 4.8 percentage points from 81% to 86% of all seats. In terms of the number of seats, the supply of certified seats grew by 9% or 6,405 since 2014.

For the purposes of this analysis, high-quality programs were identified as sites that received a STAR rating of 3 or 4, or participated in Head Start or a School District of Philadelphia sponsored-program. While overall supply in the city declined between 2020 and 2021, the supply of high-quality seats increased between 2020 and 2021. Compared with 2014, both the number and proportion of high-quality seats have increased substantially. The number of high-quality seats grew by 11,254, or 49%, since 2014. As a share of all seats, high-quality seats comprised 37% of the total in 2021. This represents a growth of 11.5 percentage points since 2014, when high-quality seats comprised only 25.2% of the supply.

A primary goal for the childcare analysis is to help the Fund for Quality and other stakeholders to make data-driven decisions about where in Philadelphia to expand access to high-quality child care. Table 2 and Figures 3 and 4 (see pages 4 – 6) highlight changes in high-quality child care between 2014 and 2021.

[2] Please see initial methodology report at https://www.reinvestment.com/childcaremap/pdfs/full.pdf for more detailed information on sources for supply data and estimating supply.
[3] Our additional validation identified 83 sites that had permanently closed and 40 sites that self-reported that they were temporarily closed.
[4] The 2021 Childcare Analysis represented 2020 Q1 OCDEL data; the 2020 Analysis represented 2020 Q1 data; and the 2014 Analysis represented 2013 Q2 data. Year-by-year changes for licensed child care represented change between 2021 Q1 and 2020 Q1 (i.e., four quarters), and 2014-2021 change represented change between 2013 Q2 and 2020 Q1.

Table 2 summarizes the factors that contributed to the change in the high-quality supply between 2014 and 2021.[5]

Table 2: Change in High-Quality Sites, 2014-2021

	Number of Sites	Total Capacity*
Positive Change	**230**	
Site STAR ***Rating Increased*** to High-Quality	127	8,415
High-Quality Site ***Increased Capacity***	42	5,616
Newly ***Opened*** High-Quality Site	103	7,510
Negative Change	**128**	
Site STAR ***Rating Decreased***	27	1,097
High-Quality Site ***Reduced Capacity***	31	2,750
Closed High-Quality Site	101	4,806
No Change in Rating or Capacity	88	9,103
*Capacity represents 2021 capacity with the exceptions of Closed High-Quality Sites. Capacity for this subgroup is 2014 capacity.		

From 2014 to 2021, nearly twice as many sites contributed to high-quality expansion than contributed to reductions (230 vs. 128 sites). While the number of newly opened high-quality sites was nearly equal to the number that closed (103 vs. 101), the total capacity across all newly opened high-quality sites was nearly twice the total across all sites that closed (7,510 vs. 4,806). The majority of high-quality capacity growth came from sites that increased their rating.

Figures 3 and 4 present the spatial distribution of the factors highlighted in Table 2 to show which areas of the city have experienced substantial changes in high-quality supply since 2014.

Our analysis of supply relies on licensed capacity reported by OCDEL to measure the supply of high-quality seats. One limitation of these data is that in some cases, licensed capacity may be larger than the actual operating capacity of an individual program. For example, a childcare site might have enough square footage to serve 100 children, but only employ enough staff to serve 60 in order to maintain a lower staff-to-child ratio for a higher-quality setting. In this case, the site's licensed capacity would be measured as 100, while the effective operating capacity is only 60. FFQ investments, which are designed to increase the number of children served in high-quality programs, may in some cases increase operating capacity without changing the site's licensed capacity recorded by OCDEL.

Areas in the city where the supply of high-quality seats substantially increased since 2014 include Center City, Fox Chase/Oxford Circle, Juniata, and Oak Lane/Olney. The largest declines occurred in Strawberry Mansion, Callowhill, Point Breeze, Cobbs Creek, Olde City, and Frankford.

[5] Some sites that increased their rating may have done so as a result of changes to the Keystone STARS rating system implemented in 2018, rather than substantive programmatic changes. For more information about how changes to Keystone STARS are likely impacting centers in Philadelphia, see Reinvestment Fund's "Understanding How Changes to Keystone STARS Ratings Will Affect Gaps in the Supply of High-Quality Child Care" (https://goo.gl/hSb2nX).

Figure 3: ***Changes in Status*** **of High-Quality Centers & Changes in Block Group-Level Supply Estimates for High-Quality Child Care (2014 to 2021)**

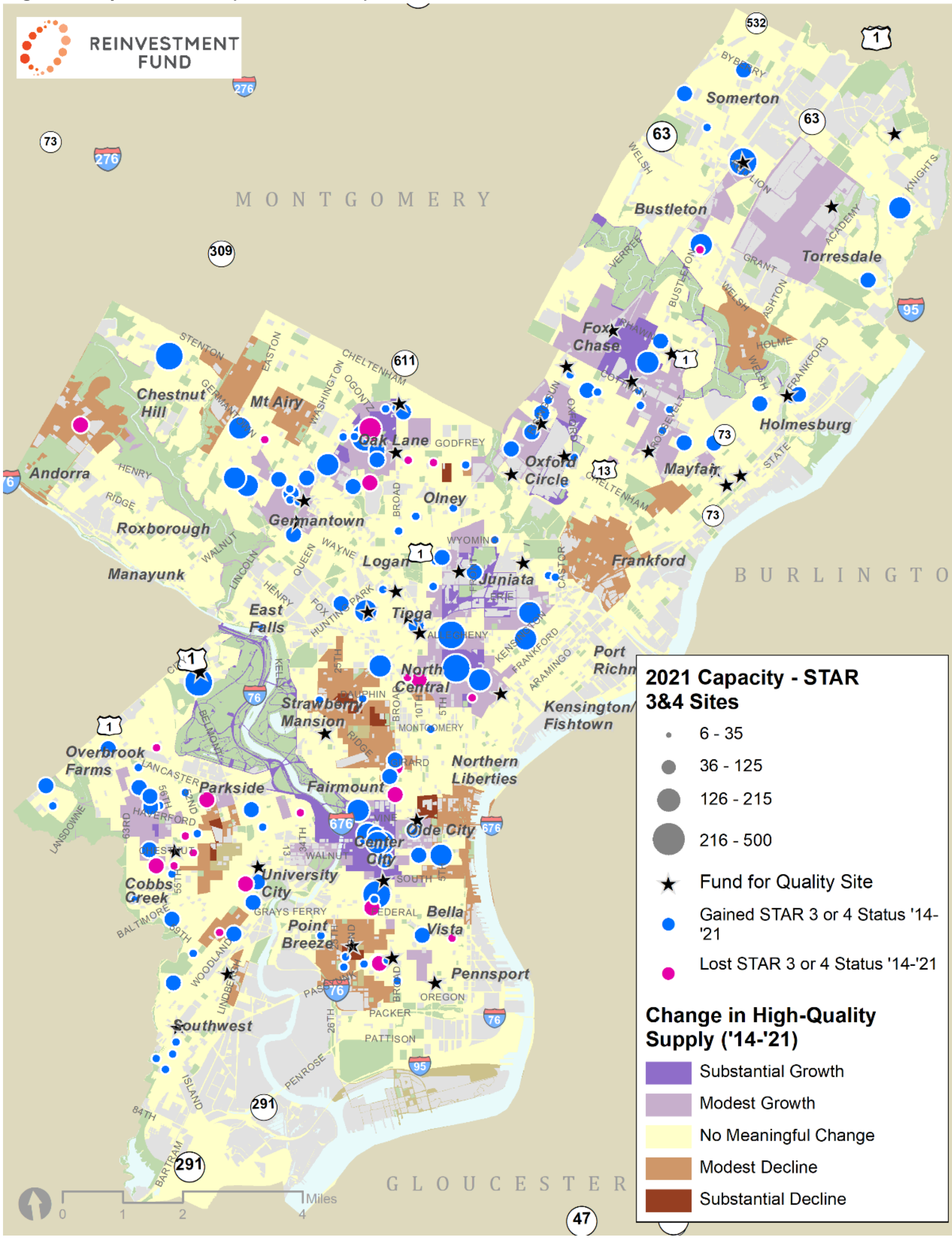


Figure 3:

- Only sites for which there was a change in status are reflected on this map.
- Purple represents increases in high-quality supply; brown represents declines in high-quality supply.
- Blue circles represent childcare sites that increased their rating to high-quality status between 2014-21.
- Pink circles represent childcare sites that reduced their rating to below high-quality status between 2014-21.
- The size of the circles represents the 2021 capacity of the facility.

Figure 4: ***Changes in Capacity*** **at High-Quality Centers & Changes in Block Group-Level Supply Estimates for High-Quality Child Care (2014 to 2021)**

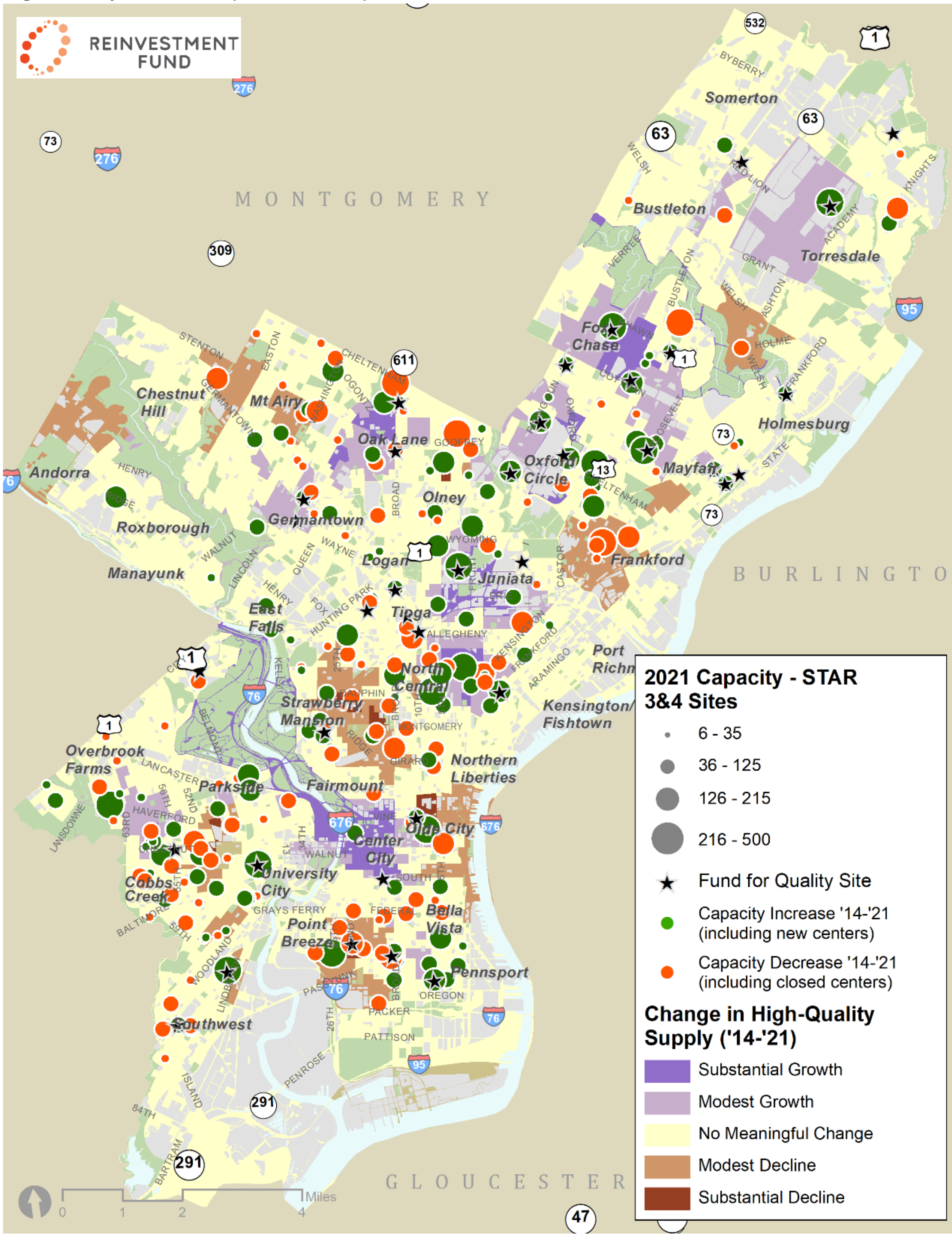


Figure 4:

- Only sites for which there was a change in capacity are reflected on this map.
- Purple represents increases in high-quality supply; brown represents declines in high-quality supply.
- Green circles represent high-quality childcare sites that increased capacity between 2014-21.
- Orange circles represent high-quality childcare sites that reduced their capacity between 2014-21.
- The size of the circles represents the 2021 capacity of the facility (closed centers reflect 2014 capacity).

Areas with the largest gains in the supply of high-quality child care between 2014 and 2021 (dark purple areas in Figures 3 and 4) contained both providers that improved their *rating*, as shown with blue circles in Figure 3 and existing high-quality providers that increased their *capacity*, as shown with green circles in Figure 4.

Demand for Child Care

In 2021, there was an estimated population of 102,665 children under age five living in Philadelphia, a small decline from 2020. This number represents the *baseline demand* for child care. From this *baseline demand*, adjustments were made to account for commuting patterns and characteristics of parents, as some parents prefer childcare options near their work.[6] These adjustments suggest that across the entire city of Philadelphia some 17,899 resident children traveled with adults to child care located outside the city near a parent's place of work, while 20,763 children who live outside the city travel with parents to child care in the city, yielding a *maximum potential demand* of 105,529 for child care in Philadelphia. But the data also suggest that there is movement of parents and children within the city that necessitates positive and negative adjustments to demand for childcare in neighborhoods across the city.

Maximum potential demand declined slightly between 2020 and 2021, by 2% (1,975). This is the third year in a row where our estimated maximum potential demand has declined, although overall levels of demand are still higher than in 2014. Note that our estimates of demand for 2021 do not account for substantial disruptions in the childcare market and communting patterns that occurred as a result of COVID-19.

Identifying High Need Areas

Understanding the geographic distribution of shortages in the supply of child care guides programmatic and capital investment activity to address areas of concern. Two shortage measures are calculated: *absolute* and *relative shortage*. The *absolute shortage* is the raw difference between supply and maximum potential demand within a given block group. The *relative shortage* is an adjusted figure that accounts for supply and demand in neighboring block groups and the level of supply the market typically provides to identify block groups where observed shortages between supply and demand are: *a)* greater than expected; *b)* less than expected, or *c)* meet expectations.[7] As observed in previous reports, the geographic distributions of *absolute* and *relative shortages* are different for the three different types of supply – total, certified, and high-quality.

Absolute Shortage in Total and High-Quality Supply

Absolute shortages in both total and high-quality supply have declined over time, but the supply of high-quality care remains low, relative to demand. With a total maximum potential demand of 105,529 and a total supply of 92,713, about 12% of maximum potential demand was unmet in 2021 (i.e., a citywide absolute shortage of 12,816 seats) compared to more than 16% of demand unmet in 2014 and about 9% of demand in 2020. The *absolute shortage* is much greater for high-quality seats at shortage of 71,532 seats. Although this shortage grew in 2021, it remains smaller than in 2014. High-quality seats met 32% of demand in 2021, compared to only 21% in 2014. The absolute shortage of high-quality seats was essentially unchanged from 2020 (See Table 3).

[6] Please see initial methodology report at https://www.reinvestment.com/child caremap/pdfs/full.pdf for more detailed information on sources for demand data, assumptions, and estimating demand.

[7] Please see initial methodology report at https://www.reinvestment.com/child caremap/pdfs/full.pdf for more detailed information on sources for the difference between the two types of gap measures.

Table 3. Commuter Adjusted Demand Met by Observed Supply

	2021	2020	2014
Absolute Shortage in Total Childcare Seats	12,816	9,615	17,548
Absolute Shortage in High-Quality Seats	71,531	73,605	85,076
Percentage of Maximum Potential Demand Met by All Seats (Supply)	88%	91%	84%
Percentage of Maximum Potential Demand Unmet by All Seats (Shortage)	12%	9%	16%
Percentage of Maximum Potential Demand Met by High-Quality Seats (Supply)	32%	32%	21%
Percentage of Maximum Potential Demand Unmet by High-Quality Seats (Shortage)	68%	68%	79%

Relative Shortage in Total Childcare Supply

Areas with the most severe *relative shortages* in total childcare seats in 2021 were concentrated along the Delaware River near Kensington and Port Richmond, in Greys Ferry, and throughout the Northeast (see Figure A2).

Relative Shortage in Certified Supply

Areas with the most severe *relative shortages* in certified seats in 2021 were concentrated in Mt Airy, Center City and Callow Hill, and Southwest and South Philadelphia (see Figure A2).

Relative Shortage in High-Quality Supply

Areas with the most severe *relative shortages* in high-quality seats in 2021 were concentrated in parts of Northwest Philadelphia (Roxborough/Manayunk, parts of Germantown and Olney), Overbrook Farms, and in a handful of Northeast neighborhoods such as Frankford and Mayfair (see Figure A3).

Summary

The 2021 analysis captures the conditions of the city's childcare market in the process of recovery from the COVID-19 pandemic. While the long-term impacts of COVID-19 on childcare operators' business models and parents' childcare preferences are still unknown, in the short-term the pandemic resulted in a substantial decline in overall childcare supply. Despite this decline, there was only a small slowdown in the growth of high-quality childcare in the city. A substantial share of the operators closed at the time of this analysis indicated that they were only closing temporarily. If these operators are able to return to full operations in the fall, the city may see supply rebound much faster.

The medium and longer-term impacts of the pandemic on families' preferences around care and commuting—particularly in the Center City and University City markets—are harder to predict. This is the third year in a row where our estimate of maximum possible demand for childcare has declined. Information from the forthcoming decennial census will help illuminate population trends among the city's youngest residents.

Even with these caveats, the 2021 analysis highlights that ongoing challenges exist for families seeking high-quality child care in many of Philadelphia's neighborhoods and job centers. While the city has continued to make strides expanding licensed supply and high-quality capacity since 2014, the level of high-quality supply in the city is still only sufficient to serve 32% of the estimated maximum potential demand. Large shortages continue to persist in specific city neighborhoods, even as targeted investments continue.

Appendix A: Additional Maps and Tables

Figure A1: Certified and Uncertified Childcare Sites (2019)

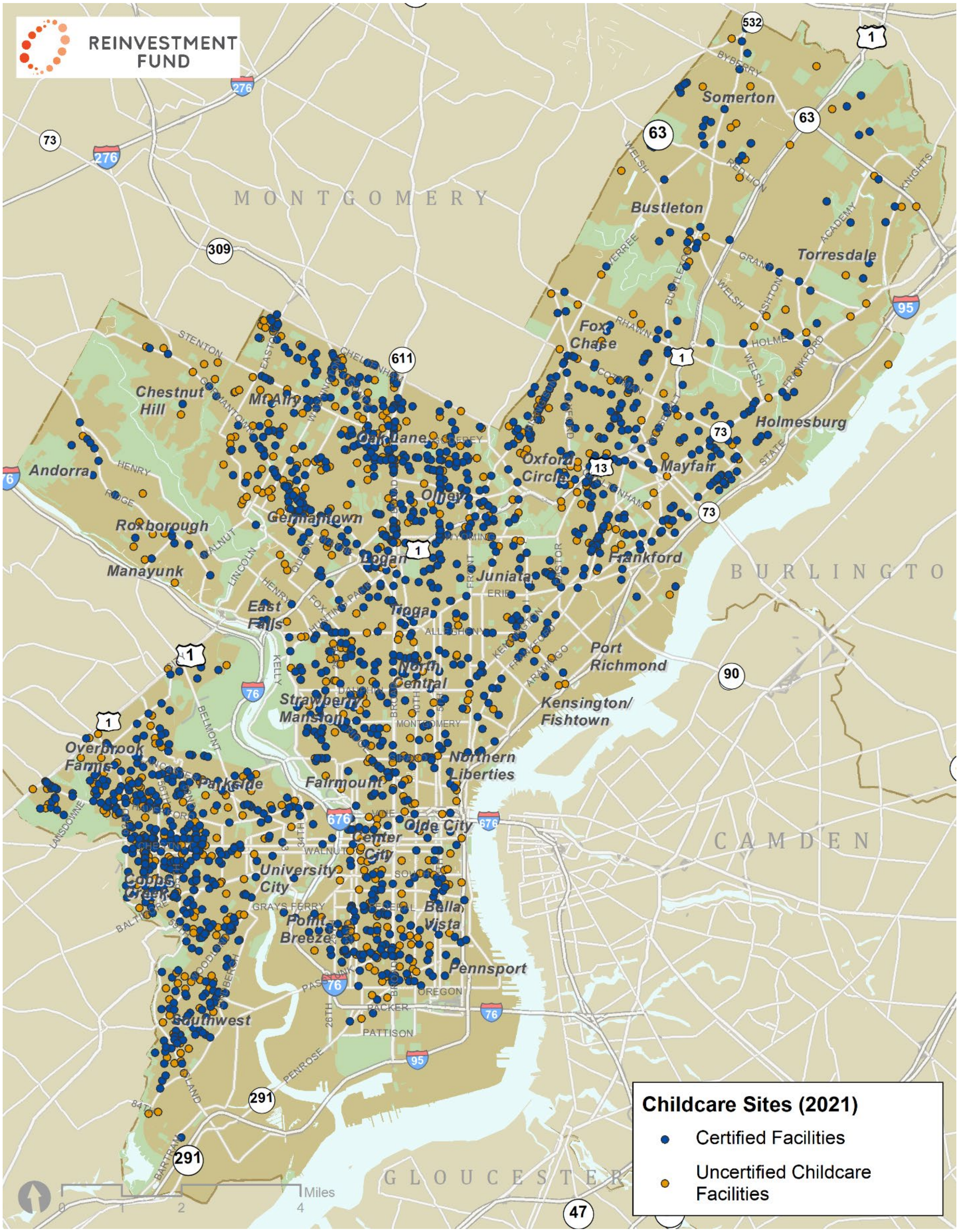


Figure A2: Relative Gap – Total Childcare Supply (2020)

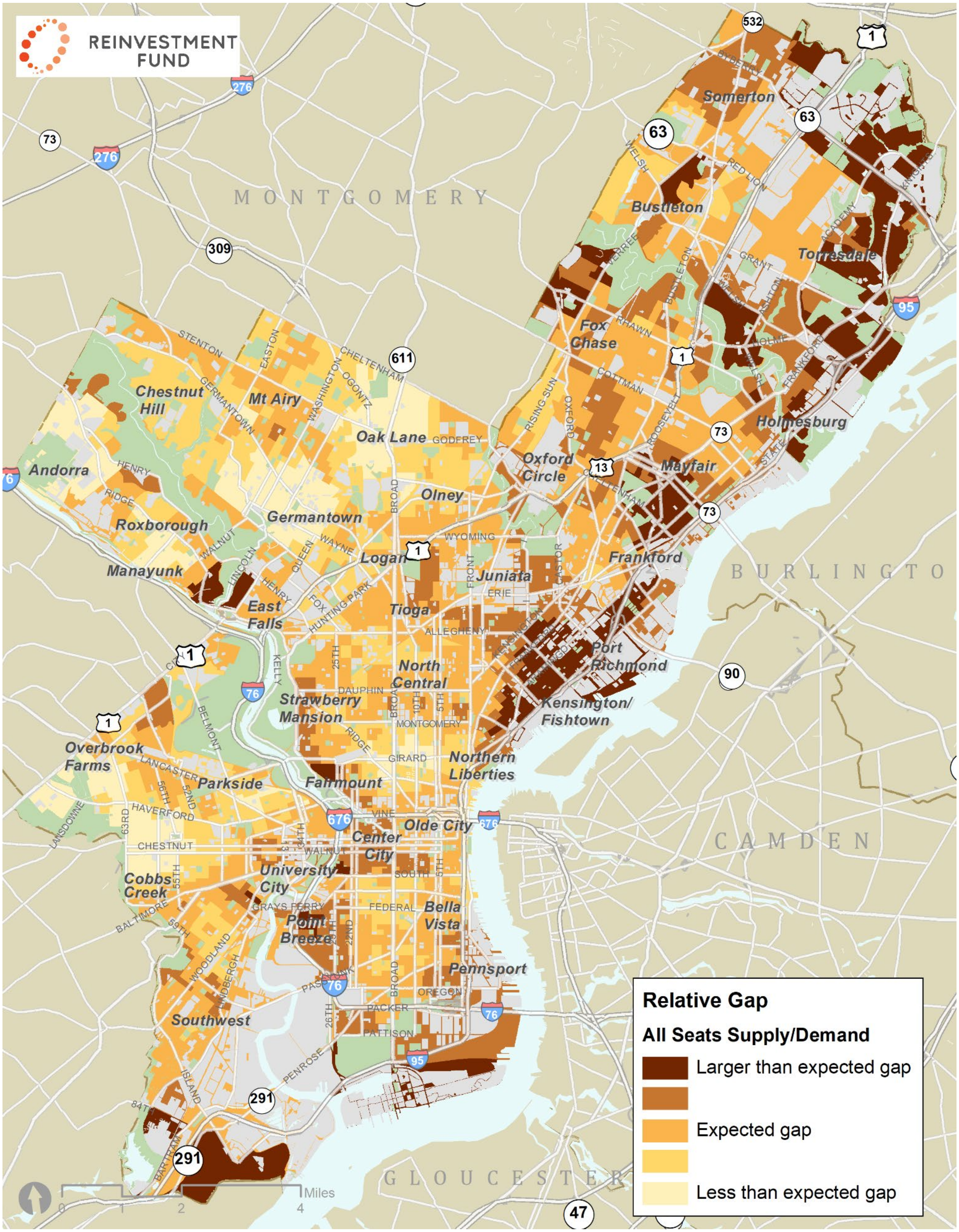


Figure A3: Relative Gap – Certified Childcare Supply (2020)

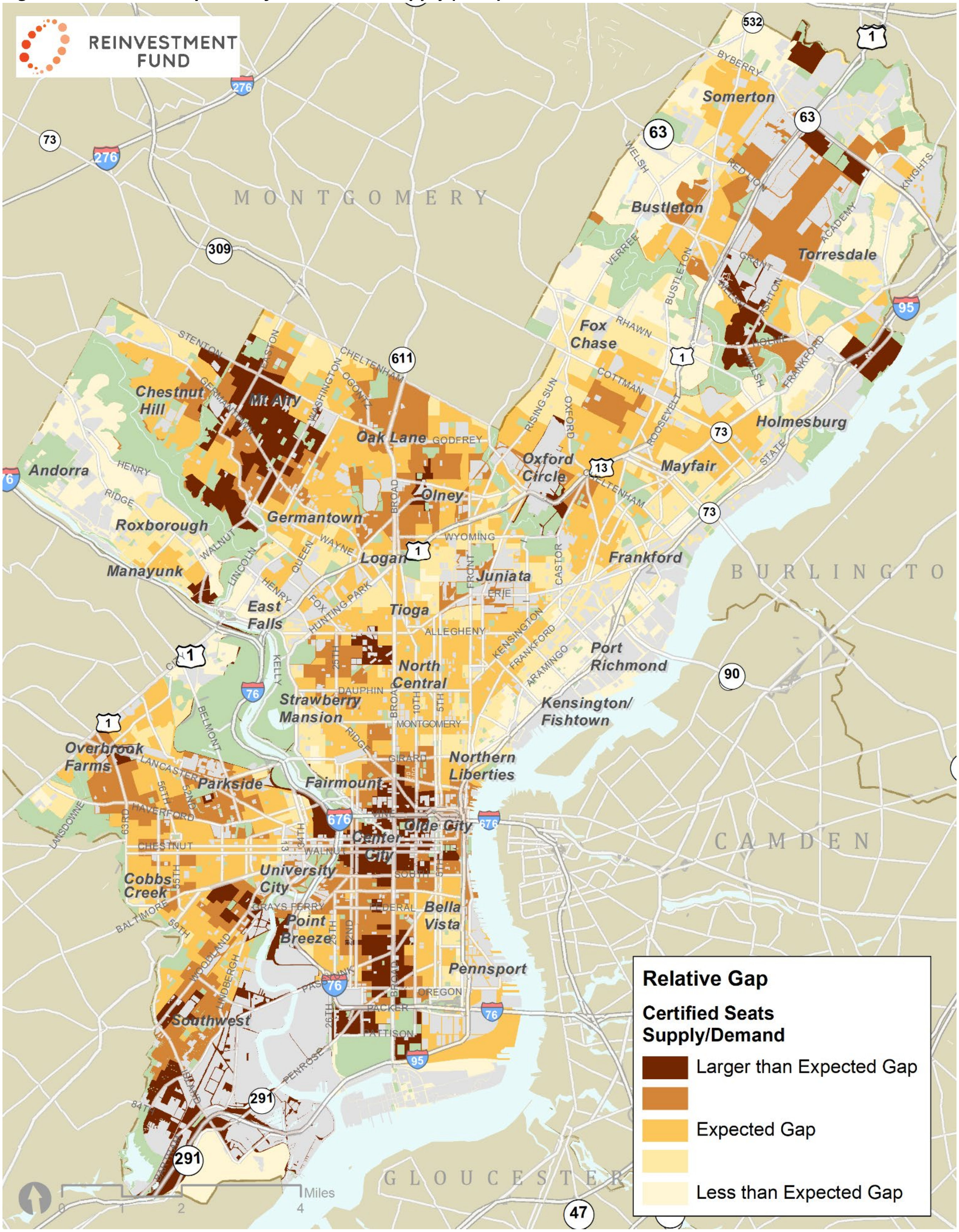
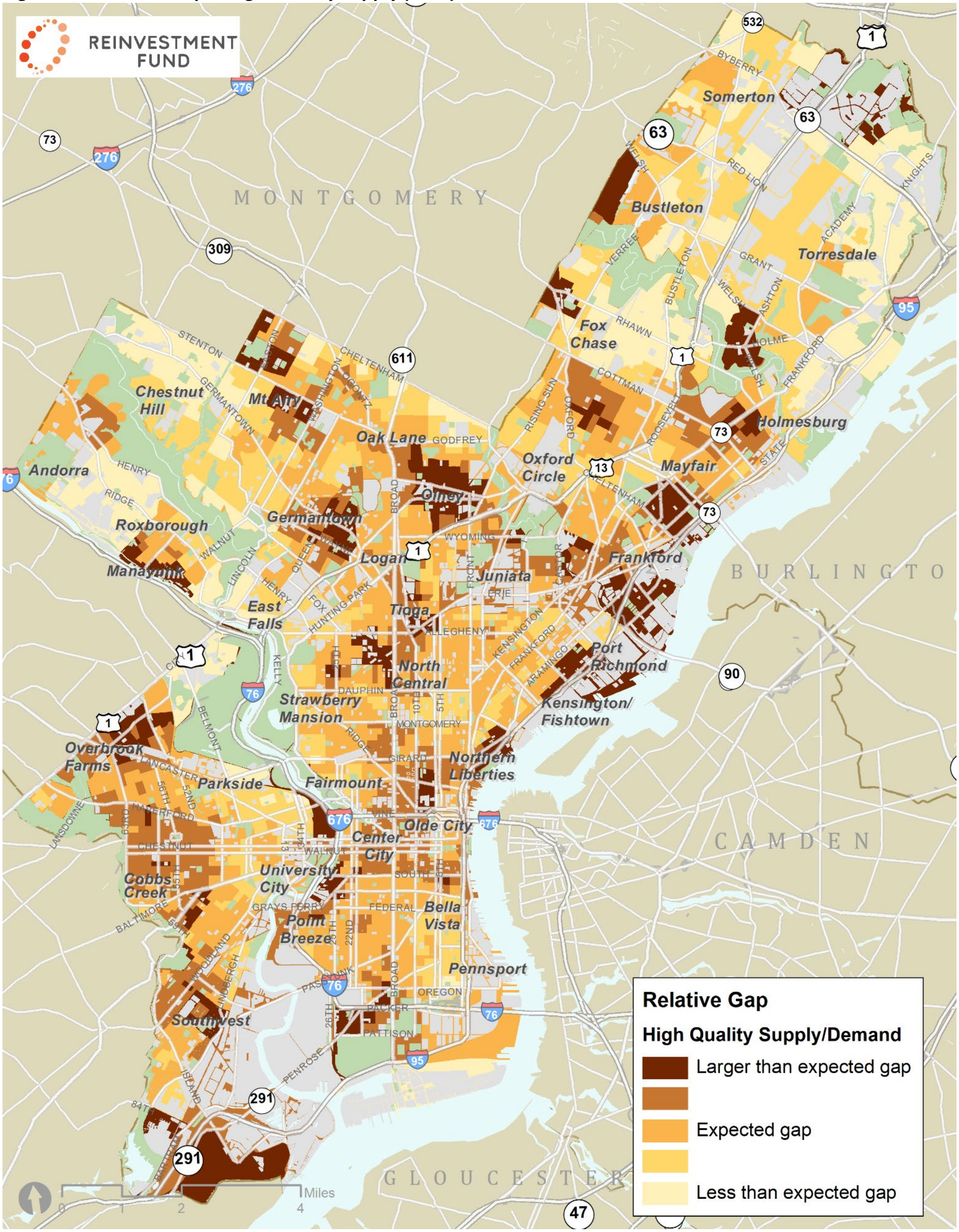


Figure A4: Relative Gap – High-Quality Supply (2020)



Reinvestment Fund has published a range of reports addressing critical public policy issues. The highlighted reports below represent recent early childhood education research projects. For details, please visit our Policy Publications site:

WWW.REINVESTMENT.COM/IMPACT/RESEARCH-PUBLICATIONS

2017
Assessing the Relationship Between School Quality and Home Prices Across the Keystone State

2019
Understanding Infant and Toddler Care in Philadelphia: Capacity, Shortages, and Market Barriers

2020
Getting Back to Care: Findings from a Philadelphia Survey on Restarting Early Childhood Education

2020
Estimating Changes in the Supply of and Demand for Child Care in Philadelphia (Series)

REINVESTMENT FUND

www.reinvestment.com
www.policymap.com

REINVESTMENT FUND is a national mission-driven financial institution that creates opportunity for underserved people and places through partnerships. We marshal the capital, analytics, and expertise necessary to build strong, healthy, and more equitable communities.

PHILADELPHIA
1700 Market Street
19th Floor
Philadelphia, PA 19103
TEL 215.574.5800

BALTIMORE
1707 North Charles Street
Suite 200B
Baltimore, MD 21201
TEL 410.783.1110

ATLANTA
229 Peachtree Street NE
Suite 750, International Tower
Atlanta, GA 30303
TEL 404.400.1130

real estate | early education | healthcare | healthy food | housing | k-12 education | data & analysis | clean energy