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

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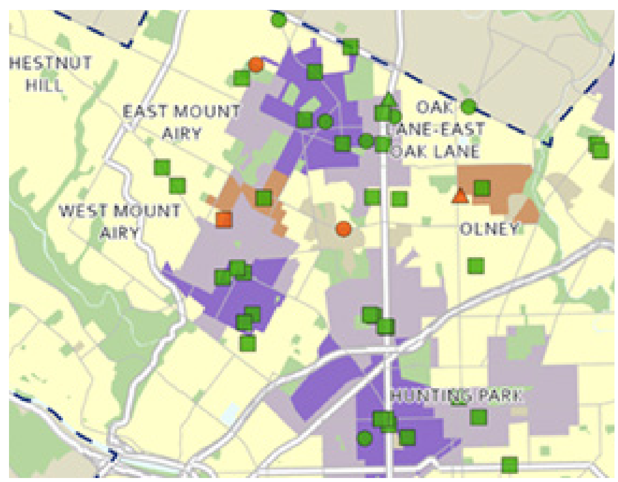

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Introduction

In 2014, with support from The William Penn Foundation, Reinvestment Fund conducted an initial analysis of the supply of and demand for childcare in Philadelphia to identify areas of the city where targeted investments could help address shortages of high-quality childcare. In this eighth annual analysis, Reinvestment Fund provides updated estimates that track the change over time in the supply, demand, and shortage of childcare. Reinvestment Fund's Childcare Map is an interactive online tool (www.childcaremap.org) that showcases the results of this analysis and is accessible to the public at no cost. The tool identifies neighborhoods where high-quality childcare is scarce in absolute and relative terms, while also providing actionable information for funders, practitioners, and childcare advocates.

The estimates presented in this report represent a descriptive and spatial snapshot of the childcare industry in the first quarter of 2022 as the industry navigates its way through the pandemic.[1] It details both short- and long-term changes in the city's childcare sector, with a special focus on changes brought on by the pandemic from last year (2021) to today (2022). It also tracks shifts since the initial analyses conducted in 2014.

Since the last analysis was published in 2021, Philadelphia has continued to recover from the height of the COVID-19 pandemic and adapt to its lasting presence. March 2022 marked 2 years since the virus caused widespread shutdowns, and in those 24 months people, businesses, and governments saw more change than ever before. Now, firmly in 2022, more employers are calling for their employees to return to downtown offices and public schools have reopened and removed pandemic-era restrictions, like masking and social distancing. A vaccine for children under 5 was finally made available in the summer of 2022, soon after the period captured in this report. More concrete data has emerged on how the childcare industry has adapted to everchanging circumstances. This year's analysis points to improving conditions across the board. Growth of childcare supply exceeded expectations, acutely observed with the unprecedented expansion of high-quality supply which saw more new high-quality providers participate in the market than ever before. Demand, while still changing along with workplace commuting patterns and new hybrid workplace arrangements, has maintained trends observed in previous analyses.

It is important to note that various factors could have contributed to changes in child case shortages described in this report. For example, demographic shifts and economic changes (e.g., increases in the level of labor force participation) can impact demand for care; operational costs and hiring challenges 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 high-gap areas through the Fund for Quality (FFQ), a partnership between Reinvestment Fund and Public Health Management Corporation (PHMC), with funding from the William Penn Foundation, and Vanguard Strong Start for Kids Program. Through the provision of business planning and facilities-related financing, Fund for Quality supports high-quality early care and education providers with expanding their services to reach more low-income families.

[1] In particular, data on the capacity of OCDEL licensed programs represents capacity on March 5, 2022. Data on enrollment in School District of Philadelphia associated programs and private schools reflect enrollments during the 2021-2022 school year. Additional supply data are collected on a rolling basis, but reflect information collected prior to March 2022.

2022 Key Findings

- **Citywide, total supply has increased, but the city has not yet fully recovered from COVID-related losses.** In the first year of the pandemic, childcare capacity in Philadelphia declined by nearly 5% (a loss of 5,176 seats). This year the city added just over 2,100 new seats. While this increase in overall capacity helped offset some losses, the city has not yet fully recovered to the overall capacity level it had in 2019, prior to the COVID-19 pandemic.

- **Philadelphia had the largest single year increase in high-quality supply in recent years.** Philadelphia added nearly 4,000 new high-quality seats between 2021 and 2022 – the largest single year increase in high-quality capacity observed since 2014. This follows last year, where the city saw a much smaller increase in high-quality capacity than has been typical. This year's large increase in high-quality capacity can be attributed to a large number of new high-quality providers opening, and pre-existing sites increasing their capacity or ratings (or both).

- **In 2022, the location of large relative shortages in high-quality childcare shifted slightly from previous years.** The largest growth in high-quality seats occurred in North Philadelphia (near West Oak Lane and Hunting Park) and parts of the Northwest (near Rhawnhurst). Neighborhoods with the largest shortages in high-quality supply were located in Olney, Juniata, Bridesburg, Spring Garden/Poplar, and Overbrook.

- **Despite modest growth overall, the level of childcare shortages continues to decline.** The estimated total supply of childcare increased by 2% between 2021 and 2022, while the *maximum potential demand* declined by 2%. As a result, we estimate the city has enough capacity for 92% of children (up from 84% in 2014). Considering only high-quality seats the city only has sufficient capacity for 37% of children (compared with 21% in 2014).

Estimating the Supply of Childcare

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 94,852 childcare seats in 2022.[2] Since 2021, the total supply of childcare increased by over 2,100 seats, or 2.4%. Notwithstanding the decline in supply that occurred at the height of the COVID-19 pandemic, the total supply of childcare still increased by 4,580, or 5% between 2014 and 2022.

Table 1: Estimated Supply of Total Childcare[3]

	2022 Childcare Analysis		Change from 2021		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	83,223	88%	+3,814	+2.1%	+10,219	+7.0%
High-Quality	37,959	40%	+3,961	+3.4%	+15,215	+15.0%
STARS 1-2	45,264	48%	-147	-1.3%	-4,996	-8.0%
Not Certified	11,629	12%	-1,675	-2.1%	-5,639	-7.0%
Total Seats	94,852	100%	+2,139		+4,580	

Certified operators provided approximately 88% of the city's supply, an increase of 7 percentage points from 81% in 2014. The number of certified seats grew by 14% or 10,298 seats 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. Compared with 2014, both the number and proportion of high-quality seats have increased substantially. The number of high-quality seats grew by 15,294, or 67%, since 2014. As a share of all seats, high-quality seats comprised 40% of the total in 2022. This represents a growth of 15% since 2014, when high-quality seats comprised only 25.2% of the supply.

Our analysis of supply relies on licensed capacity reported by the Office of Child Development and Early Learning (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 choose to only serve 60 children. 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. As such, these estimates should be considered conservative estimates of changes in high-quality capacity, since they may not pick up all changes in actual operating capacity.

A primary goal for the childcare analysis is to help FFQ and relevant stakeholders make data-driven decisions about where to expand access to high-quality childcare in Philadelphia. The following sections describe changes in high-quality capacity since last year (2021) and since the first year that we began tracking childcare supply in Philadelphia (2014).

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[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.

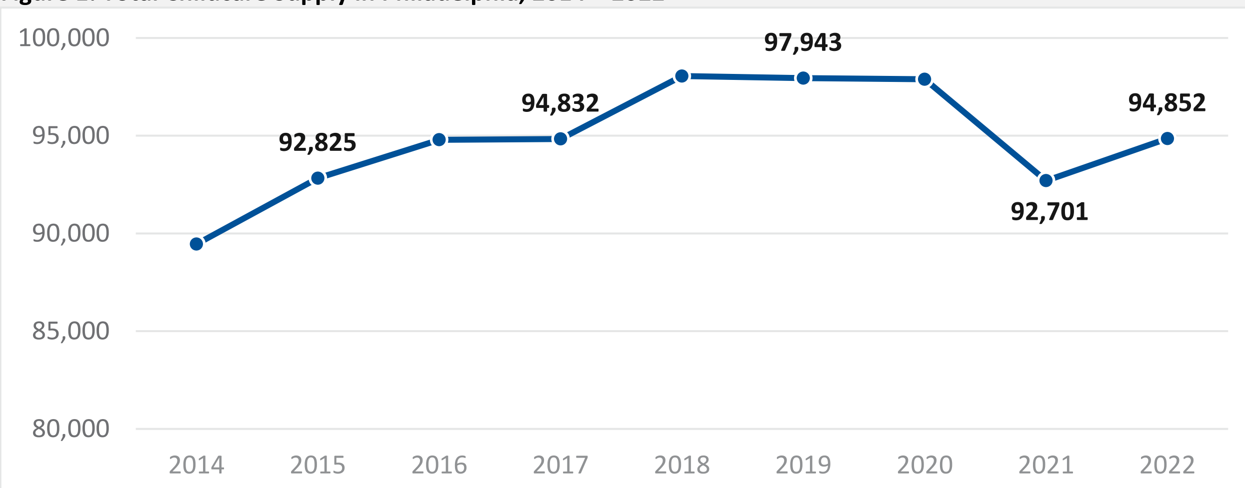
[3] The 202 Childcare Analysis represented 2022 Q1 OCDEL data; the 2022 Analysis represented 2022 Q1 data; and the 2014 Analysis represented 2013 Q2 data. Year-by-year changes for licensed childcare represented change between 2022 Q1 and 2021 Q1 (i.e., four quarters), and 2014-2022 change represented change between 2013 Q2 and 2021 Q1.

Tracking Recovery Since the Onset of the COVID-10 Pandemic

The onset of the COVID-19 pandemic in March 2020 had a profound impact on the childcare industry in Philadelphia and across the country. Our 2020 analysis of childcare supply and demand was released just before the onset of program closures and health and safety lockdowns. The 2021 analysis, published last year, measured the impact of the pandemic on the city's childcare programs, finding that citywide supply had declined 5.2%. This was the largest single-year drop in supply observed since we begain tracking childcare in Philadelphia in 2014.

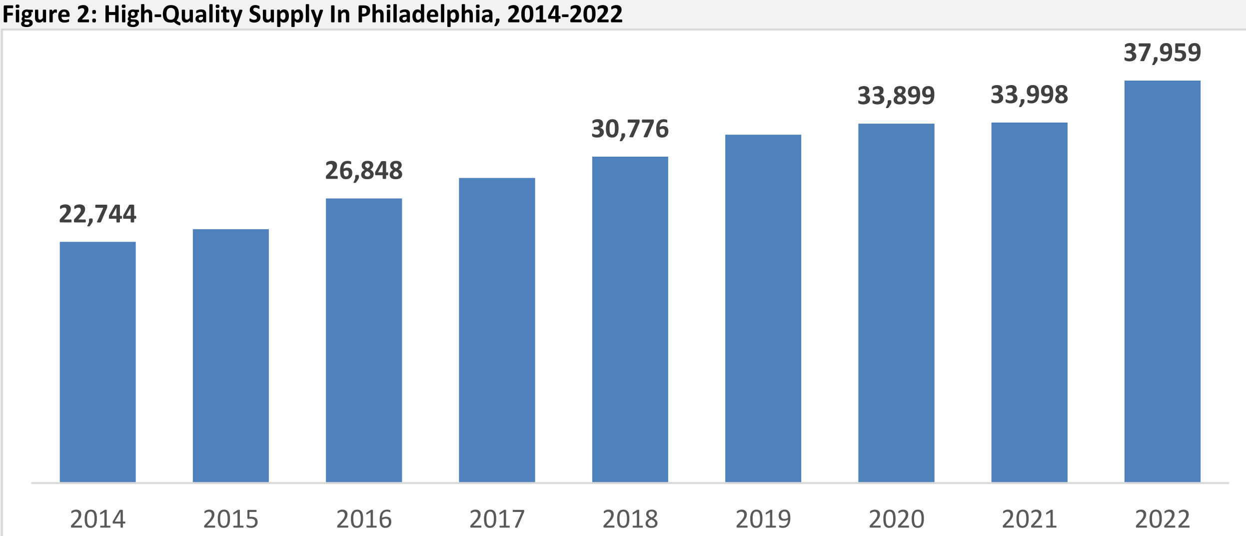
This year's analysis shows a sharp increase in supply, but not a full recovery from the losses in 2021. Overall childcare capacity today is roughly equal to the city's overall capacity in 2017. Site closures in 2021 primarily impacted Home-Based and STAR 1 & 2 providers, accelerating a longer-term decline in the number of smaller programs. But for high-quality providers, the impact of the pandemic appears to have been much more muted.

Figure 1: Total Childcare Supply in Philadelphia, 2014 – 2022



Between 2020 and 2021, growth in high-quality capacity slowed, but there was never a loss of seats. Our analysis in 2021 showed a one year increase of only 99 seats (or a 0.3% increase) the smallest single year increase in high-quality seats recorded since 2014. This year's analysis finds that the sector has more than made up for last year's lackluster growth. The city added nearly 4,000 new high-quality seats between 2020 and 2021, the largest year over year change in high-quality seats since 2014.

Figure 2: High-Quality Supply In Philadelphia, 2014-2022



Changes in High-Quality Supply Since 2021

Changes in the city's supply of High-Quality childcare are driven by new programs opening, existing programs changing their ratings, and existing high-quality programs changing their capacity. Table 2, below, shows the different factors that contributed to the change in High-Quality capacity since 2021.

Table 2: Change in High-Quality Sites, 2021 to 2022

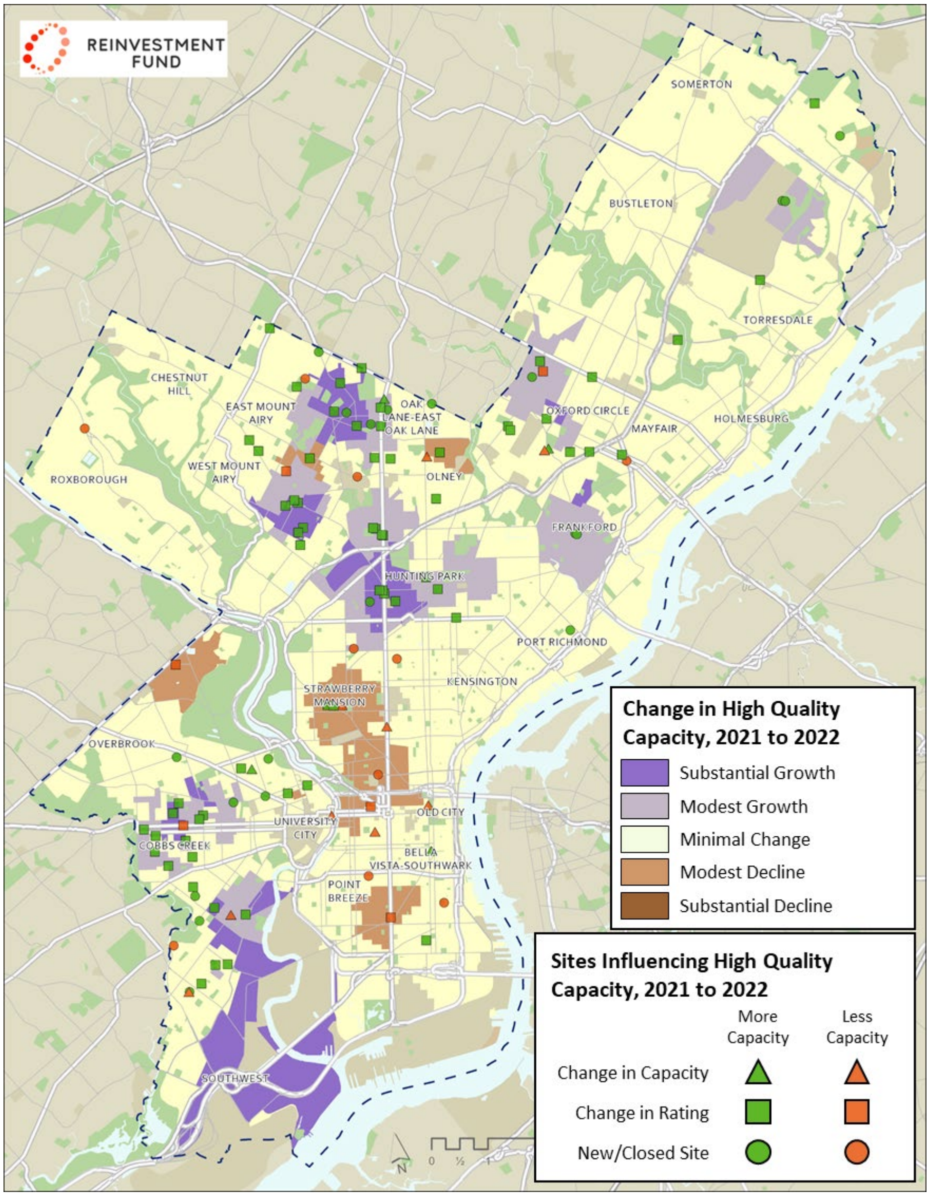
	Change in # of Sites 2021 to 2022	Net Capacity Change 2021 to 2022*
Positive Change	**90**	
Site STAR ***Rating Increased*** to High-Quality	65	+3,776
High-Quality Site ***Increased Capacity***	4	+74
Newly ***Opened*** High-Quality Site	20	+1,388
Negative Change	**25**	
Site STAR ***Rating Decreased***	6	-485
High-Quality Site ***Reduced Capacity***	9	-417
Closed High-Quality Site	11	-375
No Change in Rating or Capacity	362	31,182
Total Net Change		**+3,961**

*Capacity represents 2022 capacity with the exceptions of Closed High-Quality Sites. Capacity for this subgroup is 2021 capacity.

Figure 3 below illustrates where the changes in high-quality capacity were concentrated between 2021 and 2022. The largest increases in high-quality capacity were concentrated in many of the same areas where capacity has been growing since 2014: West Oak Lane, Germantown, North Philadelphia, Haddington and Southwest Philadelphia. The largest declines were concentrated in Strawberry Mansion, Fairmount, and Point Breeze.

Most of the city's increase in high-quality capacity came from sites that increased their rating (indicated as green squares on the map). Sites with higher ratings contributed an additional 3,776 new high-quality seats between 2021 and 2022. Around West Oak Lane, the growth in high-quality seats also came from new High Quality programs that did not exist in 2021. Declining high quality capacity came primarily from existing high-quality sites that reduced their capacity (red triangles) and sites with ratings that declined between 2021 and 2022 (red squares).

Figure 3: Change in High-Quality Sites and High-Quality Supply, 2021 to 2022



Many of the areas that experienced the largest changes in high-quality supply are also home to historically disadvantaged communities. The table below shows the change in high-quality supply among communities where residents are predominantly (over 50%) White, Black or Hispanic. Areas that were predominantly Black saw the largest gains in high-quality supply between 2021 and 2022.

Table 3: Change in High-Quality Supply by Resident Demographics, 2021 to 2022

	High Quality Supply, 2022	High Quality Supply, 2021	Change (% Change)
Areas Over 50% White	7,630	7,736	-106 (-1%)
Areas Over 50% Black	17,167	14,109	+3,058 (+22%)
Areas Over 50% Hispanic	4,219	4,023	+196 (+5%)
All Other Areas	8,943	8,130	+813 (+10%)
Total	**37,959**	**33,998**	**+3,961 (12%)**

Changes in High-Quality Supply Since 2014

In addition to tracking year over year changes in childcare capacity, our analysis seeks to understand how longterm investments in the sector, through the Fund For Quality, have influenced citywide supply. To that end, Table 4 and Figures 4 and 5 (see pages 8 – 9) highlight changes in high-quality childcare between 2014 and 2022.

Table 4 summarizes the factors that contributed to the change in the high-quality supply between 2014 and 2022.[4] From 2014 to 2022, nearly twice as many sites contributed to high-quality expansion than reductions (343 vs. 164 sites). The number of newly opened high-quality sites was almost 40% greater than the number that closed (147 vs. 106). As a result, capacity across all newly opened high-quality sites was more than twice the total across all sites that closed (10,489 vs. 5,130) driving the majority of high-quality capacity growth. Another contributing factor to high-quality expansion was a nearly parallel growth in new high-quality seats from increased ratings (totaling 10,489 new seats).

Table 4: Change in High-Quality Sites, 2014-2022

	Change in # of Sites 2014 to 2022	Net Capacity Change 2014 to 2022*
Positive Change	**343**	
Site STAR ***Rating Increased*** to High-Quality	152	+10,121
High-Quality Site ***Increased Capacity***	42	+5,686
Newly ***Opened*** High-Quality Site	147	+10,489
Negative Change	**164**	
Site STAR ***Rating Decreased***	23	-748
High-Quality Site ***Reduced Capacity***	35	-3,580
Closed High-Quality Site	106	-5,130
No Change in Rating or Capacity	**83**	8,083
Total Net Change	**255**	**+16,838**

*Capacity represents 2022 capacity with the exceptions of Closed High-Quality Sites. Capacity for this subgroup is 2014 capacity.

Figures 4 and 5 illustrate the spatial distribution of the factors highlighted in Table 4 to show which areas of the city have experienced substantial changes in high-quality supply since 2014. Areas with the largest gains in the supply of high-quality childcare between 2014 and 2022 (dark purple areas in Figures 4 and 5) contained both providers that improved their *rating*, as shown with blue circles in Figure 4 and existing high-quality providers that increased their *capacity*, as shown with green circles in Figure 5.

Areas in the city where the supply of high-quality seats substantially increased since 2014 include West Oak Lane, Fairhill, Rhawnhurst, Fairmount, and Haddington. The largest declines occurred in Strawberry Mansion and Point Breeze.

[4] 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 4: ***Changes in Status*** **of High-Quality Centers & Changes in Block Group-Level Supply Estimates for High-Quality Childcare (2014 to 2021)**

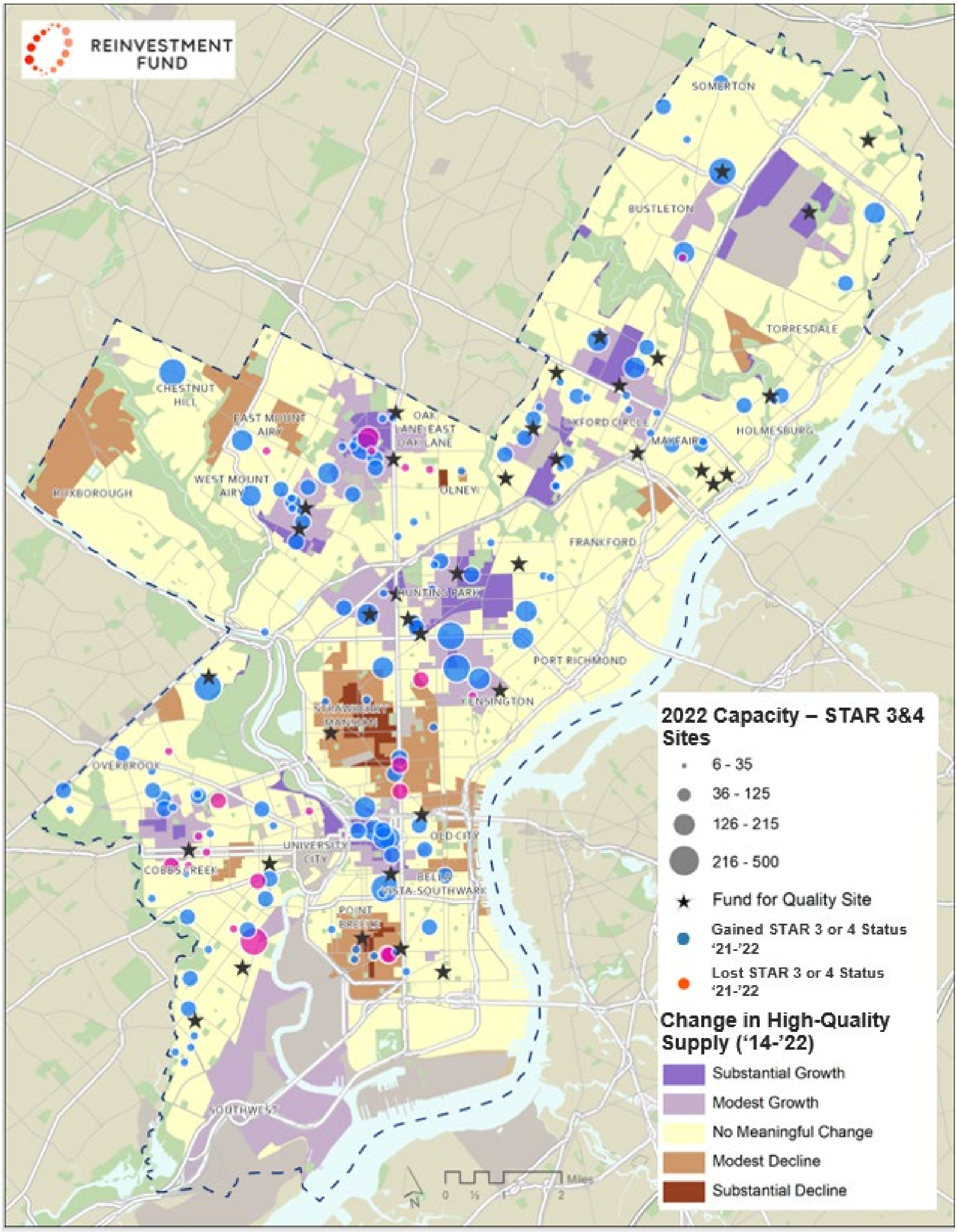


Figure 4:

- Only sites for which there was a change in rating status are reflected on this map.
- Purple areas represent 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 since 2014.
- Pink circles represent childcare sites that lost their high-quality status since 2014.
- The size of the circles represents the 2022 capacity of the facility.

Figure 5: ***Changes in Capacity*** **at High-Quality Centers & Changes in Block Group-Level Supply Estimates for High-Quality Childcare (2014 to 2022)**

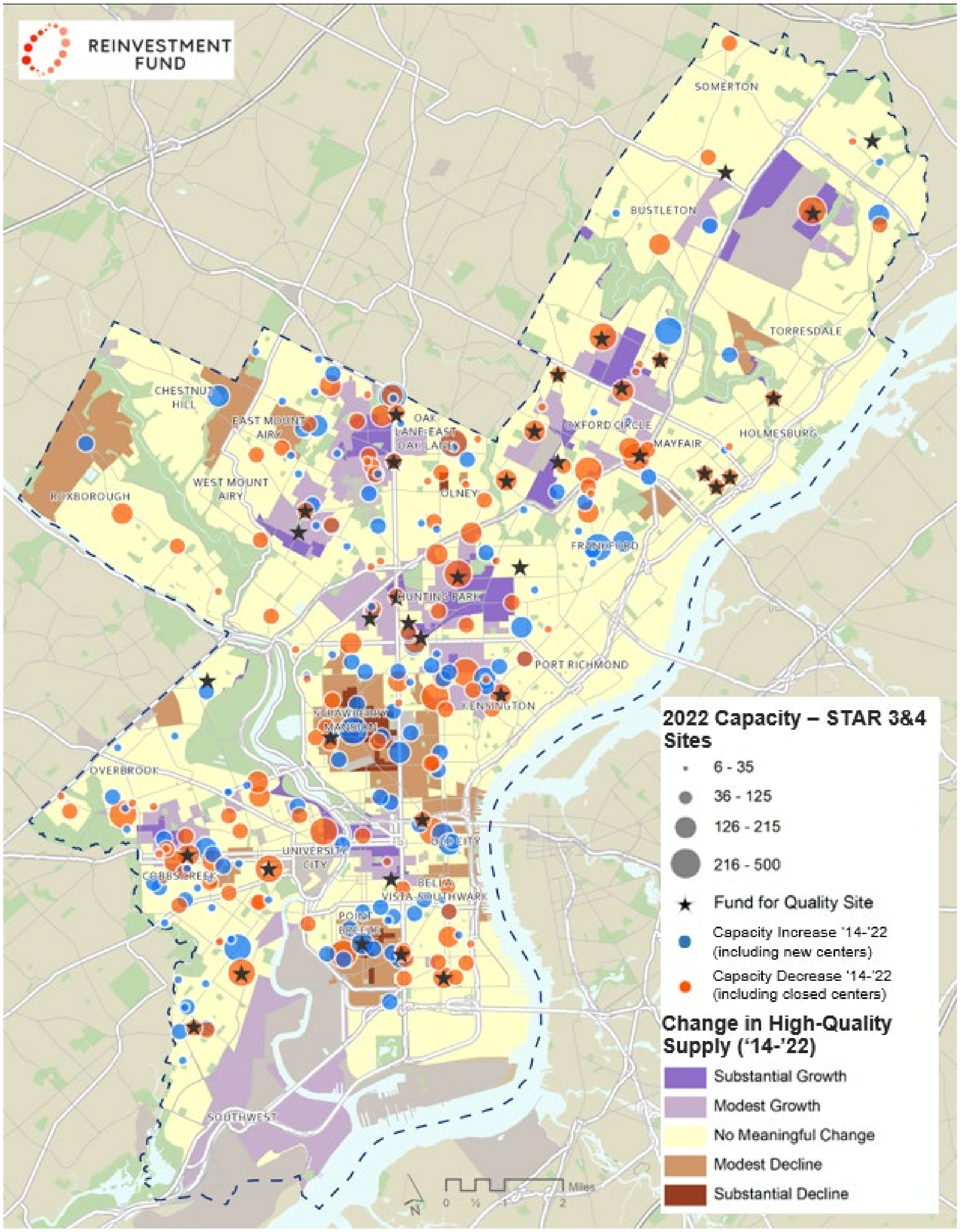


Figure 5:

- Only sites for which there was a change in licensed capacity are reflected on this map.
- Purple represents increases in high-quality supply; brown represents declines in high-quality supply.
- Blue circles represent high-quality childcare sites that increased capacity since 2014.
- Orange circles represent high-quality childcare sites that reduced capacity since 2014.
- The size of the circles represents the 2022 capacity of the facility (closed centers reflect 2014 capacity).

Demand for Childcare

In 2022, there was an estimated population of 102,232 children under age five living in Philadelphia, a small decline from 2021. This number represents the *baseline demand* for childcare. 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.[5] These adjustments suggest that across the entire city of Philadelphia some 17,548 resident children traveled with adults to childcare located outside the city near a parent's place of work, while 18,578 children who live outside the city travel with parents to childcare in the city, yielding a *maximum potential demand* of 103,262 for childcare 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 2021 and 2022, by 2% (2,267). While some of this decline in maximum potential demand is attributable to the declining population of young children in Philadelphia, the majority of the decline in demand is attributable to a net loss of parents commuting to the city with children. Whether this is a temporary decline or longer term trend is difficult to determine at this point. 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. [6]

Identifying High Need Areas

The geographic distribution of shortages in the supply of childcare can guide programmatic and capital investment activity to address areas of concern. In this report, 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 provides on average across the city to identify block groups where observed shortages between supply and demand are: *a)* greater than average; *b)* less than average, or *c)* on average.[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 103,262 and a total supply of 94,852, the city had enough seats to meet 92% of maximum potential demand in 2022 (i.e., a citywide absolute shortage of 8,410 seats) compared to 84% of demand in 2014 and about 88% of demand in 2021.

The *absolute shortage* is much greater for high-quality seats, where the shortage is 65,303. High-quality seats met 37% of demand in 2022, compared to 32% in 2021, and only 21% in 2014. The shortage of high-quality seats has grown smaller every year since 2014.

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[5] 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.

[6] Because there is a lag between when population data are collected and when they are reported, it is likely that our adjustments do not yet fully reflect the pandemic's impact on workplaces (i.e. remote work, hybrid, in-person) which may change where families seek care.

[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 5. Commuter Adjusted Demand Met by Observed Supply

	2022	2021	2014
Absolute Shortage in Total Childcare Seats	8,410	12,816	17,548
Absolute Shortage in High-Quality Seats	65,303	71,531	85,076
Percentage of Maximum Potential Demand Met by All Seats (Supply)	92%	88%	84%
Percentage of Maximum Potential Demand Unmet by All Seats (Shortage)	8%	12%	16%
Percentage of Maximum Potential Demand Met by High-Quality Seats (Supply)	37%	32%	21%
Percentage of Maximum Potential Demand Unmet by High-Quality Seats (Shortage)	63%	68%	79%

Relative Shortage in Total Childcare Supply

Areas with the most severe *relative shortages* in *total* childcare seats in 2022 were concentrated in Port Richmond, Wissinoming, and the Far Northeast. (see Figure A2).

Relative Shortage in Certified Supply

In several cases areas with the most severe *relative shortages* in *certified* seats in 2022 were quite different than those with total shortages. Relative shortages of certified seats were concentrated in Mount Airy, Center City, Southwest Philadelphia, and Lower Moyamensing. (see Figure A3).

Relative Shortage in High-Quality Supply

Areas with the most severe *relative shortages* in *high-quality seats* in 2022 were concentrated in parts of Overbrook Park, Greys Ferry, Spring Garden/Poplar, Juniata, Bridesburg, and Olney. (see Figure A4).

Summary

The 2022 analysis in many ways highlights the resilience of Philadelphia's childcare sector and the impact of efforts by investors and stakeholders to help stabilize the sector. As the city continues to recover from the COVID-19 pandemic, our 2022 analysis finds childcare providers in Philadelphia reopening and expanding. Following an initial drop of more than 5,000 total seats during the height of the pandemic, childcare supply rebounded by more than 2,000 seats in the last year. The story for high-quality operators was even more promising. Although the city's growth of high-quality seats, impacted by the pandemic, slowed between 2020 and 2021, growth rebounded between 2021 and 2022, leading to the largest single-year increase in high-quality capacity observed since we began tracking Philadelphia's childcare supply in 2014. Additionally, for the third year in a row, maximum possible demand for care fell across the city, driven by a small decline in population and a larger decline in commuters, further shrinking the distance between supply and demand. As more employers adopt remote and hybrid friendly workplace policies, we may begin to see shifts in how and where families look for child care.

Yet, longstanding challenges remain for families seeking high-quality childcare 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 37% of the estimated maximum potential demand. The efforts of FFQ and other coordinated efforts by the city and other stakeholders have helped close these gaps. Between 2021 and 2022 the city added a large number of new high-quality seats, many located in communities of color.

Appendix A: Additional Maps and Tables

Figure A1: Certified and Uncertified Childcare Sites (2022)

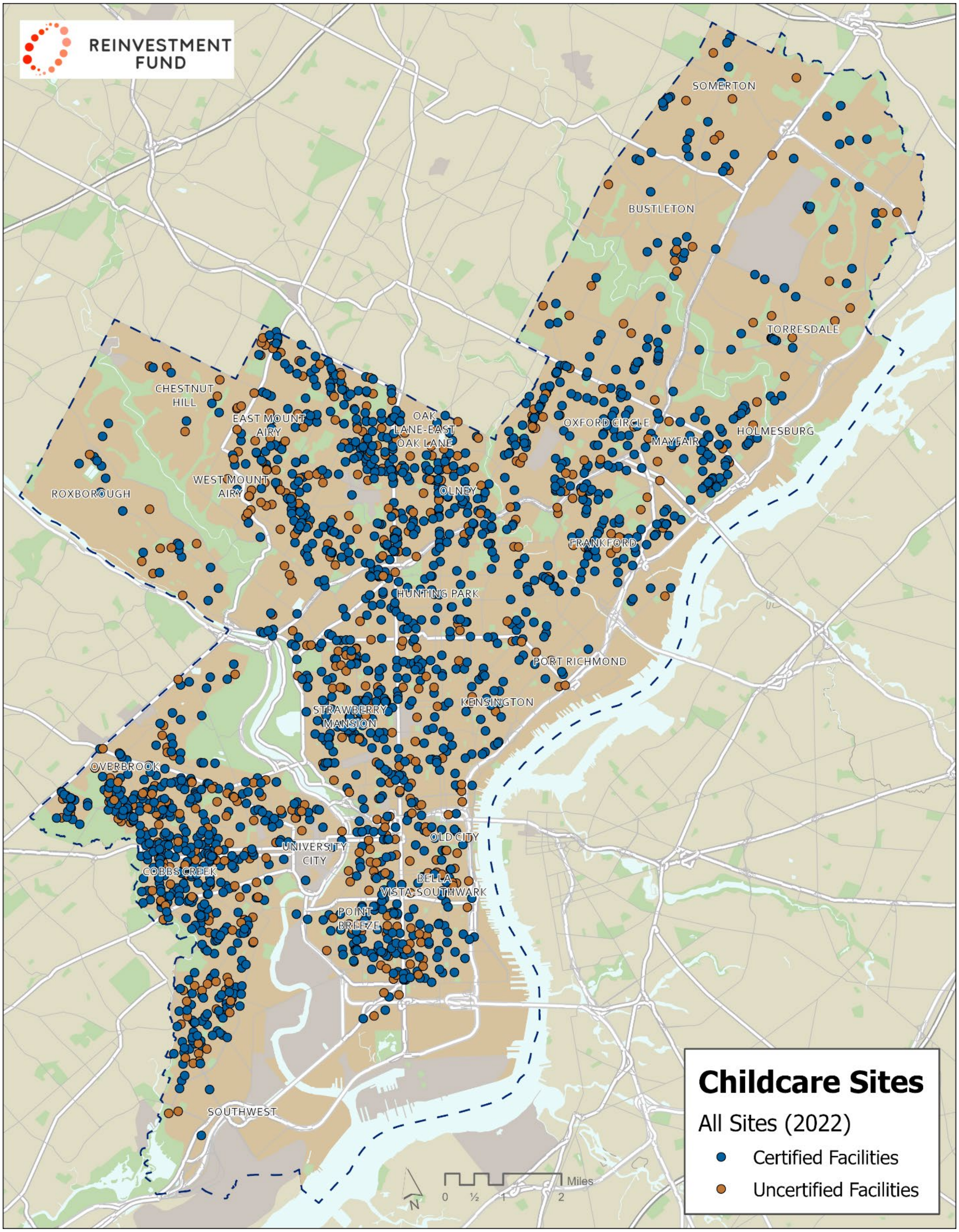


Figure A2: Relative Gap – Total Childcare Supply (2022)

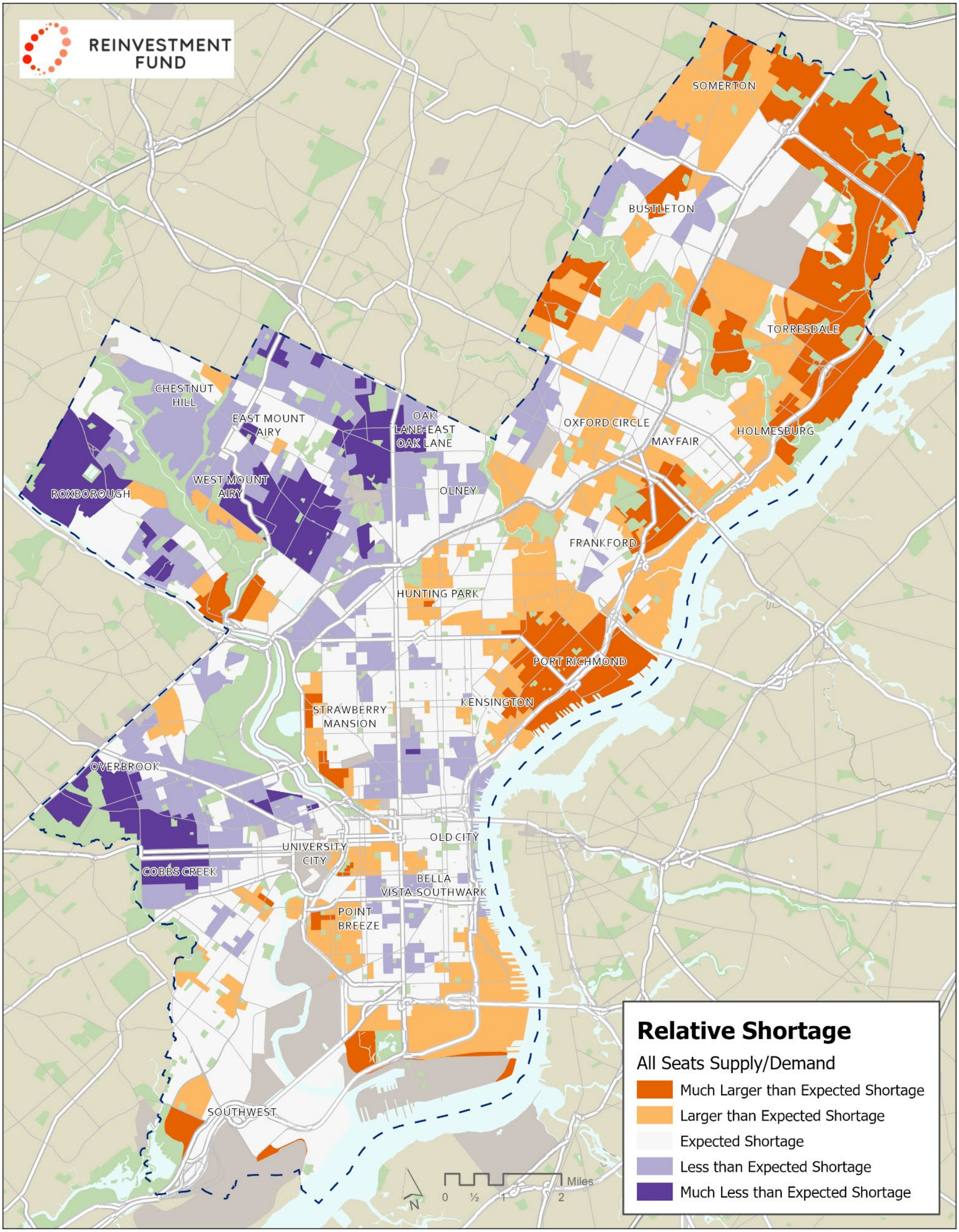


Figure A3: Relative Gap – Certified Childcare Supply (2022)

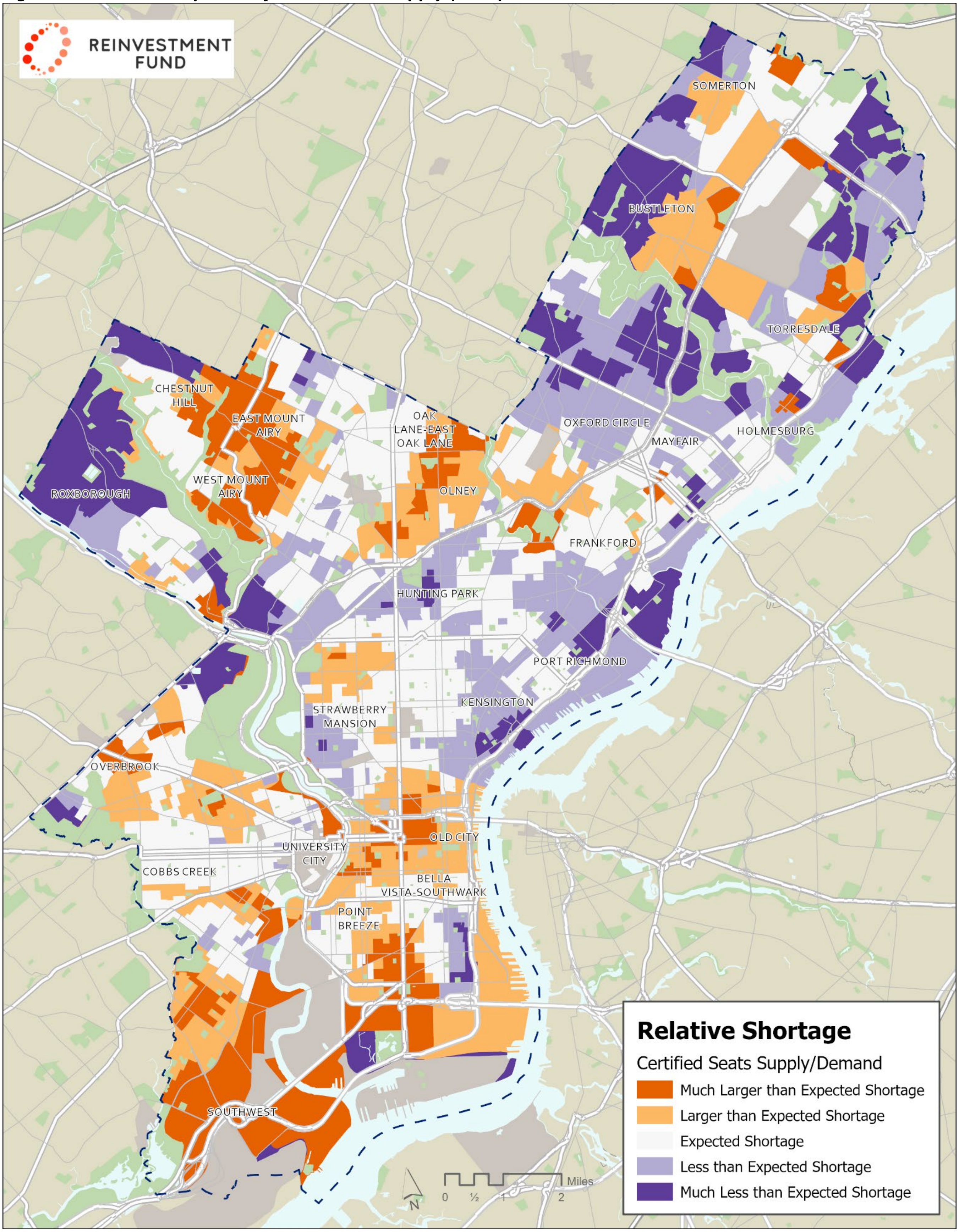
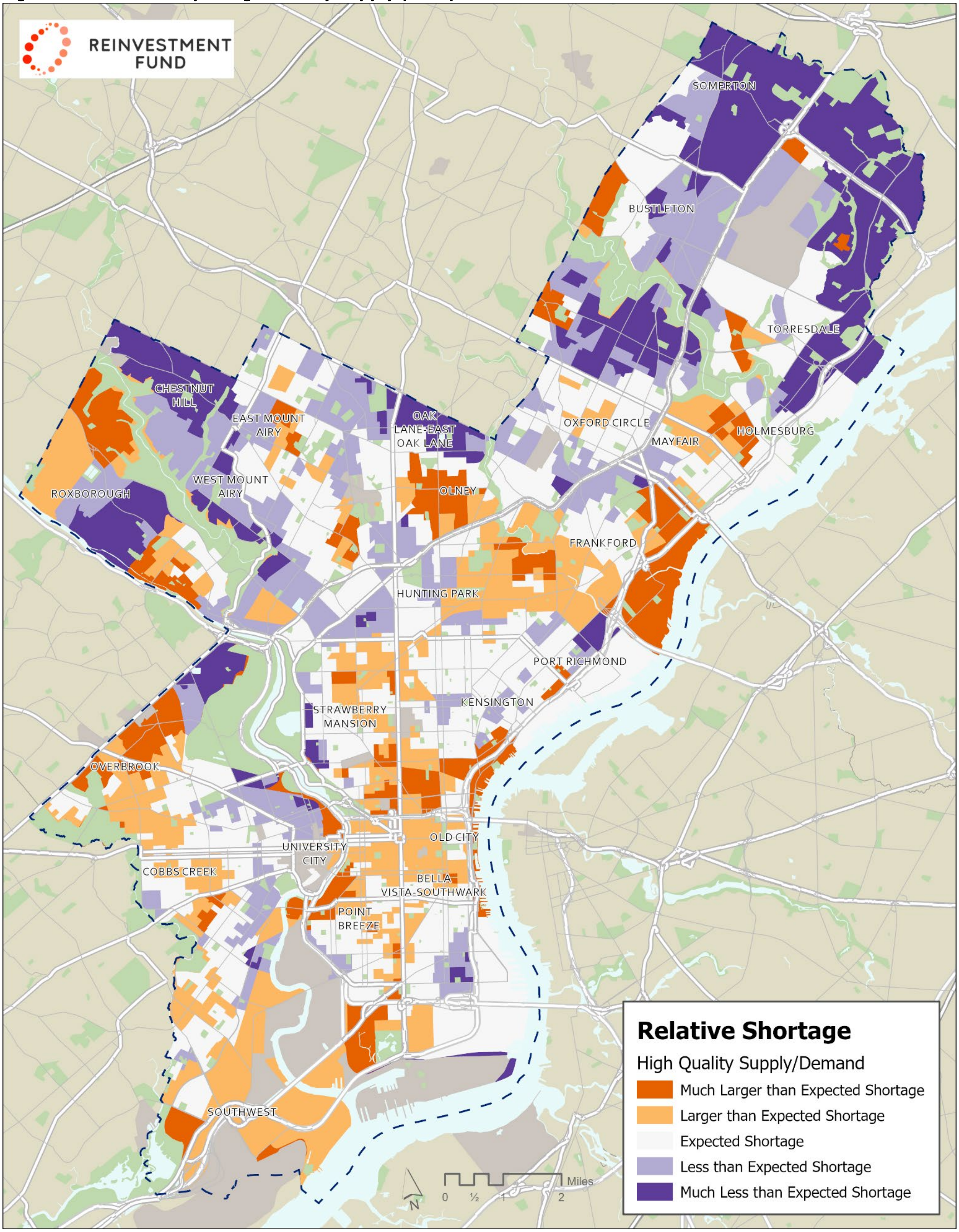


Figure A4: Relative Gap – High-Quality Supply (2022)



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