



# Plenary 2: Understanding Access to High-Quality Early Care and Education

# Welcome



## ECE ACCESS AND CHOICES

*The planning for this plenary session was funded through the Office of Planning, Research and Evaluation (OPRE) in the Administration for Children and Families (ACF) and managed through a contract with Child Trends.*



The views expressed in this presentation do not necessarily represent the views or policies of the Office of Planning, Research and Evaluation, the Administration for Children and Families or the U.S. Department of Health and Human Services.



# Understanding Access to Early Care and Education: ECE Access as a Multi-Dimensional Concept



**ECE ACCESS  
AND CHOICES**

# Traditional Definitions of ECE Access

- Dimensions: Availability, affordability, accessibility
- Tracking one or two dimensions over a period of time
- Broken down by: Program type, age groups served

# Moving Beyond Traditional Definitions of ECE Access: Why now?

## CCDBG Reauthorization requirements to:

- Conduct a market rate survey or an alternative methodology that take into account cost of providing higher quality services
- Increase the supply and quality of services for special populations of children (i.e., children in underserved areas, infants and toddlers, children with disabilities, non-traditional scheduled ECE)
- Document the impact of these efforts

# Developing a Multi-Dimensional Definition of ECE Access

## ***Process***

- The Office of Planning, Research & Evaluation (OPRE) has convened a technical work group of ECE access experts to provide input to ACF on these questions

## ***Product***

- Guidance on defining, identifying data sources, and measuring ECE access

# ECE Access Working Definition

*“Access to early care and education means that parents, with **reasonable effort** and **affordability**, can enroll their child in an arrangement that supports the **child’s development** and **meets the parents’ needs.**”*

# Reasonable Effort

Constraints in locating early care and education are unavoidable, but identifying, locating, and then choosing ECE should not be an overwhelming task for families. Families need only to make a reasonable effort to find an adequate supply of the type of care and education that they are seeking.

*Indicators:* Estimated vacancy, enrollment, capacity, **geographic access, information about ECE is readily available to parents, program supply**



# Affordability

ECE funding is complex and comes through a patchwork of sources, including, subsidized contributions, program fundraising, and parents' out-of-pocket contributions. Many parents do not pay the advertised price for care and, for ECE to be considered accessible, parents should pay what they can afford.

*Indicators:* **Parent contribution, subsidized contribution,** program revenue (e.g., donations, grants), advertised price, total cost to the program to provide care

# Supports the Child's Development

Attention to the quality of ECE is an essential foundation for healthy and supportive interactions between a child and their care provider. High-quality ECE ensures that a child's development is healthy, their care is stable, complementary to other care they receive, and aligned with their personal needs.

*Indicators:* Coordinated with other services or programs, **meets the unique needs of the children served**, stability of care, **designation of quality**

# Meets the Parents' Needs

Family priorities in selecting the care that best meets their needs involves making individual determinations on the varying importance of factors like quality, cost, and convenience. Family characteristics make unique contributes to their decision-making when seeking care and education for their young children.

*Indicators:* **Scheduling options**, program type, age group served, aligns with parent preferences, transportation, **language/cultural needs**

# Action Steps

- Assess which indicators of ECE access most relevant to your state
- Survey your ECE access data sources to identify data elements you can use to measure ECE access
- Choose your questions of interest and develop an analytical plan



National Survey of **Early Care & Education**

# Households' Geographic Access to Center-based Early Care and Education

Wladimir Zanoni  
Robert Goerge

2015 CCPRC Annual Meeting



# Access to ECE in the NSECE

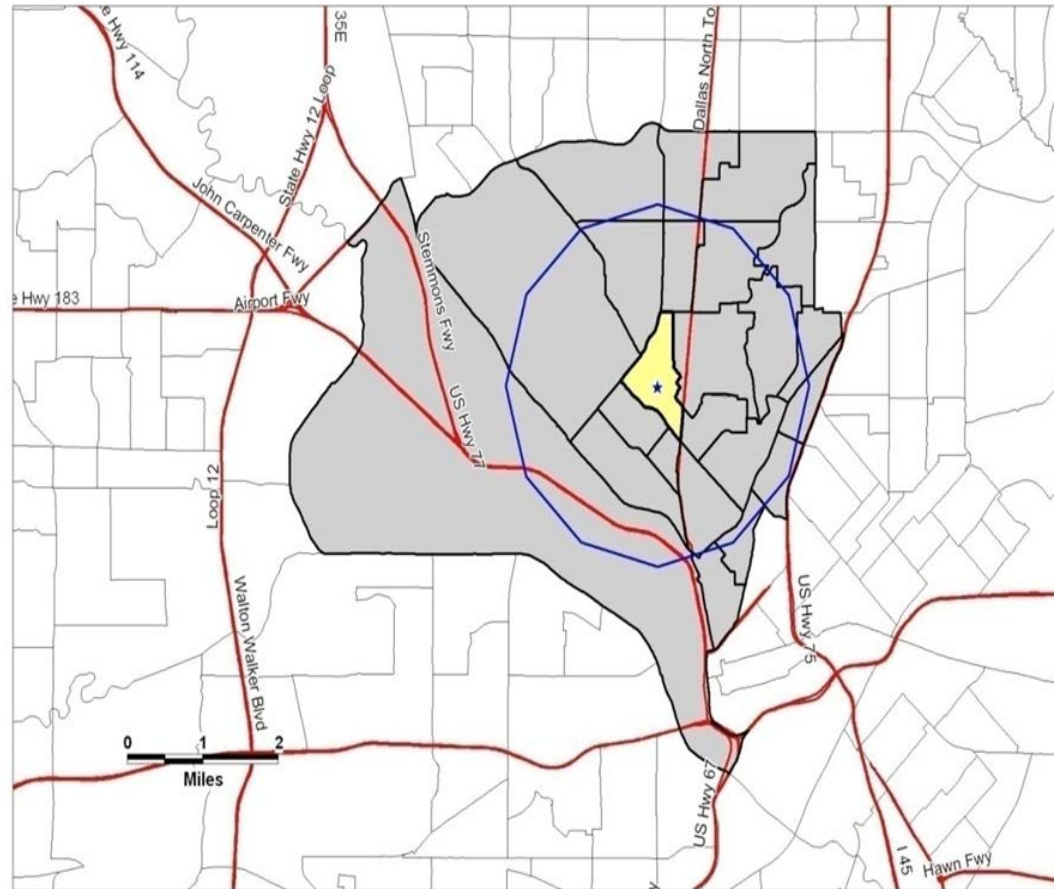
- The NSECE design allows us to study the relationship between household characteristics and availability of ECE
- The design “anchors” the household as the primary unit of analysis and defines their ECE choice sets based on geography
- The NSECE allows us to study how households with specific attributes have geographic access to ECE programs with particular characteristics that are located in their choice sets
- A key definition is the “Provider cluster”



# Hypothetical Provider Cluster

Dallas County 0006.01

- Yellow
  - home tract selected for Household survey
- Blue star
  - population centroid
- Blue circle
  - a radius of 2 miles
- Grey
  - intersecting “scatter” tracts



# Our analysis:

- Studies households' geographic access to **CB care** with specific attributes
- Offers a picture in terms of geographical access and describes the household choice set, but does not say what choices have occurred
- Studies how the availability of CB programs with at least one child funded with either childcare subsidies, HS or Pre-K relates to household characteristics in their choice sets



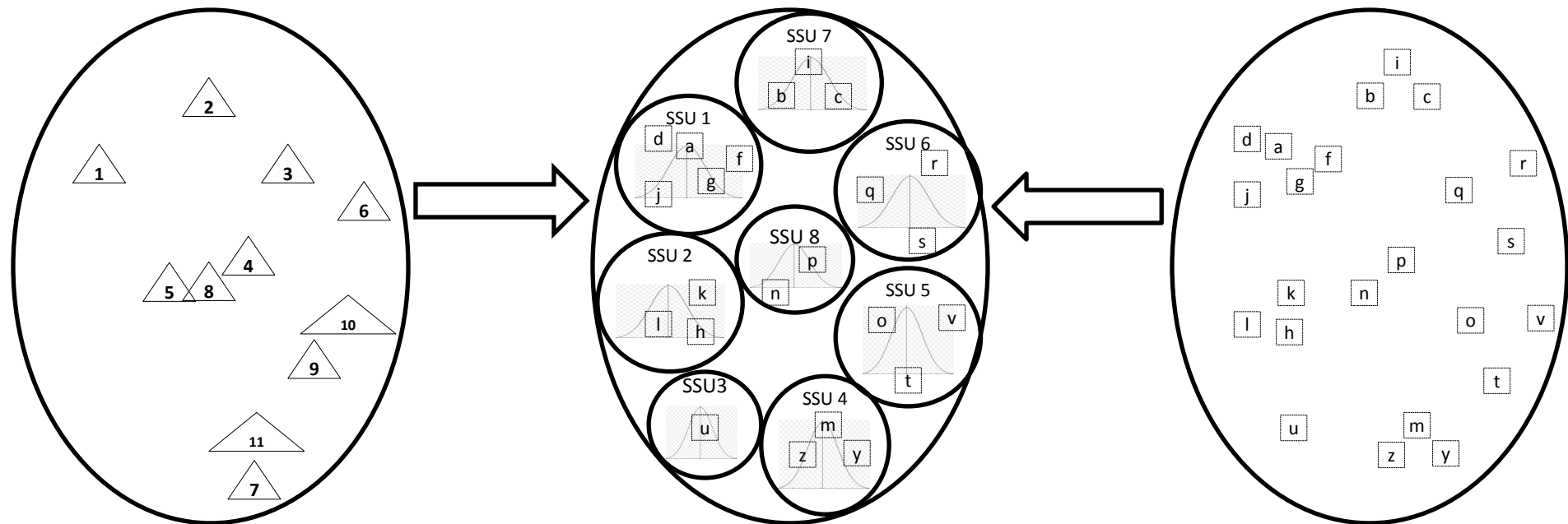


# Analytic framework

Centers from the CB survey

Analytic database

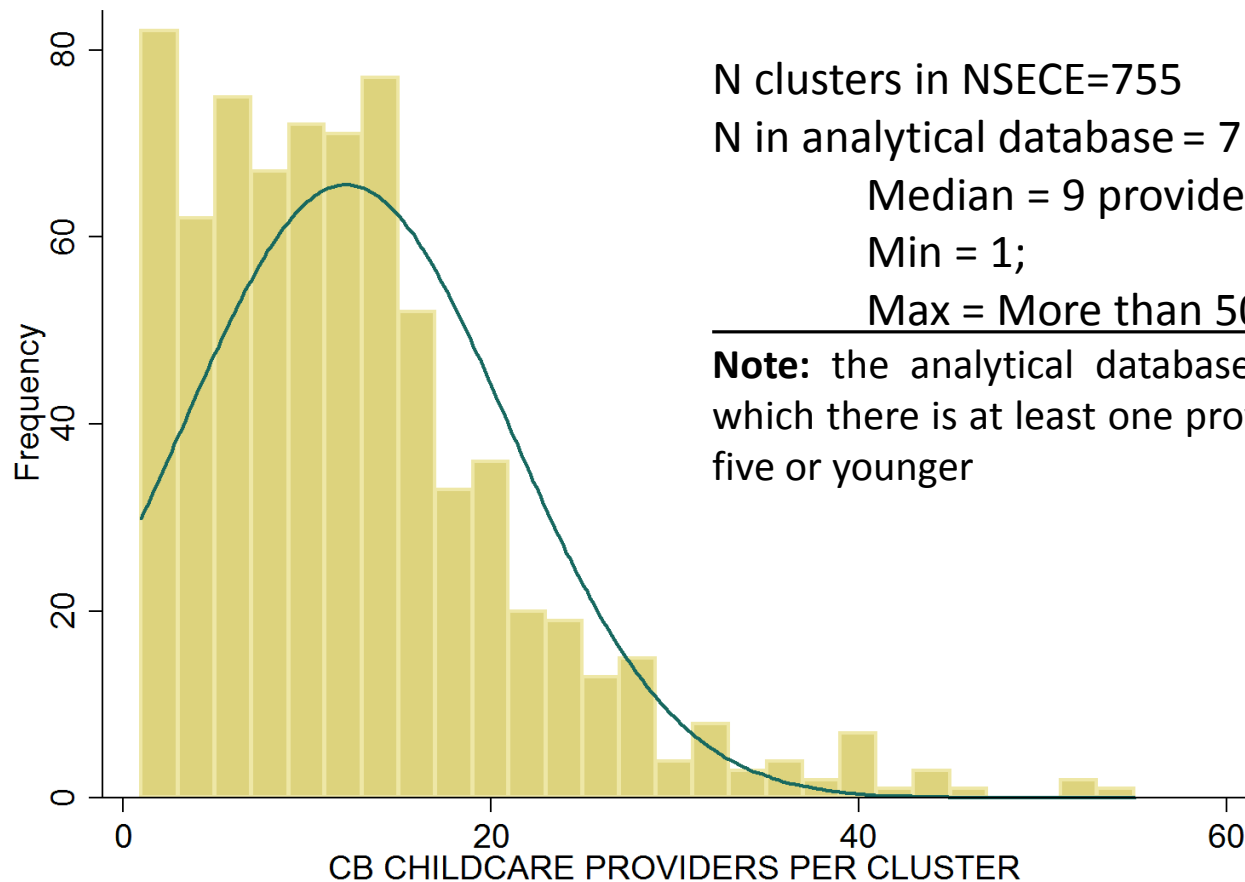
Households from the HH survey



- 1) Associate each CB survey completed to its corresponding SSU/cluster(s)
- 2) Generate aggregated measures (statistics/mean/SE) for each cluster (customized weights)
- 3) Associate each HH survey completed to its corresponding SSU
- 4) Add to HH data, aggregated attributes of CBs via their SSU/clusters



# Frequency in the number of CB providers per cluster



N clusters in NSECE=755

N in analytical database = 718 clusters

Median = 9 providers x cluster

Min = 1;

Max = More than 50

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**Note:** the analytical database is formed by all clusters in which there is at least one provider serving at least one child five or younger



# Methods

- Household weights are used: aggregate CB characteristics are HH attributes in their choice set
- Statistical tests for differences across categories (F-tests) and pairwise differences
- Statistical tests of global significance for associations (regression framework used)



# Households' geographic access to centers with at least one child funded with Pre-K, HS and/or CCDF

Characteristics of nearby households: Income	Average percentage of nearby centers with at least one child funded with...		
	Pre-K	Head Start	CCDF subsidies
< 100% FPL	37.3%	33.5%	55.0%
100 to < 200% FPL	34.2%	29.5%	55.1%
200 to < 300% FPL	36.4%	26.4%	56.5%
300% or more FPL	33.1%	21.1%	57.4%

33.5 is the average percent of centers with at least one child funded by Head Start that are geographically near households with income less than 100 percent of the federal poverty ratio

Difference from top (*reference*) category is statistically significant at 0.05 level

21.1 is the average percent of centers with at least one child funded by Head Start that are geographically near households with income 300 percent or more of the federal poverty ratio



# Households' geographic access to centers with at least one child funded with Pre-K, HS and/or CCDF

Characteristics of nearby households: Income	Average percentage of nearby centers with at least one child funded with...		
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300% or more FPL	33.1%	21.1%	57.4%

- Household's geographic access to CB programs in which at least one child is funded by HS is higher for low-income HHs and lower for higher-income HHs
- Household's geographic access to CB programs with at least one child funded by pre-K or CCDF does not vary by HH income



# Households' geographic access to centers with at least one child funded with Pre-K, HS and/or CCDF

Characteristics of nearby households:	Average percentage of nearby centers with at least one child funded with...		
	Pre-K	Head Start	CCDF subsidies
Community poverty density			
Low	35.1%	21.0%	57.4%
Moderate	35.3%	34.7%	54.7%
High	34.6%	36.3%	54.9%

- No association between households' community poverty density and geographic availability of CB programs with either CCDF or Pre-K
- Households in low poverty density communities are less likely to find a center that funds at least one child with HS relative to households in moderate and high poverty density ones



# Households' geographic access to centers with at least one child funded with Pre-K, HS and/or CCDF

Characteristics of nearby households:	Average percentage of nearby centers with at least one child funded with...		
	Pre-K	Head Start	CCDF subsidies
Urbanicity			
High density urban	35.5%	26.3%	56.5%
Moderate density urban	33.5%	42.3%	53.5%
High density rural	17.1%	38.5%	50.6%

- Urbanicity of households is differentially associated with having a CB program that serves at least one child in either a HS or pre-K program
  - HHs in moderate urban density areas are more likely to have access to centers that receive HS than HHs in high density urban areas
  - HHs in high urban density areas are more likely to have access to centers that receive Pre-K than HHs in rural areas
- No evidence of associations between urbanicity and availability of CB programs receiving CCDF



# Households' geographic access to centers with at least one child funded with Pre-K, HS and/or CCDF

Characteristics of nearby households:	Average percentage of nearby centers with at least one child funded with...		
	Pre-K	Head Start	CCDF subsidies
Race and ethnicity			
White (non-Hispanic)	32.6%	25.5%	57.3%
Black (non-Hispanic)	31.9%	27.3%	63.0%
Hispanic	41.9%	33.3%	50.6%
Other (non-Hispanic)	36.0%	27.6%	55.2%

- Hispanic households are more likely to have access to centers that receive either Pre-K or HS in their communities than white non-Hispanics households
- By contrast, Hispanic households are less likely to find CB programs in their choice sets with at least one child funded by CCDF, when compared to white non-Hispanic households
- Black households more likely to find CB programs serving at least one child with CCDF when compared to white non-Hispanic households





# Conclusions

- NSECE survey design connects suppliers and demanders through geography, allowing representations of local markets where the ECE transactions are likely to occur.
- We just begun exploring relationships that characterize the demand and supply for ECE with NSECE data.
- Some limitations of the data are important





# Using Data to Make Smart Investments in the Childcare Sector: The Philadelphia Story

Child Care Policy Research Consortium: Washington, DC

December 2, 2015



**30**  
YEARS

THE  
REINVESTMENT  
FUND

**The Reinvestment Fund** builds wealth and opportunity for low-wealth communities and low and moderate income individuals through the promotion of socially and environmentally responsible development.

We achieve our mission through:

## **Capital**

- Grants, loans and equity investments

## **Knowledge**

- Information and policy analysis; PolicyMap & Policy Solutions

## **Innovation**

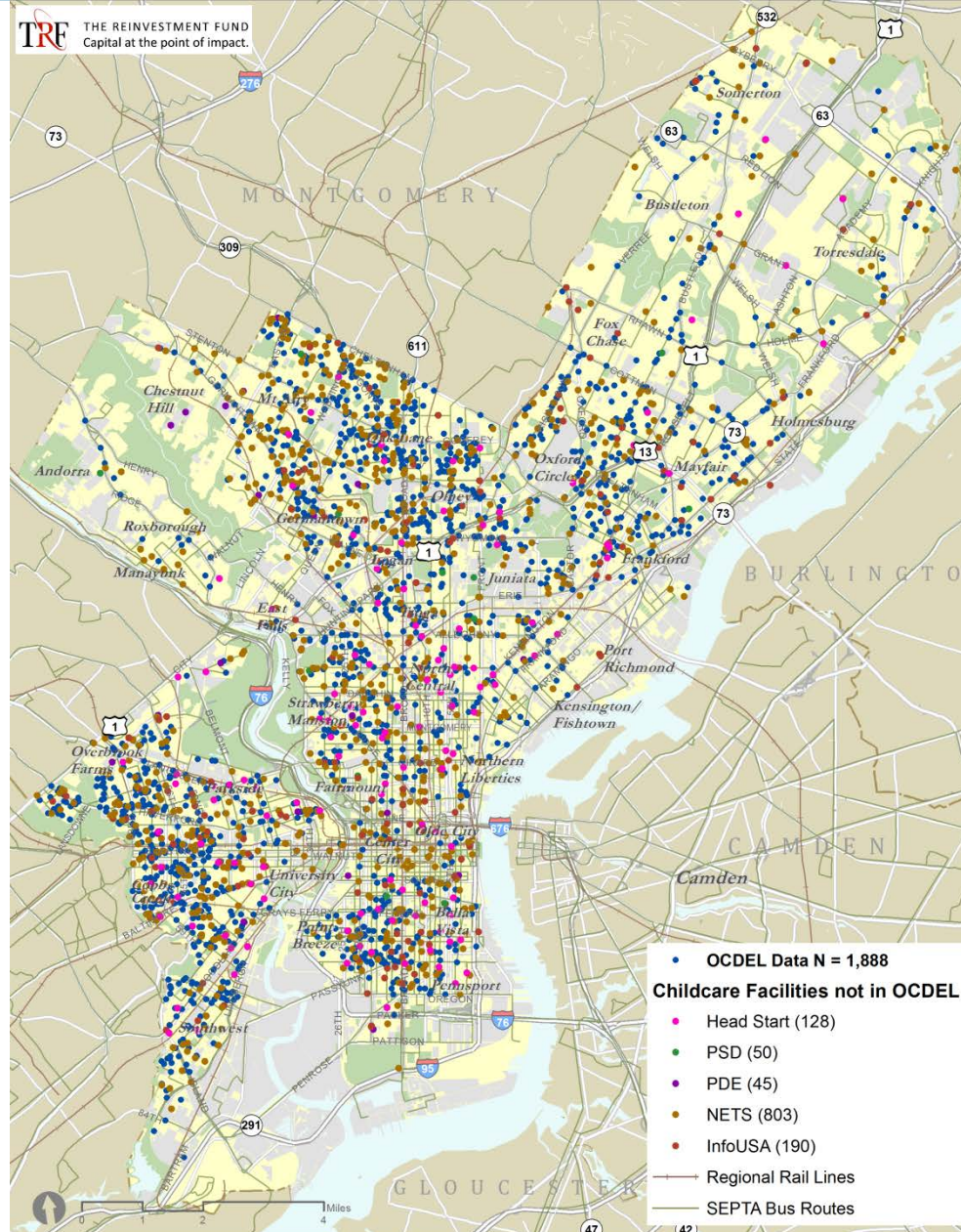
- Products, markets and strategic partnerships

**Wm. Penn Foundation approached TRF about trying to model the supply of, demand for and gaps in childcare in Philadelphia.**

- Engaged advisory board of local practitioners and experts.
  - Presented to the TRF Policy Advisory Board
- Compiled all data that represent both sides of the supply/demand equation.
- Final deliverables include a written report, Policymap widget and custom report accessible to the public.

- **No comprehensive measure of supply**
  - Used six different data sources:
    - Commonwealth of Pennsylvania, Office of Child Development and Early Learning (OCDEL) database
    - School District of Philadelphia Head Start and Partner Sites database
    - Pennsylvania Department of Education (PDE) database of licenses and enrollments for Pre-K
    - Head Start
    - National Establishment Time Series (NETS)
    - InfoUSA
- **No universal measure of quality for all sites (Keystone STARS only available for sites in the OCDEL database)**

# Supply (All Sites)



## Methodological Issues (continued)

- **Several supply measures (NETS, InfoUSA) do not contain capacity**
  - Match up NETS with OCDEL
  - Prepare regression-based estimates of capacity for those sites in both databases using NETS characteristic data as the predictor and OCDEL as capacity
  - Apply resulting equation to NETS sites not in OCDEL
- **InfoUSA estimated as a capacity of 5**

# Methodological Issues (continued)

- **No direct measure of demand**
  - Start with basic population and age data
    - Decennial Census
  - Correct for children accompanying their parents commuting in / out of their home block group
    - ACS (2007-2011) – estimate percent of workers coming into Philadelphia, or leaving Philadelphia, with children under the age of 5
    - Literature (e.g., Laughlin, 2013) – estimate percent of households using childcare
    - Longitudinal Employer Household Dynamics (LEHD) – move people around the city based on residence / work locations



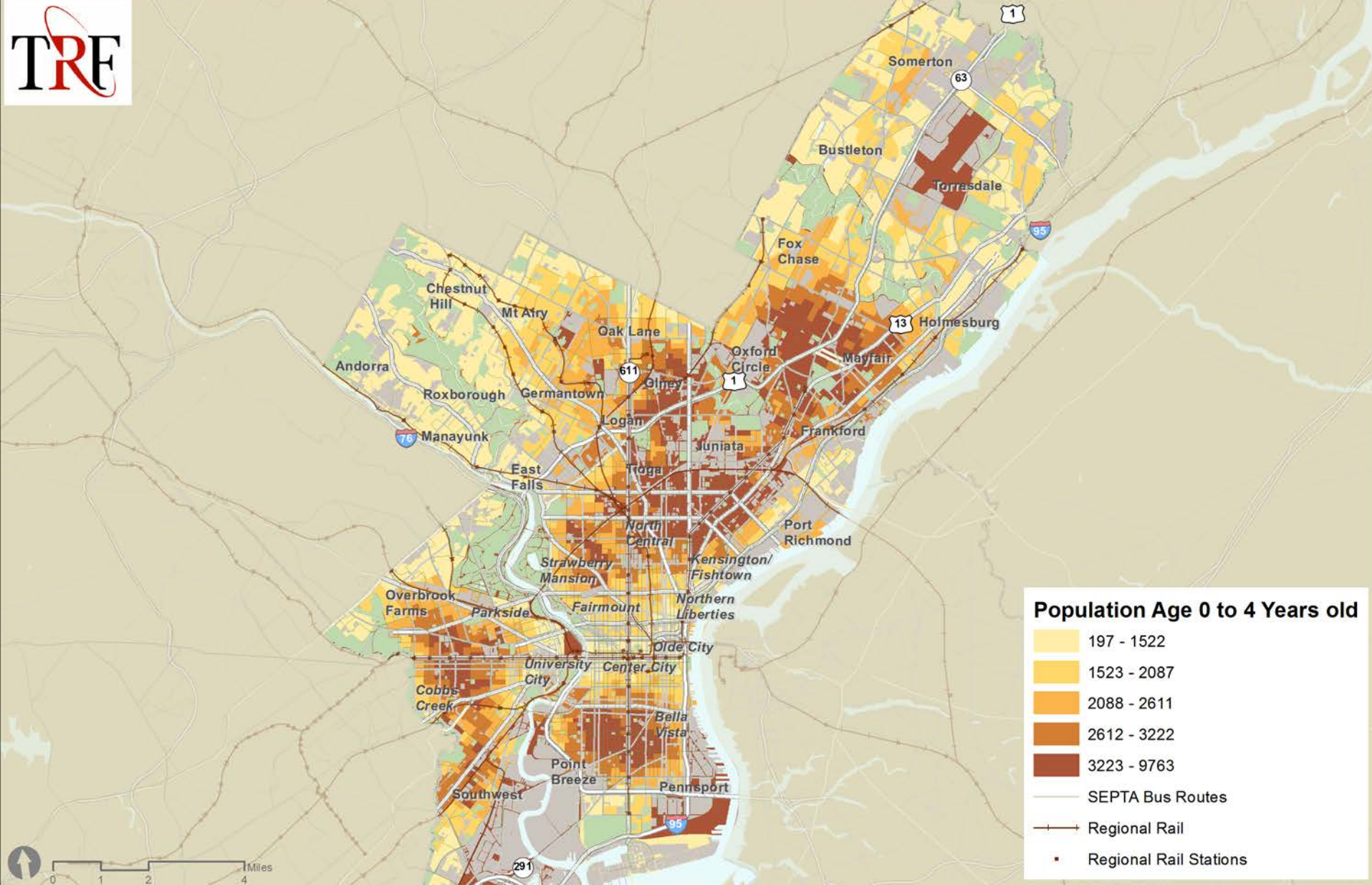


# Demand

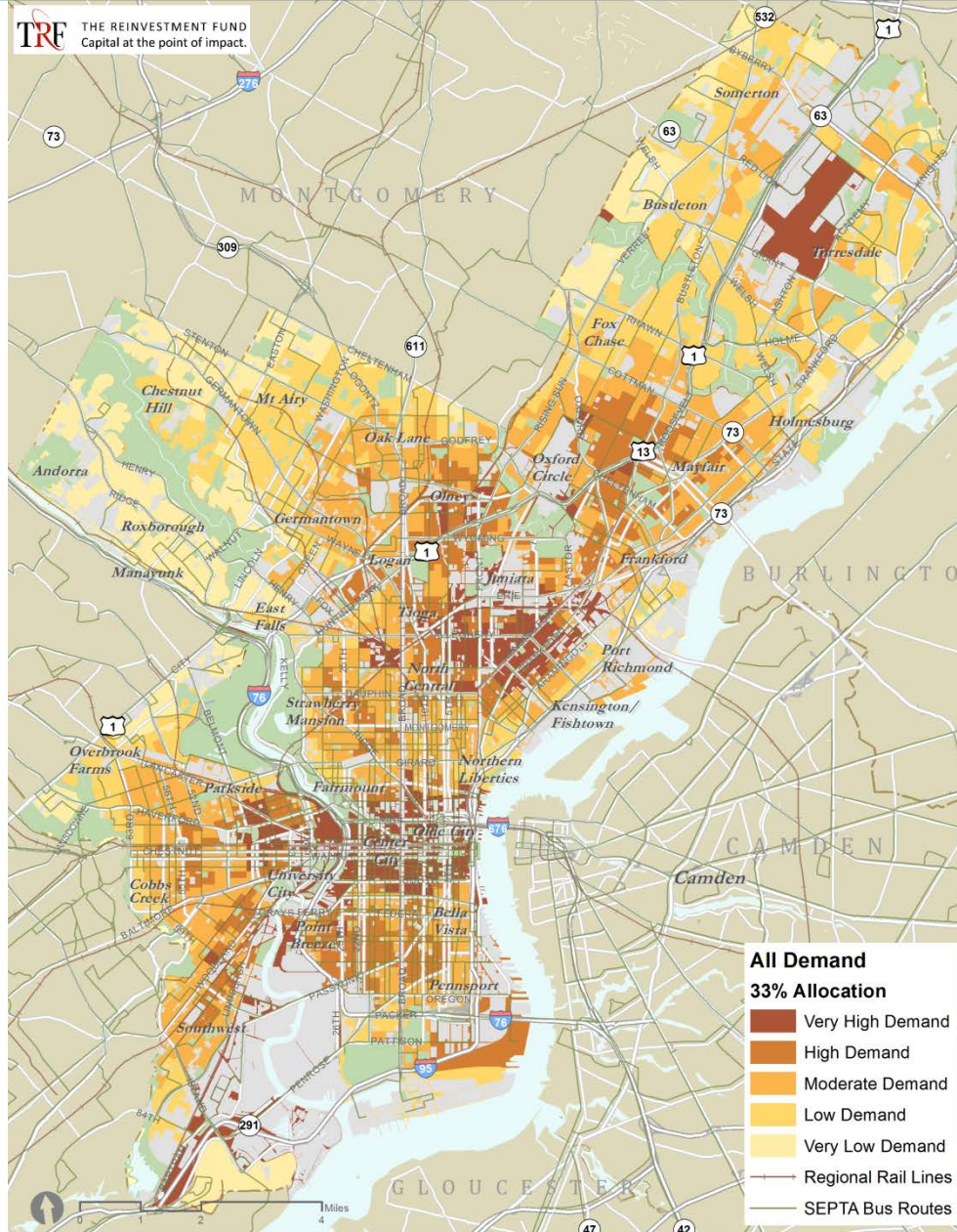
## Estimated Total Demand

- Resident children under 5 (from Census, 2010): *101,053*
- Estimated number of children accompanying city resident parents to out-of-city work locations: *9,927*
- Estimated number of children accompanying parents from out-of-the-city to city work locations: *15,697*
- Total Estimated Demand: *107,820*

# Children Ages 0 through 4 – Residential Demand



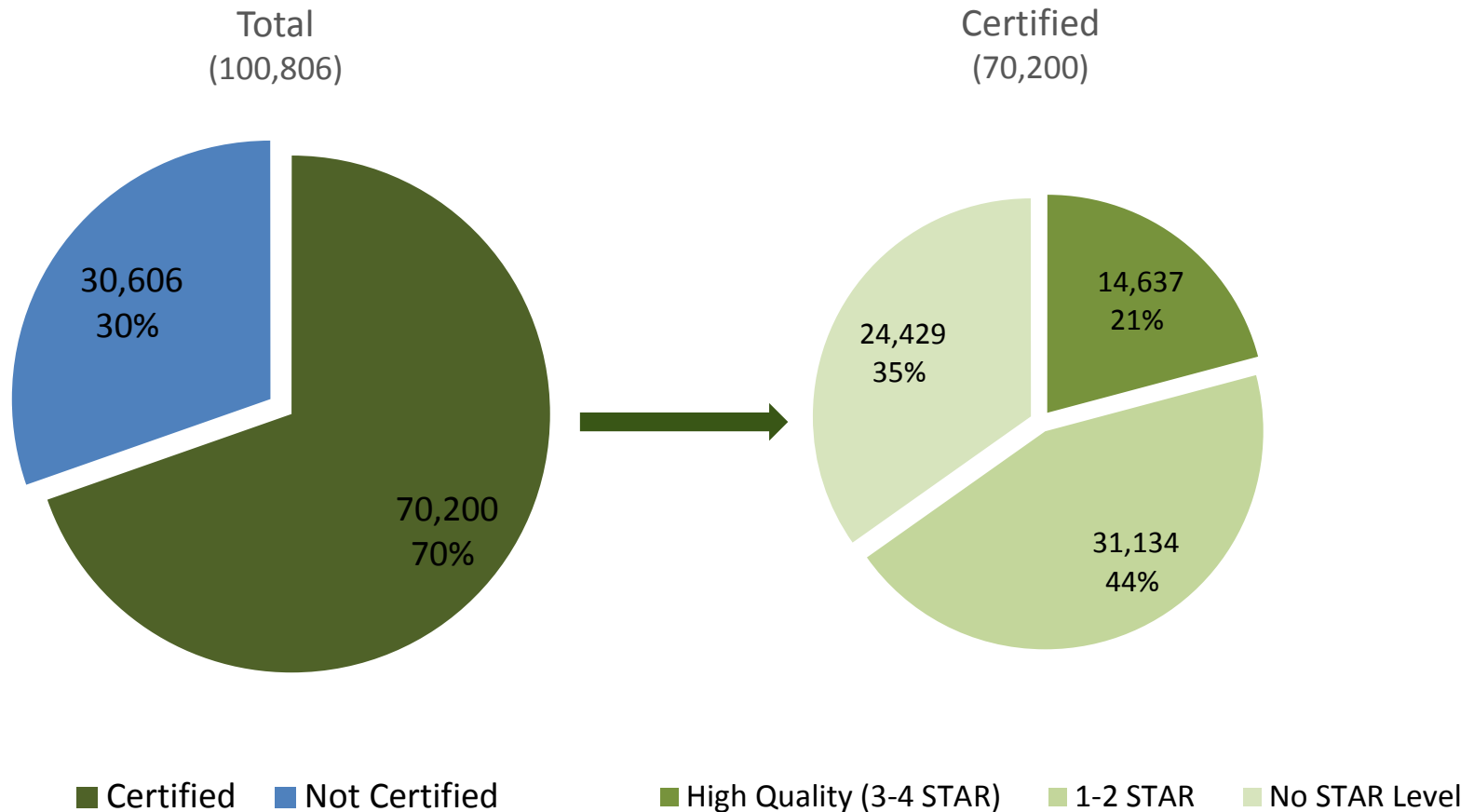
# Allocated Demand (Residents net of commuters in/out & 33%)





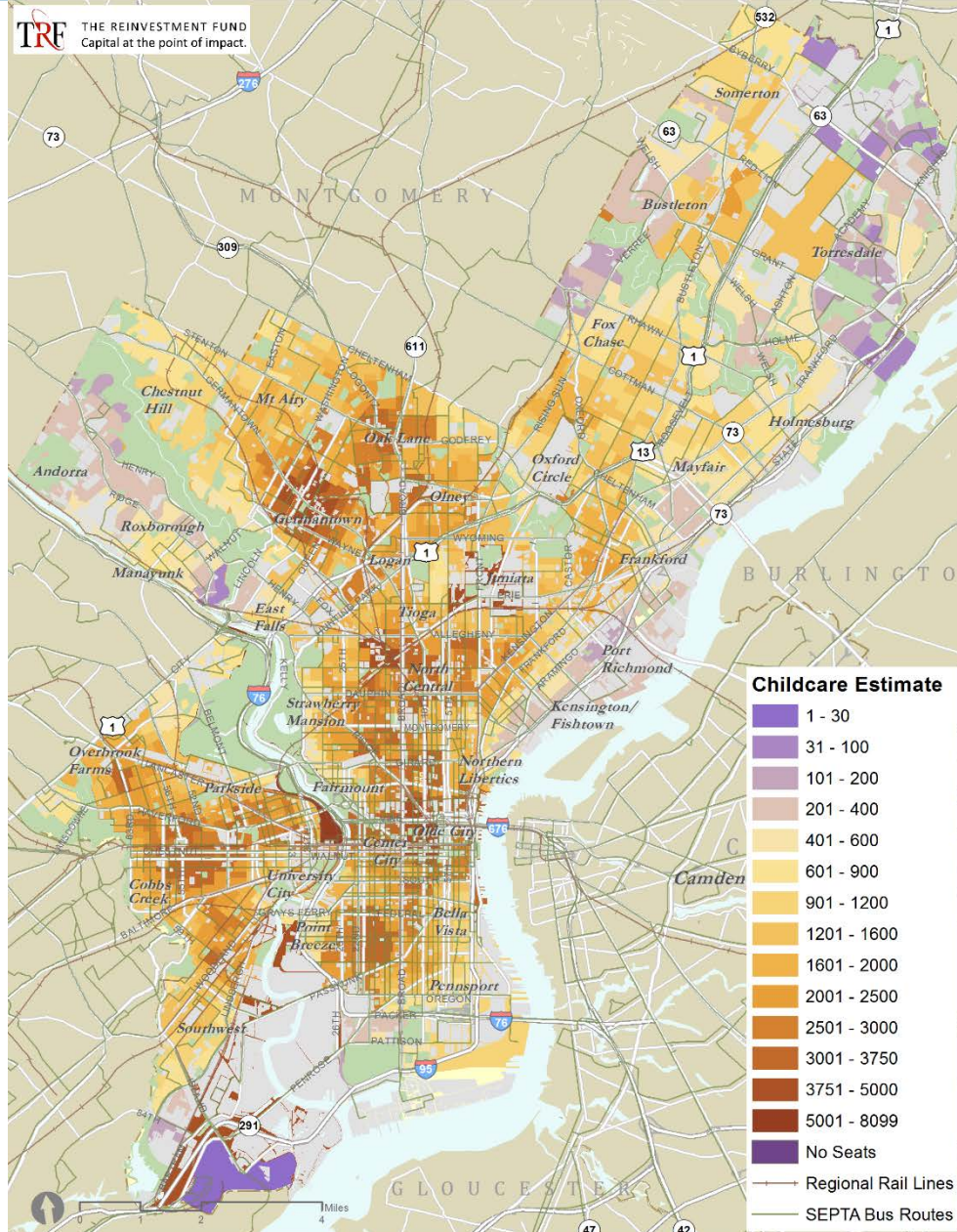
**Supply**

# Estimated Supply of Childcare

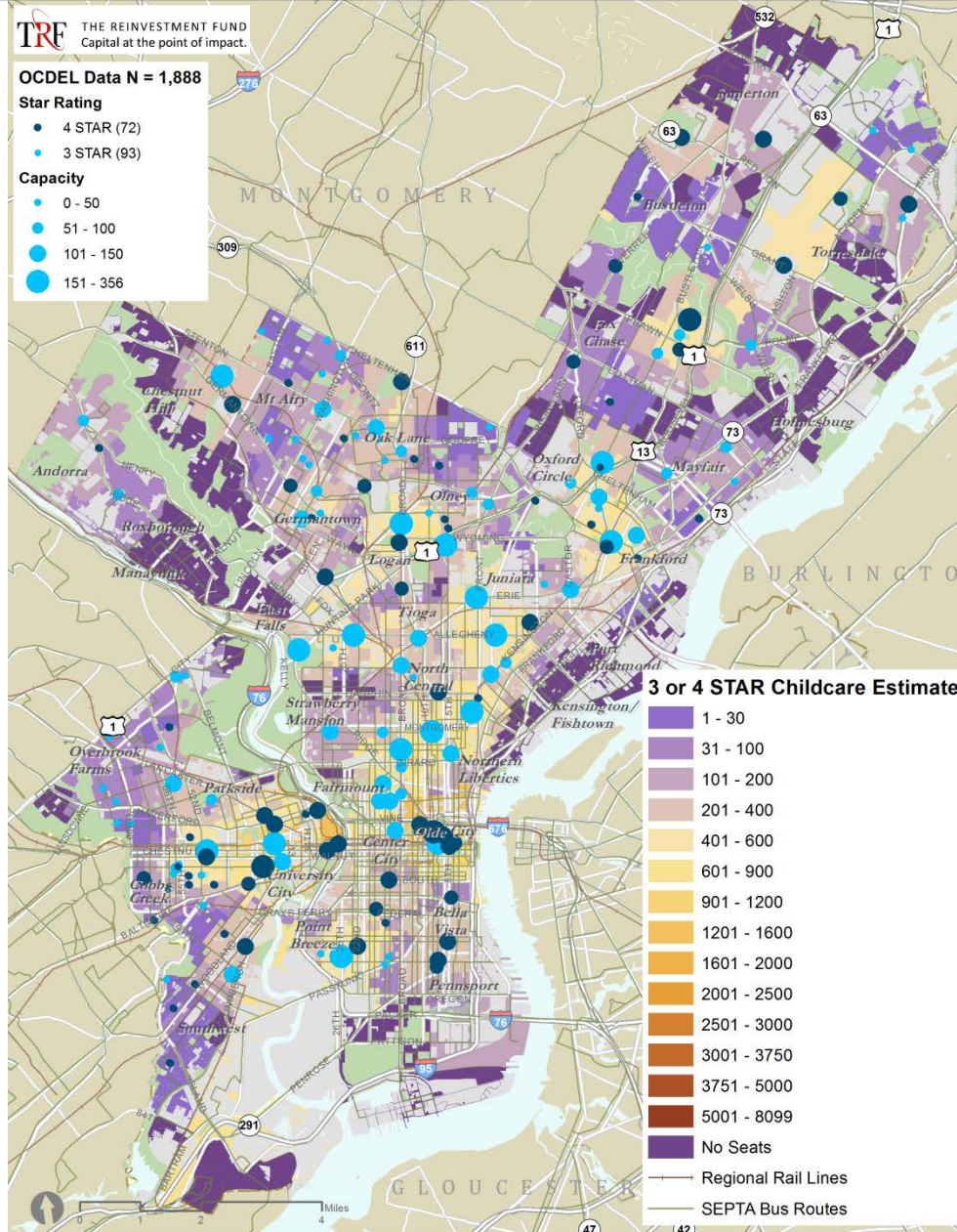


Estimated Supply of Childcare	Total Seats	% of All Seats	% of Certified Seats
Total Seats	100,806		
Certified	70,200	69.6%	
High Quality (3-4 STAR)	14,637	14.5%	20.9%
1-2 STAR	31,134	30.9%	44.4%
No STAR Level	24,429	24.2%	34.8%
Not Certified	30,606	30.4%	

# Estimated Supply (All Sites)



# Estimated 3 & 4 STAR Supply



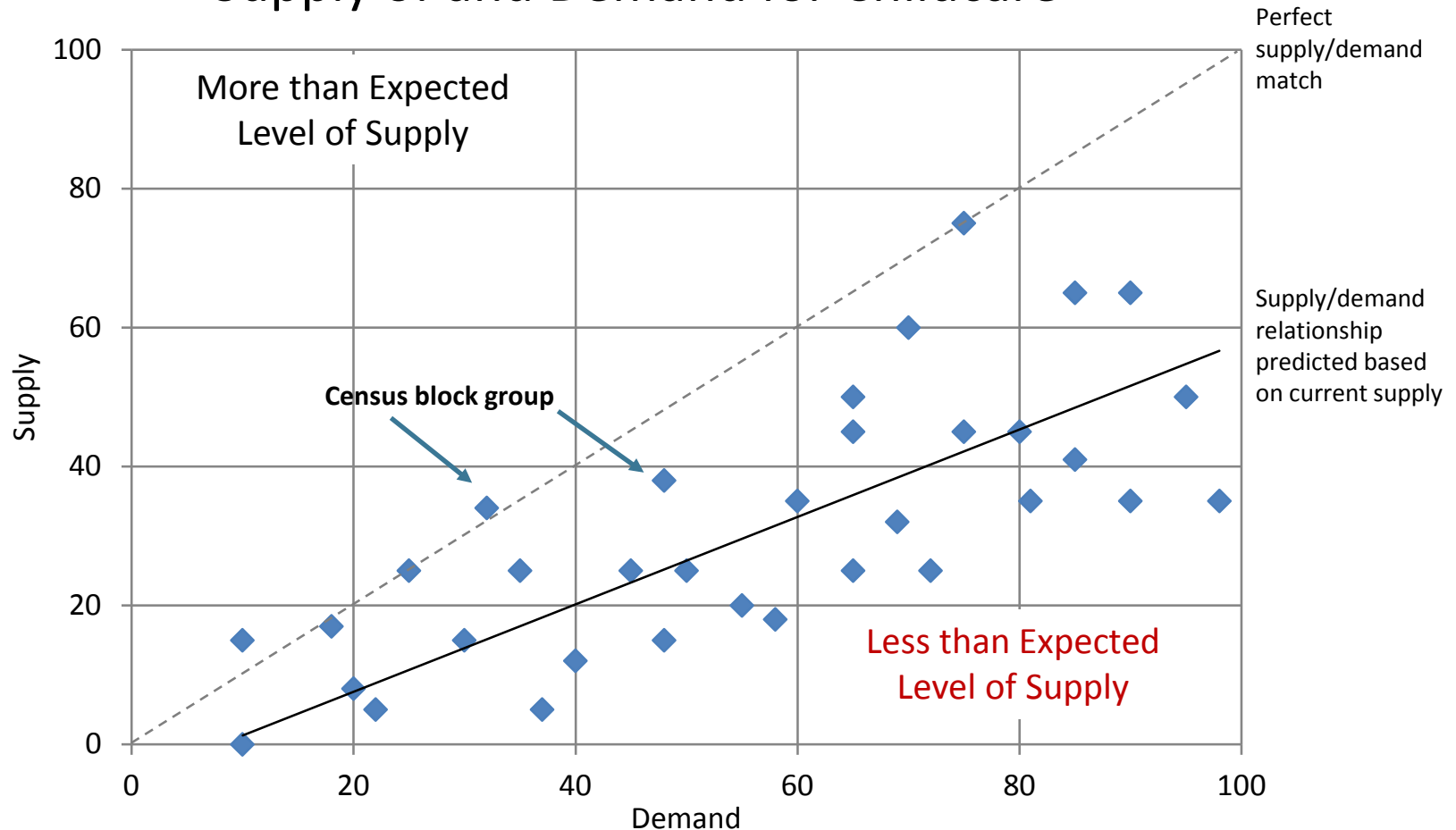




# **Supply Versus Demand; Estimating Shortage**

# Approaches to Estimating the Gap

## Hypothetical Relationship Between the Supply of and Demand for Childcare

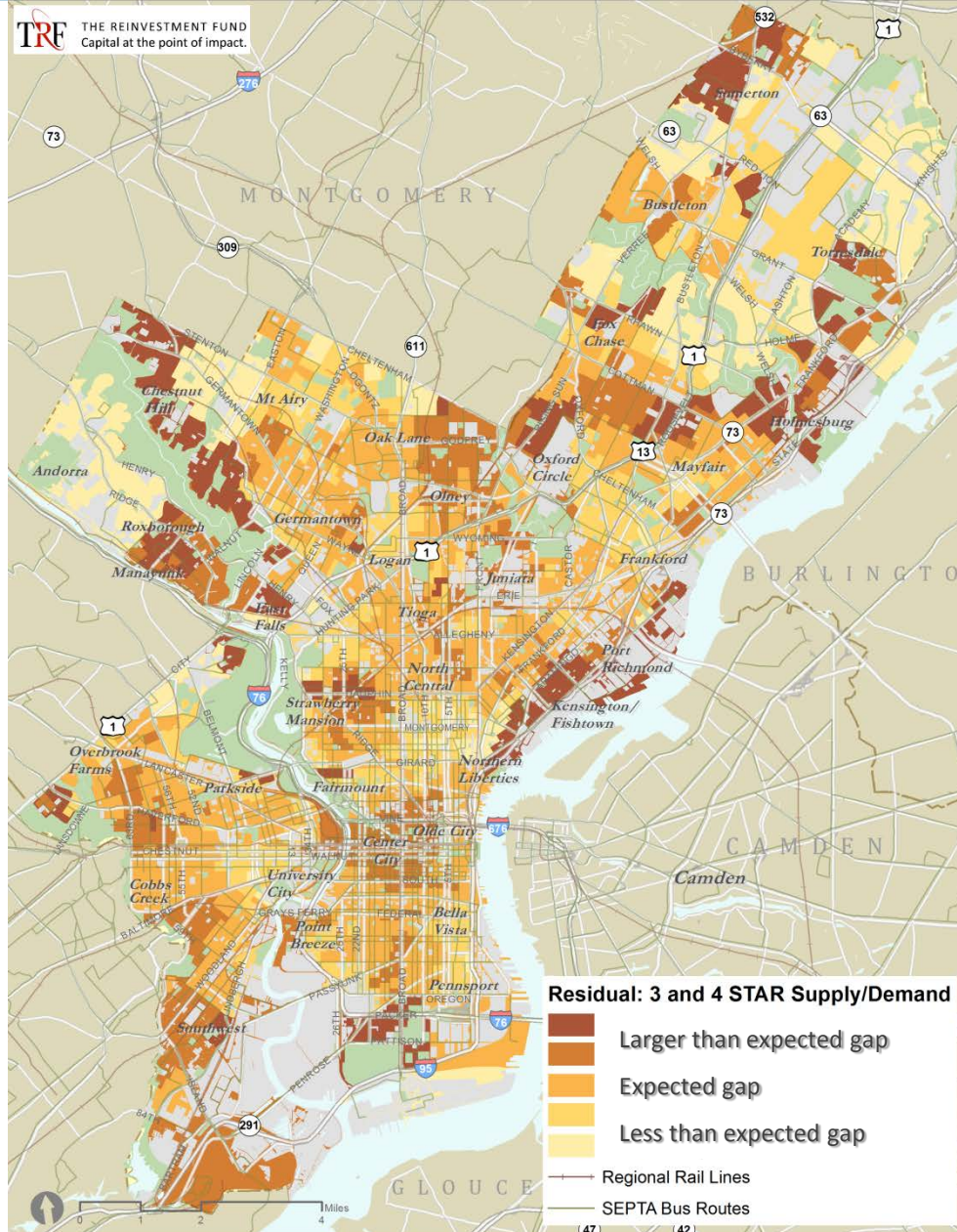


## Approaches to Estimating the Gap (continued)

- Absolute Gap
  - Absolute Gap = Demand – Supply
- Relative Gap
  - Estimated Supply = a + b (demand)  
*[Equation is elaborated for certified and high quality relative supply measures]*
  - Relative Gap = Actual Supply – Estimated Supply

# Relative Shortage: 3–4 STAR Supply

**Gap** is the result of predicting 3-4 STAR supply with certified supply and level of demand.



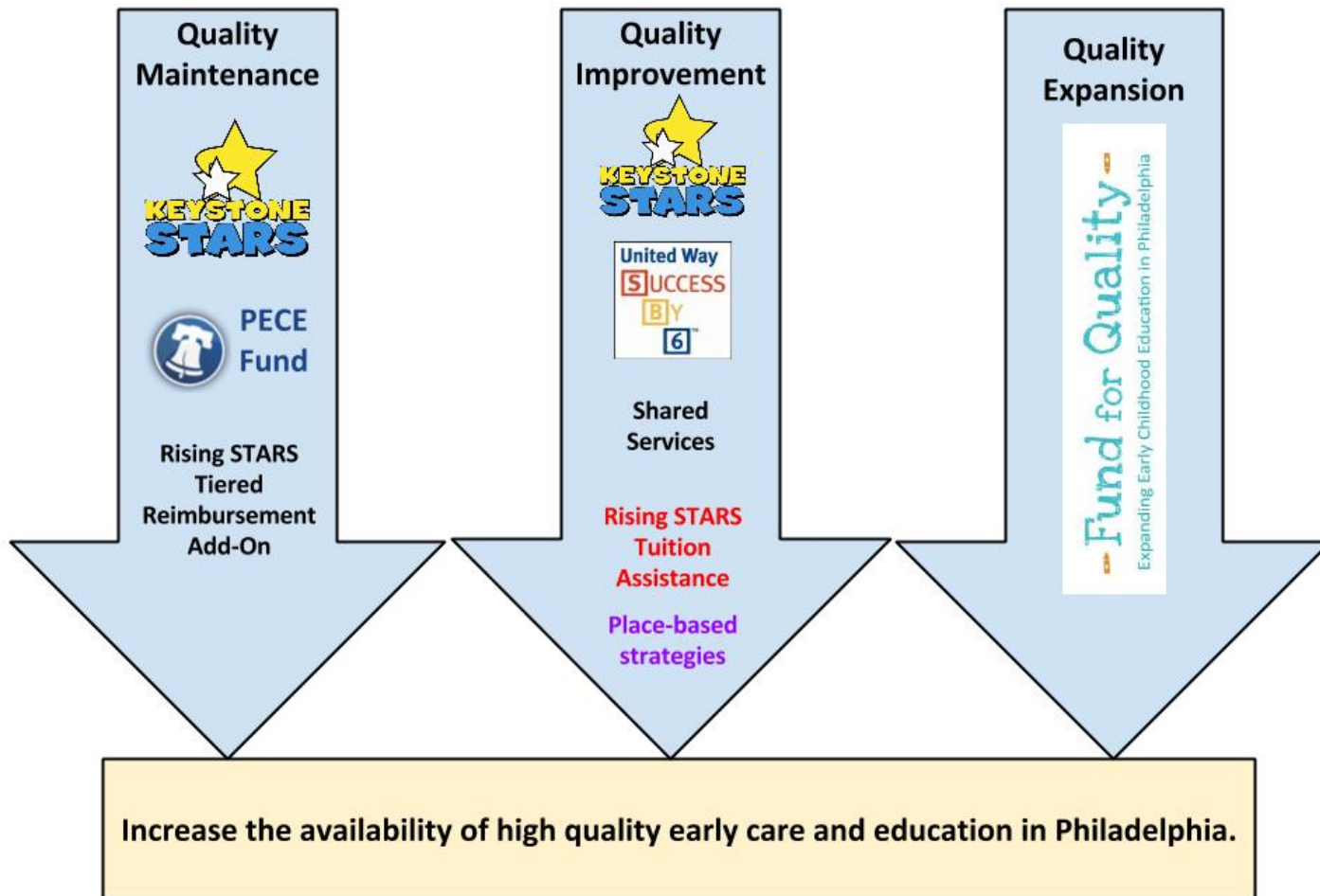


Broadening Access to Data:  
*[www.childcaremap.org](http://www.childcaremap.org)*

Contact:  
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[www.trfund.com](http://www.trfund.com)

# Potential Solutions



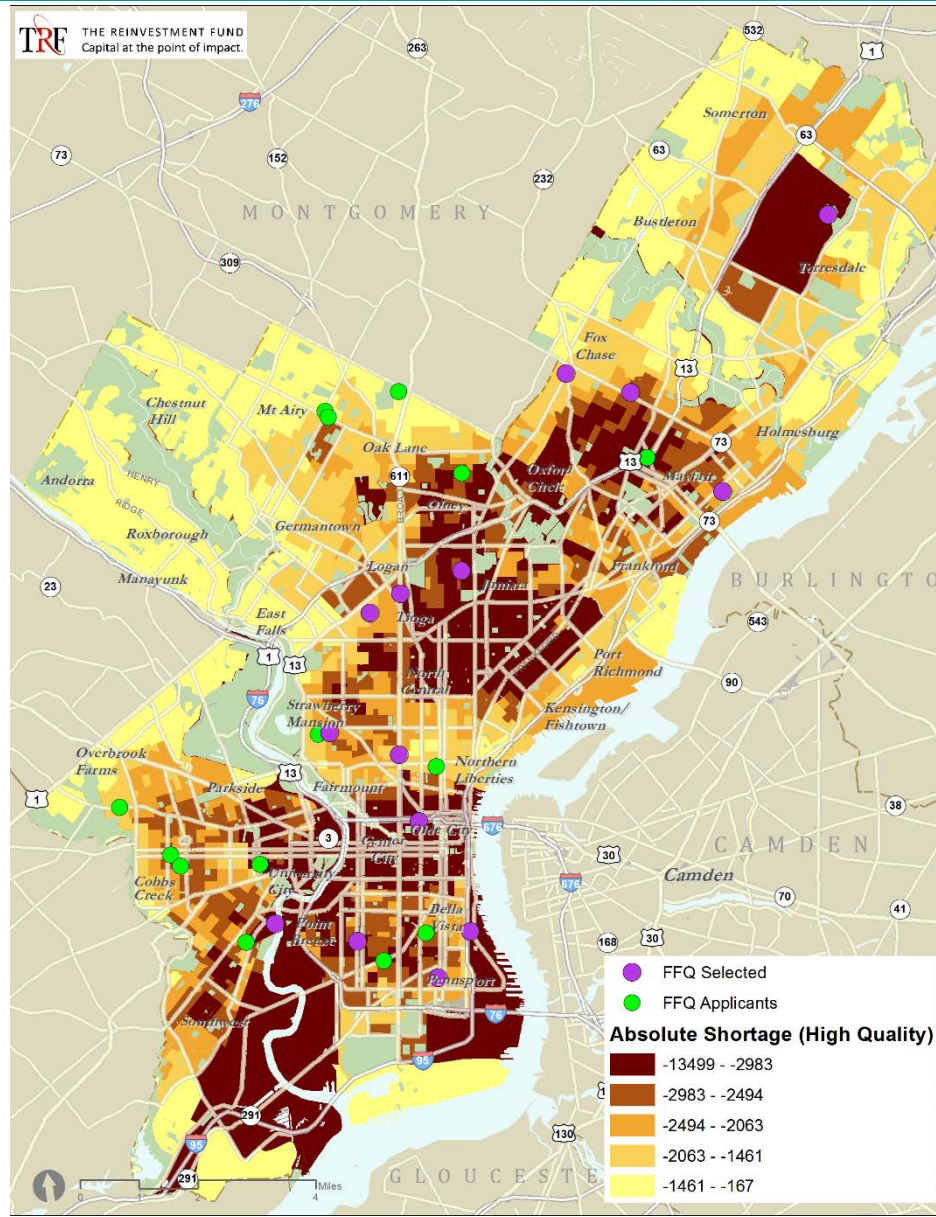
- Planning and capital support to help existing high quality providers expand their operations in one of three ways:
  - Expand in current location
  - Expand to new location
  - Expand with support of a community partner


- Capital projects will create at least 585 new high-quality seats (STAR 3 or 4) in centers serving predominately low-income children across Philadelphia
- Provide grant awards up to \$300,000 and blended loans and grants for projects over \$300,000.
- Significant planning supports for organizational capacity and project predevelopment



- 31 project applications received from 22 agencies
- 14 projects selected for funding: 7 on site expansion projects and 7 expand-to-new projects
- 861 new child care slots projected
- Preliminary project costs total about \$4.5million

# Applications and Approved Sites





To learn more about the  
Fund for Quality visit:

[www.fundforquality.org](http://www.fundforquality.org)