A Path Forward Data Sources and Methodology
Pennsylvania Partnerships for Children

Source

Population: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Poverty: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates (statewide)
                U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates (district)

Enrollment: National Association for the Education of Young Children (7/12/16 accredited locations)
                National Early Childhood Program Accreditation (7/12/16 accredited locations)
                PA Department of Education, Division of Data Quality (2015-16 licensed nursery school
                    and public school pre-kindergarten enrollment and locations)
                PA Departments of Education and Human Services, Office of Child Development and
                    Early Learning (distinct 2015-16 enrollment by pre-kindergarten provider)
                U.S. Department of Health & Human Services, Administration for Children and Families,
                    Office of Head Start and PA Head Start grantees (2015-16 federal preschool Head
                    Start enrollment and locations)

Geocoding: http://www.findlatitudeandlongitude.com/

Map boundary: Pennsylvania Department of Transportation via Pennsylvania Spatial Data Access (2016)

Methodology

The file containing the distinct pre-kindergarten enrollment by provider was separated into high-quality (HQ) pre-k enrollment and publicly funded, high-quality (PFHQ) enrollment. In this file, HQ enrollment includes the unduplicated count of children ages 3-4 in HSSAP, PKC and Keystone STARS 3-4. PFHQ enrollment includes the unduplicated count of children ages 3-4 in HSSAP, PKC and children participating in Child Care Works at a Keystone STAR 3-4 physical location. Although this data comes from the same source, the HQ and PFHQ enrollment comes from two different data sets.

All enrollment data was then combined into a single file by program type. Out-of-state and relative/neighbor providers were removed from the data set. Unique identifiers were applied to each provider address. Addresses using a post office box were researched and replaced with the street address of the physical provider location. Latitude and longitude coordinates with a score of 7 or higher were used (i.e. accuracy at the street-level). Coordinates with lower scores were manually researched and corrected based on the physical provider location. If missing, the county of physical provider locations was researched and entered in to the file.

High-quality enrollment statistics by program type were calculated for Head Start, Head Start Supplemental Assistance Program (HSSAP), licensed nursery, PA Pre-K Counts (PKC) and Keystone STAR 3-4 centers.

Program	Mean	Median	Mode
Head Start	42	32	20
HSSAP	37	26	18

Program	Mean	Median	Mode
Licensed nursery	38	30	31
PKC	38	31	20
STAR 3-4 centers	34	29	20

When PFHQ enrollment was higher than the HQ enrollment at a physical location, the PFHQ enrollment was applied to both HQ and PFHQ categories.

When a provider/physical location had no enrollment information available, the enrollment was estimated in HQ and/or PFHQ as:

HSSAP = 18	Center = 20	Family = 2
PKC = 20	Group = 5	Accredited = (blank)

When a provider/physical location had an enrollment count less than 10 preschool children (and therefore not provided), the enrollment was estimated in HQ and/or PFHQ as:

HSSAP = 10	Center = 10	Family = 2
PKC = 10	Group = 5	Accredited = (blank)

High-quality enrollment was estimated for accredited programs that serve preschool-age children as:

Center = 20	Family = 2
Group = 5	Licensed nursery=30

Physical locations with a distinct enrollment count and program type of Other were researched in COMPASS to determine an accurate program type. The applicable estimated enrollment for accredited providers was then used for the HQ enrollment.

Total HQ enrollment was determined for each physical address participating in Head Start, PKC, HSSAP, Keystone STAR 3-4 child care, licensed nursery school, public school pre-k and/or a NAEYC or NECPA accredited program. Keystone STARS providers that were accredited and not STAR 3-4 were included. Totals were adjusted to be sure a distinct count was not duplicated across PKC, HSSAP and child care since the provider locations were listed for each funding stream. The applicable program(s)/funding stream(s) of each provider location were consolidated into a HQ type field. Locations with more than one program/funding stream were classified as 'Multiple HQ Pre-k Programs'.

Total PFHQ enrollment was determined for each physical address participating in Head Start, PKC, HSSAP, Keystone STAR 3-4 serving preschool age children in Child Care Works and public school pre-k. Accredited programs and licensed nursery schools not receiving public funds for pre-k were excluded. Totals were adjusted to be sure a distinct count was not duplicated across PKC, HSSAP and Child Care Works in Keystone STARS 3-4 locations since the provider locations were listed for each funding stream. The applicable program(s)/funding stream(s) of each provider location were consolidated into a PFHQ type field. Locations with more than one publicly funded program/funding stream were classified as 'Multiple PFHQ Pre-k Programs'.

High-quality pre-k provider locations were imported into ArcGIS for Desktop and added as a map layer by their HQ type. Another layer was created based on PFHQ type.

Using ArcGIS for Desktop, district poverty tables were joined to district boundary layers to determine the eligible population within each district. A spatial join appended HQ and PFHQ enrollment from the

provider location layers to the district boundaries to estimate the number of children served and the number of HQ and PFHQ physical locations in each district. New fields were added to the layers to calculate the percent of eligible population enrolled, unmet need and the number of additional classrooms needed. Note: the additional classrooms needed assumes 20 children per classroom and was calculated by diving the unmet need by 20. It does not take into consideration if the estimated enrollment of current classrooms is full. For example, if a district currently serves 10 children and 4 more children are eligible, the calculation for additional classrooms needed is 1 even though the 4 children could be added to the existing classroom.

All data was imported into ArcGIS Online to create the interactive mapping application.