

## Introduction

*A Seat at The Table: Ensuring Equitable Access to Early Childhood Education in Milwaukee* is a needs assessment of the early childhood education (ECE) system in the City of Milwaukee. This neighborhood-based analysis blends quantitative and qualitative techniques to inform the Greater Milwaukee Foundation's strategic investments to create equitable access to high-quality, affordable ECE services throughout the city. To examine access, this study utilizes supply and demand data to understand whether a given community gets its appropriate share of supply of ECE slots based on its demand from local families. In addition, IFF conducted focus groups with local parents to understand their perspectives and the unique challenges they face, which allowed community voice to inform the work.

## Geographic Area of Focus

IFF focused on the City of Milwaukee as its primary geography for its needs assessment analysis. IFF first obtained GIS shapefiles of local boundaries such as neighborhoods, major roads, rivers and ZIP Codes to lay out the local geography. Then, to ensure a detailed, neighborhood-level focus, IFF conducted a census tract-level analysis of the city so each of the city's 211 census tracts received their own estimate of access by age, quality rating and program type. Since census tracts can overlap neighborhood boundaries, the neighborhood that fell closest to the center of the specific census tract received that neighborhood name. Therefore, multiple census tracts can fall within the same neighborhood.

## Calculation of Demand

Demand is the number of children ages birth to 5-years-old who live in the City of Milwaukee in 2016. To calculate demand by age, the analysis is further divided into two age groups: birth to 2-year-olds (also referred to as infants and toddlers) and 3- to 5-year-olds (excluding 5-year-olds enrolled in kindergarten based on the state's enrollment criteria). To calculate demand by age, IFF uses population projections from Esri. Esri uses Experian, the US Postal Service (USPS), Metrostudy—a Hanley Wood company, and several ancillary sources to provide what is considered the most accurate population count in the industry. Esri demand estimates by census tract were overlaid across the city.

## Calculating Demand by Financial Assistance Program

In addition to calculating the overall demand for ECE, IFF also calculated the demand for federal and state ECE financial assistance programs.

### *Early Head Start & Head Start*

Early Head Start (EHS) and Head Start (HS) are federal programs established to improve the long-term educational outcomes of children from families with low incomes across the United States. EHS serves children from birth to two years of age, while HS serves children three to five years of age. Children from families whose income is below the federal poverty level (FPL) are eligible for these programs. IFF used data from the U.S. Census American Community Survey (ACS), 2012-2016, 5-Year Estimate to estimate

the number of children who are income eligible for EHS/HS. Subsequently, the percent of children below the income threshold was multiplied by the overall demand to estimate the EHS and HS demand.

### Wisconsin Shares

Subsidized care programs vary by state but are generally designed to assist low-income parents with ECE services. Eligible children are identified according to the requirements established by the state. Families living at or below 185% FPL were eligible for the Wisconsin Shares Child Care Subsidy Program - referred to in this study as subsidized care - and included in subsidized demand. Using ACS data, the percent of children below the income threshold was multiplied by the overall demand to estimate the subsidized demand. In addition, parents must be working or participating in an approved activity to be eligible for subsidy so IFF's estimates overstates subsidized demand, as we only considered income eligibility.

**Table 1: Demand by Age and Financial Assistance Program, 2018**

Type	Demand, Ages 0-2	Demand, Ages 3-5	Demand, Ages 0-5
Early Head Start/Head Start	11,953	8,921	20,874
Subsidized Care	18,125	13,563	31,688
Overall Demand	27,055	20,307	47,362

### Calculating Demand for Four-Year-Old Kindergarten (4K)

The State of Wisconsin allows 4-year-old children born after September 1 of the current school year to enroll in Four-Year-Old Kindergarten (4K) through their local school district. The program is tuition-free and open to all 4-year-olds living in Milwaukee. In 2018, one third of 4-year-olds (assuming even distribution of births throughout the calendar year) and the remaining two thirds 5-year-olds who were not yet eligible for Five-Year-Old Kindergarten (5K) due to having birthdays prior to September 1 of that year were included in 4K demand.

### Calculation of Supply

Supply is the total capacity of all licensed and certified ECE providers throughout Milwaukee County in 2018. In Wisconsin the license types are as follows:

- **Licensed Group Child Care:** Provide care for nine or more children and located somewhere other than a residence and center may be small or large in size
- **Licensed Family Child Care:** Provide care for four to eight children in the provider's home
- **Certified Family Child Care:** Provide care to fewer than three children under the age of 7 in the provider's home
- **Public School:** All child care programs operated or contracted by a public school

- **Private School:** All child care programs operated or contracted by a private school

IFF utilized data from Department of Children and Families (DCF) and Department of Public Instruction (DPI) to estimate capacity. DCF provided a list of licensed and certified providers in Milwaukee County. All program types were included except Licensed Day Camps since they do not operate year-round. DPI data on school-based programs were cross-referenced with the DCF data and duplicates were eliminated. All providers in Milwaukee County, except for school-based programs located in the county, as they would only serve families in their local district, were included in the calculation of supply, as city boundaries are porous and Milwaukee families may use a county-based provider.

IFF utilized estimates of capacity by provider type (i.e. center vs. home) and age group of children (i.e. birth to two-years-old vs. three to five-years-old) and, using these percentages as a multiplier, the capacity by age group was calculated as a proportion of the total licensed capacity.

**Table 2: Multipliers for Capacity by Age Group, 2018**

Provider Type	Age 0-2	Age 3-5
Center - Licensed & Group Child Care	35%	43%
Home - Licensed & Certified Family Child Care	52%	37%

DPI provided enrollment data for the 2017 – 2018 school year and that was used to estimate capacity for most public school programs. However, enrollment for some schools was not provided so the DCF licensed capacity was used instead and 100% of the capacity was assigned to Age 3-5, as most school-based programs typically accommodate preschool-age children.

**Table 3: Provider Capacity by Type and Age, 2018**

Provider Type	Provider Count	Capacity 0-2	Capacity 3-5	Capacity 0-5
Center - Licensed Group Child Care	449	10,292	12,780	23,072
School - Public	127	171	7,662	7,833
Home - Licensed Family Child Care	461	1,917	1,364	3,281
School - Private	94	0	2,409	2,409
Home - Certified Family Child Care	184	395	157	552
<b>Total</b>	<b>1,315</b>	<b>12,774</b>	<b>24,373</b>	<b>37,147</b>

**Note:** Four school-based providers were assigned 0-2 slots due to combining duplicate entries where the provider type was center in the DCF data so the center-based multipliers were applied yet the provider type was recoded as school according to the DPI data. **Source:** Wisconsin Department of Public Instruction School Enrollment by County, 2017 - 2018 and Wisconsin Department of Children and Families, Licensed Providers, Milwaukee County (7/26/2018) & Certified Providers, Milwaukee County (7/26/2018)

### Calculating Supply by Subsidy Program

IFF utilized data from DCF to identify whether a provider accepts state subsidy and data from the Administration for Children and Families (ACF) to identify Early Head Start and Head Start programs. DCF provided child-level data on Wisconsin Shares participants including the child’s age and the specific ECE provider they attend. IFF estimated the total subsidized capacity by age group for each program based on this child-level data. ACF provided data on whether a program offered Early Head Start or Head Start providers and their capacity.

### Service Gap Calculation

This needs assessment is grounded in a supply and demand gap analysis. For the City of Milwaukee, the demand for ECE slots was subtracted from the supply of ECE providers. The difference between supply and demand is called the **service gap**. The larger the service gap, the greater the need for ECE services. In addition to the overall service gap, IFF also calculated the service gap by financial assistance program. Because the eligibility requirements for federal and state ECE financial assistance programs overlap, some children were eligible for more than one program and therefore were counted in the demand for each program. The overall demand, however, was an unduplicated count.

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**Table 4: Service Gap by Age Group and Program, 2018**

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Age Group	Overall Gap	Subsidized Gap	Early Head Start & Head Start Gap
Ages 0-2	-14,281	-11,574	-11,241
Ages 3-5	4,066	-6,924	-6,182
<b>Ages 0-5</b>	<b>-10,216</b>	<b>-18,498</b>	<b>-17,423</b>

Additionally, the **service level** divides the supply by the demand to determine the percent of children with access to an ECE slot. Both measures are used to quantify access at the city-wide level to ECE.

## Access Index Calculation

The access index is calculated at the census tract (tract) level and takes into account both demand for ECE services and supply of ECE services. The access index indicates whether a tract gets its appropriate share of supply based on its demand. An access index of 1.0 or greater indicates that a census tract gets its appropriate share of supply based on its demand. An access index below 1.0 indicates that a census tract is not getting its fair share of supply based on its demand.

Factors that may lead to a higher access index for a given census tract include:

- Shorter distances to more ECE slots
- Fewer children in need of ECE services

Factors that may lead to a lower access index in a given location include:

- Longer distances to fewer ECE slots
- More children in need of ECE services

The access index does not indicate whether or not the total supply sufficiently meets total demand. Instead it indicates whether or not the existing supply is equitably distributed.

## Access to ECE Supply

IFF implemented the gravity model, which uses the distance to and capacity of a provider, to calculate access to ECE services in a community. The gravity model is a long-established spatial analysis approach based on Newton's law of universal gravitation, which measures the attraction of two objects based on their mass and distance.

### *Determining Access*

Access ( $a$ ) to every provider for every census tract is determined based on the distance and capacity of a provider to the census tract.

$a_j$  is the access for census tract  $j$

$$a_j \equiv \sum_{i=1}^n \frac{s_i}{r_j^2}$$

Where

$n$  is the total number of providers

$s_i$  is the provider capacity for the  $i^{\text{th}}$  provider

$r_j$  is the distance from the center of census tract  $j$  to the  $i^{\text{th}}$  provider location

**Example:** A provider 1 mile away with a capacity of 10 slots contributes 10 slots to the access index and a provider 10 miles away with a capacity of 10 slots contributes 0.10 slots to the access index.

#### *Determining Total Access*

Total access (TA) is the sum of access for all census tracts within the study area.

$$ta \equiv \sum_{j=1}^n a_j$$

Where

$a_j$  is the access for the  $j^{\text{th}}$  census tract

$n$  is the total number of census tracts

#### *Determining Access Share*

Access share (AS) is the share of the total access for the entire study area for a given census tract.

AS = Access (A) to ECE services in a given census tract / total access (TA) to ECE services in the whole study area.

Access to ECE services is derived utilizing the gravity model as detailed below.

AS is the access share for census tract  $j$ . It is the ratio of the access of census tract  $j$  to the total access in the study area.

$$AS_j = a_j / TA$$

Where

$a_j$  is the access for the given census tract

TA is the total access for the study area

### Demand

#### *Determining Demand*

Demand (D) is the total number of children in a census tract requiring ECE services.

#### *Determining Total Demand*

Total demand (TD) is the total number of children in the entire study area.

#### *Determining Demand Share*

Demand share (DS) is the share of the total study area demand for ECE services for a given census tract.

$$DS = D / TD$$

Or the number of children requiring ECE services in a given census tract / total children requiring ECE services in the whole study area.

### Calculating the Access Index

Access index is determined for census tract j. It is the ratio of the access share to the demand share.

$$\text{Access Index}_j = AS_j / DS_j$$

Where

$AS_j$  is the access share for census tract j

$DS_j$  is the demand share for census tract j

### Composite Rank and Rank Percentile

#### *Composite Rank*

Composite rank is the average of the access index ranks for geographic access to ECE, access to quality ECE (i.e. providers receiving a 3-5 Star rating), access to subsidized ECE (i.e. Wisconsin Shares), access to Early Head Start & Head Start, and access to preschool (i.e. 4K).

#### *Rank Percentile*

Rank percentile is calculated from the composite rank, as it indicates how many census tracts scored below or above the given census tract.

## Community Conversations

Family choice also drives access, as local parents may prefer a certain location, curriculum or facility type for their children. To inform what drives ECE preferences, IFF conducted three focus groups comprising over 30 local parents to obtain diverse perspectives on the ECE system as well as understand their decision-making criteria.

To identify parents to participate in the focus groups, The Parenting Network, a local non-profit that provides resources and works closely with Milwaukee parents, helped with recruitment. Based on The Parenting Network's existing Parent Café connections as well as the Greater Milwaukee Foundation's focus neighborhoods, parents were recruited specifically from the Metcalfe Park, Harambee and Muskego Way communities. However, parents from all Milwaukee neighborhoods were invited and actively participated. During the focus groups, dinner and childcare were provided as well as a Spanish-speaking interpreter, when needed, to ensure all parents felt welcome and comfortable.

IFF led the focus group conversations and aimed to understand challenges parents faced in finding high-quality, affordable ECE services for their children. IFF asked questions about Wisconsin's Quality Rating & Improvement System (QRIS), YoungStar, and whether parents use its resources to find quality programs. Additionally, challenges related to finding subsidized care and navigating Wisconsin Shares were discussed. Lastly, IFF aimed to understand parental preferences and priorities around ECE decision-making.

IFF transcribed each focus group and responses were sorted by topic and then coded by theme. Key themes were reviewed by local stakeholders. Finally, responses were anonymized, and quotations were selected to represent the themes in the final report. Ultimately, these focus groups shed light on the local ECE system from the perspectives of a racially diverse set of parents to supplement the data analysis component of the needs assessment.



## Data Sources

Data used to prepare this report were collected from the following sources:

### **4C for Children**

*Self-Reported Provider Capacity, 2018*

### **Esri Demographics**

2018 Population by Single Year Age and Sex

### **Wisconsin Department of Children and Families**

*Market Rate Survey, 2017*

*Licensed Providers, Milwaukee County (7/26/2018)*

*Certified Providers, Milwaukee County (7/26/2018)*

*Wisconsin Shares, Child-Level Subsidy Data, October 2017 & 2018*

### **Wisconsin Department of Public Instruction**

*School Enrollment by County, 2017 - 2018*

### **U.S. Census**

*2012 – 2016, American Community Survey*

### **U.S. Department of Health and Human Services, Administration for Children & Families, Office of Head Start**

*Region V - Wisconsin Funding Plan for Head Start, FY 2019*

*Head Start Grantees, 2018*



**Milwaukee Parent Focus Group**  
Early Childhood Education Needs Assessment 2019

**Illinois**

333 South Wabash Ave.  
Suite 2800  
Chicago, IL 60604  
312 629 0060

**Indiana**

The Platform  
202 East Market St.  
Indianapolis, IN 46204  
317 860 6900

**Michigan**

3011 West Grand Blvd.  
Suite 1715  
Detroit, MI 48202  
313 309 7825

**Missouri**

911 Washington Ave.  
Suite 203  
St. Louis, MO 63101  
314 588 8840  
  
3105 Gillham Road  
Suite 200  
Kansas City, MO 64109  
816 335 4200

**Ohio**

500 South Front St.  
Suite 125  
Columbus, OH 43215  
614 484 1811

**Wisconsin**

215 North Water St.  
Suite 225  
Milwaukee, WI 53202  
414 563 1100

**1. Welcome (10 min)**

- a. IFF Overview
- b. Purpose of Focus Group

**2. Introductions (10 min)**

- a. Ice Breaker Activity

**3. Childcare Decision-Making (30 min)**

- a. What matters most when considering childcare options?
- b. How do you hear about childcare providers in your area?
- c. What challenges do you face in finding childcare?
- d. What do you like most about the provider your child attends?

**4. Understanding Quality (30 min)**

- a. Are you aware of YoungStar?
- b. What does quality childcare look like for you?

**5. System-Wide Challenges (10 min)**

- a. What challenges do you see with the childcare system across Milwaukee?
- b. Do you have any suggestions to improve the system?

**6. Thank you & Wrap-Up (5 min)**