District of Columbia
Office of the State Superintendent of Education

Modeling the Cost of Child Care in the District of Columbia 2018

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Executive Summary

District of Columbia policies recognize that financially sustainable child care subsidy providers are fundamental to the success and growth of the District's child care industry. To comply with federal law and to support child care providers in maintaining financial sustainability amidst a changing market, in 2018 the Office of the State Superintendent (OSSE) developed and conducted a cost estimation model methodology to further understand the actual costs of care at different levels of quality for different ages of children in child care homes and centers. The purpose of this report is to explain the development of the cost estimation models, share the findings and explain how results of the cost estimation models informed the Fiscal Year (FY) 2019 reimbursement rates for subsidized child care in the District.

Summary of Findings
The cost estimation models revealed the following:

- In most cases, a provider's estimated cost of delivering early care and education services exceeded the revenue generally available to provide care at different levels of quality.
- Centers and homes that are not fully enrolled continue to experience significant revenue losses, confirming that maintaining nearly full enrollment is critical to a provider's financial sustainability.
- Care for infants and toddlers is the most financially challenging type of program to operate without increased financial resources and other cost efficiency supports.
- Utilizing all available funding streams is key to strengthening a provider's financial sustainability.
- There are several opportunities for providers to optimize their revenues and financial stability, such as:
    - Offering before- and after-school care to school-age children, which can have a positive financial impact on a provider's bottom line. Recognizing this positive financial impact is particularly relevant as the District continues to seek ways to support more families in accessing high-quality care for their children before and after school, and during summer and holiday breaks; and
    - Maximizing enrollment efficiency. For example, programs that increase their enrollment efficiency from 85 percent to 95 percent realize an approximate $100,000 increase in revenue.

The District of Columbia used the results of the cost estimation models to inform the FY19 reimbursement rates for subsidized child care and we are very excited to share that the District has significantly increased the reimbursement rates for FY2019. This rate increase applies to children of all ages in all settings, the first such increase in the District in over a decade.

The District will continue to use the cost models to further inform other policy decisions that will support child care providers in maintaining financial sustainability and continue to ensure all District of Columbia children have equal access to quality child care. For example, OSSE will explore further equity-focused rate setting policies for facilities located in neighborhoods with a high concentration of families living in poverty. OSSE acknowledges that the reimbursement-based payment practices may be an obstacle that limits provider participation in subsidy. OSSE is exploring whether higher FY19 reimbursement rates and the on-time and consistent payments to providers will remediate these possible barriers. OSSE will also explore whether contracting for slots in quality and high-quality centers and homes who serve a high proportion of eligible children is a viable solution to increase subsidy access in a way that is sustainable for providers. OSSE is committed to working with providers and policymakers to align incentives that advance excellence in early care and education for those learners most in need and that eliminate barriers to equal access.

I. Introduction

As part of the Fiscal Years 2019-2021 Child Care Development Fund plan submission to the U.S. Department of Health and Human Services, Administration for Children and Families (ACF), the District of Columbia used an alternative methodology to inform subsidized child care reimbursement rates. This methodology is a cost estimation model system, which includes a range of cost models to assess child care *costs* of different levels of quality care for different ages of children in child development homes and centers. This model replaces the market rate survey that the District previously used to inform reimbursement rates. The District conducted a market rate survey this year and used the results to update the market rate used in the cost estimation model and to verify the model's salary assumptions.

A cost estimation model estimates the cost of care by incorporating both data and assumptions to model what expected costs would be incurred by child care providers and parents under different cost scenarios. The District requested and received approval to conduct an alternative methodology from ACF for the purposes of informing subsidy payment rates. The 2018 cost estimation model captured the universe of providers in the DC child care market and reflects variations in the cost structure along relevant dimensions, including provider type, age of children, provider quality, income mix of enrolled children, and participation in early childhood programs. This report includes the results of the alternative methodology, including the estimated cost of care necessary to support child care providers' implementation of the health, safety, quality and staffing requirements as defined by the District's Child Development Facility Licensing Regulations and the District's Quality Rating Improvement System (QRIS). The report also includes the District's response to stakeholder views and comments about the cost estimation model.

II. Background

OSSE is committed to advancing the quality of early care and education in the District of Columbia to ensure all children start school ready for success.

To advance the important work of serving more low-income families in high-quality care, it is federally mandated for states to periodically assess the cost of delivering high-quality early care and education services and to then use this data to inform rates for subsidized child care. Prior to 2015, the District's reimbursement rates have been determined using a statistically valid and reliable survey of the market rates. Research shows, however, that the child care market does not always reflect the actual cost of providing care at different levels of quality care. Therefore, to better understand the actual cost of providing child care in the District of Columbia, OSSE, with the assistance of national financing experts, developed the cost estimation model as an alternative methodology to setting rates in 2015 in order to understand the actual costs of delivering child care services at different levels of quality in both centers and homes. This interactive model used the QRIS, the District's tiered-rate reimbursement framework, to estimate the cost of quality care for children of all ages in both child development centers and homes. Unlike the market rate survey, this cost estimation model allows OSSE to examine how the various factors affect both revenues and expenditures, including size of the center (number of classrooms), ages of children, group sizes and ratios, income mix of families, enrollment efficiency, fee collectability, and available funding streams.

The 2015 cost estimation model[1] demonstrated whether there is a gap between the cost of producing quality of a given level, and the revenue sources available to support a particular type of provider. Knowing the size of the gap at different quality levels, and for various provider types, informed the subsidy reimbursement rates, design of financial incentive packages, and supportive policies to encourage financial success. For example, based on the results of the cost estimation model and increased local funding, OSSE raised the toddler rate in Fiscal Year (FY) 2017 to align with the infant rate, which has the same licensing requirements for group size and ratios as the infant rate, and the cost estimation model revealed that toddlers, along with infants, are the most expensive age group to serve. Another example of how OSSE has used results of the 2015 cost estimation model to inform rates is the FY18 increase to the infant and toddler rate for centers across each QRIS tier by four percent and for homes across each QRIS tier by approximately 10 percent. The increase to the reimbursement rates for homes was informed by the 2015 cost estimation model, which revealed that homes experience more difficulty in maintaining financial sustainability. Further, the cost model demonstrated an opportunity to provide financial stability by linking a network of homes through a shared administration and business practices, or a shared services framework. Accordingly, in addition to increasing the reimbursement rates for homes, OSSE incentivized homes to join a Shared Services Business Alliance by providing the full reimbursement rate plus parent copayments.

The Child Care and Development Block Grant (CCDBG) Act requires that OSSE conducts either a market rate survey or an alternative cost estimation methodology, with approval, every three years. Because the District was able to use the results from the 2015 alternative cost estimation methodology to make targeted and meaningful investments in supporting providers' financial sustainability while also maintaining high-quality care, OSSE, with the support of the State Early Childhood Development Coordinating Council (SECDCC)[2], submitted a request for approval to use the same cost estimation model, with updated elements and assumptions. On May 14, 2018, ACF approved the District's request to use the updated cost estimation model as its alternative cost estimation methodology to inform subsidy reimbursement rates.

III. Early Care and Education Landscape in the District

The District of Columbia is a national leader in early childhood education. Passage of the historic pre-K Enhancement and Expansion Act of 2008 (Pre-k Act of 2008) elevated early learning as a centerpiece of the District's education reform agenda. This legislation set forth a pivotal goal to make pre-Kindergarten universally available to all 3- and 4-year-old children who reside in the District by 2014. During school year 2016-2017, the District served 89 percent (7,186) of its 4-year old children and 69 percent (5,968) of its 3-year old children.[3] Although DC has a three-sector pre-K delivery system (DC Public Schools, public charter schools, and community-based organizations), the majority of 3- and 4-year-olds are served in public schools.

[1] On March 11, 2016, OSSE released a report, Modeling the Cost of Care in the District of Columbia presenting the results of its first cost estimation model, the findings of which present both strengths and opportunities for improvement for the District's early care and education system.

[2] Pursuant to the Pre-k Enhancement and Expansion Act of 2008, the SECDCC was legislatively established in March 2011 to improve collaboration and coordination among entities carrying out federally-funded and District-funded pre-K and other early childhood programs to improve school readiness and assist in the planning and development of a comprehensive early care and education (ECE) system that serves children ages birth to 8 years of age.

[3] Fiscal Year 2017 Pre-K Report, December 2017, Office of the State Superintendent of Education, District of Columbia

The Quality Improvement Network (QIN) was established by legislation in 2014 to create hubs to assist child development facilities (both centers and homes) in meeting Early Head Start standards. The QIN is a pioneering program that layers federal, local and private funding to provide family engagement, coaching, nutrition, and other supports in a quality child care setting, and ensures more children and families benefit from early, continuous, intensive and comprehensive child development and family support services. Currently, 17 centers and 19 homes participate in the QIN, which reaches more than 500 infants and toddlers.

The District currently has 362 licensed child development centers and 111 child development homes and expanded homes, of which 244 (52 percent) provide subsidized early care and education services to children across the District. The licensed child development facilities have licensed capacity to serve more than 25,000 children, ranging from ages six weeks to 13 years of age.

Table 1. Licensed Capacity by Age and Ward

Ward	Infant and Toddler	Pre-school	School Age	Total Capacity by Ward	Percentage
1	881	641	626	2,148	**8%**
2	1,644	2,419	264	4,327	**17%**
3	460	1,908	150	2,518	**10%**
4	1,309	1,348	1,007	3,664	**14%**
5	1,070	1,158	1,092	3,320	**13%**
6	763	1,021	538	2,322	**9%**
7	889	1,049	955	2,893	**11%**
8	1,234	1,609	1,490	4,333	**17%**
Total	**8,250**	**11,153**	**6,122**	**25,525**	**100%**

The District only has one geographic area for the purpose of rate setting. See Table 2 for a breakdown of facilities offering subsidized child care by ward, type of setting and Capital Quality designation level.

Table 2. Child Development Facilities offering Subsidized Child Care by Ward

Ward	Developing		Progressing		Quality	
	Home	Center	Home	Center	Home	Center
1	-	6	-	-	-	17
2	1	-	-	-	-	6
3	-	-	-	-	-	2
4	7	11	-	-	-	28
5	6	21	-	-	2	16
6	2	6	-	3	-	9
7	14	14	-	4	1	24
8	12	13	1	4	8	31

Recent District investments

The District has made other significant financial investments in early childhood. Locally appropriated funding for subsidized child care has increased significantly in recent past years. In addition to the $4.8 million to increase subsidy reimbursement rates in FY18, the District invested $11 million in Mayor Bowser's initiative to increase the supply of child care, the Access to Quality Child Care Fund. This fund is non-lapsing and provides $9 million in grants to providers to create 1,000 new infant and toddler child care slots by 2021. The fund also provides $2 million for workforce investments to assist early care and education professionals in meeting the District's staffing education requirements, effective 2023. Finally, in FY19, the District invested $10 million to increase the subsidy reimbursement rates.

Table 3. Locally Appropriated Subsidized Child Care Funding

FY2015	FY2016	FY2017	FY2018
$41,471,045	$47,434,953	$49,190,629	$55,849,629

IV. Methodology

The District models the cost of delivering child care services at each level of Capital Quality, the District's redesigned Quality Rating and Improvement System (QRIS) at both center- and home-based settings for children of all ages. The District used an interactive cost modeling approach that adapted the Provider Cost Quality Calculator (PCQC), which was developed and tested by national experts Anne Mitchell from the Alliance for Early Childhood Finance, Andrew Brodsky from Brodsky Research and Augenblick, Palaich and Associates (APA), a firm with extensive experience analyzing public education systems and policies. The PCQC is a dynamic, web-based tool that calculates the cost of quality care based on site-level provider data. Due to the multiple levels and funding variations in the DC early care and education system, OSSE developed and maintains a set of interactive Excel spreadsheets that embed the principles of the PCQC. These interactive spreadsheets allow comparisons across different settings and a range of different scenarios of facility size, composition of children's ages, and types of funding and programming.

Goals and Objectives for the 2018 Models

With the continued use of this cost modeling approach, the District has the following goals and objectives.

- Meet the federal requirements of the CCDBG Act by routinely modeling the costs associated with the delivery of child care to evaluate the gap between costs and payment rates as part of a strategic, long term approach to rate setting that supports equal access to care. The cost modeling and report supports the alternative rate setting methodology.
- Deepen stakeholders' and policymakers' understanding of the variances between price and the cost of delivering care, information which supports the setting of rates
- Identify the fiscal impact of DC's licensing regulations and QRIS standards and requirements
- Identify key cost drivers that cut across all QRIS designations
- Carefully explore differential costs and revenues between programs that serve primarily (or exclusively) infants and toddlers and those that serve primarily (or exclusively) three- and four-year old children
- Use this information to test a range of alternative rate-setting and policy recommendations with a clear understanding of the fiscal impact of these decisions

Development of the 2018 Models

As in 2015, OSSE used an alternative cost estimation methodology in 2018[4] to develop its Cost Estimation Model for Child Development Centers ("Center Model") and a Cost Estimation Model for Child Development Homes and Expanded Homes ("Home Model"). As described below, each model is based on updated elements and assumptions that contribute to child care cost based on the type of setting. In addition, both the Center Model and the Home Model include different scenarios that vary by Capital Quality designation or participation in specific revenue-driving OSSE programs, such as the Pre-K Enhancement or Expansion program, the Quality Improvement Network, or the Shared Services Business Alliance.

In 2018, OSSE employed several strategies to gather information and ensure the data used to inform the model's cost assumptions accurately reflected the DC provider experience. The results of the following strategies helped inform the updated assumptions used in the model:

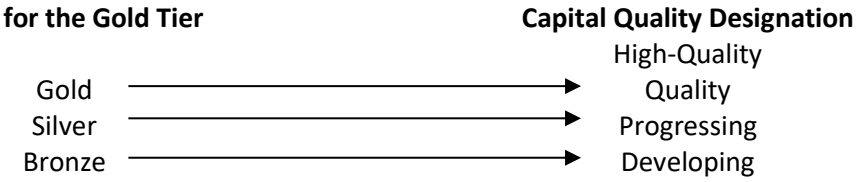
- OSSE carefully reviewed available data on ECE programs throughout the District.
- OSSE consulted with child development providers at OSSE's Child Care Leaders' Summit and Networking Event on April 28, 2018. There were over 110 center directors, owners and executive directors present for the event.
- OSSE presented the alternative methodology to members of the DC Association for the Education of Young Children (DCAEYC) for input and discussion.
- OSSE convened an internal working group of national cost model experts through the BUILD consortium to update cost estimation model.
- OSSE presented preliminary findings to stakeholders for input and discussion.

OSSE also conducted a Market Rate Survey of all licensed providers for informational purposes, and received 184 responses. The survey asked respondents to provide information on the ages of children cared for, the number of children cared for, fees charged for full-time and part-time care, as well as salary and wage information. OSSE used the fee information to estimate the rates for private pay parents in the model, and used the salary and wage information to validate the U.S. Bureau of Labor Statistics (BLS) data to estimate personnel expenses. While the District relied solely on the cost estimation model to inform the reimbursement rates, the market rate survey data was a useful information point to validate and inform the model's assumptions for private pay families and personnel cost drivers.

The 2018 Cost Models enabled OSSE to examine the estimated cost of delivering services at each level of the District's new Capital Quality designations in its QRIS: High-Quality, Quality, Progressing, and Developing. Capital Quality has three components: (1) a designation determined by the research-based metrics; (2) a continuous quality improvement plan (CQIP) aligned with research-based quality standards; and (3) a quality profile to support families in selecting an early care and education setting that best meets their child's needs. Research has increasingly shown that higher-quality facilities (e.g., safe and nurturing settings, more responsive teachers and staff) are positively associated with young children's cognitive, behavioral and social-emotional skills, especially children who are vulnerable (e.g. low income, special needs, experiencing homelessness). Utilizing a common metric of quality that is

[4] While not yet in effect, it is worth noting that this cost estimation model closely aligns with the requirements set forth in Section 11a(2) of the Birth to Three Amendment Act of 2018, enacted September 5, 2018 (D.C. Act 22-453; 65 *DCR* 9569)

specific to each type of early care and education setting (e.g., family child care and center-based care, school-based) and age group of children, Capital Quality yields valid and reliable data that can inform parents, providers, practitioners and policymakers. Effective, Oct. 1, 2018, OSSE transitioned licensed child development facilities that provide subsidized care from their Going for the Gold tier to a Capital Quality designation and set forth tiered reimbursement rates as follows:



The 2018 Cost Models are based on a set of assumptions about the cost for delivering services, and the likely revenues, for programs of varying sizes, type of setting and quality tier specific to providers in the District of Columbia, as demonstrated in the table below.

Table 4. Center Based Assumptions

<table>
<tr><th colspan="2"><u>Center Based Assumptions</u></th></tr>
<tr><td colspan="2">Assumed Cost Drivers</td></tr>
<tr><td>Staff Assumptions</td><td>Includes the costs based on:
Required adult to child ratio
Directors', Lead Teachers', and Assistant Teachers' salaries based on Bureau of Labor Statistics (BLS) Occupational Employment Statistics Occupational Employment and Wage Estimates for the Metropolitan Washington Area. Salaries vary by Capital Quality designation for:
<table>
<tr><th>Occupation</th><th>Developing</th><th>Progressing</th><th>Quality</th><th>High Quality</th></tr>
<tr><td>Director</td><td>$53,216</td><td>$66,520</td><td>$79,824</td><td>$93,128</td></tr>
<tr><td>Lead Teacher</td><td>$32,395</td><td>$33,868</td><td>$35,340</td><td>$39,758</td></tr>
<tr><td>Teacher Assistant</td><td>$30,923</td><td>$32,395</td><td>$33,868</td><td>$33,868</td></tr>
</table>
Employer paid health and retirement benefits for the Quality and High Quality Scenarios.
Additional staff wages depending on size and characteristics of the program, including any participation in early childhood programs such as Pre-K Enhancement and Expansion or the Quality Improvement Network, such as janitor, receptionist, office manager, eligibility coordinator, family engagement specialist and health care consultant.
Increased staff coverage during opening and closing (assuming a 10-hour day) and daily breaks.
Increased staff coverage, at quality and high quality designations to reflect the planning, individualization for children's learning needs and coaching.</td></tr>
</table>

Center Based Assumptions	
Assumed Cost Drivers	
	• Increased staff coverage to account for paid time to attend training, based on the District's licensing requirements.
Non-Personnel Cost Assumptions	Non-personnel items are calculated as per child, per classroom, or annual costs in the model and includes costs based on the national industry norms and adjusted for DC where necessary for the following: • Costs per classroom: includes utilities, building insurance, maintenance, repair, cleaning, and rent or lease costs. • Costs per child: includes program costs, such as food, supplies, equipment, and office costs. • Annual Costs: includes telephone, internet, audit expenses, and fees.
Operating Assumptions	• Income mix of children: 80 percent of enrolled children are subsidy eligible and 20 percent are private pay. • Enrollment efficiency assumes 90 percent enrollment for Level I providers and 95 percent enrollment for Level II providers. • 3 percent bad debt (proportion of revenue, e.g. tuition, fees, and copayments, that is uncollectable), which is industry standard.
Assumed Revenue Drivers	
Reimbursement Rates	FY18 rates, effective October 1, 2017. These rates represented a 4 percent increase for centers and a 10 percent increase for homes over the FY17 rates.
Child and Adult Care Food Program (CACFP) reimbursement rates	All of the scenarios in the model assume the provider participates in CACFP. Reimbursement rates were updated to reflect increases effective July 1, 2018
Pre-K	For some scenarios, provider participation in the Pre-K Enhancement and Expansion program. The Uniform per Student Funding Formula (UPSFF) was updated to the School Year 2018-2019 rates for 3- and 4-year olds, including at-risk funds. At-risk funds are allocated f or pre-K age students in foster care, who are homeless, or on TANF or SNAP.
Private Pay Tuition	Estimate based on OSSE 2018 Market Rate Survey of all licensed providers.

Table 5. Home Based Assumptions

Home Based Assumptions	
Assumed Cost Drivers	
Staff Assumptions	• Does not include a Director or Lead Teacher Salary, health benefits, coverage, or health benefits. • Six children enrolled in a child development home and nine children enrolled in an expanded home. • Includes, if necessary because of adult-to-child ratio, assistant caregiver wage.

Home Based Assumptions	
Assumed Cost Drivers	
Operating Cost Assumptions	Operating costs for homes are calculated as annual operating costs, annual direct costs per child, and other annual direct cost and includes costs based on the national industry norms and adjusted for DC where necessary for the following: • Annual operating costs: includes rent or mortgage, utilities, home or renter's insurance, and home maintenance and repairs. • Annual direct costs per child: includes program costs, such as food, supplies, equipment, and office supplies. • Other annual direct costs: includes telephone, internet, accountant or tax preparation, and fees and permits.
Operating Assumptions	• Income mix of children: 80 percent of enrolled children are subsidy eligible and 20 percent are private pay. • Enrollment efficiency assumes 85 percent enrollment. • 15 percent bad debt (proportion of revenue, e.g. tuition, fees, and copayments, that is uncollectable), which is industry standard.
Assumed Revenue Drivers	
Reimbursement Rates	FY18 rates, effective October 1, 2017. These rates represented a 4 percent increase for centers and a 10 percent increase for homes over the FY17 rates.
Child and Adult Care Food Program (CACFP) reimbursement rates	All of the scenarios in the model assume the provider participates in CACFP. Reimbursement rates were updated to reflect program increases effective July 1, 2018
Private Pay Tuition	Estimate based on OSSE 2018 Market Rate Survey of all licensed providers:

Some of the assumptions described above were specifically updated in the 2018 cost models as follows:

- **Aligning with 2016 amendments to the licensing regulations, 5-A DCMR Chapter 1.** The District's child development facility licensing regulations were revised, effective in 2016. Some of these regulatory changes translate into cost drivers in the models. For instance, the 2016 regulations increased the hours of professional development training staff are required to receive in a year. The 2018 models accounted for this change by increasing the release time for each full time teaching staff member.
- **Implementation of the Paid Family Leave Act.** In anticipation of the DC Universal Paid Leave Amendment Act of 2016 going in to effect on July 1, 2019, the 2018 models were adjusted in the area of benefits administered. Under this Act, covered employers will pay taxes for this leave benefit for all applicable employees.
- **Increases in Wage Requirements.** The 2018 models were adjusted to reflect DC's updated wage requirements, which include the Living Wage standards of $14.20 per hour, effective January 1, 2018 and the Fair Shot Minimum Wage Act of 2016. This Act raised the hourly minimum wage to $11.50 in 2016, $12.50 in 2017; $13.25 in 2018; $14.00 in 2019; and $15.00 in 2020.
- **Recent increases in child care subsidy reimbursement rates in FY17 and FY18.** The 2018

models reflect increased subsidy reimbursement rates that were informed by the 2015 cost model. In FY17, toddler rates were aligned to infant rates to account for ratio requirements. In FY18, based on the average cost of care and available resources, infant and toddler rates increased by four percent for center-based care and 10 percent for home-based care.

- **Market increases to non-personnel costs.** The 2018 models were updated based on the increase in real estate prices in the District, increasing the rent per square foot to $42 per square foot.

With these updated baseline elements in both the Center Model and the Home Model that accurately reflect a provider's current cost experiences, OSSE analyzed how changing different variables would financially impact specific scenarios. As noted, variables include the number of classrooms in a facility, age groups of children, income mix (number of children with private paying parents and the number of publicly funded children); participation in CACFP; number of classrooms participating in the Pre-K Enhancement or Expansion program; full collection of revenues; and enrollment efficiency. In determining reimbursement rates, OSSE explored how the following specific cost drivers impacted the cost of care and the associated revenues:

- **Implementation of health and safety, quality, and staffing requirements.** Child care programs must now meet stricter health, safety, quality and staffing standards because both the CCDBG and the revised District licensing law require particular updates to related regulations. The implementation of these two sets of requirements involve including increased release time for teaching staff, reviewing the necessary staff qualifications to meet the requirements and increasing salaries as appropriate, and including more substitute days in order to help staff to participate in necessary trainings.
- **Higher-quality care.** OSSE redesigned the quality rating system to have a tiered designation system that reflects an increase in quality care standards. The revised system changed the names of the designations to Developing (formerly Bronze), Progressing (formerly Silver), Quality (formerly Gold), and High Quality. The higher-quality designations translate into increased costs for wages, additional positions, and additional training and staff support time.
- **Increased staff for family engagement and coaching.** Stronger family engagement and additional coaching support for staff are core principles of the District's child care system, and the cost model added expenses related to these approaches to the high quality designation. For example, family engagement and coaching specialist positions were added to this designation to understand the impact on net revenue across different program configurations and program funding models.
- **Program Configuration.** The cost model analyzed how ratios and group sizes impact cost and the income mix of families enrolled (e.g. private pay, subsidy). Additional analyses considered the configuration of the program in the areas of total size (e.g. small or large enrollments) and the age groups of children served. For instance, DC compared costs and net revenue for programs serving only preschool children, only birth-to-three year olds, and birth-to-five year olds.
- **Staff compensation.** The cost estimation model reviewed staff compensation against BLS data for comparable positions in order to update the salaries as well as consider if the salaries are competitive and reflective of actual programs at different child care quality levels. Changes to the model included increasing compensation and health and retirement benefits at higher quality levels and understanding the impact of this on overall cost and whether the increased revenue associated with different funding programs covered the increased compensation and benefits.

Additionally, the 2018 cost estimation models enabled OSSE to compare the net revenue of a program

that (1) primarily serves infants and toddlers compared to one that serves a mix of ages and receives pre-K funding; (2) includes classrooms for school-age children; (3) is a Level II provider who conducts child care eligibility on-site; (4) participates in the QIN program; and (5) offers services in child development homes. The assumptions used in each of these scenarios varied based on cost drivers, such as adult-to-child ratios, teacher wages and benefits, facility requirements, vacancy rates, parent fee collection and others. The cost modeling spreadsheets also included a range of revenue sources, such as child care subsidy (with tiered reimbursement), parent fees, private pay tuition, the Child and Adult Care Food Program (CACFP), and District pre-K funding.

As part of the cost model analysis, the District used several different funding configurations to understand the most efficient and beneficial revenue mix. For instance, family tuition and fees were included in the model and the percentage of families paying tuition can be modified according to the scenario being modeled. Specific revenue and expense model scenarios were built to incorporate state and federal funding, including local child care subsidy, and pre-K Enhancement and Expansion funding. The cost estimation models are built to allow for modifications to the proportion of families that are eligible for state and federal funding, as part of the program configuration inputs, which support analyzing the mix of revenue streams necessary to support a quality program to cover their operating costs.

The full collection of revenues and the enrollment levels are additional factors critical to the collection of anticipated revenues. In analyzing the different scenarios, one can modify the enrollment percentage and revenue collection, or bad debt percentage. Bad debt is defined as uncollected revenue. Calculating different percentages in these efficiency metrics reinforces the notion that DC centers and homes must operate at a higher enrollment efficiency in order to approach covering their costs.

Input from Stakeholders on the Cost Estimation Model

OSSE initially consulted with the SECDCC to seek approval to conduct the cost estimation model and consulted two primary stakeholder groups for input regarding the model. In May 2018, OSSE presented the cost model methodology to DCAEYC at a meeting attended by owners and directors of child development centers and homes, including the President of the DC Family Child Care Association and the DCAEYC President. At the meeting, OSSE presented detailed descriptions of cost drivers (personnel and non-personnel) and revenue sources and consulted DCAEYC members on the accuracy of these cost drivers and revenue sources. DCAEYC members also provided input to OSSE on the estimated enrollment and exposure/bad debt assumptions, the cost per square foot of facility space in the District, and the correct personnel responsibilities that should be included in the model. For example, DCAEYC indicated that the 2015 rent per square foot amount of $30 was insufficient for 2018 and OSSE worked with experts to determine a more reliable amount of $42 per square foot, which was incorporated into the 2018 cost model assumptions. DCAEYC also raised questions about staffing positions whereby center directors and owners of smaller facilities stated that they could play many roles besides directors, and the model was adjusted to include receptionists and janitors only for larger centers. OSSE fully considered all of the input and incorporated it into the cost model assumptions, as necessary.

Additionally, on August 29, 2018, OSSE convened a group of stakeholders to discuss the cost estimation model results. The individuals in attendance included the President of DCAEYC, DC Fiscal Policy Institute, the President of the Washington Association of Child Care Centers, co-chairs of the SECDCC Finance and Policy Committee, President of the DC Family Child Care Association, child development center executive directors who serve on the Access to Quality Child Care Fund Advisory Committee, a Head Start program representative, DC Action for Children, the Low Income Investment Fund and DC Appleseed. OSSE presented background on the cost estimation model, shared the updates made to the model, and the cost

and revenue driver assumptions and how it was used to inform rate setting for FY19. OSSE discussed the results at length with participating stakeholders and received feedback that the assumptions on cost drivers and revenues seemed accurate based on their experience. Participants raised questions about how the model accounted for child development centers' need to support their teachers in obtaining degrees. While the model includes increased release time for teachers at each Capital Quality designation, the model is not able to address costs of obtaining degrees because programs are at different stages at complying with the degree requirements and paths to obtaining to obtaining credentials vary (e.g. online, evening cohort classes, daytime classes). The Council mandated that OSSE conduct an in-depth cost analysis of implementing the new credential requirements, which will be completed in 2019. Providers also asked if the rate increases would cover the costs of delivering care as outlined in the model.

V. Cost Model Results

Child Development Center Model

Once the models were complete, the team developed several scenarios at each quality designation with different funding programs for child development centers, serving children birth to five, birth to three only, and preschool aged children only. OSSE reviewed licensed capacity for subsidized child care facilities to determine average size and common program configurations. For a center serving children birth-to-five, the common configuration used was a center size of 64 children (one infant room, one toddler room age 12-24 months, one toddler room age 24-30 months, one three-year-old room, and one four-year-old room). For a center serving birth to three, the common configuration used was a center size of 40 children (two infant rooms and three toddler rooms 12-24 months and one toddler room ages 24-30 months). For a center serving preschool aged children only the common configuration used was a center size of 72 children (two three-year-old classrooms and two four-year-old classrooms. Across these three different frameworks, OSSE calculated the following scenarios:

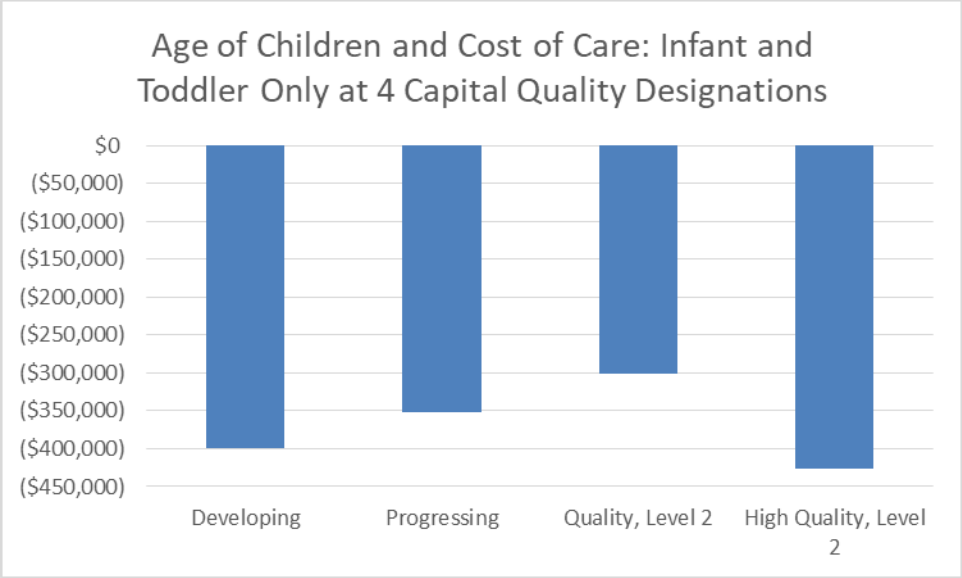
Table 6. Center Based Cost Model Scenarios

Program Characteristics	Number of Classrooms	Number of Infants and Toddler	Number of Pre-school (ages 3 and 4)	Number of School Age
Developing	5	28	36	0
Progressing				
Quality				
High Quality				
Quality, Level II Provider				
Quality, Level II Provider, participating in the Pre-K program				
Quality, Level II Provider, participating in the QIN program				
Quality, Level II Provider participating in the Pre-K and QIN programs				
Quality, with School Age Programs	7	28	36	60
Quality Level II Provider with School Age Programs, participating in the Pre-K program				
High Quality, Level II Provider with School Age Programs participating in the Pre-K program				

Based on these scenarios and the FY18 reimbursement rates, OSSE has made the following findings:

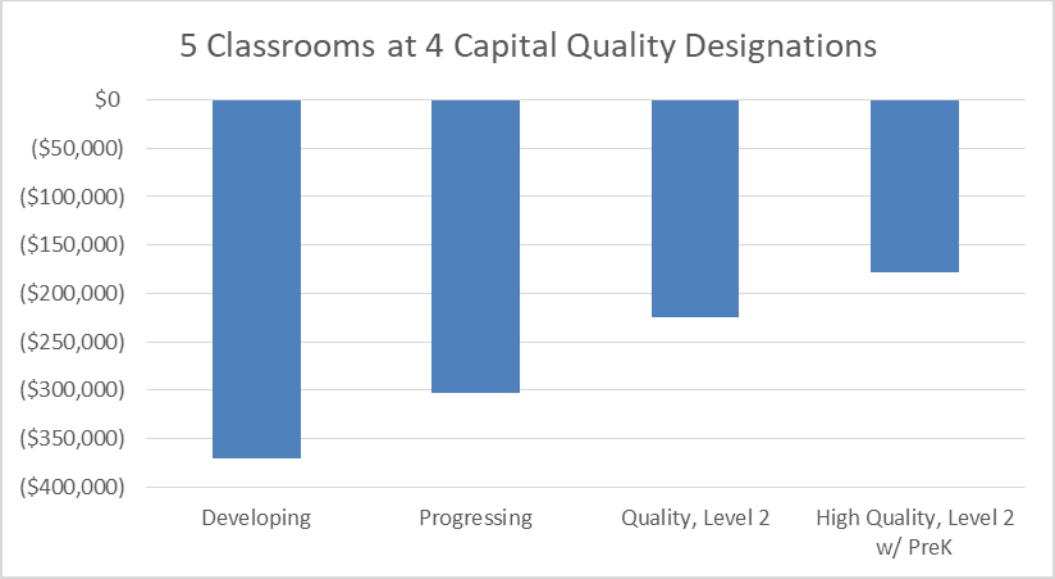
Infants and toddlers continue to be the most expensive age group to serve. The biggest gap between costs and available revenues occurs in small centers that primarily serve infants and toddlers. Chart 1, which models the cost of care for an infant and toddler-only center at four Capital Quality designations indicates significant losses at all quality designations, even for Level II centers, under FY18 rates. A Quality child development facility that focuses on serving infants and toddlers needs additional sources of revenue to break even or profit, as this chart shows a Quality Level II center is operating with the least amount of loss. However, a High Quality Level II center shows the greatest loss, due to the increased personnel costs necessary to operate a high-quality program.

Chart 1. Age of Children in Cost of Care



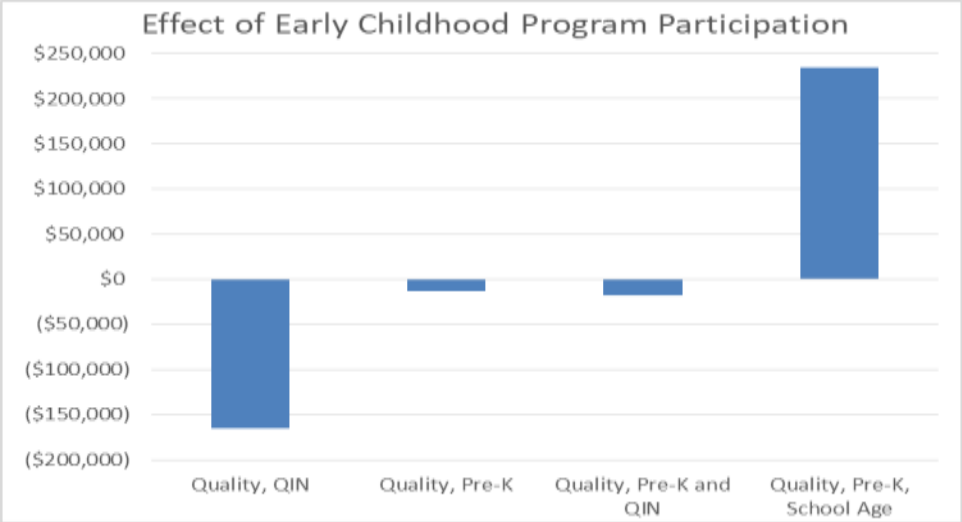
Tiered Reimbursement makes an impact. The District has established tiered reimbursement rates through its redesigned QRIS, Capital Quality. The daily rate reimbursed per child increases as program quality increases. The difference between each tier is on average 15 percent. This tiered reimbursement narrows the gap between costs and available revenue, yet serious challenges persist, as indicated by Chart 2. Each level within the QRIS, along with the requirements of funding such as District Pre-K and QIN, directly increase the cost drivers of staff qualifications and compensation, and staff release time or substitutes associated with quality activities and required trainings. OSSE found that at each of the quality levels and program models, the total expense increases at each designation level and the increases in subsidy revenue alone does not cover the gap.

Chart 2. The Effect of Tiered Reimbursement



Diversifying revenue streams improves the bottom line. Programs that serve mixed ages and receive District pre-K funding for 3- and 4-year-old children are better able to break even or profit and also meet quality standards. Programs must maximize the types of revenue supports they draw on to cover costs. For instance, the addition of pre-K funding and School Age programs in varying scenarios, moves a center designated as Quality closer to having the revenue needed to meet expenses as indicated in Chart 3. The scenario for child care centers with a Quality designation that participate in pre-K and provide School Age programing is the only scenario that resulted in a profit for the center.

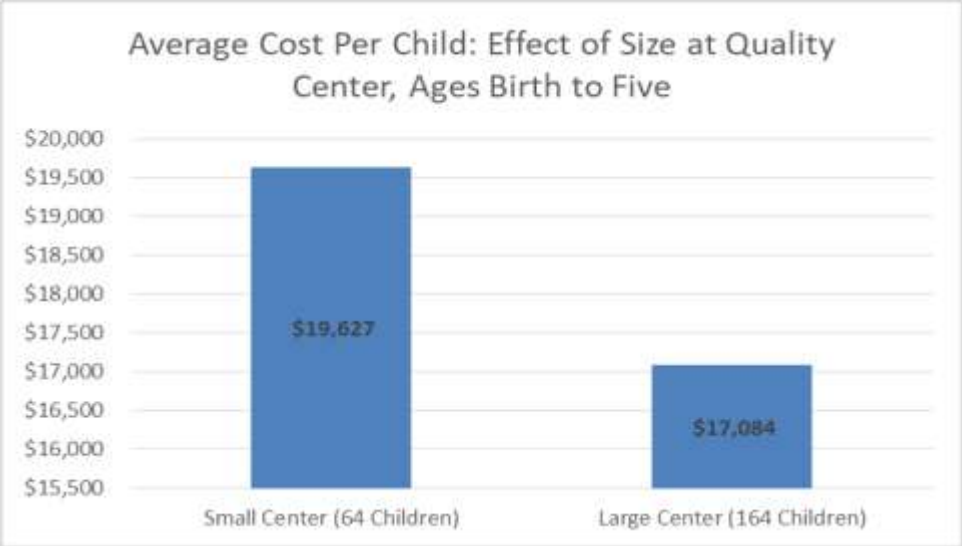
Chart 3. Diversifying Revenue Streams



There is a right size to maximize revenue. When a center with a QRIS Quality designation serving children ages' birth to five is modeled at the small and large center size, the average cost per child decreases as a center size increases. A program of 164 children has an average cost per child of $17,084, while a small

center of 64 children has an average cost per child of $19,627. Economies of scale are realized for expense as centers grow in size.

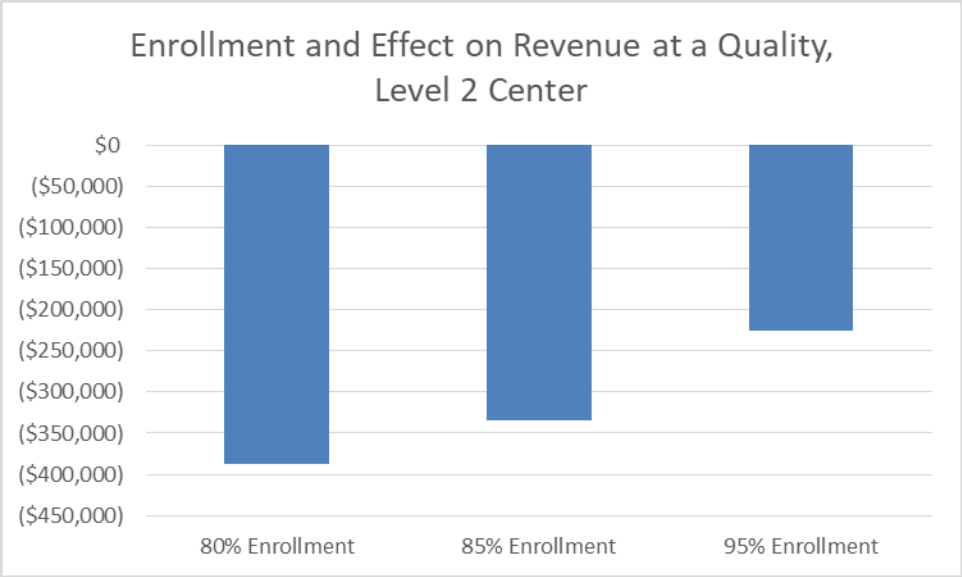
Chart 4. Economies of Scale



Maintaining full enrollment increases revenue. Enrollment percentage has a profound impact on revenue. A center that maintains 95 percent enrollment will experience an almost $200,000 per year gain in revenue compared to a center that maintains 80 percent enrollment. While 85 percent is considered the industry standard, Level II providers who have the authority to determine a child's eligibility and QIN providers who have family engagement specialists helping them with recruitment and enrollment should be able to maintain an enrollment efficiency rate above 85 percent. As noted by the Administration for Children and Families, "enrollment efficiency is expressed as the percentage of a provider's capacity that is currently filled. Achieving 100 percent enrollment efficiency is unattainable even for a provider with high demand supported by extensive waiting lists; such a provider might achieve 95 percent enrollment efficiency. The industry standard is to keep enrollment at or above 85 percent of desired capacity.[5]"

[5] Administration for Children and Families. (2014). *Early Care and Education Program Characteristics: Effects on Expenses and Revenues*. Washington, DC: U.S. Department of Health and Human Services. Available: https://childcareta.acf.hhs.gov/sites/default/files/public/241_1411_pcqc_ece_characteristics_final.pdf [October 2018].

Chart 5. Enrollment Effect on Revenue



Child Development Home Model

The cost estimation model for child development homes also included expanded child development homes, with several scenarios of quality levels and participation in different funding programs calculated for both. The expanded child development home has a configuration of nine (9) children, with three (3) infants, three (3) toddlers and three (3) preschoolers. The child development home configuration is a group of six (6) children, two (2) infants, two (2) toddlers and two (2) preschoolers, a common program configuration. The following scenarios of Capital Quality designations and different funding programs, were calculated for homes and expanded homes:

Table 7. Home Based Cost Model Scenarios

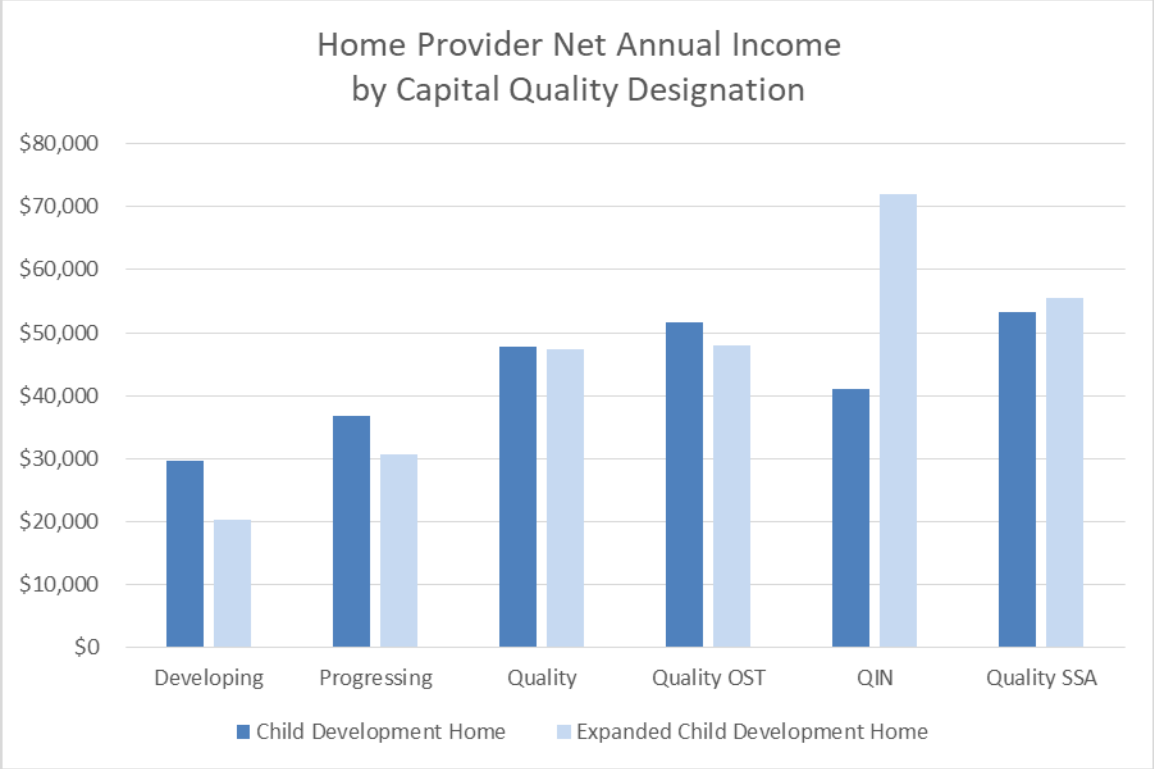
Program Characteristics	Child Development Home	Expanded Home
Developing	6	9
Progressing	6	9
Quality	6	9
Quality, with School Age Programs	6	9
Quality, Quality Improvement Network	6	9
Quality, Shared Services Alliance	6	9

Creating a reliable cost estimation model for homes is complex because of the highly variable cost of delivering high-quality services in home-based settings. For example, most home providers are not paid a salary, even as the owner of the business, and they are working out of their homes, with significantly

varying mortgages or rents.[6] Additionally, it difficult to partition the costs of the home provider's use of the home as a home and the part used as the child development facility. Accordingly, the Home Model did not include estimates for a salary for the home owner.

Instead, the cost model considers the child development homes' net revenue as the provider's annual salary. At the end of the year, this amount increases as the QRIS Capital Quality designation of the home increases. Thus the tiered QRIS reimbursement approach is positively impacting the net revenue for child development homes. In analyzing the impact of program size and the tiered reimbursement levels, the smaller child development homes, with a group size of six (6) have a slightly better profit margin than the expanded child development homes at all Capital Quality designations.

Chart 6. Home Provider Revenue



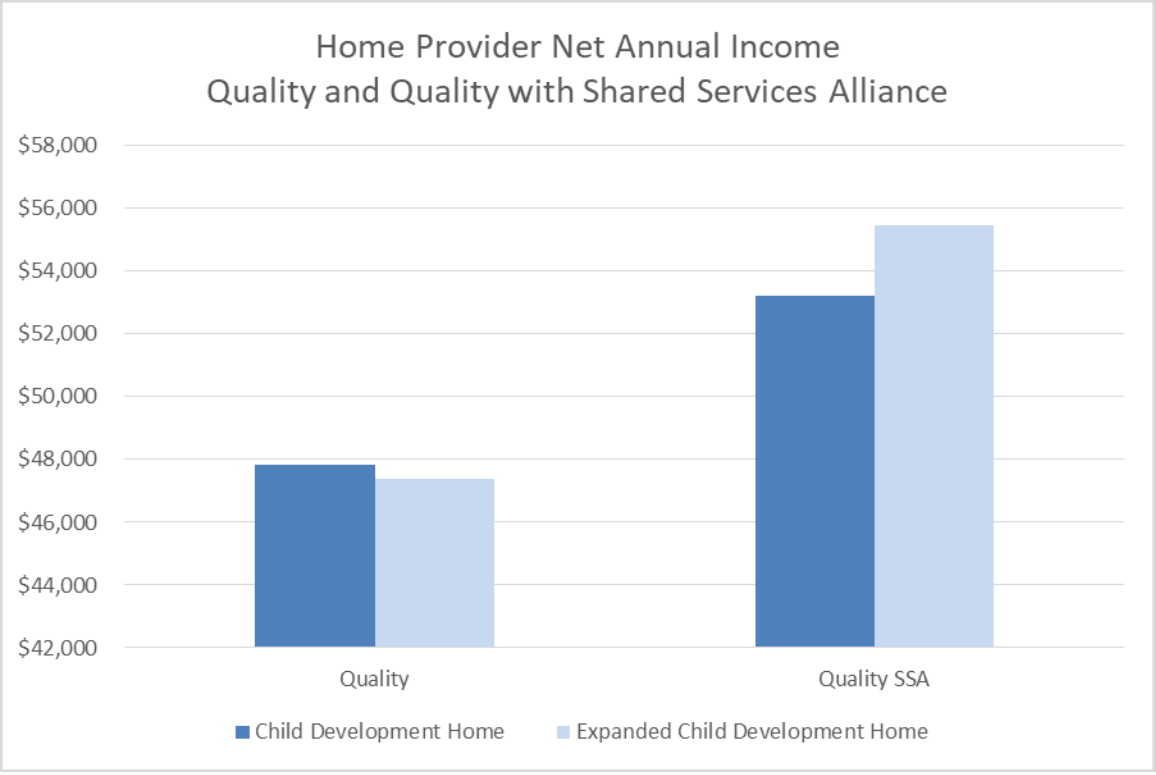
There are potential strategies to further impact the net revenue of providers and the District has been working to roll out these strategies with homes in the last few years. The QIN model is a strategy to ensure access to high-quality care and education for at-risk infants and toddlers living in low-income households. Children enrolled in the QIN have continuous subsidy eligibility from the time they enroll in the QIN until the child is old enough for pre-K. Child development homes and expanded homes in the QIN receive a higher tiered reimbursement rate than non-QIN homes. The QIN supports child development homes in providing comprehensive, continuous and responsive care and job-embedded, practice-based coaching to enhance the quality of the program. For example, an expanded child development home with nine enrolled children from birth to three years under the QIN model will generate the highest provider annual

[6] "Estimating the Cost of High-Quality Early Care and Education." National Academies of Sciences, Engineering, and Medicine. 2018. *Transforming the Financing of Early Care and Education*. Washington, DC: The National Academies Press (pg. 158) (Available here: https://www.nap.edu/catalog/24984/transforming-the-financing-of-early-care-and-education).

income of any home scenario, at approximately $71,000 annually, based on an assumption of $27,025 for operating costs which include rent/mortgage.

Another strategy to increase the quality and capacity of child development home providers is the implementation of shared services alliances. These alliances are networks of small early care and education centers and/or family child care homes sharing costs and administrative and program services. Alliances reduce operating costs through economies of scale in business functions such as payroll, benefits management, banking, janitorial services, food services, and bulk purchasing, and enhanced revenue through increased automation, improved collections, and higher enrollment. The shared services alliances also impact program quality by supporting homes in recruiting and retaining qualified staff, sharing coaching, training and mentoring positions across a group of homes, and accessing support staff for release time to complete trainings and carry out quality activities. This strategy is an emerging approach and was in the first year of implementation at the time of the cost modeling process and report writing. Research on shared services alliances used with family child care across the country reinforce the potential they have to impact efficiencies of family child care costs. Some of the cost savings have not been documented or realized yet for the DC child development homes. As shown in Chart 7, participation in the Shared Services Alliance for a home, with the same assumptions and at the same QRIS designation level, can increase revenue.

Chart 7. Home Provider Revenue with Participation in Shared Services Alliance



VI. Using the Cost Model Results to Inform Reimbursement Rates

Federal regulations[7] require that the District use the results of the 2018 cost models to inform child care provider reimbursement rates that consider the cost of providing higher quality child development services, including the costs associated with each level of quality. These regulations also require that these rates are sufficient to enable child development providers to meet health, safety, quality, and staffing requirements and be responsive to variations in geographic location, age of children in care, and type of care.

After taking public comments into consideration and making any necessary adjustments, OSSE developed the cost estimation model to calculate the cost of delivering care in different settings, to children of different ages, and ultimately estimate the average cost of care at the varying levels of quality for both the Center Model and the Home Model. In order to determine the actual rates for FY19, OSSE balanced the estimated average cost of care, current child eligibility requirements, and actual subsidy enrollment rates against the total available local and federal funding, which included the FY19 local enhancement and federal CCDBG discretionary funding increase. **Accordingly, the District has increased the reimbursement rates for all age groups in all settings across all Capital Quality designations to a level sufficient to enable child care providers to meet federal and local health, safety, quality, and staffing requirements**. **On average, centers received a 57 percent increase and homes received a 24 percent increase in tiered reimbursement rate from FY18 to FY19.** The FY19 rates are presented in Appendix 3.

As demonstrated in the table below, the annual FY19 reimbursement rates for centers are equal to the average cost of care based on quality level, and therefore rates are sufficient to enable child care providers to meet federal and local health, safety, quality, and staffing requirements.

Table 8. Average Cost of Care Compared to District Annual Rates for Centers

	Base Payment FY18*	**Base Payment FY19***	**Average cost of care** (based on FY18 Cost Models)
Developing	$12,657	$17,011	$17,011
Progressing	$14,693	$17,763	$17,763
Quality	$16,918	$19,963	$19,963
High Quality	NA	$24,416	$24,416

**The base payment is calculated by multiplying the tier reimbursement rate for a full time infant or toddler by 260 days per year.*

As explained above, determining the average cost of care based on QRIS designations for homes is complex because there are highly variable costs of delivering child care services in home-based settings. Accordingly, the Home Model did not include estimates for a salary for the home owner but the average profit, which is also considered the average home provider's annual income, by QRIS designation level (revenue less expenses) is presented below. Therefore, using the Home Model to inform the FY19 rates, OSSE set target annual income for each quality level. Specially, targeted 70 percent of the BLS wage for a Child Care Program Administrator for the annual income of a home designated as Developing, 75 percent for a home designated as Progressing and 80 percent for a home designated as Quality.

[7] 45 C.F.R. § 98.45(f)(2)(iii)

Table 9. Projected Home Provider Net Annual Income

	FY18	FY19
Developing Home	$29,704	$39,793
Progressing Home	$36,660	$46,188
Quality Home	$47,876	$62,877

OSSE believes that the FY19 reimbursement rates for homes is sufficient for home providers to meet federal and local health, safety, quality, and staffing requirements.

Additional Provider Supports

In addition to increasing the FY19 reimbursement rates, OSSE has examined other methods to support providers and ensure parents have equal access to quality care. To further ensure equal access and align the District's payment practices with those of private paying families', OSSE will pay a $75 initial registration fee for each subsidy eligible child, beginning Oct. 1, 2018. This fee is only available for children receiving subsidized child care services from providers that charge an initial registration fee, as documented in their policy manuals. The reimbursement for the initial registration fee will be $75 regardless of whether the registration fee charged is more or less than $75.

Conclusion

OSSE recognizes that financially sustainable subsidy providers are fundamental to the success and growth of the District's child care industry. This cost model illustrates the cost of providing high-quality early care and education and the importance of maximizing known factors to help centers and homes account for the costs associated with operating early care and education facilities. Specifically, this cost model showed that total expenses increase as quality designations increase. This cost model highlights important potential strategies for implementing high-quality programs while minimizing costs. Specifically, this cost model showed that programs that serve mixed age groups and receive District pre-K funding for 3- and 4-year-old children are better able to break even and, in some cases, profit while also meeting quality standards. Scaling up can also help; the cost model showed that the average cost per child decreases as center size increases. Finally, enrolling to near capacity can help programs generate needed revenue. Centers that maintain 95 percent enrollment (compared to 80 percent enrollment) will experience considerable gains in revenue. In homes, the cost modeling is more complex, yet, shared services alliances, which bundle services, can help to minimize costs, thereby increasing revenue. Taken together, these findings offer promising insights to increase the number of high-quality early care and education facilities in the District that are available for low-income families with young children.

Appendix 1: Definitions

The definitions for common terms used throughout this report that are provided below may be found in D.C. Code § 4-401 or 5-A DCMR §§ 199 and 299.

Bad debt: the proportion of revenue (tuition, fees, copayments) that is uncollectable.

Child Development Center: A child development facility located on premises other than a dwelling occupied by the operator of the facility.

Child Development Home: A child development facility located in a private dwelling occupied by the operator of the facility. "Child Development Home" also includes those facilities classified as "Expanded Child Development Home."

Extended Day Full-time: Six (6) to fourteen (14) hours where at least one hour of care is in the morning before 7:00 a.m. or in the afternoon after 6:00 p.m. and the majority of hours are between 7:00 a.m. and 6:00 p.m., Monday through Friday.

Extended Day Part-time: Less than six (6) hours where at least one hour of care is in the morning before 7:00 a.m. or in the afternoon after 6:00 p.m. and the majority of hours are between 7:00 a.m. and 6:00 p.m., Monday through Friday.

Full-time Traditional: Six (6) to eleven (11) hours between 7:00 a.m. and 6:00 p.m., Monday through Friday.

Level II Center: A child development facility that is authorized by OSSE to determine initial eligibility and to re-determine eligibility of families and children for subsidized child care services.

Non-traditional Full-time: Six (6) to eleven (11) hours between 6:00 p.m. and 7:00 a.m., Monday through Friday; or six (6) to eleven (11) hours on Saturday or Sunday, regardless of the time of day.

Non-traditional Part-time: Less than six (6) hours between 6:00 p.m. and 7:00 a.m., Monday through Friday; or less than six (6) hours on Saturday or Sunday, regardless of the time of day.

Part-time Traditional: Less than six (6) hours of care between 7:00 a.m. and 6:00 p.m., Monday through Friday.

Quality Improvement Network: A hub- based quality improvement system for infant and toddler child development providers in the District of Columbia.

Quality Rating and Improvement System: The District's Capital Quality system establishes four different designations for early care and education facilities that participate in the subsidy program. The quality of each facility is evaluated using observations, which are used to calculate each facility's rating. These ratings are scored along a continuum, which are progressively associated with four Capital Quality designations (Developing, Progressing, Quality and High-Quality). Each designation is associated with different tiered reimbursement rates. Capital Quality has three components, a designation which is determined by the use of research-based metrics, a continuous

quality improvement plan (CQIP) that is aligned with research-based quality standards and a quality profile to support families in selecting an early care and education facility that best meets their child's needs. The previous QRIS system, Going for the Gold, was based on national accreditation.

Subsidized Child Care Provider: Licensed child development facilities that have a contract with the Office of the State Superintendent of Education to provide care for eligible children under the Subsidized Child Care Program; however, all children enrolled at these facilities are not necessarily participants in the subsidy program.

School Age Programs: Afterschool programs that allow students to participate in academic and extracurricular enrichment activities and to develop new hobbies and skills.

Pre-K Center: A Quality rated center that meets the requirements and high quality standards as outlined in the Pre-k Enhancement and Expansion Funding regulations. These centers receive funding at the uniform per student funding formula (UPSFF) for eligible 3- and 4-year old children.

Shared Services Alliance: Program that provides administrative and business support functions to child development homes.

Appendix 2: Assumptions of the Models

The tool used to model costs is based on a set of assumptions about the cost for delivering services, and the likely revenues, for programs of varying sizes specific to providers in the District of Columbia, including:

- Cost driver updates that accounted for changes
    - to the District's licensing regulations (increased health and safety training requirements and increased staff requirements);
    - Additional staff for High Quality scenarios;
    - increased living wage, minimum wage, and the implementation of the paid family leave tax; and
    - updates to salary estimates based on the Bureau of Labor Statistics (BLS) Occupational Employment and Wage Estimates for the District of Columbia.
- Revenue updates included
    - increases to the Child and Adult Care Food Program (CACFP) reimbursement rates, Uniform per Student Funding Formula (UPSFF) increases for pre-K students, including at-risk funds;
    - market rates based on results of 2018 survey of providers; and
    - increases to child care subsidy reimbursement rates in FY17 and FY18.

<u>Center Based Assumptions</u>

- **Staffing assumptions**
    - **District licensing regulations:** The number of teachers per classroom is based on the staff to child ratios required by District child development facility licensing regulations. Adult to child ratio were amended in 2016, limiting infant capacity to 8 infants per classroom, and requiring a 4:1 teacher child ratio for toddlers up to age 30 months.
    - **Salary estimates:** the model uses the Bureau of Labor Statistics (BLS) Occupational Employment Statistics Occupational Employment and Wage Estimates for the Metropolitan Washington Area.

        - A full time Director was included in all scenarios, and wages were increased as program quality increased. The BLS salary for a Child Care Administrator is $66,250 annually, and the model assume as base wage of 80 percent of the BLS wage for the Developing designation, 100 percent for the Progressing designation, 120 percent for the Quality designation, and 120 percent for the High Quality designation.

        - Lead teacher wages increased as program quality increased. The BLS salary for a Child Care Worker is $29,450 annually, and the model assumes as base wage of 110 percent of the BLS wage for a Child Care Worker for the Developing designation, 115 percent for the Progressing designation, 120 percent for the Quality designation, and 135 percent for the High Quality designation.

        - Teacher Assistant wages were increased as program quality increased. The model assume as base wage of 105 percent of the BLS wage for a Child Care Worker for

the Developing designation, 110 percent for the Progressing designation, 115 percent for the Quality and High Quality designations.

Table 10. Child Care Occupational Wages by Designation

Occupation	Developing	Progressing	Quality	High Quality
Director	$53,216	$66,520	$79,824	$93,128
Lead Teacher	$32,395	$33,868	$35,340	$39,758
Teacher Assistant	$30,923	$32,395	$33,868	$33,868

- **Wages and Benefits:** The model assumes employer paid health benefits for the Quality and High Quality Scenarios. The model also updated the District's Living Wage to the 2018 amount of $14.20. The living wage must be paid by any District contractor who employs who receives more than $100,000 in government funds annually. Non-profit child care providers who employ less than 50 people are exempt from this requirement. Additionally, the model accounted for the implementation of the District's Paid Family Leave Tax, effective July 2019, which adds an additional 0.62 percent of mandatory benefits per employee.

- **Additional staff:** The model assumed different staffing requirements for different scenarios. The inclusion of additional staff (see Table 11 below) depended on the size and characteristics of the program, including any participation in early childhood programs such as Pre-K Enhancement and Expansion or the Quality Improvement Network.

Table 11. Staffing Assumptions by Capital Quality Designation

Position Title	Full Time Equivalent (FTE)	Variation by Quality Designations
Director	1 FTE	All Designations
Assistant Director	1 FTE for > 100 children	All Designations
Receptionist	1 FTE > 50 children	All Designations
Office Manager	1 FTE > 50 children	All Designations
Lead Teacher	1 FTE per classroom	
Assistant Teacher	1 FTE per classroom	2 additional FTEs for Quality and High Quality
Teacher Aides	Varies	Dependent on staff coverage need by designation
Janitor	1 FTE > 50 children	All Designations

Table 12. Staffing Assumptions by Program Characteristics

Program Characteristics	Position Title	Full Time Equivalent (FTE)
Level II Program (Quality and High Quality)	Eligibility Coordinator	.25 FTE < 25 children .50 FTE < 50 children 1 FTE > 50 children
Quality Improvement Network	Family Engagement Specialist	1 FTE for every 40 families
Pre-K Enhancement Programs (Quality and High Quality)	Family Engagement Specialist	.5 FTE < 50 children 1 FTE > 50 children
Quality and High Quality	Health Care Consultant	1 FTE > 100 children
High Quality	Coach	1 FTE for every 5 classrooms

- **Release time from classroom coverage:** Classroom staffing was adjusted to allow for increased coverage during opening and closing (assuming a 10-hour day) and daily breaks. As the program's quality level increases, an assumption is made that the amount of coverage needed will increase to cover the cost of additional release time needed for lesson planning, individualizing for each child's needs coaching and other activities related to improving teaching to improve child outcomes. Paid time to attend training was also included in the model, based on the District's licensing requirements.

Table 13. Hours for Staff Coverage and Professional Development by Quality Designation

Designation	Hours for Staff Coverage (per day, per classroom)	Hours for Staff Training (per employee, per year)
Developing	3	21
Progressing	5	24
Quality	7	32
High Quality	9	32

- **Non-Personnel Cost Assumptions**
  Non-personnel costs were based on the national industry norms embedded in the Provider Cost of Quality Calculator, and adjusted for the District of Columbia when applicable. Non-personnel items are calculated as per child, per classroom, or annual costs in the model. Economies of scale are evident in non-personnel costs, resulting in lower expenditures as percentage of the total, when program size increases.

  Costs per classroom: includes utilities, building insurance, maintenance, repair, cleaning, and rent or lease costs. The cost per square foot for rent or lease was increased to $42 per square foot, based on input from child development providers and by the Low Income Investment Fund, a grantee partner of the District that awards facility grants to child development facilities.

- Costs per child: includes program costs, such as food, supplies, equipment, and office costs.
- Annual Costs: includes telephone, internet, audit expenses, and fees.

- **Operating Assumptions**
  - The income mix of children in the model assumes 80 percent of enrolled children are subsidy eligible (family income is less than 300 percent of the Federal Poverty Level).
  - Enrollment efficiency assumes 90 percent enrollment for Level I providers and 95 percent enrollment for Level II providers. Maintaining full enrollment is essential for child development programs to remain fiscally viable. Per ACF, "enrollment efficiency is expressed as the percentage of a provider's capacity that is currently filled. Achieving 100 percent enrollment efficiency is unattainable even for a provider with high demand supported by extensive waiting lists; such a provider might achieve 95 percent enrollment efficiency. The industry standard is to keep enrollment at or above 85 percent of desired capacity.[8]"
  - Bad debt is the proportion of revenue (e.g. tuition, fees, and copayments) that is uncollectable. The model assume 3 percent of revenue is uncollectable in center based settings, which aligns with industry standards.

- **Revenue Assumptions**
  - Child and Adult Care Food Program (CACFP) reimbursement rates were updated to reflect program increases effective July 1, 2018. The CACFP program provides financial reimbursement for meals served to children at nonprofit programs or for-profit centers where at least 25 percent of enrolled children are from low-income families. All of the scenarios in the model assume the provider participates in CACFP.

  - Using the model, we calculated several scenarios that included provider participation in the Pre-K Enhancement and Expansion program. The Uniform per Student Funding Formula (UPSFF) was updated to the School Year 2018-2019 rates for 3- and 4-year olds, including at-risk funds. At-risk funds are allocated f or pre-K age students in foster care, who are homeless, or on TANF or SNAP.

  - OSSE also conducted a Market Rate Survey of all licensed providers for informational purposes, and received 184 responses. These market rates were used to estimate the revenue a child care provider would receive from children enrolled who are not eligible for child care subsidy.

[8] Administration for Children and Families. (2014). *Early Care and Education Program Characteristics: Effects on Expenses and Revenues*. Washington, DC: U.S. Department of Health and Human Services. Available: https://childcareta.acf.hhs.gov/sites/default/files/public/241_1411_pcqc_ece_characteristics_final.pdf [October 2018].

Table 14. 2018 Estimated Market Rates for the District

Designation	Full-time Estimated Market Rate			
	Infants	**Toddlers**	**3s**	**4s**
Developing	$68.53	$63.75	$53.13	$53.13
Progressing	$80.62	$75.00	$62.50	$62.50
Quality	$92.62	$88.53	$73.00	$73.00

- The model updated the child care subsidy reimbursement rates to the FY18 rates, effective October 1, 2018. These rates represented a 4 percent increase for centers and a 10 percent increase for homes.

Home Provider Assumptions

- The income mix of children in the model assumes 80 percent of enrolled children are subsidy eligible (family income is less than 300 percent of the Federal Poverty Level).
- Enrollment efficiency assumes 85 percent enrollment for home providers.
- Bad debt is the proportion of revenue (tuition, fees, co-payments) that is uncollectable. The model assume 15 percent of revenue is uncollectable in homes based settings.
- The home provider model assumes six children enrolled in a child development home and nine children enrolled in an expanded home.

Appendix 3: FY19 Subsidized Child Care Reimbursement Rates

Developing - Child Development Center						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$65.43	$39.26	$71.97	$45.80	$81.79	$49.07
Infant and Toddler Special Needs	$77.78	$46.40	--	--	--	--
Pre-school	$48.87	$29.32	$53.76	$34.21	$61.09	$36.65
Pre-school Before and After	$48.87	$29.32	$53.76	$34.21	--	--
School-Age Before *and* After	$36.06	$21.64	$39.67	$25.24	$45.08	$27.05
School-Age Before *or* After	$36.06	$18.03	--	--	--	--
Pre-school and School-Age Special Needs	$61.49	$36.68	--	--	--	--

Developing - Child Development Home and Expanded Home						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$50.46	$30.28	$55.51	$35.32	$63.08	$37.85
Pre-school	$30.84	$18.51	$33.93	$21.59	$38.55	$23.13
Pre-school Before and After	$30.84	$18.51	$33.93	$21.59		
School-Age Before *and* After	$28.00	$16.80	$30.80	$19.60	$35.00	$21.00
School-Age Before *or* After	$28.00	$14.00	--	--	--	--

Progressing - Child Development Center						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$68.32	$40.99	$75.15	$47.82	$85.40	$51.24
Infant and Toddler Special Needs	$77.78	$46.40	--	--	--	--
Pre-school	$50.96	$30.58	$56.06	$35.67	$63.70	$38.22
Pre-school Before and After	$50.96	$30.58	$56.06	$35.67	--	--
School-Age Before *and* After	$36.06	$21.64	$39.67	$25.24	$45.08	$27.05
School-Age Before *or* After	$36.06	$18.03	--	--	--	--
Pre-school and School-Age Special Needs	$61.49	$36.68	--	--	--	--

Progressing - Child Development Home and Expanded Home						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$55.02	$33.01	$60.52	$38.51	$68.78	$41.27
Pre-school	$34.34	$20.61	$37.78	$24.04	$42.93	$25.76
Pre-school Before and After	$34.34	$20.61	$37.78	$24.04		
School-Age Before *and* After	$28.00	$16.80	$30.80	$19.60	$35.00	$21.00
School-Age Before *or* After	$28.00	$14.00	--	--	--	--

Quality - Child Development Center						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$76.78	$46.07	$84.46	$53.75	$95.98	$57.59
Infant and Toddler Special Needs	$77.78	$46.40	--	--	--	--
Pre-school	$57.05	$34.23	$62.76	$39.94	$71.31	$42.79
Pre-school Before and After	$57.05	$34.23	$62.76	$39.94	--	--
School-Age Before *and* After	$36.06	$21.64	$39.67	$25.24	$45.08	$27.05
School-Age Before *or* After	$36.06	$18.03	--	--	--	--
Pre-school and School-Age Special Needs	$61.49	$36.68	--	--	--	--

Quality - Child Development Home and Expanded Home						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$59.78	$35.87	$65.76	$41.85	$74.73	$44.84
Pre-school	$39.20	$23.52	$43.12	$27.44	$49.00	$29.40
Pre-school Before and After	$39.20	$23.52	$43.12	$27.44		
School-Age Before *and* After	$28.00	$16.80	$30.80	$19.60	$35.00	$21.00
School-Age Before *or* After	$28.00	$14.00	--	--	--	--

High-Quality - Child Development Center						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$93.91	$56.35	$103.30	$65.74	$117.39	$70.43
Infant and Toddler Special Needs	$77.78	$46.40	--	--	--	--
Pre-school	$61.49	$36.89	$67.64	$43.04	$76.86	$46.12
Pre-school Before and After	$61.49	$36.89	$67.64	$43.04	--	--
School-Age Before *and* After	$36.06	$21.64	$39.67	$25.24	$45.08	$27.05
School-Age Before *or* After	$36.06	$18.03	--	--	--	--
Pre-school and School-Age Special Needs	$61.49	$36.68	--	--	--	--

High-Quality - Child Development Home and Expanded Home						
	Traditional		Extended Day		Nontraditional	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Infant and Toddler	$69.78	$41.78	$76.76	$48.85	$87.23	$52.34
Pre-school	$43.18	$25.91	$47.50	$30.23	$53.98	$32.39
Pre-school Before and After	$43.18	$25.91	$47.50	$30.23	$53.98	$32.39
School-Age Before *and* After	$28.00	$16.80	$30.80	$19.60	$35.00	$21.00

School-Age Before *or* After	$28.00	$14.00	--	--	--	--

Preliminary - Child Development Center						
	Traditional		**Extended Day**		**Nontraditional**	
	Full-Time	**Part-Time**	**Full-Time**	**Part-Time**	**Full-Time**	**Part-Time**
Infant and Toddler	$65.43	$39.26	$71.97	$45.80	$81.79	$49.07
Infant and Toddler Special Needs	$77.78	$46.40	--	--	--	--
Pre-school	$48.87	$29.32	$53.76	$34.21	$61.09	$36.65
Pre-school Before and After	$48.87	$29.32	$53.76	$34.21	--	--
School-Age Before *and* After	$36.06	$21.64	$39.67	$25.24	$45.08	$27.05
School-Age Before *or* After	$36.06	$18.03	--	--	--	--
Pre-school and School-Age Special Needs	$61.49	$36.68	--	--	--	--

Preliminary - Child Development Home and Expanded Home						
	Traditional		**Extended Day**		**Nontraditional**	
	Full-Time	**Part-Time**	**Full-Time**	**Part-Time**	**Full-Time**	**Part-Time**
Infant and Toddler	$50.46	$30.28	$55.51	$35.32	$63.08	$37.85
Pre-school	$30.84	$18.51	$33.93	$21.59	$38.55	$23.13
Pre-school Before and After	$30.84	$18.51	$33.93	$21.59		
School-Age Before *and* After	$28.00	$16.80	$30.80	$19.60	$35.00	$21.00
School-Age Before *or* After	$28.00	$14.00	--	--	--	--

Relative Child Care Rates						
	Traditional		**Extended Day**		**Nontraditional**	
	Full-Time	**Part-Time**	**Full-Time**	**Part-Time**	**Full-Time**	**Part-Time**
Infant and Toddler	$ 24.18	$ 14.50	$ 26.60	$ 16.93	$ 30.23	$ 18.14
Pre-school	$ 14.33	$ 8.60	--	--	--	--
Pre-school Before and After	$ 14.33	$ 8.60	--	--	--	--
School-Age Before ***and*** After	$ 13.92	$ 8.35	$ 15.31	$ 9.74	$ 17.40	$ 10.44
School-Age Before ***or*** After	$ 13.92	$ 4.18	--	--	--	--

In-Home Child Care Rates						
	Traditional		**Extended Day**		**Nontraditional**	
	Full-Time	**Part-Time**	**Full-Time**	**Part-Time**	**Full-Time**	**Part-Time**
Infant and Toddler	$ 14.18	$ 8.51	$ 15.60	$ 9.93	$ 17.73	$ 10.64
Pre-School	$ 8.70	$ 5.22	$ 9.57	$ 6.09	$ 10.88	$ 6.53
Pre-school Before and After	$ 8.70	$ 5.22	$ 9.57	$ 6.09	--	--
School-Age Before ***and*** After	$ 7.54	$ 4.52	$ 8.29	$ 5.28	$ 9.43	$ 5.66

In-Home Child Care Rates						
School-Age Before ***or*** After	$ 7.54	$ 4.14	--	--	--	--

Other Relevant Rates

Quality Improvement Network – Child Development Home	$65.07 for infants and toddlers
Quality Improvement Network – Child Development Center	$83.75 for QIN enrolled infants and toddlers
Level II Centers	Full Reimbursement Amount + Collect Parent Co-Pay
Shared Services Business Alliance Homes	Full Reimbursement Amount + Collect Parent Co-Pay