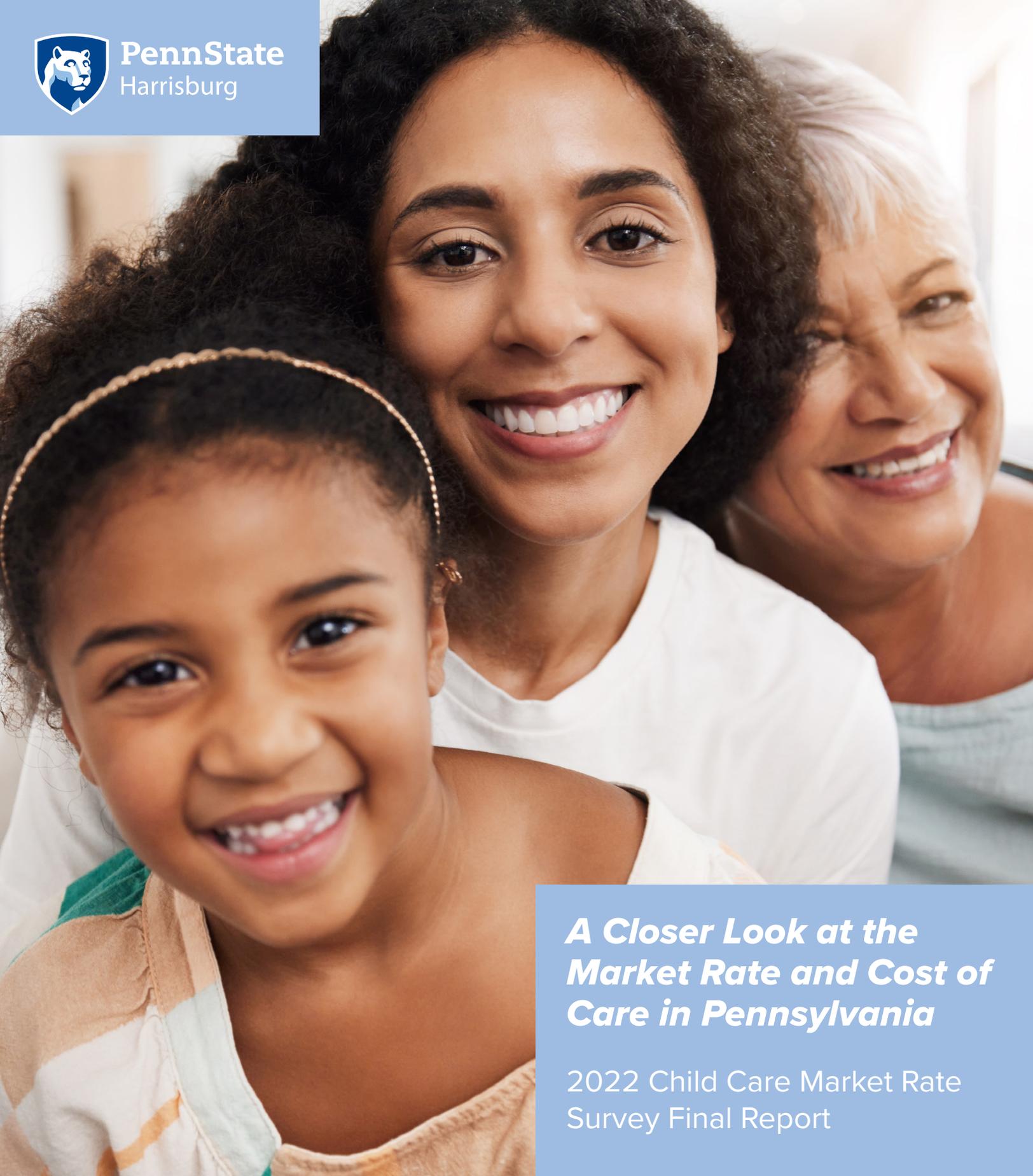




PennState
Harrisburg



***A Closer Look at the
Market Rate and Cost of
Care in Pennsylvania***

2022 Child Care Market Rate
Survey Final Report



PennState
Harrisburg

Institute of State
and Regional Affairs

M **Muhlenberg
College**

A CLOSER LOOK AT THE MARKET RATE AND COST OF CARE IN PENNSYLVANIA

2022 CHILD CARE MARKET RATE SURVEY FINAL REPORT, JUNE 2023

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About the Institute of State and Regional Affairs (ISRA)

For 50 years, ISRA has provided research, data services, and training to government agencies, non-profit organizations, and private industry. With a team of expert researchers and data specialists from the Center for Survey Research and the Pennsylvania State Data Center, ISRA is equipped to complete complex data collection projects using Penn State's resources and technological infrastructure. Committed to applied social science research and public service, ISRA focuses on serving Pennsylvania's communities.

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ABSTRACT

This report provides a comprehensive overview of the activities conducted by the Institute of State and Regional Affairs (ISRA) at Penn State Harrisburg for the 2022 Market Rate Survey (MRS) in Pennsylvania. The survey utilized diverse data collection methods to gather information on private pay tuition rates, staffing, payments and fees, facility types, and food offerings in the child care market. MRS data is important for guiding state agencies in setting base subsidy rates and ensuring equal access to child care for low-income families. Additionally, the study included a narrow cost analysis that revealed a median cost of \$339 per child per week, with personnel and facility costs being the largest resource categories. Fluctuations in ingredient prices, including wages, facilities, and food, were also observed. In response to the 2022 MRS, the Pennsylvania Department of Human Services, Office of Child Development and Early Learning (OCDEL), adjusted base subsidy rates to align with a 60th percentile benchmark. This ensures broader access to child care services for low-income families. OCDEL also introduced a reimbursement for registration fees and remains committed to incorporating public opinion and research findings in decision-making processes, aiming to create a comprehensive child care system in Pennsylvania.

MARKET RATE SURVEY

This report begins with an in-depth overview of activities conducted by the Institute of State and Regional Affairs at Penn State Harrisburg (ISRA) and the Pennsylvania Department of Human Services, Office of Child Development and Early Learning (OCDEL) during the 2022 Market Rate Survey (MRS). Various modes of data collection were used during the survey period, and efforts were made to encourage participation from a diverse range of providers. Data processing after the survey period ensured that the collected data accurately reflected the current child care market in Pennsylvania.

Program Overview: Child Care Development Fund and Child Care Works



OCDEL is the lead agency for the implementation of the Child Care Development Fund (CCDF); a federal and state partnership program that provides resources to enable low-income parents/guardians to work, and in some cases, pursue education/training so that they can better support their families while promoting positive child development outcomes. In Pennsylvania, the Child Care Works (CCW) program provides subsidized child care for low-income families to meet the requirements of CCDF. Activities implemented through the CCDF program are authorized under the Child Care Development and Block Grant of 2014 (CCDBG). Section 658E(c)(4) of CCDBG, and accompanying CCDF regulations at 45 CFR Part 98, require OCDEL to certify that the CCW base rates are sufficient to ensure equal access compared to families paying private tuition at local child care programs. The

base payment rates, also known as Maximum Child Care Allowances (MCCAs) or base subsidy rates, are established by OCDEL and are disaggregated by region, provider type, care level, and length of care.

CCDF regulations require OCDEL to conduct an MRS of child care providers every three years or utilize a pre-approved alternative methodology to ensure that low-income families are provided equal access. To meet this requirement, OCDEL partnered with ISRA and The Pennsylvania Key (PA Key) to conduct an MRS between July 11, 2022, and October 11, 2022. Also, in collaboration with Muhlenberg College, ISRA conducted a narrow cost analysis to better understand the environment providers are operating within throughout the commonwealth.

An MRS is the collection and analysis of tuition rates charged by child care providers in an open market, where there is no existing relationship between the parents/guardians

and the provider that could affect the charged amount. A well-planned MRS provides quantitative insight into provider business practices and prices by location, setting, children's ages, and the time children are in care. The purpose is to guide state agencies, such as OCDEL, in setting base subsidy rates within the context of market conditions, ensuring that they are sufficient to provide equal access to low-income families served in the CCW program. In providing general guidance, the federal Office of Child Care (OCC) recommends the 75th percentile of private pay tuition rates as a benchmark for establishing parity between the market and state child care subsidy programs (Child Care and Development Fund, 1998).

Following the completion of an MRS, OCDEL is required to issue a publicly available report detailing the results. This report, in addition to the summary report, which was released in December 2022, is provided to meet the requirement (Sirinides, 2022). Additional information and guidance on market rate surveys, rate-setting requirements of CCDBG, and other related topics can be found on the OCC webpage.

Stakeholder Engagement

Prior to conducting an MRS, federal code requires OCDEL to consult with the State Advisory Council on Early Childhood Education and Care, local child care program administrators, local child care resource and referral agencies, and other appropriate entities representing child care providers, teachers, and directors. ISRA conducted pre-survey interviews with child care providers to identify potential barriers to participation in an MRS and to learn more about providers' preferences in completing the survey. The feedback from these interviews and the pre-survey presentation with the Pennsylvania Early Learning Council Equal Access Standing Subcommittee helped shape the MRS strategy to increase participation from a diverse range of programs. This rigorous engagement strategy ensured the reported rates accurately reflect the current child care market.

This section provides an overview of the stakeholder engagement activities during the MRS, including pre-study interviews, pre-study presentations, and mid-study webinars. A post-study presentation is described in the closing section.

Pre-Study Interviews

ISRA conducted a series of phone interviews with child care providers who did not participate in Pennsylvania's previous 2019 MRS (OCDEL's 2019 Child Care Market Rate Survey Report, n.d.). The aim was to identify potential barriers to participation and to learn about providers' preferences in completing a survey. ISRA conducted twenty-seven phone interviews in March 2022, including a range of provider types, geographic regions, Keystone STAR designation, and licensed capacities. The results were not

intended to generalize to the population of Pennsylvania's child care providers. Rather, the goal was to gain a greater understanding of the views and experiences of recent non-respondents.

The most common barrier to participating in the 2019 MRS was the use of Provider Self-Service (PSS), the online system that was utilized for providers to record tuition rates during previous MRS administrations. Providers indicated that they found PSS challenging to use, had technical difficulties, or felt they did not have sufficient knowledge or support to use the system. Other barriers to MRS participation included having no time to complete the survey, being short of staff, or feeling that a response was not important to their program's operation. Furthermore, providers felt it was important to provide a version of the MRS in Spanish. As a result, the project team determined that the 2022 MRS data collection mode should not include PSS, and a Spanish version of the survey was needed.

Many of the providers indicated that the most convenient mode to complete an MRS would be an online survey (separate from PSS), although some indicated a preference to participate on paper. Completing the survey over the phone with an interviewer was convenient for one provider, but only if they had dedicated to the matter. Additionally, several of those interviewed felt that offering respondents a gift card or other incentive would provide further motivation.

Pre-Study Presentation

ISRA presented at a Pennsylvania State Advisory Council (SAC) meeting, formerly the Early Learning Council Equal Access Standing Subcommittee, on May 23, 2022. The presentation included information about child care costs, research, and the upcoming MRS and narrow cost study analysis. Members of the advisory council were provided with a draft of the MRS survey questions and methodology. Feedback, comments, and suggestions were requested to be shared with ISRA by June 3, 2022.

The feedback received from the advisory council resulted in several modifications to the draft study protocols. One member suggested ISRA proactively contact providers via telephone to increase participation instead of relying on reactionary responses from an invitation. The project team emphasized calling all providers who had not yet responded to the MRS invitation near the end of the survey period to ensure an adequate and equitable opportunity to participate. Another member suggested the importance of reaching out to providers directly and coordinating with various advocacy groups throughout the commonwealth. As a result, ISRA participated in a webinar with the Pennsylvania Child Care Association (PACCA) to provide information about the MRS and how members could help spread the word amongst other providers.

With regard to the MRS structure, several modifications were made. Initially, providers were asked to either enter their current private pay tuition rates or indicate that their tuition rates were up to date in PSS. However, several members voiced concerns about these instructions, indicating that it may be better to have respondents enter their tuition rates to ensure the data was current and because some may not readily know if their rates are up to date in PSS (e.g., if a facility recently hired a new director). Therefore, the question about providers' rates in PSS was eliminated, and the MRS asked all providers to enter their current private pay tuition rates. In addition, several suggestions about answer choices (e.g., adding "Staff discount" to the list of tuition reductions) and question-wording (e.g., adding more explicit definitions of full-time and part-time enrollment in the tuition rate question) were also incorporated into the final survey draft.

Mid-Survey Webinar

ISRA presented at a PACCA webinar on August 18, 2022. The presentation included information about the importance of participation in the ongoing MRS and how data would be helpful to OCDEL and the Pennsylvania child care community. Webinar participants were encouraged to remind other providers about the MRS. Questions about participating in the MRS were directed to ISRA. The webinar was recorded and posted on the PACCA website for the survey duration.

Collection and Processing

The research team surveyed all licensed child care providers to collect private pay tuition rates and information about staffing, enrollment, payments, and fees. Multiple modes of data collection were offered, and ISRA focused efforts on reaching providers in low-response areas as the survey period was set to expire. After the data preparation procedure, all private pay tuition rates reported by providers were converted to a daily equivalent.

Survey Fielding

The survey fielding period ran from July 11 to October 11, 2022. Providers were asked to provide the facility's highest full-time and part-time private pay tuition rates for each of five care levels: infant (birth to 12 months), younger toddler (13 to 24 months), older toddler (25 to 36 months), preschool (37 months to entering kindergarten), and school-age (kindergarten and higher). Full-time care was defined as five or more hours of care per day (one or more days each week) and part-time care was defined as less than five hours per day; matching the definitions of full-time and part-time care for MCCAs.

Providers could report their tuition rates as daily, weekly, or monthly.

Three options were provided for completing the MRS: returning a paper survey by mail with a pre-paid envelope, completing the survey online using an individualized survey link, or sharing information via telephone. The survey was offered in both English and Spanish to ensure accessibility.

During the survey fielding period, ISRA employed a range of strategies to reach non-responding providers. On July 6, 2022, the first mailing of the MRS was sent to 6,562 providers, followed by a second mailing, on August 17, 2022, to 5,167 providers which had not yet responded. Additionally, on August 23, 2022, an email was sent to 4,901 providers, followed by a second email on September 8, 2022, to 3,610 providers. Approximately 3,000 phone calls were made from September 9 to October 6, 2022, to further engage non-responding providers. On September 21, 2022, a third email was sent to 2,843 providers, and the survey ultimately closed on October 11, 2022. Throughout this period, ISRA offered assistance to providers via a project email address and a toll-free number, providing support to access and complete the survey.

OCDEL utilized a robust communications strategy to inform providers of the importance of participating in the MRS. Along with the efforts of ISRA, various partners promoted the survey through multiple channels, including social media releases on Facebook, Twitter, and LinkedIn accounts. The PA Key also posted and shared MRS information on its website, and announcements were sent to subscribers of newsletters such as PA Early Ed News, OCDEL Early Childhood Education Recaps, and Certification Services News. Community partners, such as PACCA, Early Learning Resource Centers, Child Care Professionals Network, First Up: Champions for Early Education, and Trying Together, contributed to communication efforts. Additionally, ISRA presented at a webinar entitled “2022 Market Rate Survey and YOU,” hosted by PACCA on August 18, 2022. These efforts aimed to maximize participation and ensure that the resulting data accurately represented variations by geographic area, provider type, care level, type of care, and quality rating in the Pennsylvania child care market.

To incentivize participation, an optional drawing for one of one hundred \$100.00 gift cards was offered to providers who completed the survey. Those who responded by September 1, 2022, were eligible to triple their chances to win. Winners were selected at the conclusion of the survey in October, and ISRA distributed 100 gift cards in early November 2022.

Data Processing

After the survey fielding period, ISRA conducted a thorough data preparation process that included several steps. The team included partial responses in the final dataset if the provider completed the private pay tuition rate section. However, survey responses that

provided no tuition rates were not included as valid responses. Providers that responded to the MRS but were no longer operating at the end of the survey period were not included as valid responses. Out of 6,562 providers on the initial survey list developed in June 2022, 184 were no longer operating by the end of the survey period in October 2022. This left 6,378 providers that remained in operation throughout the entire survey period.

The research team examined responses from providers who supplied multiple tuition rates or submitted duplicate survey responses, and the highest tuition rates were included in the final dataset, as per survey instructions. Additionally, the team examined tuition rates clearly reported in error, such as incorrect daily, weekly, or monthly unit selection. In some cases, ISRA followed up directly with providers to ensure the reported rates were accurate. If providers could not be contacted, or the rates were noticeably erroneous, the team excluded them from the final dataset.

Overall, the preparation process ensured that the final dataset only included valid responses that accurately reflected the child care market in Pennsylvania. ISRA's attention to detail ensured that the 2022 MRS data could appropriately inform decision-making that impacts MCCA base rates, and the low-income families served in the CCW program.

Rate Conversions

Providers responding to the 2022 MRS were asked to report ten separate private pay tuition rates corresponding to five care levels. Full-time care was defined as five or more hours of care per day (one or more days each week), while part-time care was defined as less than five hours of care per day (one or more days each week). In cases where providers offered multiple tuition rates for one type of care level (e.g., families can choose to pay daily or monthly; providers have different rates during the school year and the summer), providers were instructed to report the highest rate.

If providers reported tuition for a unit of time other than one day, the research team used one multiplier, from a series, to convert the reported rate into a daily equivalent. Although the survey only offered options for providing daily, weekly, or monthly tuition rates, some providers instead reported their hourly or yearly rates. For hourly rates, a multiplier of 4.5 was used for part-time care and 9 for full-time care. For daily rates, a multiplier of 1 was applied. For weekly rates, a multiplier of 1/5 was used, and for monthly rates, a multiplier of 1/21.67 was applied. Finally, for yearly rates, a multiplier of 1/260 was used to convert the cost to a daily equivalent. These rate definitions and conversions are consistent with what is utilized in OCDEL's information technology systems.

Market Rate Findings

Private pay tuition rates from the 2022 MRS were compared to January 1, 2022, MCCAs (the most current during the MRS collection period). The MCCAs vary by Early Learning Resource Center (ELRC) region, provider type, care level, and care length, resulting in 570 unique rates throughout the commonwealth. Findings are presented for both the response rate of child care providers and the proportion of providers at the 60th percentile of the market rate. The response rate indicates the representativeness of the data collected, while the market rate percentile provides a comprehensive view of the distribution of child care tuition prices that meet the 60th percentile in the market. The 60th percentile is a meaningful benchmark as OCDEL's MCCA increase on January 1, 2022, was set to meet this threshold based on private pay tuition data collected in the 2019 MRS. Analyzing these key metrics provides insights into current market conditions and enables an assessment of child care affordability and availability for families.

Provider Response

A total of 4,383 child care providers participated in the 2022 MRS, representing a 68.7% response rate. Of the providers that responded, 2,324 (53.0%) completed the survey online, 1,537 (35.1%) participated via paper survey, 485 (11.1%) shared their information over the telephone, and 37 (0.8%) sent their survey in some other way (e.g., scanned and delivered via email; sent to Early Learning Resource Center and was forwarded to ISRA).

Table 1 summarizes the key characteristics of the providers participating in the 2022 MRS, including provider type, Keystone STARS designation, ELRC region, and whether the provider has a CCW agreement. A CCW agreement permits certified providers to serve children enrolled in the CCW subsidy child care program. A map of Pennsylvania's 19 ELRC regions appears in the Appendix. As seen in Table 1, in addition to achieving a 68.7% overall participation rate, more than 50% of providers from each of these key attributes participated in the MRS.

Table 1

Child Care Provider Characteristics and Market Rate Survey Response

	MRS Responses (n)	MRS Responses (%)	Providers Statewide (n)	Response Rate (%)
All Providers	4,383	---	6,378	68.7%
Provider Type				
Child Care Centers	3,268	74.6%	4,645	70.4%
Group Child Care Homes	399	9.1%	607	65.7%
Family Child Care Homes	716	16.3%	1,126	63.6%
Keystone STARS Designation				
STAR 1	2,185	49.9%	3,447	63.4%
STAR 2	803	18.3%	1,120	71.7%
STAR 3	264	6.0%	357	73.9%
STAR 4	1,131	25.8%	1,454	77.8%
ELRC Region				
Region 1	160	3.7%	227	70.5%
Region 2	89	2.0%	111	80.2%
Region 3	138	3.1%	190	72.6%
Region 4	190	4.3%	234	81.2%
Region 5	403	9.2%	588	68.5%
Region 6	184	4.2%	254	72.4%
Region 7	72	1.6%	84	85.7%
Region 8	115	2.6%	136	84.6%
Region 9	286	6.5%	372	76.9%
Region 10	302	6.9%	422	71.6%
Region 11	159	3.6%	197	80.7%
Region 12	170	3.9%	215	79.1%
Region 13	141	3.2%	185	76.2%
Region 14	287	6.5%	388	74.0%
Region 15	188	4.3%	296	63.5%
Region 16	201	4.6%	269	74.7%
Region 17	313	7.1%	415	75.4%
Region 18	823	18.8%	1,567	52.5%
Region 19	162	3.7%	228	71.1%
Child Care Works				
Has a CCW agreement	4,044	92.3%	5,759	70.2%
Does not have agreement	339	7.7%	619	54.8%

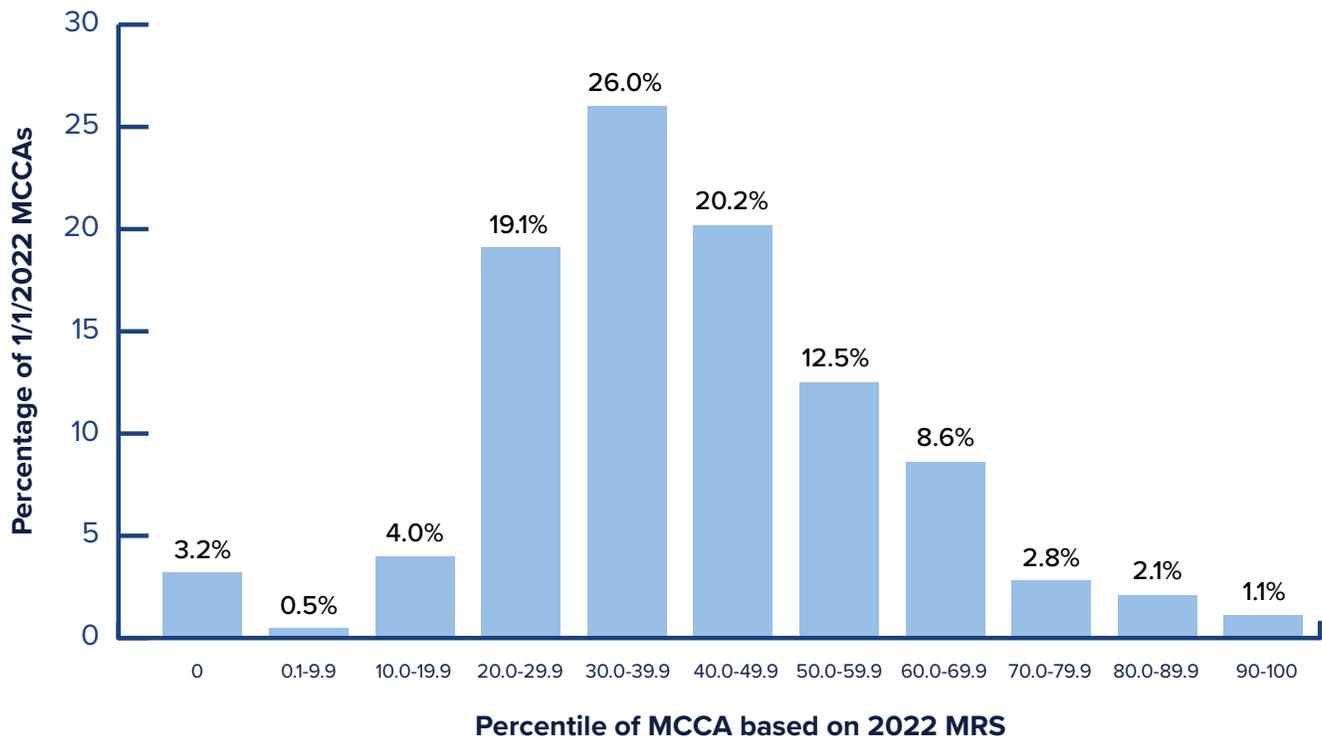
MCCA Percentile Rank Results

The reported private pay tuition rates were then compared to the 570 unique MCCAs (base subsidy rates). Each MCCA was analyzed in relation to the reported private pay tuition rates to determine which percentile each MCCA met. The team calculated percentiles for each MCCA by determining the percentage of private pay tuition rates at or below a given MCCA. For example, if 60 percent of the private pay tuition rates collected were at or below the MCCA, the MCCA was calculated as meeting the 60th percentile.

Figure 1 displays the distribution of percentiles for each of the 570 unique MCCAs. Due to private pay rate increases between the 2019 and 2022 MRS administrations, many of the MCCA rates set at the 60th percentile (based on 2019 MRS survey results) on January 1, 2022, did not meet the 60th percentile of the 2022 MRS private pay tuition data. As shown in Figure 1, only 14.6% of the January 1, 2022 MCCAs met at least the 60th percentile.

Figure 1

Distribution of 1/1/2022 MCCA Percentiles to 2022 MRS Tuition Rates



A Closer Look at the Market Rate and Cost of Child Care in Pennsylvania

Table 2 displays the percentage of January 1, 2022 MCCAs by percentile and provider type. MCCA percentiles are consistent across the three provider types, with only 12.1% of Child Care Center MCCAs, 17.5% of Group Child Care Home MCCAs, and 14.1% of Family Child Care Home MCCAs meeting the 60th percentile or above. A full table of January 1, 2022 MCCA rates and percentiles based on the 2022 MRS can be found in the Appendix.

Table 2

Percentage of 1/1/2022 MCCA Percentiles to 2022 MRS Tuition Rates

MCCA Percentile	All	Child Care Center	Group Child Care Home	Family Child Care Home
0	3.2%	0.0%	8.9%	0.5%
0.1 – 9.9	0.5%	0.0%	0.0%	1.6%
10.0 – 19.9	4.0%	1.1%	5.3%	5.8%
20.0 – 29.9	19.1%	17.9%	19.5%	20.0%
30.0 – 39.9	26.0%	31.1%	20.0%	26.8%
40.0 – 49.9	20.2%	26.3%	16.8%	17.4%
50.0 – 59.9	12.5%	11.6%	12.1%	13.7%
60.0 – 69.9	8.6%	9.5%	7.4%	8.9%
70.0 – 79.9	2.8%	2.1%	3.7%	2.6%
80.0 – 89.9	2.1%	0.5%	3.2%	2.6%
90.0 – 100	1.1%	0.0%	3.2%	0.0%

Notes: 570 MCCAs from 1/1/2022, set to the 60th percentile of private pay tuition rates from the 2019 MRS

The private pay rates collected in the 2022 MRS were also analyzed based on Keystone STAR designation. Providers receiving a STAR 2, 3, and 4 designation meet higher standards for staff qualifications, quality of care, and the learning environment. The tuition rates analyzed did not include tiered reimbursement payments which are an add-on to the MCCAs based on STAR designation. A linear regression analysis showed that, after controlling for ELRC region, provider type, care level, and care length, providers with higher Keystone STAR designations do charge more than comparable providers with lower designations across all care levels and types of care, which is consistent with expectations. The analysis found that STAR 2 providers charge an average of \$1.34 more per day than STAR 1 providers. STAR 3 providers charge an average of \$3.17 more per day than STAR 1 providers, while STAR 4 providers charge an average of \$7.26 more per day than STAR 1 providers.

Additional Survey Findings

In addition to collecting private pay tuition rates, the 2022 MRS included questions about staffing, insurance benefits, enrollment, facilities, payments/fees, and operations to provide additional context to the private pay tuition rates and supplement the data collected in the narrow cost analysis. The full MRS instrument can be found in the Appendix.

Child Care Works Participation

Of providers with a CCW agreement, half (50.1%) indicated that they do not typically require CCW families to pay any difference between the private tuition rate and the subsidy payment amount (MCCA plus applicable Keystone STAR tiered reimbursement). About one-third (31.8%) of providers with a CCW agreement typically charge families the full difference, while 7.3% require families to pay more than the subsidy payment amount but less than the full difference. Another 7.2% reported no difference between the subsidy payment amount and their private pay tuition. Family and Group Child Care Homes are more likely to require CCW families to pay the difference between the subsidy reimbursement amount than Child Care Centers.

Among providers who did not have a CCW agreement, the most common reason for non-participation was that their capacity was at full enrollment with only private pay families; almost half (48.8%) of non-participating providers selected this reason. However, this reason was more prevalent among non-participating Family and Group Child Care Homes than Child Care Centers. Additionally, one-third (33.3%) of non-participating providers indicated that too few families in their community are eligible for CCW. Interestingly, this reason was more frequently indicated among Centers than Family or Group Child Care Homes. Only 12.9% reported that subsidy payment amounts are too low as a reason for not participating. A summary of all answer choices is presented in Table 3.

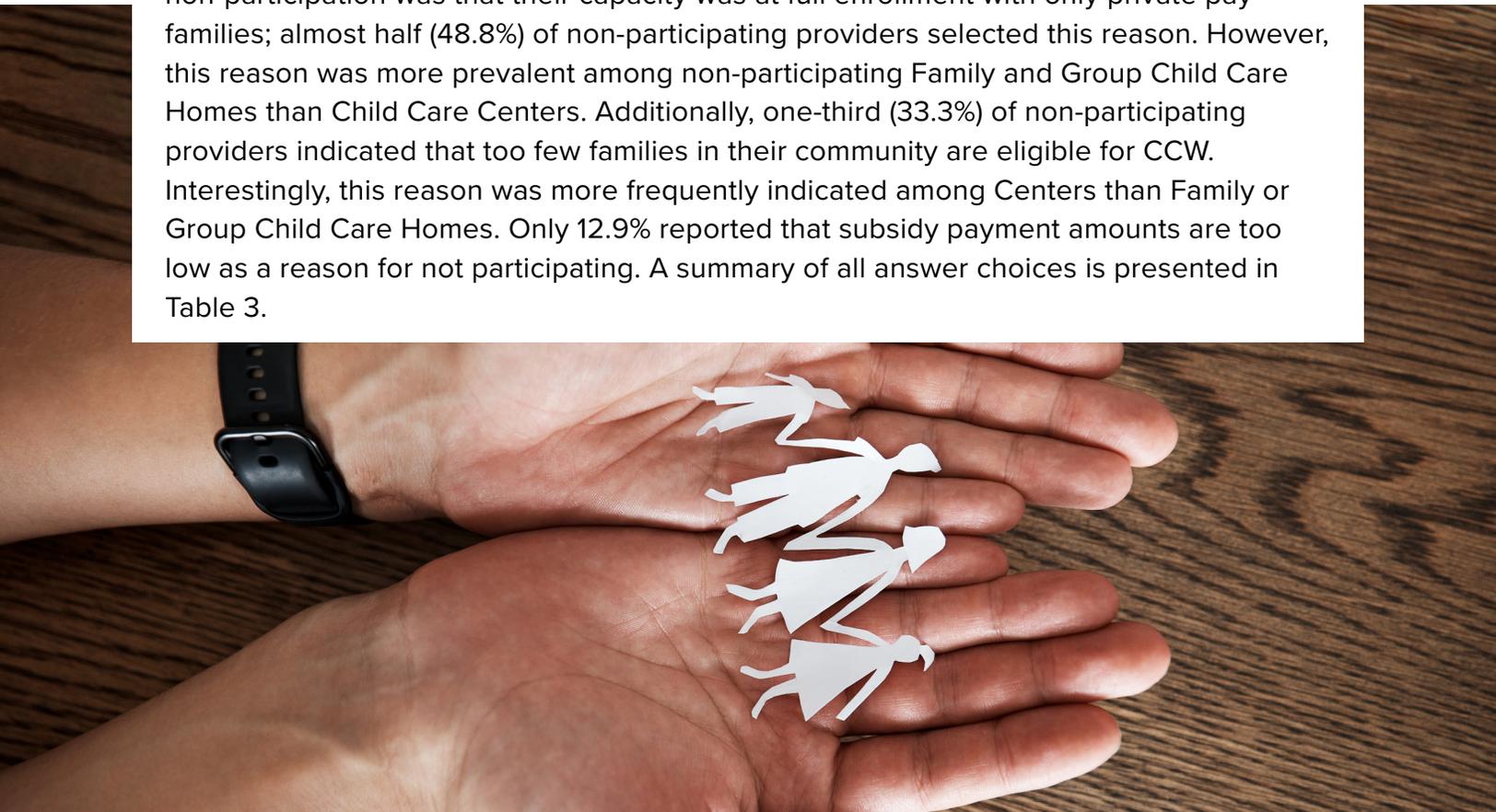


Table 3

Reasons that have contributed to the decision not to participate in CCW

	All (%)	Center (%)	Group (%)	Family (%)
My facility is at full enrollment with only private pay families	48.8	39.6	61.3	61.4
Not enough families in my community are eligible for CCW	33.3	43.1	12.9	21.9
The CCW process is too complicated/involves too much paperwork	13.5	12.2	12.9	15.8
Subsidy payment amounts are too low	12.9	12.7	16.1	12.3
My facility's hours/services do not meet CCW families' needs	9.9	14.7	3.2	3.5
We are not informed when families are eligible/ineligible for CCW	6.1	6.6	12.9	3.5
Difficulties receiving payments from CCW families	5.3	6.1	12.9	1.8
Difficulties receiving payments from the ELRC	1.8	2.0	3.2	0.9
Difficulties getting through to the ELRC for assistance	1.5	1.5	3.2	0.9
Other, please specify	20.5	24.4	9.7	16.7

Notes: n=342 respondents that did not participate in CCW, respondents could select all that apply

The findings reveal Family and Group Child Care Homes are more likely to require CCW families to pay the difference between the private pay rate and subsidy reimbursement amount than Centers, raising concerns about equity and access to affordable child care in these settings.

Payments and Fees

The 2022 MRS collected data on the registration fees and additional charges levied by child care providers in Pennsylvania. The results showed that almost two-thirds (64.4%) of providers charge families a registration fee, with the median fee being \$50.00 and the average fee being \$51.78. Registration fees were most commonly charged by Centers (76.1%), and least common among Family Child Care Homes (29.7%). Registration fees were also generally higher among Centers (median = \$50.00) than Family Child Care Homes (median = \$35.00) or Group Child Care Homes (median = \$35.00).

Table 4
Registration fees for child care

	All (%)	Center (%)	Group (%)	Family (%)
Registration fee charged	64.4	76.1	34.9	29.7
How much is the fee?				
Median	\$50.00	\$50.00	\$35.00	\$35.00
Mean	\$51.78	\$53.38	\$40.59	\$41.53
Who does fee apply to?				
All families	89.5	89.2	93.1	90.8
Only private pay families	8.6	8.9	6.9	6.6
Other	1.8	1.8	0.0	2.6
How is the fee charged?				
Fee charged per child	57.2	57.7	43.9	60.6
Fee charged per family	35.1	33.9	53.0	36.3
Other	7.7	8.4	3.0	3.1
Is the fee one-time or annual?				
One-time fee	61.0	57.7	75.6	88.6
Annual fee	34.6	37.5	22.9	9.8
Other	4.4	4.8	4.8	1.6

Notes: Respondents could select all that apply; median and mean of registration fees excluded outliers (defined as greater than $1.5 \times IQR + Q3$)

Among those providers that institute a registration fee, most (89.5%) charge all families, while 8.6% only charge private pay families. Most (61.0%) registration fees are a one-time occurrence, while about one-third are charged annually (34.6%). Annual registration fees are more prevalent among Centers (37.5%) than Group Child Care Homes (22.9%) or Family Child Care Homes (9.8%). The registration fee is most commonly charged per child at Centers (57.7%) and Family Child Care Homes (60.6%), while Group Child Care Homes are more likely to charge per family (53.0%).

Additionally, incidental fees for late pickups and overdue payments were charged by most providers (89.9% and 64.4%, respectively), and 28.9% charged for additional services like transportation, field trips, or private instruction. Fees for extended care including nights and/or weekends were charged by 14.8% of providers. Only 6.9% did not charge extra fees, which was most common among Family Child Care Homes (19.2%).

The most common discounts or tuition reductions were for staff (60.4%) or families enrolling multiple children (60.2%). Other typical discounts included scholarship opportunities (17.6%), a discount for paying in advance or for longer periods (9.9%), or a membership discount (4.8%). Discounts or tuition reductions were more likely to be offered at Centers, with 48.1% of Group Child Care Homes and 62.1% of Family Child Care Homes not offering any discounts (compared to 11.1% of Centers).

Table 5
Additional fees and discounts for child care

	All (%)	Center (%)	Group (%)	Family (%)
Fees & additional payments				
Late pickup fee	89.9	93.7	83.9	76.6
Overdue payment fee	64.4	65.9	66.8	56.2
Meals (not included in regular tuition)	4.3	4.8	2.4	3.0
Extended care (e.g., nights or weekends)	14.8	10.9	18.1	30.1
Additional services (e.g., transportation)	28.9	30.6	24.3	23.7
Other fee(s)	6.6	7.8	3.8	2.9
None of these	6.9	3.5	11.9	19.2
Discounts & scholarships				
Pay in advance or for longer periods	9.9	11.9	7.1	2.8
Multiple children or siblings	60.2	69.3	36.1	33.4
Staff discount	60.4	77.4	25.5	4.8
Membership (e.g., church, YMCA)	4.8	6.5	0.0	0.3
Discounts for volunteering	1.9	2.0	2.7	1.4
Scholarship opportunities	17.6	22.4	6.0	2.8
Other discount(s)	9.9	12.6	1.9	2.3
None of these	23.1	11.1	48.1	62.1

Notes: Respondents could select all that apply

With almost two-thirds of providers requiring a registration fee, low-income families in the CCW program may face financial barriers to accessing child care. Additionally, incidental fees for late pickups and overdue payments may cause financial strain for families who are struggling financially. The fact that most providers offer discounts for staff and families enrolling multiple children suggests that providers recognize the financial burden of child care on families and are attempting to mitigate the issue. However, because discounts and tuition reductions are more frequently offered at Child Care Centers, families accessing Family or Group Child Care Homes may face unique financial barriers.

Staffing

Over half of all providers reported unfilled staffing vacancies (54.1%) which reduced the number of children that could be served. This was most prevalent among Child Care Centers (67.9%) and less prevalent among Group Child Care Homes (30.7%) and Family Child Care Homes (5.9%). Only a minority of providers (36.6%) offered health insurance to any staff members, including 47.8% of Child Care Centers, 7.1% of Group Child Care Homes, and 3.4% of Family Child Care Homes.

Table 6
Staff vacancies and health insurance

	All (%)	Center (%)	Group (%)	Family (%)
Facility has unfilled staff vacancies that reduce the number of children that can receive care	54.1	67.9	30.7	5.9
Facility offers health insurance to staff members	36.6	47.8	7.1	3.4

The lower proportion of unfilled staffing vacancies and lack of health insurance offerings at Family and Group Child Care Homes may be attributed to their lower licensed capacities. These providers typically have fewer staff, potentially resulting in a lower rate of unfilled vacancies. On the other hand, the high rate of unfilled vacancies among Child Care Centers suggests that larger child care facilities face challenges in hiring and retaining staff due to their size. Additionally, the low percentage of providers offering health insurance benefits to staff members may impact the quality of care and overall job satisfaction, potentially contributing to the high rate of unfilled vacancies.

Facility

Regarding facility type, 42.4% of providers were located in a commercial space, 23.3% were located in a home residence, 15.4% were located in a school, and 14.8% were located within another larger entity. Most Child Care Centers (54.5%) were located in a commercial space, though 20.3% were located in a school and 19.8% were located in a space within another type of larger entity. Of all Child Care Centers, 46.2% had a large indoor specialty use space. Group Child Care Homes were most often located in a home residence (64.6%), while about one-quarter (23.2%) indicated that they were located in a commercial space. Almost all (99.5%) Family Child Care Homes were based in a home residence. Very few Group Child Care Homes (9.8%) or Family Child Care Homes (3.4%) had a large indoor specialty use space.

Table 7

Facility space by type and use

	All (%)	Center (%)	Group (%)	Family (%)
Facility space				
Home residence	23.3	0.6	64.6	99.5
Commercial space	42.4	54.5	23.2	0.3
School-based (located within a public or private school-owned building)	15.4	20.3	4.6	0.0
Space within a larger entity such as a church or community center (not a school)	14.8	19.8	2.2	0.0
Other	4.1	4.8	5.4	0.2
Facility includes a large indoor specialty use space	35.5	46.2	9.8	3.4

Providers located in commercial spaces may have more resources and space to offer a broader range of activities. In contrast, the low percentage of Group Child Care Homes and Family Child Care Homes with a large indoor specialty use space may limit the types of activities and programming that can be offered.

Food and Nutrition

The USDA Child and Adult Care Food Program (CACFP) plays a significant role in supporting child care providers in offering nutritious meals. CACFP is a federal program, administered by the PA Department of Education, Division of Food and Nutrition, that provides reimbursements to providers for nutritious meals and snacks. Participation in CACFP varied, with 43.3% of providers utilizing the program. Group Child Care Homes had the highest participation rate at 59.0%, followed by Family Child Care Homes at 52.8%, and Child Care Centers at 39.1%. Eligibility for CACFP differs between provider types, with Family Child Care Homes, residential Group Child Care Homes, and non-profit Child Care Centers eligible for participation. For-profit providers that are non-residential Group Child Care Homes or Child Care Centers can participate if they meet certain eligibility criteria such as receiving Title XIX or XX funding or having a percentage of the enrolled children eligible for free and reduced meals (PA Department of Education, n.d.). This may explain the higher participation of Family and Group Child Care homes in CACFP compared to Child Care Centers.

Regardless of CACFP participation, most providers offered some meals or snacks with regular tuition. The most common meals provided were afternoon snack (84.5%), breakfast (60.9%), lunch (59.9%), and morning snack (46.2%). Only 11.5% of providers offered dinner to children, and 10.1% indicated that they did not provide meals included

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with their regular tuition. Family and Group Child Care Homes offered each child more meals per day of care (3.6 and 3.2 meals, respectively) compared to Child Care Centers (2.4 meals on average). Further research is needed to explore the reasons for lower CACFP participation among child care centers and identify strategies to enhance meal provision and access to healthy food options in all child care settings.

Table 8
Meals provided with regular tuition

	All (%)	Center (%)	Group (%)	Family (%)
Meals provided (regular tuition)				
Breakfast	60.9	52.5	81.1	86.5
Morning snack	46.2	44.4	44.1	55.7
Lunch	59.9	51.4	78.4	87.0
Afternoon snack	84.5	83.0	85.9	90.1
Dinner	11.5	6.7	19.5	28.0
Other	4.0	2.8	6.8	7.5
None of these	10.1	11.9	7.0	3.5
Child and Adult Care Food Program				
Participates	43.3	39.1	59.0	52.8
Meals/snacks provided				
Average per day	2.7	2.4	3.2	3.6

Notes: Respondents could select all meals that apply; the number of meals/snacks per day calculated as the number of responses, excluding “None of these”

The fact that over half of providers do not participate in CACFP suggests that there may be gaps in the nutritional quality of meals and snacks offered by child care providers as well as underutilization of the program. This could be particularly concerning for children from low-income families who may rely on child care providers for healthy meals. It may be prudent to explore ways to incentivize participation in CACFP and promote access to quality meal options in the future.

Summary of Market Rate Survey

The 2022 MRS aimed to collect data on private pay tuition rates and explore various aspects of the child care market, including staffing, payments and fees, facility types, and food and nutrition offerings. Multiple modes of data collection were employed to ensure diverse participation and accurate data. The findings revealed that many of the MCCA rates set by OCDEL on January 1, 2022, no longer meet the 60th percentile based on the 2022 MRS private pay tuition rate data. The survey also provides insights into registration fees, staffing, health insurance benefits, facility types, and food and nutrition offerings. Overall, the market rate findings provide valuable insights into the cost structure, services, and operational aspects of child care providers in Pennsylvania.



NARROW COST ANALYSIS

As part of the broader study, a narrow cost analysis was conducted on the economics of providing child care in Pennsylvania by using detailed site-level resource data from a large sample of providers. The purpose was to inform discussions around the estimated cost of child care services of diverse types, geographies, and quality throughout the state.

Ensuring access to child care and early childhood education opportunities has been a top priority for OCDEL. The Office has implemented several initiatives to support access both before, during, and after the COVID-19 pandemic. However, for initiatives to be effective, they must be sufficient to positively impact providers across various communities, geographies, and demographic groups. Private pay tuition rates do not necessarily reflect the economic costs of providing child care services. For example, child care providers may set their tuition rates based on factors such as the local market, competition, and the demand for services, rather than the costs assumed for providing early learning opportunities. Moreover, combining private pay tuition rate data with an economic study on the cost of care can provide a comprehensive understanding of the impact of subsidy payment rates on child care providers, their ability to deliver services, and the families they serve.

Prior Research on Cost of Care

In 2019, ISRA conducted an extensive study of thirty child care providers throughout Pennsylvania to examine the resources required to deliver service (Sirinides & Collins, 2020). The analysis found that personnel costs were the largest contributor to the overall operation of a child care program. There was notable variation by county, provider type, quality designation, and care level with a median cost of \$290 per child per week (encompassing all care levels) or approximately \$15,000 per year. The median weekly cost for STARS 3 and 4 programs was \$390 per child, which is over 50% more than the median cost for STARS 1 and 2 programs. Additionally, costs for infants were 30% higher at the median than costs at other care levels due to lower staff to child ratios.

A 2020 follow-up study explored additional costs associated with the financial and operational impacts of COVID-19 (Sirinides, 2020). The study included a detailed cost analysis, a representative statewide survey of child care providers, and in-depth interviews with program staff. Four areas of financial impact associated with the pandemic were identified: facility expense during the statewide shutdown; liquidity needed for reopening; additional costs to implement COVID-19 health and safety guidelines; and financial strain due to reduced enrollments. A median across providers was calculated, resulting in a \$22.00 per-child per week marginal increase in cost to implement these measures.

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In a subsequent presentation at the 2021 Association for Education Finance and Policy conference, findings on local variation in early childhood subsidy gaps and its impact on access were shared (Sirinides & Collins, 2021). The presentation highlighted notable improvements in capacity, access for underserved children, and quality between 2014-15 and 2018-19. The analysis found that counties with smaller gaps between base subsidy rates and provider costs had greater capacity, enhanced access for underserved children, and higher quality care. The findings suggest that increasing subsidy base rates could be an effective strategy for expanding capacity, improving quality, and increasing participation of eligible low-income families in subsidized child care. Furthermore, some providers indicated that they set their prices based on subsidy base rates established by OCDEL.

In August 2021, ISRA published a report, outlining the methodology used by OCDEL to distribute American Rescue Plan Act (ARPA) grants to providers (Sirinides & Shook, 2021). As the pandemic created a rapidly changing environment, the research team and OCDEL worked collaboratively to quickly issue grants to address urgent needs while gathering and incorporating quality data to inform future funding decisions. Stabilization grants were calculated for each eligible provider, considering child enrollment, regional cost variations, specific add-on awards for infant toddler service, Keystone STARS designation level, and reduced CCW enrollment. The overall approach demonstrated the potential for state agencies to be responsive to urgent needs and emerging research findings on child care costs (Donovan, 2021).

Findings from ISRA's prior cost studies align with other child care studies conducted in Pennsylvania. A 2017 report from Research for Action examined financial data from four providers and interviewed two other providers, estimating a weekly cost of care for preschool-aged children at \$193 per child, with infants and toddlers costing more and school-age children costing less (Moran et al., 2017). An analysis by the Center for American Progress in 2019 estimated weekly costs of \$288 per child for Philadelphia child care providers (Workman & Jessen-Howard, 2019), while a report by three collaborating organizations in the same year estimated costs ranging from less than \$135 per child for for-profit providers to an average of close to \$230 per child for non-profit providers (Public Health Management Corporation, 2019). These studies also noted a relationship between cost and quality (measured by Pennsylvania's Keystone STARS quality rating system) as well as personnel costs accounting for 55% to 71% of total program costs. It is worth noting that ISRA's 2019 and 2020 cost studies yielded comparable, slightly higher cost estimates compared to these studies, despite using different research methods and populations.

More recently, a policy brief by the Pennsylvania Association for the Education of Young Children in collaboration with Start Strong PA recommended a subsidy payment approach based on a cost estimation model (Improving Subsidized Child Care Rate Setting, n.d.). The tool estimates potential costs, considering several factors such as

provider type, age group, and quality of care. According to the cost estimation model, the recommended minimum licensing cost for infant/toddler care is \$15,468 annually, corresponding to weekly costs of \$297 (Cost Gap Charts 2023, n.d.).

The estimated minimum licensing cost for preschool-age child care is \$10,848, corresponding to a weekly cost of \$209. The estimates for top quality care are \$444 per week for infant/toddler care and \$300 per week for preschool-age child care. Notably, the average of these four published weekly rates, derived from the cost estimation model, closely aligns with ISRA's previous empirical finding for the statewide median cost of care, differing by less than \$1. The consistency between the cost estimation model and ISRA's empirical approach further supports the credibility of ISRA's methodology and findings.

Evolving Child Care Landscape

The child care landscape in Pennsylvania has witnessed significant changes in recent years. One notable change pertains to enrollments. Site visits for this study indicate a decline in full-time enrollments, accompanied by a reduction in the overall length of care provided. Several factors may contribute to this trend. Firstly, shifting work patterns and increased flexibility in work arrangements may decrease demand for full-time child care services. As more parents/guardians opt for part-time or non-traditional work schedules, they may require shorter periods of care for their children. For one Group Child Care Home provider in the study, the hours each child attended dropped below five hours per day, and they went from serving ten children full-time pre-pandemic to nine part-time in the past year. Two providers who participated in both the 2019 study and this study reported opening 60 to 90 minutes later each day than they had previously. One center has even ceased operations on Fridays. This decline in full-time enrollments and shorter length of care can have significant implications for providers which may need to adapt their business models to accommodate families' changing needs and preferences, potentially impacting staffing, revenue streams, and operational costs.

Additionally, the closure of smaller providers and the rise of new, larger Centers have reshaped the industry. Small provider closures may reflect challenges in maintaining financial viability. On the other hand, the rise of new, larger Centers suggests a trend toward consolidation and potential economies of scale. These changes not only impact the availability and accessibility of child care options for families but also have implications for cost structures, staffing ratios, and the overall quality of care provided.

Another notable transformation in the child care landscape in Pennsylvania relates to the evolution of quality standards. State quality rating systems, such as Keystone STARS, are crucial in shaping the supply and demand for child care services of varying quality levels (Sirinides, 2015). Over time, Keystone STARS has undergone multiple revisions (The

Pennsylvania Key, 2022, Sirinides et al., 2015), leading to adjustments in the criteria and qualifications necessary to attain each STAR designation. For example, standards for staff degree attainment have been relaxed, allowing providers to demonstrate quality through multiple pathways. The revised STAR standards now place less emphasis on specific degree-related prerequisites, which have historically been the primary barrier to attaining higher STAR designations and a significant driver of costs.

Taken together, Pennsylvania has experienced a dynamic shift in the composition of child care providers over the period between cost studies, which has significant implications for service delivery, capacity, and cost variation. The combination of provider closures, the emergence of new, large Centers, and changes in STAR attainment without a commensurate increase in the costs, has resulted in a more homogenous provider population. Consequently, the distinctions in cost variation between providers based on type, licensed capacity, and STAR designation are expected to have become less pronounced. These shifts also emphasize the need for ongoing monitoring and research to understand the evolving dynamics of the child care industry and to inform policies that can effectively support children, families, and providers in Pennsylvania.

Cost Study Design

Similar to the ISRA 2019 analysis, the methodology employed in this study yields findings that reflect economic costs, which may differ from out-of-pocket expenditures. The objective of using these methods is to gain insight into the economic value of resources utilized in delivering child care services, as two providers may pay different prices or use different means of payment for resources with the same economic value.

While other studies of child care financing may offer useful information about cash flow, this study provides a perspective on the value of resources. The methodology does not reduce costs due to donations or efficiencies, nor does it increase costs above market value due to inefficiencies or premium prices. For example, if a provider carries high-interest debt, the economic value of goods purchased is priced the same as those without debt. Similarly, all furniture with the same functional use is priced identically, regardless of whether a provider purchases expensive or affordable furniture.

The child-centric findings represent the expected cost to replicate the service if all expenses were paid at statewide-representative market prices. However, the expected cost does not necessarily reflect the actual funds required, as providers may find different avenues to offer the same value at a lower price, such as through donations, volunteer time, or shared professional services. On the other hand, effective business management can also reduce expenditures without impacting value.

The Ingredients Method

The ingredients method was utilized to calculate the economic cost of providing child care. Developed by economists to assess the cost-effectiveness of education interventions, the process entails collecting detailed data on the resources used to deliver an intervention or educational program, and then applying market prices to those resources (Carnoy & Levin, 1975; Levin, 1975). The types of resources incorporated into an ingredient analysis typically include personnel, facilities, equipment, consumable supplies, and other services (Levin et al., 2018).

A key advantage of the ingredients method is the ability to capture all resources, regardless of when or how they were acquired. Prior studies have relied on cash flow data, which have provided accurate representations of income statement expenses paid by providers in a given year. Such an approach, however, does not necessarily reflect the value of resources delivered to the children served. For example, the purchase of a large durable asset (e.g., a playground) could appear on an income sheet as a sizeable expense in the year of purchase, but not be included in the program cost for the remainder of the asset's useful life. One owner/operator could receive a salary, which is an expense on an income statement, while another owner/operator elects to retain the profit from operations, resulting in different cost estimates for an identical resource. Under the ingredients method, the resources used to deliver child care are the elements of interest. Two owners/operators with similar characteristics will have equal costs, and a playground, for example, will have an annual cost regardless of how or when the invoice bill was debited.

Additionally, a child care provider may be resourceful in finding ways to deliver high-value resources more affordably, such as by partnering with a church or recruiting a retired teacher as a volunteer. However, this resourcefulness may not be replicable at scale. Donated building space and volunteer time are also resources costed under the ingredients method, which is an essential feature of this analysis given the documented need for additional child care capacity in Pennsylvania. If the costs of donated resources are omitted, it would underestimate the costs that new providers would encounter.

Previous studies of education improvements have revealed difficulties in “scaling up” interventions to the broader population of children (Rossi, 1987). One source of this challenge is the difference between the implementation conditions in the trial stage and in the scaling-up stage. Extra support, in the form of long unpaid hours from passionate individuals, can contribute to the provider's early success. However, this support may not be available when the program is implemented on a larger scale. To obtain a more comprehensive understanding of the costs that new providers could face, the ingredients method provides a more complete picture.

Diverse Sample

During the summer and fall of 2022, ISRA conducted site visits at 60 child care providers to document the resources they used to deliver service. The study sample included a diverse mix of provider characteristics and locations, allowing for analysis across provider features considered to be plausible cost drivers. Providers that served only school-age children were excluded, while those that offered other services, such as PA PreK Counts, or supplemental services, such as healthcare, were not excluded. All active providers from ISRA's 2019 study were invited to participate, although three were no longer in operation. Thirteen agreed to participate, while the remaining sites were selected based on specific profiles that represented combinations of features such as ELRC region, provider type, and Keystone STARS level. Child Care Centers were further divided into three categories based on licensed capacity (fewer than 30, 31-100, and more than 100). Because Group Child Care Homes represent less than 10% of all providers, this type was combined with small Centers. STAR 1 providers were divided into two categories based on their participation in the CCW program.

To ensure the analytic sample was balanced and without redundancy, 47 profiles were strategically chosen to complement the original 13 providers. The selection process utilized PROC OPTEX in SAS 9.1, employing a distance-based optimality criteria to expand and model design points. This approach aimed to distribute the 60 profiles evenly across provider attributes. For instance, "Profile 27" was a STAR 2 large Child Care Center in Region 9, while "Profile 42" was a STAR 1 Family Child Care Home in Region 15 that did participate in CCW. This method achieved maximum coverage across all combinations of provider characteristics, facilitating planned subgroup analyses. There were 380 potential feature combinations, or profiles, among which 24 were not found in the total active provider population. For example, there were no licensed STAR 3 Family Child Care Homes in Region 11. Providers from each profile were recruited in random order until one consented to participate, and a small monetary incentive was offered for their involvement in the site visit process.

Out of the 6,378 providers that were eligible to participate in the MRS statewide, 985 were in one of the 60 selected profiles. Sixty providers were included in the narrow cost analysis, one for each profile. Every ELRC, provider type, and STAR level was represented in the final sample, with none of the providers sharing all three attributes in common. Few regions had more than one site with the same type or STAR level, and the number of sites across regions was balanced across combinations of type and STAR level. Five of the twelve "Group/Small Center" sites that participated were Group Child Care Homes, the remaining were Child Care Centers with the capacity to serve fewer than 30 children. Site characteristics of the sample are summarized in Table 9.

Table 9

Child Care Provider Characteristics for Narrow Cost Analysis

	Number of Participants	Percent of Total Sample
Provider Type		
Family Child Care Home	14	23.3%
Group Child Care Home or Center (small)	11	18.3%
Center Child Care (medium)	18	30.0%
Center Child Care (large)	17	28.3%
STAR Designation		
STAR 1 (CCW Non-participant)	13	21.7%
STAR 1 (CCW Participant)	13	31.7%
STAR 2	10	16.7%
STAR 3	8	13.3%
STAR 4	16	26.7%
Locale		
Rural zip code	35	58.3%
Non-rural zip code	25	41.7%

Note: The number of participants in each of the 19 ELRCs ranged from 1 to 5

Sites were carefully selected to ensure the findings reflect the broadest diversity of contexts within the provider population. Median costs per child per week are reported in this study, overall as well as by provider type and STAR designation. While the distribution of provider attributes in the sample may not align with the distribution statewide, the findings represent median costs across regions, types, and STAR levels. The median costs reported here provide a useful benchmark for understanding the typical costs incurred by child care providers in Pennsylvania.

Cost Estimation Process

The research team conducted site visits of child care providers and documented the resources (i.e., ingredients) used to deliver services. The duration of the visits varied from two to six hours, depending on the program size. During the visits, the researchers interviewed key personnel, such as directors, regional supervisors, and owner/operators, and took photographs of physical resources during tours of each facility. In total, 1,207 different ingredients were identified during data collection. After each visit, the ingredients and ingredient quantities identified were entered into a database.

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Next, the team assigned a cost to each ingredient used by a provider. Since the study's primary purpose was to estimate the cost of child care across the state, the research team sought to cost each ingredient using a state-representative price. For service and food prices, suppliers in regions of the state with median prices were utilized. Durable asset and consumable supply prices were obtained from national retailers, as providers reported making most of their purchases from such vendors (e.g., Lakeshore, Kaplan, Amazon, Target, and Walmart). When prices for comparable resources were available from multiple suppliers, they were averaged.

All personnel time, whether paid or unpaid, was matched to a Bureau of Labor Statistics (BLS) occupation based on their role and qualifications. Pennsylvania-specific personnel price estimates were obtained from the BLS (U.S. BLS, 2019). Staff from more than 40 different occupations worked for the providers that participated in the study. Among staff, the most frequently appearing roles were Childcare Worker, Preschool Teacher, and Education Administrator - Preschool and Childcare. Personnel from each provider in the study were matched to one of the BLS classifications based on their role, years of experience, and educational background. For example, a classroom teacher with a high school diploma was priced at \$14.28 per hour, which includes a \$12.75 salary with a 12% additional cost for payroll taxes and minimum paid sick leave (Karoly & Gomez, 2019). For owners/operators in Family and Group Child Care Homes, their business management time was priced separately from their teaching time using BLS rates for a self-employed small business owner. Hours worked off-the-clock by paid employees were also included in the cost estimation. Volunteers contributing unskilled labor for supervision were priced at \$7.25 per hour.

Facility resources included ingredients such as utilities, classroom space, and the property surrounding the structure. The cost of indoor space was estimated using the square footage associated with running the child care program and the state median cost of new early learning center construction (Gordian, 2022), annualized over the life of the building. Utility costs were estimated using the same measured indoor child care space area. The utility price per-square-foot for Middle Atlantic states is based on costs published by the U.S. Energy Information Administration (U.S. EIA, 2015). Outdoor space was priced using per-area estimates from a recent publication jointly authored by academic and federal government researchers on land prices in Pennsylvania using data from the Federal Housing Finance Agency (Davis, Larson, Oliner, & Shui, 2019).

All durable materials and equipment were assessed and assigned an expected lifespan during the site visit, based on the information collected. Providers were asked to indicate how often these items were replaced. If the providers were unsure, they were asked how long they anticipated the asset to remain in use. The pricing of ingredients with a lifespan exceeding one year took into account the opportunity cost of investing in one resource instead of another (Levin, 1975). In other words, when purchasing an asset with a longer lifespan, costs are incurred that cannot be reallocated to help grow the business

or organization. To calculate the annual cost of an asset, the following equation was used, incorporating a discount rate (set to $r = 3.5\%$) and the expected years of use (yrs):

$$\text{annual cost} = \frac{\text{base cost} * r * (1+r)^{\text{yrs}}}{(1+r)^{\text{yrs}} - 1}$$

Applying the discount rate is a common economic practice that adjusts for the cost of lost opportunity to increase value through savings accounts or business investments. By incorporating the discount rate, the cost of purchasing an asset increases proportionate to its years of use. Durable assets were straight-line depreciated over their estimated useful life. For example, if a crib mattress were priced at \$67.50 and expected to last five years, applying the discount rate would result in an annual cost of \$14.95. Finally, to establish prices associated with food, standard meal ingredients were used following the standards set by CACFP for ingredient selection and quantities. The cost for each meal was calculated using state-representative prices.

Two sites in the sample offered child care services along with other specialized services. These sites were distinct from child care providers that offered a unique emphasis or style of care, such as language immersion or outdoor education. For example, one site offered a team of nurses for children with medical needs, while the other provided professional athletic coaching. Offering bundled child care with other services can benefit families seeking comprehensive care options. However, it may also lead to higher costs that may not be affordable for all families or representative of the typical provider. To address these unique cases, the research team adjusted the site ingredients. In two of the sixty sites, the research team replaced specialized staff and facilities with personnel and equipment found in similarly sized child care Centers. Specifically, medical personnel were priced using child care roles with comparable years of education, and professional athletic items were substituted with outdoor play equipment.

After computing the cost of ingredients and summing to the total annual cost of operation, the research team converted the total cost to weekly units and divided by a weekly measure of full-time equivalency (FTE) to calculate the weekly cost of child care per child for each provider. The findings revealed notable changes in child FTEs since the 2019 study, including reduced hours of program operation, a decrease in the number of children attending full-time care, and fewer hours of attendance among enrolled children in general. To determine the best method for calculating FTE that represented one week for each provider, the team considered four approaches: 1) the sum of all child hours per week divided by 50 (which aligned with full-time enrollment arrangements in 2019), 2) the sum of all child hours per week divided by 40 (which aligned with current full time enrollment arrangements), 3) the total number of children receiving at least one day of full-day care in a week, and 4) the total children in full-time care five days per week plus the number of full-time slots filled by children attending fewer than five days. Each of the four approaches was evaluated based on its suitability

for accurately estimating the weekly cost of child care per child. The selected approach (the last of the four listed above) represents the maximum number of full-time slots for children receiving care. Once the FTE was established, the cost per child per week was determined by dividing the total weekly costs by the FTE. Results are expressed on a weekly time frame to match the period used by study participants during interviews about their tuition rates.

The chosen methodology utilizes state-representative ingredient pricing to determine cost-per-FTE, allowing for a comprehensive understanding of typical costs statewide. Geographical variations in total child care costs are heavily influenced by the allocation of resources towards facilities and personnel, which can vary greatly between different communities. For instance, child care workers in the Pittsburgh metro area are paid nearly 20% more, at the median, than those in the Johnstown region. Additionally, the price of land in Philadelphia County surpasses the value per acre in the majority of Pennsylvania counties. Consequently, due to the substantial proportion of total costs dedicated to facilities and personnel, local costs can deviate up to 20% below or above the median cost calculated using state-representative ingredient prices.

Methodological Improvements and Comparative Analysis

When comparing the results from the current study to the 2019 study, there are several important and related considerations, which highlight improvements in methodology and data analysis. Firstly, the sample size for the current study was expanded from 30 providers in 2019 to 60 in 2022. This increase in sample size was aimed at obtaining more robust estimates and enhancing the accuracy of the findings, particularly when examining disaggregated data. By including a larger number of providers, the current study provides a more comprehensive understanding of the cost dynamics in child care. Additionally, the current study incorporated differences in the licensed capacity of Child Care Centers, categorizing them into three groups. This differentiation allows for more robust comparisons between centers of varied sizes. The 2019 data were recoded using these updated capacity categories for comparison purposes. However, the subgroup estimates presented in the 2019 study rely on fewer data points, resulting in estimates with less precision than the current study.

Furthermore, the profile methodology used in the current study was an improvement over the 2019 study. Profiles in the current study include providers from all 19 ELRCs and utilized an approach that avoided potential confounds between ELRC, provider type, and STAR level. This methodological improvement allows for more accurate disaggregated estimates that are representative of subgroups within the data. The 2019 study was primarily designed to produce a statewide median cost and explore cost drivers, whereas the current study goes further by allowing for the estimation of costs based on provider attributes. This refinement in the methodology enables a more nuanced

analysis of cost factors within different provider groups. Considering these improvements in sample size, data categorization, and methodology, it is important to interpret and compare the results from the two studies with the understanding that the current study provides more precise and comprehensive estimates, particularly when examining disaggregated data and subgroup differences.

Narrow Cost Analysis Findings

This section of the report presents key findings related to ingredient price changes, the median cost of care, and the allocation of costs by resource type. The analysis examines the fluctuations in ingredient prices since 2019, including the impact on overall costs and the specific changes in wages, facility prices, and food expenses. Additionally, it explores the median cost per child per week, comparing the current figures with those from 2019 and assessing the degree to which child care costs have outpaced the Consumer Price Index. Finally, the section delves into the allocation of costs by resource type, highlighting the significant role of personnel expenses, followed by facility costs, and the implications of changes in these allocations. The results provide valuable insights into the financial landscape of the child care industry in Pennsylvania and offer a comprehensive understanding of the numerous factors influencing costs and resource allocation.

Ingredient Price Changes

The prices of ingredients used in child care have experienced fluctuations since 2019, with varying impacts. While some low-cost ingredients have seen considerable price increases, the overall effect has been modest. Wages have increased for most personnel types, although minimal changes have occurred. Over the past three years, child care worker pay has risen by 3-4%, while directors' salaries have, on average, decreased. Facility prices have increased by 20-25%, and food prices have sharply risen. Most meal types have experienced increases of 25-50%, and snacks, which are the most commonly served meal, have gone up by 70%. The price changes for other supplies and equipment have shown wide variation. For instance, small plastic items like sippy cups and dolls have decreased in price, while larger objects like strollers and fencing have increased by 50%. Desks and chairs have also increased by 30%.

One implication of these changes is that the cost of entering the child care industry has risen substantially. While the ongoing operating costs may have only increased modestly for prospective providers looking to open a program, the upfront purchase prices of equipment have risen. For example, preschool tables now cost 40% more than they did in 2019, playground equipment is up by 30-50%, fences for play spaces have risen by 30-50% or more, and the overall purchase price of startup equipment has increased by 25%.

The Median Cost of Care

Among the providers that participated in this study, the median cost per child per week was \$339, with a median absolute deviation (MAD) of \$77. This represents an increase of \$49 compared to 2019. While the Consumer Price Index increased by 13.4% over the same period, child care costs rose slightly more (16.9%). These findings highlight the increase in child care costs over the past several years, surpassing the overall inflation rate. Table 10 provides a summary of these results.

Table 10
Cost of Weekly Child Care per Child

	2019	2022
Minimum Cost	\$148	\$174
Median Cost	\$290	\$339
Maximum Cost	\$627	\$894

The allocation of costs by resource category in this study aligns with the results from the 2019 research, but there have been changes in the magnitudes. Personnel costs, while still significant, saw a decrease in proportion to total costs, while other resource categories remained the same or increased.

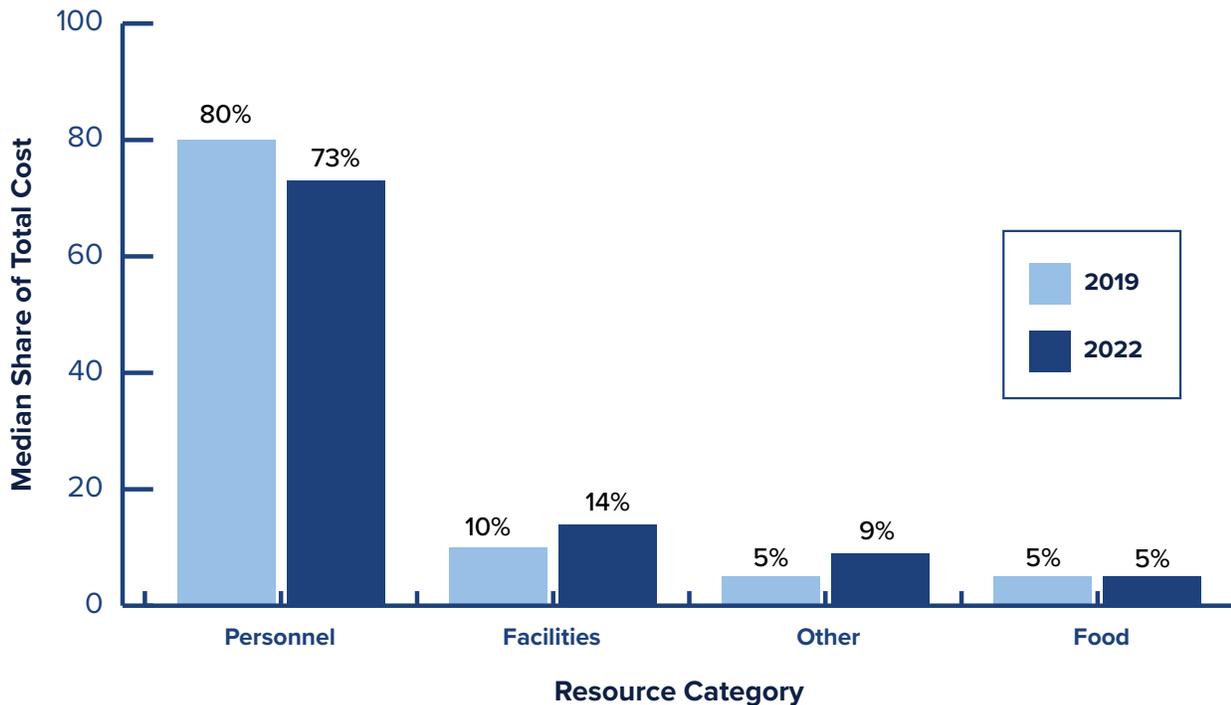
Table 11
Median Share of Total Cost by Resource Category

	2019	2022
Personnel	80%	73%
Facilities	10%	14%
Other	5%	9%
Food	5%	5%

Child care is an industry that heavily relies on personnel, with a median of 73% of a provider’s costs dedicated to individuals working in the program. The proportion of personnel costs varied from 43% to 87% across sites. Providers have greater control over personnel costs as they can determine staffing levels, wages, and benefits. This may explain why the resource category now constitute a relatively smaller proportion of total costs compared to the previous study.

Figure 2

Distribution of Total Cost by Resource Category



Facilities represent the next highest cost, accounting for 14% of the total. These costs are considered fixed and necessary for operating child care programs. Despite experiencing price increases, food remained at 5% of the total cost. Some providers have partially mitigated these increases by reducing food purchases, thereby maintaining the share of the median total cost.

Price increases for supplies, equipment, and miscellaneous expenses (referred to as “other”) were partially offset by reductions in purchasing. However, since supplies and equipment represent a relatively small share of total costs, significant cuts would be required to have a meaningful impact. Such cuts could potentially compromise the quality of services provided. Overall, other expenses now account for 9% of the total cost, reflecting an increase from 2019.

These findings demonstrate the complex cost structure of the child care industry, with personnel costs being the largest component. Changes in the median share of total cost by resource category can be attributed to stagnant wage growth in the industry over the past three years. In contrast, prices for most other resources that child care providers require have experienced significant increases. However, price hikes were partly mitigated by reductions in the quantity of items purchased, particularly in the case of food. As a result, the overall share of costs has remained relatively stable. Overall,

these adjustments in cost allocation may have resulted in a reduced scope of services provided to a family. Future reductions in purchases to manage costs could negatively affect the quality of service.

Relationship Between Costs and Provider Characteristics

The analysis reveals notable findings regarding the range of costs across different attributes. Specifically, the range of median costs for provider subgroups in 2022 has decreased compared to 2019. In the previous study, the median ranges for providers by STAR designation varied from 18% below to 51% above the median. However, in the current study, the range has narrowed from 9% below to 16% above the median. A similar reduction in the range of costs is observed for different provider types. In 2019, the range extended from 23% below to 32% above the median, whereas the range now spans from 3% below to 10% above the median. The closer range of median costs in provider subgroups may be explained by an improved study sample (larger and more representative), a genuine contraction in cost differences, or a combination of both. Findings suggest that meaningful differences in costs by provider attribute are less prominent. Furthermore, the slight differences in cost estimates between provider types or STAR designation were not statistically significant, further indicating that interpretations of these differences may not have practical implications.

Provider Type

Regarding specific provider attributes, median cost estimates from the 2019 study were recalculated using updated small, medium, and large center definitions for comparison. Table 12 presents weekly per child costs by provider type.

Table 12

Cost of Weekly Child Care per Child Across Provider Types

	Weekly Per-child Cost			
	Family	Group/ Center (small)	Center (medium)	Center (large)
Minimum	\$229	\$228	\$174	\$178
Median	\$347	\$373	\$357	\$330
Maximum	\$510	\$532	\$892	\$894
Comparison				
2019 median cost	\$319	\$383	\$279	\$223
Change (\$)	\$28	(\$10)	\$78	\$107
Change (%)	9%	(3%)	28%	48%

The analysis indicates that larger Child Care Centers tend to have costs below the median, while medium and small centers (including Group Child Care Homes) have higher costs. Family Child Care Homes also tend to incur slightly higher costs compared to the median. Notably, large centers have experienced the greatest increase in costs since 2019, followed by medium sized centers. On the other hand, Group Child Care Homes and smaller centers have remained effectively unchanged and remain 10% above the state median. This indicates that smaller Center operations historically have high costs that have remained relatively stable. Conversely, larger centers continue to operate with relatively lower costs per child but have experienced a recent dramatic increase in operating expenses.

Quality Level

Examining costs based on quality indicators reveals a different pattern. Changes in the relative ranking of costs reflect varying financial dynamics experienced by different STAR designations. Table 13 presents the findings.



Table 13

Cost of Weekly Child Care per Child Across STARS Levels

	Weekly Per-child Cost			
	STAR 1 ^a	STAR 2	STAR 3	STAR 4 ^b
Minimum	\$208	\$186	\$174	\$178
Median	\$320	\$311	\$308	\$394
Maximum	\$396	\$308	\$491	\$894
Comparison				
2019 median cost	\$238	\$268	\$439	\$389
Change (\$)	\$82	\$43	(\$131)	\$5
Change (%)	34%	16%	(30%)	1%

Note: ^a STAR 1 providers participating in CCW, ^b includes Montessori and NAEYC accredited providers

Comparing the 2022 median costs to those in 2019, a different picture emerges. STAR 1 providers, previously below the state median in terms of costs, have experienced the largest increase, surpassing STAR 2 and 3, although the differences are now minimal. In 2019, STAR 1 had a median cost of \$238, which rose to \$320 in 2022, reflecting a notable change of \$82. Similarly, STAR 2 providers have seen cost increases, although by a smaller amount. STAR 3 providers had previously been the highest cost but are now below the median and comparable to the costs for STAR 1 and 2 providers. STAR 4 providers, including Montessori and NAEYC accredited providers, have experienced only a \$5 increase in weekly per child cost, yet are operating with the highest costs overall. These findings highlight the changing landscape across the quality spectrum, emphasizing the diverse financial dynamics experienced by providers within each STAR designation.

Child Care Works Subsidy Program Participation

Provider participation in CCW, is optional and a substantial number of providers that do not participate are at the STAR 1 designation. These non-participating providers serve diverse communities, including high-need low-income areas and more affluent regions with families willing to pay higher tuition. The reasons for non-participation vary with half of the providers stating that they are at full enrollment with only private pay families and a third reporting a lack of eligible low-income families in their community.

To further explore the differences between CCW participants and non-participants within the STAR 1 designation, variation in cost was explored, both at the median and in comparison to 2019 results. Table 14 presents the findings.

Table 14

Cost of Weekly Child Care per Child by Participation in Child Care Works

	Weekly Per-child Cost	
	CCW Participant	CCW Non-participant
Minimum	\$208	\$229
Median	\$320	\$384
Maximum	\$396	\$892
Comparison		
2019 median cost	\$238	\$256
Change (\$)	\$82	\$128
Change (%)	34%	50%

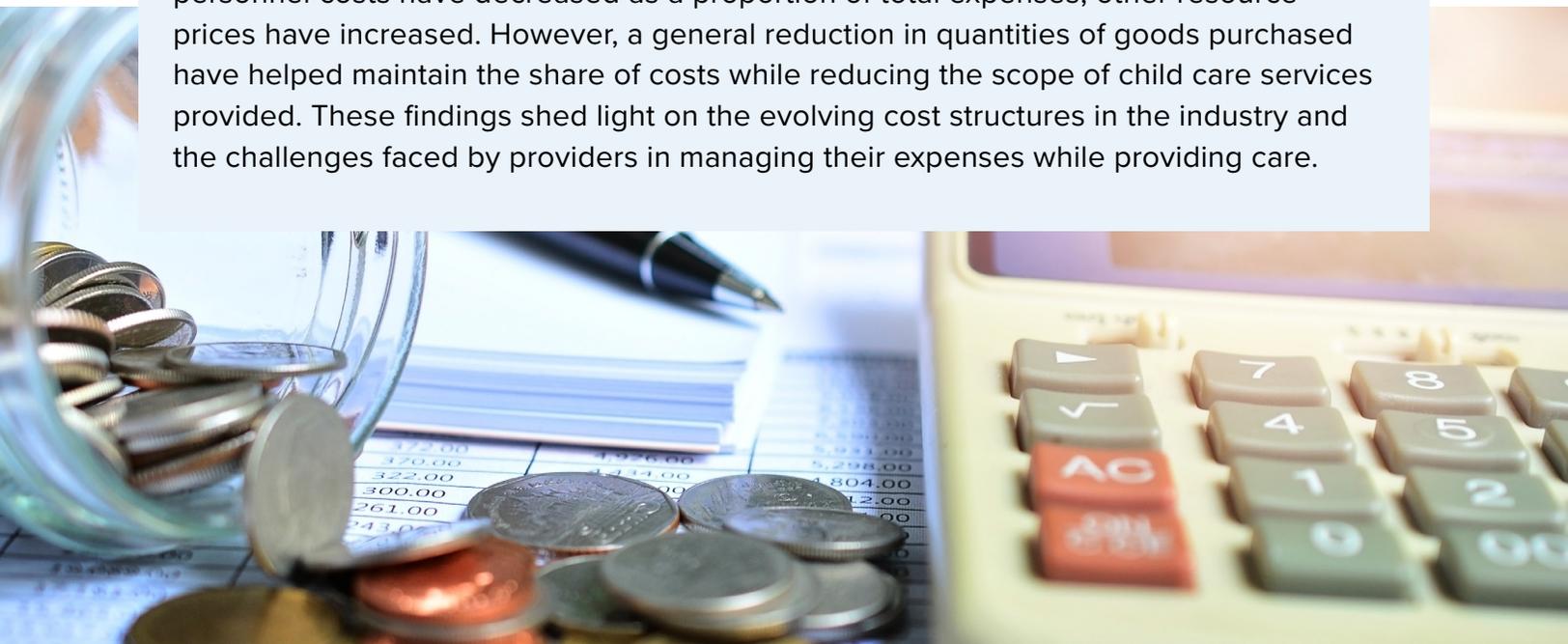
The table shows that CCW participants had a median cost of \$320 in 2022, representing an increase of \$82 from the median of \$238 in 2019. On the other hand, STAR 1 providers that do not participate in CCW had a higher median cost of \$384 in 2022, which reflects a larger increase of \$128 compared to the median of \$256 in 2019. These findings highlight the differences in costs between CCW participants and non-participants within the STAR 1 designation, with non-participants generally experiencing higher costs at both the median and maximum levels.

The difference in cost between CCW participants and non-participants within the STAR 1 designation may suggest the subsidy program is a factor. Alternatively, non-participating STAR 1 providers may incur higher costs because they cater to communities willing to pay higher tuition. As a result, these providers may not have the incentive to seek subsidies, even if they meet the criteria for higher quality and could potentially attain a higher STAR designation. This aspect should be further investigated to understand the motivations and decision-making process of these providers, considering the potential implications for access to affordable child care for low-income families in both high-need and more affluent areas. These findings underscore the importance of considering strategies to increase CCW participation among STAR 1 providers, as it can contribute to more affordable child care options for low-income families and help address cost disparities in the child care market. In addition, such insights can inform targeted interventions to promote participation and ensure equitable access to local programs.

Summary of Narrow Cost Analysis Findings

Overall, the study finds the median cost of child care per child per week to be \$339, varying by provider type and STAR designation. These results reflect a 16.9% increase since 2019, although the comparative range of median costs for provider subgroups has decreased. Findings suggest several possible reasons for provider subgroups' narrower range of median costs. Firstly, an improved study sample that is larger and more representative could better capture the range of costs across different provider attributes, resulting in a more accurate representation. Secondly, a genuine contraction in cost differences may have occurred, due to factors like economies of scale or changes in resource allocation becoming more consistent across provider types and STAR designation. Additionally, providers may have adapted their practices during and after the COVID-19 pandemic, leading to cost convergence. Changes in the child care market, such as shifts in demand or increased competition, might have influenced providers to adjust their pricing and cost structures to align with market conditions. Lastly, changes to program requirements, CCW policy, or quality standards could have also impacted cost structures. Further research and analysis are necessary to determine the actual impact of these potential reasons, considering numerous factors and contextual nuances in the child care landscape.

The analysis reveals fluctuations in the prices of ingredients used in child care, with varying impacts on total costs. While wages for most personnel types have experienced minimal increases, facility, and food prices have risen sharply. Most meal types and snacks have seen substantial price increases. Personnel costs constitute 72% of total expenses, with facilities, food, and supplies accounting for the remainder. While personnel costs have decreased as a proportion of total expenses, other resource prices have increased. However, a general reduction in quantities of goods purchased have helped maintain the share of costs while reducing the scope of child care services provided. These findings shed light on the evolving cost structures in the industry and the challenges faced by providers in managing their expenses while providing care.



OCDEL INITIATIVES IN RESPONSE TO FINDINGS

According to federal regulations, OCDEL is mandated to modify base payment rates (i.e., MCCAs) for the CCW program following the most recent MRS in order to promote equal access for participating low-income families. The rate-setting process considers several key factors, including health, safety, and staffing standards. The viewpoints and input from various stakeholders including the state advisory council and providers, collected prior to conducting the MRS, also contribute to the process. The goal is to optimize these considerations without reducing the number of low-income families receiving assistance, to the extent possible.



Starting March 1, 2023, following a comprehensive analysis of the private pay tuition data obtained from the 2022 MRS, OCDEL implemented an increase in the base subsidy rates (PA Department of Human Services, 2023). The updated rates adhere to the 60th percentile benchmark as informed by the findings of the 2022 MRS using a quantile estimator. The quantile estimator methodology is described in the Appendix. Importantly, if the 60th percentile of any base subsidy rate derived from the 2022 MRS data fell below the existing MCCA base rate OCDEL maintained the current base subsidy dollar amount. As a result, updated MCCA base rates are within the 60th to 90th percentile range, indicating broader access to child care services for low-income families compared to the rates established on January 1, 2022.

The 2022 MRS also explored supplemental charges imposed by child care providers, as displayed in Table 4. The survey found that 64.4% of providers implemented a registration fee, with a median fee of \$50 and an average of \$51.78. Providers predominantly implemented one-time fees, with roughly a third opting for annual registration fees. The majority of providers applied the fee across all families, though there were differences in whether the fee was per child or per family. Responding to the findings, OCDEL introduced a one-time \$75 registration fee reimbursement, per CCW enrollment per provider, effective January 1, 2023. The reimbursement amount was set above the MRS median to encompass a wide range of registration fees implemented across the state and to be representative of the entire provider community.

Findings from the MRS and preliminary results from the Narrow Cost Analysis were presented to the Pennsylvania State Advisory Council (SAC) on March 15, 2023. This presentation sought input from council members after the meeting, although no subsequent feedback was received. However, during the session, some council members suggested the commonwealth consider a more cost-centric approach for future modifications to MCCA base rates.

OCDEL's initiatives in response to study findings demonstrate a commitment to ensuring equitable access to child care services for low-income families. By aligning subsidy base rates with a new 60th percentile benchmark, the CCW program now reflects improved parity,

and without consideration for Keystone STARS tiered reimbursements that provide further enhancement to the program's compensation structure. Moving forward, OCDEL is in a strong position to incorporate public opinion and future research findings into its decision-making processes. By implementing a responsive and data-driven approach, OCDEL can advance MCCA base rate modifications and other program specific fiscal policies that reflect current market trends, family needs, and service considerations, paving the way toward a more holistic and comprehensive child care system in Pennsylvania.

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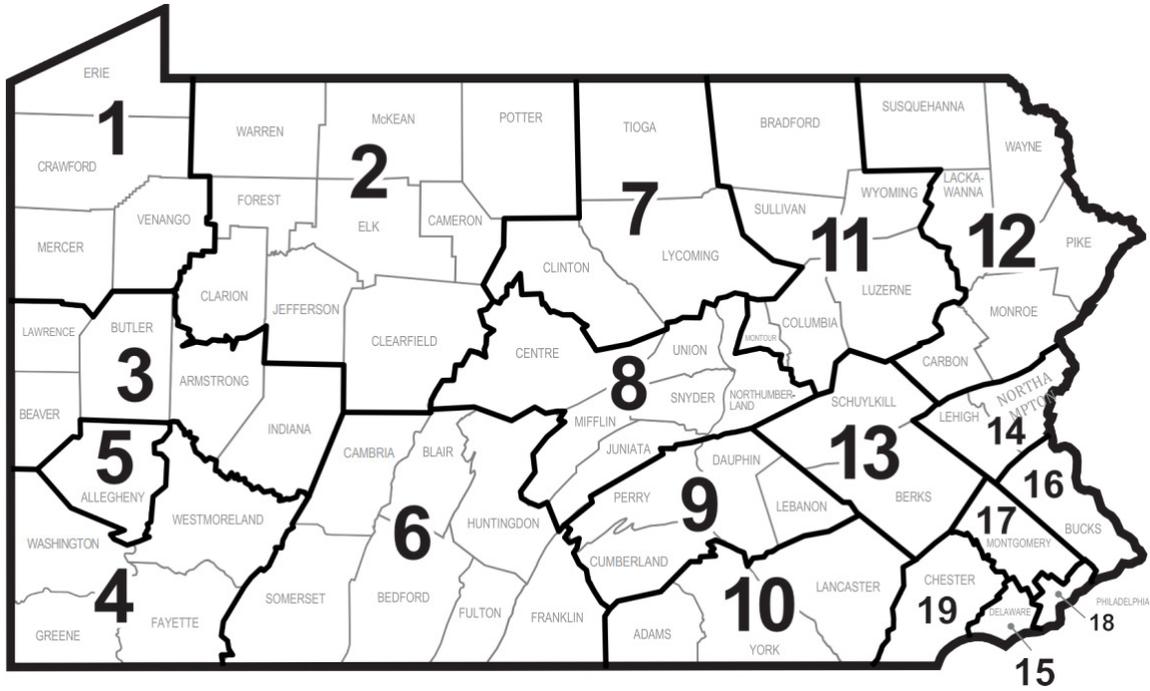
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2022 CHILD CARE MARKET RATE SURVEY



Institute of State and Regional Affairs

SECTION 1: FACILITY INFORMATION

1.1. Enter the following information about your facility. *At a minimum, please include your MPI number!

Facility name:

Facility address:

MPI*:

Provider type (Family, Group, or Center):

School-age only provider (Yes or No):

ELRC region:

Licensed capacity:

Keystone STARS designation:

Child Care Works (CCW) agreement (Yes or No):

SECTION 2: PRIVATE PAY TUITION RATES

2.1. Enter your facility's highest full-time and part-time private pay tuition rates for each of the following care levels. Indicate whether the rate entered is the daily, weekly, or monthly rate.

Please note:

- For this survey, daily full-time is defined as 5 or more hours of care per day (one or more days each week) and daily part-time is defined as less than 5 hours of care per day.
- If you do not provide care for one or more care levels, leave those fields blank.
- If you offer multiple tuition rates (for example, if families can choose to pay daily or monthly; or, if there are different rates during the school year and the summer), please enter the rate that is the highest.
- The rates you provide here will be used to update your rates in the PELICAN system.

Infant (birth to 12 months)			
Full-time (5+ hours of care per day)	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly	\$ _____	Part-time (< 5 hours of care per day) <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly
Younger toddler (13 to 24 months)			
Full-time	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly	\$ _____	Part-time <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly
Older toddler (25 to 36 months)			
Full-time	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly	\$ _____	Part-time <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly
Preschool (37 months to entering kindergarten)			
Full-time	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly	\$ _____	Part-time <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly
School-age (kindergarten and older)			
Full-time	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly	\$ _____	Part-time <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly

SECTION 3: CHILD CARE WORKS (CCW)

If your facility currently has a Child Care Works (CCW) agreement, answer Question 3.1. If your facility does not have a CCW agreement, answer Question 3.2.

↓
CCW

3.1. Does your facility require Child Care Works (CCW) families to pay the difference between the subsidy payment amount* and your published private pay tuition rates?

- Yes, CCW families typically pay the full difference
- Yes, CCW families typically pay more than the subsidy co-payment but less than the full difference
- No, CCW families typically do not pay anything in addition to the subsidy payment amount
- Not applicable, there is no difference between subsidy payment amount and private pay tuition rate
- Other, please specify: _____

* The **subsidy payment amount** includes the CCW base subsidy, Keystone STARS add-on, and the family's co-pay.

↓
No CCW

3.2. Which of the following reasons have contributed to your facility's decision not to participate in Child Care Works (CCW)? Select all that apply.

- Subsidy payment amounts* are too low
- Not enough families in my community are eligible for CCW
- My facility's hours/services do not meet CCW families' needs
- We are not informed when families are eligible/ineligible for CCW
- My facility is at full enrollment with only private pay families
- Difficulties receiving payments from CCW families
- Difficulties receiving payments from the ELRC
- Difficulties getting through to the ELRC for assistance
- The CCW process is too complicated/involves too much paperwork
- Other, please specify: _____

* The **subsidy payment amount** includes the CCW base subsidy, Keystone STARS add-on, and the family's co-pay.

SECTION 4: PAYMENTS AND FEES

4.1. Does your facility require families to pay a registration fee when submitting an application for enrollment?

- Yes → **If so, how much is the fee?** \$ _____
- No → **Skip to Question 4.5**

4.2. Who does the registration fee apply to?

- All families
- Only private pay families
- Only CCW families
- Other, please specify: _____

4.3. How is the registration fee charged?

- Fee charged per child
- Fee charged per family
- Other, please specify: _____

4.4. Is the registration fee a one-time fee or annual fee?

- One-time fee
- Annual fee
- Other, please specify: _____

4.5. Does your facility charge families extra for any of the following reasons? Select all that apply.

- Late pickup fee
- Late payment fee
- Meals (option to add any meals not included in the regular tuition rate)
- Extended care (for example, nights or weekends)
- Additional services (such as transportation, field trips, or private instruction)
- Other, please specify: _____
- None of these

4.6. Do families at your facility have the opportunity to reduce their tuition payments in any of the following ways? Select all that apply.

- Discount for paying in advance or for longer periods of time (for example, paying monthly instead of weekly)
- Discount for multiple children or siblings
- Staff discount
- Membership discount (for example, membership at church or YMCA that runs the program)
- Discounts for volunteering
- Scholarship opportunities (for example, using donations)
- Other, please specify: _____
- None of these

SECTION 5: ENROLLMENT

5.1. How many total children are enrolled?

	#
Infant (birth to 12 months)	_____
Younger toddler (13 to 24 months)	_____
Older toddler (25 to 36 months)	_____
Preschool (37 months to entering K)	_____
School-age (kindergarten and older)	_____

5.2. Of these, how many children receive care for 5 or more hours in a day (one or more days each week)?

	#
Infant (birth to 12 months)	_____
Younger toddler (13 to 24 months)	_____
Older toddler (25 to 36 months)	_____
Preschool (37 months to entering K)	_____
School-age (kindergarten and older)	_____

5.3. Based on space and current staffing, how many children (maximum) can receive care at one time?

	#
Infant (birth to 12 months)	_____
Younger toddler (13 to 24 months)	_____
Older toddler (25 to 36 months)	_____
Preschool (37 months to entering K)	_____
School-age (kindergarten and older)	_____

----- Do not write below dotted line -----

SECTION 6: STAFFING

6.1. How many of each of the following positions currently work at your facility? Classify staff who work 25 or more hours per week as full-time and staff who work less than 25 hours per week as part-time. Include yourself where applicable. Count each person only once in the role that best describes their primary duties.

	<i>Full-time</i>	<i>Part-time</i>
	#	#
Directors and support staff		
• Owner / Self-Employed Operator	_____	_____
• Director, Assistant Director	_____	_____
• Support staff <u>who do not directly care for children</u> (e.g., cook)	_____	_____
Teachers and caregivers (by education level)		
• Individuals with a completed bachelor's degree or higher	_____	_____
• Individuals with a completed associate's degree	_____	_____
• Individuals with some college credit and/or a CDA	_____	_____
• Individuals with a high school diploma or GED	_____	_____
• Individuals with less than a high school diploma or GED	_____	_____
Volunteers (any workers not paid by your child care)		
• Unpaid staff (may include relatives, advisors, volunteers)	_____	_____
Other personnel (e.g., summer-only staff)		
• _____	_____	_____
• _____	_____	_____

SECTION 7: OPERATIONS

7.1. Do you currently have unfilled staffing vacancies that reduce the number of children you can care for?

- Yes
 No

7.2. Does your facility offer health insurance to any staff members?

- Yes
 No

7.3. Which of the following best describes your facility space?

- Home residence
 Commercial space
 School-based (located within a public or private school-owned building)
 Space within a larger entity such as a church, hospital, or community center (not a school)
 Other, please specify: _____

7.4. Does your facility have a large indoor specialty use space such as a gymnasium, cafeteria, or auditorium?

Do not count large classrooms. Only select "Yes" for large specialty use spaces.

- Yes
 No

7.5. Does your facility provide child care at any of these times? Select all that apply.

- Some weekdays between 6AM-6PM, but not all
 All weekdays (Mon.-Fri.) between 6AM-6PM
 Evenings / Overnight (6PM-6AM)
 Weekends (Saturday and/or Sunday)
 Other, please specify: _____

7.6. Does your facility participate in the USDA Child and Adult Care Food Program (CACFP)?

- Yes
 No

7.7. Which of the following meals does your facility provide which are included in the regular tuition rates? Select all that apply.

- Breakfast
 Morning snack
 Lunch
 Afternoon snack
 Dinner
 Other, please specify: _____
 None of these

Thank you for your response. Read below for more information about entering for the chance to win a \$100 Amazon gift card. **Surveys will be collected until October 11, 2022.**

Mail your completed survey to the Institute of State and Regional Affairs. No postage necessary if using the provided envelope. If returning in an envelope other than the one provided, send with postage to the following address:

*Institute of State and Regional Affairs
Penn State Harrisburg
777 W. Harrisburg Pike
Middletown, PA 17057*

Questions? Please contact the Institute of State and Regional Affairs at ChildCareResearch@psu.edu or leave a message on our toll-free voice mail at (xxx) xxx-xxxx.

----- Drawing entry will be separated by the research team upon receipt -----

ENTER FOR THE CHANCE TO WIN ONE OF 100 \$100 AMAZON GIFT CARDS!

As a token of appreciation for completing this survey, we are offering individuals the chance to be entered into a drawing for one of 100 \$100 Amazon electronic gift cards. Entry is completely voluntary. If you would like to enter your name into the drawing, fill out all of the information below. Winners will be contacted in October 2022.

Triple your chances to win: Return this survey (postmarked or submitted online) by September 1 and your name will be entered three times into the drawing. Respondents can win a maximum of one gift card.

Facility Name:

First and Last Name:

Email Address:

Phone Number:



ELRC Region	Type		Infant		Younger toddler		Older toddler		Preschool		School-age	
			MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.
Region 1	CCC	FT	\$40.00	34.25	\$39.00	34.67	\$38.00	34.67	\$35.00	37.23	\$32.20	43.84
		PT	\$37.00	42.31	\$35.00	42.59	\$34.00	42.59	\$32.00	57.35	\$25.00	40.00
	GCCH	FT	\$35.00	50.00	\$34.00	42.11	\$33.00	40.00	\$31.60	40.00	\$30.00	38.89
		PT	\$28.00	47.06	\$28.00	58.82	\$26.00	41.18	\$26.00	35.29	\$25.00	50.00
	FCCH	FT	\$30.00	51.28	\$30.00	58.54	\$30.00	59.52	\$28.00	39.02	\$27.91	39.47
		PT	\$24.00	37.93	\$23.00	33.33	\$22.00	32.26	\$21.00	35.48	\$20.00	35.48
Region 2	CCC	FT	\$31.50	34.21	\$30.60	37.50	\$30.05	46.51	\$28.00	40.00	\$26.09	28.95
		PT	\$29.00	65.52	\$27.00	70.97	\$26.00	72.73	\$22.50	60.00	\$20.30	63.64
	GCCH	FT	\$30.39	57.14	\$30.39	57.14	\$30.39	57.14	\$30.39	62.50	\$27.00	57.14
		PT	\$26.00	50.00	\$26.00	60.00	\$26.00	60.00	\$26.00	63.64	\$20.00	58.33
	FCCH	FT	\$25.27	29.17	\$25.27	40.00	\$25.00	46.15	\$25.00	48.15	\$25.00	53.85
		PT	\$20.00	50.00	\$20.00	60.00	\$20.00	61.90	\$20.00	63.64	\$20.00	65.22
Region 3	CCC	FT	\$39.00	27.47	\$38.00	29.03	\$37.00	25.81	\$36.00	33.68	\$35.00	50.57
		PT	\$32.00	51.79	\$32.00	52.54	\$30.00	49.15	\$29.25	46.88	\$25.00	50.75
	GCCH	FT	\$36.00	41.67	\$35.00	41.67	\$33.00	41.67	\$32.00	41.67	\$32.00	50.00
		PT	\$30.00	33.33	\$30.00	33.33	\$29.00	37.50	\$29.00	33.33	\$24.60	33.33
	FCCH	FT	\$32.50	52.38	\$30.03	45.83	\$30.03	53.85	\$30.00	60.00	\$30.00	63.16
		PT	\$25.42	37.50	\$25.00	50.00	\$25.00	57.89	\$25.00	60.00	\$25.00	66.67
Region 4	CCC	FT	\$43.50	32.76	\$40.20	36.00	\$40.00	37.01	\$38.00	41.54	\$36.00	44.19
		PT	\$36.00	44.59	\$35.00	44.44	\$34.40	39.76	\$32.00	47.67	\$25.00	45.00
	GCCH	FT	\$35.00	54.55	\$34.00	45.45	\$33.47	54.55	\$31.21	45.45	\$29.98	27.27
		PT	\$25.42	25.00	\$25.42	25.00	\$25.42	37.50	\$25.27	50.00	\$25.27	100.00
	FCCH	FT	\$35.00	36.00	\$35.00	36.00	\$32.50	32.00	\$32.50	32.00	\$32.50	37.50
		PT	\$25.00	28.57	\$25.00	33.33	\$25.00	47.62	\$25.00	42.86	\$23.00	14.29
Region 5	CCC	FT	\$50.00	30.26	\$47.34	26.05	\$45.80	26.53	\$43.00	31.95	\$40.00	40.18
		PT	\$41.00	36.51	\$39.40	35.11	\$38.00	38.19	\$34.50	40.37	\$27.00	44.39
	GCCH	FT	\$39.00	21.62	\$36.00	28.21	\$35.00	28.21	\$34.00	23.08	\$33.00	35.14
		PT	\$31.65	24.24	\$30.00	32.35	\$29.80	26.47	\$28.00	35.29	\$27.00	42.42
	FCCH	FT	\$35.00	42.50	\$33.00	29.27	\$31.00	31.71	\$30.00	29.27	\$30.00	36.59
		PT	\$27.00	31.03	\$26.50	29.03	\$25.00	30.30	\$25.00	30.30	\$25.00	31.25

Notes: CCC = Child Care Center; GCCH = Group Child Care Home; FCCH = Family Child Care Home; FT = Full-time tuition rate; PT = Part-time tuition rate; MCCA = 2022 Maximum Child Care Allowance tuition rate; Perc. = Percentile of 2022 MRS.



ELRC Region	Type	Infant		Younger toddler		Older toddler		Preschool		School-age		
		MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	
Region 6	CCC	FT	\$32.44	41.46	\$32.44	45.78	\$30.39	36.05	\$30.39	50.00	\$26.29	53.19
		PT	\$28.00	56.10	\$26.00	54.76	\$26.00	60.00	\$24.00	52.94	\$21.47	55.88
	GCCH	FT	\$27.00	31.25	\$25.00	29.41	\$25.00	36.84	\$25.00	36.36	\$24.00	33.33
		PT	\$24.00	54.55	\$22.70	27.27	\$21.53	27.27	\$20.00	31.25	\$20.00	47.37
	FCCH	FT	\$25.75	40.74	\$25.00	46.43	\$25.00	48.28	\$25.00	50.00	\$25.00	64.29
		PT	\$21.00	40.91	\$20.00	36.36	\$20.00	39.13	\$20.00	41.67	\$17.00	40.00
Region 7	CCC	FT	\$35.00	48.39	\$32.00	46.88	\$30.80	40.62	\$29.37	30.77	\$26.29	52.63
		PT	\$32.00	66.67	\$29.00	60.00	\$28.18	55.00	\$25.00	57.14	\$26.29	87.18
	GCCH	FT	\$27.00	100.00	\$26.00	80.00	\$26.00	75.00	\$26.00	80.00	\$25.00	75.00
		PT	\$22.35	100.00	\$20.00	66.67	\$20.00	66.67	\$19.27	33.33	\$20.65	66.67
	FCCH	FT	\$25.00	36.36	\$25.00	36.36	\$26.00	33.33	\$26.00	36.36	\$25.00	42.86
		PT	\$25.00	66.67	\$22.00	66.67	\$22.00	66.67	\$22.00	80.00	\$20.00	80.00
Region 8	CCC	FT	\$49.75	67.92	\$46.66	67.86	\$45.00	64.91	\$42.91	68.33	\$40.00	76.36
		PT	\$46.65	65.62	\$42.77	68.57	\$39.72	68.57	\$30.95	41.46	\$33.83	75.68
	GCCH	FT	\$33.06	72.22	\$30.39	83.33	\$29.98	68.42	\$28.96	63.16	\$25.00	47.06
		PT	\$26.00	54.55	\$24.00	58.33	\$23.00	58.33	\$22.00	61.54	\$20.00	71.43
	FCCH	FT	\$26.00	31.58	\$25.00	31.58	\$25.00	31.58	\$25.00	31.58	\$25.00	38.46
		PT	\$25.00	85.71	\$25.00	85.71	\$24.00	57.14	\$24.00	57.14	\$22.00	50.00
Region 9	CCC	FT	\$47.60	27.91	\$45.60	36.23	\$42.20	31.21	\$39.60	29.53	\$36.75	59.26
		PT	\$40.00	26.23	\$37.20	29.73	\$36.20	34.18	\$35.20	38.37	\$24.00	44.19
	GCCH	FT	\$40.00	45.00	\$36.54	36.36	\$36.00	43.48	\$33.00	45.45	\$31.00	40.00
		PT	\$35.00	36.36	\$30.00	25.00	\$30.00	46.15	\$28.00	38.46	\$26.00	33.33
	FCCH	FT	\$34.00	36.00	\$32.00	40.35	\$30.00	44.07	\$30.00	47.46	\$28.00	47.92
		PT	\$30.00	44.83	\$28.00	38.71	\$26.00	34.38	\$25.00	41.94	\$20.00	37.50
Region 10	CCC	FT	\$46.40	29.51	\$45.00	40.15	\$42.00	35.92	\$38.00	32.91	\$33.40	51.22
		PT	\$42.00	37.93	\$39.00	46.48	\$36.40	44.16	\$32.00	40.22	\$24.00	61.31
	GCCH	FT	\$35.00	22.22	\$32.00	22.22	\$30.00	16.67	\$30.00	20.00	\$30.00	44.44
		PT	\$30.00	28.57	\$26.60	28.57	\$25.00	28.57	\$25.00	31.25	\$23.00	28.57
	FCCH	FT	\$30.00	31.82	\$29.00	21.92	\$27.00	19.44	\$26.00	20.83	\$25.00	28.57
		PT	\$25.00	33.33	\$25.00	36.59	\$24.00	28.57	\$22.00	29.27	\$20.00	38.46

Notes: CCC = Child Care Center; GCCH = Group Child Care Home; FCCH = Family Child Care Home; FT = Full-time tuition rate; PT = Part-time tuition rate; MCCA = 2022 Maximum Child Care Allowance tuition rate; Perc. = Percentile of 2022 MRS.



ELRC Region	Type		Infant		Younger toddler		Older toddler		Preschool		School-age	
			MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.
Region 11	CCC	FT	\$36.40	22.92	\$34.00	15.53	\$34.00	21.50	\$32.00	25.00	\$31.00	39.58
		PT	\$32.00	32.69	\$30.00	31.34	\$30.00	37.14	\$27.00	29.41	\$21.32	26.39
	GCCH	FT	\$30.39	29.41	\$28.34	31.58	\$27.32	20.00	\$26.00	21.05	\$25.00	33.33
		PT	\$25.00	33.33	\$24.55	35.71	\$24.55	31.25	\$24.55	35.71	\$20.19	38.46
	FCCH	FT	\$30.00	27.78	\$30.00	31.58	\$29.98	5.26	\$29.98	5.56	\$29.98	6.67
		PT	\$29.98	50.00	\$29.98	45.45	\$29.98	45.45	\$29.98	50.00	\$29.98	44.44
Region 12	CCC	FT	\$42.49	46.67	\$37.40	32.17	\$36.00	36.97	\$34.00	37.78	\$32.00	55.36
		PT	\$35.67	39.71	\$33.27	41.56	\$30.00	37.50	\$28.00	47.83	\$25.42	51.14
	GCCH	FT	\$35.00	27.27	\$34.00	25.00	\$31.00	16.67	\$30.00	16.67	\$30.00	33.33
		PT	\$30.00	0.00	\$25.42	0.00	\$24.50	0.00	\$24.00	0.00	\$23.00	0.00
	FCCH	FT	\$31.83	50.00	\$31.42	50.00	\$31.42	61.54	\$27.50	46.15	\$25.88	50.00
		PT	\$26.45	66.67	\$26.45	66.67	\$26.45	70.00	\$21.32	50.00	\$20.00	70.00
Region 13	CCC	FT	\$42.00	35.44	\$39.80	37.50	\$38.20	36.67	\$35.00	39.22	\$32.00	48.91
		PT	\$38.00	41.51	\$35.00	40.98	\$32.99	34.92	\$29.00	38.16	\$23.80	40.70
	GCCH	FT	\$32.44	16.67	\$31.42	16.67	\$30.39	14.29	\$26.50	12.50	\$25.00	42.86
		PT	\$30.03	20.00	\$26.45	0.00	\$26.96	0.00	\$22.00	42.86	\$20.00	40.00
	FCCH	FT	\$30.00	33.33	\$30.00	41.67	\$30.00	42.86	\$30.00	50.00	\$30.00	54.55
		PT	\$24.00	22.22	\$24.00	12.50	\$24.00	22.22	\$24.00	20.00	\$20.00	40.00
Region 14	CCC	FT	\$40.00	29.20	\$38.60	27.81	\$37.00	27.56	\$35.00	34.78	\$33.20	51.88
		PT	\$33.00	25.88	\$32.60	38.24	\$31.20	40.74	\$29.80	41.23	\$25.00	50.36
	GCCH	FT	\$37.00	42.86	\$35.00	37.50	\$33.00	37.50	\$32.00	37.50	\$30.00	76.92
		PT	\$30.00	60.00	\$29.00	40.00	\$28.00	40.00	\$27.00	40.00	\$25.00	80.00
	FCCH	FT	\$34.00	24.19	\$30.00	13.85	\$30.00	23.44	\$28.00	16.13	\$26.00	22.03
		PT	\$27.00	27.78	\$25.00	19.64	\$25.00	23.21	\$25.00	24.07	\$23.80	26.92
Region 15	CCC	FT	\$50.00	37.50	\$48.40	28.70	\$45.40	26.23	\$43.00	31.34	\$40.00	53.12
		PT	\$39.00	31.34	\$37.00	33.33	\$35.20	40.00	\$33.00	39.77	\$28.62	41.05
	GCCH	FT	\$40.00	60.00	\$37.00	40.00	\$36.00	28.57	\$35.00	37.50	\$32.00	50.00
		PT	\$33.00	71.43	\$33.00	71.43	\$31.00	53.85	\$30.00	60.00	\$27.40	50.00
	FCCH	FT	\$40.00	23.08	\$37.00	25.00	\$34.00	15.38	\$33.00	23.08	\$30.00	55.56
		PT	\$31.00	18.18	\$30.00	45.45	\$28.00	27.27	\$26.00	40.00	\$25.00	77.78

Notes: CCC = Child Care Center; GCCH = Group Child Care Home; FCCH = Family Child Care Home; FT = Full-time tuition rate; PT = Part-time tuition rate; MCCA = 2022 Maximum Child Care Allowance tuition rate; Perc. = Percentile of 2022 MRS.



ELRC Region	Type	Infant		Younger toddler		Older toddler		Preschool		School-age		
		MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	MCCA	Perc.	
Region 16	CCC	FT	\$55.00	29.29	\$52.40	25.64	\$50.80	26.98	\$47.80	24.06	\$50.00	61.98
		PT	\$48.00	43.14	\$43.00	36.36	\$40.20	41.30	\$36.00	42.42	\$30.80	60.68
	GCCH	FT	\$39.00	0.00	\$39.00	16.67	\$36.40	0.00	\$33.80	0.00	\$35.00	100.00
		PT	\$32.00	0.00	\$32.00	0.00	\$32.00	0.00	\$32.00	100.00	\$32.00	100.00
	FCCH	FT	\$36.00	33.33	\$36.00	33.33	\$36.00	44.44	\$36.00	44.44	\$30.00	42.86
		PT	\$30.00	50.00	\$30.00	50.00	\$30.00	33.33	\$30.00	33.33	\$30.00	50.00
Region 17	CCC	FT	\$61.00	26.40	\$57.40	28.28	\$55.43	29.76	\$51.44	31.19	\$50.00	49.32
		PT	\$50.20	40.21	\$46.20	40.62	\$43.00	44.14	\$39.00	53.09	\$27.25	36.31
	GCCH	FT	\$46.00	50.00	\$44.00	42.86	\$44.00	42.86	\$40.00	14.29	\$40.50	25.00
		PT	\$30.00	0.00	\$30.00	0.00	\$30.00	0.00	\$25.00	0.00	\$25.75	33.33
	FCCH	FT	\$40.00	35.71	\$40.00	37.50	\$40.00	41.18	\$38.00	29.41	\$35.00	57.14
		PT	\$40.00	85.71	\$40.00	75.00	\$39.00	62.50	\$38.00	71.43	\$27.00	66.67
Region 18	CCC	FT	\$49.40	19.41	\$46.00	23.46	\$42.00	23.21	\$39.80	21.46	\$35.00	38.79
		PT	\$41.00	35.56	\$39.00	35.24	\$36.00	35.07	\$32.00	29.60	\$29.00	37.19
	GCCH	FT	\$42.69	25.26	\$40.00	29.47	\$37.00	26.32	\$34.00	21.28	\$30.60	36.78
		PT	\$36.00	29.41	\$33.00	29.41	\$31.00	33.72	\$28.00	29.41	\$25.30	33.33
	FCCH	FT	\$40.00	25.82	\$38.00	24.59	\$36.00	26.49	\$34.00	24.44	\$31.00	31.95
		PT	\$34.00	24.84	\$32.00	26.83	\$30.00	26.22	\$29.00	23.31	\$26.29	26.49
Region 19	CCC	FT	\$63.00	30.12	\$60.14	31.03	\$58.00	35.56	\$51.50	28.12	\$47.00	66.32
		PT	\$55.00	44.19	\$50.00	42.59	\$47.00	44.26	\$40.15	32.35	\$27.95	66.27
	GCCH	FT	\$40.00	20.00	\$40.00	16.67	\$40.00	20.00	\$40.00	42.86	\$40.00	83.33
		PT	\$44.00	40.00	\$44.00	50.00	\$43.00	50.00	\$40.00	60.00	\$25.00	80.00
	FCCH	FT	\$40.00	22.22	\$40.00	36.36	\$35.00	0.00	\$40.00	36.36	\$40.00	37.50
		PT	\$37.50	20.00	\$34.00	16.67	\$34.00	16.67	\$30.00	16.67	\$25.00	25.00

Notes: CCC = Child Care Center; GCCH = Group Child Care Home; FCCH = Family Child Care Home; FT = Full-time tuition rate; PT = Part-time tuition rate; MCCA = 2022 Maximum Child Care Allowance tuition rate; Perc. = Percentile of 2022 MRS.



The research team utilized a quantile estimator to establish percentile benchmarks for evaluating and setting new MCCAs based on the 2022 MRS data (Harrell & Davis, 1982). This methodology is particularly useful for reliable percentile estimation when sample sizes are small and include fewer than twenty tuition rate values for analysis. Although overall participation rates were high among providers, the tuition rates collected during the 2022 MRS only represent a sample of rates throughout the commonwealth, and not the entire population. This sampling limitation is a common challenge in research and underscores the importance of using reliable estimation methods such as a quantile estimator to mitigate the impact of small sample sizes and biased sampling. It is also a distribution-free percentile estimator, accounting for the fact that tuition rate distributions within each MCCA cell may not be normally distributed or unimodal. This consideration is especially significant given that tuition rates from all Keystone STARS quality designations are included together in the sample for percentile analysis and MCCA rate-setting. OCC does not permit state agencies to include tiered reimbursement, based on program quality, in percentile rankings regardless of the impact it may have on determining low-income family access.

The quantile estimator approach provides meaningful estimates for percentiles that were tied in the nearest rank calculation, allowing for more incremental and representative adjustments to MCCAs. Moreover, this method of percentile calculation does not skew percentiles in one direction and allows for smoother, gradational adjustments in the future. Overall, the methodology provides a robust calculation for evaluating percentiles and is a reasonable measure of access to child care services when utilizing the 2022 MRS data for MCCA rate-setting activities.

The team compared percentiles using the quantile estimator to percentiles based on nearest rank. The results show that the quantile estimate is reasonably similar to the nearest rank calculation and does not systematically over- or underestimate percentiles. As an illustrative example, consider the sample of fifteen daily private pay tuition rates below.

\$30, \$40, \$40, \$50, \$55, \$56, \$57, \$57, \$60, \$65, \$65, \$65, \$70, \$80, \$85

The following table presents a comparison of the 50th through 81st percentiles using both the nearest rank percentile and the quantile estimator. The nearest rank yields the same value for many successive percentiles (such as the 61st through 80th percentiles which are all \$65.00 due to tied values), while the quantile estimate provides a more meaningful estimate of values within the range. This allows for sensible, incremental considerations that may more closely resemble the underlying population of tuition rates from which the sample was collected. The comparison highlights the advantages of using the quantile estimator, particularly when dealing with tied values or small sample sizes.

Percentile	Nearest Rank	Quantile Estimator	Percentile	Nearest Rank	Quantile Estimator
50	\$57.00	\$58.81	66	\$65.00	\$63.85
51	\$57.00	\$59.10	67	\$65.00	\$64.20
52	\$57.00	\$59.40	68	\$65.00	\$64.56
53	\$57.00	\$59.70	69	\$65.00	\$64.94
54	\$60.00	\$60.00	70	\$65.00	\$65.33
55	\$60.00	\$60.31	71	\$65.00	\$65.73
56	\$60.00	\$60.61	72	\$65.00	\$66.16
57	\$60.00	\$60.92	73	\$65.00	\$66.60
58	\$60.00	\$61.24	74	\$65.00	\$67.07
59	\$60.00	\$61.55	75	\$65.00	\$67.57
60	\$60.00	\$61.87	76	\$65.00	\$68.10
61	\$65.00	\$62.19	77	\$65.00	\$68.67
62	\$65.00	\$62.51	78	\$65.00	\$69.26
63	\$65.00	\$62.84	79	\$65.00	\$69.89
64	\$65.00	\$63.17	80	\$65.00	\$70.56
65	\$65.00	\$63.51	81	\$70.00	\$71.27

OCDEL utilized the quantile estimator to set new MCCA base rates effective March 1, 2023.