

2018 Delaware Local Child Care Market Rate Survey

Final Report

for

*The Delaware Department of Health and Social Services,
Division of Social Services*

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GENERAL FINDINGS

- The daily market prices for full time care at the 75th percentile range from \$28 to \$60; part-day school-age prices range from \$14 to \$24.40.
- At the 75th percentile, the daily market prices for full-time family child care range from \$28 to \$38.50.
- At the 75th percentile, the daily market prices for full-time center care range from \$36 to \$60.
- At the 75th percentile, the daily market prices for part-day school-age care in family child care range from \$14 to \$20.
- At the 75th percentile, the daily market prices for part-day school-age care in center care range from \$18 to \$24.40.
- 75th percentile prices in center care are higher than 75th percentile prices in family child care in all market segments.
- Full-time prices, in general, are higher for infant care and lower for preschool-age care. (Only part-day school-age prices were reported.)
- At the 75th percentile, prices in New Castle County are higher than prices in Sussex County and Kent County.
- The 75th percentile FCC state-wide price for odd-hour care is \$11.88/hour.
- In all, 35% of the providers interviewed reported having a child or children diagnosed with special-needs enrolled in their program. The majority of these providers (79%) reported that there were no additional costs to serve these children.
- A majority of the providers interviewed (65%) had some children enrolled that were subsidized by Purchase of Care or Purchase of Care Plus.
- At the 75th percentile, the overall average price increase among the 24 market segments was 10.6%. This was determined by averaging the price changes, since the 2015 rate study, for infant, toddler, preschool-age and school-age care for all three counties. For center care, the overall average increase is 11.4%; for FCC care it is 9.7%.

- New Castle County had the largest price increase overall for center care (12.9%) averaging the price changes for infant, toddler, preschool-age and school-age care.
- New Castle County had the largest price increase overall for family child care (8.3%) averaging the price changes of infant, toddler, preschool-age and school-age care.

SYNOPSIS OF RESULTS

Prices are generally higher for center care, for younger children, and in New Castle County. Prices are generally lower for family child care, for older children, and in Sussex County and in Kent County.

OVERVIEW

The goal of the 2018 Delaware Local Child Care Market Rate Survey was to develop statistically credible information of the present market prices charged by providers in Delaware and to provide confidence intervals that indicate the accuracy of the estimated percentiles. “Market prices” are prices providers charge parents for the care of private-paying children. They are prices charged by the providers to unrelated and unaffiliated parents that have not been reduced for special circumstances (e.g., low-income, employees children, etc.).

The Delaware Division of Social Services planned to utilize the information obtained from the survey to inform state decisions regarding reimbursement rates for child care services purchased by the state. Information from the study would help ensure that reimbursement rates allow subsidized low-income children equal access to early education and care. This survey complies with federal requirements of 45 Code of Federal Regulations for conducting a child care market rate survey (45 Code of Federal Regulations Sections 98 & 99, referring to “Equal Access”).

The Delaware Division of Social Services (the Division) contracted with the consulting firm to undertake this study. The consultants had conducted ten previous child care rate studies for the Division (from the 1996 market rate study to the 2015 market rate study), and has significant theoretical and field experience with these studies in Delaware and in other states. The consulting group consisted of William Horrace (Ph.D., Economics), Distinguished Professor of Economics, Syracuse University; Christopher Parmeter (Ph.D., Economics), Associate Professor of Economics, University of Miami.

The outline of the report follows. The following section describes the findings of the survey including: estimates of the 75th percentiles of prices by age group and county; full-time and part-day prices; family child care and center prices; provider and purchase prices; odd-hour care and care for children with special needs.

The final 75th percentile price estimates are included in 10 tables. The final tables present: (1) the 75th percentiles of prices, including comparisons of the distribution of prices

charged by providers (“provider prices”), (2), the distribution of prices paid by Delaware families (“weighted” or purchase prices), and (3) a study of the costs and prices associated with the care of children with special needs. This section also provides the estimates of the accuracy of the 75th percentiles of prices reported in the study.

The Appendix includes a description of the methodology used for the Market Rate Survey. This includes the development of the sample frame; a description of the sampling plan, the sample selection and the survey; provider outreach steps and the interviews conducted in the field. It also includes a description of how the data were analyzed. The Appendix concludes with: (1) the Sampling Design Report; (2) outreach materials used in communication to the provider community; (3) the surveys.

Prices Throughout the State

10 tables present the results of the 2018 Child Care Market Rate Study. Table 1, 2, and 3 report the 75th percentile prices for the full-time daily rates for infant, toddler and preschool-age center care and family child care throughout the state. These tables also report the 75th percentile prices for part-day school-age care for children throughout the state. Table 4 presents the 75th percentile for the FCC state-wide hourly rate for odd-hour care. These tables present a 95% confidence interval for provider prices that allow one to assess the accuracy with which the 75th percentiles have been estimated. One can be 95% confident that the 75th percentile lies within these confidence intervals.

Tables 5 through 8 present the findings of the special-needs study. Tables 9 and 10 present the prices for the daily rates for center care and for family child care throughout the state, as well as the prices ‘weighted’ by the number of reported private-paying children in each age category. These are prices paid by private-paying families in Delaware and are considered to be purchase prices. They are different from the prices generally discussed in the report, which are the prices charged by the providers (‘provider prices’).

Tables 1, 2 and 3 contain, for each cell: 1.) cell definition; 2.) population size N, where known. N was unknown for family child care providers, and so it was taken to be infinity in equation (1) in the Sampling Design for the sampling variance. This is a conservative approach that yields wider confidence intervals than if N were known; 3.) n = number of price observations utilized to develop the percentiles; 4.) the maximum price reported for the cell; 5.) the minimum price reported for the cell; 6.) the sample 75th percentile price; 7.) the standard error of the sample 75th percentile price, from Sheather-Jones bandwidth choice rule and Epanechnikov kernel; 8.) kernel-based 95% confidence interval; 9.) non-parametric 95% confidence interval, based on the hypergeometric distribution when N is known, and on the binomial distribution when N is not known. The researchers recommend that the parametric (kernel-based) confidence intervals be used when the sample size (n) is greater than or equal to 40 and that the non-parametric intervals be used when the sample size is less than 40.

Full-Time Care

"Full time" care in this study refers to a daily price for a full week, 30 hours or more per week and at least 6 hours per day. Daily prices for full-time care at the 75th percentile are reported for center child care and family child care for infant, toddler and preschool-age children. The study obtained 2,938 full-time prices used to calculate the 75th percentile prices. The range of prices reported by the Delaware providers for full-time care is \$7.85/day to \$82.98/day. (Note: these are not prices at the 75th percentile.)

Part-Day Care

"Part-day" care for this study refers to care for less than 4 hours per day for school- age children. This can be for 'after-school' care or for 'before-school' care or for 'before & after-school' care. Part-day school-age prices at the 75th percentile are reported for center care and for family child care. The study obtained 187 part-day prices used to calculate the 75th percentiles of school-age prices. The range of part-day prices reported by Delaware providers of school-age care is \$5.00 to \$36. (Note: these are not prices at the 75th percentile.)

The Range of 75th Percentile Prices

The 75th percentiles of prices, including confidence intervals and standard errors, are reported in Tables 1-10 of this report. At the 75th percentiles, results of the study reveal that the market price* for full-time care range from \$28 per day to \$60 per day. Thus, full-time prices can vary widely in the state, by over 100% among different segments of the market. The 75th percentiles of prices for part- day school-age care range from \$14.00 to \$24.40. (*Prices discussed in this section are unweighted provider prices. 'Weighted' or purchase prices are discussed later in the report.)

The 75th Percentiles of Prices by Age of Child

The 75th percentile of daily market prices of full-time care in centers decreases as the age of the child increases. For example, for center infant care in Kent, the 75th percentile price is \$43.00 per day, the toddler price is \$40.00 per day and the preschool-age price is \$36 per day. This is also true for family child care: in Sussex County: infant care is \$31.00 per day, toddler care is \$28.38 per day, and preschool-age care is \$28.00 per day.

At the 75th percentile, for full-time center care and for full-time family child care, infant care is generally the highest priced care.

<u>Full-Time Center Care in Sussex County</u>	
<u>Age Group</u>	<u>75th Percentile Price</u>
Infant Care	\$43 per day
Toddler Care	\$40 per day
Preschool Care	\$36 per day

School-age Care

For this study, providers reported school-age prices only for part-day care for less than four hours per day. Since the reported prices for these children are for part- day care and for older children, they are the lowest priced care in the study.

At the 75th percentile, part-day school-age care in centers is higher priced than in family child care. For example, Kent County part-day school-age center care is \$18 compared to \$15 for part-day school-age family child care.

Part-day* School-age Care at the 75th Percentiles		
County	Family Child Care	Center Care
Kent	\$15.00	\$18.00
New Castle	\$20.00	\$24.40
Sussex	\$14.00	\$18.00

* less than 4 hours per day

The 75th Percentiles of Prices by County

Prices vary by geographic region in Delaware. For center and family child care, prices are higher in New Castle County than in Kent County and Sussex County. Prices in New Castle are higher for all of the market segments (type of care and age categories). Prices at the 75th percentiles are very similar or the same for Kent and Sussex market segments.

For center care, Sussex and Kent cells have been combined at the 75th percentile for infant, toddler, preschool and school-age market segments. This increased the level of accuracy of the estimated 75th percentile prices. New Castle prices are higher than Sussex/Kent prices for all four age categories.

For family child care, Kent and Sussex prices at the 75th percentile are the same or very similar. As with center care, Kent and Sussex FCC infant cells have been combined to improve the level of accuracy of the estimated 75th percentile price. Kent prices at the 75th percentile for toddler through school-age care are slightly higher than Sussex County prices. New Castle prices at the 75th percentiles are higher for all four center market segments. However the price disparity between New Castle and Kent and Sussex counties is less for family child care than for center care.

For family child care there is approximately a 38% price difference for full-time care between the lowest priced FCC full-time care at the 75th percentile (\$28) and the highest priced full-time care (\$38.50) at the 75th percentile. For center care, there is approximately a 67% price difference for full-time care between the lowest priced full-time care at the 75th percentile (\$36.00) and the highest priced full-time care at the 75th percentile (\$60.00).

Selected 75 th Percentile Prices			
Centers	Sussex	New Castle	Kent
Infants	\$43.00	\$60.00	\$43.00
Preschool	\$36.00	\$46.33	\$36.00
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FCC	Sussex	New Castle	Kent
Infants	\$31.00	\$38.50	\$31.00
Preschool	\$28.00	\$36.00	\$30.00

Family Child Care Prices

In all, 267 family child-care providers quoted prices for private-paying children in their care. The family child care providers reported 1,012 prices for private-paying children. This includes 918 prices for full-time care and 94 prices for part-day school-age care.

The FCC respondents reported prices for approximately three private-paying children that were attending their program full time (average). For FCC providers who were serving private-paying school-age children, they generally had two such school-age children enrolled part day (average). The median number of private-paying children enrolled was 6 (full-time and part day).

The vast majority of the prices reported were weekly rates. FCC providers also quoted hourly prices, daily prices, and monthly prices. The researchers used the prices for development of the 75th percentiles of prices. In order to obtain these prices, all of the sample providers and many of the back-up replacement sample providers were called by the interviewers. The range of full-time daily prices reported by these providers was \$7.85 to \$60.00. The range of part-day school-age prices was \$5.00 to \$32.00.

The 75th percentile full-time price for Kent County for combined infant, toddler and preschool-age care (ITP) is \$30.62/day. For Sussex County it is \$28.12 for combined infant, toddler and preschool age care (ITP). For New Castle it is \$37.00/day. The 75th percentiles of prices are also reported for full-time family child care by age groupings for each county. At the 75th percentiles, FCC full-time daily prices by age category range from \$28.00 to \$38.50. Part-day school-age care at the 75th percentile range from \$14.00 to \$20.00.

To improve the level of accuracy of FCC infant care at the 75th percentile for Kent and Sussex Counties, these cells were combined into one K&S infant cell (\$31/day). These infant cells had also been combined in previous market rate studies. For full-time infant care, the 75th percentile prices range from \$31/day to \$38.50/day, depending upon the county. For full-time toddler care, the 75th percentile prices range from \$28.38 to \$37.00. For full-time preschool-age care, the 75th percentile prices range from \$28.00 to \$36. For part day school-age care, the 75th percentile prices range from \$14 to \$20.

In general, infant care is the highest priced full-time care and preschool-age care is the lowest priced. New Castle County has the highest priced care for all age categories.

Center Child Care Prices

In all, 157 child-care center and school-age providers participated in the rate study and reported prices for private-paying children in their care. These providers reported 373 prices for full-time care. In all, they reported 93 infant prices, 131 toddler prices, 148 preschool-age prices and 93 school-age prices.

The range of enrolled children was 13 to 252. On average, centers had 82 children enrolled. The median number of enrolled children was 76. On average centers had 40 private-paying children enrolled at the time of the interview.

Centers generally reported prices for 40 private-paying children enrolled full time (average). For Sussex County, they reported prices for 32 private-paying children enrolled full time (average). New Castle County averaged 40 and Kent County averaged of 40 private-paying children enrolled full time. For those centers with school-age children enrolled, they generally reported a price for 14 private-paying school-age children enrolled part-day (average).

The vast majority of these prices were quoted as weekly rates. Center providers also quoted hourly rates, daily rates, monthly rates and school-year rates. The range of full-time daily prices reported by these providers is \$14 to \$82.98. The range of part-day school-age prices reported is \$5.00 to \$36.

Rates at the 75th Percentile: The 75th percentiles of prices are reported for center care by age category for each county in Delaware. Sussex and Kent center prices have been combined to improve the level of accuracy at the 75th percentile and thus these percentile prices are the same for infant through school-age care. Full-time daily prices at the 75th percentiles range from \$36 to \$60, depending on the age category and the county. Thus the range in price for full time center care is greater than the range in price for full-time FCC providers. Part-day school-age prices at the 75th percentile range from \$18 to \$24.40, depending upon the county.

For full-time center care, the 75th percentiles for the daily-market prices for infant care range from \$43.00 to \$60. For full-time toddler care, the daily prices at the 75th percentiles range from \$30 to \$54.20. For full-time preschool- age care, the daily prices at the 75th percentiles range from \$36 to \$46.33. For part-day school-age care, the daily prices at the 75th percentiles range from \$18 to \$24.40. New Castle County has the highest priced care at the 75th percentile for all age categories.

The 75th Percentiles of Prices and Types of Care

At the 75th percentiles, the price of care is lower for family child care than for center care for all age categories for each county (see below). For some county/age-categories there is a smaller price difference (Sussex school-age: FCC is \$14/day, center care is \$18/day.) For other county/age categories the price difference is greater between family child care and center care (New Castle infants: FCC \$38.50/day, Center \$60/day).

2018 Daily Rate 75th Percentiles

Infant	Centers	FCC
Kent	\$43.00	\$31.00
Sussex	\$43.00	\$31.40
New Castle	\$60.00	\$38.50

Toddler	Centers	FCC
Kent	\$40.00	\$30.50
Sussex	\$40.00	\$28.38
New Castle	\$54.20	\$37.00

2018 Daily Rate 75th Percentiles

Preschool	Centers	FCC
Kent	\$36.00	\$30.00
Sussex	\$36.00	\$28.40
New Castle	\$46.33	\$36.00

School Age**	Centers	FCC
Kent	\$18.00	\$15.00
Sussex	\$18.00	\$14.00
New Castle	\$24.40	\$20.00

** part-day

Comparing the FCC results with the center results, it is apparent that the prices for family child care are lower and less variable than prices for center care. The greatest overall difference between FCC prices and center prices at the 75th percentiles occurs in New Castle County. The range in New Castle County price differences, between FCC prices and center prices at the 75th percentile, is 22% to 56% depending upon the age category. Prices Paid by Delaware's Families (Purchase Prices)

The Delaware 2018 Local Child Care Market Rate Study provides a snapshot of what providers are charging at the 75th percentiles and the price at which parents are purchasing their child care services. ‘Weighted’ prices reflect actual child care purchases being made by families in Delaware. To obtain these prices, the researchers weighted the 75th percentile prices by the number of private-paying children reported for each age category. These prices are referred to as ‘weighted’ prices and reflect all market transactions by private-paying parents.

Up to this point, the prices generally discussed in this report have been prices charged by the providers for the private-paying children in their care. Weighted prices are reported separately. Throughout this study, consultants planned and implemented the research methodology to estimate provider prices and weighted prices. This report concentrates on the standard 75th percentiles of provider prices, but also presents the estimates of the 75th percentiles of weighted prices. All prices referenced in this report are provider prices unless specified as ‘weighted’ prices or ‘purchase’ prices.

Calculation of Per Provider Prices

To calculate the ‘per provider’ price, consider an example of full-time toddler care in centers. Each center respondent who has at least one full-time private-paying toddler enrolled reports their rate for full-time private-paying toddlers. Thus any sample provider who has any number of private-paying toddlers enrolled full- time reports one full-time toddler rate. All of the respondent providers who report a price for this toddler care have their price counted once in determining the toddler 75th percentile ‘provider’ price (the price charged). A provider with two private-paying toddlers enrolled full time is given as

much emphasis as a provider with 14 private-paying toddlers enrolled full time. Each of these providers has their full-time toddler rate counted once in determining the 75th percentile (provider) price, since the researchers are determining what a provider is charging.

Calculation of Weighted Prices (Purchase Prices)

Another way to look at prices it is to weight ‘provider price’ by the number of private-paying toddlers enrolled at the time of the interview. So, to determine the weighted prices, a provider with two private-paying toddlers enrolled full time actually has their price for this toddler care counted twice (weighted by their number of private-paying toddlers enrolled full time) and a provider who has 14 private-paying toddlers enrolled full time has their price counted 14 times (weighted by their number of full-time private-paying toddlers). Using weighted prices allows one to estimate the prices at which private-paying parents are actually purchasing the care. If the weighted prices are higher, this tells one that the private-paying parents are purchasing more care from the programs charging above the 75th percentile provider prices (more private-paying children are enrolled in the higher priced programs) and/or that the larger providers are charging above the 75th percentiles of provider prices.

Purchase Prices for the 2018 Study

Overall, the weighted or purchase prices are higher than provider prices by an average of 2% (averaging all 24 market segments in the study). The purchase prices for center care are higher than or equal too the provider prices for 9 of the 12 center market segments. The remaining markets have purchase prices lower than the provider prices.

An example of a cell with a higher weighted price is New Castle infant care: the daily price at the 75th percentile charged by New Castle center providers for infant care is \$60 and the purchase price/weighted price for private-paying children is \$65.31. For center care, these weighted/purchase prices are higher than the provider prices by an overall average of 5%.

For FCC providers, the purchase prices are greater than or equal to the provider prices for nine of the market segments. While there is some variability in the direction of the price difference, the overall average shows no difference at all.

2018 75 th Percentile Prices		
Centers	Per Provider Prices	Weighted Price
New Castle Toddlers	\$54.20	\$59.95
Kent School Age	\$18.00	\$20.00
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FCC	Per Provider Prices	Weighted Prices
Sussex Infants	\$31.00	\$31.00
New Castle Preschool	\$36.00	\$37.00

Odd-Hour Care

The Division requested the researchers report 75th percentiles of prices for odd-hour care. Odd-hour care includes evening care, overnight care and weekend care, for example:

Evening care: Care during any evening hours, for example from 8pm to 11pm.

Overnight care: Care for any overnight hours, for example 11pm to 6am.

Weekend care: Saturday care, Sunday care, or Saturday through Sunday care.

As part of the survey, providers were asked if they had provided odd-hour care within the past month for any private-paying child and received a payment for that care. FCC providers reported 12 prices for types of odd-hour care before outliers were removed. The most frequently reported odd-hour care was weekend care (7), then evening care (4). No overnight-care prices were reported. This was not sufficient to allow for development of price percentiles for all three categories of odd-hour care. It also was not sufficient to allow for development of prices by county. Instead, the researchers developed a FCC state-wide 75th percentile of price for one category: "odd-hour" care. Since only one center providers reported offering odd-hour care, no odd-hour 75th percentile prices are reported for center/school-age care. The state-wide 75th percentile of prices for FCC odd-hour care is \$11.88/hour. The range of odd-hour prices reported is \$2.86 per hour to \$16.67 per hour.

2018 Odd-Hour Care		
	75 th Percentile	Price Range
State-wide	\$11.88/hour	\$2.86-\$16.67/ hour

Care for Children with Special Needs

As part of the survey, providers were asked:

Are you presently serving any child with special needs in your program, private paying or state subsidized? For this survey, "special needs" means a child from infancy through 18 years of age who is diagnosed with physical, emotional, or developmental needs requiring special care." [PROBE: "any" child with special needs can be private paying or state-subsidized child, and can be full time or part time."]

In all, 35% of providers interviewed indicated that they were serving a child or children with special-needs in their program. Of the center providers, 64% reported that they were serving a child or children diagnosed with special needs. For family child care providers, only 19% reported that they were currently providing services to a child diagnosed with special needs.

Additional Costs of Serving Children with Special Needs

The survey asked the providers about any additional costs for serving children that had been diagnosed with special needs. Because of the American's With Disabilities Act

(ADA), providers in general cannot charge higher prices for children with special needs. Although providers could not charge higher prices, the Division wanted to know if it actually costs the providers more to serve these children. Providers who reported that they did have a child or children diagnosed with special needs in their program were asked:

Are there any additional costs to you for serving this child or children with special needs? [PROBE: Does it cost you more to have the child or children diagnosed with special needs in your program than to have the other children in your program?]

In all, 87% of the providers in the study who reported serving a child or children with special needs also reported that there were no additional costs incurred to serve these children. Of providers who answered this question, 98% of the FCC providers and 81% of the center/SA providers reported that there were no additional costs to serve children with special needs. Thus, the vast majority of providers who were serving children with special needs stated that there were no additional costs for them to serve these children.

A total of 13% (20) of providers who were serving children with special needs reported that there were additional costs to have these children in their program. The average additional cost for Centers was 15%, while that for FCC was 5%. Table 5 & 6 reports the breakdown of providers responding to these questions.

Pricing Differential Analysis

The Division requested that the researchers also conduct a differential analysis to determine if providers who were serving children with special needs charged higher prices overall than providers who had no children enrolled with special needs. Because of the American's With Disabilities Act (ADA), providers in general cannot charge higher prices for children with special needs. They can, however, charge higher prices to all of the children enrolled to off-set any higher costs for serving these children with special needs, or they can absorb the higher costs themselves if they do occur.

To determine this, the researchers compared the prices charged by providers who had children with special needs enrolled, in relation to the prices charged by providers who had no children enrolled with special needs. Therefore, the researchers sought to determine whether a price differential existed between the following two categories of providers:

Providers serving children that had been diagnosed with special needs and serving children that had not been diagnosed with special needs. (SNC)

Providers who had no children enrolled that had been diagnosed with special needs (RC)

To determine if a statistically significant price difference existed between these two categories of providers, the researchers calculated the 75th percentile of prices, by cell, of

these two groups (SNC, RC). If a statistically significant difference in price did exist, this would support the hypothesis that SNC providers were passing along (possible) additional costs for serving children with special needs to all of the children in their program. The researchers utilized the information collected from all of the providers to conduct this analysis.

In determining a pricing differential, the researchers were not only interested in calculating a price differential but also determining whether or not the reported differential was significantly different from zero (was the difference statistically significant). To do this, the researchers needed to derive 75th percentile prices, standard errors and confidence intervals for providers serving children with special needs (SNC) and for providers who had no children enrolled that had been diagnosed with special needs (RC). The prices provided the numerical basis for the differential while the standard errors allowed the consultants to consider if the differentials are meaningful in a statistical sense.

For the 2018 study, the researchers developed two sets of differentials: (1) one for full-time care (infant, toddler, and preschool care), and (2) one for part-day care (school-age care). The 75th percentiles of prices were reported for the following 20 cells: (1) New Castle ITP (SNC) center, (2) New Castle ITP (RC) center, (3) Kent & Sussex ITP (SNC) center, (4) Kent & Sussex ITP (RC) center, (5) New Castle SA (SNC) center, (6) New Castle SA (RC) center, (7) Kent & Sussex SA (SNC) center, (8) Kent & Sussex SA (RC) center, (9) Kent ITP (SNC) family child care, (10) Kent ITP (RC) family child care, (11) New Castle ITP (SNC) family child care, (12) New Castle ITP (RC) family child care, (13) Sussex ITP (SNC) family child care, (14) Sussex ITP (RC) family child care, (15) Kent SA (SNC) family child care, (16) Kent SA (RC) family child care, (17) New Castle SA (SNC) family child care, (18) New Castle SA (RC) family child care, (19) Sussex SA (SNC) family child care, (20) Sussex SA (RC) family child care. (ITP = infant, toddler, and preschool full-time care; SA = part-day school-age care. SNC = providers serving a child/children diagnosed with special needs as well as children who had not been diagnosed with special needs. RC = no children enrolled who had been diagnosed with special needs.)

Results of the Differential Analysis

The results of this analysis are presented in Tables 7 and 8. There is generally no statistically significant difference in prices between providers who serve children with special needs (SNC) and those who do not (RC). More specifically, the asymptotically normal test statistic indicates that the SNC differential is generally statistically insignificant (95% level). The exceptions are Kent & Sussex, ITP, centers that had a statistically significant differential of \$5.00; Kent & Sussex, SA, centers that had a statistically significant differential of \$3.75; and Kent, ITP, FCC that had a statistically significant differential of 4.00.

Special needs findings: Thus the vast majority of providers who had children with special needs enrolled reported that there were no additional costs to have these children in their program. In addition, the differential analysis did not generally support the hypothesis

that providers who had children enrolled with special needs were passing along possible higher costs to their total enrollment of children. However, there were a few exceptions.

Change in Prices Since the 2015 Market Rate Study

To identify price trends, 2018 prices are compared with 2015 prices as reported in the 2015 Local Child Care Market Rate Study. Percentage changes quoted in this section are for the three-year period between 2015 and 2018. They are not percentage changes on an annual basis. All changes in prices noted are prices at the 75th percentile.

The 2018 prices for child care in Delaware have increased for all market segments since the last rate study in 2015. In both the 2018 and the 2015 study there were 24 market segments or cells. Examples of a market segment include New Castle Center toddler care and Sussex FCC infant care.

Overall, there has been a 10.6% increase in prices since 2015 (averaging the change in prices of all 24 market segments).

Center Change in Prices

For center care overall there has been an 11.4% average increase in price at the 75th percentile since the 2015 study (averaging the change in all 12 center cells). New Castle County had the largest overall average increase in price among the three counties (15.2%), averaging the changes in infant, toddler, preschool-age and school-age prices since 2015. Kent and Sussex Counties had an overall 9.6% average increase.

Toddler care had the largest overall average age-category increase in center care prices (14.4%). Infant care had a 9.1% increase in prices, preschool-age care had an 8.9% increase, and school age care had a 13.4% increase in price.

FCC Change in Prices

Overall there was a 9.7% average increase in prices at the 75th percentile since 2015 (averaging the change in all 12 FCC cells). New Castle County had the largest overall increase for family child care among the three counties (14.5%), averaging the changes in prices at the 75th percentile in infant, toddler, preschool and school-age care. Sussex County and Kent County had an overall average increase of 6.8% and 7.8%, respectively.

In all, there is an increase in price in each market segments. School Age care had the largest overall age-category increase (16.1%). Preschool-age care had an average 12.2% increase, infant care had an average 5.6% increase, and toddler care had an average 5.0% increase.

Observation: The overall average price increase among the 24 market segments, between 2015 and 2018, is 10.6%. The overall average price increase among the 24 market segments, between 2013 and 2015, was 7%. Given that the 10.6% increase spans three years and the 7% increase spans the previous two-year, the annual price increases are approximately 3.5 per year over the 5 year period.

The Impact of POC and POC Plus on the Child Care Market

As part of the study, the survey asked providers to report the number of children enrolled at their site at the time of the interview. They were next asked if they had any children enrolled that were subsidized through Purchase of Care or Purchase of Care Plus. For those that replied “yes”, they were asked how many of their enrolled children were subsidized by either Purchase of Care or Purchase of Care Plus.

In reviewing the information provided by these questions, it becomes apparent that the state-subsidized program has a major impact on the child care market in Delaware. A majority of the providers interviewed (65%) had some or many children enrolled that were subsidized by Purchase of Care or Purchase of Care Plus.

Centers: The range of children enrolled at centers was 13 to 252 children. The average enrollment was 82 children. The medium number of enrolled children was 76. In all, 89% of the center respondents had a subsidized child or children enrolled. Among providers that had subsidized children enrolled, the range of subsidized children was 1 to 150 children. The average number of subsidized children enrolled in center programs was 40. The average number of subsidized children in center programs by county was: Kent (36), New Castle (44), and Sussex (33).

Family Child Care: The range of children enrolled by the FCC providers was 1 to 18. Approximately half of the 267 FCC respondents (51%) had a subsidized child or children enrolled at the time of the interview. Among providers that had subsidized children enrolled, the range of subsidized children was 1 to 13. The median enrollment of the FCC providers was 6 children (full-time and part-day). For FCC provider with some number of subsidized children enrolled, the median number of subsidized children was 3; by county it was: Kent (4), New Castle (3), and Sussex (4).

Accuracy of the Study

The goal of the 2018 Local Child Care Market Rate Study was to develop statistically credible information on the 2018 market prices charged by child care providers in the state. The Rate Study met this goal since the researchers used a statistically valid methodology and the 2018 market prices for Delaware child care providers were estimated with a verifiable and high degree of precision.

The estimates of precision presented are the 95% confidence intervals for the 75th percentile of prices. For the infant, toddler and preschool-age market segments for family child care markets, the 95% confidence interval is typically about plus or minus 5%-6% of the estimate. The range was higher for family child care for infants in Kent and Sussex counties. There simply were not very many Kent and Sussex family child care providers who had private-paying infants in their care. To increase the accuracy of infant prices for Kent and Sussex counties, the researchers combined the prices for the two counties into one K&S infant cell. These cells had also been combined in previous Delaware market rate studies. This improved the level of accuracy so that the accuracy for this market segment is now in line with the other full-time family child care market segments.

To achieve a similar level of accuracy for the infant, toddler and preschool-age market segments for center child care markets, the researchers combined the prices for Kent and Sussex counties in each age group. For infant and school-age care these cells had been combined in previous Delaware child care market rate studies. Again, the estimates of precision presented are the 95% confidence intervals for the 75th percentile of prices. The intervals are typically about plus or minus 5%-7% of the estimate.

For school-age care, the 95% confidence interval is typically about plus or minus 6%-10% of the estimate. This is not because the confidence intervals are wider. It occurs because the prices are lower (this is not full-time care). The sampling design attempted to equalize accuracy in absolute terms, not percentage terms across cells, so there is now a higher uncertainty in percentage terms when the prices are lower, as they are for school-age care. For centers, the Kent and Sussex school-age cells were combined into one K&S cell. This improved the level of accuracy for the center school-age prices at the 75th percentile in both Kent and Sussex counties.

For all of the market segments in the study, the level of accuracy achieved would be considered a more than acceptable high level of statistical precision. The researchers stress that it is not just a high degree of precision that was attained, but also that the study quantified how high a degree of precision was attained.

A second goal of the study was to equalize the standard errors of estimation across counties and age groups for full-time infant, toddler, preschool-age & part-day school-age care for centers, and to equalize the standard errors of estimation across counties for full-time infant family child-care (see **Sampling Plan Report** submitted separately). The standard errors actually achieved differed from those planned because price variability and response rates (expected yield rates) could not be predicted perfectly in advance. However, the standard errors actually achieved were generally quite close to those planned. The standard errors for both center care and for family child care reflect a high degree of accuracy in the estimation of price percentiles (see Tables 1-3 below).

Delaware 2018 Child Care Rate Study

Table 1. Family Child Care Daily Rates - 75%ile and Confidence Intervals

							Parametric	Non-Parametric
Region	N	n	Max	Min	75%ile	Std Err	Conf. Int.	Conf. Int.
K, ITP	**	119	40.00	17.00	30.62	0.2801	[30.08, 31.17]	[30.00, 32.50]
NC, ITP	**	264	60.00	7.85	37.00	0.5184	[35.98, 38.02]	[36.00, 38.00]
S, ITP	**	91	36.50	17.00	28.12	0.5581	[27.03, 29.22]	[28.00, 30.00]

Table 2. Family Child Care Daily Rates Per Age - 75%ile & Confidence Intervals

							Parametric	Non-Parametric	
Region	Type	N	n	Max	Min	75%ile	Std Err	Conf. Int.	Conf. Int.
K&S	INF	**	33	37.00	17.00	31.00	0.9811	[29.08, 32.92]	[30.00, 36.00]
K	TOD	**	50	40.00	17.00	30.50	0.4488	[29.62, 31.38]	[30.00, 34.00]
K	PS	**	52	35.00	17.00	30.00	0.3416	[29.33, 30.67]	[30.00, 32.00]
K	SA	**	27	20.00	5.00	15.00	1.0518	[12.94, 17.06]	[13.00, 17.00]
NC	INF	**	46	60.00	7.85	38.50	1.3976	[35.76, 41.24]	[36.00, 45.00]
NC	TOD	**	119	60.00	20.00	37.00	0.8485	[35.34, 38.66]	[36.00, 39.50]
NC	PS	**	99	60.00	20.00	36.00	0.8002	[34.43, 37.57]	[34.50, 37.00]
NC	SA	**	41	32.00	5.00	20.00	1.6247	[16.82, 23.18]	[15.20, 22.00]
S&K	INF	**	33	37.00	17.00	31.00	0.9811	[29.08, 32.92]	[30.00, 36.00]
S	TOD	**	33	32.00	17.00	28.38	0.9465	[26.52, 30.23]	[27.00, 30.00]
S	PS	**	42	32.00	17.00	28.00	0.8168	[26.40, 29.60]	[25.00, 30.00]
S	SA	**	26	20.00	5.00	14.00	0.7833	[12.46, 15.54]	[12.00, 16.00]

Prices are daily, full time rates except for School age (SA) which is part-day care (less than 4 hours per day).

** N = Population size treated as unknown. n = number of prices, based on the median price per age category. We recommend use of non-parametric confidence intervals for n < 40, and the use of the parametric confidence intervals based on standard errors for n ≥ 40.

Tables contain only prices for private paying children (no Purchase of Care prices or Purchase of Care Plus prices).

K = Kent County, NC = New Castle County, S = Sussex County.

INF = Infant Family Child Care, TOD = Toddler Family Child Care, PS = Preschool Family Child Care, SA = School age Family Child Care. ITP = Infant, Toddler, and Preschool Child Care.

K&S, S&K: Kent & Sussex Infant cells are combined in Table 2 to improve their level of accuracy (standard errors). K ITP cell in Table 1 contains no S INF data, while in Table 2 K INF and S INF are combined. S ITP cell in Table 1 contains no K INF data, while in Table 2 S INF and K INF are combined.

75%ile = 75th Percentile

Delaware 2018 Child Care Rate Study

Table 3. Child Care Centers Daily Rates - 75%ile and Confidence Intervals

Region	Type	N	n	Max	Min	75%ile	Std Err	Parametric	Non-Parametric
								Conf. Int.	Conf. Int.
K&S	I	68	38	50.00	25.00	43.00	1.4223	[40.21, 45.79]	[41.40, 50.00]
K&S	T	96	54	50.00	14.00	40.00	0.8735	[38.29, 41.71]	[36.00, 40.00]
K&S	PS	105	64	42.00	20.00	36.00	0.8069	[34.42, 37.58]	[35.00, 39.40]
K&S	SA	95	41	30.00	11.00	18.00	0.6367	[16.75, 19.25]	[17.00, 22.00]
NC	I	141	56	73.00	32.00	60.00	3.7337	[52.68, 67.32]	[53.75, 66.14]
NC	T	183	77	82.98	24.00	54.20	3.2113	[47.91, 60.49]	[49.62, 62.00]
NC	PS	189	83	82.98	24.00	46.33	3.0868	[40.28, 52.38]	[42.00, 51.80]
NC	SA	162	51	36.00	5.00	24.40	1.0714	[22.30, 26.50]	[22.80, 27.00]
S&K	I	68	38	50.00	25.00	43.00	1.4223	[40.21, 45.79]	[41.40, 50.00]
S&K	T	96	54	50.00	14.00	40.00	0.8735	[38.29, 41.71]	[36.00, 40.00]
S&K	PS	105	64	42.00	20.00	36.00	0.8069	[34.42, 37.58]	[35.00, 39.40]
S&K	SA	95	41	30.00	11.00	18.00	0.6367	[16.75, 19.25]	[17.00, 22.00]

Prices are daily, full time rates except for School age (SA) which is part-day care (less than 4 hours per day).

Tables contain only prices for private paying children (no Purchase of Care prices or Purchase of Care Plus prices).

N = number of providers in the Delaware sampling frame providing this care

n = number of prices obtained from survey respondents.

We recommend the use of non-parametric confidence intervals for $n < 40$, and the use of the parametric confidence intervals based on standard errors for $n \geq 40$.

I = Infant Child Care Centers, T = Toddler Child Care Centers, PS = Preschool Child Care Centers, SA = School-age Child Care Centers.

K = Kent County, NC = New Castle County, S = Sussex County.

K&S, S&K: Kent & Sussex Infant, Toddler, Preschool and School age cells are combined in Table 3 to improve their level of accuracy (standard errors).

75%ile = 75th Percentile

Delaware 2018 Child Care Rate Study

**Table 4. Family Child Care Odd-Hour Care Hourly Rates
- 75%ile and Confidence Intervals**

Region	N	n	Max	Min	75%ile	Std Err	Parametric	Non-Parametric
							Conf. Int.	Conf. Int.
State	**	9	16.67	2.86	11.88	0.6401	[10.63, 13.13]	[10.00, ***]

Prices are for hourly rates

Table contains only prices for private paying children (no Purchase of Care prices or Purchase of Care Plus prices).

** N = Population size treated as unknown.

*** Non-parametric upper bound undefined. 97.5% lower bound provided.

n = number of prices obtained from survey respondents.

We recommend use of non-parametric confidence intervals for n < 40, and the use of the parametric confidence intervals based on standard errors for n ≥ 40.

There were insufficient center odd-hour care prices reported to determine a 75th percentile, so all observations are for odd-hour care reported by family child care providers.

State = Entire State of Delaware.

75%ile = 75th Percentile

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Table 5. Centers, Special Needs Care, and Costs by County

Cell	Number of Providers Responding To Survey Question	Number of SNC Providers	Are there any additional costs to you in caring for these children with SN?		Average Higher Cost of SNC (Estimated)
			No	Yes	
K, CTR	30	19 (63%)	17 (89%)	2 (11%)	20%
NC, CTR	89	57 (64%)	45 (79%)	12 (21%)	13%
S, CTR	38	24 (63%)	19 (79%)	5 (21%)	17%
Total, CTR	157	100 (64%)	81 (81%)	19 (19%)	15%

Table 6. Family Child Care, Special Needs Care, and Costs by County

Cell	Number of Providers Responding to Survey Question	Number of SNC Providers	Are there any additional costs to you in caring for these children with SN?		Average Higher Cost of SNC (Estimated)
			No	Yes	
K, FCC	61	8 (13%)	7 (88%)	1 (12%)	5%
NC, FCC	153	29 (19%)	29 (100%)	0 (0%)	--
S, FCC	58	14 (24%)	14 (100%)	0 (0%)	--
Total, FCC	272	51 (19%)	50 (98%)	1 (2%)	5%

K = Kent County, NC = New Castle County, S = Sussex County.

FCC = Family Child Care, CTR = Child Care Centers.

SNC = special needs care. SN = special needs

Special Needs Care (SNC) providers = Answered "yes" to serving children with special needs. Note: Some providers did not respond to the special needs questions.

Note: A small numbers of providers may not respond to the question "Are there any additional costs to you in caring for these children with SN (special needs)." Therefore, the sum of respondents answering "Yes" and "No" may not equal the entry in the "Number of SNC Providers" column in the tables.

Average Higher Cost of SNC (Estimated) = providers who reported serving children with special needs and who reported that it did cost their program more to serve these children. These providers then estimated their percentage of a higher cost for serving these children.

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Table 7. Special Needs Care - 75%ile and Confidence Intervals

							Parametric	Non-Parametric	
Cell	Type	N	n	Max	Min	75%ile	Std Err	Conf. Int.	Conf. Int.
K&S, ITP, SNC	CTR	**	100	50.00	14.00	40.00	0.7454	[38.54, 41.46]	[39.00, 41.40]
K&S, ITP, RC	CTR	**	56	50.00	20.00	35.00	0.8255	[33.38, 36.62]	[34.00, 40.00]
NC, ITP, SNC	CTR	**	145	82.98	26.50	52.30	1.6908	[48.99, 55.61]	[50.00, 59.31]
NC, ITP, RC	CTR	**	71	82.31	24.00	53.96	2.9685	[48.14, 59.78]	[49.62, 62.00]
K&S, SA, SNC	CTR	**	25	30.00	11.00	19.75	1.4706	[16.87, 22.63]	[17.00, 30.00]
K&S, SA, RC	CTR	**	16	30.00	11.00	16.00	0.7186	[14.59, 17.41]	[15.00, 30.00]
NC, SA, SNC	CTR	**	37	34.00	5.00	24.15	1.1511	[21.89, 26.41]	[22.00, 30.00]
NC, SA, RC	CTR	**	14	36.00	10.00	24.00	3.0568	[18.01, 29.99]	[20.00, 36.00]
K, ITP, SNC	FCC	**	13	37.00	19.00	34.00	1.4451	[31.17, 36.83]	[30.00, 37.00]
K, ITP, RC	FCC	**	106	40.00	17.00	30.00	0.2012	[29.61, 30.39]	[30.00, 32.00]
NC, ITP, SNC	FCC	**	52	45.00	20.00	37.00	1.3340	[34.39, 39.61]	[35.00, 40.00]
NC, ITP, RC	FCC	**	212	60.00	7.85	37.00	0.5782	[35.87, 38.13]	[36.00, 37.00]
S, ITP, SNC	FCC	**	20	33.00	19.00	28.00	1.2830	[25.49, 30.51]	[26.40, 31.50]
S, ITP, RC	FCC	**	71	36.00	17.00	28.12	0.6338	[26.88, 29.37]	[27.00, 30.00]
K, SA, SNC	FCC	**	7	20.00	8.00	17.00	2.1566	[12.77, 21.23]	[12.00, ***]
K, SA, RC	FCC	**	20	17.00	5.00	15.00	1.1422	[12.76, 17.24]	[12.00, 15.00]
NC, SA, SNC	FCC	**	7	25.00	8.00	16.25	3.3892	[9.61, 22.89]	[13.00, ***]
NC, SA, RC	FCC	**	34	32.00	5.00	20.00	1.7222	[16.62, 23.38]	[15.20, 22.00]
S, SA, SNC	FCC	**	8	16.00	10.00	13.00	0.9968	[11.05, 14.95]	[11.00, ***]
S, SA, RC	FCC	**	18	20.00	5.00	14.50	1.1176	[12.31, 16.69]	[12.00, 20.00]

** Population size treated as unknown.

*** Non-parametric upper bound undefined. 97.5% lower bound provided.

Prices are daily, full time rates except for School age (SA), which is part day care (less than 4 hours per day). Tables contain only prices for private-paying children (no Purchase of Care prices or Purchase of Care Plus prices).

K = Kent County, NC = New Castle County, S = Sussex County, SNC = Special Needs Care, RC = Regular Care, FCC = Family Child Care, CTR = Center Child Care.

ITP = Infants, Toddlers, and Preschool Child Care. SA = School-Age Child Care.

Special Needs Care program = Answered "yes" to having children with special needs enrolled. Regular Care program = Answered "no" to children with special needs enrolled.

We recommend use of non-parametric confidence intervals for $n < 40$, and the use of the parametric confidence intervals based on standard errors for $n \geq 40$.

K&S = combined cells.

Note: A small numbers of providers did not respond to the special needs questions. Therefore, the countywide totals here may not equal the countywide totals reported elsewhere in this report.

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Table 8. Special Needs Care Differentials and Conversion Factors

Cell Definition	SNC Differential	SNC Conversion Factor *	Statistically Significant? ***
K&S, ITP, CTR	5.00	1.1429	Y
NC, ITP, CTR	-1.66	0.9692	N
K&S, SA, CTR	3.75	1.2344	Y
NC, SA, CTR	0.15	1.0062	N
K, ITP, FCC	4.00	1.1333	Y
NC, ITP, FCC	0.00	1.0000	N
S, ITP, FCC	-0.12	0.9957	N
K, SA, FCC	2.00	1.1333	N
NC, SA, FCC	-3.75	0.8125	N
S, SA, FCC	-1.50	0.8966	N

* SNC differential is SNC price minus RC price. SNC conversion is SNC price divided by RC price. To convert RC prices to SNC prices, multiply RC price by the conversion factor.

*** Asymptotically normal test statistics (95% level) indicate that the SNC differential was always insignificant except for Center Infant-Toddler-Preschool Age care in Kent and Sussex County.

K = Kent County, NC = New Castle County, S = Sussex County

SNC = Special Needs Care, RC = Regular Care

FCC = Family Child Care, CTR = Center Child Care

ITP = Infants, Toddlers, and Preschool Child Care; SA = School Age Child Care

Special Needs Care program = Answered "yes" to having children with special needs enrolled. Regular Care program = Answered "no" to children with special needs enrolled.

Note: Some providers did not respond to the special needs questions.

K&S = combined cells.

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Table 9. Family Child Care - Per Provider and Weighted 75%ile Prices

		Per Provider	Weighted*
Region	Type	75%ile	75%ile
K&S	I	31.00	31.00
K	T	30.50	31.00
K	PS	30.00	31.00
K	SA	15.00	15.00
NC	I	38.50	37.00
NC	T	37.00	37.00
NC	PS	36.00	37.00
NC	SA	20.00	20.00
S&K	I	31.00	31.00
S	T	28.38	28.00
S	PS	28.00	28.00
S	SA	14.00	13.00

Table 10. Child Care Centers - Per Provider and Weighted 75%ile Prices

		Per Provider	Weighted*
Region	Type	75%ile	75%ile
K&S	I	43.00	43.00
K&S	T	40.00	40.00
K&S	PS	36.00	37.50
K&S	SA	18.00	20.00
NC	I	60.00	65.31
NC	T	54.20	59.95
NC	PS	46.33	51.00
NC	SA	24.40	22.80
S&K	I	43.00	43.00
S&K	T	40.00	40.00
S&K	PS	36.00	37.50
S&K	SA	18.00	20.00

* Weighted by the number of private-paying children in the cell. Weighted prices are considered to be *purchase prices* of private-paying families in Delaware. Provider prices are considered to be the *prices charged* by the Delaware providers.

Infant, toddler and preschool-age prices are for full-time care, for 30 hours or more per week and at least 6 hours per day. School-age are prices for part-day care, for less than 4 hours per day.

K&S; S&K = combined cells.

75%ile = 75th Percentile