

2021 Delaware Cost of Care Study

Preliminary Report

for

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

April 15, 2021

Submitted by William Horrace and Christopher Parmeter

ACKNOWLEDGMENT

This study was supported by a contract from the Delaware Division of Social Services (DSS). This does not indicate their concurrence with the results nor is the Division responsible in any way for the errors we may have made or the conclusions we have presented herein. The study and data collection are ongoing, and this report represents the results to date. This report will be updated when the state determines that data collection is complete.

The Team's Experience

The Delaware Division of Social Services (the Division) contracted with the consultants to undertake this study. The consultants had conducted 12 previous child care surveys for the Division (from the 1996 market rate study to the 2021 market rate study) and has significant theoretical and field experience with these child care surveys in Delaware and in other states. The consultants consisted of William Horrace Ph.D., Distinguished Professor of Economics at Syracuse University and Christopher Parmeter Ph.D., Associate Professor of Economics at University of Miami.

GENERAL FINDINGS TO DATE

- Statewide total annual operating costs for centers ranged from \$50,000 to \$1,607,479, and total annual cost per enrolled student ranged from \$1,029 to \$20,577 per student. Mean (average) total annual operating costs are \$501,838 in Kent and Sussex (combined) and \$640,486 in New Castle and mean total annual costs per student are \$7,002 per student in Kent and Sussex and \$7,147 in New Castle.
- Statewide annual staffing costs for centers ranged from \$20,000 to \$1,382,432, with staffing costs being the largest driver of total costs. Mean staffing costs are \$300,202 in Kent and Sussex (combined) and \$375,757 in New Castle. Statewide annual staffing cost per enrolled student ranged from \$478 to \$15,433 per student for centers.
- For centers, staff costs contribute most to total annual operating costs, and most centers reported that increasing the minimum wage to \$15/hour would be the tipping point where they would have to raise tuition. Others cited a minimum wage of \$10-12/hour.
- The statewide mean weekly enrollment for centers was 84.9 children with POC children accounting for 43.3% of enrollment in centers across the state. Median weekly enrollment in centers was 75 children.
- The statewide number of classrooms for centers ranged from 6 to 14 classrooms. New Castle centers average 7.4 classrooms, while those in Kent and Sussex have only 5.6 classrooms on average.
- The statewide students per classroom for centers ranged from 1.3 to 28.6 students per classroom with a mean of 13.2 and a median on 13.5 students per classrooms.

- On average centers employ 5.5 full time teachers and 1 full time director.
- The effect of COVID-19 on Center child care markets is as follows. The majority (53%) of centers reported that their costs had increased due to COVID, while a majority (84%) reported that enrollments had declined due to COVID. A majority (55%) also reported that Covid had either decreased (31%) or increased (24%) staffing levels.
- Statewide total annual operation costs for family care providers ranged from \$3,000 to \$132,830 with a mean (average) total cost of \$33,506.
- Statewide annual assistant costs for family care providers ranged from \$7,500 to \$119,547 with home use costs and direct business costs being the largest driver of total costs.¹
- The statewide mean weekly enrollment for family care was 7.9 children with POC children accounting for 50.6% of enrollment in family care across the state. Median weekly enrollment in family care was 8 children.
- The average family care provider works 59.3 hours per week, and when an assistant is present (27% of the time), the median assistant works 240 hours per year.
- The effect of COVID-19 on family child care markets is as follows. The majority (59%) of family care providers reported that their costs had increased due to COVID, while a majority (63%) reported that enrollments had declined due to COVID. A majority (78%) also reported that Covid did not affect staffing levels.

SYNOPSIS OF RESULTS

Total annual operating cost are generally higher for center care and in New Castle County. Total annual operating cost are generally lower for family child care and in Sussex and Kent Counties. Across the state of Delaware, costs are generally larger for higher quality child care providers and for providers with larger enrollments. The biggest cost drivers for centers are staffing costs, while for family care home costs and direct business expenses are the primary cost drivers.

OVERVIEW

The goal of the 2021 Delaware Cost of Care Study was to collect survey data on the cost of child care in Delaware. The Delaware Division of Social Services planned to use the data to develop alternative ways to determine reimbursement rates for child care services purchased by the state. Two surveys were developed (one for center child care and one

¹ The maximal \$119,547 assistant cost was confirmed with a follow-up phone call.

for family child care), were administered starting in January 2021, and asked questions on a wide range of cost categories including: staffing costs, training costs, facilities costs, meal costs, office costs, classroom costs and other costs. There were also questions regarding the effects of COVID on costs, enrollments and staffing levels, as well as questions related to the effects of health and safety regulations, questions related to satisfaction with staff pay, hiring, and turnover, and questions related to perceptions of the Delaware STARS quality rating system. In particular, providers were asked how a hypothetical effort to increase their STARS rating by one STAR would affect business operations and profitability. The center and family care surveys are relatively long (compared to the Market Rate Survey), taking about 1 hour to complete. The surveys are contained in the appendix. Survey participants were emailed worksheets prior to interviews to facilitate survey responses, and these are also contained in the appendix (one for center care and one for family care). As an incentive, providers completing the survey were mailed \$50 Amazon gift card.

The Cost of Care study was originally intended to pull a stratified random sample of 100 child care providers across the state. The idea of the stratification was to ensure good representation across different segments of the child care market, where market segments are defined by type of care (centers or family) and location (Kent, New Castle or Sussex). For example, even though there are more family care providers in the state than centers, we allocated the 100 random samples evenly: 50 center and 50 family care providers. At some point in the process the decision was made to use the Cost of Care data as inputs to a “Cost of Quality Care” calculator, which included Delaware STARS rating as an input (in addition to type of care and location as inputs). With six potential quality ratings (0-5 STARS) over which the sample needed to be allocated, a decision was made to double the sample size to 200. The sampling plan is contained in the appendix.

To date, there are 92 completed interviews (51 centers and 41 family care providers), so this report is preliminary and will be updated as the number of completed interviews grow. Of the 51 centers analyzed in this report, 9 are in Kent, 16 are in Sussex, and 26 are in New Castle. Of these centers, seven have 0 STARS, one has 1 STAR, nine have 2 STARS, eight have 3 STARS, nine have 4 STARS, and seventeen have 5 STARS. Of the 41 family care providers analyzed in this report, 4 are in Kent, 9 are in Sussex, and 19 are in New Castle. Of these family care providers, six have 0 STARS, two have 1 STAR, eleven have 2 STARS, seven have 3 STARS, eight have 4 STARS and six have 5 STARS.

The next section describes the findings of the survey to date, which are contained in nine tables. The final tables present: (1) total annual operating costs by type of care, by enrollment and by STARS quality rating, (2) center total annual operating costs and components (e.g., staffing costs) by county (Kent and Sussex combined) and statewide, (3) a “per enrolled student” version of Table 2, (4) various center survey responses by county and statewide, (5) center responses to COVID questions, (6) family care total annual operating costs and components (e.g., home costs) by county (Kent and Sussex combined) and statewide, (7) various family care survey responses by county and statewide, (8) family care responses to COVID questions.

The Range of Costs by STARS Rating and by Enrollment

The range cost by STARS rating and by enrollment are in Table 1. The top panel of the table lists total annual operating costs statistics by type of care. For example, mean total costs are \$33,506 for family care with a standard deviation (SD) of \$28,095, while mean total costs are \$572,521 for centers with a standard deviation (SD) of \$398,654. The second panel partitions these statistics by enrollment ranges: 1-6, 7-12, 13-25, 26-50, 51-75, 76-100, and 100+. The first two ranges correspond to family care providers, and the remaining ranges are for centers. For example, family care providers with 1-6 enrolled children had total annual operation costs of \$14,675, while centers with more than 100 children had total costs of \$925,891. Obviously, total costs are increasing in enrollments.

The last panel of Table 1 presents total costs by STARS rating. Due to a shortage of data, STARS categories were aggregated to “low-quality” (0-, 1-, or 2-STAR providers) and “high-quality” (3-, 4-, or 5-STAR providers). Total operating costs are increasing in quality, as low-quality providers have mean total annual operating costs of \$254,146 while high-quality providers have higher mean total costs of \$382,555.

The Range of Costs by County and Statewide

The range of costs by county are contained in Table 2 for center care and in Table 6 for family care. For example, mean total annual operating costs for centers are \$501,838 in Kent and Sussex (combined) and \$640,486 in New Castle. Mean staffing costs for centers are \$300,202 in Kent and Sussex (combined) and \$375,757 in New Castle. In Table 6, mean home use costs for family care are \$11,618 in Kent and Sussex (combined) and \$12,197 in New Castle. Mean direct business costs for family care are \$17,879 in Kent and Sussex (combined) and \$16,149 in New Castle.

The Range of “Per Student” Costs by County and Statewide

The range of “per student” costs by county are contained in Table 3 for center care. For example, mean “per student” operating costs for centers are \$7,002 per student in Kent and Sussex (combined) and \$7,174 per student in New Castle. Mean “per student” staffing costs for centers are \$4,359 per student in Kent and Sussex (combined) and \$4,108 per student in New Castle.

Staffing Costs

Providers were asked a series of questions about staffing, which are the main cost drivers in centers throughout the state. In addition to the Staffing/Assistant cost results reported in Tables 2 (center care) and 6 (family care), centers were asked about staff size and composition. For example, Table 4 shows that on average centers employ 5.5 full time teachers and 1 full time director. There were also center questions regarding satisfaction with staff wages and the difficulty in finding staff on a Likert scale of 1-5. In particular, Table 4 shows that centers across the state are moderately satisfied with the wages they pay (mean Likert score of 3.3), and this satisfaction level is consistent in counties (on average). It also shows that they find it somewhat difficult to find qualified staff (mean Likert score of 4.2). Centers also reported that the change in the minimum wage that would increase staff costs to the point where tuition rates would be raised. The

most frequent response was raising the minimum wage to \$15/hour to induce a tuition increase. The second most frequent response was \$10-12/hour. Center providers were also asked which cost category affects tuition rates the most?" the most frequent response was "staffing costs."

Table 6 shows that providers worked an average of 59.3 hours/week across the state with more weekly hours logged in Kent and Sussex (62.3) than New Castle (56.9). For family care 27% of providers surveyed employed an assistant. Assistants were employed for a median of 240 hours per year across the state. There were also family care questions regarding satisfaction with staff wages and the difficulty in finding staff on a Likert scale of 1-5. In particular, Table 6 shows that family care providers across the state are moderately satisfied with the wages they pay (mean Likert score of 2.8). It also shows that they find it somewhat difficult to find qualified staff (mean Likert score of 3.8). When asked how frequently assistants turn over (are rehired), the modal answer was "never."

The Effects of Covid on Business

In Table 5 the majority (53%) of centers reported that their costs had increased due to COVID, while a majority (84%) reported that enrollments had declined due to COVID. A majority (55%) also reported that Covid had either decreased (31%) or increased (24%) staffing levels. In Table 8 the majority (59%) of family care providers reported that their costs had increased due to COVID, while a majority (63%) reported that enrollments had declined due to COVID. A majority (78%) also reported that Covid did not affect staffing levels. Anecdotally, providers noted that COVID will have a negative impact on survey response rates, because of a lack of time due to the additional cleaning, monitoring, tracing associated with Covid.

Regulations and Costs

When family care providers were asked if there are regulations that contribute to higher operating costs, the modal answers were "Covid regulations" followed by "fire inspections." When asked which health and safety regulations contribute most to operating costs, common answers among family care providers were "CPR training" and "Covid regulations." When centers were asked if there are regulations that significantly impact operating costs, the modal answer was "none."

The Cost of Improving Quality

Family care providers were asked what activities would be required to improve their quality rating by one STAR, there was a variety of answers including: installing backyard fencing, installing washable floors, redecorating and training, getting more outdoor equipment, mulching around the swing set, bigger yard, more toys, more learning materials, more computers, implementing a curriculum for every age group, updating policy book, buying dividers, headphones, doing more advertising to get more kids, and having a better bookkeeping system.

Centers were asked (percent answering yes): Would increasing STARS to the next level increase staffing costs (47%)? Would increasing STARS to the next level lower

teacher/student ratios (20%)? Would increasing STARS to the next level lower group size
16%)? Would increasing STARS to the next level change the way you do business?
(16%) Would increasing STARS to next the level cause negative profits? (24%) Are you
current profitable? (41%)

TABLES

TABLE 1. Preliminary: Summary statistics on Annual Operating Costs for All Care.

	Mean	Min	Median	Max	SD
Type of Care					
Family	33,506	3,000	27,000	132,830	28,095
Center	572,521	50,000	500,500	1,607,479	398,654
Number of Enrolled Students*					
1-6	14,675	3,000	14,000	31,740	9,468
7-12	44,579	12,500	35,000	132,830	29,062
13-25	159,779	99,337	170,000	210,000	56,035
26-50	267,628	83,608	252,656	535,000	164,147
51-75	383,676	70,000	332,292	1,048,000	281,429
76-100	773,259	300,000	711,296	1,400,000	284,910
100+	925,891	476,000	900,000	1,607,479	345,166
Star Rating					
0-2	254,146	3,500	56,500	1,400,000	368,236
3-5	382,555	3,000	228,858	1,607,479	415,036

* - Number of enrolled students at time of survey

TABLE 2. Preliminary: Summary statistics across counties for various **total** reported costs – Centers.

		Mean	SD	Min	Median	Max
Total	Kent & Sussex	501,838	367,652	70,000	446,000	1,395,959
	New Castle	640,486	422,243	50,000	638,500	1,607,479
	Statewide	572,521	398,654	50,000	500,500	1,607,479
Staff	Kent & Sussex	300,202	206,452	51,000	240,000	733,600
	New Castle	375,757	292,716	20,000	315,014	1,382,432
	Statewide	338,720	254,470	20,000	270,027	1,382,432
Training	Kent & Sussex	16,099	16,134	0	12,583	70,070
	New Castle	19,220	21,319	0	10,500	75,000
	Statewide	17,690	18,833	0	12,000	75,000
Facilities	Kent & Sussex	69,378	78,661	0	37,158	300,000
	New Castle	113,985	86,135	0	103,950	275,000
	Statewide	92,119	84,775	0	76,700	300,000
Meals	Kent & Sussex	29,945	36,150	0	15,894	153,555
	New Castle	29,322	31,694	0	24,255	140,000
	Statewide	29,628	33,610	0	20,066	153,555
Classroom Material	Kent & Sussex	32,007	31,976	836	18,900	111,677
	New Castle	28,483	31,780	0	18,750	140,000
	Statewide	30,210	31,606	0	18,900	140,000
Office Material	Kent & Sussex	13,760	16,855	0	7,000	73,360
	New Castle	23,643	36,741	0	10,000	140,000
	Statewide	18,798	28,917	0	8,000	140,000
Other Costs	Kent & Sussex	40,448	50,313	0	17,840	165,800
	New Castle	50,076	68,726	0	16,098	242,000
	Statewide	45,356	60,002	0	16,122	242,000

TABLE 3. Preliminary: Summary statistics across counties for various **per student** reported costs – Centers.

		Mean	SD	Min	Median	Max
Total	Kent & Sussex	7,002	4,051	1,029	7,220	20,577
	New Castle	7,174	3,409	1,194	6,846	15,023
	Statewide	7,090	3,701	1,029	7,220	20,577
Staff	Kent & Sussex	4,359	2,983	772	3,934	15,433
	New Castle	4,108	2,452	478	4,123	12,920
	Statewide	4,231	2,701	478	4,094	15,433
Training	Kent & Sussex	279	328	0	120	1,286
	New Castle	253	344	0	135	1,562
	Statewide	265	333	0	125	1,562
Facilities	Kent & Sussex	806	597	0	857	2,143
	New Castle	1,326	836	0	1,253	2,900
	Statewide	1,071	768	0	1,000	2,900
Meals	Kent & Sussex	469	465	0	361	1,646
	New Castle	348	322	0	298	1,400
	Statewide	407	399	0	306	1,646
Classroom Material	Kent & Sussex	444	375	31	305	1,397
	New Castle	337	309	0	235	1,400
	Statewide	389	343	0	289	1,400
Office Material	Kent & Sussex	196	246	0	102	978
	New Castle	264	357	0	136	1,400
	Statewide	231	306	0	119	1,400
Other Costs	Kent & Sussex	449	404	0	278	1,386
	New Castle	539	646	0	290	2,350
	Statewide	495	538	0	289	2,350

TABLE 4. Preliminary: Summary statistics across counties for various survey questions – Centers. FT stands for Full Time.

		Mean	SD	Min	Median	Max
# of Kids	Kent & Sussex	74.9	43.4	22	65	150
	New Castle	94.5	73.2	8	90	400
	Statewide	84.9	60.7	8	75	400
% Subsidized	Kent & Sussex	40.2	37.2	0	35	100
	New Castle	46.3	42.5	0	29.3	100
	Statewide	43.3	39.7	0	29.4	100
# Classrooms	Kent & Sussex	5.6	2.7	2	5	12
	New Castle	7.4	2.8	2	7	14
	Statewide	6.6	2.9	2	6	14
Students Per Room	Kent & Sussex	13.8	4.5	7	12.6	23.3
	New Castle	12.6	5.6	1.3	12	28.6
	Statewide	13.2	5.1	1.3	12.5	28.6
Full Time Teachers	Kent & Sussex	4	5	0	3	20
	New Castle	6.8	5.2	0	5.5	20
	Statewide	5.5	5.2	0	4	20
Full Time Directors	Kent & Sussex	1.4	1.2	0	1	5
	New Castle	1.6	0.8	0	1	3
	Statewide	1.5	1	0	1	5
Students per FT Teacher	Kent & Sussex	11.9	3.8	6.1	12.7	17.5
	New Castle	16.3	15.5	4	11.1	67
	Statewide	14.6	12.4	4	11.4	67
Satisfied w/ Wages (Likert)	Kent & Sussex	3.2	0.8	2	3	5
	New Castle	3.4	1.1	1	4	5
	Statewide	3.3	0.9	1	3	5
Difficulty Finding Staff (Likert)	Kent & Sussex	4.2	0.9	3	5	5
	New Castle	4.3	1	2	5	5
	Statewide	4.2	1	2	5	5
% Staff Costs	Kent & Sussex	62.6	13	30	65	80
	New Castle	57.2	16.3	35	58.5	86
	Statewide	59.8	14.9	30	60	86

TABLE 5. Preliminary: Summary statistics across counties for COVID related questions – Centers.

	Number of Providers	COVID Costs		COVID Enrollment		COVID Staffing	
		Increased	Decreased	Increased	Decreased	Increased	Decreased
Kent	9	4 (44%)	2 (22%)	0 (0%)	7 (78%)	0 (0%)	3 (33%)
New Castle	26	12 (46%)	7 (27%)	0 (0%)	24 (92%)	5 (19%)	10 (38%)
Sussex	16	11 (69%)	1 (6%)	1 (6%)	12 (75%)	7 (44%)	3 (19%)
Statewide	51	27 (53%)	10 (20%)	1 (2%)	43 (84%)	12 (24%)	16 (31%)

TABLE 6. Preliminary: Summary statistics across counties for various **re-reported** costs – Family Care.

		Mean	SD	Min	Median	Max
Annual Costs	Kent & Sussex	36,556	34,181	6,000	26,000	132,830
	New Castle	31,119	22,775	3,000	27,000	80,000
	Statewide	33,506	28,095	3,000	27,000	132,830
Home Costs	Kent & Sussex	11,618	8,138	1,800	9,580	34,500
	New Castle	12,197	11,391	1,035	9,000	40,000
	Statewide	11,943	9,980	1,035	9,000	40,000
Direct Business Costs	Kent & Sussex	17,879	17,757	4,200	13,770	80,500
	New Castle	16,149	11,385	1,400	16,000	35,310
	Statewide	16,909	14,355	1,400	14,850	80,500
Assistant Costs	Kent & Sussex	63,524	79,229	7,500	63,524	119,547
	New Castle	13,750	5,058	8,000	13,500	20,000
	Statewide	30,341	43,948	7,500	13,500	119,547
Cost Per Student	Kent & Sussex	4,547	3,339	1,500	3,053	13,283
	New Castle	3,657	2,162	583	3,375	7,778
	Statewide	4,048	2,741	583	3,333	13,283
Variable Cost Per Student	Kent & Sussex	3,020	3,006	700	1,776	12,619
	New Castle	2,278	1,471	233	2,167	5,403
	Statewide	2,604	2,274	233	2,000	12,619

TABLE 7. Preliminary: Summary statistics across counties for various survey questions – Family Care.

		Mean	SD	Min	Median	Max
# of Kids	Kent & Sussex	7.6	1.9	4	8.5	10
	New Castle	8.1	2.9	2	8	12
	Statewide	7.9	2.5	2	8	12
% of Subsidized	Kent & Sussex	49	37.4	0	60	100
	New Castle	51.8	41.9	0	50	100
	Statewide	50.6	39.5	0	60	100
Hours Worked Per Week	Kent & Sussex	62.3	19.3	25	60	120
	New Castle	56.9	13.4	12	60	80
	Statewide	59.3	16.2	12	60	120
Assistant Hours Per Year	Kent & Sussex	491.2	425.4	25	520	900
	New Castle	260	326.4	30	200	960
	Statewide	344.1	363.1	25	240	960
Hard to Find Assistant (Likert)	Kent & Sussex	3.5	1.7	1	4	5
	New Castle	4	1.5	1	5	5
	Statewide	3.8	1.5	1	4	5
Satisfied w/ Wages Paid? (Likert)	Kent & Sussex	2.2	1	1	2.5	3
	New Castle	3.1	1.7	1	3	5
	Statewide	2.8	1.5	1	3	5

TABLE 8. Preliminary: Summary statistics across counties for COVID related questions – Family Care.

	Number of Providers	COVID Costs		COVID Enrollment		COVID Staffing	
		Increased	Decreased	Increased	Decreased	Increased	Decreased
Kent	8	5 (62%)	2 (25%)	0 (0%)	4 (50%)	0 (0%)	2 (25%)
New Castle	23	13 (57%)	6 (26%)	2 (9%)	16 (70%)	2 (9%)	3 (13%)
Sussex	10	6 (60%)	3 (30%)	2 (20%)	6 (60%)	0 (0%)	2 (20%)
Statewide	41	24 (59%)	11 (27%)	4 (10%)	26 (63%)	2 (5%)	7 (17%)

APPENDIX

Cost of Care Sample Design

Center survey

Family care survey

Center Worksheet

Family care worksheet

2020/2021 Delaware Cost of Child Care Sample Design Report

William Horrace and Christopher Parmeter

November 15, 2020

Background: The original goal of the 2020/2021 Delaware cost of child care study was to pull a sample of licensed providers throughout the state and to calculate summary statistics of child care costs, facilitating estimation of provider profitability. A secondary goal was to understand the correlation between Delaware STARS quality ratings and provider operating costs across the state. To accomplish this, we intended to pull a random sample of size 100 across the state.

Since then, DHSS has requested the collected cost data be used as inputs to a “cost of care estimation tool,” with the primary goal of estimating provider profitability throughout the state by STARS quality rating. With this new emphasis, we changed the sampling procedure from a random sample of size 100 to a stratified sample of size 200. Basically, the estimation tool required sufficient cost data inputs at each STARS rating (0-5) to ensure design of a reliable tool. For example, within the population of about 1,000 licensed child care providers in the state there are only 6 child care centers in the county of Sussex with a STARS quality rating of 2. Therefore, the probability of selecting a randomly sampled, 2-star Center in Sussex is only $6/1000 = 0.006$.¹ Hence, to ensure adequate representation in the quality estimation tool, we raised the sample size from 100 to 200 and stratified the sample by care type (center or family care), by county (Kent, New Castle or Sussex) and by STARS rating (0-5). Then we randomly sampled childcare providers within each stratum (henceforth, “cell”) with the goal of obtaining responses from 200 childcare providers distributed uniformly across cells. This document describes this procedure.

The Population of Licensed Providers: We begin with a population of 1,023 licensed providers in the state. We removed public programs (e.g., Head Start), a few providers that were listed as “Camps Only,” and any providers whose licenses were suspended, who were on probation, or had a probation warning. We also removed a few providers who only served employees or who did not want to be contacted for any reason. Finally, for providers with multiple locations and a single contact, we removed all locations except one, chosen at random. This mitigates concerns over interview fatigue from multiple interviews for a single contact. This left a final population size of 902 licensed providers across the state. We refer to the entire set of 1,023 licensed providers as the “Population” and the set of 902 providers as the “Sampling Frame.”

The distribution of center and family care providers is presented in Tables 1 and 2, respectively. Each row of each table represents one of 18 cells. The first column in each table contains the county, the second column contains the STARS designation (none, 1-star, ..., 5-star), and the third column contains “Population” provider counts in each cell before dropping programs as described above. For example, in Table 1 there are 28 centers in Kent with no STARS rating. There are 119 centers in New Castle with a 5-star rating. In particular, there are no 1-star rated centers in Sussex county. In Table 2 there are 82 Family Child Care providers in the population of providers in Kent with no STAR rating, and there are 14 Family Child Care

¹ Based on the Children and Families First data as of 10/03/20. In fact, Sussex county has no star-1 rated child care centers.

providers in the population of providers in New Castle with a 5-star rating. Clearly, Centers tend to have a higher percentage of STARS rated providers than Family Child Care. The fourth column in each table, entitled “Frame,” contains the remaining providers in the sampling frame in each cell. Summing the total population of providers and the frame of providers across both tables, we see that mostly centers were removed. This is not surprising given that public programs like Head Start are classified as centers. Centers are also more likely to have multiple sites (e.g., YMCA) with a single contact person.

Sample Design: Given the sampling frame of 902 providers (337 centers and 565 family child care providers), we split the sample of 200 so that surveys were administered equally across centers and family care. The design of the sample is to evenly allocate the 100 draws across the 18 cells in each table. These allocations are contained in the last column in each table. With 18 cells in each table, this meant allocating between 5 and 6 observations to each cell. This could only be approximately achieved because some cells had very few providers in the population and frame. Specifically, Kent and Sussex had few STARS rated centers (Table 1) and family care providers (Table 2), so certain cells in these counties had less than 5 draws assigned. For example, see Kent county in Table 2. For Kent Family Child Care there are only 4 providers with STAR ratings 1, 2 or 3 and even fewer for ratings 4 or 5. There are similar issues in Sussex family child care. Also, because New Castle is a much larger county with greater price variability than Kent and Sussex, one or two additional samples were allocated to New Castle. Specifically, we will be sampling 7 centers and 8 family care providers at each STARS rating in New Castle.

The small sample size issue will likely require some cells to be combined in the final analysis, however there is a precedent for this. In past Market Rate Studies, data from Kent and Sussex are often combined due to small sample sizes and similar prices in these counties. Also, it is likely that some STARS ratings will have to be combined in the final analysis. With a shortage of star-1 rated providers and many providers with no rating, it makes sense these star ratings be combined. Combining cells in this way will increase the precision of the cost estimation tool without sacrificing accuracy, as long as combinations are selected judiciously. These decisions will be made at the time of the final analysis in consultation with DHSS.

Pulling the Sample: Within each cell we randomly sampled providers up to the counts in the last columns in Tables 1 and 2. The remaining providers in the sample frame will be used as a backup sample within each cell in the event that a sampled provider refuses to participate or cannot be contacted. Providers will be contacted up to 10 times to be interviewed. However, after the fifth failed attempt, the state will be given the providers name to encourage participation.

Table 1. Center Child Care Sample Design

County	STARS	Population	Frame	Sample
Kent	none	28	21	6
Kent	1-Star	1	1	1
Kent	2-Star	5	5	5
Kent	3-Star	17	14	6
Kent	4-Star	7	5	5
Kent	5-Star	12	10	6
New Castle	none	91	70	7
New Castle	1-Star	7	7	7
New Castle	2-Star	22	20	7
New Castle	3-Star	34	33	7
New Castle	4-Star	29	19	7
New Castle	5-Star	119	77	7
Sussex	none	23	16	6
Sussex	1-Star	0	0	0
Sussex	2-Star	6	5	5
Sussex	3-Star	11	11	6
Sussex	4-Star	10	8	6
Sussex	5-Star	17	15	6
Total:	-	439	337	100

Table 2. Family Child Care Sample Design

County	STARS	Population	Frame	Sample
Kent	none	82	81	8
Kent	1-Star	4	4	4
Kent	2-Star	4	4	4
Kent	3-Star	5	4	4
Kent	4-Star	2	2	2
Kent	5-Star	3	3	3
New Castle	none	268	260	8
New Castle	1-Star	11	11	8
New Castle	2-Star	23	22	8
New Castle	3-Star	21	21	8
New Castle	4-Star	14	13	8
New Castle	5-Star	14	13	8
Sussex	none	110	104	6
Sussex	1-Star	2	2	2
Sussex	2-Star	5	5	5
Sussex	3-Star	8	8	6
Sussex	4-Star	1	1	1
Sussex	5-Star	7	7	7
Total:	-	584	565	100

Interview Instrument for Cost of Child Care Centers

Introduction

Hi, this is [Name] from Research America.

First off, I want to thank you for your time today. We are calling to help Delaware Health and Social Services better understand what factors are driving the costs for you to deliver quality child care.

The questions we have for you today will help identify where you are spending the most time and money to operate. If we do not cover an area that you think is an important aspect of your operating cost, we want to know that too.

The interview today should take approximately 45 minutes to an hour.

For your time today you will receive a \$50 amazon gift card via email.

Do you have any questions for me before we begin?

Do you have handy the worksheet from the Division of Health and Social Services?

Total Operating Cost

Q1. Let's begin by discussing your annual operating costs. Overall, what does it cost to operate your child care center in a year?

[Interviewer note: These are all expenditures in a single year.]

Q1A. And that's for about how many kids enrolled?

[Interviewer note: This is the average total enrollment last year.]

Q1B. How many of these enrolled kids are Purchase of Care (POC) subsidized?

[Interviewer note: This number should be less than or equal to the total enrollment last year.]

Q1C. How many of these enrolled kids are Purchase of Care Plus (POC+) subsidized?

[Interviewer note: This number plus the POC number should be less than or equal to the total enrollment last year.]

Q1D. Does your center have other sources of regular income such as federal, state or local grants, or a non-profit subsidy?

Q1D1. [If yes] How much is this annually?

Q1E. How many classrooms at this location?

Q1F. During the COVID-19 pandemic have your total costs increased, decreased or stayed the same?

Q1G. During the COVID-19 pandemic has your enrollment increased, decreased or stayed the same?

Q1H. During the COVID-19 pandemic has your staff size increased, decreased or stayed the same?

Cost Driver – Staff

Now, I'm going to ask you about the costs that go into the total cost figure. Let's start with personnel.

Q2. About what percentage of your annual operating costs are associated with staffing your center? This includes wages and benefits.

Q2A. How many part-time and full-time staff do you employ, including but limited to directors, office personnel, lead teachers and teaching assistants?

[Interviewer note: This is the total number of full-time and part-time staff regardless of position. If they have a vacant position, ask whether the cost estimates they are giving include the salary for the vacancy or not. If the vacant position is included in their expenditures then add it to the count. The interviewee should include themselves in the count if they receive compensation.]

Q2B. How many full-time directors do you employ?

[Interviewer note: this is likely to be 1.]

Q2C. How many part-time directors do you employ?

[Interviewer note: this is likely to be 0 or 1]

Q2D. How many full-time office personnel do you employ?

Q2E. How many part-time office personnel do you employ?

Q2F. How many full-time lead teachers do you employ?

Q2G. How many part-time lead teachers do you employ?

Q2H. How many full-time teaching assistants or aides do you employ?

Q2I. How many part-time teaching assistants or aides do you employ?

[Interviewer note: There may be other unreported staff, so the total sum of Q2B-I should be less than or equal to the answer to Q2A.]

Cost Driver – Staff Training and Turn Over

Q3. About what percentage of your annual operating costs are associated with training new staff, professional development, or consultant expenses?

Q3A. On a 1-5 scale, with 5 being very difficult, how hard is it for you to find qualified staff?

Q3B. On a 1-5 scale, with 5 being very satisfied, how satisfied are you with the wages and benefits you are currently providing to staff?

Q3C. How much turnover do you typically have in a year?

[Interviewer Note: This is the number of positions refilled in the past year. Could include multiple hires/loses for same position.]

Q3D. Is there time where you or your staff are performing activities to maintain quality of child care that are not part of your or their paid time?

[Interviewer note: This should only be an issue with higher quality STARS ratings. Prompt for quality activities such as community partnerships or working on parent education.]

Q3D2. [If yes] On average, how much time is unpaid?

[Interviewer note: Record how much time unpaid as weekly, monthly, etc.]

Q3E. Are there any regulations associated with hiring and staffing to meet health and safety regulations that contribute to higher operating costs?

[Probes: Can you tell me more about that?]

Q3E1. What is your cost to comply with this regulation?

Q3E2. Does this impact how you set your tuition rates?]

[Interviewer note: Regulations are the legal requirements they must meet for health and safety reasons. This is different than the quality STARS rating standards, although they can comment on that also.]

Cost Driver – Nonpersonnel

Next, let's talk about your expenses beyond staff.

Q4. About what percentage of your annual operating costs are associated with your facility? This includes rent, utilities, cleaning, and maintenance.

Q5. About what percentage of your annual operating costs are associated with serving meals and/or snacks to the children?

[Interviewer note: Need the percent expenditure regardless of whether they receive subsidies.]

Q6. About what percentage of your annual operating costs are associated with supplies and materials for the classrooms?

Q7. About what percentage of your annual operating costs are associated with office materials or equipment? This does not include telephone and internet; however, this does include mailings, copies, or advertising.

Q8. About what percentage of your annual operating costs are associated with your internet and phone, credit card processing fees, and other fixed costs for your business as a whole? This can also include transportation, audits, franchise fees, or costs to do payroll.

[Interviewer note: The percentages should add to 100%.]

Q9. Are there any regulations to meet health and safety regulations associated with non-personnel issues that contribute to higher operating costs?

[Probes: Can you tell me more about that]

Q9A. What is your cost to comply with this regulation?

Q9B. Does this impact how you set your tuition rates?

Cost of Quality

Q10. What is your current STARS quality rating?

[INTERVIEWER NOTE: STARS is the quality rating system for the state: No rating, [1](#), 2, 3, 4, 5]

Q10A. [If STARS < 5] If you were to meet the standards necessary to qualify for the next quality STARS rating level, what do you estimate that would cost you?

[Interviewer note: If they are not planning to apply for the next level, this is hypothetical. We are trying to get to what costs they foresee and why they might not proceed.]

Q10B. [If STARS < 5] Would moving to the next quality STARS level lead you to increase salary and/or benefits for staff?

Q10C. [If STARS < 5] Would it lead you to have smaller teacher to child ratios for any age group?

Q10D. [If STARS < 5] Would it lead you to decrease the maximum group size for any age group?

Q10E. [If STARS < 5] Would moving to the next quality STARS level change the way you conduct your business?

Q10G. [If STARS < 5] If you were to try and meet the standards for the next level of quality, do you anticipate that the costs of doing so would exceed the revenue you are able to collect at your current tuition rates?

Q11. At your current STARS level, does the revenue you collect from tuition cover the full cost of delivering quality care?

Q11A. On a 1-5 scale, with 5 being very important, how important is the STAR rating to your Childcare operations?

Q11B. On a 1-5 scale, with 5 being very clearly, how clearly do you understand how the STAR rating is constructed?

Wrap-Up

We are almost done. I just have a few more questions.

Q12. Taking into account all of the cost factors discussed today, what factor(s) drive the tuition rates you charge?

Q12A. When was the last time you raised your tuition rates?

Q12B. If the State of Delaware decided to raise the minimum wage, at what new wage rate would that impact your staffing costs so that you would have to raise your tuition rates?

Q12C. Is there a factor that we have not yet discussed that contributes a significant amount to your annual operating costs?

Okay. Thank you again for your time today! We really appreciate your willingness to help!

Q12D. Let's verify your email to receive a \$50 Amazon gift Card.

Interview Instrument for Cost Family and Large Family Child Care

Introduction

Hi, this is [Name] from Research America.

First off, I want to thank you for your time today. We set up this time to talk today in order to help Delaware Health and Social Services better understand what factors are driving the costs for you to deliver quality child care.

The questions we have for you today will help identify where you are spending the most time and money to operate. If we do not cover an area that you think is an important aspect of your operating cost, we want to know that too. We will also ask you whether you think any regulations are causing your operating costs to be too high.

The interview today should take approximately 45 minutes to an hour.

For your time today you will receive a \$50 amazon gift card via email.

Do you have any questions for me before we begin?

Do you have handy the worksheet from the Division of Health and Social Services?

Total Operating Cost

Let's begin by discussing your annual operating costs.

Q1. Overall, what does it cost to operate your child care business in a year?

[Interviewer note: These are all expenditures in a single year, please include your salary if you take one.]

Q1A. And that's for about how many kids enrolled?

[Interviewer note: This is the average total enrollment last year.]

Q1B. How many of these enrolled kids are Purchase of Care (POC) subsidized?

[Interviewer note: This number should be less than or equal to the total enrollment last year.]

Q1C. How many of these enrolled kids are Purchase of Care Plus (POC+) subsidized?

[Interviewer note: This number plus the POC number should be less than or equal to the total enrollment last year.]

Q1D. Does your business have other sources of regular income such as federal, state or local grants, or a non-profit subsidy?

Q1D1. [If yes] How much is this annually?

Q1E. During the COVID-19 pandemic have your total costs increased, decreased or stayed the same?

Q1F. During the COVID-19 pandemic has your enrollment increased, decreased or stayed the same?

Q1G. During the COVID-19 pandemic has your staff size increased, decreased or stayed the same?

Cost Driver – Staff

Now, I'm going to ask you about the costs that go into your total operating costs. Let's start with personnel.

[Interviewer note: Many owners take business profit as their salary and do not issue themselves an official check. Many will also pay for their health, life, disability, and retirement after drawing their profit.]

Q2. How many hours do you work in an average week? Please include time that you are spending on business activities outside of spending time with the children, such as purchasing food or bookkeeping.

Q2A. Do you issue yourself a regular paycheck or do you draw your salary from your profits?

Q2A1. [If paycheck] Is this included in the number you gave me as part of annual operating cost?

Q2A2. [If paycheck] Do you also include the cost of your health insurance and other benefits in your annual operating cost?

[If yes] What percentage of your annual operating costs goes toward your salary?

Q2B. Do you employ any assistants?

[Interviewer note: If no, then skip to Q2C]

Q2B1. [If assistant] About how many hours a year does your assistant(s) work? [If assistant] Do you pay your assistant(s) minimum wage or higher? [Interviewer note: record wage if higher than minimum wage]

Q2B2. [If assistant] Is your assistant's salary included in the number you gave me as part of annual operating cost? What about benefits?

[If yes] What percentage of your annual operating costs goes toward your assistant's salary?

Q2B3. [If assistant] On a 1-5 scale, with 5 being very difficult, how hard is it for you to find qualified assistants.

Q2B4. [If assistant] On a 1-5 scale, with 5 being very satisfied, how satisfied are you with the wages and benefits you are currently providing to your assistant?

Q2B5. [If assistant] How often do you have turnover with your assistant?

Q2B6. [If assistant] If the State of Delaware decided to raise the minimum wage, at what point would that impact your costs with your assistant so that you would have to raise your tuition rates or otherwise make changes to your business?

Q2C. Is there time where you (or your assistant) are performing activities that are not part of paid time?

[Can you tell me more about that? What activities are being done?]

Q2C1. On average, how much time is unpaid?

[Interviewer note: Record how much time unpaid as weekly, monthly, etc.]

Q2D. Are there any regulations associated with caregiver responsibilities to meet health and safety regulations that contribute to higher operating costs?

[Probe: Can you tell me more about that?]

Q2D1. What is your cost to comply with this regulation?

Q2D2. Does this impact how you set your tuition rates?

[Interviewer note: Regulations are the legal requirements they must meet for health and safety reasons. This is different than the QRIS star rating standards, although they can comment on that also.]

Cost Driver – Business Expenses

Next, we will ask about your business expenses. As you are probably aware from your tax records, operational costs are divided into the direct expenses from running a child care business and those expenses that are a proportion of sharing your home expenses with a business.

Q3. About what percentage of your annual operating costs are associated with the direct child care business expenses? These are the expenses that exclusively come from the operation of the child care business—such as food for children’s meals and snacks, educational materials, office supplies, transportation, advertising, liability insurance, fees to accountants/tax prep/or credit card processing, professional development, professional membership dues, and licenses or permits.

[Interviewer note: In tax language, this is “100% business use expenses”.]

Q4. About what percentage of your annual operating costs are associated with the shared use of your home? These are the annual home expenses—such as mortgage and property taxes/or rent, insurance, utilities, repairs and home maintenance, and cleaning supplies—that have been attributed as a proportion of your home’s use as the child care business.

[Interviewer note: These are the expenses for the square footage of the house used for child care out of the whole house. In tax language, this is “Business use of home expenses”.]

[Interviewer note: the percentages should add to 100%.]

Q5. Are there any regulations to meet health and safety regulations associated with non-personnel issues that contribute to higher operating costs?

[Probes: Can you tell me more about that?]

Q5A. What is your cost to comply with this regulation?

Q5B. Does this impact how you set your tuition rates?

Cost of Quality

Q6. What is your current Quality STAR Rating?

[INTERVIEWER NOTE: STAR is the quality rating system for the state: No rating, [1](#), 2, 3, 4, 5]

Q6A. [If STARS < 5] If you were to meet the standards necessary to qualify for the next quality star rating level, what do you estimate that would cost you? What sort of activities would you need to do?

[Interviewer note: If they are not planning to apply for the next level, this is hypothetical. We are trying to get to what costs they foresee and why they might not proceed.]

Q6B. [If STARS < 5] Would moving to the next quality star level lead you to have a smaller group size or teacher to child ratio than required by licensing?

Q6C. [If STARS < 5] Would moving to the next quality star level change the way you conduct your business in any other way?

Q6D. [If STARS < 5] If you were to try and meet the standards for the next level of quality, do you anticipate that the costs of doing so would exceed the revenue you are able to collect at your current tuition rates?

Q7A. At your current STARS level, does the revenue you collect from tuition cover the full cost of delivering quality care?

Q7B. On a 1-5 scale, with 5 being very important, how important is the STAR rating to your Childcare operations?

Q7C. On a 1-5 scale, with 5 being very clear, how clearly do you understand how the STAR rating is constructed?

Wrap-Up

We are almost done. I just have a few more questions.

Q8. Taking into account all of the cost factors discussed today, what factor(s) drive the tuition rates you charge?

Q8A. When was the last time you raised your tuition rates?

Q8B. Is there a factor that we have not yet discussed that contributes a significant amount to your annual operating costs?

That's everything we have for you today. Is there anything else you would like to add?

Okay. Thank you again for your time today! We really appreciate your willingness to help!

Q8C. Let's verify your email to receive a \$50 Amazon gift Card.

Child Care Centers Operational Cost Worksheet

Thank you for agreeing to be interviewed regarding your center's operational costs to provide quality child care. In order to get an idea of what you are spending your resources on, we have broken down operational cost into several areas of potential expenses. We will ask for these numbers during the interview.

This worksheet is to give you advanced notice of the specific areas we will ask about so you can take some time to review your financial or tax records in order to provide this information. You do not need to be exact in your breakdown of percentages—ballpark figures are fine.

Overall, what does it cost to operate your child care business in a year? _____

About what percentage of your annual operating costs are associated with staffing your center, including but not limited to directors, office personnel, teachers and teaching assistants or aides? This includes wages and benefits.

How many full-time and part-time staff do you employ? _____

How many full-time Directors? _____, part-time Directors? _____.

How many full-time Office Pers.? _____, part-time Office Pers.? _____.

How many full-time Teachers? _____, part-time Teachers? _____.

How many full-time Teaching Assts.? _____, part-time Teaching Assts.? _____.

Others? _____

About what percentage of your annual operating costs are associated with training new staff, professional development, or consultant expenses?

About what percentage of your annual operating costs are associated with your facility? This includes rent, utilities, cleaning, and maintenance.

About what percentage of your annual operating costs are associated with serving meals and/or snacks to the children?

About what percentage of your annual operating costs are associated with supplies and materials for the classrooms?

About what percentage of your annual operating costs are associated with office materials or equipment? This does not include telephone and internet; however, this does include mailings, copies, or advertising.

About what percentage of your annual operating costs are associated with your internet and phone, credit card processing fees, and other fixed costs for your business as a whole? This can also include transportation, audits, franchise fees, or costs to do payroll.

All percentages should add to 100%.

Family and Large Family Child Care Operational Cost Worksheet

Thank you for agreeing to be interviewed regarding your business's operational costs to provide quality child care. In order to get an idea of what you are spending your resources on, we have broken down operational cost into several areas of potential expenses. We will ask for these numbers during the interview.

This worksheet is to give you advanced notice of the specific areas we will ask about so you can take some time to review your financial or tax records in order to provide this information. You do not need to be exact in your breakdown of percentages—ballpark figures are fine.

Overall, what does it cost to operate your child care business in a year? _____

Do you include your salary and benefits in the annual operating cost above? Yes/No

If yes, is your salary in the annual operating cost? Yes/No

About what percentage of your annual operating costs goes toward your salary and benefits?

Do you employ one or more assistant? Yes/No

Is your assistant's salary and benefits included in the annual operating cost above? Yes/No

If yes to both employing an assistant and including their salary in the annual operating cost:

About what percentage of your annual operating costs goes toward your assistant's salary and benefits?

All other business expenditures:

About what percentage of your annual operating costs are associated with the shared use of your home? These are the annual home expenses—such as mortgage and property taxes/or rent, insurance, utilities, repairs and home maintenance, and cleaning supplies— that have been attributed as a proportion of your home's use as the child care business. These are the expenses for the square footage of the house used for child care out of the whole house. In tax language, this is "Business use of home expenses".

About what percentage of your annual operating costs are associated with the direct child care business expenses? These are the expenses that exclusively come from the operation of the child care business—such as food for children's meals and snacks, educational materials, office supplies, transportation, advertising, liability insurance, fees to accountants/tax prep/or credit card processing, professional development, professional membership dues, and licenses or permits. In tax language, this is "100% business use expenses".

All percentages applicable to your situation should add to 100%.