

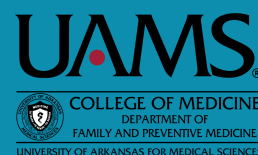


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2019 Arkansas Child Care Market Price Study

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DIVISION OF ELEMENTARY
& SECONDARY EDUCATION



Executive Summary

More than 9,000 children in Arkansas are estimated to receive child care subsidies each month, provided through the Child Care and Development Fund (CCDF), which is administered by the Arkansas Department of Human Services, Division of Child Care and Early Childhood Education (DCCECE).¹ Subsidies assist families with paying for early childhood care and education (ECCE) arrangements so low-income parents can work or attend training and education programs. A key determinant of access to ECCE programs for families receiving CCDF subsidies is provider payment rates, which should reflect local prices in the market in order for parents who receive a subsidy to have access to the range of providers in their local community.

This study reports the prices of child care in Arkansas in 2019. The analysis was conducted by evaluators at the University of Arkansas for Medical Sciences, Department of Family and Preventive Medicine, Research and Evaluation Division (DFPM/RED).

This study has two main goals. First, it identifies the prices charged for different types of care and age groups across Arkansas to inform the rates reimbursed for child care through the Arkansas Child Care Assistance Program (CCAP). It then examines the extent to which the current subsidy rates meet the federal definition of equal access. Second, this study analyzes specific submarket prices within the urban and rural funding structure used by DCCECE, which classifies two different rate sets based on urban and rural areas designated by USDA Economic Research Service.²

DCCECE provided price data for the universe of 2,070 Arkansas child care programs. These data were collected by DCCECE administrative staff in the first trimester of 2019. The response rate calculated from the 2019 market price data is 91.5%. DFPM/RED tested the representativeness of the data across child care submarkets. Where there were significant differences, prices were weighted in an effort to minimize the impact of missing data.

DFPM/RED analyzed market prices for different age groups (infant, toddler, preschool, and school-age) in center-based programs and family child care homes across geographic regions. In 2015, Arkansas set CCDF CCAP reimbursement rates to support programs in their efforts to provide high-quality care. Accordingly, reimbursement rates increase with Better Beginnings quality level. Some, but not all rates at Better Beginnings Level 3 meet the 75th percentile. Further, CCAP percentiles are higher for Better Beginnings programs that serve infants and toddlers, especially in FCCH settings, where Level 3 reimbursements are near or above the 90th percentile. However, findings from the 2019 market prices suggest that subsidy rates need adjustment in order to meet the federal definition of equal access at lower levels of quality.

The second purpose of the study was to validate the use of the USDA Economic Research Service rural/urban classifications used by the DCCECE to set market rates. DFPM/RED conducted a cluster analysis for each age group and program type. For all age groups in both types of programs, clusters were significantly associated but did not approximate the USDA urban and rural classifications. DFPM/RED determined that there is greater variation within counties reimbursed at urban and rural rates and concludes that additional rates may be warranted.

Introduction

More than 9,000 children in Arkansas are estimated to receive child care subsidies each month, provided through the Child Care and Development Fund (CCDF), which is administered by the Arkansas Department of Human Services, Division of Child Care and Early Childhood Education (DCCECE).¹ Subsidies assist families with paying for early childhood care and education (ECCE) arrangements so low-income parents can work or attend training and education programs. A key determinant of access to ECCE programs for families receiving CCDF subsidies is provider payment rates. When payment rates are low relative to market prices, providers may choose not to serve children using subsidies. Therefore, subsidy payment rates should reflect local prices in the market in order for parents who receive a subsidy to have access to the range of providers in their local community.

In Arkansas, DCCECE establishes rates for child care subsidies and in 2014-2015, they implemented an urban/rural geographic distinction for CCDF reimbursement. Counties within metro areas with populations under 250,000 (continuum codes 1, 2, or 3) were classified as urban based on the 2013 Rural-Urban Continuum Codes from the US Department of Agriculture's Economic Research Service.²

DCCECE contracted with the University of Arkansas for Medical Sciences, Department of Family and Preventive Medicine, Research and Evaluation Division (DFPM/RED) to conduct the 2019 Arkansas Child Care Market Price Study.¹

This study has two main goals. First, it identifies the prices charged for different types of care and age groups across Arkansas to inform the rates reimbursed for child care through the Arkansas Child Care Assistance Program (CCAP). It then examines the extent to which the current subsidy rates meet the federal definition of equal access. Second, this study analyzes specific submarket prices within the urban and rural funding structure used by DCCECE.

Methodology

Data Source

DCCECE collects private tuition (or market prices) in the unit of price per day prices across multiple statuses (e.g., full-time, part-time, night and weekend care). Private tuition prices are provided at the initiation of licensing and are updated by licensing staff in the first trimester of each year. In addition to the use of prices for this and ongoing studies of private tuition, DCCECE publishes prices in the state child care search engine for parents.³ Therefore, there is an incentive for programs to reflect their current prices.

¹Based on national recommendations (Grobe, Weber, Davis, Kreader, & Pratt, 2008; OPRE Report 2017-115), we use the terminology market price rather than market rate as this distinguishes the process of collecting/analyzing price data (also called tuition) from setting subsidy rates.

For the market price study, DCCECE provided data to DFPM/RED for all licensed facilities (including the type of program and number of children licensed to serve by child age), market prices, CCDF children by age and facility, state-funded program (e.g., Arkansas Better Chance for School Success, High Quality Preschool Program, etc.) children by age and facility. Further, DCCECE attained data from the Head Start collaboration office on the number of children in Early Head Start and Head Start by facility. This permitted the calculation of an adjusted number of private pay slots for each facility by each childcare submarket (e.g., child age, type of care, and location).

Program Characteristics and Market Price Data Representativeness

The full population of programs provided to DFPM/RED included 2,070 programs; 1,613 center-based programs, 283 licensed family rate-setting homes (FCCH), 160 out-of-school time programs, and 14 registered child care family homes. Registered child care homes were excluded from the analysis.

The response rate calculated from the 2019 market price data is 91.5%. Although our market price data were available for at least 90% of the sample, we tested the representativeness of the data across child care submarkets.⁴ Data were also examined for outliers by age group. Outliers were winsorized and out of range values were set to the 5th and 95th percentiles of the data range.⁵

Using data from all licensed programs, there were statistically significant differences in having data across the following submarkets:

- Urban programs (92.5%) were marginally more likely to have data than rural (90.0%) programs ($\chi^2(2056,1)=3.80$; $p<.05$);
- Programs with ABC funding (94.0%) were more likely to have data than programs with other types of funding those without (90.8%) ($\chi^2(2056,1)=4.86$; $p<.05$);
- Early Head Start and Head Start (83.3%) programs were less likely to have data than programs with other types of funding (92.4%) ($\chi^2(2056,1)=20.26$; $p<.001$);
- FCCH programs (98.9%) were more likely to have data than center-based programs (90.3%) ($\chi^2(2056,1)=23.40$; $p<.001$);
- Programs in Better Beginnings (97%) were more likely to have data than those not in the QRIS (80.9%) ($\chi^2(2056,1)=154.04$; $p<.001$);
- Programs with CCDF agreements (95.6%) were more likely to have data than those without (87.7%) ($\chi^2(2056,1)=40.73$; $p<.001$);
- Out of School Time programs were less likely to have data (62.5%) than other types of licenses (94.7%) ($\chi^2(2056,1)=187.23$; $p<.001$); and
- Programs that operate summer-only programs were statistically less likely to have pricing data (25.9%) than school year (91.1%) and all year (96.2%) programs ($\chi^2(2056,2)=505.3$; $p<.001$)

Findings

Market Prices

Differences in response rates make it necessary to use sample weights.^{4,6} To compute sampling weights, each combination of the categories which significantly predicted having pricing data was calculated. Sample weights were computed as the ratio of the total percentage of programs in multiple sampling types by the percentage with pricing data.

We also weighted pricing by the number of private pay slots. For each age group and type of provider, an adjusted capacity number was estimated by reducing the licensed capacity by the number of children receiving support from state or federal funds. The purpose of calculating the price per private pay child care slot was to represent the actual prices available to consumers in the community.^{4,6} Prices were weighted in an effort to adjust the prices to provide more meaning to programs that were more likely to be missing data and who provide more care to private-pay children.

We provide full-time pricing data by age groups. The response rates for summer-only school-age programs are too small to conduct analyses. We also provide rates by provider type and geographic location as described in the geographic section below. Further, while recommendations suggest treating large family child care homes as a separate type of care,^{4,6} the samples of FCCH programs in Arkansas is relatively small (N=283). DFPM/RED examined the average pricing of small and large FCCH providers and there were not statistically significant differences in prices across age group within urban/rural geographic region defined by DCCECE (described in County-Level Variation in Market Prices section below). Therefore, small and large FCCH providers are combined for reporting.

Center-Based Programs

Table 1 presents market prices for center-based programs, which represented prices weighted by presence of data and private pay capacity. Weighting prices by capacity is important for centers, which vary widely by size. Total private pay age-group capacity data were used because age-group capacity used in conjunction with the prices of that age group most accurately reflects weighted prices for that particular age group. One limitation of the analyses is licensing combines capacity for infants and toddlers, so weighting of pricing for the infant and toddler full-time rates are estimated off private pay capacity for both age groups. Additional breakdowns of weighted care prices were conducted. Prices by Better Beginnings level are provided in Appendix A and by USDA geographical code and county in Appendix B.

Table 1. Center-Based Program Full-Time Prices by Submarket & Geographic Location

Full Year Programs				School-Year Programs	
Infant	Toddler	Preschool	School Age	Preschool	School Age

URBAN						
Mean (SE)	28.84 (0.06)	27.44 (0.05)	25.29 (0.04)	21.33 (0.05)	20.84 (0.05)	21.76 (0.14)
Std Dev	7.00	6.53	6.70	5.54	5.68	5.90
Min	15.00	15.00	14.00	12.00	14.00	12.00
Max	40.00	38.00	36.00	32.00	36.00	32.00
50th %ile	28.00	26.67	24.00	20.60	19.50	25.40
75th %ile	34.00	32.00	30.00	24.20	26.00	27.00
90th %ile	40.00	38.00	36.00	32.00	27.77	27.00
Weighted N	14416	14842	24955	12142	12432	1874

RURAL						
Mean (SE)	21.07 (0.05)	20.11 (0.05)	19.00 (0.04)	17.18 (0.07)	16.92 (0.05)	17.07 (0.05)
Std Dev	4.24	3.80	4.05	3.37	3.68	0.25
Min	15.00	15.00	14.00	12.00	14.00	17.00
Max	35.00	35.00	30.00	25.00	36.00	18.00
50th %ile	20.00	20.00	18.00	16.00	15.50	17.00
75th %ile	24.00	23.00	21.00	19.27	17.50	17.00
90th %ile	27.00	25.00	25.00	22.00	22.30	17.00
Weighted N	5892	6120	10968	2452	6075	29

Family Child Care Homes

Unlike centers that are licensed for a set capacity for each age group, FCCH providers are licensed for total capacity. Because of this, total capacity (regardless of the age of child served) was used to weight care prices for FCCH providers. We analyzed all FCCH provider prices as the vast majority (95.1%) of FCCH programs operate year-round.

Table 2. Family Child Care Full-Time Prices by Submarket & Geographic Location

	Infant	Toddler	Preschool	School-Age
URBAN				
Mean (SE)	22.47 (0.17)	21.38 (0.16)	20.56 (0.16)	19.00 (0.16)
Std Dev	5.90	5.34	5.37	5.27
Min	15.00	15.00	14.00	12.00
Max	40.00	38.00	36.00	32.00
50th %ile	22.00	20.00	19.00	18.00
75th %ile	25.00	25.00	25.00	21.00
90th %ile	30.00	30.00	28.66	25.00
Weighted N	1151	1151	1151	1151
RURAL				
Mean (SE)	19.06 (0.12)	18.56 (0.11)	17.80 (0.10)	16.94 (0.10)
Std Dev	3.95	3.68	3.54	3.47
Min	15.00	15.00	14.00	12.00
Max	37.00	38.00	36.00	32.00
50th %ile	18.00	18.00	17.00	16.50
75th %ile	22.00	20.00	20.00	19.00
90th %ile	25.00	23.85	22.00	20.00
Weighted N	1168	1168	1168	1168

Tiered Reimbursement Rates and Equal Access

As aforementioned, tiered reimbursement rates for child care subsidies were set by DCCECE by urban and rural geographic location and do not differ for center-based and family child care programs. Arkansas also set CCDF reimbursement rates to support programs in their efforts to provide high-quality care. Accordingly, reimbursement rates are higher as the quality levels increase.

Better Beginnings has three levels. Level 1 requires very limited improvement over minimum licensing with the revision of licensing standards in 2015. Levels 2 and 3 programs have a quality visit that includes environmental and administrative assessments. Arkansas also increased rates for infants and toddlers based on cost modeling⁷ with the goal of providing rates sufficient to support quality improvement efforts for programs caring for our youngest children. Table 3 presents full-time CCAP rates by child age for each level of Better Beginnings.

The U.S. Department of Health and Human Services sets the following benchmark for equal access: “We reaffirm our long-standing position that setting payment rates at the 75th percentile of a recent market rate survey remains an important benchmark for gauging equal access.”⁸ Therefore, one of the key goals of this market price study is to determine to what extent families have access to 75% of the care across various submarkets.

Federal regulations define the standard of equal access because setting rates too low makes programs less likely to provide care for children with CCAP subsidy. On the other hand, it is also important that reimbursement rates are not set too high because Arkansas programs are not allowed to charge parents of private pay children a lesser price than the rate paid by DCCECE for CCAP subsidies.¹³ Therefore, setting the rate too high might have the unintended consequence of pricing private pay parents out of the market, thereby making it difficult for programs to remain in operation.

Table 3. Full-Time Rates & Full-Year Percentile* by Submarket, Geographic Location, & Better Beginnings Level

Level 1			Level 2			Level 3		
Rate	Center %ile	FCCH %ile	Rate	Center %ile	FCCH %ile	Rate	Center %ile	FCCH %ile

URBAN									
Infant	\$28.56	54	84	\$29.98	62	85	\$32.84	73	93
Toddler	\$26.67	50	86	\$28.00	62	87	\$30.67	70	95
Preschool	\$23.60	50	74	\$24.78	56	75	\$27.14	68	89
School Age	\$22.42	60	81	\$23.54	70	82	\$25.78	80	92

RURAL									
Infant	\$21.05	59	74	\$22.11	65	85	\$24.21	77	89
Toddler	\$19.66	59	63	\$20.65	60	76	\$22.61	74	89
Preschool	\$17.40	51	54	\$18.27	52	65	\$20.01	71	83
School Age	\$16.53	53	52	\$17.36	61	61	\$19.01	72	78

Note: Approximated within the weighted distribution

Based on the 2019 data, rates should be adjusted for most submarkets. Some, but not all rates at Better Beginnings Level 3 meet the 75th percentile; however, programs at Better Beginnings Levels 1 and 2 fall below the federal definition of equal access. While Arkansas would like for children receiving CCAP subsidies be placed in Level 3 programs, slots are not widely available across all geographic regions. Further, prices are higher for Level 3 programs, as shown in Appendix A.

Across nearly all Better Beginnings levels within urban and rural geographies, the age where percentiles achieved are lowest are preschool rates. This may be less of a concern because high-quality preschool for low-income families with preschoolers is available through additional funds through the Arkansas Better Chance (ABC) program. The ABC program is available for children whose families are living at or below 200% of Federal Poverty.⁹ Fifty-six percent of low-income preschoolers are served in high-quality settings using state or federal funds (38% and 18% are served through ABC and Head Start, respectively).¹⁰ Therefore, CCAP rates for infants and toddlers are potentially more robust in predicting the accessibility of quality care than they might for preschoolers.

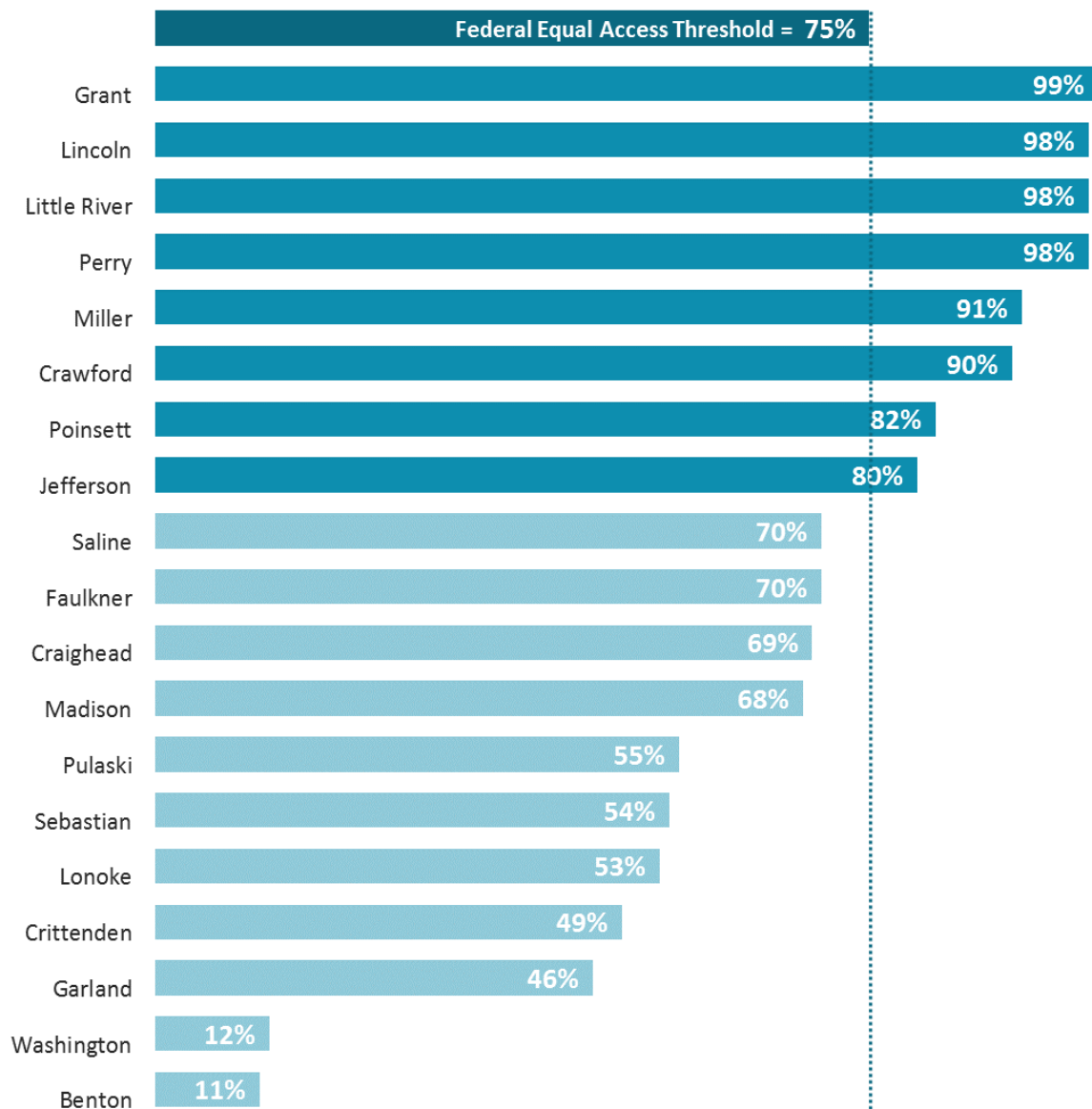
Percentiles are higher for Better Beginnings programs that serve infants and toddlers, especially in FCCH settings, where Level 3 reimbursements are near or above the 90th percentile. This is particularly encouraging given emerging findings from the state of North Carolina Race to the Top evaluation that parents continue to choose less formal care settings for infants and toddlers despite increased reimbursement for center-based programming.¹¹ In general, quality of care for infant-toddlers in Arkansas is lower than for pre-K, and we expect this is reflected in market prices. The DFPM/RED team's work to model the costs of providing child care showed that it is improbable to operate quality infant-toddler care at market prices identified in this price study.¹²

Variation in Equality of Access in Center-Based Programs by County

The table in Appendix B provides a price breakdown by child age for each county within the USDA geographical codes. In order to better compare equal access by county, DFPM/RED computed a weighted average of the Level 1 CCAP reimbursement rate percentiles that are provided in Appendix B by child age.

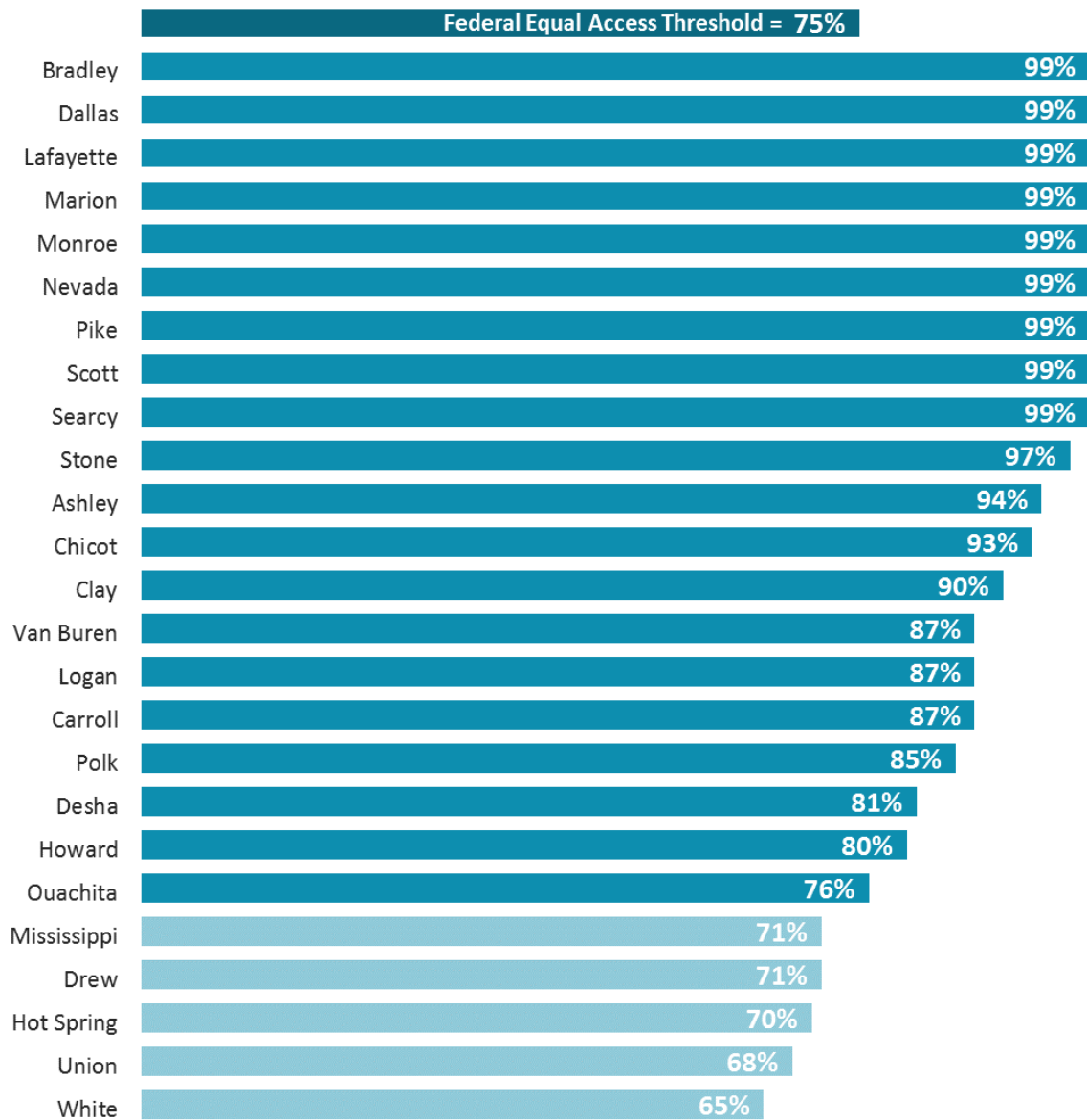
As seen in Figure 1, there is wide variability in the adequacy of the current urban CCAP reimbursement rate for urban county markets. There are counties where there is a concern that the CCAP reimbursement rates are substantially higher than reported market prices (e.g., Grant, Lincoln, Little River, and Perry, with Miller). There are also counties where current CCAP reimbursement rates are substantially lower than reported prices (e.g., Washington and Benton).

Figure 1. Weighted Average CCAP Reimbursement Rate Percentile by County: Urban

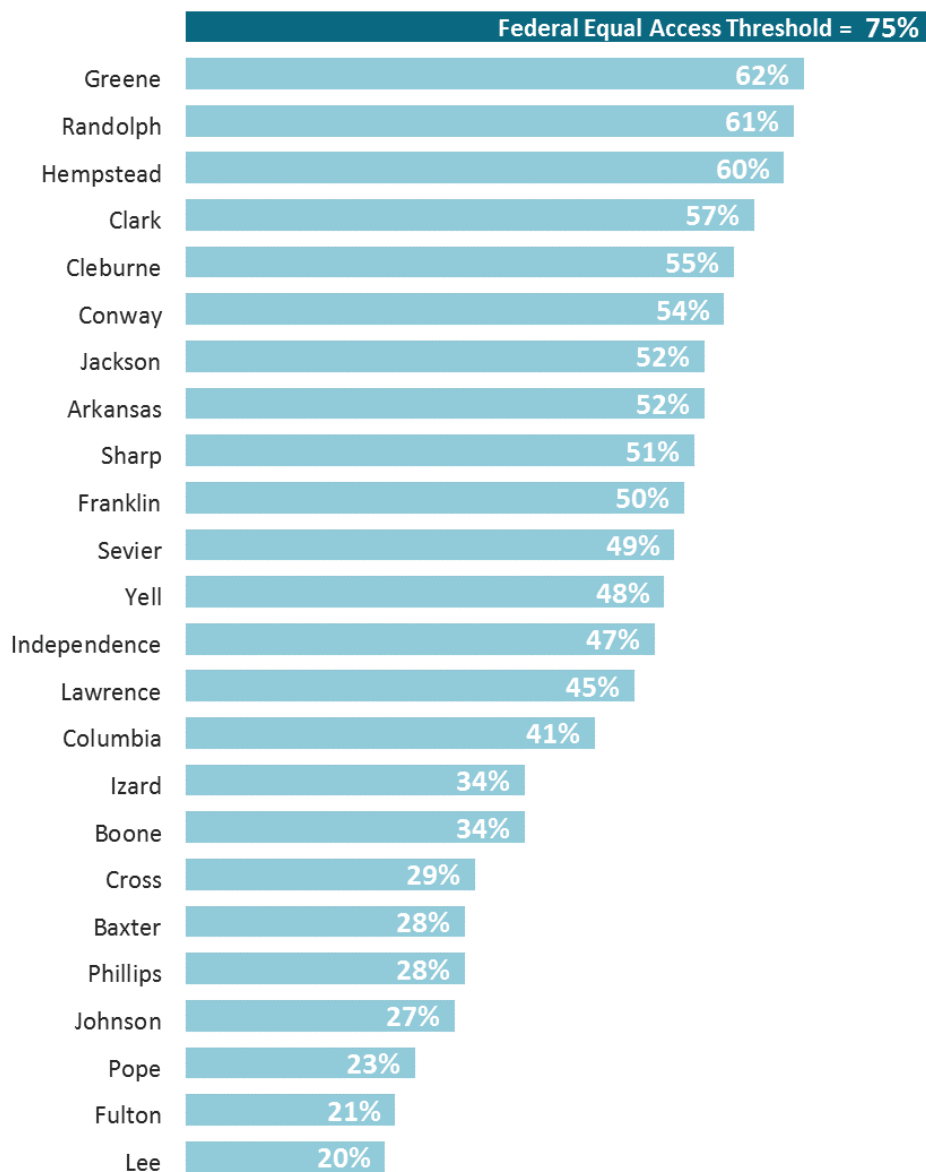


Figures 2 and 3 demonstrate similar variability in the adequacy of the current urban CCAP reimbursement rate for rural county markets. As seen in Figure 2, there are counties where there is a concern that the CCAP reimbursement rates are substantially higher than reported market prices (e.g., Bradley, Dallas, Lafayette, Marion, Monroe, Nevada, Pike, Scott, Searcy, and Stone). There are also counties where current CCAP reimbursement rates are substantially lower than reported prices (e.g., Cross, Baxter, Pope, Fulton, and Lee).

Figure 2. Weighted Average CCAP Reimbursement Rate Percentile by County: Rural



**Figure 3. Weighted Average CCAP Reimbursement Rate Percentile by County: Rural
(Continued)**



Analyzing Similarities in Market Prices

As stated, DCCECE implemented an urban/rural geographic distinction for CCDF reimbursement in 2014-2015. Although this method for population sampling is simple to understand and implement, market price study recommendations note that there are limitations of using this classification (i.e., clusters are likely to contain more than one market within a geographic unit and not based on empirical evidence of price

differences).⁴ This market price study conducted analyses using a priori rural-urban distinctions. It also examines whether there is empirical evidence of price differences across the regions.

The data presented in Figures 1, 2, and 3 demonstrates wide variation in the prices across urban and rural counties, therefore DFPM/RED conducted a two-step cluster analysis for each age group. The purpose of conducting a cluster analysis with the pricing data is to determine whether prices in the USDA geographic areas defined as urban and rural for the purpose of rate-setting are appropriate. Cluster analysis groups programs that are similar based on the pricing structure using the pricing data themselves. To validate DCCECE's urban/rural rate structure, it would be ideal if number and membership of the clusters match the number and membership of the urban/rural classifications.

Cluster membership was determined based on the Schwarz's Bayesian Criterion or BIC. Analyses for all age groups include programs for which the number of children estimated as private pay was at least one. Further, for preschool programs, year-round operation was required to be included in cluster analyses. Goodness of fit of cluster results are reported using the average silhouette, a measure of cohesion and separation of the clusters. The higher the average silhouette, the better the model fits the data. Further, an average silhouette of .5 or greater represents a reasonable data structure.

Center-Based Programs

Infant Full-Time Prices. Cluster analysis returned 3 clusters (average silhouette=.7); groups with a lowest (M=18.76, SD=2.21), middle (M=26.99, SD=2.75), and high (M=37.99, SD=2.42) mean price structure. The clusters did not replicate the urban/rural USDA classifications adopted by DCCECE but were significantly associated ($\chi^2(22042,2)=5082.28$; $p<.001$). Cluster analysis results were stronger for rural than urban programs, with 99.5% of rural programs identified within the two lower infant full-time price groups (67.4% in the lowest cluster and 32.5% in middle cluster), but only 25.0% of urban programs identified within the higher infant full-time price group. This indicates that there is more variation in full-time infant prices in the counties defined as urban (see Table D1 in Appendix D).

Toddler Full-Time Prices. Cluster analysis returned 4 clusters (average silhouette=.6); groups with a lowest (M=16.44, SD=1.22), low-middle (M=20.91, SD=1.51), high-middle (M=27.06, SD=2.37), and high (M=36.76, SD=1.76) mean price structure. The clusters did not approximate the urban/rural USDA classifications adopted by DCCECE but were significantly associated ($\chi^2(22906,3)=5827.79$; $p<.001$). Again, results were stronger for rural than urban programs, with 83.8% of rural programs identified within the two lower toddler full-time price groups (41.4% and 42.4% in lowest clusters), but only 66.9% of urban programs identified within the higher infant full-time price clusters (see Table D2 in Appendix D).

Preschool Full-Time Prices in Full-Year Programs. Two-step cluster analysis returned three clusters (average silhouette=.7); a group with a low (M=17.97, SD=2.21), middle (M=25.13, SD=2.42), and high (M=34.97, SD=1.78) mean price structure. Again, clusters did not completely replicate the urban/rural USDA classifications adopted by DCCECE, but the two classifications were significantly associated ($\chi^2(35924,2)=6405.85$; $p<.001$). Cluster analysis results were stronger for rural than urban programs, where all of the rural programs were identified within the lower preschool full-time price groups, while 23.8% of urban programs were identified within the highest preschool full-time price group (see Table D3 in Appendix D).

Family Child Care Homes

Infant Full-Time Prices. Cluster analysis returned two clusters (average silhouette=.7); with low (M=17.27, SD=1.91) and high (M=24.90, SD=3.07) price structures. The cluster analysis also identified an outlier cluster with a substantially higher average price (M=37.38, SD=2.27). The clusters did not approximate the urban/rural USDA classifications adopted by DCCECE but were significantly associated ($\chi^2(2624,2)=228.32$; $p<.001$). Results were stronger for rural programs, where 71.8% were identified within the low price group. There was a greater variability with FCCH pricing in urban counties (see Table D4 in Appendix D).

Toddler Full-Time Prices. Cluster analysis returned three clusters (average silhouette=.7); a group with a low (M=15.8, SD=0.91), middle (M=20.03, SD=1.4), and high (M=26.41, SD=2.51) mean price structures. Again the analysis identified an outlier cluster with higher prices (M=37.00, SD=1.67). The clusters did not approximate the urban/rural USDA classifications adopted by DCCECE but were significantly associated ($\chi^2(2687,3)=228.18$; $p<.001$). For rural programs, 45.7% were identified within the lowest price group and another 44.7% were identified in the middle price cluster. In urban counties, the largest percentage (41.9%) was identified in the middle price cluster (see Table D5 in Appendix D).

Preschool Full-Time Prices. Cluster analysis returned two clusters (average silhouette=.7); a group with a low (M=16.17, SD=1.67) and high (M=22.89, SD=2.99) mean price structures. It also identified an outlier cluster (M=35.0, SD=1.85). The two classification systems were significantly associated ($\chi^2(2801,2)=119.35$; $p<.001$). Results were stronger for rural programs, where 67.5% were identified within the lowest price group. There was more variability with FCCH pricing in urban counties with 49.4% and 45.9% in the low and high price clusters, respectively (see Table D6 in Appendix D).

Summarizing Current Regional Rate Setting by County

To better compare similarities and differences in prices across counties, cluster membership was rescaled such that 0 represented the lowest price cluster and 1 represented the highest price cluster. We then combined the cluster membership identified by age as reported above to represent the average cluster membership by county (see Table in Appendix C and Figure 4).

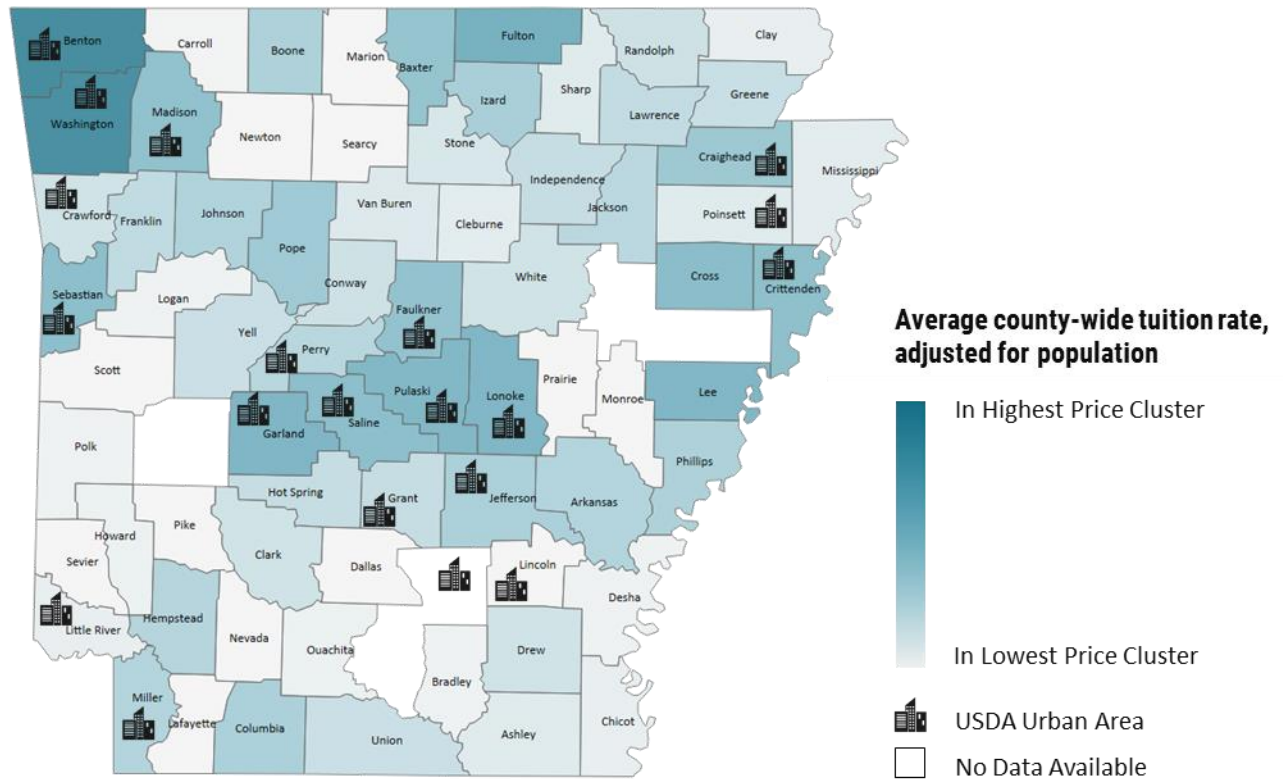
There are a number of **urban counties** with lower-price cluster membership. These counties are areas where CCAP reimbursement rates are potentially set too high for the prices reported in the market.

- Crawford (USDA Region 2)
- Grant (USDA Region 2)
- Perry (USDA Region 2)
- Lincoln (USDA Region 3)
- Little River (USDA Region 3)
- Poinsett (USDA Region 3)

The examination of the price data provided by USDA region code and county (see Appendix B and Figure 1) reveals pricing data that corroborates the findings of the cluster analysis. Crawford, Grant, Lincoln, Little River, and Perry counties are being reimbursed at substantially higher rates for the private tuition reported. Although, slots in many of those counties are rather few in number.

There are also urban counties whose cluster membership is similar to the state average. In these counties, CCAP reimbursement rates need closer examination and may not need to be adjusted to meet the federal definition of equal access. The counties are all in USDA Region 3 and include Craighead and Miller Counties.

Figure 4. Average Price Cluster Membership of Center-Based Programs by County



Finally, there are two urban counties whose cluster membership are much higher than the other areas defined as urban. The data provided in Appendix B and shown in Figure 1 demonstrate that tuition in Benton and Washington counties is substantially higher than other urban counties in the state. Benton and Washington counties likely need a significantly higher CCAP reimbursement rate in order for children with subsidies to have access to services in those areas.

Similarly, there are **rural counties** whose cluster membership is more similar to the state average. This is indicative that CCAP reimbursement rates are potentially set too low for the prices reported in the market. They include:

- Baxter (USDA Region 7)
- Cross (USDA Region 6)
- Fulton (USDA Region 9)
- Lee (USDA Region 7)

An examination of the pricing data in Appendix B demonstrates that the counties being reimbursed at rural rates that report tuition closer to urban show variation across age markets (Fulton, for example, where toddler rates appear adequate, but infant and preschool rates are low).

The price data in Appendix B and Figures 2 and 3 also speak to greater variability for rural programs than cluster membership would suggest. For example, there are counties where current rates are more clearly in need of adjustment (e.g., Pope). Indeed, the market prices suggest the need for increases for more than half of the programs in rural settings in order to meet the federal definition of equal access. However, there are also counties (e.g., Carroll, Logan, Phillips) where rates would seem as though they are sufficient to keep children on subsidies competitive in the market.

That said, it is extremely difficult to imagine how reported tuition in those counties is sufficient for programs to remain solvent in light of the 2019 cost modeling,¹² which suggested rural programs would find it difficult to absorb state increases in the minimum wage (base of \$8.50/hr in 2017, to \$11/hr in 2021).¹⁴

Cluster averages for **FCCH programs** are less precise as there are fewer programs and slots upon which to make assumptions. For the most part, it would seem that FCCH programs in urban areas are more likely to be in the higher tuition clusters, with the exception of Jefferson, Little River, and Miller. There are multiple rural counties with tuition clustered together into higher prices. Again, though, FCCH slots are limited in number and estimates are limited by the sample.

Discussion

The purpose of this study is to provide information on the market prices for child care across child care submarkets; child age, program type, and geographic region. It also analyzes current CCAP reimbursement rates to see if they meet the federal definition of “equal access”. Finally, this study analyzes whether these prices fit well with the funding structure that the Arkansas DCCECE uses to reimburse child programs that serve children receiving care subsidies funded with CCDF.

In 2015, Arkansas set CCDF reimbursement rates to support programs in their efforts to provide high-quality care. Accordingly, reimbursement rates are higher as the quality levels increase. Arkansas’ Better Beginnings Quality Rating and Improvement System currently includes three levels. With the passing of revised licensing standards in 2015, Better Beginnings’ Level 1 requires very minimal improvement over minimum licensing. At Levels 2 and 3, programs have a quality visit which includes an environmental administrative assessment, where the state can be assured additional components of quality are present.

Some, but not all rates at Better Beginnings Level 3 meet the 75th percentile; however, the submarket where percentiles achieved are lowest are preschool rates. High-quality programs for low-income families with preschoolers are available through additional funds through the Arkansas Better Chance (ABC) program. The ABC program is available for children whose families are living at or below 200% of Federal Poverty.⁹ Fifty-six percent of low-income preschoolers are served in high-quality settings using state or federal funds (38% and 18% are served through ABC and Head Start, respectively).¹⁰ Therefore, CCAP rates for infants and toddlers potentially have more weight in the accessibility of quality care than they might for preschoolers. However, findings from the 2019 market prices suggest that subsidy rates need adjustment in order to meet the federal definition of equal access.

Percentiles are higher for Better Beginnings programs that serve infants and toddlers, especially in FCCH settings, where Level 3 reimbursements are near or above the 90th percentile. This is particularly encouraging given emerging findings from the state of North Carolina Race to the Top evaluation that parents continue to choose less formal care settings for infants and toddlers despite increased reimbursement for center-based programming.¹¹ In general, quality of care for infant-toddlers in Arkansas is lower than for pre-K, and we expect this is reflected in market prices. The DFPM/RED team's work to model the costs of providing child care showed that it is improbable to operate quality infant-toddler care at market prices identified in this study.⁷

Finally, the study attempted to validate the urban/rural reimbursement structure designated by the USDA Economic Research Service, which was adopted by DCCECE for reimbursement. While not an exact replication, price clusters for different age groups in this study are associated with the urban/rural designations.

Because some urban counties report consistently lower private pay prices than others, the implementation of additional designations is plausible. It may be difficult to implement though, as programs in those counties are already being reimbursed at higher rates. Findings from the most recent cost modeling study suggest that center-based programs in urban areas are expected to be able to absorb the increases in the minimum wage.¹² This may provide the opportunity to adjust rates for higher-cost urban counties while keeping the current rate for urban counties with lower tuition that meet the federal definition of equal access.

The market price data also demonstrate variability for rural programs, suggesting the need for increases for more in CCAP reimbursement for more than half of the programs. There are also counties where rates would seem as though they are sufficient to keep children on subsidies competitive in the market and where increases may make it difficult for private pay families to pay for care. However, findings from the most recent cost modeling study suggest that rural programs are likely finding it very difficult to remain solvent with the recent, and upcoming changes to the state minimum wage.¹²

References

1. Child care voucher program to expand dramatically, governor says - Arkansas Times. <https://arktimes.com/arkansas-blog/2018/05/17/child-care-voucher-program-to-expand-dramatically-governor-says>. Accessed September 3, 2019.
2. Parker T. USDA ERS - Rural-Urban Continuum Codes. *United States Dep Agric*. 2016. <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/>. Accessed September 3, 2019.
3. Child Care Search. <https://dhs.arkansas.gov/dccece/ccclas/facilitysearch.aspx>. Accessed September 3, 2019.
4. Grobe D, Weber R, Davis E, Kreader JL, Pratt CC. *Study of Market Prices: Validating Child Care Market Rate Surveys*.; 2008. <http://health.oregonstate.edu/sites/default/files/sbhs/pdf/Validity-Study-FINAL-1-27-09.pdf>. Accessed November 1, 2015.
5. Ghosh D, Vogt A. Outliers: An evaluation of methodologies. *Jt Stat Meet*. 2012. http://www.amstat.org/sections/SRMS/Proceedings/y2012/files/304068_72402.pdf. Accessed January 13, 2016.
6. Branscome K. *Adapting Child Care Market Price Surveys to Support State Quality Initiatives*.; 2015. <http://www.icfi.com/insights/white-papers/2015/adapting-child-care-market-price-surveys-to-support-state-quality-initiatives>. Accessed January 13, 2016.
7. McKelvey LM, Chapin-Critz M. *Making Quality Ends Meet*. Little Rock, AR; 2014.
8. US Department of Health and Human Services. *Child Care and Development Fund (CCDF) Program*. US; 2016:158. <https://www.govinfo.gov/content/pkg/FR-2016-09-30/pdf/2016-22986.pdf>.
9. Arkansas Department of Education rules governing the Arkansas Better Chance Program. https://humanservices.arkansas.gov/images/uploads/dccece/FINAL_ABC_Rules_October2012.pdf. Published 2012. Accessed September 3, 2019.
10. Arkansas Advocates for Children and Families. *The Effective Use of State Resources and Coordination of Programs to Improve Educational Outcomes for Children from Birth to Age Five*.; 2014. <http://www.aradvocates.org/wp-content/uploads/Pre-K-ISP-Final-Oct-2014.pdf>. Accessed September 3, 2019.
11. Overcoming challenges and improving quality in your 2016 CCDF plan [PowerPoint]. <https://www.researchconnections.org/childcare/resources/31650>. Accessed September 3, 2019.
12. McKelvey LM, Forsman JA. *Making Quality Ends Meet: 2019-2021 Cost Projections for AR Early Childhood Care & Education*. Little Rock, AR; 2019.
13. DHS | Family Support | Compliance. <https://humanservices.arkansas.gov/about-dhs/dccece/programs-services/child-care-assistance/family-support-compliance>. Accessed September 3, 2019.
14. *An Act to Increase the Arkansas Minimum Wage*. https://www.sos.arkansas.gov/uploads/elections/Issue_5_for_Website.pdf. Accessed September 3, 2019.

Appendices

Appendix A: Center-Based Programs: Full-Time Prices by Submarket, Geographic Location, & Better Beginnings Level

		Full Year				School-Year
		Infant	Toddler	Preschool	School Age	Preschool
		Urban				
Level 0	Mean	\$ 28.01	\$ 27.80	\$ 25.07	\$ 21.45	\$ 20.71
	Std Dev	\$ 7.40	\$ 7.23	\$ 7.23	\$ 6.36	\$ 6.52
	Min	\$ 15.00	\$ 15.00	\$ 14.00	\$ 12.00	\$ 14.00
	Max	\$ 40.00	\$ 38.00	\$ 36.00	\$ 32.00	\$ 36.00
	50 th %ile	\$ 27.25	\$ 27.00	\$ 24.00	\$ 21.00	\$ 20.00
	75 th %ile	\$ 33.63	\$ 35.00	\$ 31.00	\$ 26.30	\$ 26.00
	90 th %ile	\$ 40.00	\$ 38.00	\$ 36.00	\$ 32.00	\$ 30.00
	Weighted N	4534	4863	9491	4211	4312
Level 1	Mean	\$ 26.97	\$ 25.86	\$ 24.39	\$ 20.74	\$ 23.69
	Std Dev	\$ 6.07	\$ 5.77	\$ 6.24	\$ 4.82	\$ 5.37
	Min	\$ 15.00	\$ 15.00	\$ 14.00	\$ 12.00	\$ 14.00
	Max	\$ 40.00	\$ 38.00	\$ 36.00	\$ 32.00	\$ 36.00
	50 th %ile	\$ 26.00	\$ 25.00	\$ 23.00	\$ 20.00	\$ 26.00
	75 th %ile	\$ 30.00	\$ 28.00	\$ 28.00	\$ 23.00	\$ 26.00
	90 th %ile	\$ 38.00	\$ 38.00	\$ 36.00	\$ 28.50	\$ 30.00
	Weighted N	5821	5844	8741	5524	1740
Level 3	Mean	\$ 28.95	\$ 29.41	\$ 26.86	\$ 22.56	\$ 20.03
	Std Dev	\$ 6.56	\$ 6.18	\$ 5.90	\$ 5.47	\$ 4.65
	Min	\$ 15.00	\$ 15.00	\$ 15.00	\$ 12.00	\$ 14.00
	Max	\$ 40.00	\$ 38.00	\$ 36.00	\$ 32.00	\$ 36.00
	50 th %ile	\$ 30.00	\$ 30.60	\$ 26.00	\$ 23.00	\$ 18.50
	75 th %ile	\$ 33.56	\$ 34.25	\$ 31.50	\$ 28.00	\$ 23.00
	90 th %ile	\$ 40.00	\$ 38.00	\$ 36.00	\$ 28.00	\$ 27.30
	Weighted N	2995	3045	4993	1929	6295

Note: Level 2 and School-Year programs were excluded due to small sample sizes.

Appendix A (continued)

		Full Year				School-Year
		Infant	Toddler	Preschool	School Age	Preschool
		Rural				
Level 0	Mean	\$ 21.19	\$ 20.35	\$ 19.81	\$ 16.73	\$ 17.21
	Std Dev	\$ 4.14	\$ 3.60	\$ 3.50	\$ 3.13	\$ 3.53
	Min	\$ 15.00	\$ 15.00	\$ 14.00	\$ 12.00	\$ 14.00
	Max	\$ 30.00	\$ 30.00	\$ 30.00	\$ 24.00	\$ 30.25
	50 th %ile	\$ 20.00	\$ 20.00	\$ 20.00	\$ 16.00	\$ 17.00
	75 th %ile	\$ 24.00	\$ 23.00	\$ 22.00	\$ 18.00	\$ 20.00
	90 th %ile	\$ 27.00	\$ 25.00	\$ 25.00	\$ 22.00	\$ 22.30
	Weighted N	1876	1937	3203	705	1611
Level 1	Mean	\$ 21.21	\$ 20.12	\$ 19.17	\$ 16.93	\$ 15.74
	Std Dev	\$ 3.80	\$ 3.85	\$ 4.41	\$ 3.04	\$ 3.48
	Min	\$ 15.00	\$ 15.00	\$ 14.00	\$ 12.00	\$ 14.00
	Max	\$ 30.00	\$ 30.00	\$ 30.00	\$ 25.00	\$ 27.14
	50 th %ile	\$ 21.00	\$ 20.00	\$ 18.00	\$ 17.00	\$ 14.00
	75 th %ile	\$ 24.00	\$ 22.00	\$ 20.00	\$ 19.20	\$ 15.50
	90 th %ile	\$ 26.32	\$ 26.00	\$ 26.20	\$ 20.76	\$ 20.00
	Weighted N	2984	3066	4923	1353	437
Level 3	Mean	\$ 22.58	\$ 19.71	\$ 17.77	\$ 17.07	\$ 16.97
	Std Dev	\$ 5.75	\$ 4.52	\$ 3.78	\$ 3.49	\$ 3.73
	Min	\$ 15.00	\$ 15.00	\$ 14.00	\$ 12.00	\$ 14.00
	Max	\$ 35.00	\$ 35.00	\$ 27.30	\$ 24.00	\$ 36.00
	50 th %ile	\$ 20.00	\$ 18.75	\$ 16.50	\$ 16.00	\$ 15.50
	75 th %ile	\$ 27.30	\$ 23.25	\$ 20.00	\$ 19.00	\$ 17.00
	90 th %ile	\$ 32.00	\$ 28.00	\$ 25.00	\$ 22.00	\$ 23.00
	Weighted N	679	763	2281	273	3965

Note: Level 2 and School-Year programs were excluded due to small sample sizes.

Appendix B: County Prices by Submarket with Comparison to Level 1 Better Beginnings Child Care Subsidy Rate

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
1	Crittenden	Infant	377	\$ 25.00	\$ 25.00	\$ 28.00	\$ 29.98	82%
		Toddler	347	\$ 24.00	\$ 27.00	\$ 27.50	\$ 28.00	44%
		PreK	553	\$ 22.00	\$ 24.00	\$ 30.00	\$ 30.00	29%
2	Benton	Infant	2077	\$ 34.00	\$ 40.00	\$ 40.00	\$ 40.00	17%
		Toddler	2168	\$ 31.60	\$ 38.00	\$ 38.00	\$ 38.00	11%
		PreK	3577	\$ 27.00	\$ 36.00	\$ 36.00	\$ 36.00	7%
	Crawford	Infant	117	\$ 25.00	\$ 25.00	\$ 25.00	\$ 29.20	85%
		Toddler	162	\$ 22.00	\$ 22.00	\$ 22.00	\$ 26.34	99%
		PreK	329	\$ 17.00	\$ 19.00	\$ 21.57	\$ 25.00	88%
	Faulkner	Infant	757	\$ 23.00	\$ 25.20	\$ 28.00	\$ 29.40	85%
		Toddler	757	\$ 23.00	\$ 24.50	\$ 26.00	\$ 27.20	81%
		PreK	1506	\$ 20.00	\$ 23.02	\$ 25.00	\$ 30.00	57%
	Grant	Infant	-	-	-	-	-	-
		Toddler	39	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	99%
		PreK	87	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	99%
	Lonoke	Infant	691	\$ 25.00	\$ 28.00	\$ 30.00	\$ 34.07	56%
		Toddler	691	\$ 24.00	\$ 26.00	\$ 28.00	\$ 34.07	51%
		PreK	1010	\$ 20.00	\$ 23.00	\$ 27.00	\$ 30.00	52%
	Madison	Infant	36	\$ 20.00	\$ 32.00	\$ 32.00	\$ 32.00	44%
		Toddler	36	\$ 20.00	\$ 28.00	\$ 28.00	\$ 28.00	44%

	Perry	PreK	58	\$ 20.00	\$ 22.00	\$ 22.00	\$ 22.00	98%
		Infant	67	\$ 18.00	\$ 18.00	\$ 26.00	\$ 26.00	98%
		Toddler	67	\$ 18.00	\$ 18.00	\$ 25.00	\$ 25.00	98%
		PreK	85	\$ 18.00	\$ 18.00	\$ 23.00	\$ 23.00	98%
	Pulaski	Infant	4733	\$ 25.00	\$ 28.00	\$ 31.00	\$ 34.25	60%
		Toddler	4857	\$ 22.50	\$ 26.37	\$ 30.50	\$ 34.25	55%
		PreK	6848	\$ 20.00	\$ 23.60	\$ 28.60	\$ 36.00	51%
	Saline	Infant	674	\$ 25.00	\$ 27.00	\$ 29.00	\$ 30.60	69%
		Toddler	685	\$ 24.00	\$ 25.00	\$ 28.00	\$ 30.60	53%
		PreK	1616	\$ 20.00	\$ 23.00	\$ 23.00	\$ 26.00	78%
	Sebastian	Infant	813	\$ 20.00	\$ 25.00	\$ 30.00	\$ 35.00	58%
		Toddler	835	\$ 19.95	\$ 24.00	\$ 30.00	\$ 35.00	58%
		PreK	1908	\$ 19.50	\$ 23.60	\$ 27.00	\$ 32.31	50%
	Washington	Infant	1498	\$ 33.80	\$ 40.00	\$ 40.00	\$ 40.00	12%
		Toddler	1548	\$ 28.00	\$ 38.00	\$ 38.00	\$ 38.00	17%
		PreK	2372	\$ 28.00	\$ 36.00	\$ 36.00	\$ 36.00	8%

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
3	Craighead	Infant	933	\$ 20.00	\$ 25.00	\$ 29.00	\$ 30.40	70%
		Toddler	955	\$ 21.00	\$ 25.00	\$ 28.00	\$ 28.54	66%
		PreK	1588	\$ 18.00	\$ 20.00	\$ 24.00	\$ 28.00	70%
	Garland	Infant	476	\$ 25.00	\$ 26.00	\$ 30.30	\$ 32.84	72%
		Toddler	515	\$ 22.60	\$ 25.00	\$ 27.00	\$ 30.67	66%
		PreK	1356	\$ 23.25	\$ 27.00	\$ 27.14	\$ 27.30	29%
	Jefferson	Infant	544	\$ 19.50	\$ 23.00	\$ 28.56	\$ 40.00	78%

	Lincoln	Toddler	544	\$ 18.50	\$ 20.00	\$ 25.00	\$ 38.00	78%
		PreK	1102	\$ 17.00	\$ 18.00	\$ 20.22	\$ 25.00	82%
		Infant	39	\$ 17.50	\$ 17.50	\$ 17.50	\$ 17.50	99%
		Toddler	39	\$ 17.50	\$ 17.50	\$ 17.50	\$ 17.50	99%
		PreK	39	\$ 17.00	\$ 17.00	\$ 17.50	\$ 17.50	97%
	Little River	Infant	72	\$ 16.00	\$ 16.00	\$ 20.00	\$ 20.00	98%
		Toddler	72	\$ 16.00	\$ 16.00	\$ 20.00	\$ 20.00	98%
		PreK	67	\$ 16.00	\$ 16.00	\$ 20.00	\$ 20.00	98%
	Miller	Infant	487	\$ 20.00	\$ 24.00	\$ 25.00	\$ 26.00	90%
		Toddler	500	\$ 18.60	\$ 21.00	\$ 23.00	\$ 25.00	90%
		PreK	817	\$ 16.00	\$ 17.00	\$ 20.00	\$ 22.00	93%
	Poinsett	Infant	27	\$ 20.00	\$ 30.00	\$ 30.00	\$ 30.00	46%
		Toddler	27	\$ 20.00	\$ 21.50	\$ 21.50	\$ 21.50	96%
		PreK	37	\$ 16.00	\$ 16.00	\$ 16.50	\$ 16.50	97%

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
4	Greene	Infant	238	\$ 20.00	\$ 22.00	\$ 25.00	\$ 26.00	46%
		Toddler	211	\$ 18.50	\$ 20.00	\$ 24.34	\$ 26.00	79%
		PreK	461	\$ 17.00	\$ 17.40	\$ 20.00	\$ 26.00	62%
	Mississippi	Infant	197	\$ 17.00	\$ 19.50	\$ 19.50	\$ 26.80	79%
		Toddler	197	\$ 17.00	\$ 18.30	\$ 18.30	\$ 26.63	88%
		PreK	419	\$ 16.00	\$ 16.00	\$ 19.00	\$ 23.60	60%
	White	Infant	497	\$ 19.00	\$ 20.00	\$ 23.00	\$ 27.00	69%
		Toddler	544	\$ 17.00	\$ 18.40	\$ 20.50	\$ 25.00	79%
		PreK	960	\$ 15.50	\$ 17.00	\$ 20.00	\$ 20.00	54%

5	Pope	Infant	454	\$ 22.00	\$ 25.50	\$ 28.00	\$ 32.00	14%
		Toddler	410	\$ 22.00	\$ 23.00	\$ 27.33	\$ 28.00	79%
		PreK	828	\$ 20.00	\$ 22.50	\$ 25.00	\$ 27.00	1%

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
6	Arkansas	Infant	155	\$ 19.50	\$ 21.00	\$ 28.30	\$ 28.30	53%
		Toddler	155	\$ 18.75	\$ 21.00	\$ 26.50	\$ 26.50	79%
		PreK	197	\$ 15.50	\$ 25.00	\$ 25.00	\$ 26.50	29%
	Carroll	Infant	80	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	92%
		Toddler	80	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	92%
		PreK	292	\$ 15.00	\$ 15.00	\$ 15.00	\$ 19.00	84%
	Cleburne	Infant	94	\$ 19.00	\$ 21.00	\$ 21.00	\$ 21.00	98%
		Toddler	94	\$ 19.00	\$ 21.00	\$ 21.00	\$ 22.00	79%
		PreK	255	\$ 16.25	\$ 18.00	\$ 18.00	\$ 21.00	30%
	Conway	Infant	175	\$ 16.00	\$ 24.00	\$ 25.00	\$ 25.28	39%
		Toddler	175	\$ 16.00	\$ 21.00	\$ 23.00	\$ 25.00	79%
		PreK	212	\$ 16.50	\$ 17.50	\$ 20.00	\$ 20.50	47%
	Cross	Infant	158	\$ 24.00	\$ 25.00	\$ 25.00	\$ 30.00	18%
		Toddler	169	\$ 21.00	\$ 24.00	\$ 25.00	\$ 25.00	79%
		PreK	254	\$ 21.00	\$ 24.00	\$ 25.00	\$ 25.00	3%
	Dallas	Infant	-	-	-	-	-	-
		Toddler	73	\$ 17.50	\$ 17.50	\$ 17.50	\$ 17.50	99%
		PreK	255	\$ 15.50	\$ 15.50	\$ 15.50	\$ 15.50	99%
	Desha	Infant	247	\$ 18.50	\$ 18.50	\$ 18.50	\$ 20.00	99%
		Toddler	247	\$ 17.50	\$ 17.50	\$ 18.00	\$ 20.00	85%

County	PreK	163	\$ 17.40	\$ 17.88	\$ 18.00	\$ 19.20	49%
	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
Drew	Infant	246	\$ 18.00	\$ 20.00	\$ 22.54	\$ 30.00	74%
	Toddler	263	\$ 16.00	\$ 17.50	\$ 21.25	\$ 23.34	79%
	PreK	279	\$ 15.50	\$ 16.00	\$ 20.25	\$ 25.00	60%
Franklin	Infant	103	\$ 15.00	\$ 15.00	\$ 24.00	\$ 24.00	65%
	Toddler	113	\$ 15.00	\$ 17.00	\$ 20.00	\$ 20.00	79%
	PreK	325	\$ 14.00	\$ 20.00	\$ 20.00	\$ 22.00	35%
Hempstead	Infant	87	\$ 15.00	\$ 24.00	\$ 24.00	\$ 24.00	45%
	Toddler	87	\$ 15.00	\$ 24.00	\$ 24.00	\$ 24.00	79%
	PreK	79	\$ 14.00	\$ 14.00	\$ 19.00	\$ 19.00	57%
Hot Spring	Infant	129	\$ 20.00	\$ 21.96	\$ 24.00	\$ 27.50	49%
	Toddler	129	\$ 20.00	\$ 20.98	\$ 23.00	\$ 26.50	79%
	PreK	275	\$ 16.00	\$ 16.00	\$ 16.00	\$ 21.50	75%
Howard	Infant	100	\$ 15.00	\$ 15.00	\$ 20.00	\$ 20.00	99%
	Toddler	100	\$ 15.00	\$ 15.00	\$ 20.00	\$ 20.00	79%
	PreK	171	\$ 14.50	\$ 15.00	\$ 20.00	\$ 20.00	70%
Jackson	Infant	86	\$ 15.00	\$ 20.00	\$ 23.00	\$ 23.00	72%
	Toddler	86	\$ 15.00	\$ 19.00	\$ 21.33	\$ 21.33	79%
	PreK	119	\$ 19.00	\$ 22.00	\$ 22.00	\$ 22.00	18%
Lawrence	Infant	82	\$ 18.20	\$ 18.20	\$ 25.00	\$ 25.00	55%
	Toddler	82	\$ 18.20	\$ 18.20	\$ 25.00	\$ 25.00	79%
	PreK	82	\$ 18.00	\$ 18.20	\$ 25.00	\$ 25.00	18%
Logan	Infant	51	\$ 15.00	\$ 17.00	\$ 21.00	\$ 21.00	98%
	Toddler	51	\$ 15.00	\$ 17.00	\$ 21.00	\$ 21.00	79%
	PreK	157	\$ 15.00	\$ 17.00	\$ 17.00	\$ 21.00	86%

	Phillips	Infant	82	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	1%
		Toddler	82	\$ 25.00	\$ 30.00	\$ 30.00	\$ 30.00	79%
		PreK	98	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	7%
	Scott	Infant	58	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		Toddler	58	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		PreK	146	\$ 15.00	\$ 16.50	\$ 16.50	\$ 16.50	99%
	Sevier	Infant	23	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		Toddler	23	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		PreK	105	\$ 14.00	\$ 20.00	\$ 20.00	\$ 20.00	27%
	Yell	Infant	93	\$ 19.30	\$ 19.30	\$ 20.50	\$ 32.00	78%
		Toddler	93	\$ 19.30	\$ 19.30	\$ 20.50	\$ 23.25	79%
		PreK	160	\$ 18.10	\$ 19.50	\$ 21.00	\$ 21.00	13%

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
7	Ashley	Infant	164	\$ 18.00	\$ 18.50	\$ 18.75	\$ 19.75	99%
		Toddler	164	\$ 18.25	\$ 18.50	\$ 18.75	\$ 19.75	88%
		PreK	364	\$ 14.00	\$ 17.00	\$ 17.00	\$ 17.25	94%
	Baxter	Infant	198	\$ 23.00	\$ 26.00	\$ 26.00	\$ 28.00	2%
		Toddler	198	\$ 22.00	\$ 24.31	\$ 25.00	\$ 26.00	79%
		PreK	300	\$ 21.01	\$ 22.00	\$ 24.00	\$ 24.00	11%
	Boone	Infant	131	\$ 21.00	\$ 24.00	\$ 24.00	\$ 24.00	32%
		Toddler	131	\$ 20.31	\$ 23.00	\$ 23.00	\$ 23.00	79%
		PreK	166	\$ 20.09	\$ 20.20	\$ 22.00	\$ 22.00	1%
	Bradley	Infant	12	\$ 18.50	\$ 18.50	\$ 18.50	\$ 18.50	99%
		Toddler	12	\$ 18.50	\$ 18.50	\$ 18.50	\$ 18.50	99%

	Chicot	PreK	57	\$ 16.50	\$ 16.50	\$ 16.50	\$ 16.50	99%
		Infant	209	\$ 15.00	\$ 18.50	\$ 18.50	\$ 18.50	99%
		Toddler	209	\$ 15.00	\$ 17.50	\$ 18.50	\$ 18.50	91%
		PreK	190	\$ 14.00	\$ 15.50	\$ 16.00	\$ 18.00	88%
	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
	Clark	Infant	90	\$ 17.00	\$ 17.00	\$ 23.00	\$ 23.00	59%
		Toddler	90	\$ 17.00	\$ 17.25	\$ 23.00	\$ 23.00	79%
		PreK	221	\$ 17.00	\$ 18.00	\$ 23.00	\$ 23.00	47%
	Clay	Infant	15	\$ 15.00	\$ 15.00	\$ 15.00	\$ 20.21	90%
		Toddler	15	\$ 15.00	\$ 15.00	\$ 15.00	\$ 20.21	89%
		PreK	-	-	-	-	-	-
	Columbia	Infant	202	\$ 19.00	\$ 23.00	\$ 23.75	\$ 23.75	37%
		Toddler	214	\$ 19.00	\$ 23.00	\$ 23.00	\$ 23.75	79%
		PreK	248	\$ 19.00	\$ 22.50	\$ 23.00	\$ 23.00	12%
	Independence	Infant	180	\$ 20.00	\$ 20.00	\$ 25.00	\$ 25.00	63%
		Toddler	211	\$ 19.00	\$ 20.00	\$ 20.00	\$ 21.25	79%
		PreK	503	\$ 17.00	\$ 18.00	\$ 20.00	\$ 27.30	27%
	Johnson	Infant	123	\$ 20.00	\$ 23.00	\$ 25.00	\$ 25.00	38%
		Toddler	123	\$ 20.00	\$ 20.00	\$ 20.00	\$ 22.00	79%
		PreK	308	\$ 20.00	\$ 20.00	\$ 20.00	\$ 25.00	1%
	Lee	Infant	56	\$ 25.50	\$ 30.00	\$ 30.00	\$ 30.00	1%
		Toddler	56	\$ 22.00	\$ 30.00	\$ 30.00	\$ 30.00	79%
		PreK	118	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	1%
	Monroe	Infant	12	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		Toddler	12	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		PreK	39	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	99%

	Nevada	Infant	40	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	99%
		Toddler	40	\$ 17.83	\$ 17.83	\$ 17.83	\$ 17.83	99%
		PreK	27	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
	Ouachita	Infant	108	\$ 15.00	\$ 21.05	\$ 22.00	\$ 22.00	52%
		Toddler	118	\$ 15.00	\$ 20.00	\$ 22.00	\$ 22.00	79%
		PreK	243	\$ 14.00	\$ 14.00	\$ 14.50	\$ 21.00	86%
	Polk	Infant	68	\$ 17.00	\$ 18.50	\$ 18.50	\$ 19.00	98%
		Toddler	68	\$ 17.00	\$ 17.50	\$ 17.50	\$ 19.33	98%
		PreK	76	\$ 15.00	\$ 17.00	\$ 20.50	\$ 20.50	63%
	Randolph	Infant	63	\$ 18.50	\$ 22.00	\$ 25.00	\$ 25.00	37%
		Toddler	63	\$ 17.50	\$ 20.00	\$ 25.00	\$ 25.00	79%
		PreK	126	\$ 15.00	\$ 17.00	\$ 20.00	\$ 25.00	63%
	Sharp	Infant	72	\$ 18.00	\$ 21.00	\$ 21.00	\$ 21.00	98%
		Toddler	72	\$ 17.00	\$ 20.00	\$ 20.00	\$ 20.00	79%
		PreK	106	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	1%
	Union	Infant	336	\$ 16.66	\$ 17.00	\$ 20.00	\$ 25.00	76%
		Toddler	390	\$ 16.00	\$ 18.00	\$ 23.66	\$ 27.00	79%
		PreK	829	\$ 15.00	\$ 16.50	\$ 22.33	\$ 26.00	60%

USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
8	Lafayette	Infant	52	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		Toddler	52	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	99%
		PreK	82	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	99%
	Van Buren	Infant	33	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00	99%
		Toddler	33	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00	99%

		PreK	57	\$ 16.00	\$ 16.00	\$ 18.27	\$ 27.30	74%
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USDA Size Code	County	Age	Weighted N	25th %ile	50th %ile	75th %ile	90th %ile	L1 CCAP %ile
9	Fulton	Infant	24	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	1%
		Toddler	24	\$ 24.00	\$ 24.00	\$ 24.00	\$ 24.00	79%
		PreK	48	\$ 23.83	\$ 24.00	\$ 24.00	\$ 24.00	1%
	Izard	Infant	42	\$ 23.00	\$ 23.00	\$ 23.00	\$ 23.00	1%
		Toddler	42	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	79%
		PreK	14	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	1%
	Marion	Infant	17	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	99%
		Toddler	17	\$ 18.00	\$ 18.00	\$ 18.00	\$ 18.00	99%
		PreK	33	\$ 15.00	\$ 15.00	\$ 16.00	\$ 16.00	98%
	Pike	Infant	32	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		Toddler	32	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		PreK	54	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
	Searcy	Infant	45	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		Toddler	45	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	99%
		PreK	34	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	99%
	Stone	Infant	-	-	-	-	-	-
		Toddler	7	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	79%
		PreK	59	\$ 15.50	\$ 15.50	\$ 15.50	\$ 15.50	99%

Note: 7 of 75 counties reported no data. Counties with a "-" in their rows do not have data available for those specific age groups.

Appendix C: Average Cluster Membership

USDA SIZE CODE	COUNTY	CENTERS: CLUSTER AVG	CENTERS: WEIGHTED SLOTS	FCCH: CLUSTER AVG	FCCH: WEIGHTED SLOTS
URBAN					
1	Crittenden	0.40	1072	0.41	76
2	Benton	0.84	6028	1.00	191
	Crawford	0.13	984	0.53	43
	Faulkner	0.38	2855	0.37	141
	Grant	0.17	126	1.00	9
	Lonoke	0.47	1710	0.38	63
	Madison	0.39	94	0.67	61
	Perry	0.22	152	-	-
	Pulaski	0.46	12955	0.57	117
	Saline	0.41	2336	0.60	96
	Sebastian	0.41	3203	0.37	76
	Washington	0.82	4227	0.68	226
3	Cleveland	-	-	-	-
	Craighead	0.33	2672	0.36	96
	Garland	0.48	1949	0.50	42
	Jefferson	0.27	1751	0.28	82
	Lincoln	0.00	89	-	-
	Little River	0.04	139	0.00	28
	Miller	0.24	1370	0.27	22
	Poinsett	0.07	106	-	-

Note: Average cluster membership calculated from infant, toddler, and preschool cluster membership. Scaling is from 0 (lowest price cluster membership) to 1 (highest price cluster membership). Numbers in red are indicative of cluster averages that may suggest differences from current CCAP reimbursement rates.

Appendix C (continued)

USDA SIZE CODE	COUNTY	CENTERS: CLUSTER AVG	CENTERS: WEIGHTED SLOTS	FCCH: CLUSTER AVG	FCCH: WEIGHTED SLOTS
RURAL					
4	Greene	0.16	739	0.63	39
	Mississippi	0.06	681	0.39	62
	White	0.13	1699	0.40	54
5	Pope	0.32	1283	0.17	24
6	Arkansas	0.24	475	0.34	59
	Carroll	0.01	373	0.40	78
	Cleburne	0.06	544	0.00	13
	Conway	0.14	419	0.32	72
	Cross	0.42	423	0.50	9
	Dallas	0.00	328	0.50	2
	Desha	0.02	425	0.13	24
	Drew	0.13	542	0.83	49
	Franklin	0.19	438	0.09	80
	Hempstead	0.23	193	0.00	9
	Hot Spring	0.17	404	0.17	9
	Howard	0.03	270	0.04	48
	Jackson	0.21	205	-	-
	Lawrence	0.18	189	0.00	9
	Logan	0.02	208	0.19	83
	Phillips	0.26	402	0.50	59
	Scott	0.00	204	0.00	16
	Sevier	0.00	211	0.28	41
	St. Francis	-	-	-	-
	Yell	0.15	463	0.50	40
7	Ashley	0.07	534	-	-
	Baxter	0.37	514	0.75	18
	Boone	0.26	513	0.52	57
	Bradley	0.02	110	-	-
	Chicot	0.04	399	0.36	52
	Clark	0.13	311	0.83	15
	Clay	0.04	15	0.06	48
	Columbia	0.27	511	0.00	11
	Independence	0.17	760	0.00	9
	Johnson	0.25	498	0.25	15

	Lee	0.47	174	0.83	15
	Monroe	0.00	52	0.70	26
	Nevada	0.00	67	-	-
	Ouachita	0.03	365	0.00	126
	Polk	0.02	144	-	-
	Randolph	0.14	259	-	-
	Sharp	0.07	178	0.24	32
	Union	0.15	1348	0.00	8
8	Lafayette	0.00	134	0.00	15
	Montgomery	-	-	0.27	14
	Prairie	0.00	47	-	-
	Van Buren	0.08	90	0.00	10
9	Calhoun	-	-	0.00	10
	Fulton	0.52	72	-	-
	Izard	0.28	56	0.17	11
	Marion	0.00	49	0.00	21
	Newton	0.00	19	-	-
	Pike	0.00	86	0.00	9
	Searcy	0.00	79	-	-
	Stone	0.10	116	0.46	30
	Woodruff	-	-	0.83	9
ALL	Statewide (Urban + Rural)	0.40	62433	0.43	2813

Notes: Average cluster membership calculated from infant, toddler, and preschool cluster membership. Scaling is from 0 (lowest price cluster membership) to 1 (highest price cluster membership). Numbers in red are indicative of cluster averages that may suggest differences from current CCAP reimbursement rates.

Appendix D: Cluster Analysis Results by USDA Region

Table D1. Center-Based Programs: Urban By Infant Full-Time Price Cluster

		Low	Middle	High	Total
Region	Rural Count	4410	2130	5	6545
	% within Rural	67.4%	32.5%	0.1%	100.0%
	Urban Count	3137	8483	3877	15497
	% within Urban	20.2%	54.7%	25.0%	100.0%
Total	Count	262	7547	10613	3882
	% within Total	36.0%	34.2%	48.1%	17.6%

Table D2. Center-Based Programs: Urban By Toddler Full-Time Price Cluster

		Low	Low-Middle	High-Middle	High	Total
Region	Rural Count	2817	2884	1098	5	6804
	% within Rural	41.4%	42.4%	16.1%	0.1%	100.0%
	Urban Count	1445	3882	7119	3656	16102
	% within Urban	9.0%	24.1%	44.2%	22.7%	100.0%
Total	Count	138	4262	6766	8217	3661
	% within Total	18.1%	18.6%	29.5%	35.9%	16.0%

Appendix D (continued)

Table D3. Center-Based Programs: Urban By Preschool, Full-Time Price Cluster

		Low	Middle	High	Total
Region	Rural Count	8425	2544	0	10969
	% within Rural	76.8%	23.2%	0.0%	100.0%
	Urban Count	8412	10604	5939	24955
	% within Urban	33.7%	42.5%	23.8%	100.0%
Total	Count	405	16837	13148	5939
	% within Total	49.8%	46.9%	36.6%	16.5%

Table D4. Family Child Care Homes: Urban By Infant Full-Time Price Cluster

		Low	Middle	High	Total
Region	Rural Count	938	360	8	1306
	% within Rural	71.8%	27.6%	0.6%	100.0%
	Urban Count	574	683	61	1318
	% within Urban	43.6%	51.8%	4.6%	100.0%
Total	Count	136	1512	1043	69
	% within Total	55.3%	57.6%	39.7%	2.6%

Appendix D (continued)

Table D5. Family Child Care Homes: Urban By Toddler Full-Time Price Cluster

		Low	Low-Middle	High-Middle	High	Total
Region	Rural Count	624	611	123	8	1366
	% within Rural	45.7%	44.7%	9.0%	0.6%	100.0%
	Urban Count	352	553	372	44	1321
	% within Urban	26.6%	41.9%	28.2%	3.3%	100.0%
Total	Count	89	976	1164	495	52
	% within Total	35.6%	36.3%	43.3%	18.4%	1.9%

Table D6. Family Child Care Homes: Urban By Preschool, Full-Time Price Cluster

		Low	Middle	High	Total
Region	Rural Count	970	460	8	1438
	% within Rural	67.5%	32.0%	0.6%	100.0%
	Urban Count	674	626	63	1363
	% within Urban	49.4%	45.9%	4.6%	100.0%
Total	Count	136	1644	1086	71
	% within Total	55.3%	58.7%	38.8%	2.5%

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