

# Evaluating Disadvantaged Families' Access to Early Education



## Overview and Key Findings

As of 2015, about one in five children in the United States lived at or below the federal poverty level.<sup>1</sup> Many children living in poverty face multiple risk factors that are negatively associated with school readiness and later achievement.<sup>2</sup> High-quality early care and education (ECE) can help close the gap between disadvantaged children and their more advantaged peers by improving school readiness, reducing risk for grade repetition and special education placement, and increasing high school graduation rates.<sup>3</sup> Importantly, the quality of care matters: ECE settings that offer well-organized, developmentally appropriate learning opportunities allow children to make the greatest gains.<sup>4</sup>

The present study asked how low-income children's access to ECE might differ from that of their higher-income peers, and how child care subsidy policies might be helping to close the gap. We adopted the following multi-dimensional definition of access to ECE:

*“Access to early care and education means that parents, with reasonable effort and affordability, can enroll their child in an arrangement that supports the child’s development and meets the parents’ needs.”<sup>5</sup>*

This study used survey data from ECE centers and households with children under age 13, which allowed us to examine four dimensions of ECE access:

- **Reasonable effort:** Do parents have multiple options for care? Do they feel like they have a choice in their search for care?
- **Affordability:** What is the role of child care subsidy policies for low-income families' access to ECE? Does the parent perceive the child's primary care type to be affordable?
- **Supports the child's development:** What is the quality of child care centers serving subsidized children?
- **Meets the parents' needs:** Is the child in center-based care or family, friend, and neighbor care? Is the child using a care type that meets the parents' preferences in terms of *nurturance, helping children be ready for school, teaching children how to get along with other children, safety, affordability, and flexibility?*

## KEY FINDINGS

Table 1 shows the research questions and corresponding key findings from this study.

TABLE 1. RESEARCH QUESTIONS AND KEY FINDINGS

Research Question	Key Findings
For families:	
1. <i>Are there income-based differences in families' access to ECE?</i>	Compared to higher-income families, fewer low-income families reported having a choice or considering multiple ECE options when searching for care. Additionally, compared to higher-income families, low-income families were more likely to use family, friend, and neighbor care as their primary care type, and less likely to use center-based care.
2. <i>Do income-based differences in access vary by child age?</i>	Two income-based differences were specific to just one age group: <ul style="list-style-type: none"> <li>• For infants and toddlers (but not for preschoolers), low-income parents were less likely than higher-income parents to use a care type that met their preferences for nurturing care as the primary care type.</li> <li>• For preschoolers (but not infants and toddlers), low-income families were less likely than higher-income families to use center-based care as their primary care type, when using regular nonparental care.</li> </ul>
3. <i>Under certain packages of state CCDF (Child Care and Development Fund) subsidy policies, do low-income and higher-income families have similar access to ECE?</i>	<p>We assigned each state to one of five profiles based on its package of subsidy policies. Policy packages varied in their relative generosity with regard to each subsidy policy: reimbursement rate to providers, presence of tiered reimbursement, family copayment amount, income eligibility threshold, and presence of a tiered income eligibility that allowed parents to continue receiving subsidies as income increases to a certain point.</p> <p>The policy profile characterized by <i>servicing the neediest families</i> (Profile 1) had the most income-based disparities in terms of families' choice; options; use of center-based care; and use of family, friend, and neighbor care. Policies in this profile focus on serving the neediest families, with lower-than-average reimbursement rates and average copayments.</p> <p>Looking at access to child care types that met parents' preferences, there was greater income-based disparity in the policy profile characterized by <i>larger benefits for fewer families, emphasizing access to quality care</i> (Profile 2). In these states, a subsidy provides relatively higher reimbursement rates for providers and requires a smaller copayment from the family. Due to the limited funding for subsidies, these states may not be able to serve as many eligible families, potentially resulting in poorer access to care that meets parents' preferences among low-income families.</p> <p>In general, there was greater equity in ECE access for families in the policy profile characterized by <i>more inclusive income guidelines, with the largest cost to families</i> (Profile 4). In this profile, low-income and higher-income families were equally likely to (a) have a choice during their recent search for care, (b) consider multiple options during their recent search for care, and (c) use family, friend, and neighbor care. It may be that more low-income families use child care subsidies in these states if the high family copayments and low reimbursement rates mean that states can spread their limited funds across more families.</p>

TABLE 1 (CONTINUED). RESEARCH QUESTIONS AND KEY FINDINGS

Research Question	Key Findings
For center-based ECE programs:	
4. <i>Are ECE centers that serve subsidized children similar in quality to other centers?</i>	We calculated a quality score for each center based on the presence or absence of several quality indicators. ECE centers that served subsidized children and were not publicly funded <sup>a</sup> had lower quality scores, compared to centers that received public funding. The highest quality was found in centers that received public funding without subsidized children.
5. <i>Under certain packages of CCDF subsidy policies, is there more similarity between centers serving subsidized children and other centers?</i>	The profile characterized by <i>more inclusive income guidelines with an emphasis on access to quality care, at increased cost to families</i> (Profile 3) stood out as the only profile in which non-public programs serving subsidized children had similarly-high levels of quality, relative to centers with public funding and no subsidized children. Interestingly, this profile was characterized by the highest reimbursement rate across all profiles, as well as the use of tiered reimbursement. With these two policies working in tandem, higher-quality programs may be more likely to serve children receiving subsidies. In addition, subsidy reimbursement rates that approach the rates charged to private-paying families may allow centers that serve subsidized children to put additional money into quality improvement efforts (e.g., lowering ratios and hiring higher-qualified staff).

## Background and Purpose

**CHILD CARE SELECTION.** Parents' child care decisions are influenced by their preferences, constraints, and opportunities.<sup>6</sup> First, parents may prefer care that meets certain characteristics, such as the quality of the nurturance or education offered by the provider. Second, parents face constraints such as work schedules and available money for child care. Third, parents have different opportunities that depend, for example, on the supply of child care in the community and their awareness of these options. When parents have access to ECE, they are able to balance these factors and enroll their children in care that meets both their families' needs and their preferences.

The type of child care used may also reflect levels of ECE access. In general, higher-income families are more likely than lower-income families to use center-based care. Lower-income families, in turn, are more likely to use unpaid home-based care.<sup>7</sup> Lower-income families who have help paying for child care, however, use center-based care at a higher rate than lower-income families who do not have help; this finding suggests that many lower-income families prefer center-based care but cannot afford it.<sup>8</sup>

**FEDERAL CHILD CARE SUBSIDIES.** Cost of care is one critical factor that can inhibit access to high-quality ECE.<sup>9</sup> Child care subsidies are intended to improve access to high-quality ECE for low-income families. The federal government funds child care subsidies through the Child Care and Development Fund (CCDF). The CCDF has dual goals: supporting parental employment and promoting child development by increasing access to high-quality ECE among disadvantaged families.<sup>10</sup> Although child care subsidies are intended to help disadvantaged children access high-quality ECE, just 11 percent of federally eligible children received subsidies each month in 2011 and 2012.<sup>11</sup>

While the federal government sets some guidelines for states' administration of child care subsidies, states have flexibility in determining many of the policies related to subsidy administration. These policies include income and employment eligibility requirements for families, copayment rates for families, and reimbursement rates for child care providers, among many others. In developing their own "package" of subsidy policies, states must balance the goals of CCDF with the reality that limited federal funding restricts the number of families who will receive subsidies.<sup>12</sup> States may choose, for example, between serving more children and families with lower reimbursement rates to providers, or serving fewer families with higher reimbursement rates.

Low-income families' access to ECE may be influenced, then, by the package of subsidy policies implemented in their home state. Each policy can be thought of as more or less generous.<sup>13</sup> More generous policies include a higher income eligibility threshold, which allows more families to be eligible; a higher reimbursement rate for child care providers, which may allow families access to a wider range of providers; and a lower family copayment.<sup>14</sup> Access to high-quality ECE providers may also be influenced by the package of subsidy policies. Low reimbursement rates may discourage high-quality providers from serving subsidized children because the low rates do not cover the cost of care<sup>15</sup>.

**THE PRESENT STUDY.** To our knowledge, no studies have asked which combinations of subsidy policies are associated with better access to ECE for low-income families (relative to higher-income families), from either a demand perspective (i.e., the perspective of the family) or a supply perspective (i.e., the availability of high-quality ECE providers serving subsidized children). The fact that subsidy funds are limited makes it essential to understand the benefits and consequences of different combinations of subsidy policies as they relate to parents' access to high-quality ECE.

# Method

## PRIMARY DATA SOURCE: THE NSECE

The National Survey of Early Care and Education<sup>16</sup> (NSECE) is a set of four surveys assessing the supply of, and demand for, early care and education in the United States. The NSECE was conducted in late 2011 and early 2012 with a sample of center-based ECE programs, center-based ECE teachers and caregivers, home-based ECE providers, and households with a child under age 13. The current project used two surveys from the NSECE: the household survey and the center-based provider survey. Weights are provided to create estimates that are nationally representative of U.S. households with children under age 13, as well as ECE programs serving children under age 6 but not yet in kindergarten.

### CCDF POLICY PROFILES

Child Trends used the *CCDF Policies Database*<sup>17</sup> to determine the policies in each state between 2009 and 2013. We conducted a latent profile analysis that resulted in the assignment of each state to one of five policy profiles, based on states' packages of subsidy policies. Descriptions of each policy profile, along with the states assigned to each profile in 2011, are in Table 3. Appendix Table A1 provides detailed information about the policies in each profile. The latent profile analysis used to identify profiles is described in a separate report.<sup>18</sup>

## ANALYSES OF HOUSEHOLDS: SAMPLE AND MEASURES

### SAMPLE

We used the NSECE household survey to address research questions 1–3. The household survey was conducted with an adult in the household who was “knowledgeable about the ECE usage and schedule of the youngest child in the household,”<sup>19</sup> totaling 11,629 households nationally. A target child was randomly selected to be the focus of questions about the household’s most recent search for child care. Our analyses were restricted to households who searched for care in the past 24 months for a target child currently ages 0 to 5 and not enrolled in K–8 school. This sample was used when examining two access indicators: *Had a choice when searching for care*, and *Considered multiple ECE options when searching for care*.

Other indicators of access—specifically, the primary care type and whether the primary care type met parents’ preferences on a variety of characteristics (i.e., nurturing, safety, affordability)—were examined using a sample restricted to include only those households whose target child was in regular nonparental care. See Table 2 for sample sizes.

### MEASURES

Respondents answered questions about their search for care, their preferences for care, their perceptions of different care types, the types of care in which the child was currently enrolled, and the time spent in each arrangement.

The ECE access indicators are as follows: *primary care type was center-based or family, friend, and neighbor care; parents report having a choice when searching for care; parents considered multiple ECE options when searching for care; and child’s primary care type met parents’ preferences in terms of nurturance, helping children be ready for school, teaching children how to get along with other children, safety, affordability, and flexibility*. Each access indicator was coded as dichotomous (0 = no; 1 = yes), indicating that the parent did or did not endorse that access item. Appendix B explains how each access indicator was created.

Households were categorized as low-income if their annual income was 85 percent or less of the state median income for a household of the same size, which corresponds to the federal income eligibility threshold for CCDF.<sup>20</sup> Child age group was classified as infant/toddler (ages 0 through 2) or preschooler (ages 3 through 5 but not yet in kindergarten).

**TABLE 2. ANALYTIC SAMPLE FOR HOUSEHOLDS**

	Unweighted Frequency	Weighted Frequency	Standard Error of Weighted Frequency	Percent of Subsample (weighted)
Sample of households who searched for care in the past 24 months for a child ages 0 to 5 (for <i>choice</i> and <i>options</i> variables)	1,817	5,299,613	236,468	--
Subsample of households who searched for care in the past 24 months for a child ages 0 to 5 whose primary care type was not parental care (for all other access indicators)	1,167	3,518,726	190,275	66.4%

*Note.* In addition to the households listed above, between 12 and 85 (unweighted) households were missing information on *choice*, *options*, and the preference-based access indicators, and could not be included in the analytic sample. Given that access indicators were analyzed separately, a different amount of missing data is present in each analysis. Altogether, 1.0–5.0 percent of the sample were excluded due to missing data.

*Source.* Authors' analysis of the NSECE

**ANALYTIC APPROACH FOR HOUSEHOLD ANALYSES**

**Research Question 1:** To determine whether low-income and higher-income households had different levels of ECE access, we calculated the weighted percentage of households endorsing each access indicator separately for low-income and higher-income families. A design-based F statistic<sup>b</sup> was used to determine whether a difference between low- and higher-income households was statistically significant.

**Research Question 2:** To determine whether the income-based patterns observed in Research Question 1 varied by child age, we estimated the models for Research Question 1 separately for infants/toddlers and preschoolers.

**Research Question 3:** The last question asked if income-based differences in ECE access were present in some CCDF profiles but not in others. We estimated separate logistic regressions within each of the five CCDF profiles. Each model regressed one ECE access measure on household income status. Control variables included child age, community poverty density and urbanicity, and household race and Hispanic ethnicity. We present predicted probabilities of access by income within CCDF profile. These predicted probabilities explain the estimated percentage of families with access on each indicator, accounting for the influence of control variables.

TABLE 3. CCDF STATE POLICY PROFILE DESCRIPTIONS WITH STATES LISTED IN 2011

Description
<p><b>Profile 1: Serving the neediest families (n=16)</b> <i>AL, AZ, DC, FL, KS, KY, MD, MI, MS, MO, NJ, NM, OK, SC, UT, WV</i></p> <p>These states focus on providing care to only the neediest families, characterized by the lower income eligibility threshold. Families are expected to contribute to the cost of care, although copayments are about average compared with other states. Additionally, about half of the states in this profile have policies that allow families to continue receiving subsidized care when their household income increases, to a certain threshold. These states are likely to reimburse center-based care at lower rates than states in other profiles, and are unlikely to increase reimbursement rates for higher-quality care.</p>
<p><b>Profile 2: Larger benefits for fewer families, emphasizing access to high-quality care (n=6)</b> <i>CT, IN, MN, NE, OH, PA</i></p> <p>These states cover a larger proportion of the cost of care for families receiving subsidies, as evidenced by center reimbursement rates that are higher than average, and copayment rates that are below average. However, states in this profile appear to be adopting these relatively generous provisions at the cost of serving only the neediest of families (i.e., having a lower income eligibility threshold, and not covering care once a family's financial situation has improved). These states do not incentivize centers to increase their quality by offering a tiered reimbursement structure, although the higher-than-average reimbursement rate may encourage higher-quality centers to serve subsidized children.</p>
<p><b>Profile 3: More inclusive income guidelines with an emphasis on access to high-quality care, at increased cost to families (n=6)</b> <i>ME, MA, NY, OR, VA, WI</i></p> <p>These states have an above-average income eligibility threshold, allowing more families to be eligible for child care subsidies. These states also allow families to continue receiving subsidized care when their household income increases, up to a certain threshold. These states tend to reimburse center care at rates that are higher than average; however, they also require a copayment that is slightly higher than average. All these states reimburse higher-quality care at higher rates than lower-quality care, potentially allowing families greater access to higher-quality care.</p>
<p><b>Profile 4: More inclusive income guidelines, with the largest cost to families (n=10)</b> <i>CO, DE, GA, HI, ID, LA, NC, ND, TN, TX</i></p> <p>With a higher-than-average income eligibility threshold, these states are likely to allow families with higher incomes to access subsidized care. All of these states allow families to continue receiving subsidies as their income increases, up to a certain threshold. Possibly to cover a greater number of families, these states typically reimburse centers at lower rates than states in other profiles. These states also did not emphasize quality as much as others: The center reimbursement rate is lower than average, and only about half of the states in this profile have a tiered reimbursement system to incentivize quality.</p>
<p><b>Profile 5: More inclusive income guidelines, incentivizing providers to offer high-quality care at a low cost to families (n=13)</b> <i>AK, AR, CA, IL, IA, MT, NV, NH, RI, SD, VT, WA, WY</i></p> <p>These states focus on offering higher-quality care with minimal family contribution. With higher income thresholds, more families are able to apply for child care subsidies, and they can stay covered as their income increases. Although reimbursement rates in these states are just average (compared to other profiles), most states in this profile reimburse higher-quality care at higher rates. They have lower-than-average copayment rates, which reduces the financial burden on families.</p>



## ANALYSES RELATED TO ECE CENTERS: SAMPLE AND MEASURES

### SAMPLE

We used the NSECE center-based provider (CB) survey to address research questions 4 and 5. The CB survey was conducted with center directors, or other knowledgeable respondents, from 8,265 centers. In each center, a classroom was randomly selected for the purpose of measuring classroom-level quality indicators, such as the education of classroom staff. We restricted our sample to centers that served at least one child ages 0 through 5, not yet in kindergarten, for which the randomly selected classroom served at least one child younger than 6 years old. See Table 4 for sample sizes after accounting for missing data.

**TABLE 4. ANALYTIC SAMPLE FOR CENTER-BASED PROVIDERS, BY TYPE OF CENTER**

	Unweighted N	Weighted N	S.E.	Percent
<b>Total Analytic Sample</b>	<b>6,221</b>	<b>103,416</b>	<b>4,114</b>	<b>--</b>
1. Centers with paying children and no subsidized children, use public funds	2,038	33,874	2,212	33%
2. Centers with at least one subsidized child, use public funds	843	10,327	1,055	10%
3. Centers with paying children and no subsidized children, do not use public funds	1,973	38,710	2,108	37%
4. Centers with at least one subsidized child, do not use public funds	1,367	20,505	1,440	20%

*Note.* "Public funds" refers to funding from Head Start, state pre-K, and/or a school sponsorship.

*Source.* Authors' analysis of the NSECE

### MEASURES

**CENTER TYPE.** Four types of centers were identified, based on their public funding status (i.e., Head Start, public pre-K, and/or school sponsorship) and whether they currently served any subsidized children. See Table 4 for details.

**ECE QUALITY.** Eleven indicators of quality were measured on the CB survey and selected by the study team for analysis (see Table 5). Centers earned points for each quality indicator present; some quality indicators were weighted more heavily. Table 5 shows the points assigned to each quality indicator. See Appendix C for details on the validation of this overall quality score.

**TABLE 5. QUALITY INDICATORS USED TO CALCULATE AN OVERALL ECE QUALITY SCORE**

Quality Indicators	Points associated with the quality indicator
Program has an overall quality rating	3 points
CB respondent has a 2- or 4-yr degree	2 points: 2-yr degree 3 points: 4-yr degree
CB respondent received professional development or other training on working with young children in the past 12 months	1 point
At least one teacher or aide in the randomly selected classroom has a 2-year degree or higher	6 points
At least one teacher or aide in the randomly selected classroom has some form of certification from a college or university to teach young children, or as a special education or elementary school teacher	1 point
Center helps children and their families get developmental assessments	1 point
Center helps children and their families get therapeutic services such as speech therapy, occupational therapy, or services for children with special needs	1 point
Center's turnover rate was less than 20% over the past 12 months	1 point
Center has at least one specialist working in the program, including language specialists, those who take care of children with special needs, or those who teach English as a second language	1 point
Center provides staff with funding or paid time off to participate in a college course or off-site training	1 point
Center provides mentors, coaches, or consultants who visit and work with staff in their classrooms	1 point
<b>Total possible points</b>	<b>20 points</b>

**ANALYTIC APPROACH FOR CENTER ANALYSES**

**Research Question 4:** To determine whether ECE centers that served at least one subsidized child were similar in quality to other ECE centers, we ran a regression analysis in which center type predicted the overall quality score. We controlled for community characteristics (poverty density, urbanicity) and the age of the youngest child in the randomly selected classroom to account for the fact that classrooms with older children may have better-educated staff. We present the predicted quality scores by type of center, accounting for the control variables.

**Research Question 5:** This question asked whether ECE centers that served subsidized children were similar in quality to other types of centers in some CCDF profiles, but not in others. We estimated separate logistic regressions within each CCDF profile, predicting ECE quality from type of center; thus, five separate regression analyses were conducted. The same control variables from Research Question 4 were included. We present the predicted quality scores by type of center, accounting for the control variables.

# Results

## HOUSEHOLD ANALYSES

Findings for Research Question 1 are presented in Table 6. Among households using nonparental care for the target child, fewer low-income families than higher-income families used center-based care as the primary care type (43% vs. 54%). More low-income than higher-income families used family, friend, and neighbor care as their primary care type (45% vs. 31%).

Additionally, fewer low-income families reported having a choice of care type (66% vs. 84%) and considering multiple ECE options (66% vs. 75%) when searching for care. There were no differences in any preference-based access variables by income.

Overall, households tended to use a type of care that met their preferences. Nearly all children were in a type of care that met parents' preferences for nurturing care, but less than three-quarters of children were in a type of care that met parents' preferences in terms of affordability.

**TABLE 6. ACCESS INDICATORS BY LOW-INCOME AND HIGHER-INCOME FAMILY STATUS**

Access Indicator	Percentage of Households Reporting this Access Indicator		F-test
	At or below 85% SMI	Above 85% SMI	
Primary care type: center-based care	43%	54%	7.5**
Primary care type: family, friend, and neighbor care	45%	31%	10.7**
Parents had a choice when searching for care	66%	84%	27.5***
Parents considered multiple ECE options when searching for care	66%	75%	4.8*
<b>Type of care used for primary care type met parent preferences in terms of:</b>			
Nurturance	88%	92%	1.8
Helping child be ready for school	78%	84%	2.6
Teaching children how to get along with other children	78%	78%	0.0
Safety	89%	92%	2.11
Affordability	65%	70%	1.3
Flexibility	77%	84%	3.1

Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05; SMI = state median income

Source. Authors' analysis of the NSECE

Findings for Research Question 2 are presented in Table 7. Within both age groups (infant/toddlers and preschoolers), the income-based differences shown in Table 6 remained, with two exceptions:

- For families searching for care for a preschool-aged child, higher-income families were more likely to use center-based care as their primary care type, compared to low-income families (72% vs. 56%). This was not the case for infant/toddler care.
- For families searching for care for an infant or toddler, higher-income families were more likely to use a primary care type that met their preferences in terms of nurturing care, compared to low-income families (96% vs. 88%). This was not the case for preschoolers.

Findings for Research Question 3 are presented in Figures 1–9. Below, we describe results for different access indicators. Findings are described in terms of disparity (a significant difference between low- and higher-income families, such that lower-income families have less access) and equity (no significant difference between low- and higher-income families, such that access is similar between both groups).

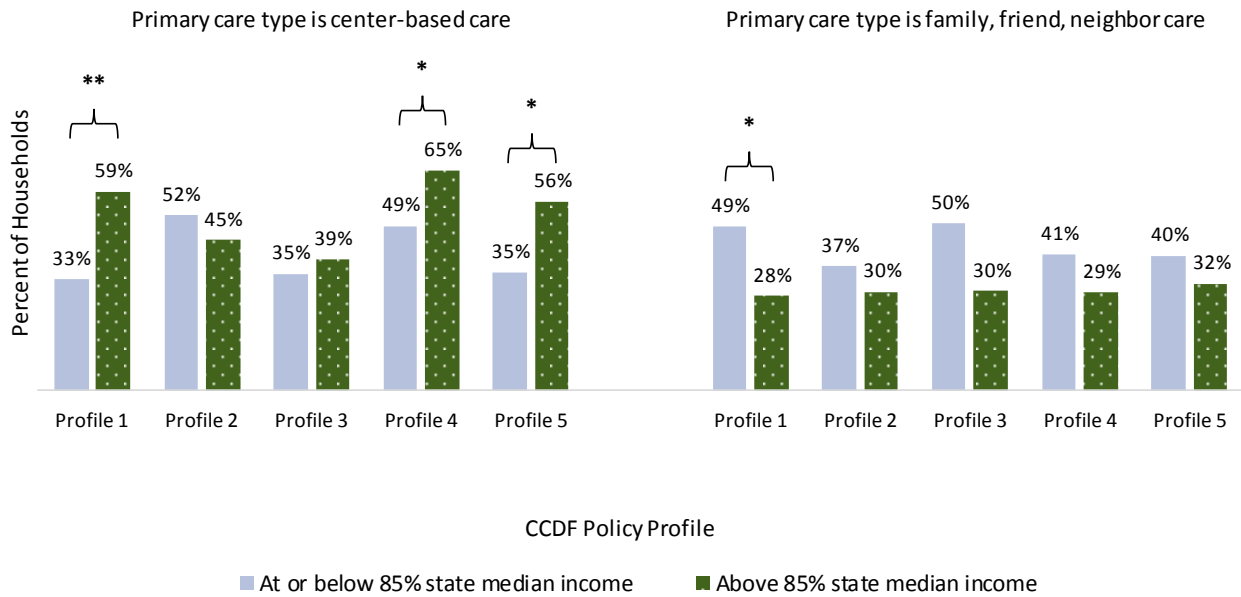
**TABLE 7. ACCESS INDICATORS BY LOW-INCOME AND HIGHER-INCOME FAMILY STATUS WITHIN AGE**

	Infants and Toddlers (ages 0–2)			Preschoolers (ages 3–5)		
	Percentage of households reporting this access indicator		F-test	Percentage of households reporting this access indicator		F-test
Access	At or below 85% SMI	Above 85% SMI		At or below 85% SMI	Above 85% SMI	
Primary care type: center-based care	31%	43%	3.8	55%	72%	7.2 **
Primary care type: family, friend, and neighbor care	52%	37%	2.3*	37%	21%	8.8 **
Parents had a choice when searching for care	65%	81%	11.4 ***	67%	88%	19.3** *
Parents considered multiple ECE options when searching for care	69%	76%	2.4	62%	72%	2.7
<b>Primary care type met parent preferences in terms of:</b>						
Nurturance	87%	96%	2.8 *	89%	85%	0.7
Helping child be ready for school	77%	84%	1.61	78%	83%	0.9
Teaching child how to get along with other children	77%	79%	0.2	80%	77%	0.2
Safety	88%	94%	3.2	89%	89%	0.0
Affordability	67%	76%	2.6	64%	59%	0.3
Flexibility	76%	85%	3.1	77%	82%	0.6

Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05; SMI = state median income

Source. Authors' analysis of the NSECE

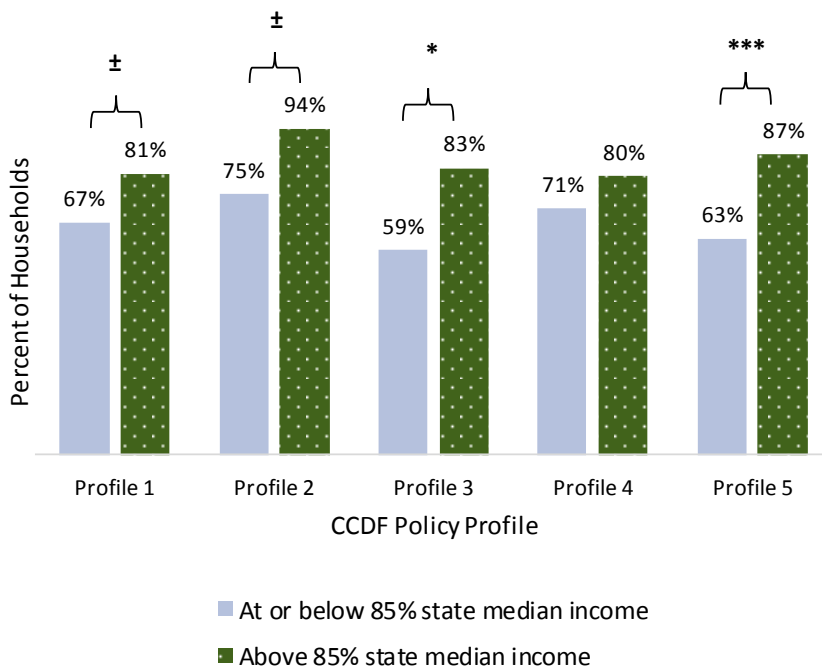
**FIGURE 1. PERCENTAGE OF HOUSEHOLDS USING CENTER-BASED CARE OR FAMILY, FRIEND, AND NEIGHBOR CARE AS THE PRIMARY CARE TYPE FOR THE RANDOMLY SELECTED CHILD, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE

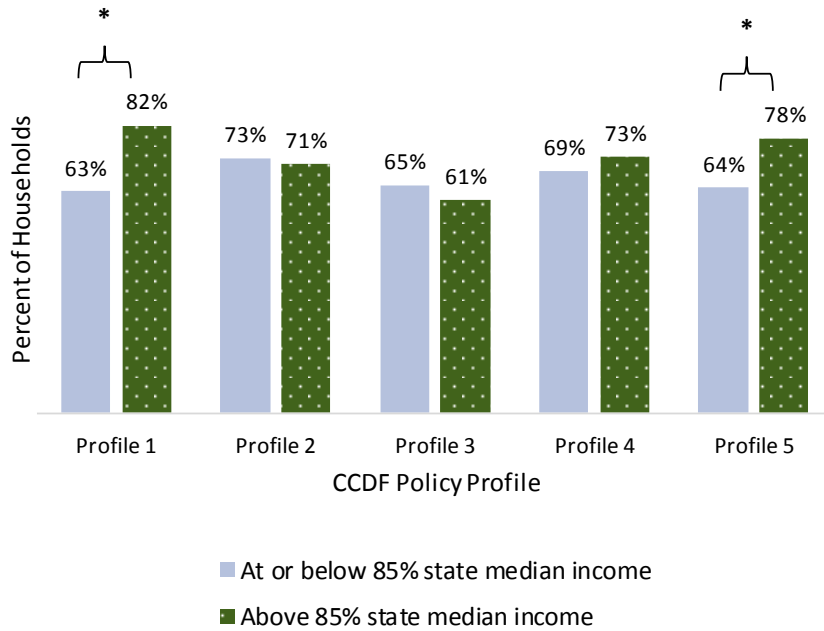
**FIGURE 2. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PARENT REPORTED HAVING A CHOICE WHEN SEARCHING FOR CHILD CARE, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE

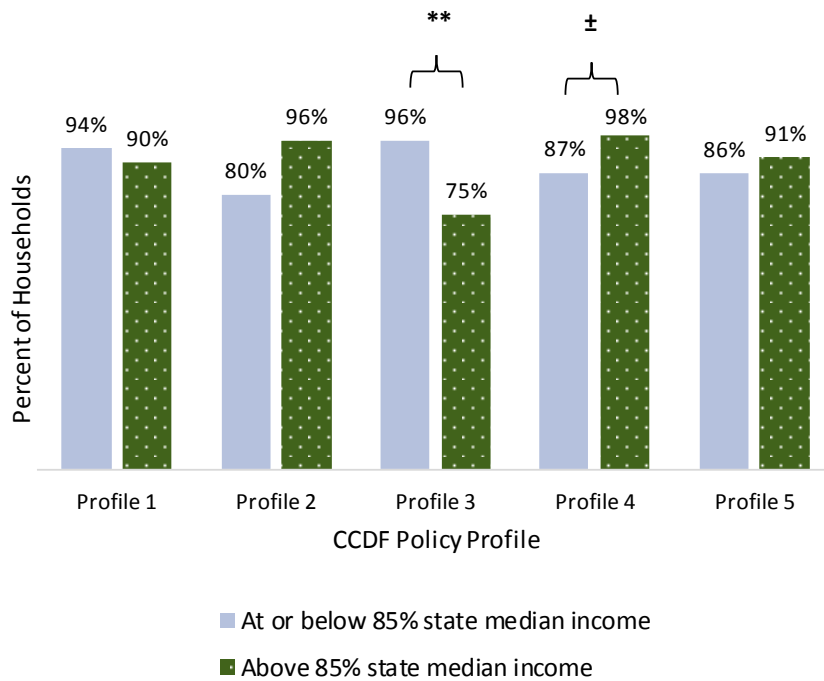
**FIGURE 3. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PARENTS CONSIDERED MULTIPLE OPTIONS WHEN SEARCHING FOR CARE, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE

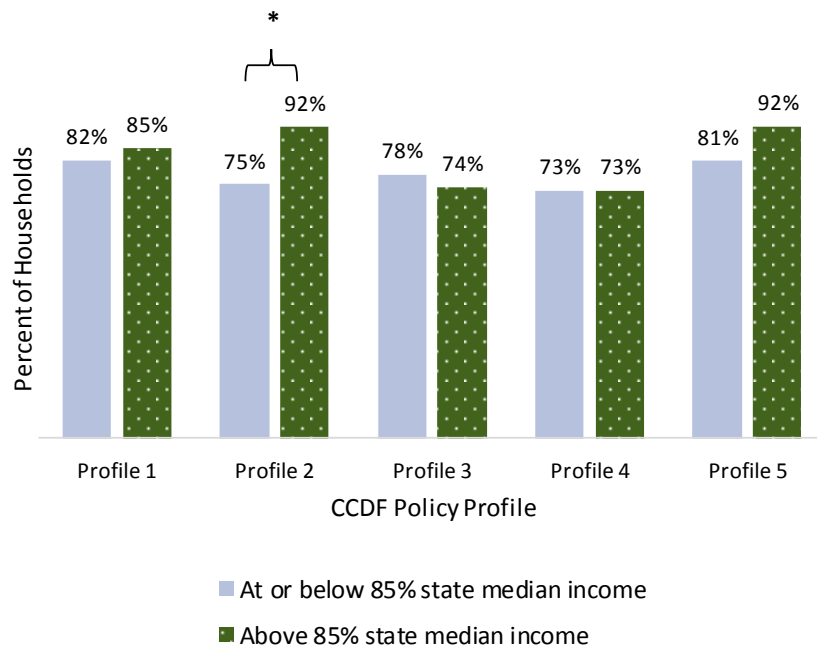
**FIGURE 4. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE MET PARENT PREFERENCES IN TERMS OF NURTURANCE, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

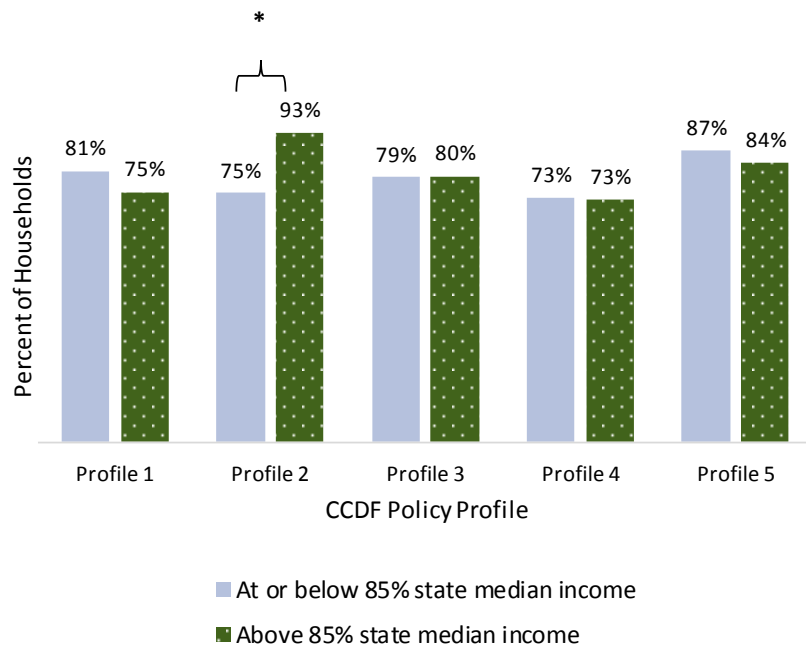
Source. Authors' analysis of the NSECE

**FIGURE 5. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE MET PARENT PREFERENCES IN TERMS OF HELPING THE CHILD BE READY FOR SCHOOL, BY CCDF POLICY PROFILE**



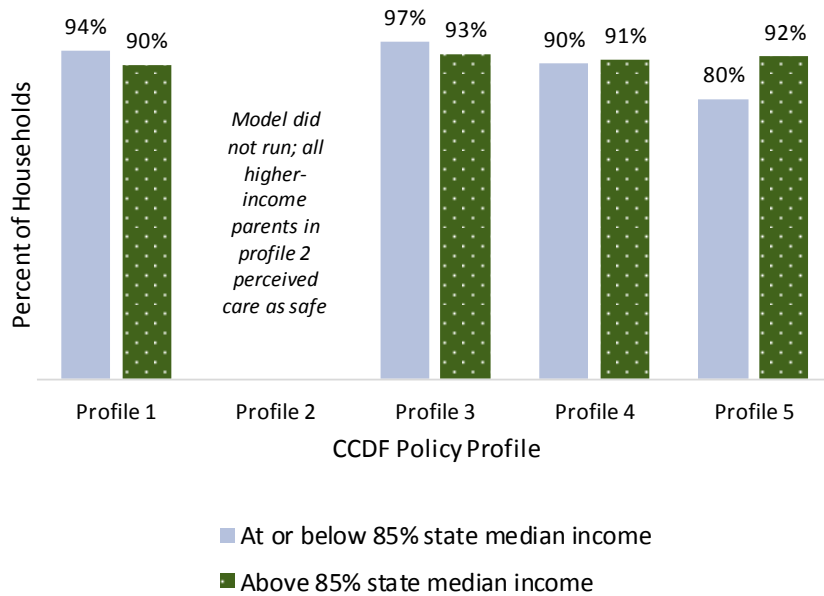
Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.  
 Source. Authors' analysis of the NSECE

**FIGURE 6. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE MET PARENT PREFERENCES IN TERMS OF TEACHING THE CHILD HOW TO GET ALONG WITH OTHER CHILDREN, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.  
 Source. Authors' analysis of the NSECE

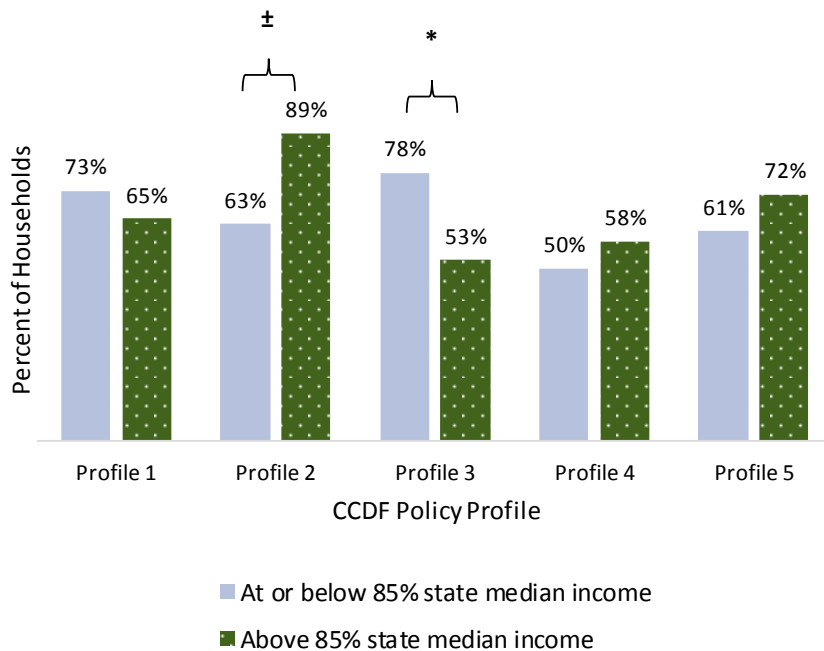
**FIGURE 7. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE WAS PERCEIVED BY THE PARENT TO BE SAFE, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE

**FIGURE 8. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE MET PARENT PREFERENCES IN TERMS OF AFFORDABILITY, BY CCDF POLICY PROFILE**

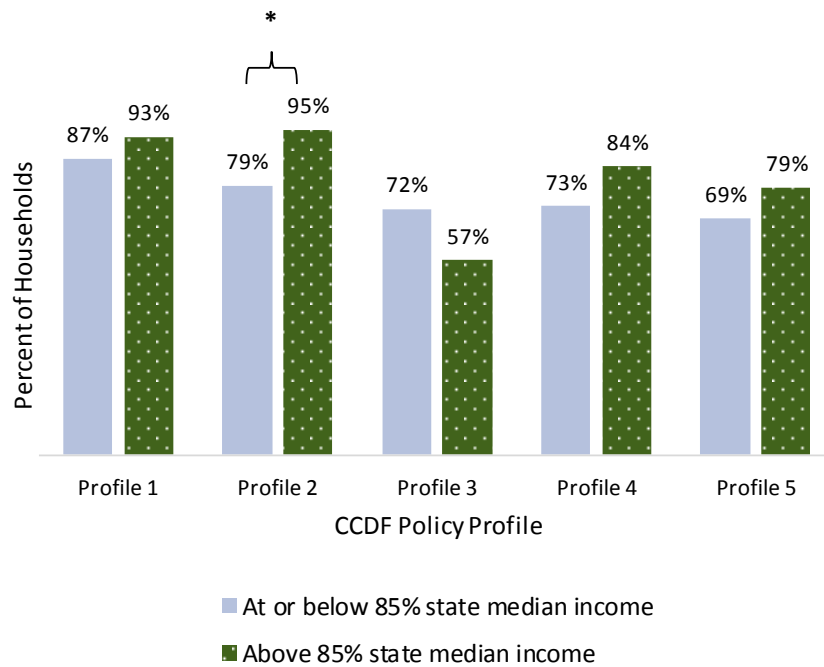


Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE



**FIGURE 9. PERCENTAGE OF HOUSEHOLDS FOR WHICH THE PRIMARY CARE TYPE MET PARENT PREFERENCES IN TERMS OF FLEXIBILITY, BY CCDF POLICY PROFILE**



Notes. \*\*\* p<0.001, \*\* p<0.01, \*p<0.05, ±p<0.10. Analyses controlled for child age, community poverty density and urbanicity, and household race and Hispanic ethnicity.

Source. Authors' analysis of the NSECE

**USE OF CENTER-BASED CARE.** Profile 2 stood out for exhibiting the greatest equity in families' use of center-based care: About half of both low- and higher-income families in Profile 2 used center-based care (52% and 45%, respectively). In Profile 4, low-income families used center-based care at a lower rate than higher-income families (49% and 65%, respectively), but this disparity may reflect the fact that higher-income families in Profile 4 used center-based care at an exceptionally high rate. While there was equity in Profile 3, both low- and higher-income families used center-based care at very low rates (less than 40%).

In contrast, Profile 1 and Profile 5 showed a pattern of disparities in use of center-based care, with higher-income families more likely than low-income families to use center-based care for their primary type.

**USE OF FAMILY, FRIEND, AND NEIGHBOR CARE.** In all profiles except Profile 1, usage of family, friend, and neighbor care did not differ significantly by income. In Profile 1, however, a higher proportion of low-income families used family, friend, and neighbor care as their primary care type compared with higher-income families. The highest use of family, friend, and neighbor care was in Profile 3.

**PARENTS' REPORT OF HAVING A CHOICE.** In Profile 4, low- and higher-income families reported similarly high rates of having a choice of care, resulting in greater equity in choice for families in this profile. In profiles 1, 2, 3, and 5, a smaller percentage of low-income than higher-income families felt that they had a choice when searching for care.

**PARENTS' REPORT OF HAVING OPTIONS.** In Profiles 2, 3, and 4, low- and higher-income families were equally likely to have considered multiple options during the last search for care. In Profiles 1 and 5, higher-income families were more likely to have considered multiple options.

**USE OF A PRIMARY CARE TYPE THAT MET PARENTS' PREFERENCES.** Profiles 1 and 5 were the only profiles with equity across all preference-related indicators of access: low-income and higher-income families were equally likely to use a type of care that met their preferences.

Profile 4 was nearly as equitable as profiles 1 and 5. In Profile 4, low-income families were less likely than higher-income families to have their nurturance preference met, yet their other preferences were met at a similar rate to higher-income families.

In contrast, there were multiple income-based disparities in Profile 2. Compared to higher-income families, low-income families' preferences for educating, socializing, affordability, and flexibility were less likely to be met. Every higher-income parent noted that the primary care type was safe; the lack of variation for this group on this variable prohibited our ability to estimate predicted probabilities, but provides information regarding the potential disparity to access that meets parents' preference for safe care.

Interestingly, in Profile 3, low-income families were more likely than higher-income families to have their preferences met in terms of affordability and nurturance. These families were significantly *less likely* to have had a choice in their child care search, so low-income families in Profile 3 may rely on less formal child care options; indeed, both low- and high-income families in Profile 3 had low rates of center-based care usage, relative to other profiles.

**SUMMARY.** Taken together, findings suggest that Profile 4 may offer the greatest equity from the perspective of the family. Profile 4 stood out as offering greater equity in type of care (although low-income families were less likely than higher-income families to use center-based care, center-based care was still common among low-income families), as well as other indicators of access: parents' likelihood of considering multiple options and having a choice during their most recent search, and having their preferences for care type met. Profile 4 was characterized by policies that may allow states to spread subsidy funds across more families: an income eligibility threshold that was not overly restrictive, a low reimbursement rate, and a large family copayment.

In contrast, Profile 1 had the greatest income-based disparity in terms of choice; options; use of center-based care; and use of family, friend, and neighbor care. Policies in this profile focus on serving the neediest families, with lower-than-average reimbursement rates and average copayments. Although subsidies may reach many very-low-income families in these states, parents may still have limited options for care due to the poor reimbursement rates for providers (without a large copayment to make up for the low reimbursement rate).

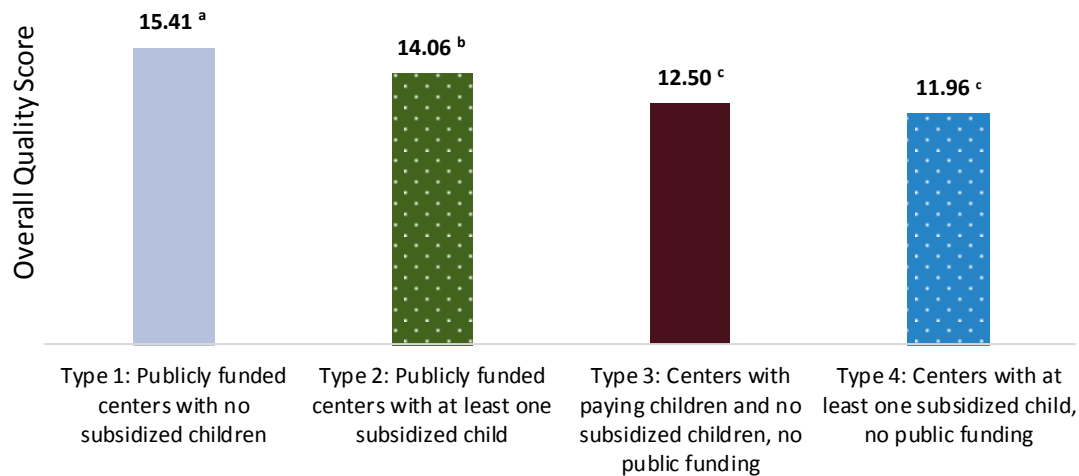
## ECE CENTER ANALYSES

Findings for Research Question 4 are presented in Figure 10. Centers that received at least some public funding had the highest quality. Centers without public funding—especially those serving subsidized children—had lower quality. Among centers without public funding, centers serving subsidized children had a lower average quality score than centers without subsidized children; however, the difference was not statistically significant.

Research Question 5 asked whether, in certain CCDF profiles, centers serving subsidized children were similar to those that did not serve subsidized children. Policy profiles characterized by relatively high reimbursement rates, as well as tiered reimbursement, might be especially effective at attracting high-quality programs to the subsidy program. Subsidy reimbursement rates that approach the rates charged to private-paying families may also allow centers that serve subsidized children to put additional money into quality improvement efforts (e.g., reducing child-staff ratios and hiring higher-qualified staff). In addition, higher-quality centers might be more likely to participate in the subsidy program when there is a higher income eligibility threshold, if subsidized families with slightly higher incomes obtain care in neighborhoods with higher-quality programs. Findings for Research Question 5 are presented in Figure 11.

**IN WHICH PROFILES ARE SUBSIDY-RECEIVING CENTERS SIMILAR IN QUALITY TO PUBLICLY-FUNDED CENTERS?** Profile 3 stood out as the only profile in which programs that served subsidized children (Type 4 and Type 2) had quality scores on par with centers that received public funding and did not serve subsidized children (Type 1). Profile 3 was characterized by the highest reimbursement rate across all profiles, as well as its use of tiered reimbursement. Profile 3 also had the highest income eligibility threshold across all profiles, which means that families from a broader income range were eligible for subsidies.

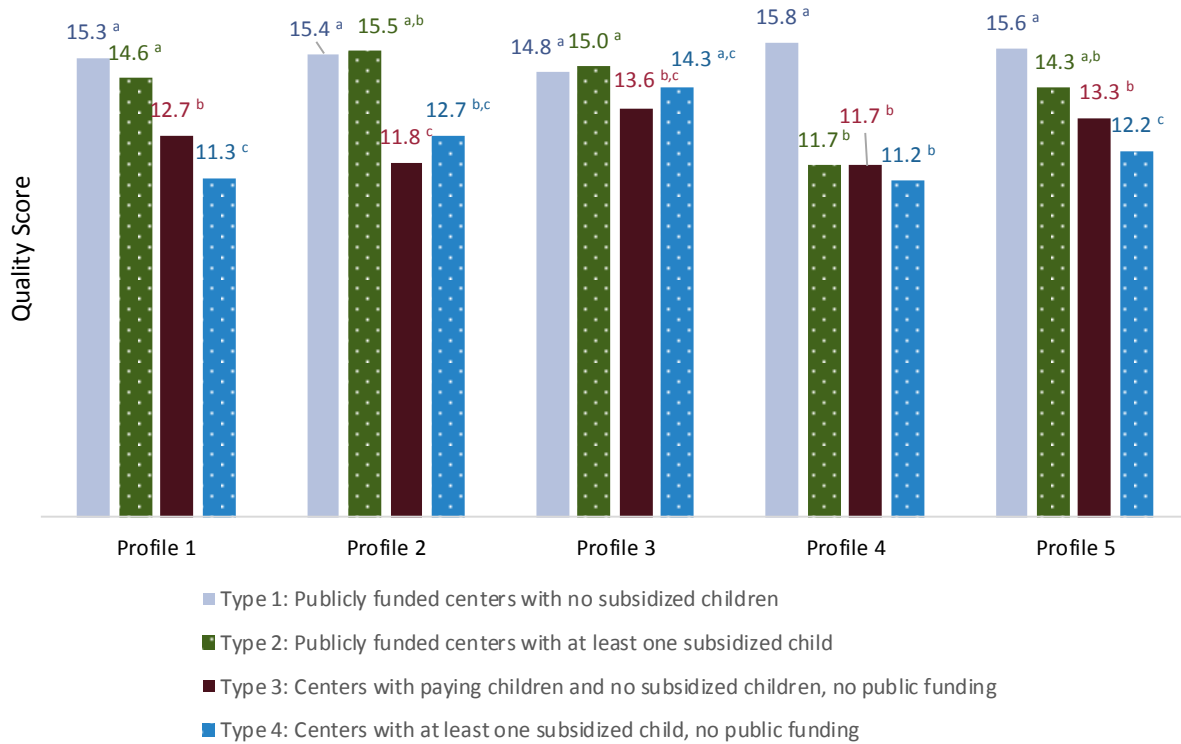
**FIGURE 10: OVERALL QUALITY SCORE FOR ECE CENTERS BY FUNDING SOURCE.**



*Notes.* Estimates with different letters are significantly different at  $p < .05$ . Public funding refers to any funding (in part or in whole) from Head Start, public pre-K, or a school sponsorship. Results are from a regression in which the quality score was regressed on type of program, controlling for community urbanicity, community poverty, and age of the youngest child in the randomly selected classroom.

*Source.* Authors' analysis of the NSECE

**FIGURE 11: OVERALL QUALITY SCORE FOR ECE CENTERS BY CCDF POLICY PROFILE AND CENTER FUNDING.**



*Notes.* A separate regression was estimated for each profile. Groups with different letters have significantly different mean quality scores at  $p < .05$  within that profile. Public funding refers to any funding (in part or in whole) from Head Start, public pre-K, or a school sponsorship. Marginal means control for community urbanicity, community poverty density, and age of the youngest child in the randomly selected classroom.

*Source.* Authors' analysis of the NSECE

**ARE SUBSIDY-RECEIVING CENTERS SIMILAR IN QUALITY TO OTHER COMMUNITY-BASED CENTERS?** It is also informative to ask whether, among centers with no public funding, programs that serve subsidized children (Type 4) are similar in quality to those that do not (Type 3). This was the case in profiles 2 and 4.

Profile 2 (*larger benefits for fewer families, emphasizing access to quality care*) was characterized by the second-highest average reimbursement rates, but a very low income eligibility threshold and no tiered reimbursement. Without a tiered reimbursement system, programs may not be incentivized to improve their quality to the point of matching the quality offered by publicly funded programs.

Profile 4 (*more inclusive income guidelines, with the largest cost to families*) had the second-lowest average reimbursement rates; however, the reimbursement rate only reflects one piece of the child care payment to the provider. The second piece, the family copayment, was extremely high in Profile 4. As the center receives both the reimbursement and the copayment, the source of the payment is not as important to the center as the amount of payment.

## Implications for Policy and Research

**INCOME-BASED DISPARITIES IN ACCESS TO ECE.** This study looked at access to early care and education for low-income families from two perspectives: the household and the center-based providers.

Low-income families using nonparental care were less likely than higher-income families to use center-based care as their child's primary care type, especially for their preschoolers. Furthermore, low-income families were less likely to feel that they have a choice when they make a child care decision, and considered fewer options during their searches. While free center-based ECE options have increased in recent years—with options such as state pre-K, Head Start, and Early Head Start—these do not reach all low-income families who might benefit from them. Furthermore, the lack of choice and options suggests that low-income families could benefit from subsidies, such as CCDF, if they allow the family to consider multiple options to find care that meets their needs (e.g., flexible scheduling).

For child care centers, we found that centers serving subsidized children do not offer the same quality offered by public programs such as Head Start and state Pre-K, or even other community-based programs. The CCDBG reauthorization of 2014 included requirements for providers serving subsidized children; future research is needed to understand how the new requirements impact quality.

**CCDF POLICIES AND ECE ACCESS.** By looking at both households and centers, this study was able to show how profiles of subsidy policies are associated with family access to ECE and the availability of high-quality centers that serve CCDF subsidies. Profile 4 showed the greatest equity between low- and high-income families in terms of type of care used, as well as the use of a care type that met parents' preferences. Profile 4 was characterized by more inclusive income guidelines, with the largest cost to families, which may mean that more families could access subsidies.

Analyses of center-based providers in Profile 4 showed that those serving subsidized children had the lowest quality, relative to similar programs in other profiles. In other words, while inclusive income eligibility thresholds and less funding toward reimbursement rates may allow more families to access care, these policies may not encourage centers to increase their quality or encourage high-quality centers to participate in the subsidy program.

Only Profile 3 had center-based programs that were similar in quality to public programs. One possible explanation is that Profile 3 also had tiered reimbursement and a high income eligibility threshold, which could encourage higher-quality programs to participate in the subsidy program.


In conclusion, the results depict the challenge to state subsidy programs of balancing the overall number of families served with the quality of care that can be used with a subsidy.

**STUDYING PACKAGES OF POLICIES.** This study shows the importance of considering policies as packages, rather than as individual policies. Looking at a single subsidy policy, such as higher reimbursement rates, does not accurately capture the full experiences of low-income families or child care providers. Researchers may find it helpful to look at packages of policies to understand how states reduce benefits in one area (e.g., the maximum family income eligible for subsidy) if they wish to offer larger benefits in another (e.g., reimbursement rates to providers). By considering packages of policies, researchers can more accurately capture the environment that families and service providers experience under a block grant.

**LIMITATIONS AND FUTURE DIRECTIONS.** CCDF policies are only part of the picture when it comes to ECE access for low-income families. This study did not account for other state efforts to increase quality, such as licensing requirements that set a higher minimum level of quality<sup>21</sup> or states' funding for public pre-K. In addition, some states offer local subsidy programs in addition to CCDF subsidies. Future research must account for the variety of efforts happening in states, perhaps with more in-depth qualitative research to fully understand the interplay between different policies.

Another limitation of this study is that the NSECE was designed to be representative of families and ECE centers on a national level, but not on a state level. After parsing the sample for our analyses (e.g., households of a certain income level in a certain policy profile), some samples were quite small. As a result, we may not have had sufficient power to detect disparities in access, even if they were there. Future research must use larger samples to better understand disparities between low- and higher-income families. Longitudinal administrative datasets that are already collected by some states will be perfectly suited to these questions.



 This course was developed from the public domain document: Access to Early Care and Education for Disadvantaged Families: Do Levels of Access Reflect States' Child Care Subsidy Policies? Child Trends (2018) Office of Planning, Research and Evaluation, the Administration for Children and Families, or the U.S. Department of Health and Human Services.