ABSTRACT

Title of Dissertation: FAMILIES WITH LOW INCOMES AND THE SEARCH FOR CHILD CARE: AN EXPLORATION OF FACTORS INFLUENCING SEARCH ACTIONS AND CHOICES

Kathryn Suzanne Watts, Doctor of Philosophy, 2017

Dissertation directed by: Dr. Elisa Klein, Associate Professor Department of Human Development and Quantitative Methodology

Quality child care appears to have a positive effect on the school readiness of children with low incomes, and child care subsidy programs encourage parents to make informed decisions about choosing quality child care. However, research on child care decision making suggests that most parents do not consult with resources that are available to support informed decisions. The current study utilized a subsample of families with low incomes from the National Survey of Early Care and Education to increase understanding of child care decision making, focusing on search actions and choices of care. Guided by an accommodation model of child care decision making, the study examined: (1) how parents in families with low incomes search for and choose child care; (2) whether there are differences in the searches and choices of families receiving child care subsidies and

other families with low incomes; and (3) how child care preferences and priorities, family and child factors, and community factors relate to searches and choices. Results indicated that families with subsidies and other families with low incomes largely searched for care in similar ways, although families with subsidies were more likely to choose a center-based provider and less likely to choose a known home-based provider. Logistic regression analyses revealed that parents' preferences and priorities regarding child care were related to search actions but were mostly unrelated to choices, and that the reason for the child care search was significantly associated with both search actions and choices. Certain family, child, and community factors were found to be related to child care search actions and choices, most notably parental immigration status and living in a rural area. Implications and future directions for research, measurement, and policy are discussed.

FAMILIES WITH LOW INCOMES AND THE SEARCH FOR CHILD CARE: AN
EXPLORATION OF FACTORS INFLUENCING SEARCH ACTIONS AND
CHOICES

by

Kathryn Suzanne Watts

Advisory Committee:
 Dr. Elisa Klein, Chair
 Dr. Elaine Anderson
 Dr. Brenda Jones Harden
 Dr. Christy Tirrell-Corbin
 Dr. Jerry West

Dedication

To Julia Lauren Watts

Acknowledgements

First and foremost, I would like to thank my advisor, Elisa Klein, for her guidance and support, for sticking with me, and for helping me to finish this project. I am so very appreciative of her help, but I am even more appreciative of her kindness.

Next, I would like to express my sincere gratitude to the other members of my committee, Elaine Anderson, Brenda Jones Harden, Christy Tirrell-Corbin, and Jerry West, for their insightful comments and suggestions. It was an honor and pleasure to work with this group.

I am very grateful for my colleagues at the National Center on Subsidy Innovation and Accountability, who have been incredibly supportive and encouraging. I am blessed to work with such a wonderful and talented team.

I thank my family, who always believed that I would finish this, even when I did not. I thank my daughter for being my number one fan and my favorite distraction from dissertation work.

My husband Stuart Watts has been my rock throughout it all. I could not have done this without his love, support, and patience. I am thankful for his ability to always make me laugh and to successfully bring me back to reality when necessary. I look forward to starting our post-dissertation life together.

Finally, I thank Molly for the kisses and tail wags, and Becky for keeping my lap warm.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Most children in the United States experience some form of regular nonparental care before formal school entry. About half of infants and toddlers and three-quarters of preschoolers are in one or more child care arrangements (Ruzek, Burchinal, Farkas, & Duncan, 2014; Votruba-Drzal, Coley, Koury, & Miller, 2013). For many families with low incomes, child care subsidies allow parents to be able to afford child care while they work (Marshall, Robeson, Tracy, Frye, & Roberts, 2013). The federal Child Care and Development Fund (CCDF), authorized by the Child Care and Development Block Grant (CCDBG), issues grants to states to administer their own subsidy programs. CCDF has dual objectives – first, to support parental employment and promote family self-sufficiency; and second, to increase child care program quality and increase the number of children from families with low incomes in high-quality settings (Pub. L. 113-186).

While there is an emphasis in CCDF on moving children from families with low incomes into high-quality care, CCDF is also committed to allowing parents to choose any legally-operating child care provider (CCDBG 658E(c)(2)(A); 45 CFR (98.30)). CCDF, through state efforts in providing consumer education, aims for parents to be able to make "informed decisions" about quality child care (CCDBG 658A(b)(3)). However, little is known about how families make child care decisions. While researchers have examined parents' child care preferences, priorities, and choices, comparatively few studies have considered the *search process* itself – and even fewer have specifically studied how families with low incomes search for and choose child care. What *is* known is that there appears to be a disconnect between many of the typical states' avenues for

consumer education about quality, and parents' child care decision making (e.g., Chaudry et al., 2011; Muenchow et al., 2013; Schwartz, Karoly, Le, Tamargo, & Setodji, 2014).

The purpose of my dissertation was to examine how parents with low incomes, including those receiving subsidies, search for and choose child care. The study utilized a large, national dataset of families to increase understanding of child care decision making. I examined how subsidy receipt; preferences and priorities related to care; and family, child, and community factors are each related to child care searches and choices.

Overview of Literature

My study was guided by the accommodation model (Meyers & Jordan, 2006), a theoretical framework for child care decision making. The accommodation model asserts that child care decision making is a dynamic process that is influenced by multiple, interacting social, cultural, and environmental factors. Parents must make tradeoffs – or accommodations – between their preferences for the ideal child care setting, and constraints that may keep them from utilizing that setting. The accommodation model has been applied to other studies on child care decision making (e.g., Coley, Votruba-Drzal, Collins, & Miller, 2014; Forry, Simkin, Wheeler, & Bock, 2013; Kim & Fram, 2009).

Child care subsidies in their current form were established in 1996, following passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA, Pub. L. 104-193). States receive block grants to administer subsidy programs, and have considerable flexibility in how they are operated, as long as they abide by federal CCDBG Act rules and CCDF regulations. Child care subsidies have proven to be effective in supporting parents' work and training efforts (e.g., Ahn, 2012; Blau & Tekin, 2007). For example, parents who receive subsidies report longer

employment spells, more work hours, and higher wages than nonrecipients (Crawford, 2006; Danziger, Ananat, & Browning, 2004). Child outcomes associated with subsidy receipt are less clear; research linking subsidy to child cognitive and social development has yielded mixed results (e.g., Forry, Davis, & Welti, 2013; Hawkinson, Griffen, Dong, & Maynard, 2013; Johnson, Martin, & Brooks-Gunn, 2013). These studies are limited in that none have considered the quality of the care received.

The CCDBG Act of 2014, which reauthorized CCDF, included new requirements for states in the areas of provider quality improvement the provision of consumer education on child care quality to parents receiving subsidies. Quality in child care is generally considered to be anything that promotes positive child development (Layzer & Goodson, 2006). There is no single definition of quality, and the concept is rarely operationalized in studies. However, quality is often described in terms of structural components (such as ratios, group size, and physical space) and process components (such as positive interactions, warm caregiving, and educational curriculum; Dowsett, Huston, Imes, & Gennetian, 2008; Hestenes et al., 2014).

Child care quality is associated with cognitive gains in early childhood (Ruzek, Burchinal, Farkas, & Duncan, 2014; Tran & Weinraub, 2006) and academic measures of school readiness at kindergarten entry (Auger, Farkas, Burchinal, Duncan, & Vandell, 2014; Li, Farkas, Duncan, Burchinal, & Vandell, 2013). The relation between quality and social outcomes is less well understood, although there is some research suggesting quality child care and positive social behaviors in early childhood are linked (NICHD Early Child Care Research Network, 2001; Peisner-Feinberg et al., 2001). Effects of quality child care have been demonstrated to continue into middle childhood (Belsky et

al., 2007; NICHD Early Child Care Research Network, 2005) and adolescence (Vandell et al., 2010). Although the associations tend to be small, they do provide evidence that quality care can play an important role in preparing children for formal schooling, and that the impacts of quality endure beyond early childhood. For children from families with low incomes, studies have suggested that quality child care in the early years may have a compensatory effect on both social and emotional outcomes (e.g., Burchinal, Kainz, & Cai, 2011).

It appears that quality early care can have a positive impact on later school readiness, and especially so for children from families with low incomes. Do parents choose high-quality care for their children? This is an important issue especially with respect to the provisions of CCDF, which places high importance on parental choice. It is known that subsidy receipt is associated with increased enrollment in formal care arrangements, particularly center-based care (Ertas & Shields, 2012; Ryan, Johnson, Rigby, & Brooks-Gunn, 2011). However, little research exists as to whether parents use subsidies to purchase high-quality care, and results are mixed in the studies conducted thus far (e.g., Johnson, Ryan, & Brooks-Gunn, 2012; Ryan et al., 2011; Weinraub, Shlay, Harmon, & Tran, 2005).

Research on child care decision making has typically focused on four separate components – preferences, priorities, choices, and search actions. Parents tend to be specific in their preferences; that is, they can clearly describe their ideal care arrangement. In addition, multiple studies have found that parents express similar preferences, preferring care that is warm, supportive, and caring, and that promotes school readiness (e.g., Chaudry et al., 2011; Shlay, 2010; Gamble, Ewing, & Wilhelm,

2009). Parents also generally give similar answers when asked about priorities, or what was important in choosing their child care arrangements. Convenience and cost are common driving factors (Burstein & Layzer, 2007; Chaudry et al., 2011; Forry, Isner, Daneri, & Tout, 2014; Starr et al., 2012). Many parents also describe choosing care because they trusted the provider, and because they believed the care was of high quality (Forry et al., 2014; Raikes, Torquati, Wang, & Shjegstad, 2012; Starr et al., 2012). Researchers have suggested, however, that there is a disconnect between preferences and priorities – while parents may have preferences for certain characteristics in a care arrangement, actual choices are more often driven by practical factors, such as cost and availability (Sandstrom & Chaudry, 2012).

Although parents cite largely similar preferences and priorities for care, these translate to a wide range of choices. More so than preferences or priorities, choice of care appears to be influenced by other factors such as the cost of care, parents' employment, social networks, and the child care market (Coley, Votruba-Drzal, Collins, & Miller, 2014; Davis & Connelly, 2005; Markowitz, Ryan, & Johnson, 2014). Certain family demographic characteristics, including immigration status, race, ethnicity, and child age, are also related to child care choices, although some researchers suggest that other factors may contribute to these differences (Liang, Fuller, & Singer, 2000; Yesil-Dagli, 2011).

Why do parents choose care that does not necessarily align with their preferences? Understanding the search experience may provide some answers to this question. The search experience consists of any actions that contribute to the choice of care, yet relatively little research has focused specifically on the search process. For state CCDF programs seeking to increase the numbers of children receiving subsidies in high-quality

care, the child care search is the ideal time to target consumer education efforts.

However, there is evidence to suggest that parents rely heavily on friends and family in

finding care (Arizona Early Childhood Development and Health Board [AZ], 2012;

Chaudry, Pedroza, & Sandstrom, 2012; Forry et al., 2014; NSECE Project Team, 2014;

Rothenberg, Goldhagen, Harbin, & Forry, 2013; Sandstrom, Giesen, & Chaudry, 2012;

Seo, 2003), and rarely utilize more formal sources, such as child care resource and

referral (CCR&R) agencies (Chaudry et al., 2011; Sandstrom et al., 2012; Seo, 2003).

State CCDF programs tend to focus their consumer education efforts, including consumer

education regarding quality, through these formal avenues. Many states have

implemented Quality Rating and Improvement Systems (QRISs), with goals of

improving provider quality and communicating quality information to families (National

Center on Child Care Quality Improvement [NCCCQI], 2013). Evaluation results have

shown that parents have little awareness of the quality information provided by QRIS

(Elicker, Langill, Ruprecht, Lewsader, & Anderson, 2011; Muenchow et al., 2013;

Schwartz et al., 2014; Starr et al., 2012; Yazejian, Iruka, Maxwell, & Robertson, 2012).

Statement of the Problem

Quality child care appears to have a positive effect on the school readiness of

children with low incomes. With this in mind, federal and state CCDF programs are

emphasizing quality through provider quality improvement initiatives, and through

consumer education efforts for parents receiving subsidies. However, research on child

care decision making suggests that many parents 1) experience constraints or challenges

in their child care searches, 2) are largely unaware of available consumer education and

quality information, and 3) depend heavily on social networks to find care.

The existing research on how parents search for care does not necessarily suggest that parents will choose a low-quality provider, or that they will be dissatisfied with their provider. It *does* appear, however, that most parents do not consult with resources that are available to support informed decisions. How can state programs effectively reach parents without a clear understanding of how parents with low incomes find child care?

Study Overview and Research Questions

My dissertation examined the child care searches and choices of families with low incomes. I used a nationally representative dataset to generate a sample of households who 1) had a child aged six or under who had not yet begun kindergarten at the time surveyed; 2) had searched for care for the child in the previous two years; and 3) had reported incomes at or below 200 percent of federal poverty guidelines. With this sample, I conducted an exploratory analysis of how parents in families with low incomes searched for, and chose child care, and whether searches and decisions were different for families who received subsidies. Additionally, I examined how a set of factors, including subsidy receipt; preferences and priorities; and family, child, and community characteristics related to child care searches and choices.

The study sample was drawn from the National Survey of Early Care and Education (NSECE), a cross-sectional and nationally representative study of parents' child care utilization (National Survey of Early Care and Education Project Team [NSECE], 2013). The NSECE consisted of a series of surveys targeting home-based child care providers, center-based child care directors and workers, and households with children. The NSECE sample was drawn from 755 geographical clusters representing the fifty states and the District of Columbia. While a wide variety of communities were

included, clusters in which at least 40 percent of households had incomes below 250

percent of the federal poverty guidelines were purposely overrepresented. A total of

11,629 households with 21,665 children under the age of 13 took part in the study, which

consisted of a phone questionnaire conducted between November 2011 and June 2012. A

more detailed description of the NSECE and the steps for creating the study sample are

included in Chapter 3.

My research was guided by the following questions:

Research Question 1: How do parents in families with low incomes search for

and choose child care? Specifically, how many and what types of providers are

considered, what are their methods of search, what information is sought about providers,

and what is the result of the search?

Research Question 2: Are there any differences in the child care searches and

choices between families receiving child care subsidies and other families with low

incomes?

Research Question 3: How do child care preferences and priorities, family and

child factors, and community factors relate to child care searches and choices?

Contributions

My study was conducted at a time of large changes to state subsidy programs.

With the passage of the CCDBG Act of 2014 and subsequent federal regulations, CCDF

has clearly prioritized the promotion of quality child care that supports positive

development. State administrators of subsidy programs are implementing new policies

and procedures to abide by federal laws and regulations, as demonstrated in their triennial

state plans. Many of these policies and procedures involve provider quality improvement and family outreach and consumer education regarding quality care.

My dissertation utilized a nationally representative sample to examine how parents with low incomes search for and choose child care. While there are other studies on child care searches, mine is the first to use a national sample of parents with low incomes. This is an important contribution to research on child care decision making. Furthermore, in the CCDF realm, this study has the potential to inform public policy regarding consumer education and outreach to families.

Limitations

While the NSECE provides extensive information on parents' child care choices, as with any secondary data analysis, the current investigation was restricted to the variables that were available. Consequently, there are some limitations that may have affected my ability to thoroughly examine and answer the research questions.

First, only a small number of parents with low incomes in the sample received subsidies. While I was able to examine subsidy receipt as a factor in the child care search, the sample size does not lend itself to a study of recipients of subsidies alone.

Second, parents reported whether they were *currently* receiving a subsidy. It was unknown if they conducted their child care search before or after they were authorized to receive a subsidy. It was also possible that some parents who were identified as nonrecipients *were* authorized at the time of their search, but were not recipients at the time of the survey.

Third, there was no specific way to determine the source of subsidy. In Chapter 3,
I outlined the steps I used to determine whether a parent in the sample received a subsidy,
but it is likely that some of the subsidies came from a source other than CCDF.

Fourth, the NSECE does not include information about the quality of the child
care arrangement selected by parents. Thus, it was impossible to conclude whether
parents with low incomes choose quality care. The current study focuses more on the
search process itself, as well and choices made from the perspective of the parents.
However, it would have been helpful to have had a more complete picture of the
arrangements that were selected.

Key Terms

Center-based care: Formal care based in a non-home setting, such as a school,
community center, day care center, or religious building.

Child care preferences: Characteristics that parents describe in their ideal child care
arrangement.

Child care priorities: Characteristics of a child care arrangement that parents prioritized,
or looked for when choosing care.

Child care quality: Characteristics of care that promote positive child development.
Child care quality is often described in terms of structural and process
components.

Child care subsidy: Child care services funded through CCDF for families with low
incomes. Child care subsidies may be provided through certificates or vouchers to
families, or through grants or contracts with providers. Families must meet certain
income and activity requirements (varying by state) to received subsidized care.

Subsidies cover part or all of the cost of care. In the NSECE, and in my analyses, "child care subsidies" also includes funding sources other than CCDF.

Families eligible for subsidies: Any family that meets the income or activity requirements for a child care subsidy in the state in which they reside. Most, but not all, families eligible for subsidies have low incomes.

Families with low incomes – Families with incomes at or below 200 percent of federal poverty guidelines.

Family child care home: Formal care provided in a home setting by a non-relative.

Formal care: A regulated child care arrangement. Most formal care is licensed, though some arrangements are exempt from licensing.

Home-based provider: A formal or informal child care setting based in the provider's home. In the NSECE, home-based providers are broken down into two groups: those the parent knew previously, and those the parent did not know previously. Family child care homes are considered home-based providers. Kith and kin care arrangements in the providers' homes are considered home-based providers as well.

Informal care: An unregulated child care arrangement.

Informed decisions: A decision by a family to use a specific child care setting that suits the family's needs and is of high quality.

Kith and kin care: An unregulated child care arrangement in which the provider is a family, friend, or neighbor. Care may take place in the family's home, or in the home of the provider.

Lead Agency: The state or territory entity responsible for administering and operating the CCDF program. Some Lead Agencies further delegate certain responsibilities to local agencies or contractors.

School readiness: Positive cognitive and social development as it relates to success in formal schooling.

State: A state or territory, in the context of administration of the CCDF program.

Chapter 2: Literature Review

I begin this chapter by describing the accommodation model (Meyers & Jordan, 2006), an integrated model of child care decision making and the theoretical framework of my study. I then provide an overview of the CCDF program and research related to child care subsidies, child care quality, and how the two relate. This is important for my study, as I examine child care searches and choices in the context of CCDF consumer education and efforts to support informed decisions about choosing child care. Finally, I review the literature on child care decision making. This includes parents' preferences and priorities, choices, and search actions.

Theoretical Framework

Meyers and Jordan's (2006) accommodation model is the theoretical framework that guided my study. The accommodation model was formed to integrate existing theories that have been applied to child care decision making. At the core of this model is the assertion that parents make child care choices to accommodate their preferences given environmental contexts and constraints (Chaudry, Henly, & Meyers, 2010; Meyers & Jordan, 2006). The accommodation model has been applied to numerous studies on child care decision making (e.g., Coley et al., 2014; Forry, Simkin, Wheeler, & Bock, 2013; Fram & Kim, 2008; Miller, Votruba-Drzal, & Coley, 2013; Pilarz & Hill, 2014; Sosinsky & Kim, 2013). Traditionally, economic theories have been used to explain child care decisions. These assume that parents will choose an arrangement that will maximize their satisfaction with regard to program quality, cost, and parents' work and other responsibilities (Blau, 2001; Chaudry et al., 2010; White & Klein, 2002). Meyers and Jordan assert that economic theories do not explain variation in child care use and choices

by parent characteristics, and do little to explain the role of quality in child care decisions.

Meyers and Jordan acknowledge that child care decisions result from complex, interacting social and contextual factors. In this regard, the accommodation model has a resemblance to Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1977, 1979, 1986), which posits that individuals are situated within several, interacting systems. For example, parents are influenced by immediate contexts (family and friends, neighbors, and current or past providers), environments linking the larger culture with the immediate environment (available information, social service and CCR&R agencies, and amount of subsidy), and societal cultures, values, and laws.

The accommodation model also accounts for constraints in the child care search. The cost of care is one constraint that is often discussed in research and policy; another is the available supply of care. Even areas with a seemingly abundant supply of providers may have limited options for parents seeking, for example, care for infants or care during nonstandard hours. Parents are also constrained by available information. Meyers and Jordan discuss the use of social networks in the child care search – parents often turn to family and friends to learn about child care options – but the information provided is limited to what is both known and deemed acceptable based on the network's cultural and social norms (Meyers & Jordan, 2006).

As a result of these interacting contextual factors and constraints, parents approach child care decisions with imperfect information, leading to a decision making process that is not fixed or linear, but dynamic. Parents' actions during the decision making process may seem irrational or paradoxical to an outsider; for example, avoiding

certain types of care or disregarding quality indicators. Parents construct their own meaning of quality, which, like the child care decisions themselves, is based on needs and preferences given contexts and constraints. Child care decisions may not always be rational, but they are made to maximize utility, satisfaction, and positive outcomes (as perceived by the parents). However, they are also accommodations made amidst constraints and incomplete information, and are entwined in social contexts.

Child Care Subsidy and Quality

The Child Care and Development Fund (CCDF) History and Operations

The Child Care and Development Fund (CCDF) was established following passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA, Pub. L. 104-193), more commonly known as welfare reform (Herbst, 2008). While federal child care assistance existed before the passage of PRWORA; the Act restructured, and considerably expanded, funding streams available to states. CCDF is funded through the Child Care and Development Block Grant (CCDBG; 42 USC 9858), entitlements to states authorized by section 418 of the Social Security Act, and transfers from Temporary Assistance to Needy Families (TANF). The Office of Child Care in the federal Administration for Children and Families oversees the operation of CCDF (45 CFR 98 and 99). States combine and match funds and administer their CCDF programs under the rules of the federal CCDBG Act. However, as a block grant, Lead Agencies (state, territory, and tribal entities through which the subsidy program is operated, also simply referred to as "states[1]") have flexibility in administering and operating their CCDF programs. Because of this, there are large variations in states' policies and

---

[1] Even though Lead Agencies consist of tribes and territories as well as states, CCDF literature and forms often use "states" in a general sense to include all entities

procedures. States create CCDF plans every three years, with considerable variation.

Table 1 describes some of the core federal requirements – and areas for state flexibility –

within CCDF.

Table 1

Key CCDF Statutory and Regulatory Provisions

Authority	Lead Agencies are responsible for overall administration but may designate other entities (governmental, non-governmental, or local) to establish rules and implement the program.
Family Eligibility Based on Income	Lead Agencies may set family income limits, as long as the income does not exceed 85 percent of the state's median income for a family of the same size. Lead Agencies can choose how income is defined and determined.
Child Eligibility	Lead Agencies may set eligibility criteria based on child age, but children must be under the age of 13 years (or between 13 and 18 years but incapable of self-care).
Family Eligibility Based on Activity	Parents receiving CCDF subsidies must be working or attending a job training or educational program. Lead Agencies have flexibility in defining terms such as "working" and "educational program." Lead Agencies may also choose to provide care to children receiving or needing to receive protective services, even if parents do not meet other activity requirements.
Consumer Education	Lead Agencies must collect and disseminate consumer education and provider information (including quality ratings, if available) to parents, providers, and the general public.
Family Choice	Families must be able to choose from any legally operating provider accepting a CCDF subsidy.
Length of Eligibility	The eligibility and redetermination period for families is 12 months. Lead Agencies may choose to implement a longer eligibility period.
Priority Groups	Lead Agencies must give priority for CCDF assistance to children with special needs and families with very low incomes. Lead Agencies define these terms and determine how they give priority to these groups. They may also prioritize other vulnerable groups, such as homeless children.
Family Contribution	Lead Agencies must establish a sliding fee scale, varying on income and family size, so that families contribute to the cost of care. The family fee may be waived for certain groups, as determined by Lead Agencies.
Provider Payment Rates	Lead Agencies must conduct a market rate survey or alternative methodology to set provider payment rates. Lead Agencies may set differing provider rates based on provider quality, geographical location, child age, child needs, and or other factors.
Quality Set-Aside	Lead Agencies must reserve a portion of CCDF funds for activities designed to improve child care quality. An additional portion of CCDF funds must be set aside specifically to improve the quality of care for infants and toddlers.

Source: The Child Care and Development Block Grant Act of 2014 (Pub. L. 113-186).

In 2014, the CCDBG Act was reauthorized (Pub. L. 113-186), with major

amendments and additions to existing laws in areas around eligibility, health and safety,

consumer education, and quality. Today, CCDF remains the largest publicly-funded early

childhood initiative in the country by number of children served (Markowitz et al., 2014).

As of FY 2015, (the most recent year for which figures are available) nearly 1.4 million

children, in 847,000 families, received child care assistance through CCDF each month

(U.S. Department of Health and Human Services (HHS), 2016). Federal funding for the

CCDF program in FY 2017 totaled about $5.8 billion (HHS, 2017).

Subsidy Receipt

Comparing recipients and nonrecipients. Families with low incomes comprise

the vast majority of those receiving subsidies, but the percentage of eligible children who

are served is low (the estimated percentage varies by study, but generally ranges from 10

to 30 percent; Ahn, 2012; Crawford, 2006; Johnson, Martin, & Brooks-Gunn, 2011;

Tekin, 2007). Several researchers have examined factors that are associated with subsidy

receipt in eligible families. African American families are more likely to receive

subsidies than eligible nonrecipients of other races (Herbst, 2008; Shlay, Weinraub, &

Harmon, 2010), and subsidy receipt is more common with eligible families in urban

communities than rural areas (Davis, Grobe, & Weber, 2010; Johnson, Martin, & Brooks-

Gunn, 2011). Additionally, families receiving subsidies are relatively more advantaged

when compared to eligible nonrecipients, with higher income-to-needs ratios (Johnson et

al., 2011). Johnson et al. (2011) found that among eligible families, those who were

concerned over the cost of care were less likely to use CCDF subsidies, and more likely

to enroll their children in Head Start or public prekindergarten (which do not require a family copayment).

Subsidy and family and child outcomes. As a work support program, CCDF is largely successful. Subsidy receipt is related to parental employment (e.g., Ahn, 2012; Blau & Tekin, 2007; Crawford, 2006), and participation in education and job training programs (Herbst & Tekin, 2011). Parents receiving subsidies report longer employment durations (Danziger et al., 2004), more work hours (Crawford, 2006; Marshall, Robeson, Tracy, Frye, & Roberts, 2013), and higher earnings (Danziger et al., 2004) than parents with low incomes not receiving subsidies.

Only a few studies have examined the outcomes of children who receive subsidized care, with mixed results. Most of these studies assessed the cognitive and social skills at school entry of children who received subsidies. Hawkinson et al. (2013) found that children from families who had received subsidies had lower math scores in kindergarten than those who had not received them, even after controlling for family factors and previous cognitive performance. The authors of this study acknowledge that selection biases between recipients and nonrecipients could have accounted for some of these differences. The negative relation between subsidy and kindergarten math performance was also detected by Johnson et al. (2013). Herbst and Tekin (2010) found a negative association between subsidy and kindergarten math *and* reading performance in kindergarten. However, this study was limited by the fact that the participants who had not received subsidized care were from families with higher incomes on average, and were not necessarily eligible for subsidies. In the social realm, several studies have examined but failed to find an association between subsidy receipt and positive or

negative social outcomes (Barofsky, 2013; Forry, Davis, et al., 2013; Johnson, Han, Ruhm, & Waldfogel, 2014; Johnson et al., 2013).

Some studies have found positive effects for particular subgroups of children receiving subsidies. Forry, Davis, et al. (2013) found positive effects of subsidy receipt on kindergarten math and language assessments, but only for children who had been in center-based care. Johnson et al. (2014) compared children of immigrants to children of native-born parents, and for the former group only, subsidized center-based care was associated with improved reading performance. The authors hypothesized that the children, many of whom did not speak English at home, benefitted from English language activities in the centers.

Overall, research on the effects of subsidized care is limited, especially with regard to child outcomes. Furthermore, existing studies do not take into account many potential confounding variables, making it difficult to determine whether effects are due to subsidies themselves or another factor. None of the studies I reviewed, for example, considered the quality of the arrangements. I now turn to the literature on the importance of child care quality in CCDF, and how it ties to child care decision making.

Quality and Informed Decisions

The CCDBG Act reauthorization of 2014 (Pub. L. 113-186) included a number of changes to the existing laws governing CCDF. Many of the changes reflect CCDF's evolution from primarily a work support program to one also focused on promoting quality care and positive child development. This is perhaps best illustrated by the purposes of the program, as stated in Section 658A of the CCDBG Act (see Appendix A). Purpose 4 was amended to include language about early education and quality, and

purpose 5 added a clause about quality. The new purpose 6 reflects the program's child development aims, and the new purpose 7 states the objective of increasing the number of children from families with low incomes receiving care in high-quality settings. For states, the CCDBG reauthorization instituted several new requirements, including increases in quality improvement spending, new standards for training and professional development, implementation of Early Learning and Development Guidelines, and the provision of comprehensive consumer education to parents receiving subsidies.

Prior to the CCDBG Act's passing, the Senate Committee on Health, Education, Labor, and Pensions developed a report associated with the reauthorization bill, which included reasoning for increasing quality improvement requirements (S. Rep. No. 113-138, 2014). The Committee and supporters argued for the importance of quality child care for improving the school readiness of children with low incomes. The CCDBG Act was signed into law in 2014 after receiving bipartisan support, indicating that the federal government was committed to investing in child care quality.

Child care quality and school readiness for children with low incomes. Child care is often promoted as a means to increase school readiness – a broad construct encompassing cognitive and social development as it relates to formal schooling (Keys et al., 2013). The first five years are a particularly important period for the development of language, reasoning, and relational skills (see Li, Farkas, Duncan, Burchinal, & Vandell, 2013). It would thus follow that children would benefit from exposure to high quality, stimulating care environments. A large body of literature is devoted to exploring child care quality – its components, measurement, predictors, and associated outcomes. The research is being applied to state initiatives to improve quality care. Despite this, *quality*

has no singular definition when referring to child care. Essentially, it refers to anything that promotes positive development (Layzer & Goodson, 2006). The concept is rarely operationalized in empirical research; La Paro, Thomason, Lower, Kintner-Duffy, and Cassidy (2012) examined 76 studies on child care quality and found that a plurality of authors offered no formal definition.

While not definitions in and of themselves, child care quality is often described as being comprised of two components: structural (for example, ratios, group sizes, and physical space) and process (for example, positive interactions, warm caregiving, and educational curriculum; Dowsett et al., 2008; Hestenes et al., 2014). Commonly used scales of global quality, including the Early Childhood Environment Rating Scale (Third Edition or ECERS-3; Harms, Clifford, & Cryer, 2014 and Revised Edition or ECERS-R; Harms, Clifford, & Cryer, 2005) and the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008) include items assessing structural and process components.

Child care quality and child outcomes. Quality nonparental care has a positive impact on cognitive development in early childhood, effects that are detectable even in toddlers (Burchinal, Peisner-Feinberg, Bryant, & Clifford, 2000; Ruzek et al., 2014; Tran & Weinraub, 2006). Around the time of school entry, child care quality is positively associated with cognitive and academic measures of school readiness (Auger, Farkas, Burchinal, Duncan, & Vandell, 2014; Li et al., 2013). More specifically, quality is positively related to scores on assessments of language (Keys et al., 2013; Li et al., 2013; NICHD Early Child Care Research Network, 2006), math (Keys et al., 2013; Peisner-Feinberg et al., 2001), and attention (Peisner-Feinberg et al., 2001).

In the social realm of school readiness, the effects of quality are not as well established. A few studies have associated quality with better social outcomes and fewer problem behaviors between the ages of three and five (e.g., La Paro, Williamson, & Hatfield, 2014; NICHD Early Child Care Research Network, 2001; Peisner-Feinberg et al., 2001). On the other hand, Keys et al. (2013) failed to find a relation between child care center quality and socioemotional outcomes (including social skills and behavioral problems) at kindergarten entry. The reason for these conflicting findings is not well understood. Most of the research linking child care and social and socioemotional outcomes focuses on the amount of time spent in care, and not the quality of care. The prevailing finding is that quantity of child care, especially center-based care, predicts negative social and emotional outcomes (e.g., Coley, Votruba-Drzal, Miller, & Koury, 2013; Dmitrieva, Steinberg, & Belsky, 2007; NICHD Early Child Care Research Network, 2006). Further research should consider whether quality can ameliorate these negative effects.

There is some evidence to suggest that the positive effects of quality child care early in life continue into middle and later childhood. The National Institute of Child Health and Human Development's (NICHD) Study of Early Child Care and Youth Development (SECCYD) has followed its sample from infancy through adolescence. In their analyses, the SECCYD team has associated child care quality with academic performance in third grade (NICHD Early Child Care Research Network, 2005), vocabulary at age 12 (Belsky et al., 2007), and cognitive achievement and fewer externalizing behaviors at age 15 (Vandell et al., 2010). Although the effect sizes are small, these relations should not be dismissed, as argued by Vandell et al. (2010). They

provide compelling evidence that the impacts of early care may endure years after the care is received.

In summary, research shows that child care quality is modestly, but significantly, associated with positive outcomes throughout childhood, especially in the cognitive domain. Effects tend to be greater in earlier childhood, suggesting that quality child care can be particularly useful in preparing children to enter formal schooling.

Outcomes for children from families with low incomes. Compared to other children, children from families with low incomes are less likely to be deemed ready to enter school at age five (e.g., Isaacs, 2012). Some researchers have suggested that children from families with low incomes do not experience enough cognitive stimulation at home (Crosnoe, Leventhal, Wirth, Pierce, & Pianta, 2010), and that quality child care arrangements in the early years can have a compensatory effect. Carefully designed experimental interventions, such as the Abecedarian Project, the Perry Preschool, and the Chicago Child-Parent Centers have yielded significant (though generally modest) long-term effects in both cognitive and social domains (see Isaacs, 2008). These programs are sometimes cited as evidence of the impacts that quality early childhood education can have on children from families with low incomes. However, these programs are difficult to replicate due to their intensity and cost.

Many more children from families with low incomes attend public prekindergarten programs, Head Start, or some form of child care. State prekindergarten and the federally funded Head Start program are both considered to be promising avenues for enhancing the school readiness of children from families with low incomes. However, longitudinal research on Head Start has failed to establish any positive long-term effects

on participants (Puma et al., 2012; Puma, Bell, Cook, & Heid, 2010). With regard to public prekindergarten, some studies have found that graduates are indeed better prepared for formal schooling than children who did not attend (e.g., Gormley, Gayer, Phillips, & Dawson, 2005; Peisner-Feinberg et al., 2014; Sanchez, 2014; Weiland & Yoshikawa, 2014), but the effects beyond kindergarten entry are unclear. Because the quality of individual Head Start and state prekindergarten classrooms can vary drastically, research on these programs' impacts does not provide generalizable evidence for the effects of quality for children from families with low incomes.

Does quality child care positively affect children from families with low incomes? In a meta-analysis by Burchinal, Kainz, and Cai (2011), there was a modest association between quality and outcomes (both cognitive and social) for children from families with low incomes. At higher levels of quality, the effects were strongest. While other research not included in this meta-analysis has yielded similar results (e.g., McCartney, Dearing, Taylor, & Bub, 2007), still other studies have failed to establish an association. For example, Votruba-Drzal, Coley, and Chase-Lansdale (2004) did not find a relation between quality and cognitive skills for children from families with low incomes. However, the researchers lacked information about the length of time children were in care; it is possible that quality effects were not evident because many of the children had only been in the settings for a short amount of time. Dearing, Mccartney, and Taylor (2009) found that the negative association between family income and school achievement became weaker with increasing time in high-quality early childhood care. This study provides support for the notion that greater dosages of high-quality care are especially important for children from families with low incomes. Overall, research on

children from families with low incomes generally provides support for the idea that quality care is associated with positive cognitive and social outcomes, with some research suggesting that quality can have a protective effect for these children.

Informed decisions and consumer education in CCDF. Based on this research, one of the stated purposes of the CCDF program is to move more children from families with low incomes into high-quality care. While the goal is for children to be in high-quality settings, the imperative of parental choice does not necessarily conform to this goal. By law, a parent must be able to use any child care provider, as long as that provider is operating legally (CCDBG 658E(c)(2)(A); 45 CFR 98.30). Thus, purpose 4 of the CCDBG Act describes the provision of consumer education to parents, so that they can make informed decisions regarding child care (CCDBG 658A(b)(3)). While the CCDBG Act includes no definition of "informed decisions," it does provide language about the end result of a parents' informed decision – finding a child care setting "to suit (the family's) needs and one that is of high quality" (CCDBG 658E(3)(B)(iii)(II)(bb)). This statement is intentionally broad since it reflects the rights of states to implement their own quality and consumer education provisions, and the rights of parents to choose their own care.

State CCDF programs have different approaches to promoting parents' informed decisions. The approaches tend to focus on two (often intertwined) areas – efforts to improve provider quality, and consumer education for parents. Most of the research on quality initiatives consists of state-level evaluations; few comparative studies have been done, and very little is known about how states' policies and initiatives may differentially impact parents and families.

State efforts to improve child care provider quality have included forming Early Learning Guidelines (guidelines for understanding developmental milestones in order to inform curriculum and program planning), providing opportunities for professional development, requiring specific qualifications for providers, establishing licensing requirements, and increasing monitoring (National Center on Child Care Professional Development Systems and Workforce Initiatives, 2013). In many states, provider quality supports and monitoring activities are included in Quality Rating and Improvement Systems (QRISs). QRISs are systems built by states to improve and assess provider quality and communicate provider quality information to parents (NCCCQI, 2013). In their 2016-2018 CCDF plans, all but two Lead Agencies indicated they had a QRIS in place, were piloting a QRIS, or had plans for one. Most states that do not have a full QRIS system implemented still have some other form of a quality improvement system.

State QRISs are widely used in outreach and consumer education activities for parents. Providers are given a rating based on their quality assessments, which is usually based on multiple indicators including licensing or accreditation status, curriculum, and learning activities. Ratings are communicated to parents through CCR&R agencies, advertisements, social media, websites, and the providers themselves (Muenchow et al., 2013; Schwartz et al., 2014; Yazejian, Iruka, Maxwell, & Robertson, 2012). It is important to keep in mind that since states construct their own QRISs, there are variations in the methods used to assess quality and assign ratings (Connors & Morris, 2014; Kirby, Caronongan, Malone, & Boller, 2015).

Most state evaluations of QRISs have found that providers participating in the system demonstrate improvements in their observed caregiving (Boller et al., 2010; Ma et

al., 2011; Pennsylvania Office of Child Development and Early Learning [PA], 2010; Schaack, 2008), and in their quality levels (Auger, Karoly, & Schwartz, 2015; Clements, Kalifeh, & Grass, 2014; Cunningham & Magda, 2012; Moore & Gordon, 2007). Clear evidence for their impact on children's cognitive and learning outcomes, however, has not been established (Clements et al., 2014; Elicker, Langill, Ruprecht, Lewsader, & Anderson, 2011; Soliday Hong, Howes, Marcella, Zucker, & Huang, 2014). This may be taken as an indication of a weak or nonexistent relation between quality and child outcomes; it is more likely it speaks to the limitations of QRISs themselves. QRIS ratings are based on numerous quality indicators, including many that do not have an immediate, proximal impact on children, although the effects may be more distal. For example, many states will include assessments of providers' and programs' pay and benefits, health and safety initiatives, and professional development. There are mixed results on QRIS validation studies, with some researchers concluding that QRIS levels do not represent, or only weakly represent, distinct levels of global quality (Hestenes et al., 2014; Lahti et al., 2011).

State evaluations of QRISs have also found little support for its usefulness in parental outreach and consumer education for parents receiving subsidies. Parents have limited knowledge or awareness of their states' systems (Elicker et al., 2011; Muenchow et al., 2013; Schwartz et al., 2014; Starr et al., 2012; Yazejian et al., 2012), and may not understand what the ratings mean (Schwartz et al., 2014). When presented with information about QRISs, parents across states generally express interest, indicating that not only would they use it in future child care decisions, but that it would be an important part of decision making (Elicker et al., 2011; Starr et al., 2012). However, evaluations in

Delaware and California found that even when parents were aware of QRIS, they said it did not play a role in their search (Muenchow et al., 2013; Schwartz et al., 2014). While these findings may seem conflicting, it is possible that even parents who have some familiarity with QRISs do not have enough information or understanding for it to factor into their decisions.

QRISs are not the only methods used by states for communicating information about child care quality. As part of the CCDBG Act of 2014, states are required to have a website containing information about providers, including monitoring and inspection results (CCDBG 658E(c)(2)(D)). Some states also provide parents with checklists or other tools describing quality indicators (National Center on Early Education Quality Assurance, 2017). It is unknown if these activities significantly factor into parents' child care decision making. Based on QRIS studies, it appears that the impacts of state consumer education and outreach are limited, at least when considering them at the wider level.

Summary of Child Care Subsidy and Quality

Taken together, the literature on child care subsidy and quality suggests that: 1) the federal CCDF program emphasizes quality child care for children with low incomes as one of its purposes; 2) quality child care has a positive effect on children with low incomes; 3) state CCDF programs are involved in efforts to improve provider quality and to communicate quality information to parents; and 4) many parents report being unaware of the quality information, or not using it. Thus, there exists a disconnect between many of the typical states' avenues for consumer education and parents' child care decision

making, as was described in Chapter 1. I now turn to the literature on child care decision making – processes by which parents find and choose child care providers.

Child Care Decision Making

Child care decision making is often assumed to be a linear process in which parents seek information and choose the best arrangement based on that information. The reality is that the process is much more complex. Meyers and Jordan's (2006) accommodation model emphasizes the interplay of personal factors, contextual factors, and constraints. In this section, I discuss four aspects of child care decision making – preferences, priorities, search actions, and choices. I demonstrate the similarities and differences across parents, and highlight child, family, and community influences that are important throughout the decision making process.

Child Care Preferences and Priorities

Preferences refer to what parents would want in their ideal child care arrangement. *Priorities* refer to what parents prioritized, or look for, when choosing their arrangement. In research, preferences are generally assessed using hypothetical questions; in contrast, parents are asked about their priorities either retrospectively, or during the child care search. Parents may identify preferences or priorities involving features of care that fall into one of two categories: practical (e.g., location or cost) or programmatic (e.g., type of care, quality, or provider characteristics)

Methodologies for assessing preferences and priorities. There are some differences in methodologies utilized by researchers studying preferences and priorities, primarily with regard to the sample, the data collection technique, and analytic method. These differences have implications for interpreting results and making comparisons

across studies. The current review includes 21 studies – seven assess parental preferences only, 11 consider priorities only, and the remaining three include assessments of both preferences and priorities. Table 2 lists the 21 studies and presents the key methodological differences.

*Sample sizes***.** The sample sizes for the 21 studies ranged from under 50 parents (Forry, Simkin, et al., 2013; Seo, 2003), to over 4,700 (Kim & Fram, 2009). Small sample sizes often lack generalizability to larger populations. However, they can be useful for exploring decision making as it relates to specific groups of parents (for example, those in one geographical area, or those with low incomes). Some of the current studies on parental preferences and priorities were conducted in a single state, often as part of larger evaluations.

*Data collection techniques***.** The second area in which studies diverge involves how data are collected. The items themselves tend to consist of questions that are either open-ended or closed-ended. Of the 21 studies reviewed here, seven included open-ended questions only, 10 included closed-ended questions, and four utilized both types. Open-ended items in the form of interview questions are often (but not always) used with small samples, and analyses are conducted qualitatively to expose patterns or themes in the responses. Studies with larger samples may utilize open-ended items to allow parents to state their preferences in their own words. The responses can then be coded for more sophisticated analyses.

The characteristics that parents identify when asked about preferences may differ depending on whether open- or closed-ended items are used. Parents responding to closed-ended questions are limited to only those characteristics on the instrument; parents

may have additional preferences that are not included. However, closed-ended questions may include particular characteristics of care that parents would not generate on their own; Chaudry et al. (2011) found that only a few parents identified specific program characteristics as being important when responding to open-ended items. Van Horn, Ramey, Mulvihill, and Newell (2001) utilized both open- and closed-ended items in a study on mothers' priorities. Results suggested that the two methods led to very different results and conclusions, even with the same mothers being queried. For instance, most mothers placed high importance on educational aspects of care when responding to closed-ended survey items, but fewer than five percent mentioned education when asked a similar open-ended question.

Analytic methods. Of the 11 studies including open-ended questions, six analyzed responses qualitatively, two use quantitative methods, and three used a mixed approach. In child care decision making literature, qualitative analyses allow for revealing patterns or themes amongst groups of parents. Qualitative methods can also be used to explore individual responses in depth. Quantitative analyses are useful for establishing associations between variables; for example, how family factors are related to preferences and priorities. However, the reader is not able to gain in-depth information about participants, their experiences, or unique circumstances that contribute to child care decision making.

These methodological considerations illustrate some of the challenges involved in evaluating research on this topic. It is important to view results of studies in light of the methodology and to take caution when comparing results and conclusions across studies. Also, findings usually cannot be generalized to the population. This has implications for

the current review, since the focus is on impacts of family (including those related to the parent, child, and family as a whole) and community factors on child care decision making. The results have been interpreted inasmuch as they relate to the characteristics of the individual samples and procedures of the studies.

Table 2

Methodologies for Assessing Parents' Child Care Preferences and Priorities

Citation	Assessed Preferences or Priorities	n	Open- or Closed-Ended Questions	Analytic Method for Open-Ended Questions
Arizona Early Childhood Development and Health Board, 2014	Preferences	1,300	Both	Qualitative
Burstein and Layzer, 2007	Priorities	2,710	Open	Qualitative
Chaudry et al., 2011	Both	86	Open	Qualitative
Forry, Simkin, Wheeler, and Bock, 2013	Both	41	Open	Qualitative
Forry, Isner, Daneri, and Tout, 2014	Priorities	260	Both	Both
Gamble, Ewing, and Wilhelm, 2009	Preferences	220	Closed	
Kim and Fram, 2009	Priorities	4,750	Closed	
Layzer, Goodson, and Brown-Lyons, 2007	Priorities	650	Closed	
NACCRRA, 2009	Priorities	1,004	Closed	
NSECE, 2014	Preferences	4,340	Closed	
Peyton, Jacobs, O'Brien, and Roy, 2001	Priorities	655	Open	Quantitative
Raikes, Torquati, Wang, and Shjegstad, 2012	Priorities	633	Open	Quantitative
Rose and Elicker, 2008	Preferences	355	Closed	
Rose and Elicker, 2010	Preferences	345	Closed	
Rothenberg, Goldhagen, Harbin, and Forry, 2013	Priorities	243	Open	Qualitative
Sandstrom and Chaudry, 2012	Both	86	Open	Qualitative
Seo, 2003	Priorities	47	Both	Both
Shlay, 2010	Preferences	96	Closed	
Shlay, Tran, Weinraub, and Harmon, 2005	Preferences	143	Closed	
Starr et al., 2012	Priorities	501	Closed	
Van Horn, Ramey, Mulvihill, and Newell, 2001	Priorities	1,001	Both	Both

Preferences for care. When asked about their ideal child care arrangement, parents often focus on programmatic components instead of practical ones. The characteristics most often mentioned by parents include warm, supportive, and caring providers (AZ, 2012; Chaudry et al., 2011; Rose & Elicker, 2008; Sandstrom & Chaudry, 2012; Shlay, 2010) and environments that support learning and school readiness (AZ, 2012; Chaudry et al., 2011; Gamble et al., 2009). There are mixed findings regarding parents' preferences for providers with specific credentials. In a study by Rose and Elicker (2010), some parents did mention they preferred staff with high educational attainment. In contrast, several participants in Forry, Simkin, Wheeler, and Bock's (2013) study indicated that they did not think education truly reflected providers' skills and abilities. Parents in Shlay, Tran, Weinraub, and Harmon's (2005) sample did rate hypothetical child care scenarios higher if the providers described were licensed as licensed and accredited, but the parents reporting in Shlay (2010) – also from families with low incomes – exhibited indifference toward whether hypothetical providers were accredited. It is possible that most parents do not fully understand the various credentials, the differences between them, and why they might be important. It may also be that, in line with Forry, Simkin, et al.'s (2013) finding, parents do not feel a provider needs to have attained credentials to provide good care for their children.

In general, preferences are similar across parents, with little variance attributable to such factors as racial or ethnic background, income, or employment (e.g., AZ, 2012; Gamble et al., 2009; Shlay, 2010). A few studies have found certain factors to be related to preferences for care; for example, Gamble et al. (2009) found a positive correlation between family income and placing importance on school readiness. Parents of

preschoolers prefer center-based care, and settings offering planned learning activities, more than parents of infants and toddlers (NSECE, 2014; Rose & Elicker, 2010; Shlay et al., 2005). Overall, however, the evidence points to parents being more similar than different with regard to their preferences and ideas about ideal child care arrangements.

Priorities for care. When parents are asked about their priorities in choosing their current arrangement, they tend to be specific about both practical and programmatic factors. There are two practical factors that are repeatedly cited by parents across studies. The first involves a provider or setting that is convenient, accessible, and available (Burstein & Layzer, 2007; Chaudry et al., 2011; Forry, Simkin, et al., 2013; Layzer, Goodson, & Brown-Lyons, 2007; Peyton, Jacobs, O'Brien, & Roy, 2001; Raikes et al., 2012). The second factor is cost (National Association of Child Care Resource & Referral Agencies [NACCRRA], 2009; Peyton et al., 2001; Raikes et al., 2012).

Parents across studies also cite similar programmatic reasons for choosing care. The most frequently cited include: trustworthy providers with whom they have a good relationship (Burstein & Layzer, 2007; Forry, Simkin, et al., 2013; Kim & Fram, 2009; Raikes et al., 2012; Starr et al., 2012), quality (usually described in nonspecific terms; Forry et al., 2014; Peyton et al., 2001; Starr et al., 2012; Van Horn et al., 2001), presence of academic or learning activities (Forry, Simkin, et al., 2013; Kim & Fram, 2009; NACCRRA, 2009; Starr et al., 2012), provider qualifications or credentials (Forry et al., 2014; Raikes et al., 2012), and the condition or safety of the physical environment (Burstein & Layzer, 2007; NACCRRA, 2009; Van Horn et al., 2001).

Family and child characteristics and priorities. Parents with more education and income tend to place a higher priority on quality and academic characteristics of care

(Kim & Fram, 2009; Peyton et al., 2001; Rothenberg et al., 2013). This should not suggest that parents with lower education and incomes are not concerned about quality and academic activities; rather, they are not the largest factors driving choices. In several studies, parents with lower incomes were more likely than other parents choose care based on practical factors, such as location and cost (Peyton et al., 2001; Starr et al., 2012). These findings illustrate constraints that parents with low incomes often face; for example, lack of transportation and not being able to afford the full range of child care options.

The age of the child affects parents' reasons for choosing care, with parents of infants and toddlers more likely than other parents to choose care based on provider characteristics and relationships with the provider (Burstein & Layzer, 2007). Parents of preschoolers place higher priority on learning activities and cognitive development (Burstein & Layzer, 2007; Kim & Fram, 2009), likely due to concerns over school readiness.

Reasons for choosing care do not appear to vary much by parent racial or ethnic background (e.g., Layzer et al., 2007). In their study on parents' priorities in choosing care, Burstein and Layzer (2007) did find Hispanic mothers to be significantly more likely than white or black mothers to mention the relationship with the provider as being important. In many Hispanic cultures, the norm is for very young children to only be cared for by parents or other relatives. This is illustrated by the fact that Hispanic children receive nonparental care at lower rates than other ethnic groups (see Liang et al., 2000; Miller, Votruba-Drzal, & Coley, 2013). Burstein and Layzer's (2007) finding may reflect

that, as Hispanic mothers who did utilize nonparental care wished for their child to be cared for by someone with whom they had a close relationship.

Overall, priorities do not differ substantially across different groups of parents. Even if there is some variation in the *main* reason cited for choosing providers, parents choose care for many of the same reasons – they prioritize providers who are accessible and affordable, trustworthy, and of high quality.

The relation between preferences and priorities. It may seem logical that parents' preferences would drive child care decisions. In reality, there are disconnects between preferences and priorities in the child care search. This is reflected in overall trends in the research literature. For example, parents' preferences generally center on programmatic components, but they also cite both practical and programmatic factors when describing reasons for choosing care. Several researchers have examined these disconnects in more detail. Chaudry et al. (2011) found that when asked about their preferences for care, most parents indicated they wanted a setting that offered learning activities, but only a few selected their care based on learning activities. Parents in studies by Sandstrom and Chaudry (2012) and Van Horn et al. (2001) had very similar responses with regard to learning and educational activities. In Chaudry et al.'s (2011) study, similar patterns emerged for other programmatic preferences – parents had specific preferences about providers and settings, but these often did not drive choices. On the other hand, cost of care did factor majorly into parents' choices, but few parents expressed an explicit preference for an affordable provider. Sandstrom and Chaudry (2012) concluded that while parents found characteristics of care to be important, in the end they had to prioritize cost and availability above all else.

Taken as a whole, the research on preferences and priorities finds that parents cite specific characteristics of their ideal arrangements, and that these are often centered on programmatic features. These features appear to be largely similar across parents. When actually choosing an arrangement, however, parents must consider practical factors such as provider availability, convenience, and cost. This is an example of parents making accommodations in choosing care.

Child Care Choices

The literature on child care decision making has centered on how family and child factors, as well as preferences, influence choice of care. Most of these studies consider only the type of care chosen. It is rare for studies to explore choice as it relates to other characteristics of care, such as programmatic features. To measure choice of care, parents are asked about the type of arrangement used, e.g., center-based or family child care home. A potential methodological issue involves the way type of care is classified. For example, *informal care* can mean any unlicensed care, or it can more narrowly refer to kith and kin settings. Similarly, publicly funded care such as prekindergarten and Head Start sometimes fall under the category of *subsidized center-based care* in studies, even though these are separate entities from CCDF. For this review, I aim to categorize care using the terms introduced in Chapter 1, but not all studies have clear operational definitions of care types.

Factors associated with choice of care. Overall, preferences for ideal child care arrangements are very similar across parents. While groups of parents express some differences as to reasons for choosing their current arrangement, the top priorities in choosing care are still relatively similar. However, the actual choices of care are very

different across parents. Central to the accommodation model is the notion of contextual factors and their impacts on child care decisions. What family, child, and community factors are related to choices?

Family and child characteristics and choice of care. Some of the family and child characteristics examined in relation to choice of care include income, racial or ethnic background, parental educational attainment, immigrant status, and child age. It should be noted that these factors likely interact to influence choices, although researchers tend to study them separately.

Income level and educational attainment. Compared to other families, families with low incomes are more likely to use both informal and kith and kin care, perhaps due to these arrangements offering flexibility and lower costs (Burstein & Layzer, 2007; Kim & Fram, 2009). Similarly, a study of child care choices in Arizona found parents who struggled to pay for child care tended to use informal settings (AZ, 2012). Children from families with low incomes often experience multiple and unstable child care arrangements as well, with some researchers referring to "patchworks" of care (Layzer et al., 2007; Scott, London, & Hurst, 2005). Mothers in a study by Scott et al (2005) described using multiple providers (sometimes three or more) at one time, with frequent changes in providers. Higher family income increases the likelihood of utilizing center-based care (Coley et al., 2014; Miller et al., 2013).

Educational attainment is associated with choosing center-based care for mothers (Burstein & Layzer, 2007) and for parents in general (Coley et al., 2014; Huston, Chang, & Gennetian, 2002; Miller et al., 2013). In fact, the odds of entering a center grow larger with each year of maternal education (Liang et al., 2000). The relation between

educational attainment and center-based care is significant even after controlling for income (Burstein & Layzer, 2007), but may at least be partially explained by a strong preference for care with an educational component, which is more likely to be found in centers than other settings.

Race and ethnicity. Several studies have found significant differences amongst different racial and ethnic groups in the type of care chosen. Compared to white and Hispanic children, black children are the most likely to receive care in centers (Liang et al., 2000; Liu & Anderson, 2012), although black infants and toddlers do receive care by relatives more often than whites (Early & Burchinal, 2001). Hispanic children receive care in centers at lower rates (Burstein & Layzer, 2007; Hirshberg, Huang, & Fuller, 2005), and receive care by relatives at higher rates, than black or white children (Early & Burchinal, 2001; Kim & Fram, 2009). Two studies have suggested that Hispanic parents are increasingly choosing centers. Delgado (2009) found that Hispanic children were enrolled in centers at lower rates when compared to white children, but that they were about as likely to receive center-based care as relative care. Yesil-Dagli (2011) analyzed a nationally representative sample of Hispanic families and found that those parents who used nonparental care chose centers *more* often than other forms of care. While rates of entering centers may be lower for Hispanic children than for other children, these results suggest an increasing trend for Hispanic parents to choose centers.

The relation between race and ethnicity and choice of care is likely mediated by a third factor, such as culturally based preferences or constraints like the local child care supply. Liang et al. (2000) found some support for the notion that culture plays a role in the ethnic variation in child care choices. Hispanic parents who spoke English at home

41

and adopted parenting practices typically associated with "mainstream" American culture used centers at rates similar to those of whites. Similarly, the mothers in Yesil-Dagli's (2011) study who considered themselves to be more acculturated (whether they were native-born or immigrants) were more likely to choose centers.

Parent employment. Constraints related to parental employment can affect child care choices. Nonstandard employment schedules often mean fewer options for care and a lower likelihood of using centers, which are usually closed during evening and weekends (Davis & Connelly, 2005). Parents with nonstandard or variable work hours are more likely to opt for kith and kin care or family child care homes, which can better accommodate flexible schedules (Burstein & Layzer, 2007; Riley & Glass, 2002). On the other hand, parents working regular hours choose centers over other forms of care (Burstein & Layzer, 2007).

Immigration status. Immigrants are an extremely heterogeneous group with regard to country of origin, ethnic background, reasons for immigrating, and time in the United States. Still, some researchers have explored whether there are any patterns or differences in the child care choices of immigrant families. Miller et al. (2013) examined factors associated with child care choices in more than 100 immigrant families and found parents from African, Middle Eastern, and European countries were most likely to choose center-based care. The authors also found English proficiency to be associated with the use of centers, a result that could be attributed to acculturation and preferences for care, or better access to care options. Generally, the parents in this study who had immigrated in childhood (as opposed to adolescence or adulthood) were less likely to use centers, a finding the authors speculated may be due to larger family networks in the country, and

thus the use of relative care. Burstein and Layzer (2007) found a relatively low rate of relative care amongst immigrants. In this study, immigrants' most common arrangements were family child care homes. While the reasons for these findings are unclear, it is possible these families did not have relatives living in the country but were able to access family child care homes run by other immigrants.

Child age. As previously described, parents with infants and toddlers are most likely to choose care based on provider characteristics and the relationship with the provider, while parents of preschoolers prefer centers and tend to choose care based on its educational features (Burstein & Layzer, 2007; Kim & Fram, 2009; NSECE, 2014; Rose & Elicker, 2010; Shlay et al., 2005). Parents' choices of care follow similar patterns by child age. Parents of infants and toddlers are more likely than parents of older children to choose family child care homes or relative care (Burstein & Layzer, 2007; Riley & Glass, 2002), while center-based care is most commonly chosen by parents of preschoolers (Burstein & Layzer, 2007; Coley et al., 2014; Rothenberg et al., 2013; Starr et al., 2012). An exception to these overall trends is that parents with more than one child tend to use the same type of care for all children (Witte & Queralt, 2004). Burstein and Layzer (2007) found that infants and toddlers with older siblings in centers will often be enrolled in centers themselves, at higher rates than other infants and toddlers. Similarly, Davis and Connelly (2005) found that in families with more than one child, the age of the youngest was positively associated with using center care for all children. The authors speculated that this may be the result of parents preferring academically oriented centers that do not enroll infants, and not utilizing the center until all children in the family can attend.

Social networks. Family and social networks can impact parents' choice of care. For example, Burstein and Layzer (2007) found that families with relatives living nearby tended to use relative care. Markowitz et al.'s (2014) analyses showed that mothers with extended family in the household are more likely to choose *any* informal care, whether by a family member or friend. This choice may be mediated by preferences, suggesting that these parents highly value familiarity with the provider and a close provider-child relationship. These choices also might result from a more complex interaction of family, community, and employment factors, in line with the accommodation model. For example, Uttal (1999) suggested that the use of relative providers by Mexican American and African American mothers was in part the result of limited employment opportunities for those relatives in the community.

Research on choice of care suggests that certain family and child characteristics are strongly associated with the type of care utilized. However, it is still unclear whether these characteristics influence choice directly, and if so, why this happens. It is highly likely that these relations are at least in part mediated by other, contextual factors and constraints, such as parents' employment, family and social networks, and the local child care market.

Community characteristics and choice of care. The local child care market shapes – and constrains – choice through the availability of different options. Children in urban areas, for example, are much more likely than children in rural areas to receive care in centers, probably because of fewer centers operating in the rural locations (Liang et al., 2000). Coley et al. (2014) used United States Census data to investigate child care availability and its connection with care selections, and found that in some areas, parents

did not use centers simply because there were more children than available slots. Fuller, Kagan, Loeb, and Chang (2004) found that local factors, including the supply of care and presence of agencies assisting families, were associated with parents' child care selections.

Parental preferences and priorities and choice of care. In a study by Gordon and Hognas (2006), only about two-thirds of the mothers in the sample were using their preferred type of care. Thus, there appears to be a disparity between preferences for the type of care and choices. Parents have other preferences and priorities for child care in addition to type, including those involving programmatic and practical aspects of arrangements. How are these related to the type of care chosen?

While the preferences and priorities are important in driving choices, parents differ in their definitions and interpretations of these preferences and priorities. This is illustrated by Henly and Lyons (2000). In this study, many parents expressed a preference for providers who instilled confidence. Those who had chosen informal care felt confident in their providers because they knew and were familiar with them, while the parents who had chosen formal arrangements felt that the program's setting and structure instilled confidence. This finding has implications for parental outreach, especially as it relates to program quality – parents likely have different ideas of what constitutes a quality arrangement.

Priorities related to practical aspects of care (such as location, availability, and cost) are associated with the use of any home-based setting – whether formal or informal (Coley et al., 2014; Kim & Fram, 2009). Forry et al. (2014) found the parents who cited cost as a primary priority were more likely to choose informal than formal settings. In a

study by Burstein and Layzer (2007), the mothers who stressed practical considerations were actually *less* likely to use relative providers. While this result may seem contradictory to other studies, it is possible the mothers did not cite practical considerations because they had easy access to relative providers who were accessible and affordable, and thus they did not *need* to be concerned over these issues.

Parents who stress commonalities with providers, or close provider-child relationships, tend to choose informal care settings (Burstein & Layzer, 2007; Raikes et al., 2012) or family child care homes (Burstein & Layzer, 2007; Seo, 2003). Parents with these priorities may be drawn to informal arrangements since the providers are often known to them, and they may be drawn to family child care homes due to smaller group sizes promoting close relationships. In one study, parents who expressed preferences for small group sizes chose family child care homes over other forms of care (Early & Burchinal, 2001).

Parents who prefer providers that have specialized training are more likely to use center-based care (Early & Burchinal, 2001). This is even true for parents of infants and toddlers, who tend to be enrolled in centers less often than other care types. In several studies, the most common reasons cited by parents for choosing centers involved cognitive development, learning, or school readiness (Burstein & Layzer, 2007; Kim & Fram, 2009; Seo, 2003). Parents citing quality as a priority also tend to choose centers (Coley et al., 2014; Peyton et al., 2001).

To summarize, parents' child care choices are complex and influenced by numerous factors. While priorities and preferences cited tend to be more similar than different across parents, these translate into a wide range of decisions. Studies on choice

of care have uncovered significant differences and variation based on child and family demographic factors, although these differences may be explained by third variables. Choice of care appears to be more directly influenced by contextual factors and constraints, such as parental employment, social networks, and the child care market. These factors, along with preferences and priorities, illustrate the multiple systems that interact in order to inform choices.

The Child Care Search

Parents' child care search experiences consist of actions that will ultimately contribute to the choice of care. These actions have received comparatively little consideration in the research on child care decision making. However, it is important to understand parental search behaviors and experiences. While understanding what parents *want* in a child care arrangement is important, many parents do not utilize care that fits their preferences and priorities. The search experience can provide insight into why these gaps may exist, and where parents face constraints and must make accommodations. From a program policy perspective, the child care search is a key opportunity to target consumer education, in an effort to promote informed decisions.

Parents' child care searches. The research on parents' child care searches has typically focused on how parents learned about their current arrangement, or who they consulted during the search. In addition, some studies have asked parents about the length of time they spent searching, and the difficulties and challenges encountered.

Where do parents learn about child care? Parents report that they most often learn about child care options through family and friends (AZ, 2012; Chaudry et al., 2012; Forry et al., 2014; NSECE Project Team, 2014; Rothenberg et al., 2013; Sandstrom

et al., 2012; Seo, 2003). Some parents report learning about child care from other sources, such as the Internet or posted flyers (AZ, 2012; Rothenberg et al., 2013). However, these are less commonly used than family and friends, and many parents report ultimately choosing a provider that had been personally recommended to them by someone they knew.

CCR&R agencies are one of the primary avenues through which parents can learn about child care quality. CCR&Rs are often contracted by state CCDF Lead Agencies, although this is not required by law. The CCDBG reauthorization of 2014, however, specifically mentions CCR&Rs an avenue for promoting quality improvement and informed decisions about child care, and outlines the duties of CCR&Rs, should states use CCDF dollars to support them.

The use of CCR&R agencies in child care searches is uncommon. Depending on the study, the percentage of parents reporting that they received information from a CCR&R agency ranges from about twenty to twenty-five percent. (Chaudry et al., 2011; Sandstrom et al., 2012; Seo, 2003). In Burstein and Layzer's (2007) study, fewer than one in ten parents learned about their provider through a CCR&R agency, although additional parents may have utilized their services at some point in their search but ultimately chose care they found elsewhere. It remains to be seen whether the scope of CCR&R agencies' services and outreach will expand in the wake of CCDBG reauthorization, and whether this will cause more parents to seek information from them. However, the existing research suggests that parents most often depend on people they know, and trust, to learn about child care.

How long is the child care search, and how many options are considered? In
general, the child care search is not a lengthy process, although it is not clear if this is
because parents find a satisfactory arrangement quickly, or if they are forced to find care
quickly due to time constraints. In a study by Forry et al. (2014), mothers with low
incomes reported they found their current child care arrangement in under two weeks. In
Layzer et al.'s (2007) study, the average length of the search was one month, although
this figure was skewed since some parents took an especially long time to find a suitable
arrangement. A plurality of parents, in fact, took less than a day. Almost half of the
parents in Rothenberg et al.'s (2013) analysis spent less than a week searching before
finding their provider; however, for a substantial proportion of parents (nearly one
quarter), the search took a month or more.

Most parents report considering more than one provider in their search (Forry et
al., 2014; Layzer et al., 2007; NSECE, 2014). This suggests that parents are not quick to
settle on an arrangement, and wish to weigh different options. When parents do choose
care after considering only one provider, they usually knew that provider already or acted
on a referral from a trusted family member or friend (NSECE, 2014).

How difficult is the child care search? Even though child care searches usually
do not take a long time, many parents find the search process to be difficult. In
Rothenberg et al.'s (2013) study, about one quarter of parents indicated that finding care
was "somewhat" or "very" difficult. In another study, parents described challenges
surrounding finding care that was reliable and met their needs (AZ, 2012). At the same
time, several studies have found that parents are not well informed about the options for

care in the areas in which they live (AZ, 2012; Chaudry et al., 2011; Layzer et al., 2007), which could be a source of frustration when trying to find care.

Factors associated with the child care search. Across studies, parents seem to have similar approaches to searching for care. Research suggests that the child care searches of parents with low income are not substantially different from those of other parents (e.g., Chaudry et al., 2011; Layzer et al., 2007). Child care searches and experiences also do not appear to significantly vary by parent race or ethnicity (Forry et al., 2014). However, some family, child, and community factors can contribute to making the search earlier, or can be the source of constraints.

While parents use similar methods in their searches regardless of child age (NSECE, 2014), Gordon and Hognas (2006) found that mothers who had previously searched for care for an older child spent significantly less time finding care than other parents. This may be because parents with older children use the same provider as they do for the older sibling, are more aware of available providers, or they may be able to navigate the search process better because of their prior experiences.

Some family and child characteristics and circumstances might contribute to parents experiencing difficulties or constraints in the child care search. In Sandstrom et al.'s (2012) study, both immigrant families and families with limited English proficiency (there was some, but not total, overlap between the two groups) reported that the child care search was particularly challenging. Similarly, in Chaudry et al. (2011), immigrant parents and parents with limited English proficiency reported relying heavily on social networks, feeling isolated from the larger community, and being unaware of the child care market. Some parents expressed that language barriers precluded the use of

CCR&Rs and made it difficult to communicate with potential providers. These studies show how contextual factors and constraints interact to drive search experiences.

Parents of children with disabilities also experience unique challenges in their search for care. By law, child care providers cannot exclude children with disabilities, unless inclusion would directly threaten the health and safety of other children, or if it would require a "fundamental alteration" of the program (Americans with Disabilities Act; 42 U.S.C. Sec. 12101). Still, in several studies, parents reported difficulties with finding providers who were willing and able to care for their children with disabilities – and most importantly, that the parents could trust (Chaudry et al., 2011; Sandstrom et al., 2012). Challenges varied by individual children's specific needs; for example, parents of children with chronic physical health problems or severe multiple impairments were especially likely to encounter providers who were not willing to care for their children. Many of the parents in Chaudry et al. (2011) were looking for settings in which their children could receive therapeutic services, so the parents had to evaluate accessibility and the quality of these services, in addition to evaluating the quality of the regular program.

Another important factor in a child care search is available information. Even if parents seek assistance from social networks, they will be constrained by the information known to those in the networks. Furthermore, as most parents rely on family and friends for at least some of their information on child care options, parents with small social networks – or none at all – can be at a disadvantage. Parents with larger social networks tend to have shorter searches (Gordon & Hognas, 2006). Chaudry et al. (2011) describe the difficulties faced by immigrant parents with small social networks. As stated

previously, immigrant parents are especially reliant on information from family and friends. In this study, those lacking networks had little knowledge about where to find information about child care, and finding care was a process marked by trial and error – that is, choosing an arrangement despite knowing little about it, and ending the arrangement quickly if not satisfied. Finally, the local child care supply will impact the child care search. Many parents who are knowledgeable about child care options may quickly learn their choices are limited, especially for high-quality arrangements.

Child care preferences and priorities and searching for care. There is little empirical research on relations between child care preferences and priorities and the search for care, although the notion makes sense from a logical standpoint. As an example, parents preferring care by a relative would likely not seek the services of a CCR&R agency. Gordon and Hognas (2006) found that parents preferring relative providers spent less time on their search. While this may be unsurprising given that parents preferring relative care are informed of their options going into the search, many likely still had to engage in some search behaviors, such as communicating with one or more potential providers and arranging logistics.

What is unknown is how preferences and priorities related to characteristics of care – either practical or programmatic – relate to the search. It is feasible that a parent concerned with quality would be more likely than others to consult with a CCR&R agency to learn about quality ratings. It is also feasible that a parent who is seeking an arrangement with strong educational components would visit potential options to observe learning activities. This area could benefit from more research as findings could inform outreach efforts, and will be considered in the current study.

Search experiences and choice of care. The ways in which parents search for care is related to the care chosen. Compared to parents who choose family child care homes, parents who choose center care report CCR&R agencies as being more influential (Seo, 2003). As described previously, parents who prioritize child care quality often choose centers over other forms of care (Coley et al., 2014; Peyton et al., 2001). Similarly, parents who prioritize quality may be more likely to utilize the services of CCR&R agencies.

Parents who choose centers report longer searches than parents choosing other forms of care (Burstein & Layzer, 2007), although it is unclear why. It makes sense that center care would take longer to arrange than care provided by relatives or others known to the parent; however, this does not account for all care types. Perhaps parents who ultimately choose center care look specifically for centers, and find that many lack available spaces or have waiting lists. Thus, the searches take longer.

The length of time spent on the child care search does not appear to be related to parents' satisfaction with the choice (Forry et al., 2014); however, parents who plan early for the search are more likely to report a match between their preferences and their choice (Gordon & Hognas, 2006). Similarly, the length of the search is not related to the quality (Forry et al., 2014), but parents who make early plans for their search choose higher quality care (Gordon & Hognas, 2006).

Subsidies and Child Care Decision Making

I now turn to the literature on preferences, priorities, choices, and searches of parents receiving child care subsidies. It should be kept in mind that any sample consisting of parents using child care is likely to include at least some parents receiving

subsidies. This is especially true for samples including parents with low incomes. Parents receiving subsidies have been included in most of the studies discussed in the review thus far. In this portion of the review, I consider those findings that are unique to parents using subsidies; particularly, those that compare parents receiving subsidies with eligible nonrecipients.

Preferences and priorities of parents receiving subsidies. There is some evidence that parents receiving subsidies, as compared to eligible nonrecipients, place more emphasis on the logistical aspects of a child care arrangement. Raikes et al. (2012) found that parents receiving subsidies placed high importance on the licensing status of potential providers when choosing care. This may support the idea that parents use subsidies to purchase formal care; however, it is also possible that parents are concerned about licensing status due to state-specific restrictions that require providers to be licensed to be eligible for subsidy reimbursement. The sample consisted of parents in only four states, and given the range of state policies regarding licensing and subsidized care, its generalizability is limited.

Choices of parents receiving subsidies. What is known about the child care chosen by parents using subsidies? First, numerous studies have established that subsidy receipt is associated with the use of center-based care (Ertas & Shields, 2012; Rothenberg et al., 2013; Ryan et al., 2011; Starr et al., 2012; Wolfe & Scrivner, 2004). Families receiving subsidies are also more likely to choose a family child care home over kith and kin providers (Ryan et al., 2011), and formal care in general over informal arrangements (Markowitz et al., 2014).

Do parents receiving subsidies purchase quality care? Despite the interest in increasing the number of children receiving high quality subsidized care, there is little research that answers this question. In one study, Weinraub et al. (2005) compared the child care arrangements chosen by African American parents with low incomes receiving subsidies and those not receiving subsidies. They found no significant difference between the two groups with regard to observed quality of arrangements used. This study was limited to one geographical area, and the authors acknowledged that there may have been selection bias with the providers who agreed to be observed.

Ryan et al. (2011) found subsidy to predict the quality of a child's arrangement more than any other factor. However, when comparing recipients to nonrecipients by type of care, they found the recipients' care was only higher quality when it was in a family child care home. The center-based arrangements chosen by mothers receiving subsidies tended to be of lower quality than those of mothers not using subsidies. The authors hypothesized that the higher quality centers perhaps did not accept subsidies, and that many of the mothers chose to move from informal kith and kin arrangements to formal, licensed family child care homes.

Johnson et al. (2012) did not break down subsidized arrangements by type of care, but results suggested that parents receiving subsidies did choose higher quality care than nonrecipients. Results also suggested that parents using subsidies purchased lower quality care than parents utilizing other forms of publicly funded early childhood programs, such as Head Start or public prekindergarten. While the authors concluded that parents using subsidies still faced barriers to accessing high-quality care, an alternative explanation is that the preferences of parents applying for CCDF subsidized care differ from those of

parents using Head Start or prekindergarten. Both Head Start and prekindergarten have strong academic orientations, so these programs may be sought by parents who prioritize educational components of care. On the other hand, many parents seek subsidies primarily to support work activities. While subsidies increase parents' use of center-based care, many still opt for other arrangements.

Several studies that have measured the choices of parents receiving subsidies more in-depth have concluded that subsidies *in themselves* do not necessarily motivate parents to seek out and choose a center (Hirshberg et al., 2005). Instead, there is evidence that the process happens in the opposite direction – parents who wish to use center-based care seek subsidies in order to afford it.

The literature on child care choices of families receiving subsidies suggests that decisions may be impacted by certain constraints; for example, finding providers that can, and will, accept subsidies. The limited amount of research on whether parents receiving subsidies choose high-quality care has produced mixed results. As quality is of increasing importance to the subsidy program, especially in the wake of the CCDBG reauthorization, there is likely to be more research on this topic.

The child care searches of parents receiving subsidies. Are the search experiences of parents receiving subsidies different from other parents? Marshall et al. (2013) compared parents receiving subsidies to those on a waiting list and found the group receiving subsidies to report better options for child care where they live. While this may reflect the local supply, it is also possible that the subsidy program allowed them to afford a wider range of care than they would have otherwise. However, the same study found that the wait list group was less likely to indicate that they had difficulty finding

care. This finding is puzzling; however, the study was conducted in only one state, which has a long waiting list for subsidies. It is possible that the parents receiving subsidies reported difficulties not because of the search itself, but because of time they spent waiting to receive the subsidy in the first place.

As discussed previously, Lead Agencies offer parents receiving subsidies some consumer education or direct them to CCR&R agencies. While the usage of CCR&R is low overall, Chaudry et al. (2011) found that of the parents in their study who utilized CCR&R agencies, most were subsidy recipients. As the scope of CCR&Rs agencies' services is likely to expand in the wake of the new CCDBG legislation, their use by recipients of subsidies may rise.

Summary of Child Care Decision Making

To summarize the literature on child care decision making, researchers typically focus on four areas: 1) preferences, 2) priorities, 3) choices, and 4) search actions. Each of these has been found to be associated with certain family, child, and community factors. Researchers have demonstrated that multiple ecological factors, and constraints, interact in driving parents' decisions, which illustrates the accommodation model (Meyers & Jordan, 2006). Studies on the child care choices of families receiving subsidies have suggested that subsidies allow children to move into more formal care arrangements, but not necessarily high-quality ones.

<div align="center">

Summary

</div>

In this chapter, I described Meyers and Jordan's (2006) accommodation model, which is the framework for my study. I also provided an overview of the CCDF subsidy program and child care quality, particularly the relations between quality and outcomes

for children with low incomes. I then reviewed the research on child care decision making; specifically, preferences and priorities related to care, choices, and search actions. There is little research on the search process itself, compared to other aspects of decision making. Understanding the child care search can inform outreach and consumer education efforts in subsidy programs, including consumer education about quality.

Chapter 3: Method

Child care subsidies allow many families with low incomes to afford quality child care, but numerous studies have found that many parents do not necessarily choose quality care, and do not utilize or understand outreach and consumer education efforts related to quality. In my study, I conducted a secondary analysis of National Survey of Early Care and Education (NSECE) data to examine the following research questions:

Research Question 1: How do parents in families with low incomes search for and choose child care? Specifically, how many and what types of providers are considered, what are their methods of search, what information is sought about providers, and what is the result of the search?

Research Question 2: Are there any differences in the child care searches and choices between families receiving child care subsidies and other families with low incomes?

Research Question 3: How do child care preferences and priorities, family and child factors, and community factors relate to child care searches and choices?

This chapter is divided into four sections. First, I provide an overview of the NSECE, describing the sampling and data collection procedures. Next, I outline the steps I took to create the analytic sample. In the next section, I describe the measures used to answer the research questions. Finally, in the last section I introduce the analytic methods that were used to answer each research question.

National Survey of Early Care and Education

Study Overview

The NSECE is a nationally representative, cross-sectional "snapshot" of child care utilization from the perspectives of both families and providers. Funded by ACF's Office of Planning, Research, and Evaluation (OPRE), the NSECE was conducted in an effort to better understand child care supply and demand in the United States, and how families' child care preferences and needs coordinate with provider offerings, particularly in families with low incomes (NSECE, 2013).

The NSECE is comprised of a series of surveys conducted in 2012 with four groups: (1) households with children under the age of 13, (2) home-based child care providers caring for children under the age of 13, (3) center-based child care program directors caring for children not yet in kindergarten, and (4) the workforce of the center-based child care programs. An overall schematic of the NSECE is presented in Figure 1. The household survey was the source of the data for the current study.
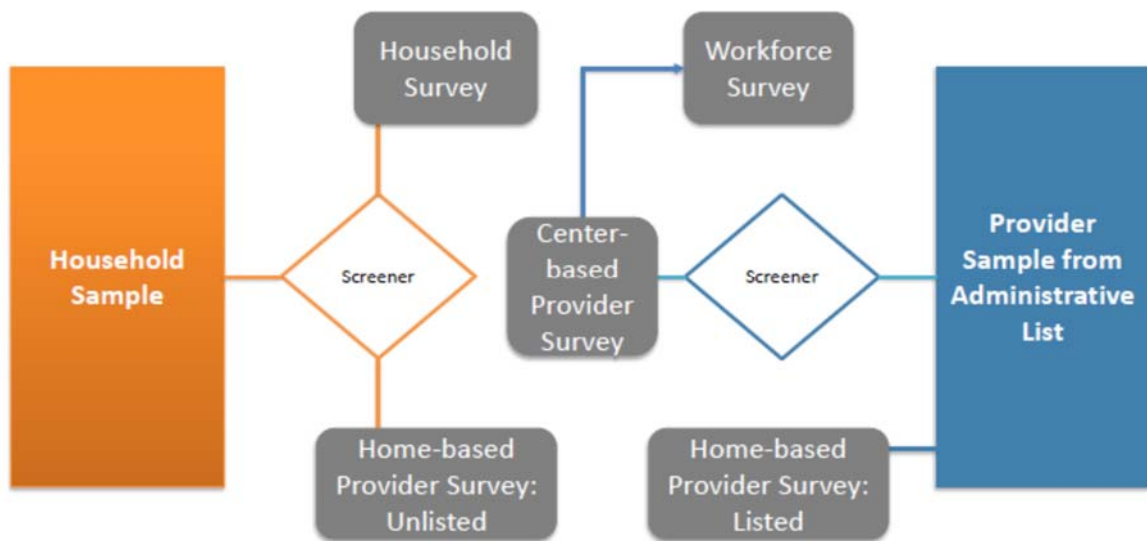
Figure 1. NSECE Samples and Questionnaires. (NSECE, 2013)

Sampling Design

The NSECE utilized a multistage probability design to select geographic clusters from which households and providers were drawn. First, primary sampling units (PSUs), consisting of a county or adjacent group of counties, were selected. These PSUs represented each of the fifty states and the District of Columbia. OPRE gave states the option to supplement the NSECE sample with additional PSUs, to allow for larger state samples. Two states (Illinois and New York) chose to provide supplemental data.

In the second stage, at least three secondary sampling units (SSUs) were selected from each PSU. The SSUs consisted of one or several adjacent census tracts. A total of 219 PSUs containing 755 SSUs were selected (including two PSUs and 15 SSUs consisting of supplemented data). Due to OPRE's interest in the experiences of families with low incomes, SSUs from high poverty areas were intentionally overrepresented in the sampling. Of the 755 SSUs selected, 537 had at least 40 percent of households with incomes under 250 percent of the federal poverty guidelines.

The selected SSUs were then used to form clusters for the provider samples. A provider cluster consisted of the selected SSU, and any SSU that was at least partially located within a two-mile radius of the selected SSU's population center. The provider clusters were intended to reasonably represent the areas forming the selected SSU's child care supply.

The third stage included the creation of the sampling frames. The sampling frame for the household survey was a United States Postal Service delivery sequence file (DSF) for each selected SSU. The DSF is a database containing standardized mailing addresses for households in the United States. As the DSF residential address information was

determined to contain incomplete listings in 25 SSUs, an alternative list of housing units was used for these areas.

Procedures

Using the DSF and the supplemental list of housing units, households in the selected SSUs were contacted to participate in a screener interview (NSECE, 2013). Households could complete the screener in three ways (mail, telephone, or in person). A total of 65,712 screener interviews were completed (weighted completion rate of 91.1 percent). Respondents who had one or more children under the age of 13 in the household were eligible for participation in the household survey. Generally, participants completed the household survey shortly after the screening survey (NSECE, 2015). A trained interviewer conducted the household survey with the participant, either in person or by telephone. Most interviews took place between the months of January 2012 and May 2012, in order to gather information about current child care arrangements during a window relatively free of long school holidays and summer vacations. In all, surveys were completed for 11,629 households with 21,665 children under the age of 13 (weighted response rate of 67.1 percent; NSECE, 2013).

Certain questions in the household survey, particularly those regarding the search for child care, were specifically in reference to a child in the family under the age of 13. If the household included more than one child under the age of 13, one "focal child" was randomly selected. However, basic data were collected for all children in the household, not just the focal child.

The household survey was unique in the breadth and depth of questions related to the search for child care. Participants were asked about the last time they searched for

child care for the focal child within the past two years. Data were gathered on the reason for searching for care, preferences and priorities, methods of searching, and reasons for choosing or not choosing each provider that was considered.

Participants and Analytic Sample

To create a subsample of families with low incomes that have children not yet in kindergarten, I first selected those households with a focal child aged six or under who had not yet started kindergarten. I then removed households with an income over 200 percent of the federal poverty guidelines (for reference, 200 percent of the federal poverty guideline for a family of three in 2011 was $37,060) in order to restrict the sample to families with low incomes. CCDBG laws and CCDF regulations allow states to set their own income limits for child care subsidies, as long as those limits do not exceed 85 percent of the state median income (CCDBG 658P(3); 45 CFR 98.20). In most states, 85 percent of the state median income for a family of three is greater than 200 percent of the federal poverty guidelines for a family of the same size. However, only a handful of states actually have their income limits set to 85 percent.

I next removed those households where the focal child's care arrangement was in a Head Start or public prekindergarten[2]. Parents were asked if their child attended Head Start or public prekindergarten; additionally, NSECE cross-referenced parents' responses with addresses from provider lists to determine whether the type of care. Finally, I removed those who had not searched for care for the focal child in the previous two years. This left a final analytic sample of 1,120.

---

[2] While Head Start and state funded preschool programs provide care free of charge to parents, both focus primarily on academics and do not fit the criteria for subsidized child care as defined in this study.

Demographic information for the analytic sample can be found in Table 3. The vast majority of respondents (93.9%) were the biological or adoptive parent of the focal child. Because of this I use the terms "respondents" and "parents" interchangeably. Most (87.9%) were female, and the age range of was 17 to 66 years ($M = 29.85$, $SD = 8.54$). Over three-fourths (77.1%) were born in the United States, 11.1% were born in Mexico, and the remaining were born in another country. Of those who were not born in the United States, 90% indicated they had immigrated before having children. Just over half of the respondents (51.2%) worked for pay.

Household sizes ranged from two to 12 ($M = 4.06$, $SD = 1.57$), and the number of children in the household ranged from one to seven ($M = 1.75$, $SD = 0.97$). Annual household incomes ranged from \$0 to \$89,000 ($M = \$19,661$, $SD = \$12,236$), and 45% of households had received public assistance or welfare in the previous year. The household racial and ethnic backgrounds were as follows: 30.4% Hispanic or Latino of any race, 29.7% non-Hispanic white, 21.9% non-Hispanic black, 14.3% multi-racial household, and 3.7% other. Racial and ethnic data were missing for four (0.4%) households.

Ages of focal children ranged from 0 to 83.15 months ($M = 35.53$, $SD = 17.83$). Just over half (51.7%) of the focal children were boys. When asked if the focal child had a special need, seventy-six (6.8%) of respondents answered "yes." Most focal children received at least some nonparental care during the week prior to the survey, with a mean of 22.35 hours ($SD = 26.13$).

Table 3

Analytic Sample Characteristics

Characteristic	%	Mean	Range
Respondent characteristic to focal child			
Parent	93.9		
Non-parent	6.1		
Sex of respondent			
Male	87.9		
Female	12.1		
Respondent country of birth			
United States	77.1		
Other	22.9		
Respondent worked for pay			
Yes	51.2		
No	48.8		
Household size		4.06	2-12
Number children in household		1.75	1-7
Household annual income in dollars		19661.00	0-89000
Household welfare receipt			
Yes	45.0		
No	55.0		
Household racial/ethnic background			
Hispanic/Latino (any race)	30.4		
Non-Hispanic black	29.7		
Non-Hispanic white	21.9		
Multiracial	14.3		
Other	3.7		
Focal child age in months		33.53	0-83
Sex of focal child			
Male	51.7		
Female	48.3		
Focal child has special needs			
Yes	6.8		
No	93.2		

The analytic sample differed in several ways from other NSECE households with children of similar ages. Differences are highlighted in Table 4 and Table 5. The analytic sample households were smaller, had fewer children under the age of 13, were more likely to be a one-parent household, and had lower annual incomes. Respondents in the

analytic sample were younger and slightly more likely to be the parent of the focal child.

Respondents in the analytic sample were more likely to have received public assistance

and a child care subsidy, and less likely to have worked for pay. A slightly higher

percentage of children in the analytic sample were identified by their parents as having

special needs. Finally, the analytic sample had a somewhat different racial and ethnic

composition, with a greater percentage of black and Hispanic households and a lower

percentage of white households.

Table 4

Independent Samples T-Tests to Determine Differences Between Analytic and Non-Analytic Groups

	In analytic group		Not in analytic group		
Variable	*M*	*SD*	*M*	*SD*	*t-value*
# household members	4.06	1.57	4.29	1.48	4.45***
# children under 13 in household	1.75	0.97	1.91	0.99	4.77***
Hrs. child in nonparental care	22.35	26.13	20.95	25.53	1.61
Age of respondent	29.85	8.54	32.70	8.84	9.57***
Age of selected child in months	35.53	17.83	36.25	21.75	1.13
Annual household income	19660.60	12236.67	49303.06	42181.88	38.93***

***p <0.001.

Table 5

Chi-Square Tests of Association to Determine Differences Between Analytic and Non-Analytic Groups

Variable	Analytic group	Non-analytic group	Chi-square
Respondent is parent of selected child			
% Yes	93.9	91.2	8.92*
% No	6.1	8.8	
Respondent works for pay			
% Yes	51.2	62.2	19.92***
% No	48.8	37.8	
Racial/ethnic classification of household			
% Hispanic/Latino	30.4	26.9	
% Non-Hispanic white	29.7	42.3	
% Non-Hispanic black	21.9	12.4	105.23***
% Multi-racial household	14.3	13.2	
% Other	3.7	5.2	
Focal child has special needs			
% Yes	6.8	4.9	6.22*
% No	93.2	95.1	
Language mainly spoken in household			
% English	71.7	72.6	2.04
% Language other than English	28.3	27.4	
Received public assistance in last year			
% Yes	45.0	23.1	
% No	54.3	75.7	209.56***
% Don't know/refused	0.7	1.2	
One or two-parent household			
% One parent	45.4	26.7	143.75***
% Two parents	54.6	73.3	
Respondent country of birth			
% USA	77.1	76.2	5.68
% Another country	22.9	23.8	
Receiving child care subsidy			
% Yes	12.9	5.3	76.74***
% No	87.1	94.7	

*$p <0.05$. ***$p <0.001$.

Sampling Weights

As the NSECE sample is nationally representative, sampling weights were included in the dataset to reflect the true population. In my study, weights were used for all substantive analyses. The household survey data includes two weights: one for household-level analyses, and one for child-level analyses. As I examined families' search actions and choices, the household weight was used. The household weight allows for generating estimates for all 28,082,701 English- or Spanish-speaking households in the United States with at least one child under the age of 13 years (NSECE, 2013). Even though a subsample was used for my analyses, the same sampling weights were applied, to generate an accurate estimate of the subsample (families with low incomes who had searched for care in the previous two years for a child aged six or under not yet in kindergarten).

The household sampling weights were designed so that each weight represents a certain number of households in the population. For example, a household with a weight of 900 would represent 900 households in the population. In the subsample, the mean weight was $M = 2273.20$ ($SD = 2596.57$), with a range of 33.43 to 18,291.44. The sum of the weights for the subsample was 2,545,985, meaning that the subsample represents 2,550,682 households.

Measures

The household survey included items on the following topics: (1) child characteristics, (2) respondent and household characteristics, (3) types and hours of nonparental care, (4) respondent and spouse employment schedules, (5) nonparental care payment and subsidy, (6) nonparental child care search, and (7) household characteristics.

Respondents provided calendar data for the prior week, including the focal child's nonparental care schedule in 15-minute increments, and work schedule for parents and residential caregivers in 15-minute increments. A copy of the survey is included in Appendix A.

The household survey contained approximately 200 questions, although the actual number of items asked of each respondent varied. Some questions, or series of questions, were asked regarding one household member, then the interviewer "looped" back to ask the same questions regarding each additional household member. Questions on child care providers were asked in a similar manner. Some questions required a response of yes or no, and if an affirmative answer was received, a follow-up question was asked to probe for further information. The survey contained both closed- and open-ended questions. Responses to open-ended items were coded to allow for quantitative analyses.

For my study, I included a number of variables from the household survey and some measures derived from the household survey items. A list of measures is provided in Table 6. The dependent variables on child care searches and choices fell under the following categories: 1) number and types of child care considered in the search; 2) methods of search; 3) information sought about providers; and 4) result of search.

For the independent variables, I included a set of child, family, and community factors to account for the many contexts that contribute to child care decisions. While the NSECE household survey did not include items specifically related to challenges faced in the child care search, I was able to consider some constraints as described in the accommodation model. The independent variables fell under the following categories: 1) subsidy receipt; 2) preferences; 3) priorities; and 4) family, child, and community factors.

Dependent Variables

   Number and types of child care considered in the search. Parents were asked whether they considered only one provider or multiple providers in their latest child care search. I used this to form one dichotomous variable: *parent considered more than one provider.* Parents were asked for the type of provider they considered (if only one), or the types of the two providers they considered most carefully (if multiple). From the responses to these items, I formed three dichotomous variables: 1) *parent considered any home-based provider with whom they had a prior relationship;* 2) *parent considered any home-based provider with whom they did not have a prior relationship*; and 3) *parent considered center-based provider.*

   Methods of search. Depending on how many providers were considered, parents were asked one of two open-ended questions regarding how they searched for care for the focal child. Those parents who considered one provider were asked "how did you know about that provider?", and their first response was coded. Those who considered multiple providers were asked "how did you look for providers in your last search?", and up to two responses were coded.

   I combined similar coded responses to these two questions and recoded into three dichotomous variables: 1) *parent searched for care by consulting with their social network*; 2) *parent searched for care by looking at advertisements*; 3) *parent searched for care by using CCR&R or social services.*

   Information sought about providers. Parents who considered more than one provider were asked: "What was the specific information you tried to learn about providers?" Responses were open-ended, with the first three mentions coded. I combined

and recoded responses so that they fell into one of two dichotomous variables: 1) *parent sought practical information about the provider*; and 2) *parent sought programmatic information about the provider*. The *practical* variable included responses related to the following: type of care, scheduling (hours of care and whether the care was year-round), financial (willingness to accept or availability of subsidies, financial aid available, and fees charged), accessibility (geographic location and proximity to public transportation), and other services provided. The *programmatic* variable included responses related to the following: content (content of the program and curriculum/philosophy), licensing status, and teacher tenure/turnover.

Result of search. Parents were asked: "what was the result of this search for child care?". Responses fell into the following categories: found care, stayed with existing provider, decided not to use care other than parents, gave up the search for another reason, or other. These categories were recoded by NSECE to form a dichotomous variable, *search resulted in change of care*.

Parents were not directly asked what type of provider they chose in the survey. However, for parents who reported only considering one provider, I could assume that they chose that provider. Parents who considered more than one provider were asked the types of the two providers they considered most carefully, then were asked which of the two they chose. From this information, I created three dichotomous variables: 1) *parent chose a home-based provider with whom they had a prior relationship*; 2) *parent chose a home-based provider with whom they did not have a prior relationship*; 3) *parent chose center-based care*.

Parents whose searches resulted in a change of care were also asked: "what was the main reason you made that decision?". This was an open-ended question, with the main reason coded. I combined these reasons to form two categories, *practical* and *programmatic*. The *practical* category included responses related to cost, schedule, or the provider having space available. The *programmatic* category included responses related to the quality of care or having a good feeling about the program. Because the categories were mutually exclusive, I formed one dichotomous variable, *parent chose care primarily for practical reasons*. This, it could be assumed that a respondent who was coded "0" had made the decision primarily based on programmatic reasons.

Independent Variables

Subsidy receipt. The NSECE data do not include any single item that indicates whether the respondent received a CCDF subsidy. This should be considered a limitation of the NSECE dataset. However, respondents were asked several questions about how they paid for child care. Using these items, I constructed a dichotomous variable for *parent received subsidy*.

For each of the focal child's care settings, the respondent was asked: "Is [provider] paid by someone or someplace else for the care of [child]?" If the respondents answered in the affirmative to this question, they were then asked: "Who pays them?" For the purposes of my study, parents were considered to have received a subsidy if they indicated their care was paid for by one or more of the following: an agency for child development, a community or religious group, a local or community program, a resource and referral agency, or welfare/employment services.

In addition to these items, parents were asked whether they paid a copay for any of the focal child's care arrangements: "In addition to the payments made by (this source/these sources), do you have a co-payment? In other words, do you need to pay [provider] yourself with money out of your own pocket?" If parents responded that they had a copayment, they were considered to have received a subsidy.

Parents were asked whether the amount charged for care was based on a sliding fee: "Now think about the money you pay for [provider]. Sometimes the amount of money that a

parent is charged for a child care arrangement or program depends on how much the family earns. This is sometimes called a sliding fee scale. Is the amount you are charged by [provider] determined by how much money you earn?" Parents who indicated they paid based on a sliding fee scale were considered to have received a subsidy.

Finally, parents were considered to have received a subsidy if they answered in the affirmative to the following question: "Do you receive payments, reimbursements or vouchers that are paid directly to you to cover some portion of the payments you make to [provider] for (child)'s care?"

While answers to these items indicate that the parent *may* have received a CCDF subsidy, they could have also described other types of sources of child care assistance. Furthermore, child care assistance that may appear to come from another source could come from CCDF. For example, some states contract with nonprofit agencies such as the United Way to process CCDF eligibility and payments.

Preferences. The NSECE household survey did not collect comprehensive data on parental preferences regarding child care. Other researchers have examined attitudes,

beliefs, and perceptions regarding care types as being constructs similar to child care preferences (e.g., Seo, 2003; Layzer et al., 2007). In the NSECE, the types of care included in these items were care by a friend or relative (kith and kin), family child care home, center-based care, and parent-only care. For each of these types, parents were asked the following questions: "How would you rate it on having a nurturing environment for children of the same age as (focal child)?," "How would you rate it on helping children be ready to learn in school for children of the same age as (focal child)?," "How about for teaching children how to get along with other children?," "How about safety in (type of care) for children of the same age as (focal child)?," "How about affordability?.," and "How about flexibility?" Each of these items were rated on a scale of "Excellent," "Good," "No Opinion," "Fair," or "Poor."

Using these data, I constructed new variables for 1) *attitudes toward kith and kin care*, 2) *attitudes toward family child care homes*, and 3) *attitudes toward center-based care*. I did not construct a variable for attitudes toward parental only care as the focus of my study was nonparental care. The variables were constructed by calculating the average score for each type of care, where higher scores mean more positive attitudes. Respondents with missing data for two or more of the six questions were given a missing score for that type.

Priorities. Parents rated how important certain characteristics were in their most recent child care search. Parents rated each factor on a 3-point scale ("Very Important," "Somewhat Important," and "Not Very Important."). Factors included: nurturing environment, helping children be ready to learn in school, learning how to get along with other children, affordability, and flexibility.

Family, child, and community factors. The following family, child, and community factors were included as independent variables:

Parental immigration. Respondents were asked to name their country of birth. I formed one dichotomous variable based on these responses, *parent immigrated*, to capture whether the parent had immigrated to the United States.

Presence of older children. As respondents provided information about all the children living in the household, I determined which parents had other children who were older than the focal child. From this information, I formed a dichotomous variable, *older children present in household*.

Household income. Household income was included in the NSECE data as a categorical variable, based on the ratio of annual income to the federal poverty guidelines (for reference, the poverty guideline for a family of three in 2011 was $18,530). Missing income values were imputed by NSECE using a multiple imputation procedure. The variable was top-coded, meaning the top one percent of incomes were replaced by the median of the top one percent. I formed a dichotomous variable from this information, *family income is below poverty guidelines*.

Child special needs. Parents were asked regarding the focal child: "Does [child] have a physical, emotional, developmental, or behavioral condition that affects the way the way you provide care for [him/her]?" I recoded responses to form a dichotomous variable, *child has special needs*.

Child age. The focal child's age was recorded in months and included as a continuous variable.

Presence of family members nearby. Parents were asked: "Does your child have any relatives who live within 45 minutes of your child's home?" If they indicated they did, they were then asked whether the relatives would be willing to provide regular care for their child or children with pay, whether the relatives would be willing to provide regular care without pay, or whether they would not be willing to provide regular care.

Reason for child care search. Parents were asked, "what was the main reason you were looking for child care?" for the focal child, choosing from 10 responses. From those, I formed a categorical variable, *reason for the search*, with four options. Two of those options were directly from the original survey responses: (1) *Parent wished to provide child educational and social enrichment*; and (2) *Parent wished for some relief*. The other two options were formed by combining and recoding responses: (3) *Parent needed to find new arrangement* (parent needed to work or had a change in work schedule, there were gaps left by the main provider, provider stopped providing care, child no longer eligible for previous care); and (4) *Parent dissatisfied with current arrangement* (wished for reduction in child care expenses, not satisfied with care received).

Community urban density. The NSECE classified the community of each household on an urban/rural spectrum. The classification was recorded as a categorical variable, either a high density of urban population, moderate density of urban population, or rural population.

Community poverty density. The NSECE classifies the community of each household according to poverty density. Categories included high density of poverty (if more than 20% of the population has incomes below the federal poverty guidelines),

moderate density of poverty community (if 13.9-20% of the population has incomes

below the federal poverty guidelines), or low density of poverty community (if 0-13.8%

of the population has incomes below the federal poverty guidelines).

Table 6

List of Variables

Dependent Variables	Type
Number and types of child care considered in search	
Parent considered more than one provider	Binary
Parent considered home-based provider with whom they had a prior relationship	Binary
Parent considered home-based provider with whom they did not have a prior relationship	Binary
Parent considered center-based provider	Binary
Methods of search	
Parent searched for care by consulting with their social network	Binary
Parent searched for care by looking at advertisements	Binary
Parent searched for care by using CCR&R or social services	Binary
Information sought about providers	
Parent sought practical information about the provider	Binary
Parent sought programmatic information about the provider	Binary
Result of search	
Search resulted in change of care	Binary
Parent chose a home-based provider with whom they had a prior relationship	Binary
Parent chose a home-based provider with whom they did not have a prior relationship	Binary
Parent chose center-based provider	Binary
Parent chose care primarily for practical reasons	Binary

Dependent Variables	Type	Possible Responses
Subsidy receipt		
Parent received subsidy		
Preferences		
Rating of kith and kin care	Continuous	Scale of 1-5
Rating of family child care homes	Continuous	Scale of 1-5
Rating of center-based care	Continuous	Scale of 1-5

Priorities

Importance of loving environment	Continuous	Scale of 1-3
Importance of helping children be ready to learn in school	Continuous	Scale of 1-3
Importance of helping children to get along with others	Continuous	Scale of 1-3
Importance of affordability	Continuous	Scale of 1-3
Importance of flexibility	Continuous	Scale of 1-3

Family and child factors

Parent immigrated to United States	Binary	
Older children present in household	Binary	
Child age, in months	Continuous	Scale of 0-72 months
Child has special needs	Binary	
Presence of family members nearby	Categorical	(1) No relatives nearby / (2) Relatives nearby and would provide care for no pay / (3) Relatives nearby and would provide care for pay (4) Relatives nearby but would not provide care
Primary reason for child care search	Categorical	(1) Needed to find new arrangement / (2) Wished to provide educational/social enrichment / (3) Wished for some relief (4) Unsatisfied with current arrangement

Community factors

Community poverty density	Categorical	(1) High poverty density / (2) Moderate poverty density / (3) Low poverty density
Urban population density	Categorical	(1) High density of urban population / (2) Moderate density of urban population / (3) Rural population

Analysis of Research Questions

In this section, I provide an overview of the methods used in answering each of the research questions. This information is also presented in Table 7.

Because of the complex design of the NSECE, including strata, clusters, and unequal weights, SAS SURVEY procedures were used for all analyses. These procedures are recommended for analysis of complex survey data, as they account for the sampling design (i.e., use of strata and clusters as opposed to simple random) to produce accurate estimations of variance and standard error (Berglund, 2014; Lewis, 2017). For all analyses, I included the entire set of household survey respondents, with my subsample identified as the *domain.* Domain analysis allows for computing the statistics of interest for the subsample only while using the entire sample to compute the variance estimates (SAS Institute Inc. [SAS], 2016).

To answer the first research question (how do parents in families with low incomes search for and choose child care? Specifically, how many and what types of providers are considered, what are their methods of search, what information is sought about providers, and what is the result of the search?), I used PROC SURVEYFREQ to generate frequency statistics on child care searches and choices: 1) number and types of providers considered in the search; 2) methods of search; 3) information sought about providers; and 4) result of the search.

To answer the second research question (are there any differences in the child care searches and choices between families receiving child care subsidies and other families with low incomes?) I used PROC SURVEYFREQ to run Rao-Scott chi-square tests of association. These tests are design-adjusted versions of the Pearson chi-square

(SAS, 2016). Tests were run for each of the child care search and choice dependent variables, with subsidy receipt as the independent variable.

To answer the third research question (how do child care preferences and priorities, family and child factors, and community factors relate to child care searches and choices?), I used PROC SURVEYLOGISTIC to run logistic regressions. In logistic regression, the relation between a set of predictor variables and a categorical outcome variable is examined by modeling the odds of whether the outcome is present. PROC SURVEYLOGISTIC fits the logistic regression models through maximum likelihood estimation while accounting for complex survey design (SAS, 2016). The analyses produce odds ratio estimates and confidence intervals for each predictor variable while holding the others constant. The models tested included subsidy receipt, the family demographic and contextual factor variables, and the parental child care preferences and priorities variables as predictors. Fourteen models were tested: 1) probability of considering more than one provider; 2) probability of considering center-based care; 3) probability of considering a home-based provider with whom the parent did not have a prior relationship; 4) probability of considering a home-based provider with whom the parent had a prior relationship; 5) probability of consulting with social network to search for care; 6) probability of looking at advertisements to search for care; 7) probability of using CCR&R to search for care; 8) probability of seeking practical information about the provider; 9) probability of seeking programmatic information about the provider; 10) probability of the search resulting in a change of care; 11) probability of choosing a home-based provider with whom the parent had a prior relationship; 12) probability of choosing a home-based provider with whom the parent did not have a prior relationship;

13) probability of choosing center-based care; and 14) probability of choosing a provider

primarily based on practical factors. Each model was represented by the following

equation:

$$\ln\left(\frac{\hat{p}}{1-\hat{p}}\right) = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \beta_5\chi_5 + \beta_6\chi_6 + \beta_7\chi_7 + \beta_8\chi_8 +$$

$$\beta_9\chi_9 + \beta_{10}\chi_{10} + \beta_{11}\chi_{11} + \beta_{12}\chi_{12} + \beta_{13}\chi_{13} + \beta_{14}\chi_{14} + \beta_{15}\chi_{15} + \beta_{16}\chi_{16} +$$

$$\beta_{17}\chi_{17} + +\beta_{18}\chi_{18}$$

Where $\hat{p}$ = probability of the event occurring; χ_1= subsidy receipt; χ_2= rating of center

care; χ_3= rating of family child care home; χ_4= rating of kith and kin care; χ_5=

importance of loving environment; χ_6= importance of helping children be ready to learn;

χ_7= importance of learning to get along with others; χ_8= importance of affordability; χ_9=

importance of flexibility; χ_{10}= parent immigration; χ_{11}= presence of older children; χ_{12}=

household income; χ_{13}= child special needs; χ_{14}= child age; χ_{15}= presence of family

members nearby; χ_{16}= reason for child care search; χ_{17}= community urban density; and

χ_{18}= community poverty density.

Table 7

Analytic Methods

Independent Variables	Dependent Variables	Analytic Method
Research Question 1: How do parents in families with low incomes search for and choose child care? Specifically, how many and what types of providers are considered, what are their methods of search, what information is sought about providers, and what is the result of the search?		
N/A	Number and types of providers considered in search	Descriptive statistics
N/A	Methods of search	Descriptive statistics
N/A	Information sought about providers	Descriptive statistics
N/A	Result of search	Descriptive statistics
Research Question 2: Are there any differences in the child care searches and choices between families receiving child care subsidies and other families with low incomes?		
Subsidy receipt	Number and types of providers considered in search	Chi-square tests of association
Subsidy receipt	Methods of search	Chi-square tests of association
Subsidy receipt	Information sought about providers	Chi-square tests of association
Subsidy receipt	Result of the search	Chi-square tests of association
Research Question 3: How do child care preferences and priorities, family and child factors, and community factors relate to child care searches and choices?		
Preferences Priorities Family and child factors Community factors	Number and types of providers considered in search	Logistic regression
Preferences Priorities Family and child factors Community factors	Methods of search	Logistic regression
Preferences Priorities Family and child factors Community factors	Information sought about providers	Logistic regression
Preferences Priorities Family and child factors Community factors	Result of search	Logistic regression

Chapter 4: Results

This chapter is organized into four sections. In Section 1, I describe the procedures for data preparation and cleaning. Sections 2, 3 and 4 consist of the results to each of the three research questions.

Data Cleaning and Preparation

Data cleaning and preparation included the following steps: combining and recoding variables, reconciliation of missing data, and meeting all assumptions for statistical tests.

Combining and Recoding

Certain measures were formed by combining or recoding existing variables from the household survey data. These measures were described in detail in Chapter 3. Additionally, some variables were recoded into dummy variables that indicated the presence of a characteristic. For example, the household survey data coded the responses for *number of providers considered in search* as "1" for *more than one provider considered* and "2" for *only one provider considered*. The "2" was recoded as "0" so that the measure could be framed as an indicator for considering more than one provider in the search.

Missing values fell into three categories: valid missing, true missing, and don't know/refused. *Valid missing* were responses that were missing because the item was not applicable to the parent. Survey items regarding information sought about providers, for example, were only asked of parents who considered more than one provider. Additionally, items about the reason for choosing a particular provider were only asked of parents who actually indicated that they chose a new provider. *True missing* were

responses that were blank (i.e., *system missing*), in the dataset with no apparent reason. *Don't know/refused* (DK/REF) were coded as such in the dataset, and indicated that a question was asked to a parent, but the parent either did not know the answer or chose not to answer. In data cleaning, I recoded all instances of DK/REF to *system missing*. I recoded *valid missing* responses to *system missing* but added a separate flag variable. This way, the responses would be excluded from the applicable analyses, but would not be included in the data imputation procedures.

Missing Data

Missing data were minimal, and no variable had more than five percent of responses missing (excluding valid missing responses). Table 8 displays the list of variables with the frequency of missing responses. Even small amounts of missing responses can affect the results and compromise the quality of the data (SAS, 2016). Of the 1120 respondents in my sample, 137 were missing at least one data point. I used PROC SURVEYIMPUTE, which implements fractional hot-deck imputation, one of the most common imputation techniques for survey data (SAS, 2016). In fractional hot-deck imputation, the value of the imputed item comes from multiple "donors," each donating a fraction of the original weight of the recipient (Kim & Fuller, 2004). The PROC SURVEYIMPUTE output displays a table showing the patterns of missing data, for visual assessment of whether the missing values are scattered across respondents. The procedure operates under the assumption that the values are missing completely at random.

Table 8

Unweighted Frequencies of Missing Data Before Imputation

Variable	Missing	Valid	Total	% Missing
Received subsidy	0	1120	1120	0
Considered >1 provider	0	1120	1120	0
Considered HB provider w/prior relationship	4	1116	1120	0.36
Considered HB provider w/no prior relationship	4	1116	1120	0.36
Considered center-based provider	4	1116	1120	0.36
Consulted with social network	21	1099	1120	1.88
Looked at ads	21	1099	1120	1.88
Used CCR&R	21	1099	1120	1.88
Sought practical information	0	597	597	0
Sought programmatic information	0	597	597	0
Search resulted in change of care	0	1120	1120	0
Chose care for practical reasons	6	567	573	1.05
Chose HB care w/prior relationship	0	573	573	0
Chose HB care w/no prior relationship	0	573	573	0
Chose center-based provider	0	573	573	0
Rating of center care	49	1071	1120	4.38
Rating of kith and kin care	9	1111	1120	0.80
Rating of family child care home	52	1068	1120	4.64
Importance loving environment	0	1120	1120	0
Importance ready to learn	2	1119	1120	0.18
Importance getting along with others	0	1120	1120	0
Importance affordability	3	1117	1120	0.27
Importance flexibility	0	1120	1120	0
Parent immigrated	3	1117	1120	0.27
Older children present	0	1120	1120	0
Child age in months	0	1120	1120	0
Child special needs	1	1119	1120	0.09
Family members nearby	2	1118	1120	0.18
Reason for search	10	1110	1120	0.89
Community poverty density	0	1120	1120	0
Community urban density	0	1120	1120	0

Tests for Assumptions

The chi-square test for association operates under the following assumptions (Cochran, 1954; McHugh, 2013): 1) independence of observations; and 2) an expected cell count of five or more. These assumptions were both met for all chi-square analyses. All groups and observations for each test were independent of each other, and all cells had expected frequencies (unweighted and weighted) of at least five.

Binomial logistic regression also has several assumptions (Agresti, 2002; Field, 2009): 1) independence of observations; 2) linearity between the continuous independent variables and the logit-transformed dependent variables; and 3) no collinearity among the independent variables.

The first assumption was met through the nature of the study design and the way in which I set up my measures. Each dependent variable was binary and the categorical independent variables were either binary, or if they were not binary, the categories were mutually exclusive and exhaustive.

To test the second assumption, I followed the Box-Tidwell procedure (1962) to determine whether linear relations existed between the continuous independent variable and the logit-transformed dependent variables. The Box-Tidwell procedure requires forming natural log transformations of the continuous variable and then forming an interaction term between the continuous variable and the transformation. There were four continuous variables (attitude toward kith and kin care, attitude toward family child care home, attitude toward center-based care, and child age in months), so I created four transformations and four interactions. Then, I ran each of the logistic regression models (as described in research question 3) with the interaction terms included as independent

variables. None of these interactions were found to be statistically significant in any of the models, indicating that linear relations did exist between each continuous independent variable and each logit-transformed dependent variable. Thus, the second assumption was met.

To test the third assumption, I ran correlations of the independent variables in SAS (with each categorical variable transformed into *y-1* dummy variables, where *y* is the number of response categories) and requested collinearity diagnostics. The approach for detecting collinearity followed that of Belsley, Kuh, and Welsch (1980). First, I reviewed the correlations among the independent variables and noted no variables that seemed to be highly correlated. I examined the variance inflation factor (VIF) of each independent variable. The VIF displays the extent of increase, or inflation, of the variance because of collinearity. A large VIF is an indicator of collinearity, and although there are no formal criteria for determining the cutoff point, a VIF that is greater than 10 generally warrants further examination. None of my independent variables had a VIF greater than five.

The procedure for detecting multicollinearity also involves examining the eigenvalues and condition indices formed from the correlation matrix. In my results, there were three components associated with condition indices above 30, a conservative indicator for possible collinearity. However, none of these three components contributed strongly to the variance of any of the variables. Belsley et al. (1980)'s approach suggests that a collinearity problem exists when a component with a high condition index is associated with a variance proportion of 0.5 or greater for at least two variables (SAS, 2016). Based on this, as well as the low VIF values, I concluded that there was no collinearity among the independent variables.

Research Question 1: How Do Parents in Families With Low Incomes Search for and Choose Child Care? Specifically, How Many and What Types of Providers are Considered, What Are Their Methods of Search, What Information Is Sought About Providers, and What Is the Result of the Search?

Table 9 displays the frequency distributions and standard errors for parents' responses to each of the items on search actions and choices. These responses give general insight into the child care searches and choices of parents with low incomes.

Table 9

How Do Parents in Families with Low Incomes Search for and Choose Child Care? Overall Frequencies

Variable	Yes (%)	No (%)	S.E.
Considered >1 provider	55.31	44.69	2.36
Considered HB provider w/prior relationship	27.52	72.48	2.11
Considered HB provider w/no prior relationship	12.56	87.44	1.44
Considered CB provider	70.16	29.84	2.02
Consulted with social network	52.28	47.72	2.13
Looked at ads	26.03	73.97	2.16
Used CCR&R	20.07	79.93	1.98
Sought practical information	63.23	36.77	3.14
Sought programmatic information	41.82	58.18	3.16
Search resulted in change of care	50.96	49.04	2.43
Chose center-based care	58.34	41.66	3.37
Chose HB care w/prior relationship	21.39	78.61	2.94
Chose HB care w/no prior relationship	7.95	92.05	1.34
Chose care for practical reasons	45.14	54.86	2.92

Number and Types of Child Care Considered in Search

Just over half of parents (55%) considered more than one child care provider during their search, and the remainder (45%) only considered one provider. Seventy-two percent of parents carefully considered a center-based provider, which was by far the most popular provider type considered. Twenty-eight percent reported considering a home-based provider whom they already knew, while only 12 percent carefully

89

considered a home-based provider with whom they did not have a prior relationship (i.e., a family child care home).

Methods of Search

Parents who considered only one provider reported the primary method of their search, and parents who considered more than one providers reported the two primary search methods. The most common method (mentioned by 52% of parents) was consulting with family and friends in the social network. About one-quarter of parents (26%) used advertisements in their search, either posting an advertisement themselves or responding to one. Twenty percent of parents reported using CCR&R or a social services or welfare office to get a child care referral.

Information Sought About Providers

Parents who considered more than one provider were asked about the information sought from providers. Sixty-three percent of these parents tried to learn information from the provider that would be considered "practical," such as information about location, cost, and scheduling. Fewer parents (42%) tried to learn programmatic information, such as details about the curriculum, program content, and teacher qualifications.

Table 10 shows a breakdown of the practical and provider information sought by parents. Since parents could report up to three pieces of information sought, the categories were not mutually exclusive. Parents seeking practical information most often inquired about financial information (39%), scheduling information (35%), and accessibility (13%). Parents seeking programmatic information most often asked about

program content (36%), licensing status (5%), and information about teachers or caregivers (4%).

Result of Search

The child care search process resulted in a change of provider for about half of the parents in the sample (51%). The other 49 percent reported no change in provider; either continuing the current arrangement or continuing with parental care only.

Of the parents reporting a change in provider, a majority chose a child care center (58%). The next most common arrangement, chosen by 21 percent of parents, was with a home-based provider already known to the parent. Just under eight percent of parents reported choosing a home-based provider that the provider did not previously know. The remaining 13 percent of parents reporting a change in provider indicated "other" when asked for the provider type.

When asked the primary reason for choosing the provider, 46 percent of parents who changed providers gave a reason that could be thought of as practical, and the remaining 54 percent of parents gave a primary reason for choosing the provider that could be thought of as programmatic. Table 10 breaks down these reasons further. Of the parents primarily choosing a provider for practical reasons, the most common reasons cited were: cost (16%), location (10%), schedule (7%), had no other choices (7%), or provider had space available (5%). Of the parents primarily choosing a provider for programmatic reasons, the most common reasons cited were quality (37%), having the best feeling about the provider (15%), and knowing and trusting the provider (3%).

Table 10

How Do Parents in Families With Low Incomes Search for and Choose Child Care?
Breakdown of Information Sought and Reason for Choosing Care

Variable	Yes (%)	No (%)	S.E.
*Sought practical information**	*63.23*	*36.77*	*3.14*
Financial information (fees, financial aid, subsidy)	39.30		
Accessibility (location, public transportation)	12.63		
Schedule (hours of care, year-round availability)	34.99		
*Sought programmatic information**	*41.82*	*58.18*	*3.16*
Content (program, curriculum, philosophy)	35.67		
Licensing status	4.78		
Information about teachers	4.15		
*Chose care for practical reasons***	*45.14*	*54.86*	*2.92*
Had no other choices	6.62		
Cost	16.19		
Schedule	7.09		
Location	10.10		
Provider had space available	5.14		
*Chose care for programmatic reasons***	*54.86*	*45.14*	*2.92*
Quality	37.36		
Provider gave the best feeling	15.00		
Knew/trusted provider	2.50		

*Parents could report up to three pieces of information sought from providers. Thus, the categories are not mutually exclusive. Only parents who considered more than one provider were asked about the information sought. **Parents reported the primary reason for choosing their provider. Thus, the categories are mutually exclusive.

Research Question 2: Are There Any Differences in the Child Care Searches and Choices Between Families Receiving Child Care Subsidies and Other Families With Low Incomes?

Table 11 displays results for the Rao-Scott chi-square tests of association. For most of the child care search and choice variables, there were no significant differences between the parents receiving subsidies and the other parents in the sample. The two groups of parents were equally likely to consider more than one provider and to consider center-based care and home-based providers with whom they did not have a prior relationship. Similar proportions of parents receiving subsidies and parents not receiving subsidies reported searching for care through looking at advertisements and using CCR&R. They also reported seeking similar types of information about providers and cited similar reasons for choosing a provider.

During the child care search, parents receiving subsidies were significantly less likely to consider a home-based provider whom they already knew ($\chi^2(1)=13.15$, $p <0.001$). Also, they were more likely to consult with their social network during the search ($\chi^2(1)=6.04$, $p=0.01$). Parents receiving subsidies were significantly more likely than other parents to report a change in child care provider as a result of the search ($\chi^2(1)=30.21$, $p <0.001$). When reporting on the provider type chosen, parents receiving subsidies were less likely than other parents to choose a home-based provider they already knew ($\chi^2(1)=13.26$, $p <0.001$), and more likely to choose center-based care ($\chi^2(1)=4.32$, $p=0.04$).

Table 11

Are There Any Differences in the Child Care Searches and Choices Between Families Receiving Child Care Subsidies and Other Families With Low Incomes?

Variable		Subsidy	No Subsidy	χ2
Considered >1 provider	% Yes	47.74	56.29	1.61
	% No	52.26	43.71	
Considered HB provider w/prior relationship	% Yes	14.30	29.23	13.51***
	% No	85.70	70.77	
Considered HB provider w/no prior relation.	% Yes	10.32	12.85	0.65
	% No	89.68	87.15	
Considered CB provider	% Yes	77.30	69.24	2.76
	% No	22.70	30.76	
Consulted with social network	% Yes	67.00	50.39	6.04*
	% No	33.00	49.61	
Looked at ads	% Yes	21.05	26.68	0.92
	% No	78.95	73.32	
Used CCR&R	% Yes	21.99	19.83	0.18
	% No	78.01	80.17	
Sought practical information	% Yes	71.09	62.37	0.73
	% No	28.91	37.63	
Sought programmatic information	% Yes	47.30	41.22	0.35
	% No	52.70	58.78	
Search resulted in change of care	% Yes	81.00	47.09	30.21***
	% No	19.00	52.91	
Chose HB provider w/prior relationship	% Yes	7.59	24.48	13.26***
	% No	92.41	75.55	
Chose HB provider w/no prior relationship	% Yes	8.48	7.83	0.04
	% No	91.52	92.17	
Chose center-based care	% Yes	70.93	55.55	4.32*
	% No	29.07	44.45	
Chose care for practical reasons	% Yes	35.92	47.18	2.19
	% No	64.08	52.82	

*$p < 0.05$. ***$p < 0.001$.

Research Question 3: How Do Child Care Preferences and Priorities, Family and Child Factors, and Community Factors Relate to Child Care Searches and Choices?

Appendix C includes tables with the results for each logistic regression model. These tables contain the results of the tests for global significance and goodness-of-fit. While the parameter tests are useful for answering my research question, it is also important to consider the model as a whole (Hosmer, Taber, & Lemeshow, 1991). I used a Wald F-test to assess the global significance of the model; that is, H_0: $\beta_1=\beta_2=...\beta_{18}=0$ versus H_1: $\beta_j \neq 0$ for one or more values of j (where j=1 through 18). While PROC SURVEYLOGISTIC performs other global significance tests, it is advised to only heed the results of the Wald test when working with complex survey data (Heeringa, West, & Berglund, 2010; Lewis, 2017). Goodness-of-fit was assessed through a modification of the Hosmer-Lemeshow test statistic for complex survey data (Archer & Lemeshow, 2006). This test statistic measures lack of fit, meaning that significant values indicate a poorly fitting model. Significant findings from the tests of the predictor variables are presented along with odds ratios and 95% confidence intervals.

Cox and Snell's (1989) and Nagelkerke's (1991) R^2 values are given in each table as footnotes. It is common to present R^2 values in logistic regression, but they should be interpreted with caution, as they function differently than they would in linear regression (Hosmer & Lemeshow, 2000), and likely even more so for complex survey samples (Lewis, 2017). Thus, I offer the R^2 in the tables for reference, but do not include them in my descriptions of each model.

In logistic regression analyses, it is common to express significant associations between predictor and outcome variables in terms of odds ratios (Lewis, 2017). The odds

ratio is not a probability, but an expression of the odds of an event (outcome) occurring. For categorical predictors, it describes the odds for one group, relative to the reference group. For continuous predictors, it describes the change in odds given a one-unit increase in the predictor variable.

Table 1Table 12 displays an overview of the results for each model, including whether the model was significant, whether it had a good fit, and the direction of any significant predictors.

Table 12

Overview of Research Question 3 Results

Model (probability of event occurring)	Good fit?	Significant predictors
1. Considering >1 provider	Yes	• Positive attitude toward center-based care - **increased** odds • Immigrant parent - **decreased** odds • Subsidy receipt - decreased odds
2. Considering HB provider w/prior relationship	No	• Positive attitude toward family child care home - **increased** odds • Positive attitude toward kith and kin care - **decreased** odds • Immigrant parent - **increased** odds • Subsidy recipient - **decreased** odds • Child age - **decreased** odds • Relatives nearby, would provide care for free - **increased** odds • Sought care to provide social enrichment - **decreased** odds
3. Considering HB provider w/no prior relationship	No	• Sought care to provide social enrichment - **decreased** odds
4. Considering CB provider	Yes	• Prioritized affordability - **increased** odds • Immigrant parent - **decreased** odds • Child age - **increased** odds • Sought care to provide social enrichment - **increased** odds • Sought care because parent wanted change - **increased** odds
5. Consulting with social network	Yes	• Positive attitude toward kith and kin care - **increased** odds • Prioritized helping children learn to get along - **decreased** odds • Relatives nearby, would provide care for pay - **decreased** odds
6. Looking at advertisements	N/A - model not significant	
7. Using CCR&R	N/A - model not significant	
8. Seeking practical information	No	• Prioritized nurturing environment - **decreased** odds • Prioritized helping children learn to get along - **decreased** odds • Prioritized affordability - **increased** odds

		• Immigrant parent - **decreased** odds
		• Rural community - **increased** odds
9. Seeking programmatic information	N/A - model not significant	
10. Search resulting in change of care	No	• Prioritized affordability - **decreased** odds
		• Subsidy recipient - **increased** odds
		• Sought care to provide social enrichment - **decreased** odds
11. Choosing HB provider w/prior relationship	No	• Immigrant parent - **increased** odds
		• Relatives nearby, would provide care for free - **increased** odds
		• Relatives nearby, would provide care for pay - **increased** odds
		• Sought care to provide social enrichment - **decreased** odds
		• Sought care because parent wanted change - **decreased** odds
12. Choosing HB provider w/no prior relationship	No	• Older children in household - **increased** odds
		• Rural community - **increased** odds
		• Sought care to provide social enrichment - **decreased** odds
13. Choosing CB Care	No	• Child age - **increased** odds
		• Rural community - **decreased** odds
		• Sought care to provide social enrichment - **increased** odds
14. Choosing care for practical reasons	N/A - model not significant	

Number and Types of Child Care Considered in Search

Model 1: probability of considering more than one provider. Table C-1

displays the results for model 1. The model was significant (F(24,262) = 2.67, *p* <0.001),

and the Archer and Lemeshow test was not significant (F(10)=1.09, *p*=0.37) indicating a

good fit. Three predictor variables were significant. The odds of considering more than

one provider decreased as ratings of center-based care increased (t(285)=2.01, *p*=0.04,

odds ratio (O.R.)=0.81, confidence interval (C.I.)= 0.66-0.99). Compared to native-born

parents, being an immigrant was associated with a decrease in the odds of considering

more than one provider (t(285)=2.05, *p*=0.04, O.R.=0.64, C.I.=0.04-0.64); There was

also a significant finding for subsidy receipt; compared to parents who did not receive

subsidies, subsidy receipt was associated with a decrease in the odds of considering more

than one provider (t(285)=2.29, *p*=0.02, O.R.=0.58, C.I.=0.36-0.93).

Model 2: probability of considering a home-based provider with whom there

was a prior relationship. Table C-2 displays the results for model 2. The model was

significant (F(24,262) = 4.19, *p* <0.001); however, the lack of fit test was also significant,

suggesting a poor fit (F(10)=602.23, *p* <0.001). There were seven predictors that were

significant in this model. The likelihood of considering a home-based prior that was

known to the parent increased with higher ratings of family child care homes

(t(285)=2.95, *p*=0.004, O.R.=1.49, C.I.=1.14-1.94), and decreased with higher ratings of

kith and kin care (t(285)=2.81, *p*=0.005, O.R.=0.66, C.I.=0.49-0.88) and child age

(t(285)=2.23, *p*=0.03, O.R.=0.99, C.I.=0.98-0.99). Immigrant parents had 2.06 times

greater odds of considering a home-based provider (t(285)=2.75, *p*=0.006, O.R.=2.06,

C.I.=1.23-3.47). Subsidy receipt was associated with a decrease in the odds of

considering a known home-based provider (t(285)=2.79, p=0.006, O.R.=0.43, C.I.=0.23-0.78). Compared to parents who reported having no relatives nearby, those with relatives nearby who would provide free care had 2.16 times greater odds of considering a known home-based provider (t(285)=2.85, p=0.005, O.R.=2.16, C.I.=1.27-3.69). And searching for care in order to provide social enrichment was associated with decreased odds of considering a known home-based provider, compared to searching for care out of need (t(285)=4.44, p <0.001, O.R.=0.24, C.I.=0.13-0.45).

Model 3: probability of considering a home-based provider with whom there was no prior relationship. Table C-3 displays the results for model 3. The model was significant (F(24,262) = 2.39, p <0.001); however, the Archer and Lemeshow test indicated a lack of fit (F(10) = 24,518.20, p <0.001). There was one significant predictor. Relative to searching for care out of need, searching for care to provide social enrichment was associated with a decrease in the odds of considering a previously unknown home-based provider (t(285=2.53, p=0.01, O.R.=0.30, C.I.=0.12-0.76)

Model 4: probability of considering center-based care. Table C-4 displays the results for model 4. The model was significant (F(24,262) = 3.64, p <0.001), and the Archer and Lemeshow test indicated a good fit (F(10)=1.09, p=0.37). There were five significant predictors. The odds of considering center-based care increased as ratings for the importance of affordability increased (t(285)=1.97, p = 0.04, O.R.=1.63, C.I.=1.00-2.66). Being an immigrant was associated with decreased odds of considering center-based care relative to being native born (t(285)=2.81, p = 0.005, O.R.=0.50, C.I.=0.31-0.82), and the odds of considering center-based care increased as child age increased ((285)=3.20, p = 0.002, O.R.=1.02, C.I.=1.01-1.03) Also, there were several findings

around the reason for the child care search. Compared to parents who were searching for care out of need, parents who were searching for care to provide social enrichment had 4.27 times higher odds of considering center-based care (t(285)=5.24, p <0.001, O.R.=4.27, C.I.=2.47-7.37), and those who were searching for care out of a desire to change providers had 4.35 times higher odds (t(285)=3.18, p=0.002, O.R.=4.35, C.I.=1.75-10.79).

Methods of Search

Model 5: probability of searching for care by consulting with social network. Table C-5 displays the results for model 5. The model was significant (F(24,262)=1.61, p=0.04) and had good fit (F(10)=1.01, p=0.43). Three predictors were significant. The odds of consulting with the social network increased as positive ratings of kith and kin care increased (t(285)=2.00, p=0.04, O.R.=1.32, C.I.=1.00-1.74), and the odds decreased as ratings of the importance of helping children get along with others increased (t(285)=2.36, p=0.02, O.R.=0.59, C.I.=0.38-0.92). Compared to having no relatives nearby, having relatives nearby who would provide care for pay was associated with lower odds of consulting with the social network (t(285)=2.37, p=0.02, O.R.=0.42, C.I.=0.20-0.86).

Model 6: probability of searching for care by looking at advertisements. Table C-6 displays the results for model 6. Although there were two predictors that were significant, the overall model was not (F(24, 262)=1.33, p=0.14).

Model 7: probability of using CCR&R. Table C-7 displays the results for model 7. Although there was one significant predictor, the overall model was not significant (F(24,262)=1.33, p=0.14).

Information Sought About Providers

    Model 8: probability of seeking practical information about the provider.

Table C-8 displays the results for model 8. This model only included those parents who

indicated they considered more than one provider. The model was significant ($F(24,238)$

$= 1.74$, $p = 0.01$); however, the Archer and Lemeshow test indicated a lack of fit

($F(10)=3.62$, $p <0.001$). There were five significant predictors. The odds of seeking

practical information decreased as the ratings of the importance of a loving environment

increased ($t(261)=2.49$, $p=0.01$, O.R.=0.23, C.I.=0.07-0.73) and decreased as the ratings

of the importance of helping children get along with others increased ($t(261)=2.27$,

$p=0.02$, O.R.=0.45, C.I.=0.23-0.90). The odds of seeking practical information increased

as the ratings of the importance of affordability increased ($t(261)=3.08$, $p=0.002$,

O.R.=2.25, C.I.=1.40-4.57). Being an immigrant was associated with a decrease in the

odds of seeking practical information about the provider ($t(261)=2.71$, $p=0.007$,

O.R.=0.39, C.I.= 0.19-0.77). And relative to parents living in an area with moderate

urban density, parents living in a rural area had 3.28 times greater odds of seeking

practical information about the provider ($t(261)=2.23$, $p=0.03$, O.R.=3.28, C.I.=1.15-

9.34).

    Model 9: probability of seeking programmatic information about the

provider. Table C-9 displays the results for model 9. This model only included those

parents who indicated they considered more than one provider. Although there was one

predictor that was significant, the overall model was not significant ($F(24,262)=1.18$,

$p=0.26$).

Result of Search

Model 10: probability of search resulting in a change of care. Table C-10

displays the results for model 10. The model was significant $(F(24,262) = 2.54, p$

<0.001), but the Archer and Lemeshow test suggested a lack of fit $(F(10)=1.95, p = 0.04)$.

There were three significant predictors. The odds of the search resulting in a change of

care decreased as the ratings of the importance of affordability increased $(t(285)=13.03, p$

<0.001, O.R.=0.39, C.I. 0.23-0.65). The odds of the search resulting a change of care

were 4.88 times higher if the parent received a subsidy $(t(285)=4.45, p$ <0.001, C.I. 2.42-

9.84). And relative to searching for care out of need, searching for care to provide social

enrichment was associated with a decrease in the odds of the search resulting in a change

of care $(t(285)=2.08, p=0.039, O.R.=0.64, C.I.=0.42-0.98)$.

Model 11: probability of choosing a provider for practical reasons. Table C-

11 displays the results for model 11. Although there were two predictors that were

significant, the overall model was not significant $(F(24, 242)=1.53, p=0.06)$.

Model 12: probability of choosing a home-based provider with whom there

was a prior relationship. Table C-12 displays the results for model 12. The model was

significant $(F(24,234) = 4.44, p$ <0.001), but the Archer and Lemeshow test indicated a

lack of fit $(F(10)=1158.05, p$ <0.001). There were six significant predictors. Immigrant

parents had 4.06 times higher odds of choosing a home-based provider with whom they

had a previous relationship $(t(257=3.12, p=0.002, O.R.=4.06, C.I.=1.68-9.84)$. Subsidy

receipt was associated with a decrease in the odds $(t(257)=2.37, p=0.02, O.R.=0.29,$

C.I.=0.10-0.81). Compared to those who reported having no relatives nearby, those who

reported that they had relatives nearby who would provide care for free had 5.77 times

greater odds of choosing a home-based provider with whom they had a prior relationship (t(257)=3.85, *p* <0.001, O.R.=5.77, C.I.=2.35-14.13), and those who had relatives nearby who would provide care for pay had 4.88 times greater odds (t(257)=3.85, *p* <0.001, O.R.=4.88, C.I.=1.10-21.55). There were also two significant findings related to reasons for the child care search. Parents who were searching for care to provide social enrichment had a decrease in the odds of choosing a known-home based provider, relative to those who were searching for care out of necessity (t(257)=3.56, *p* <0.001, O.R.=0.17, C.I.=0.07-0.46). Finally, those who were searching for care out of a desire to change providers also had a decrease in the odds of choosing a known home-based provider, relative to those who were searching out of necessity (t(257)=4.94, *p* <0.001, O.R.=0.01, C.I=0.00-0.06).

Model 13: probability of choosing a home-based provider with whom there was no prior relationship. Table C-13 displays the results for model 13. The model was significant (F(24,234) = 3.40, *p* <0.001), but the Archer and Lemeshow test indicated a lack of fit (F(10)=3257.62, *p* <0.001). There were three significant predictors. Parents with children in the household who were older than the focal child had 2.84 times greater odds of choosing a home-based provider with whom there was no prior relationship (t(257)=2.61, *p*=0.01, O.R.=2.84, C.I.=1.29-6.23). Compared to parents living in an area with moderate urban density, parents living in a rural area had 4.02 times greater odds of choosing a previously unknown home-based provider (t(257)=1.98, *p*=0.05, O.R.=4.02, C.I.=1.01-16.06). Finally, compared to parents who were searching for care out of necessity, parents who were searching for care to provide social enrichment had a

decrease in the odds of choosing a previously unknown home-based provider
(t(257)=2.07, *p*=0.04, O.R.=0.72, C.I.=0.05-10.78).

Model 14: probability of choosing center-based care. Table C-14 displays the results for model 14. The model was significant (F(24,241) = 4.44, *p* <0.001), but the Archer and Lemeshow test suggested a lack of fit (F(10)=65.24, *p* <0.001). There were three significant results. As child age increased, the odds of choosing center-based care also increased (t(257)=3.49, *p* <0.001, O.R.=1.03, C.I.=1.01-1.05). Relative to living in an area moderate urban density, living in a rural area was associated with a decrease in the odds of choosing center-based care (t(257)=2.47, *p*=0.03, O.R.=3.28, C.I.=1.15-9.34). Finally, compared to parents who were searching for care out of necessity, those who were searching for care to provide social enrichment had 3.48 times greater odds of choosing center-based care (t(257)=3.49, *p* <0.001, O.R.=3.48, C.I.=3.48-1.72).

Chapter 5: Discussion

My study used a nationally representative sample of families with low incomes to explore how parents with young children search for and choose child care. I considered the roles of subsidy receipt, parents' preferences and priorities related to child care, and a set of child, family, and community factors in parents' search actions and choices. In this chapter, I summarize the results of each research question's analyses and then discuss key findings in the contexts of Meyers and Jordan's (2006) accommodation model and the current literature. I also consider the implications, limitations, and contributions of this study, and suggest next steps for research, measurement, and policy.

Summary of Results

Research Question 1: How Do Parents in Families With Low Incomes Search for and Choose Child Care? Specifically, How Many and What Types of Providers are Considered, What Are Their methods of search, What Information Is Sought About Providers, and What Is the Result of the Search?

The descriptive statistics on the child care search and choice variables provided basic insights into the child care searches and choices of parents with low incomes. Center-based care was the type of care most commonly considered and chosen, followed by home-based providers known to the parent. Home-based providers previously unknown to the parent were the least commonly considered and chosen.

The most commonly cited source for learning about child care was the social network, while using CCR&R was less common. Parents reported seeking practical information about providers during their searches more than programmatic information and most commonly asked providers about costs. However, parents primarily chose care

106

based on programmatic factors, with the largest proportion of parents reporting that they chose their provider because of quality.

Research Question 2: Are There Any Differences in the Child Care Searches and Choices Between Families Receiving Child Care Subsidies and Other Families With Low Incomes?

When comparing families who received subsidies to those not receiving subsidies, few differences emerged. With a few exceptions, the two groups searched for care in similar ways and sought similar information from providers. There were some differences in the two groups' choices, with parents receiving subsidies being more likely to report a change of care and to choose a center-based provider, and being less likely than the nonrecipient group to choose a home-based provider they knew.

Research Question 3: How Do Child Care Preferences and Priorities, Family and Child Factors, and Community Factors Relate to Child Care Searches and Choices?

I tested fourteen models examining how subsidy receipt, parents' child care preferences and priorities, and child, family, and community factors related to aspects of the child care search and choices. Ten models were significant, although only three (the models describing the probability of choosing more than one provider, the probability of considering center-based care, and the probability of consulting with the social network during the search) displayed a good fit.

Several significant findings emerged from the parameter tests, which I summarize below:

1) Parental preferences and priorities were related to most of the child care search actions but were mostly unrelated to choices.

2) Some child and family factors, including parent immigrant status, subsidy receipt, child age, and the presence of family members nearby were significantly related to at least some aspects of child care searches and choices.

3) Parents' reported reasons for the search emerged as being significantly associated with searches and choices.

4) Community type, particularly, living in a rural community was found to be a significant factor in several of the models.

5) Other parameters tested, including child special needs, family poverty, and community poverty density were found to be nonsignificant in the models.

Consideration of Key Findings

The Child Care Searches and Choices of Parents Receiving Subsidies Are Similar to Those of Other Parents With Low Incomes

The percentage of eligible families who are served by child care subsidies is low, and researchers have studied differences between families receiving subsidies and eligible nonrecipients. For example, families receiving subsidies tend to be somewhat more advantaged financially, and participation in the subsidy program is more common amongst African Americans than families of other races, as well as more common in urban than rural areas (e.g., Davis, Grobe, & Weber, 2010; Herbst & Barnow, 2008; Johnson, Martin, & Brooks-Gunn, 2011; Shlay, Weinraub, & Harmon, 2010). The findings from these studies suggest that research on subsidy recipients may not be generalizable to all families with low incomes.

The child care decision making literature also includes studies either specifically about parents receiving subsidies or with comparisons between recipients and eligible

nonrecipients. The results of this study add to the literature, by focusing on search actions and choice of care. Overall, parents receiving subsidies and other parents with low incomes searched for care similarly and made similar choices; however, there were a few significant findings. In the chi-square tests, subsidy recipients were less likely to consider and choose known home-based providers compared to nonrecipients. In the logistic regressions, subsidy receipt was associated with lower odds of considering and choosing known home-based providers. There were no differences regarding considering other provider types (home-based providers previously unknown to the parent and center-based) in the logistic regressions, although the chi-square tests did show that parents receiving subsidies were more likely to choose center-based providers. These findings are in line with previous research linking subsidy receipt with the choice of center-based care (Ertas & Shields, 2012; Rothenberg, Goldhagen, Harbin, & Forry, 2013; Ryan, Johnson, Rigby, & Brooks-Gunn, 2011; Starr et al., 2012; Wolfe & Scrivner, 2004), and formal child care arrangements in general (e.g., Markowitz, Ryan, & Johnson, 2014) .

Subsidy receipt was associated with a decrease in the odds of considering more than one provider. This relation has not been considered in previous research on subsidy receipt and child care searches. In a study by Marshall et al. (2013), parents receiving subsidies reported better child care options compared to those on a waiting list for subsidies. This may imply that subsidies give parents the opportunity to consider and weigh different child care options in their communities, which is at odds with the current finding. The reason for the current finding is unclear. One possibility is that parents have a certain provider in mind, then seek subsidies to afford that arrangement, as was

suggested by Hirshberg, Huang, and Fuller (2005). Or, they may wish to learn whether the provider will accept subsidies prior to applying for them.

Parents receiving subsidies and other parents with low incomes showed no differences in how they searched for care and the kinds of information they sought from providers, with one exception. Parents receiving subsidies were significantly more likely to consult with their social networks. As was previously discussed, consulting with friends and family was the most common way for all parents in the sample to search for care. These results suggest that for parents receiving subsidies, use of the social network may be even more important. Parents receiving subsidies are more likely to move from informal to formal arrangements, either because the subsidies allow them to access formal arrangements they had not been able to afford, or because many state subsidy programs will not pay for informal care. Parents who had previously used kith and kin arrangements may turn to family and friends to learn about options for center-based care or family child care homes.

It should be noted that there were no significant findings with regard to using CCR&Rs to learn about child care options. For many state CCDF programs, CCR&Rs are the primary avenue for communicating information about quality child care. In a study by Chaudry et al. (2011), CCR&R services were primarily used by families receiving subsidies; however, the sample was drawn from only two cities. While CCR&Rs have been in operation for decades, their roles vary from state to state. These results indicate low utilization of CCR&Rs in a national sample of parents with low incomes, regardless of subsidy receipt. This may change in the future, as states' CCR&R

services will likely expand to comply with CCDBG reauthorization requirements. The reasons that more parents do not utilize these resources should be further explored.

Parents receiving subsidies were significantly more likely than nonrecipients to report a change of care as a result of the search, and also had higher odds of changing care relative to nonrecipients. This result is not surprising, given the work requirements involved with subsidy receipt. The parents likely needed to find child care so that they could work, and were able to choose an arrangement because of the subsidy.

Preferences and Priorities Related to Child Care May Have an Impact on How Parents Search for Care but Do Not Drive Choices

Few studies have considered the relations between parents' child care preferences and priorities and the search for care. Some researchers have found a disconnect between preferred care type and the type chosen (e.g., Gordon & Hognas, 2006), but the search process itself has not been explored. My study was limited by the lack of constructs directly measuring preferences for care in the survey. In their place, I formed constructs measuring the overall attitudes toward three types of care: kith and kin, family child care home, and center-based. Results suggested that positive ratings of certain types of care were related to aspects of the search.

First, positive ratings of center-based care decreased the odds of considering more than one provider. There were no significant associations between positive ratings of centers and the odds of considering center-based providers (or any provider type). Why might there be an association between attitudes toward center-based care and only considering one provider? Wolfe and Scrivner (2004) studied parents with low incomes who desired a change in their child care arrangements, and a majority indicated they

would choose center-based care if they could. Many of these parents were unable to afford centers. It is possible that in my sample, many of the parents who felt positively toward centers could not afford them, and were limited in their available options (thus only considering one provider). This finding may also illustrate the limitations of including a proxy variable for child care preferences. This will be discussed in more detail in a later section.

Positive ratings of family child care homes increased the odds of considering a home-based provider known to the parents, while positive ratings of kith and kin care *decreased* the odds of considering a home-based provider known to the parents. These results may seem contradictory at first glance; however, it is important to keep the terminology in mind. As I described in Chapter 1, *family child care homes* are formal, usually licensed home-based care settings, and *kith and kin* describes informal, unregulated care by family and friends. These are the types of care for which parents provided ratings in the NSECE household survey, but they do not line up neatly with the categories of care included in items on search and choices. When reporting the types of care considered (and chosen), parents chose either center-based, home-based provider previously known to the parent, or home-based provider not previously known to the parent. A family child care home could fall into either home-based category, depending on whether the parent knew the provider beforehand. Furthermore, not all kith and kin care arrangements fall into the home-based category; as some take place in the *child's* home.

After considering these nuances of the NSECE survey items, the results to these analyses make more sense. Specifically, parents giving high ratings to family child care

homes may wish to consider family child care homes where the provider is known to them. Parents giving high ratings to kith and kin care may seek out informal arrangements that do not fall under the NSECE survey's definitions of home-based care.

The other significant finding around child care preferences was that positive ratings of kith and kin care increased the odds of consulting with the social network during the child care search. Parents' high ratings of kith and kin care may reflect a high level of trust in family and friends for providing care, and thus it would not be surprising that the parents would turn to family and friends for information. As will be discussed later, however, these preferences and search actions do not necessarily translate into choices.

Parents reported what they prioritized when searching for care. Those who prioritized finding care that would help their children learn to get along with others (i.e., would help with socialization) had decreased odds of consulting with their social network relative to parents who were searching for care out of necessity. The reason for this finding is puzzling, and priorities around socialization were not associated with other search methods. It was, however, associated with a decrease in the odds of seeking practical information about the provider. While it makes sense that parents prioritizing socialization in their child care search would be more interested in the programmatic than the practical aspects of the arrangement, these parents did not have increased odds of seeking programmatic information. It may be that parents prioritizing socialization did seek certain information from providers, but these were not captured by the household survey.

There were several significant findings around prioritizing affordability in the child care search. Prioritizing affordability was associated with an increase in the odds of seeking practical information (such as cost) from the provider about the arrangement. Parents stressing affordability had higher odds of considering a center-based provider. Similar to some of the findings regarding preferences for care, the relations between priorities and search actions did not translate into actual choices. There were no significant relations between any of the priority variables and choosing any types of care. Prioritizing affordability was associated with decreased odds of the search resulting in a change of care. Parents who prioritized affordability may have decided not to settle on a provider because they found the cost to be a barrier.

Why do parents' child care preferences and priorities relate to search actions, but not to choices? The parents with low incomes in the current sample were not asked any questions about difficulties experienced during the child care search, or barriers faced in choosing an arrangement. Past research has suggested that parents find the child care search to be difficult (e.g., Rothenberg et al., 2013; AZ, 2012). For parents with low incomes, struggling to pay for care can lead to relying on multiple, unstable, and informal child care arrangements (AZ, 2012; Layzer et al., 2007; Scott et al., 2005). Some researchers have already noted a disconnect between preferences and priorities for care and choices (Gordan & Hognas, 2006). The current study provides further evidence of this, while also considering the search. For the parents in this sample, preferences and priorities may have driven at least some of the search, but – perhaps due to financial or other constraints – did not impact the choices in the end.

Just Over Half of Parents Learn About Child Care From Friends and Family

Fifty-two percent of parents searched for child care by asking family and friends, consulting with providers they already knew, or asking church or school contacts. This was the most common way for parents to look for child care, and this finding is in line with previous research on families with low incomes (Chaudry et al., 2012; Forry et al., 2014; Rothenberg et al., 2013). As was previously discussed, giving high ratings to kith and kin care increased the odds of consulting with the social network. Parents who prioritized socialization in their child care search had decreased odds of using their social network as a source of information. Parents who had nearby family members willing to provide child care for pay had decreased odds of using social networks for advice, perhaps because they did not need to turn to others for information about child care options. This will be discussed further in a later subsection.

While the social network was the most common source of information about child care options, nearly half of parents reported they did not primarily use this method (it should be noted that parents who considered one provider reported one search method and parents who considered more than one provider reported two, so not all search methods may have been captured by the survey). Twenty-six percent of parents searched for care by looking at advertisements or posting an advertisement themselves, a method that has also been found to be common in previous research (AZ, 2012; Rothenberg et al., 2013). The least common of the search methods, reported by about one-fifth of parents, was receiving information from CCR&R agencies. This proportion is similar to those reported in previous studies (Chaudry et al., 2011; Sandstrom et al., 2012; Seo, 2003).

The logistic regression models for both search methods (looking at advertisements and using CCR&R) were insignificant, suggesting that none of the independent variables predicted use of the search methods more accurately than if by chance. Thus, it is not possible from this research to identify factors that increase or decrease the odds of utilizing these search methods. As was previously mentioned, however, parents receiving subsidies did not use these methods significantly more or less than other parents with low incomes.

The results of this study provide further evidence that parents with low incomes value information from trusted families and friends when it comes to choosing child care. The proportions of parents using social networks in their child care searches were similar (Chaudry et al., 2012; Forry et al., 2014; Rothenberg et al., 2013) or lower (Sandstrom et al., 2012) to those reported in previous studies. Sandstrom et al. (2012) posited that reliance on the social network for child care information was an indication that parents with low incomes were either unaware of more formal sources, were untrusting of them, or were unwilling to look outside of the community. While many parents are undoubtedly satisfied with the child care they find through their social networks, it is likely the information that they receive does not give the full picture of the local child care market, and lacks facts about quality. Thus, they choose care without complete information, which suggests that they are *not* making informed decisions about care. While not proven in research, this may contribute to the unstable arrangements referred to as "patchworks" of care (Layzer et al., 2007; Scott et al., 2005).

Using CCR&R agencies does not, of course, guarantee that parents will find providers that meet all their needs, but it does allow for parents to receive a more

complete picture of the available options. Sandstrom et al. (2012) discusses barriers that some parents with low incomes face accessing CCR&R and other formal referral services. More understanding is needed of these barriers, and more research is needed on state and local CCR&R practices that have been shown to be successful for parents.

Parental Immigration Status Is Associated With Child Care Search Actions and Choices

The logistic regression models I tested included numerous child, family, and community factors. Parental nativity status was one of the factors that emerged as being most related to child care searches and choices. Compared to nonimmigrants, immigrants had higher odds of considering and choosing a known home-based provider, and lower odds of considering more than one provider, considering center-based care, and seeking practical information about potential child care arrangements.

Previous research on child care decision making in immigrant families has typically focused on the type of care utilized, and some of the results are conflicting. Burstein and Layzer (2002), for example, found that the immigrant families in their sample, who had low incomes and were chosen from 25 communities, used family child care homes at greater rates than center-based care. Miller et al. (2013) used a national sample and examined whether a number of factors – including country and region of origin – were associated with the type of care chosen by immigrant families. Associations were found between the region of origin and type of care, but the effects were reduced when other factors (including citizenship status, English language proficiency, and preferences) were considered. Chaudry et al. (2011) did not find the types of care chosen

by immigrant parents in two cities to differ substantially from those chosen by U.S.-born parents.

In the logistic regression models in my study, immigrant status was found to have a significant effect even as the other factors in the model were held constant. While my model could not include all possible confounding variables (language proficiency, for example, was not considered), the results do suggest that immigration status may contribute to the child care search and choices.

Immigrants to the United States are not a homogenous group, although they may face similar challenges when searching for child care, and I attempted to learn more about my sample's background in order to provide additional contextual information. Nearly three-quarters of the immigrants in my sample were from Latin America, with the largest single group from Mexico. About half of all immigrants in my sample spoke no English at home, and about three-quarters had lived in the United States for more than ten years.

The immigrant parents in my sample had higher odds of considering and choosing a known home-based provider compared to nonimmigrants. Burstein and Layzer (2007) found that immigrants most commonly utilized family child care homes, and were less likely than U.S.-born parents to choose relative care. It is possible that the parents in my study followed these patterns, and sought out and chose a home-based provider who was not a relative but was known to them. However, it is impossible to know from the data collected through the household survey whether the settings were formal or informal and whether the known provider was a relative.

In my study, immigrant parents had lower odds of *considering* center-based care compared to U.S.-born parents, but the odds for ultimately *choosing* center-based care were not significantly different. Taken together, these results suggest that although immigrant parents might consider center-based care at lower rates than U.S.-born parents, they are more likely to choose that setting. Some research has found that child care centers are less commonly chosen by immigrant parents (Matthews & Jang, 2012). Miller et al. (2013) explored this further and found that immigrants from certain regions, including Latin American countries and those who had come to the U.S. as children, were less likely to use centers. Based on these findings, it would follow that the results of my study would be similar, but that was not the case. In studies of Hispanic mothers (many, but not all of whom were immigrants), Liang et al. (2000) and Yesil-Dagli (2011) linked acculturation with use of center-based care. Perhaps my finding that immigrant parents chose center care in a pattern consistent with U.S.-born parents, reflects this, or it could be due to the fact that the immigrant parents in my sample had largely been in the United States for a long time.

Compared to U.S.-born parents, the immigrant parents in my study also had greater odds of only considering one provider and decreased odds of seeking practical information about providers. Parents who chose providers who were known to them may not have had to search around and consider multiple providers. In addition, they may not have felt the need to learn about some practical aspects of the arrangement, such as location and availability if the provider was previously known to them. An alternative explanation is that the findings reflect a lack of information about child care, with parents choosing an arrangement without knowing much about it. Similar findings were noted by

Chaudry et al. (2011): immigrant parents with low incomes found care through trial and error – choosing an arrangement, and quickly leaving it if they were not satisfied.

Child Care Searches and Choices Are Different for Parents *Needing* to Find Care Versus Parents *Wanting* to Find Care

Parents who wanted to find child care for their child – either out of a desire to provide social and educational enrichment, a desire for some relief, or out of dissatisfaction with the current arrangement – searched for, and chose care differently from those parents who searched for care out of necessity. There has not been much research that has specifically considered child care decision making in the context of the reason for the search, but the results may be connected to child care priorities. In both my study and in previous research on child care decision making, *priorities* typically refer to factors that drive child care choices, but these results provide some evidence that factors that drive *searches* are similarly related to search *actions* and *choices*.

Compared to parents who needed to find care, the parents in my study who wanted to provide social or educational enrichment for their child had higher odds of considering and choosing centers, and lower odds of considering and choosing home-based providers. This is in line with several prior studies that have found associations between parents' priorities related to learning and school readiness, and choosing center-based care (Burstein & Layzer, 2007; Kim & Fram, 2009; Seo, 2003). Another interesting finding is that parents who searched for care for social or educational enrichment reasons had lower odds of reporting a change in care. This may be because the parents did not find an arrangement they felt was aligned with their preferences and priorities and were able to keep searching. Parents who search for child care out of

120

necessity, on the other hand, often must choose a child care arrangement quickly in order to not disrupt employment or training activities.

Parents who searched for care because they were unsatisfied with their current provider and wanted to choose a new arrangement had higher odds of considering center-based care and lower odds of choosing a known home-based provider, as compared to parents who needed to find care. The reason for this is unclear and is difficult to explore further without knowing the types of care that were used at the time of the search. It should be noted that many of the prior studies specifically focused on families with low incomes only included parents who were searching for care out of necessity (e.g., Rothenberg et al., 2013; Burstein & Layzer, 2007; Sandstrom & Chaudry, 2012; Sandstrom et al., 2012). This is not surprising since parents receiving subsidies must partake in work or training activities. In the future, researchers studying the child care decisions of parents with low incomes may wish to consider additional reasons for searches.

Certain Child and Family Factors, Including Child Age and Living Near Relatives, Are Associated With Parents' Search Actions and Choices

The logistic regression models included a number of child and family factors as independent variables. As was noted previously, only three of the ten significant models related to aspects of the child care search and choices were found to have a good fit, However, even in the poorly fitting models, there were independent variables that were found to be significant while holding all others constant. In the following section, I consider other child and family factors found to be significant.

Child age and presence of older siblings. Increasing child age was significantly associated with increased odds of considering and choosing center-based care, and decreased odds of considering known home-based providers. This is similar to the results of other studies, in which parents of preschoolers chose centers over other arrangements, and chose centers more often than parents of infants and toddlers (Burstein & Layzer, 2007; Coley et al., 2014; Rothenberg et al., 2013; Starr et al., 2012). Although previous studies have found that parents of infants and toddlers choose relative care or family child care homes (e.g., Riley & Glass, 2002) more often than parents of older children; I did not find any significant association between child age and use of home-based providers. Another result inconsistent with previous research was that having older children in the household increased the odds of choosing a home-based provider who was previously unknown. Parents with more than one child have been found to tend to use the same type of care for all children (Witte & Queralt, 2004). Burstein and Layzer (2007), for example, found that infants and toddlers are more likely to be enrolled in centers if they have an older sibling attending the center. Thus, similar findings might have been expected in my study. However, this relies on the assumption that the focal child and sibling are close together in age, for example, and toddler and a preschooler. While this was not assessed as part of my analyses, it is likely that a range of ages were represented in my sample. Thus, it is not possible to speculate on the interplay of focal child age and sibling age in my study. The reason for this significant finding is unclear, and it is possible that a third, unknown factor is at play in these relations

Presence of family members nearby. Compared to families who did not have relatives nearby, those who reported having relatives living locally who would provide

care had greater odds of searching for, and choosing, a known home-based provider. While survey questions did not include a means to specify if the home-based provider was a relative, this finding is consistent with prior research which did ask this question. Burstein and Layzer (2007) found an increased likelihood of relative care use amongst families that had relatives living nearby. Uttal (1999) suggested that for families with low incomes, relative care is often used not only to allow parents to work but to also allow the relative caregivers to work. I found that parents with relatives nearby who would provide care for pay was associated with decreased odds of using the social network to learn about child care. The important role of the social network in the child care searches of families was discussed in an earlier subsection of this chapter. These families, however, may not have had to engage in search actions at all, given that they had relatives nearby that could, and would, provide care.

Child special needs. There were no significant findings around child special needs, suggesting that parents in the sample who had children with special needs search for, and choose care following a process similar to other parents. Parents completing the NSECE household survey shared whether their child had special needs, but provided no additional information about specific disabilities or need for accommodations. In research by Chaudry et al. (2011), parents of children with special needs discussed challenges involved with finding providers who were willing and able to care for their children. Many of these parents had children with severe special needs, such as chronic physical health conditions. Since participants in the NSECE study were not asked to provide more detailed information about their children's needs, these results should be interpreted with caution.

Family poverty level. Compared to families with incomes above the federal poverty guidelines, those with incomes below the poverty guidelines did not have significantly higher or lower odds of partaking in any search action or choosing any type of care. Previous child care decision making research on families with low incomes typically has not included family income or poverty level as explanatory variables. In my study, I used a binary variable, meaning that families were either considered to be under or above poverty guidelines. This means that families of the same size with incomes that were merely dollars apart could end up in different groups. Future research on these topics may benefit from including income as a continuous variable or forming more than two groups for comparisons.

Living in a Rural Area Is Related to Child Care Choices

I considered two community variables in my logistic regressions – community poverty density, and community urban density. There were no significant relations between community poverty density and any of the search and choice variables. While all the families in my sample had low incomes, not all lived in areas with high poverty density. In fact, 57% lived in areas that could be classified as having a low or moderate density of poverty. These results suggest that living in an area with a high level of poverty, in itself, does not significantly contribute to child care searches and choices.

For the community urban density variable, I used "moderate urban density" as the reference group. Compared to this group, living in a rural area was associated with greater odds of seeking practical information about the provider, and greater odds of choosing a home-based provider not previously known to the parent. Parents living in rural areas also had decreased odds of choosing centers. Fewer centers operate in rural

than in urban areas (Liang et al., 2000; Burstein & Layzer, 2007; Coley et al., 2014), and when they do exist, the demand may outweigh supply, or parents with low incomes may lack transportation to access them. At least one study has suggested that when center care is unavailable, rural families choose relative providers over other home-based settings (Burstein & Layzer, 2007). While this may seem to contradict my study's results, it should be kept in mind that my results only speak to the odds of rural families choosing providers *as compared to* families living in areas with moderate urban density. They are not comparisons of choosing a certain type of provider versus another kind of provider, nor are they comparisons of rural families versus all other families in the sample. My results are in line with those of Miller and Votruba-Drzal (2013), who found that rural families utilized home-based arrangements significantly more often than urban families.

Contributions, Implications, and Future Directions

My goals with this study were not only to add to the literature on child care decision making but to inform policy and practice related to child care subsidy consumer education. In the following subsections, I discuss contributions and implications of this study and suggest future directions in three areas: research, methods, and policy.

Research

The research on parents' child care search actions is limited, even more so for families with low incomes and families receiving subsidies. My study provides an examination of search actions and choices using a nationally representative sample. This is an important contribution, as existing studies on child care searches have tended to be smaller, and limited to one or a small number of geographic areas.

My research is one of the first to examine relations between child care preferences and priorities and the search for care. I demonstrated that preferences and priorities are significantly related to aspects of the child care search, but not to choices. In previous studies, researchers have suggested a disconnect between preferences, priorities, and choices in child care decision making, where choices are driven by priorities and unrelated to preferences. My results point to a decision making process that is slightly different – where preferences and priorities drive search actions, but there is some disconnect involving choices. The missing piece in the decision making process that was not examined may be constraints – the challenges and difficulties faced by parents during the search. According to Meyers and Jordan's (2006) model, constraints lead parents to make accommodations in their child care choices. A possible future direction involves consideration of constraints, and further research on why disconnects not only exist between child care preferences and choices, but also priorities and choices.

Another contribution of my study is providing more insight into the child care searches and choices of families receiving subsidies. I found some, but not extensive, differences between the families receiving subsidies and other parents with low incomes. While previous research has demonstrated that families receiving subsidies are not representative of families with low incomes as a whole, my results suggest that, with few exceptions, parents with subsidies do largely search for, and choose care similarly to other parents with low incomes.

Future research should examine the quality of arrangements that were considered and chosen, an important piece missing from my study. Of the parents in my sample who reported a change of care, 37% indicated that the primary reason they chose the

arrangement was due to its quality. It is unknown if parents were referring to actual

quality ratings, or were referring to their own perceptions of quality. Given the low

proportions of parents who are aware of quality rating systems such as QRIS and use

them in their searches (e.g., Elicker et al., 2011; Muenchow et al., 2013; Schwartz et al.,

2014; Starr et al., 2012; Yazejian et al., 2012), it is likely that *quality* in these responses

was a subjective measure. Future research on child care decision making, especially as

related to subsidy receipt, should include a means to assess the quality ratings of the child

care arrangements that were considered and chosen. Carrying out this research would be

challenging on a national scale, but may be possible with state or local data.

Measurement

The results of my study have some measurement implications that should be

considered. Through the NSECE dataset, I could analyze a nationally representative

sample of families with low incomes. However, I was limited to using measures derived

from items on the household survey dataset. I was able to use the existing variables in the

dataset, or create new ones, to answer my research questions. I had to use a proxy

measure of attitudes toward different types of care in place of a direct measure of child

care preferences. While this has been done in other studies (e.g., Seo, 2003; Layzer et al.,

2007), there are limitations to this approach. The items in the NSECE asked about the

parents' feelings toward different types of care, and positive ratings certainly may

indicate a preference for that type. However, these questions only describe attitudes

toward the *type* of care, and give no information about the preferred *characteristics* of an

arrangement. This may be best captured by open-ended questions; e.g., *describe the ideal*

child care arrangement for your child – what characteristics would it have? which were

not included in the NSECE survey.

My results also demonstrate the importance of clear and consistent measurement

of child care type. The NSECE household survey items used different terminology for

different items. For example, the items on child care preferences included three types of

non-parental care: *center-based, kith and kin*, and *family child care home*. The items

about types of care considered or chosen included *center-based, home-based provider*

with whom the parent had a prior relationship and *home-based provider with whom the*

parent did not have a prior relationship. Earlier in this chapter, I described how these

two sets of provider types do not necessarily align with each other, which impacted the

way in which I interpreted some of my results. In other studies, I found that some authors

did not define the provider types that were included. There are no "official" definitions

(in the CCDF context, provider types are defined in federal regulations, but some states

use separate terms and definitions for their own CCDF programs), but researchers should

consider defining the terms used for different provider types. This allows for better

interpretation of results, and for better comparisons across studies.

Policy

The results of my study have several implications for state and local CCDF policy

and practice, which I discuss below.

Consumer education about quality. State CCDF programs must balance the

promotion of informed decisions about quality while allowing parents autonomy to

choose an arrangement – both of which are mandated by federal law. My study provides

further evidence that formal methods of acquiring quality information, such as through

CCR&Rs, are not widely utilized. The results also demonstrate that parents receiving subsidies do not use CCR&Rs more often than other parents. However, my findings also suggest that parents choose arrangements based on quality – although parents' definitions of quality may be different from those included in QRIS quality measures. In their paper on the accommodation model, Meyers and Jordan (2006) assert that parents construct their own understanding of quality based on their ecological contexts and constraints. Based on my findings, as well as the accommodation model, I offer two suggestions regarding consumer education about quality.

First, the constraints faced by parents when searching for care must be considered when targeting consumer education efforts. In some states, child care subsidy intake and eligibility occur at CCR&R agencies, allowing parents to receive quality information at the time of eligibility determination. Some states with different operational structures (e.g., parents apply for subsidy at local social services or health departments or at non-profit agencies) also provide consumer education about quality at the time of eligibility determination. This means that parents do not have to seek out quality information on their own, but it is unknown how (or if) these practices impact parents' decisions. Still, these offer the opportunity for more tailored approaches to providing consumer education, where parents can speak one-on-one with a worker who is knowledgeable about the quality of local child care options. Lead Agencies should also consider providing training to these workers on the accommodation model, so that workers can further customize their consumer education efforts toward parents' individual contexts and constraints.

Second, QRIS and other quality rating systems that measure structural and process aspects of quality do not account for the characteristics of care that parents – the consumer – would include in a definition of quality. Perhaps a better way for state CCDF programs to provide consumer education is to acknowledge that parents' own definitions of quality are valid and that parents provide an additional and important perspective on quality child care for their own children. This is not to suggest that QRISs and CCR&Rs are not valuable for consumer education about quality, but that they are not the only important resources. Parents may be more empowered to make an informed decision about quality when they know that indicators of *quality* take into account their own perspective.

Outreach to certain populations. In my study, immigrant status and residential location (e.g. living in a rural community) both emerged as factors highly related to search actions and choices. Many state CCDF programs are already involved in outreach to immigrants and rural families, especially if there are large populations of these groups in the state. Understanding the search experiences, including challenges and constraints, faced by these populations can be helpful for further targeting outreach, consumer education, and policy. For example, living in a rural community was associated with higher odds of seeking practical information about providers. This might be an indication that rural parents face constraints related to schedules, cost, location, and a small child care market. States may respond to this by contracting with rural providers who can accommodate flexible schedules or provide transportation. Compared to U.S.-born parents, immigrant parents had higher odds of considering only one provider and choosing home-based care with a known provider. In areas with large immigrant

populations, states might consider partnering with family child care home providers to form provider networks. The state (or local agencies) could support the network in professional development activities to increase quality. At intake, families would receive information about the network, allowing them to compare provider options.

Limitations

My dissertation consisted of a secondary analysis of the NSECE household survey dataset. While this approach allowed me to analyze a large, nationally representative dataset, I was limited to working with the variables that were included in the survey. The household survey contained a large amount of information on child care decision making, but there were some limitations to the data.

The largest limitation to the NSECE data was the lack of information on child care quality. This was identified as a limitation in Chapter 1, but it should also be discussed in the context of the results. I was able to examine factors that contributed to child care searches and choices, but I could not consider the factors that contributed to finding child care that had high-quality ratings. In the era of CCDF reauthorization and new regulations emphasizing quality, it is likely that future research on child care decision making will integrate measures of quality, but it should be considered a limitation of the current study.

The variable that I created for subsidy receipt was based on a number of household survey items since the NSECE did not ask parents directly whether they received a CCDF subsidy. The families whom I identified for the subsidy group did receive some form of child care assistance, but it was not necessarily through the CCDF program. Thus, the results pertaining to subsidy do need to be interpreted with some

131

caution. It should be noted that even studies that are specifically focused on CCDF subsidy receipt and utilization may have this limitation as well. Johnson and Herbst (2013) found significant discrepancies between parent reports and provider reports on subsidy receipt. The authors of this study concluded that parents (as well as providers) are not necessarily the best sources for "true" data on subsidy receipt. While this does not change the fact that the measure of subsidy receipt was a limitation in my study, it is not necessarily *unique* to my study.

In the NSECE household survey, some items were only asked of certain groups of parents. As was described in chapter 3, the items on search methods differed slightly for parents considering only one provider and parents considering more than one provider. Furthermore, the former group had one search method coded, while the latter group had two methods coded. The items on information sought about providers were only asked of parents considering more than one provider. This meant that I had incomplete information about the entire sample of parents with low incomes.

Another limitation was that the NSECE data were collected from a survey at one point in time. Parents reported on their current child care utilization and subsidy receipt but reported on the child care search retrospectively (searches took place up to two years prior to the interview). It is possible that some parents currently received a subsidy but did not have one at the time of the search, or vice-versa. Even if the parent did have a child care subsidy at the time of the search, they may not have intended to use that subsidy for the arrangement that was ultimately chosen – children are often in multiple arrangements at any given time.

In the future, studies planned in conjunction with state CCDF programs may be able to avoid some of the issues described here. Researchers could match administrative data on child care subsidy use to parents' reports of decision making. However, the effort involved in planning and executing this type of research may not be compatible with national samples with multiple state administrative components.

The last limitation I discuss involves the design of my study. The logistic regression models demonstrated the contributions of each independent variable while holding the other independent variables constant. I did not consider whether there were any interactions or moderating or mediating variables. Many of the models I tested were found to be significant, but had poor fit. This issue may have been ameliorated by exploring the variables – and interactions between them – further. Given the complexities of child care decision making processes, as described in the accommodation model, it makes sense that the contributing factors would work together to influence child care searches and choices. Understanding how preferences, priorities, and child, family, and community factors independently contribute to each model does provide useful insight into searches. However, researchers may wish to build upon this to form more complex models describing child care decision making.

Conclusion

The purpose of my dissertation was to examine how parents with low incomes search for and choose child care. Guided by the accommodation model of child care decision making , I explored subsidy receipt; parents' preferences and priorities regarding child care; and family, child, and community factors as they relate to child care searches and choices. My results provide some new insights into child care decision making

processes. I found that preferences and priorities are drivers of search actions, but not necessarily choices, and that the reason for searching for child care affects search actions and choices. My results also provide further evidence of how certain family, child, and community factors – such as being an immigrant or living in a rural area – are related to child care decision making.

My study was conducted in the context of CCDBG reauthorization, where state CCDF programs are emphasizing provider quality improvement and parents' informed decisions about quality. While I could not examine program quality in my study, my results show that parents with low incomes do not typically search for care using formal methods of consumer education about quality. State CCDF programs must consider the decision making processes – including search actions – of parents with low incomes, and understand the constraints that parents face when trying to find child care. Including these pieces will assist Lead Agencies in better targeting consumer education and outreach efforts, so that parents are truly making informed decisions when choosing child care.

Appendix A. Section 658A of the CCDBG Act

PUBLIC LAW 113–186—NOV. 19, 2014   128 STAT. 1971

Public Law 113–186
113th Congress

An Act

To reauthorize and improve the Child Care and Development Block Grant Act of 1990, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Child Care and Development Block Grant Act of 2014".

SEC. 2. SHORT TITLE AND PURPOSES.

Section 658A of the Child Care and Development Block Grant Act of 1990 (42 U.S.C. 9801 note) is amended to read as follows:

"SEC. 658A. SHORT TITLE AND PURPOSES.

"(a) SHORT TITLE.—This subchapter may be cited as the 'Child Care and Development Block Grant Act of 1990'.

"(b) PURPOSES.—The purposes of this subchapter are—

"(1) to allow each State maximum flexibility in developing child care programs and policies that best suit the needs of children and parents within that State;

"(2) to promote parental choice to empower working parents to make their own decisions regarding the child care services that best suit their family's needs;

"(3) to encourage States to provide consumer education information to help parents make informed choices about child care services and to promote involvement by parents and family members in the development of their children in child care settings;

"(4) to assist States in delivering high-quality, coordinated early childhood care and education services to maximize parents' options and support parents trying to achieve independence from public assistance;

"(5) to assist States in improving the overall quality of child care services and programs by implementing the health, safety, licensing, training, and oversight standards established in this subchapter and in State law (including State regulations);

"(6) to improve child care and development of participating children; and

"(7) to increase the number and percentage of low-income children in high-quality child care settings.".

SEC. 3. AUTHORIZATION OF APPROPRIATIONS.

Section 658B of the Child Care and Development Block Grant Act of 1990 (42 U.S.C. 9858) is amended by striking "subchapter"

Appendix B. NSECE Household Survey

National Survey of **Early Care** & **Education**

Household Questionnaire
(revised 11/28/11)

CAPI: QUEXLANG
PLEASE SELECT THE LANGUAGE IN WHICH YOU WOULD LIKE TO CONDUCT THE INTERVIEW

1. ENGLISH
2. SPANISH

[IF R RETURNED MAIL SCREENER AND SENT TO CATI FOR MAIN INTERVIEW, GO TO A_INTRO1. ELSE GO TO A_INTRO2]

A_INTRO1:

Hello. I am _____from NORC at the University of Chicago. We are conducting a survey about how families use and think about child care and after-school programs. Someone in your household recently completed a short questionnaire for this study and we have some additional questions to get their opinion on.) May I speak to the parent/guardian of the child under 13 in the household?
1. PARENT/GUARDIAN ON THE PHONE→GO TO A_INTRO2
2. PARENT/GUARDIAN NOT AVAILABLE→GO TO ADR_1

IF A_INTRO1=1 GO TO A_INTRO2. ELSE ASK ADR_1.

ADR_1. Our records have (ADDRESS). Can I confirm that you are still living at that address?

1. YES—Go to SKIP INSTRUCTION BEFORE ADR_3.
2. NO.—go to ADR_2
3. Don't know/Refused-Go to INSTRUCTION BEFORE ADR_3.

ADR_2. What is your correct address then?

STREET ADDRESS: _____
CITY: _____
STATE: _____
ZIPCODE: _____

(IF ADR_1=1: MAKE AN APPOINTMENT TO CALL BACK. WHEN CALLING BACK, GO DIRECTLY TO A_INTRO2)
(IF ADR_1=2: TERMINATE THE INTERVIEW AND SENT TO FIELD. ASK ADR_3.]
ADR_3. TERMINATE.

A_INTRO2.

(Hello. I am _____from NORC at the University of Chicago.)

[IF R SCREENED IN AS ELIGIBLE THROUGH MAIL/FIELD, READ: You have recently completed a short questionnaire for the NSECE. NSECE is a study…
[IF R NOT SCREENED YET, READ: We are conducting a study…

about how families use and think about child care and after-school programs for children under age 13. This study is funded by the U.S. Department of Health and Human Services, and conducted by NORC at the University of Chicago. Your participation in this study will help policy-makers and child care providers better understand and support the services that are most needed in your area.

137

This interview takes about 45 minutes, and your participation is voluntary. You may choose not to answer any questions you don't wish to answer, or end the interview at any time. We have systems in place to protect your identity and keep your responses private. There is only a small chance that your information could be accidentally disclosed. For that reason we avoid questions that could cause difficulty for you. This study also has a Federal Certificate of Confidentiality from the government which protects researchers and other staff from being forced to release information that could be used to identify participants in court proceedings. You should understand, however, that we would take necessary action to prevent serious harm to children, including reporting to authorities.

A_INTRO2.

(Hello. I am _____ from NORC at the University of Chicago.)

CATI: In order to review my work, my calls are recorded and my supervisor may listen as I ask the questions. I'd like to continue now unless you have any questions.

CAPI: Parts of this interview may be recorded for quality control purposes. This will not compromise the strict confidentiality of your responses. May I continue with the recording?

 1. R CONSENTS TO PARTICIPATE IN THE SURVEY->CONTINUE
 2. R CONSENTS TO PARTICIPATE IN THE SURVEY BUT DOES NOT WANT TO BE RECORDED->TURN OFF RECORDING FEATURE AND CONTINUE

Child Demographics
S1. First, how many children under 13 live in your household?

IF R SAYS 0, OR DK/REFUSED, SAY: SOMEONE IN YOUR HOUSEHOLD PARTICIPATED IN AN EARLIER PART OF OUR STUDY AND SAID THAT THERE WERE [X] CHILDREN UNDER AGE 13 LIVING IN THIS HOUSEHOLD. THEY MAY NOT BE YOUR OWN CHILDREN OR THEY MAY BE LIVING HERE ONLY TEMPORARILY. PLEASE TELL ME HOW MANY CHILDREN UNDER AGE 13 LIVE IN THIS HOUSEHOLD CURRENTLY.

_____NUMBER OF CHILDREN

IF S1>=1 GO TO A1.
IF S1=0, GO TO S1_TERM.
S1_TERM. Thank you very much. That is all I have. →DISPOSITION AS 'INELIGIBLE'

A1. (IF S1>1: For each child under 13, starting with the youngest,) Can you tell me the first names (or initials) of all of the children under 13 who usually live in this household?

First names:
1. _____
2. _____
3. _____
4. _____
5. _____

A1a. INTERVIEWER: ASK A1B-A2g9 ABOUT EACH CHILD LISTED IN A1.

A1b (ASK IF NECESSARY:). Is (CHILD) a boy or a girl?

    1.   BOY
    2.   GIRL

A1c. In what month and year was (CHILD) born?

    _____ MONTH   _____ YEAR

A1c1. In what country was (CHILD) born?

    _____ Country

    CAPI: A1c1_CNTRY [drop down list]

A2d. Is (CHILD) of Hispanic or Latino origin?

    1 YES
    2 NO

A2e. Is (CHILD)…? SELECT ONE OR MORE.

    1   White
    2   Black or African American
    3   Asian
    4   Native Hawaiian or other Pacific Islander
    5   American Indian or Alaska Native
    6   IF VOLUNTEERED: OTHER (Please specify:____)

A2f. What is (CHILD's) relationship to you?

    1   Son or daughter (biological or adopted)
    2   Stepson or stepdaughter
    3   Brother or sister
    4   Grandchild
    5   Foster child
    6   Other relative (e.g., niece or nephew)
    7   Other nonrelative

A2g. (IF A2f gt 2) Does child have a parent in the household?
    (IF A2f eq 1 or 2) Does child have another parent in the household?

(INTERVIEWERS: IF PARENT TEMPORARILY OUT OF TOWN/OUT OF COUNTRY ON BUSINESS OR AWAY ON MILITARY DEPLOYMENT, SELECT 'YES' TO THIS QUESTION)

    1. 1 YES
    2. 2 NO
    3. 3 IF VOLUNTEERED: MOTHER DECEASED
    4. 4 IF VOLUNTEERED: FATHER DECEASED

5. DK
6. REF

A2h. Does (CHILD) have a physical, emotional, developmental, or behavioral condition that affects the way you provide care for him/her?

1. YES
2. NO

IF THIS IS THE FIRST CHILD AND IF S2=5 OR A2G=2 THEN GO TO A2G2. ELSE IF THIS IS THE SECOND OR LATER CHILD, AND S2=5 OR A2G=2, GO TO A2G1.

A2G1. You mentioned that CHILD's parent does not live in the household. Have you already told me about that other parent? IF YES, SELECT WHICH CHILD'S PARENT IS ALSO THE PARENT OF THIS CHILD:

1. YES, CHILD1 –GO TO A2G10
2. YES, CHILD2–GO TO A2G10
3. YES, CHILD3–GO TO A2G10
4. YES, CHILD4–GO TO A2G10
5. YES, CHILD5–GO TO A2G10
6. NO, PARENT NOT PREVIOUSLY MENTIONED -ASK A2G2

A2G2 .You mentioned that (CHILD)'s parent does not live in the household. Can you tell me the zip code or city and state where he/she lives?

CITY: _____
STATE: _____
ZIPCODE: _____

IF VOLUNTEERED: MOTHER DECEASED-GO TO A2G10
IF VOLUNTEERED: FATHER DECEASED-GO TO A2G10
IF DON'T KNOW/REFUSED-GO TO A2G7

A2G7. Last week, was s/he working full-time, part-time, or something else?
1. WORKING FULL TIME
2. WORKING PART TIME
3. SOMETHING ELSE (SPECIFY: _____)
4. DON'T KNOW/REFUSED

A2G8. What is the highest grade or level of schooling he/she has completed?
(READ IF NECESSARY)

1. 8th GRADE OR LESS
2. 9th-12th GRADE NO DIPLOMA
3. HIGH SCHOOL GRADUATE OR GED COMPLETED
4. SOME COLLEGE CREDIT BUT NO DEGREE
5. ASSOCIATE DEGREE (AA, AS)
6. BACHELOR'S DEGREE (BA, BS, AB)
7. GRADUATE OR PROFESSIONAL DEGREE

8. DON'T KNOW

A2G9. In the past 12 months, about how many times has he/she seen (CHILD)?

   _____ TIMES

A2g10. INTERVIEWER: HAVE YOU ACCOUNTED FOR TWO PARENTS?

   1 YES (SKIP TO A2G10B)
   2 NO (ASK A2G10A)

A2G10A. Does (CHILD) have another parent who doesn't live in this household?
   1 YES (GO TO A2G1 AND ASK ABOUT ANOTHER PARENT)
   2 NO (GO TO A2G10B)

A2G10B. REPEAT A2A-A2G8 FOR EACH CHILD UNDER 13 IN HOUSEHOLD

Respondent and Household Adults Demographics

B1a1. These next questions are about your family and the other people who live in your household and who are 13 years old or older. Including yourself, how many people 13 years old or older live in your household?

   _____NUMBER OF CHILDREN

B1A. Now please tell me the first names (or initials) of individuals over the age of 13 who usually live here. We will start with you. Can you please state your first name or initials?

IDENTIFY ALL HOUSEHOLD MEMBERS FIRST, THEN ASK QUESTIONS ABOUT EACH PERSON.

B1A. Names: _____

And the next individual over the age of 13 who usually lives here?

Another teenager or adult?   _____

Now I have some questions about each person in the household. The questions may be different for different people. Let me start with you.

B1b. How old (are you/ is [])? IF NEEDED: Your best guess is fine.

B1c. (IF NOT OBVIOUS:) (Are you/Is []) male or female?

B1d. [IF HHMEM NOT R] What is your relationship to []?

   1 SPOUSE (I.E., LEGALLY MARRIED)

7 PARTNER (I.E., NOT LEGALLY MARRIED)
2 PARENT OR PARENT-IN-LAW
3 CHILD
4 SIBLING OR SIBLING-IN-LAW
5 OTHER RELATIVE
6 NON-RELATIVE (SPECIFY: _____)

B1e. [if b1b >= 14 and HHMEM NOT R] [IF NOT OBVIOUS, ASK:] Does [] have any children under the age of 13 in this household? IF NEEDED: Please include biological and adopted children.

1 YES
2 NO

B1e_1. [if b1e=1] Who are []'s children in this household?

B1f. [IF B1B>= 14 AND HHMEM NOT R OR R'S SPOUSE AND HHMEM HAS NO CHILDREN IN HH] Does [] ever look after the young children in the household? IF NEEDED: How about for more than 5 hours at a time?

[IF HHMEM ISN'T R'S SPOUSE , AND DOES NOT HAVE CHILDREN UNDER 13 IN THE HHAND DOES NOT CARE FOR THE CHILDREN UNDER 13 IN THE HOUSEHOLD, SKIP TO NEXT PERSON IN HOUSEHOLD. ELSE, ASK THE FOLLOWING:]

B1j. What is the highest grade or level of schooling that (you have/[] has) ever completed? (READ IF NECESSARY)

1. 8th GRADE OR LESS
2. 9th-12th GRADE NO DIPLOMA
3. HIGH SCHOOL GRADUATE OR GED COMPLETED
4. SOME COLLEGE CREDIT BUT NO DEGREE
5. ASSOCIATE DEGREE (AA, AS)
6. BACHELOR'S DEGREE (BA, BS, AB)
7. GRADUATE OR PROFESSIONAL DEGREE

B1m. (IF HHMEM IS R:)Are you of Hispanic or Latino origin?

1 YES
2 NO

B1n. (IF HHMEM IS R:)_Which of the following are you...SELECT ONE OR MORE

1 White
2 Black or African American
3 Asian
4 Native Hawaiian or Other Pacific Islander
5 American Indian or Alaska Native
6 IF VOLUNTEERED: OTHER

B1o. (IF HHMEM IS R OR PARENT OF CHILD UNDER 13 IN HH:) In which country was [] born?

_____

B1o_CNTRY [drop down]

B1o_1 (IF B1o answered and NOT "USA":)
In what year did s/he first come to USA?

_____

[ASK B1b-B1o_1 ABOUT ALL REMAINING INDIVIDUALS IN HH.]

Now I have some additional questions about your household and other family. These questions are about the whole household and not just individual people.

B2. What language is usually spoken in this household? CHECK ALL THAT APPLY

_____ Language

B3. [Does your child/Do your children] have any relatives who live within 45 minutes of your child's home? Please include relatives on your side of the family as well as relatives of the child's other parent. IF NEEDED: Please report all relatives, even if they could not or would not provide care for a child.

     1 YES (ASK B3B)
     2 NO (SKIP TO C1)

B3b. Would any of these relatives be able to care for your child/children on a regular basis with no payment or only payment that covers transportation costs?

     1 Yes
     2 No

B3c. Would any of these relatives be able to care for your child if you were to pay them?

     1 YES
     2 NO

Child Care: Types and Hours

C1. [READ FOR FIRST CHILD ONLY:] In addition to a child's parents, a child may be cared for by other adults in the household, by relatives or friends outside of the household, or by a child-care professional in a center or someone's home. Next I have some questions about various people who cared for your child/children during the last week (that is, FILL IN DATES FOR LAST MONDAY AND LAST SUNDAY.

[Let's start with (CHILD)./Now let's talk about (CHILD2/etc.).] Please tell me all of the people or organizations that cared for him/her last week , other than you (or your spouse/partner).

IF (CHILD) AGE 5 YEARS OR MORE, ALSO READ: If your child attended regular school for any grade from kindergarten through eighth grade, please tell me the name of that school. If (CHILD) also attended a before or after-school program, either at the school or somewhere else, please mention that program separately.

C1A1. Provider Name

1.			
2.			
3.			
4.			
5.			
6.			

C1A_more

Is there another provider for [CHILD]

C2. Now I'd like to understand your child care schedule last week.

Thinking about **last** Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday (that is, FILL IN DATE FOR LAST MONDAY/TUESDAY/WEDNESDAY/THURSDAY/FRIDAY/SATURDAY/SUNDAY), other than you (and your [spouse/partner]) who cared for (CHILD)? IF NEEDED: Please tell me about last week, even if it was an unusual week. I'll ask you other questions about your usual schedule later on.

C2A1. What time last Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday did (PROVIDER) start to care for (CHILD)?

C2D. When did the care with (PROVIDER) end last Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday?

And who cared for him/her next that day?
_____

C2D2. Thinking about (CHILD)'s schedule for last week, was any day's schedule last week the same as last Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday? SELECT ALL THAT APPLY.

1. TUESDAY
2. WEDNESDAY
3. THURSDAY
4. FRIDAY

144

5. SATURDAY
6. SUNDAY

C2A2
[If day selected] [IF NEEDED: Sometimes a (CHILD)'s schedule on a specific day is different from his/her regular schedule for that day of the week.]-Was (CHILD)'s schedule last (DAY OF WEEK) identical to (DAY OF WEEK SELECTED IN C2d2) that week, or were there some differences in when or where s/he spent time those two days?

1. IDENTICAL (SKIP TO NEXT DAY OF WEEK IN C2A2)
2. SOME DIFFERENCES (GO TO C2A1)

NOTE TO PROGRAMMER: PLEASE ADD A FLAG IF THIS IS A CARE SPELL THAT PASSES MIDNIGHT.

[RE-ASK C2 UNTIL ALL PROVIDERS ASKED ABOUT FOR LAST WEEK FOR THIS CHILD.]

C3. Does anyone else regularly care for (CHILD), even if they didn't happen to care for him/her last week? By regularly I mean at least five hours each week.

1. YES- ASK C4
2. NO-GO TO C4C
3. DON'T KNOW/REFUSED-GO TO INSTRUCTION BEFORE C4C1

C4 Who usually provides care for (CHILD) but didn't do so last week?

C4b. How many hours per week does PROVIDER usually care for CHILD?

CHILD A
Provider _____
(IF NOT OBVIOUS:)Does that care usually take place at your home or somewhere else?:
_____

How many hours per week does [PROVIDER] usually care for [CHILD]? : _____

Provider _____
(IF NOT OBVIOUS:)Does that care usually take place at your home or somewhere else?:
_____

How many hours per week does [PROVIDER] usually care for [CHILD]? : _____

IF MORE THAN ONE CHILD, ASK C4C1. IF ONLY ONE CHILD OR LAST CHILD, GO TO C5.

C4c1: Was (CHILD 2/CHILD3/...)'s schedule last Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday the same as another child's Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday schedule?

1. YES, CHILD 1 →ASK C4C1_1
2. YES, CHILD 2→ASK C4C1_1
3. YES, CHILD →ASK C4C1_1
... (FILL IN ALL CHILDREN IN THE ROSTER IN A1)→ASK C4C1_1

13. NOT THE SAME AS ANY CHILD ALREADY REPORTED (GO TO C2 TO COLLECT FULL DAY SCHEDULE)

C4C1_1. [IF NEEDED: Sometimes a (CHILD)'s schedule on a specific day is different from his/her regular schedule for that day of the week.] Was (CHILD)'s schedule last Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday identical to (CHILD SELECTED IN C4C1)'s Monday schedule, or were there some differences in when or where they spent time last Monday?

1. IDENTICAL →ASK C4C2_1)
2. SOME DIFFERENCES (GO TO C2 TO COLLECT FULL DAY SCHEDULE)

C4C2_1. What day last week was the same as (CHILD)'s (DAY OF WEEK) schedule last week? SELECT ALL THAT APPLY.

1. TUESDAY
2. WEDNESDAY
3. THURSDAY
4. FRIDAY
5. SATURDAY
6. SUNDAY (

(FOR LAST TUESDAY/WEDNESDAY/THURSDAY/FRIDAY/SATURDAY/SUNDAY:)
(IF DAY SELECTED IN C4C2_1, ASK C4C2_2)

C4C2_2. [If day selected] [IF NEEDED: Sometimes a (CHILD)'s schedule on a specific day is different from his/her regular schedule for that day of the week.] Was (CHILD)'s schedule last (DAY OF WEEK) identical to (DAY OF WEEK SELECTED IN C4c2_1) that week, or were there some differences in when or where s/he spent time those two days?
1. IDENTICAL (SKIP TO NEXT DAY OF WEEK IN C4C2_1)
2. SOME DIFFERENCES (GO TO C2A TO COLLECT FULL DAY SCHEDULE)

(IF DAY NOT SELECTED IN C4C2_1, ASK C4C1)

LOOP THROUGH DAYS OF WEEK UNTIL ALL DAYS ARE ASKED. THEN ASK C3 ABOUT (CHILD2). LOOP THROUGH ALL CHILDREN UNTIL ALL DAYS LAST WEEK AND REGULAR ARE ASKED FOR ALL CHILDREN.

C5. Now I have a few more questions about each person/organization that cares for your child/children.

[LOOP THROUGH EACH PROVIDER (LAST WEEK AND REGULAR) FOR EACH CHILD.
IF PARENTAL CARE ONLY OR PROVIDER LIVES IN THIS HOUSEHOLD, SKIP TO INSTRUCTION BEFORE C9. ELSE ASK C5A.
ASK ONLY ONCE ABOUT EACH PROVIDER, REGARDLESS OF HOW MANY CHILDREN ARE CARED FOR BY THAT PROVIDER.]

C5A. [IF NOT OBVIOUS, ASK:] Is (PROVIDER) an individual or an organization?

1. INDIVIDUAL ->GO TO C5C

2. INDIVIDUAL WITH FAMILY DAY CARE -> GO TO INSTRUCTION BEFORE C6
3. ORGANIZATION ->GO TO INSTRUCTION BEFORE C6

C5C. Did you have a personal relationship with (PROVIDER) before s/he began caring for your child/children?

1. YES –ASK C5CA
2. NO-GO TO C5D
DK/REF-GO TO C5D

C5CA   What is your relationship to (PROVIDER)?

1. R IS PROVIDER'S FORMER SPOUSE/PARTNER->GO TO C5D
2. R IS PROVIDER'S CHILD/SON/DAUGHTER-IN-LAW->GO TO C5CB
3. R IS PROVIDER'S BROTHER OR SISTER OR BROTHER OR SISTER-IN-LAW ->GO TO C5D
4. R IS PROVIDER'S OTHER RELATIVE->GO TO C5CB
5. R IS PROVIDER'S FRIEND->GO TO C5D
6. R IS PROVIDER'S NEIGHBOR->GO TO C5D
7. DK/REF-GO TO C5D

C5CB   C5CA=2: So (PROVIDER) Is the CHILD's grandparent?
C5CA=4: is this the CHILD's grandparent?

1 YES
2 NO

C5D (IF NOT OBVIOUS). Does this individual live in this household or provide care in this household?

1. YES, LIVES HERE (SKIP TO INSTRUCTION BEFORE C9)
2. YES, PROVIDES CARE HERE BUT DOES NOT LIVE HERE (SKIP TO INSTRUCTION BEFORE C9)3. NO, NEITHER LIVES HERE NOR PROVIDES CARE HERE

[IF C5A=2 OR 3, ASK C6. ELSE GO TO C8.]

C6. (IF NOT OBVIOUS:) What is the full name of {provider}? _____
INTERVIEWER INSTRUCTION: RE-ENTER FULL NAME OF PROVIDER IF OBVIOUS.

C7. [I have a list of most child care providers in the area, and I'll see if this program is on my list. In that case, I won't have to ask you quite as many questions about their care.] In what city is (PROVIDER) located? On what street? <LOOK UP IN PROVIDER LIST>
IF PROVIDER FOUND IN LIST, SKIP TO C8A. ELSE ASK C8

C8. [IF C5A=2 OR 3: I'm not finding the listing.] Could you tell me the street address where (s/he lives/they are)? IF NEEDED: Your answers to this and all other questions will be confidential and released only in statistical form.

Street Address _____
City _____
ZIP _____

State _____

IF NEEDED: Could I know just the zip code and the intersection nearest [PROVIDER]? You can just tell me the two cross-streets and the zipcode, or the city and state and cross streets.

IF NEEDED: We know that the location of child care is very important to parents and children. We only want the location of the provider in order to understand the distances between providers, the child's home, and other important locations.

  ZIP _____
  Street 1 _____
  Street 2 _____

C8A. (INTERVIEWER: CODE OR ASK IF NECESSARY:) IS [PROVIDER] A REGULAR SCHOOL SUCH AS ELEMENTARY SCHOOLS K TO 6 OR K TO 8, 6-8 MIDDLE SCHOOLS?

  1 YES
  2 NO

[IF C5A=3 AND (PROVIDER TYPE = K-6 OR IF C8a=1), ASK C8_1. ELSE GO TO INSTRUCTION BEFORE C9.]

C8_1. Last week, what were the hours of the regular school day at {PROVIDER}? IF HOURS VARIED BY DAY, RECORD LONGEST DAY LAST WEEK.

  Start time: _____
  End time: _____

SKIP TO INSTRUCTION BEFORE C9.

[IF C5A=3 AND (ORGANIZATION OTHER THAN K-6 SCHOOL OR C8_A=2), ASK C8_2. ELSE GO TO INSTRUCTION BEFORE C9.

C8.3. Some organizations provide a single type of activity for children, that many children may participate in for only a couple of hours each week. These could include tutoring programs, sports, or music or dance lessons. Would you say that [provider] offers a single type of activity or more than one type of activity?

  1 SINGLE
  2 MORE THAN ONE

C8_4. Some organizations offer drop-in care that parents can use on an unscheduled basis and without signing up in advance. Gyms, shopping malls, community centers and churches are some places that can offer drop-in care.
Does {CHILD} attend [PROVIDER] on a drop-in basis?

  1 YES
  2 NO

IF PROVIDER PROVIDED CARE LAST WEEK, ASK C9. ELSE GO TO C5 AND ASK ABOUT NEXT PROVIDER UNTIL ALL PROVIDERS ASKED ABOUT

C9. Does [PROVIDER] care for (CHILD) regularly? By regularly, we mean at least five hours each week.
    1. YES
    2. NO

[RETURN TO C5 AND ASK ABOUT NEXT PROVIDER UNTIL ALL PROVIDERS ASKED ABOUT. IF LAST PROVIDER, GO TO INSTRUCTION BEFORE C1A2.]

These next questions are about your interactions with (PROVIDER)

C1a2. (IF C5a NE 2 OR 3 – NOT AN ORGANIZATION OR FAMILY DAY CARE PROVIDER)
Please tell me whether this care usually takes place in your home or somewhere else.

    1 R'S HOME
    2 SOMEWHERE ELSE

C1B. How did your child/children usually get to (provider) last week? (CODE ONE PER CHILD, DO NOT PROBE FOR ADDITIONAL.)

1   Walking or bicycle
2   Car
3   Public transportation
4   school bus

C1C. Who usually took your child/children there?
<list PROVIDERS AND PARENTS>

C11 [IF (C5A =2 OR 3) OR (C5A=1 AND C5C=2)] Do you have any difficulties talking with (PROVIDER/your caregiver at PROVIDER) because both of you aren't comfortable speaking the same language?

    1 YES (ASK C11A)
    2 NO (skip to C12)

[LOOP THROUGH NEXT PROVIDER BEGINNING WITH C10 UNTIL ALL NON-SCHOOL, NON-SINGLE ACTIVITY, NON-DROP-IN PROVIDERS, NON-CO-RESIDENT, USUAL PROVIDERS THAT PROVIDE AT LEAST 5 HOURS OF CARE PER WEEK ARE ASKED ABOUT.]

[C14_SELECT: PROGRAMMER NOTE: RANDOMLY SELECT ONE CHILD FOR C14]
[PROGRAMMER NOTE: PUT ALL QUESTIONS ON ONE SCREEN SO THAT ONE SEPARATE SCREEN FOR ONE TYPE OF CARE]

C14. These next questions are about how you view different types of childcare or after-school care for children of the same age as (SELECTED CHILD). Please think about each type of care in general, not any specific program you know of. The types of care I will ask you about are: center care, relative or friend care, family day care,

C14_1: (Let's start with center care. Examples of center care include preschools, Head Start, an after school program at school, or a child care center.
/Let us continue with relative or friend care, where a relative or close family friend cares for a child in the relative's/friend's home or the child's home.
/Next let us think about family care, where an individual has a child care business in his or her own home and cares for a few or several children there.
/Last, let us talk about parental care, where the parents are the only care providers a child has).

Now how would you rate it on having a nurturing environment for children of the same age as (SELECTED CHILD IN C14_SELECT)? Would you say: excellent, good, fair, poor?

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION
6. DK/REF

C14_2: How would you rate (center care/relative or friend care/family day care/parental care) on helping children be ready to learn in school for children of the same age as (SELECTED CHILD IN C14_SELECT)? Would you say excellent, good, fair, poor?

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION
6. DK/REF

C14_3: How about (center care/relative or friend care/family day care/parental care) for teaching children how to get along with other children ? (Would you say it is excellent, good, fair, poor very good, somewhat good, or not very good for children of the same age as (SELECTED CHILD IN C14_SELECT)?)

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION
6. DK/REF

C14_4. How about safety in center care/relative or friend care/family day care/parental care (for children of the same age as (SELECTED CHILD IN C14_SELECT))? (Would you say it is excellent, good, fair, poor for children of the same age as (SELECTED CHILD IN C14_SELECT)?)

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION

6. DK/REF

C14_5: How about affordability of center care/relative or friend care/family care/parental care ()? (Would you say this type of care is excellent, good, fair, poor in terms of parents being able to afford it?)

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION
6. DK/REF

C14_6: How about flexibility for parents who use center care/relative or friend care/family care/parental care ()? (Would you say this type of care is excellent, good, fair, poor for parents' flexibility?)

1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
5. NO OPINION
6. DK/REF

Respondent and Spouse Employment Schedules

ASK FIRST FOR R, THEN ASK FOR R'S SPOUSE IF ANY IN HOUSEHOLD, THEN ASK FOR ANY OTHER PARENT OF A CHILD UNDER 13 IN HH, THEN ASK FOR ANY HH MEMBER WHO PROVIDED 5 OR MORE HOURS OF CARE LAST WEEK ().

D1A. I'm going to ask you about (your/HHMEM's) current work situation. Last week, did (you/s/he) do any work for pay? IF NEEDED: Please include freelance work, work in the

military, work for a family-owned business even if (you/s/he) did not get paid, and work on (your/his/her) own business or farm.

1. YES
2. NO
3. DK/REF

D1B. Last week, (did you/was s/he) attend classes in a high school, college or university?

1. YES, ATTENDED
2. NO, NOT ATTENDED
3. DK/REF

D1C. Other than high school, college, or university, did (you/s/he) attend any courses or training programs last week designed to help people find a job, improve their job skills, or learn a new job?

1. YES, IN TRAINING
2. NO, NOT IN TRAINING
3. DK/REF

D1D. Next, I'd like to ask you about (your/his/her) day-to-day work/school/training schedule last week.

[IF D1A=1 THEN ASK D1D_1. OTHERWISE GO TO D1D_5.]

D1D_1. What time did (you/s/he) begin work/school/training on last Monday(/Tuesday/Wednesday/Thursday/Friday)? (Please include the time you spent commuting to and from work in your response.)
_____

☐ I/(S)/HE DID NOT WORK LAST MONDAY(/TUESDAY/WEDNESDAY/THURSDAY/FRIDAY) –GO TO INSTRUCTION BEFORE D1D_5

D1D_2. What time did (you/s/he) end work last Monday(/Tuesday/Wednesday/Thursday/Friday)? _____

NOTE TO PROGRAMMER: PLEASE ADD A FLAG TO FLAG WORK SPELL THAT PASSES MIDNIGHT...

D1D_2a. Did (you/s/he) work another shift or job on Monday/(/Tuesday/Wednesday/Thursday/Friday)?

IF YES, ASK D1D_1. _____
IF NO, GO TO INSTRUCTION BEFORE D1D_5

IF D1B=1 THEN ASK D1D_5. OTHERWISE GO TO INSTRUCTION BEFORE D1D_9.]

D1D_5. What time last Monday (/Tuesday/Wednesday/Thursday/Friday) did (you/s/he) begin school? (Please include the time you spent commuting to and from school in your response.) _____

☐ I/(S)HE DID NOT ATTEND SCHOOL LAST MONDAY(/TUESDAY/WEDNESDAY/THURSDAY/FRIDAY)—GO TO INSTRUCTION BEFORE D1D_9.

D1D_6. what time did (you/s/he) end school last Monday(/Tuesday/Wednesday/Thursday/Friday)?

D1D_6a. Did (you/s/he) go to school another time on Monday(/Tuesday/Wednesday/Thursday/Friday)?

IF YES, ASK D1D_5.
IF NO, GO TO INSTRUCTION BEFORE D1D_9.

[IF D1C=1 THEN ASK D1D_9. OTHERWISE GO TO INSTRUCTION BEFORE D1D_C2.]

D1D_9. What time last Monday(/Tuesday/Wednesday/Thursday/Friday) did (you/s/he) begin training? (Please include the time you spent commuting to and from training in your response.)

☐ I DID NOT ATTEND TRAINING LAST MONDAY(/TUESDAY/WEDNESDAY/THURSDAY/FRIDAY).-GO TO INSTRUCTION BEFORE D1D_C2.

D1D_10. What time last Monday(/Tuesday/Wednesday/Thursday/Friday) did (you/s/he) end training?

D1D_C2. What day/days last week is/are the same as your/his/her (DAY OF WEEK) schedule last week for work, school or training?

1. TUESDAY   (ASK D1D_C3)
2. WEDNESDAY   (ASK D1D_C3)
3. THURSDAY   (ASK D1D_C3)
4. FRIDAY   (ASK D1D_C3)
5. SATURDAY   (ASK D1D_C3)
6. SUNDAY   (ASK D1D_C3)
7. NO IDENTICAL DAYS

[FOR TUESDAY/WEDNESDAY/THURSDAY/FRIDAY/SATURDAY/SUNDAY:)
IF SELECTED IN D1D_C2, THEN ASK D1D_C3. OTHERWISE, GO TO INSTRUCTION BEFORE D1D_1.

D1D_C3. (Sometimes people's work/school schedule on a particular day is different from their regular work/school schedule for that day of the week.) Thinking about last (DAY OF WEEK), was your/his/her schedule last (DAY OF WEEK) identical to (DATE SELECTED IN D1D_C2) that week, or were there some differences in when you/he/she arrived at or left work/school/training on those two days?

1. IDENTICAL (GO TO NEXT DAY)
2. SOME DIFFERENCES (ASK D1D_1)

<CHECKS TO PICK UP INCONSISTENCIES>

[COMPARING EMPLOYMENT SCHEDULES AGAINST CHILD CARE SCHEDULES ON LAST MONDAY, IF THERE ARE PERIODS OF ONE HOUR OR MORE WHEN CHILD NOT IN ANY CARE AND PARENT(S) AT WORK/SCHOOL/TRAINING, ASK CH3. ELSE ASK CHK4

CHK3. It seemed that (CHILD) was not in any care and you (and your spouse/partner) were at work/school/training from [INSERT SPELL OF TIME]. Was (CHILD) with you (and/or your spouse/partner) at work/school/training, or did he/she care for himself/herself during that period of time?

1. CHILD WITH R/R SPOUSE/PARTNER AT WORK/SCHOOL/TRAINING
2. CHILD WITH R/SPOUSE/PARTNER AND R/SPOUSE NOT AT WORK/SCHOOL/TRAINING
3. CHILD CARED FOR HIM/HERSELF
4. CHILD WITH SIBLING LESS THAN 18
5. OTHER ARRANGEMENT (PLEASE SPECIFY: _____)

[LOOK AT CHILD'S CARE SCHEDULE, ASK CH5 IF THERE ARE STILL GAPS. ELSE MOVE ONTO NEXT DAY.]

CH5. It seemed that (CHILD) was not in any care last Monday from [INSERT SPELL OF GAPS]. Was (CHILD) with you (and/or your spouse/partner), or did he/she care for herself/himself, or was there some other arrangement during that period of time?

1. CHILD WITH R/R SPOUSE/PARTNER AT WORK/SCHOOL/TRAINING
2. CHILD CARED FOR HIM/HERSELF
3. CHILD WITH SIBLING LESS THAN 13
4. OTHER ARRANGEMENT (PLEASE SPECIFY: _____)

[REPEAT CHK3 , CHk5 FOR ALL 7 DAYS OF WEEK FOR CHILD 1. MOVE TO CHILD2/CHILD3'S SCHEDULES IF THERE ARE MORE THAN ONE CHILD]

[NOTE TO PROGRAMMER/INTERVIEWERS: IF HHMEMBER IS CHILD'S PARENT OR PARENT'S SPOUSE, ASK D2-D5d. IF HHMEMBER IS NOT CHILD'S PARENT OR PARENT'S SPOUSE, THEN SKIPINSTRUCTION BEFORE D9A]

The next questions are about the people in this household who have young children or are caring for them. I may have different questions about each of you.

[IF D1A=1 ASK D2. ELSE GO TO D4]

These next questions are about [you/[name]].

D2_1. Where is the place that (you/he/she) work(s) the most hours each week? Please tell me the city and state with the zip code or nearest major intersection.

1 Work from home
2 No set workplace
3 Enter city/state/zip code

D2_1_place. City_____ State_____
ZIP_____ Cross streets_____ and_____

D2_2.
How far in advance (do you/he/she) usually know what days and hours you/he/she will need to work?

1) one week or less
(2) between 1 and 2 weeks
(3) between 3 and 4 weeks
(4) 4 weeks or more

D2_3. Did (you/she/he) work (your/his/her) usual schedule last week, is there no usual schedule, or was last week's schedule not the usual one?

1 USUAL SCHEDULE
2 NO USUAL SCHEDULE
3 LAST WEEK UNUSUAL

D2. What kind of work (do you/does s/he) do? RECORD JOB OR OCCUPATION NAME IN TABLE BELOW. IF NECESSARY, What is (your/his/her) title or the name of (your/his/her) job? PROBE: What are the usual activities on that job?

IF DON'T KNOW /REFUSED-GO TO D3D

D2A. What kind of business is that? RECORD FIRM NAME OR INDUSTRY DESCRIPTION IN TABLE BELOW. IF NECESSARY, What does the company make or do?

IF DON'T KNOW/ REFUSED-GO TO D3D

PROGRAMMER: SHOW UNIT OF TIME ON THE SAME SCREEN WITH D3D. AND ACCEPT TWO DECIMAL PLACES.

D3D. About how much are you paid at that job? Is that per....

$_____ per Unit of time _____

[IF D1A NE 1 ASK D4. ELSE, GO TO INSTRUCTION AFTER D5D9a.]

D4. [Have you/has s/he] ever worked for pay?
1 YES→GO TO D5.
2 NO →GO TO INSTRUCTION AFTER D5D.

D5A. What was the last job that you/he/she had? What was the job title or what were the main duties of the job?

Job: _____

D5B. When did you/he/she last work at that job? ENTER 33/33 IF R STILL WORKS THERE.
Month ___ Year _____

D5C. About how many hours did you/he/she usually work at that job each week when you/he/she stopped working there? Would you say it was less than 15, between 15 and 30, or more than 30 hours per week?

1 LESS THAN 15
2 15 TO 30
3 MORE THAN 30
4 DK

D5D. About how much were you/was he/she paid at that job? Your best estimate is fine.

$_____ per Unit of time _____
DK/REF

LOOP TO NEXT HHMEM BEGINNING AT INSTRUCTION BEFORE D2_1 UNTIL ALL RELEVANT HHMEMS ASKED ABOUT.

IF HH USES ONLY PARENTAL CARE , SKIP TO INSTRUCTION BEFORE d15.
ELSE IF R, ANOTHER PARENT OF CHILD < 13, OR REGULAR CAREGIVER IN hh EMPLOYED (D1A1=1), ASK D9A.

For these next questions, please think about the adults in the household who have young children or care for them at least 5 hours per week. That is, you, [name, name, etc.]

D9A. How many days in the past month did [one of you] you work from home for a child-care related reason, such as wanting to stay nearby for a sick child, you didn't have a child-care arrangement in place, or your child-care provider was sick?

_____ Days

D10. During the past 3 months, how many days of work have [one of you] you missed for any reason? Don't include scheduled holidays or vacation days.

_____ Days IF 0, SKIP TO D11.

D10A. How many of these days did [one of] miss because your provider was sick or on vacation?

_____ Days

D10B. How many days did [one of] miss because a child was sick and had to stay home?

_____ Days

D10C. [if d10a > 0 or D10b > 0] Did that person lose any pay because of missed work?

    1 YES
    2 NO

D11. During the past 3 months, how many days did [one of you] you get to work late or have to leave early for any reason?

    _____ Days IF 0, SKIP TO D12.

D11A. How many of these days did [one of you] you get to work late or leave early because of child care responsibilities?

    _____ Days IF 0, SKIP TO D12

D11B. Did that person lose any pay because of getting to work late or leaving early?
    1 YES
    2 NO

D12. Approximately how many days in the last 3 months did [one of] you have to make special arrangements for (CHILD)'s care because a provider was sick or unavailable? Don't count days that were holidays anyway.

D13. Approximately how many days in the last 3 months did [one of] you have to make special arrangements for (CHILD)'s care for some other reason (for example, a child was sick, transportation broke down, or any other reason)? Don't count days that were holidays anyway.

    _____ Days

/* IF R OR R'S SPOUSE EMPLOYED (d1A1=1), ASK D15. ELSE SKIP TO SECTION E.*/

D15. Do you or your spouse participate in a cafeteria-style flexible spending account at work so that you can pay for child care expenses out of pre-tax income?

    1 Yes
    2 No

Child Care Payment and Subsidy to Each Provider

LOOP THROUGH ALL USUAL PROVIDERS WHO ARE NOT A PUBLIC SCHOOL, NOT A SINGLE-ACTIVITY, OR NOT A DROP-IN, AND THAT PROVIDE AT LEAST 5 HOURS OF CARE PER WEEK. LOOP THROUGH CHILDREN WITHIN PROVIDERS.

RESTRICT THIS TO ONLY HH MEMBERS WHO ARE AGE 14 OR OLDER

INTERVIEWER CHECK:

HAS PAYMENT FOR THIS CHILD IN THIS ARRANGEMENT ALREADY BEEN COVERED IN A
PREVIOUS LOOP 'S RESPONSE (E4C=2 OR E7B=2)?

YES- SKIP TO E12.
NO/NOT SURE-, SEE NEXT CHECK

CHECK: IS PAYMENT FOR THIS CHILD IN THIS ARRANGEMENT THE SAME AS THE PAYMENT FOR
ANOTHER CHILD IN THIS ARRANGEMENT (E4C1=1 OR E7B1=1)?
YES, SKIP TO E12_1
NO/NOT SURE, ASK E1.

E1. Now I have some more questions about the regular child care arrangements you use.

(Starting with the youngest child,) Does (PROVIDER FILLED IN FROM C1A) charge you anything
directly for the care of (CHILD)? Please include charges even if you are later reimbursed.
>   1. YES ->GO TO E6
>   2. NO -> GO TO E2

E2. Is the [provider] paid by someone or someplace else for the care of (CHILD)? Do not include
payments, reimbursements or vouchers that go directly to you.

>   1. YES
>   2. NO ->GO TO E5
>   7. DON'T KNOW
>   8. REFUSED

E3. Who pays them? MARK ALL THAT APPLY

>   1.WELFARE OR OFFICE OF EMPLOYMENT SERVICES
>   2.AGENCY FOR CHILD DEVELOPMENT
>   3.LOCAL OR COMMUNITY PROGRAM
>   4.COMMUNITY OR RELIGIOUS GROUP
>   5.FAMILY OR FRIEND
>   6.EMPLOYER
>   7.OTHER
>   8.DON'T KNOW
>   9.REFUSED

E4. In addition to the payments made by (this source/these sources), do you have a co-payment? In
other words, do you need to pay [PROVIDER] yourself with money out of your own pocket?

>   1.YES
>   2. NO ->GO TO E9
>   3. DON'T KNOW ->GO TO E9
>   4. REFUSED ->GO TO E9

E4A. How much do you pay yourself?

_____

158

E4B. Is that per hour, per day, per week, bi-weekly, monthly, or something else?

    1. PER HOUR
    2. PER DAY
    3. PER WEEK
    4. EVERY OTHER WEEK
    5. PER MONTH
    6. SOMETHING ELSE (SPECIFY:_____)
    7. DK/REF

E4C. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER) Is that amount for (CHILD) only, or does it cover more than one child?

    1. CHILD ONLY (ASK E4C1)
    2. OTHER CHILDREN (Which children? _____) (SKIP to E2a)

E4C1. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER) Do you pay the same amount for each other child cared for by [PROVIDER] ?

    1. YES
    2. NO

E2A. Would you lose your child's spot at this provider if you lost your job or had your hours cut back?
    1. YES
    2. NO

E2B. E2B. Did you work with a local resource and referral agency, to find this provider or arrange for payment?

    1. YES->GO TO E9
    2. NO ->GO TO E9

E5 So this care is provided free by [provider]?

    1.YES ->GO TO E5A
    2.NO ->GO TO E2
    7.DON'T KNOW-> GO TO E8
    8.REFUSED->GO TO E8

IF C5A=3 (ORGANIZATION AND CHILD LE 6 YRS OLD), ASK E5A. ELSE GO TO INSTRUCTION BEFORE E10.

    E5A. Two programs that might not charge parents for taking care of their young children are Head Start and [LOCAL NAME FOR PRE-K]. Do you happen to know if [provider] is one of these types of programs?

        1.YES ->GO TO INSTRUCTION BEFORE E10
        2.NO -> GO TO INSTRUCTION BEFORE E10

E6. [IF C5C=1 (NO PRIOR PERSONAL RELATIONSHIP), SKIP TO E7. ELSE, ASK E6][IF NEEDED:Now think about the money you pay for [provider]. Sometimes the amount of money that a parent is charged for a child care arrangement or program depends on how much the family earns. This is sometimes called a sliding fee scale.] Is the amount you are charged by [provider] determined by how much money you earn?

     1.YES
     2.NO
     7.DON'T KNOW
     8.REFUSED

E7. How much do you pay this [provider]?

     $_____

     E7A. Is that per hour, per day, per week, bi-weekly, monthly, or something else?
          1. PER HOUR
          2. PER DAY
          3. PER WEEK
          4. EVERY OTHER WEEK
          5. PER MONTH
          6. SOMETHING ELSE (SPECIFY:_____)

     E7B. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER)   Is that amount for (CHILD) only, or for more than one child?
          1. CHILD ONLY→ASK E7B1
          2. OTHER CHILDREN (Which children? _____)→ASK E8

          E7B1. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER) Do you pay the same amount for each other child cared for by [PROVIDER] ?
               1. YES
               2. NO

E8.Is [provider] *also* paid or reimbursed directly by any person or program? IF NEEDED: Do not include payments, reimbursements or vouchers that went directly to you.

     1.YES
     2.NO ->GO TO E9
     3.DON'T KNOW->GO TO E9
     4.REFUSED ->GO TO E9

     E8A. Who pays them? MARK ALL THAT APPLY
          1.WELFARE OR OFFICE OF EMPLOYMENT SERVICES
          2.AGENCY FOR CHILD DEVELOPMENT
          3.LOCAL OR COMMUNITY PROGRAM
          4. COMMUNITY OR RELIGIOUS GROUP
          5.FAMILY OR FRIEND
          6. EMPLOYER
          7.OTHER
          8.DON'T KNOW
          9.REFUSED

E9. Do you receive payments, reimbursements or vouchers that are paid directly to you to cover some portion of the payments you make to [provider] for (CHILD)'s care?

    1.YES

    2. NO-> GO TO INSTRUCTION ABOVE E10

    3. DON'T KNOW -> GO TO INSTRUCTION ABOVE E10

    4. REFUSED -> GO TO INSTRUCTION ABOVE E10

    E9A. How much do you receive in payments, reimbursements or vouchers that are paid directly to you for [provider]?

        $_____

    E9B. Is that per hour, per day, per week, bi-weekly, monthly, or something else?

        1. PER HOUR

        2. PER DAY

        3. PER WEEK

        4. EVERY OTHER WEEK

        5. PER MONTH

        6. SOMETHING ELSE (SPECIFY:_____)

    E9C. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER)   Is that amount for (CHILD) only, or for more than one child?

        1. CHILD ONLY

        2. OTHER CHILDREN (Which children? _____)

[ASK E10 AND E11 FOR FIRST CHILD WITH EACH PROVIDER THAT IS A PRIOR RELATIONSHIP
    INDIVIDUAL (c5c=1) ONLY. ELSE GO TO INSTRUCTION AFTER E12AB]

E10. Do you (also) give [provider] anything other than money in exchange for caring for [CHILD]? For example, do you provide groceries or transportation, or do work such as caring for children or small repair jobs in exchange for the care that {} receives?

    1 YES

    2 NO-> GO TO INSTRUCTION AFTER E12AB

    E10A. What do you give [provider] in exchange for caring for your (child/children)?

        1 GROCERIES

        2 TRANSPORTATION

        3 SERVICES SUCH AS CHILD-CARE OR SMALL REPAIR JOBS

        4 HOUSING OR HOUSING EXPENSES

        5. OTHER (SPECIFY: _____)

    E10B. What does it cost you to provide these things each time you give them? $ _____

    E10B1. How often do you give these things?

    _____

    E10B2. How much time do you spend providing these things each time you give them?

    _____ Hours

SKIP TO INSTRUCTION AFTER E12AB

E12. You said that the [amount per unit] you pay to [PROVIDER] includes your payments for [CHILD] as well, is that correct?
  1 Yes (GO TO INSTRUCTION BELOW E12AB)
  2 No (ASK E12A)
  3 DK (ASK E12A)
  4 REF (ASK E12A)

  E12_1 You said that the [amount per unit] you pay to [PROVIDER] is the same as your payments for [CHILD]. Is that correct?
      1 Yes (GO TO INSTRUCTION BELOW E12AB)
      2 No (ASK E12A)

E12A. How much do you pay this [provider]?

      $_____

E12AA. Is that per hour, per day, per week, bi-weekly, monthly, or something else?

  1. PER HOUR
  2. PER DAY
  3. PER WEEK
  4. EVERY OTHER WEEK
  5. PER MONTH
  6. SOMETHING ELSE (SPECIFY:_____)

E12AB. (IF R HAS MORE THAN ONE CHILD WHO USES PROVIDER)   Is that amount for (CHILD) only, or for more than one child?

  1. CHILD ONLY
  2. OTHER CHILDREN (Which children? _____)

[REPEAT E1 TO E12AB FOR ALL USUAL PROVIDERS MENTIONED IN C1 THAT ARE NON-PARENTAL, NON-SCHOOL, NON-SINGLE ACTIVITY, NON-DROP-IN, AND THAT PROVIDE 5 OR MORE HOURS OF CARE PER WEEK FOR ALL CHILDREN UNDER 13.]

Non-Parental Child Care Search

F2. Next, I'm going to ask you some questions about your latest search for child care, whether or not a new arrangement resulted from the search. We are interested in things like what you were looking for, how you were searching, and what you considered during your search.

[FOR SCHOOL AGE CHILDREN: Please think about before or after-school care you searched for, or activities, lessons or other programs outside of the regular school day.]

Please think about the last time you searched for care for [CHILD SELECTED FOR C14 ABOVE].

What year and month was that? IF NEEDED: Please think about when you last wanted to start a new arrangement for someone to care for him/her, even if you knew who would provide that care. What year and month was that?

___Year ___Month

ENTER 99 IF R DID NOT DO SEARCH, THEN SKIP TO G1.

IF LAST SEARCH 25 MONTHS OR MORE AGO, SKIP TO HOUSEHOLD CHARACTERISTICS SECTION BELOW.

(IF R HAS MORE THAN ONE CHILD:)
 F2A. Were you also searching for care for another child at the same time?
 CHECK ALL THAT APPLY
  1. NO OTHER CHILD
  2. CHILD
  3. CHILD2
  4. CHILD3
  5. ...
  6. CHILD N

F3. What is the main reason that you were looking for child care at that time?
 1 SO THAT I COULD WORK/CHANGE IN WORK SCHEDULE
 2 TO PROVIDE MY CHILD EDUCATIONAL OR SOCIAL ENRICHMENT
 3 TO GIVE ME SOME RELIEF
 4 TO FILL IN GAPS LEFT BY MY MAIN PROVIDER OR BEFORE/AFTER SCHOOL
 6. WASN'T SATISFIED WITH CARE
 7. WANTED TO REDUCE CHILD CARE EXPENSES
 8. PROVIDER STOPPED PROVIDING CARE
 9. CHILD NO LONGER ELIGIBLE FOR PREVIOUS CARE (E.G., AGED OUT OR SUMMER BREAK)
 10. OTHER(SPECIFY: _____)

F4. At the time of that last search, what type of child care were you mostly using for [child]?
 1) PARENTAL CARE ONLY
 2) HOME-BASED PROVIDER I HAD PRIOR PERSONAL RELATIONSHIP WITH
 3) HOME-BASED PROVIDER I DIDN'T HAVE PRIOR PERSONAL RELATIONSHIP WITH
 4) CENTER-BASED CARE
 5) OTHER (SPECIFY: _____)

C14A. Characteristics of care may be more or less important for different children depending on the age or personality of the child. (Thinking about (CHILD SELECTED IN C14)), how important was a loving environment for him/her? Would you say very important, somewhat important, or not very important?
  1. VERY IMPORTANT
  2. SOMEWHAT IMPORTANT
  3. NOT VERY IMPORTANT
  4. NO OPINION
  5. REFUSED

C14A_2. How about helping children being ready to learn in school? (Would you say it was very important, somewhat important, or not very important for (CHILD SELECTED IN C14))?
1. VERY IMPORTANT
2. SOMEWHAT IMPORTANT
3. NOT VERY IMPORTANT
4. NO OPINION
5. REFUSED

C14A_3. How about learning how to get along with other children? (Would you say it was very important, somewhat important, or not very important for (CHILD SELECTED IN C14))?
1. VERY IMPORTANT
2. SOMEWHAT IMPORTANT
3. NOT VERY IMPORTANT
4. NO OPNION
5. REFUSED

C14A_5. How about affordability of? (Would you say it was very important, somewhat important, or not very important)?
1. VERY IMPORTANT
2. SOMEWHAT IMPORTANT
3. NOT VERY IMPORTANT
4. NO OPNION
5. REFUSED

C14A_6. How about flexibility for parents who use? ((¿Diría que muy importante, algo importante o no muy importante?)
1. VERY IMPORTANT
2. SOMEWHAT IMPORTANT
3. NOT VERY IMPORTANT
4. NO OPNION
5. REFUSED

F5. Thinking about your last child care search for [child] in (YEAR in F2), did you consider more than one provider as part of your search or did you considere only one provider? Please include providers you asked about, read about, or talked to, even if you didn't consider them seriously in your decision.

1. MORE THAN ONE PROVIDER CONSIDERED (SKIP TO F7)
2. ONLY ONE PROVIDER CONSIDERED

F6A (IF NOT ALREADY STATED:) What type of provider is this?
1. HOME-BASED PROVIDER I HAD PRIOR PERSONAL RELATIONSHIP WITH→ASK F6A_1
2. HOME-BASED PROVIDER I DIDN'T HAVE PRIOR PERSONAL RELATIONSHIP WITH→
3. CENTER-BASED CARE→
4. OTHER (SPECIFY: _____)→

F6B (IF F6A=2,3,4) How did you know about this provider?
<RECORD VERBATIM AND CODE> _____
I. SELF/FAMILY MEMBERS/ FRIENDS WORK OR WORKED IN THE CENTER

  III. SELF/FRIENDS/FAMILY HAVE USED THIS PROVIDER IN THE PAST
  IV. PROVIDER HAS GOOD REPUTATION IN THE COMMUNITY
  V. NO OTHER PROVIDERS OF THIS TYPE IN THE AREA
  VI. SAW ADVERTISEMENT ONLINE OR ELSEWHERE
  VII. RESOURCE AND REFERRAL AGENCY

<IF F5=1 THEN ASK F7. OTHERWISE GO TO F10>

F7. How did you look for providers in your last search? CODE FIRST TWO MENTIONS.
1) ASKED FRIENDS AND FAMILY WITH CHILDREN
2) ASKED POTENTIAL CONTACTS WHO ARE PROVIDERS
3) COMMUNITY SERVICE, RESOURCE AND REFERRAL LISTS
4) POSTED AN AD/RESPONDED TO AN AD
5) YELLOW PAGES/NEWSPAPERS/BULLETIN BOARDS
6) WELFARE OR SOCIAL SERVICES
7) HEALTHCARE PROVIDER
8) OTHER (SPECIFY: _____)

F8B. What was the specific information you tried to learn about providers?
 RECORD VERBATIM AND CODE UP TO THREE MENTIONS, DO NOT READ CATEGORIES
_____
1) TYPE OF CARE
2) HOURS OF CARE
3) WILLINGNESS TO ACCEPT OR AVAILABILITY OF SUBSIDIES
4) FINANCIAL AID AVAILABLE
5) FEES CHARGED
6) GEOGRAPHIC LOCATION
7) PUBLIC TRANSPORTATION ACCESSIBILITY
8) CONTENT OF PROGRAM
9) YEAR ROUND CARE
10) SERVICES PROVIDED (E.G., TRANSPORTATION, MEALS, ETC.)
11) LANGUAGES SPOKEN
12) CURRICULUM/PHILOSOPHY (INCLUDING RELIGION)
13) LICENSING STATUS
14) TEACHER TENURE/TURNOVER
15) OTHER (SPECIFY)

F9. I am going to ask you some more questions about the providers that you considered most carefully before you made your final decision. Please think about the 2 providers you considered the most carefully. I'll ask you about them one by one.

F9C. What type of provider was the (first/second) provider you considered?
1. HOME-BASED PROVIDER I HAD PRIOR PERSONAL RELATIONSHIP WITH
2. HOME-BASED PROVIDER I DIDN'T HAVE PRIOR PERSONAL RELATIONSHIP WITH
3. CENTER-BASED CARE
4. OTHER (SPECIFY: _____)

F9E. How much would it have cost you to have that provider care for [child]?

$_____

F9F. is that per
    1.   Hour
    2.   Day
    3.   Week
    4.   Month
    5.   Other___

F9J. How many minutes would it take in travel time for you or some one else to take [child] to [provider]?

_____

F9L. How well would the provider's schedule have covered the hours of care you needed?
    1.   Would have covered hours of care I needed
    2.   Would have covered most of hours I needed
    3.   Would not have covered most of hours I needed
    4.   Would not have covered hours at all

F9M. How would you rate the overall quality of [provider]?
    1.   Best I can imagine
    2.   Better than I had expected to find for my child
    3.   Good for my child
    4.   Good enough for my child, but not as good as I'd wish for
    5.   Only good enough for the short-term
    6.   Not good enough for my child

<REPEAT F9A-F9M FOR ALL CANDIDATE PROVIDERS CONSIDERED>

F10. [if center care not mentioned] Did you consider any [child-care] centers or organizations for [school-age] children as part of your search?
    1. YES
    2. NO

F11. [If provider with prior relationship not mentioned]: Did you consider asking someone you know to care for your child, for example a family member, friend or neighbor?
    1. YES
    2. NO

F12. [if family day care not mentioned]:
Did you consider someone who provides care at home but whom you didn't know before as part of your search?
    1. YES
    2. NO

F13. What was the result of this search for child care?
    1. Found care
    2. Stayed with existing provider
    3. Decided not to use care other than parents
    4. Gave up search for another reason

5. Other (SPECIFY: _____)

F13A. (IF F13=1 and F5=1:) Did you choose the first or second provider you told me about?
     1. 1 FIRST
     2. 2 SECOND
     _____

F14. What was the main reason you made that decision?
     1) HAD NO OTHER CHOICES
     2) COST
     3) SCHEDULE
     4) LOCATION
     5) QUALITY OF CARE
     6) 'BEST FEELING'
     7) PROVIDER HAD SPACE AVAILABLE
     8) OTHER (SPECIFY: _____)

Household Characteristics

G1. Do [you/you or your spouse/you or your partner] own this home, do you rent, or something else?
     1. OWN-GO TO G2
     2. RENT-GO TO G2
     3. OTHER, NEITHER OWN NOR RENT-ASK G1A
     4. DK/REF-ASK G1A

G1A What is your situation?
     1 Live with parent(s)
     2 Live with spouse's/partner's parent(s)
     3 Housing is part of job compensation; live-in servant; housekeeper; gardener; farm laborer
     4 Housing is a gift paid for by an HU resident other than R or spouse/partner
     5 Housing is a gift paid for by a friend or relative outside of the HU
     6 Housing paid for by a government agency/welfare/charitable institution
     7 Sold home, not moved out of it yet
     8 Living in house which R will inherit; estate in progress
     9 Living in temporary quarters (garage, shed) while home is under construction
     10 Live here without formal arrangements; staying temporarily; squatting
     97   Other

G2. (IF NOT OBVIOUS:)_Do you have a car?
     1 Yes
     2 No

G3. Approximately what was your total household income **last month**? IF NEEDED: Please include the income of anyone who contributes to household expenses and child care costs, also include any child support you may receive if that contributes to household expenses or child care costs. Include income from pensions or from government programs like food stamps or unemployment insurance.

     $ _____ (ask G3A)

IF DK/REF, GO TO G3B

G3A. Is that before or after taxes and other deductions?
1 before taxes-GO TO G4A
2 after taxes-GO TO G4A
3 don't know-GO TO G4A

G3B. Let me assure you that your responses to this and all other questions in this survey will not be revealed to any agency except in summary form for all study participants combined. Which of the following categories do you think best describes your total household income after taxes from all sources last month. Just stop me when I get to the right category:
1 Less than $1200
2 $1200 to $1999
3 $2000 to $2999
4 $3000 to $4199
5 $4200 to $5499
6 $5500 or more

G4A. And how about all of last year, that is, 2011. What was the total amount of your household income that year?

TOTAL AMOUNT FOR THE PAST 12 MONTHS: $ _____GO TO G4b

IF DK/REFUSED THEN GO TO G4A1.

G4A1. (IF DK TO G4A, READ:)You may not be able to give us an exact figure for your household income, but Would it amount to $30,000 or more?

(IF REFUSED TO G4A, READ:) In order to understand whether or not child care is affordable to American families, we need to know your household's income. You may not be able to give us an exact figure, but was your household income last year through wages and salaries from all jobs ....
a) 1. YES, $30,000 OR MORE →GO TO G4A2
2. NO, LESS THAN $30,000→GO TO G4A5

(IF REFUSED TO G4A, READ:)

G4A2. Would it amount to $50,000 or more?

1. YES→ASK G4A3

2. NO→ASK G4A4

G4A3. Would it amount to $75,000 or more?

1.YES→GO TO G4B

2. NO→GO TO G4B

G4A4. Would it amount to $40,000 or more?

      1. YES→GO TO G4B

      2. NO→GO TO G4B

G4A5. Would it amount to $15,000 or more?

      1. YES→ASK G4A6

      2. NO→ASK G4A7

G4A6. Would it amount to $20,000 or more?

      1. YES→GO TO G4B

      2. NO→GO TO G4B

G4A7. Would it amount to $10,000 or more?

      1. YES

      2. NO

G4B. How many different people's job earnings did you count in that 2011 household income?

    _____ Number of people

G4c. Again, thinking about the 2011 household income that you reported, **was any of that from sources other than job earnings** -- for example, from child support, pensions, government assistance programs , or interest from a bank account?

    1 YES (ASK G4D)

    2 NO

    3 DK

G4d. How much of your 2011 total household income was from sources other than job earnings?

    _____ Amount from non-job sources

If DK/REF

G4e. You may not be able to give us an exact figure for, but were non-job household earnings in 2011 ....

    a) less than $2,500, -GO TO G7

    b) $2,500 to less than $5,000, -GO TO G7

    c) $5,000 to less than $7,500-GO TO G7

    d) $7,500 to less than $10,000-GO TO G7

    e) $10,000 to less than $12,500-GO TO G7

    f) $12,500 to less than $15,000-GO TO G7

    g) $15,000 to less than $20,000-GO TO G7

    h) $20,000 or more? -GO TO G7

G4B1. In the last calendar year did your household receive any public assistance or welfare payments?
1. YES
2. NO

[PROGRAMMER: PICK THE C14 child TO FILL IN G10]
G10. What kind of health insurance or health care coverage does [c14 CHILD]have? (CODE FIRST MENTION, USE CATEGORIES TO PROBE AS NEEDED).

1. PRIVATE HEALTH INSURANCE PLAN FROM YOUR EMPLOYER OR WORKPLACE
2. PRIVATE HEALTH INSURANCE PLAN THROUGH YOUR SPOUSE OR PARTNER'S EMPLOYMENT
3. PRIVATE HEALTH INSURANCE PLAN PURCHASED DIRECTLY
4. PRIVATE HEALTH INSURANCE PLAN THROUGH A STATE OR LOCAL GOVERNMENT OR COMMUNITY PROGRAM
5. MEDICAID
6. MEDICARE
7. MILITARY HEALTH CARE/VA OR CHAMPUS/TRICARE/CHAMP-VA
8. NO COVERAGE OF ANY TYPE
9. OTHER (SPECIFY)

IF S1>1 (TWO OR MORE CHILDREN IN THE HH) THEN ASK G10A, ELSE GO TO G11.
G10A. Besides (YOUNGEST CHILD), how many of your other children under 13 have some sort of health insurance or health care coverage? _____NUMBER OF CHILDREN

G11. Which of these statements best describes the food eaten in your household in the last 12 months: We always had enough to eat, sometimes we did not have enough to eat, or, often, we did not have enough to eat? (CODE ONE ONLY)

ALWAYS ENOUGH TO EAT........ 1
SOMETIMES NOT ENOUGH TO EAT......2
OFTEN NOT ENOUGH TO EAT. 3

G12. Do you or your [child/children] receive food stamps, WIC or participate in a reduced or free school meals program? (CODE ALL THAT APPLY)

IF NEEDED: By school meals I mean reduced or free lunch, breakfast program or after school meals program for children of low-income families.

IF NEEDED: WIC is the Women, Infants and Children supplemental nutrition program.

1.FOOD STAMPS
2.WIC ONLY
3. SCHOOL MEALS PROGRAM

G13. If you needed to borrow $500 for three months, is there some person or place you could borrow it from? (IF NEEDED: I'm just asking a hypothetical question.)

    1. YES→ASK G13A
    2.NO→ SKIP TO SECTION H
    3.WOULD NOT BORROW→Skip to Section H

Parental consent to access administrative records

H1. I need to verify that I am speaking with someone who can authorize the release of state government program records for [NAME OF ELIGIBLE CHILD(REN)]. Are you that person?

YES	1	H4
NO	2	GO TO H2
REFUSED	99	GO TO H3

H2. May I know who would be able to authorize such a release?
        Name: _____
        Phone: _____
        Relationship to child: _____

GO TO H7

H4   Capture Interviewer ID upon entering question H5

H5   We are asking your permission to search state or local government records for child-care subsidy, Supplemental Nutritional Assistance Program (Food Stamps), TANF, WIC, Medicaid, or other programs that provide assistance to families. We would give the state agency basic information that identifies (FILL NAME OF CHILD 1...N), and request that information about (his/her) participation in government programs be sent to the U.S. Department of Health and Human Services or its contractors, for study purposes only. Do we have your permission to do so?

YES	1	→GO TO H6
NO	2	→GO TO H3
REFUSED→GO TO H3		

H3 (SUGGESTED SCRIPT) State or local government program records can provide additional information about the child care and financial assistance for care that a child and his/her family may be receiving. (IF NEEDED: For example, some pre-schools or after-school programs may be receiving government subsidies that parents are not aware of. These subsidies would be recorded in state program data on child care subsidies or such child care-related programs as Head Start or Universal Pre-Kindergarten.) NORC requests your permission to search child-care related government program records for information about your child or about the providers who serve your children. Even if your (child has/children have) not received subsidies or (has/have) never been in child care, it is still important for us to have your permission so that we can compare families like yours against those that do enroll in programs. We would not provide the state agency with any of the answers you've told me today, other than your name and the name(s) of your child/ren, and enough information to find them in state records.

All information about your child and your child's care provider is held in strict confidence and used for study purposes only. Any names of children, as well as any names of childcare providers, will not be used in reporting the study results. We will never release any information that may identify you or your child. The information will be reported in statistical form to the U.S. Department of Health and Human Services as part of the results of this study.

Continue...1   GO TO H6
Respondent still refuses...2   GO TO INSTRUCTION
                                                                                              BEFORE H7_ADDR

H6   /*CONFIRM THAT WE HAVE CHILD/REN'S FULL NAME(S), DATES OF BIRTH, ADDRESS, AND FULL NAME OF AUTHORIZING ADULT. IF NOT, COMPLETE BELOW:

CHILD/REN'S FULL NAME(S)   1. _____ DOB_____
                                                 2. _____ DOB_____
                                                 3. _____ DOB_____
                                                 4. _____ DOB_____
                                                 5. _____ DOB_____
ADDRESS: _____
AUTHORIZING ADULT: _____

[IF R RETURNED MAIL SCREENER AND ADR_1 IS BLANK (I.E., NOT CONFIRMED ADDRESS, GO TO H7_ADDR. ELSE GO TO H7]

H7_ADDR: Our records have (ADDRESS). Can I confirm that you are still living at that address?
          1. YES
          2. NO.

IF H7_ADDR=1, GO TO H7. ELSE GO TO H7_ADDR2.
H7_ADDR2. What is your correct address then?
          STREET ADDRESS: _____
          CITY: _____
          STATE: _____
          ZIPCODE: _____

H7: Thank you very much for speaking with me today. Those are all of the questions I have for you. We are grateful for your contribution to help improve understanding of the experiences and preferences of parents with young children regarding the care that those children receive [outside of the school day].

Appendix C. Results From Logistic Regression Models

Table C-1

Logistic Regression Analysis of Model 1 (probability of considering more than one provider)

Predictor	β	S.E. β	t-value	$e^β$
Constant	2.248	1.439	1.56	NA
Rating of center care	-0.210	0.105	2.01*	0.810
Rating of family child care home	0.001	0.109	0.02	1.002
Rating of kith and kin care	-0.076	0.132	0.57	0.927
Importance of loving environment	0.486	0.339	1.44	1.626
Importance of helping children be ready to learn	-0.251	0.224	1.12	0.778
Importance of helping children to get along with others	-0.147	0.240	0.61	0.863
Importance of affordability	-0.085	0.228	0.37	0.918
Importance of flexibility	-0.130	0.214	0.61	0.878
Parent immigrated	-0.453	0.221	2.05*	0.635
Older children present	0.019	0.185	0.10	1.019
Poverty	0.026	0.187	0.14	1.027
Subsidy receipt	-0.551	0.240	2.29*	0.577
Child age	0.000	0.005	0.08	1.000
Child special needs	0.503	0.309	1.63	1.654
Relatives live nearby, would provide care for no pay	-0.205	0.275	0.74	0.815
Relatives live nearby, would provide care for pay	-0.470	0.369	1.27	0.625
Relatives live nearby, would not provide care	0.526	0.309	1.70	1.692
High poverty density	0.199	0.231	0.86	1.220
Moderate poverty density	0.167	0.204	0.82	1.181
High urban density	-0.033	0.251	0.13	0.968
Rural area	-0.652	0.425	1.54	0.521
Parent wished to provide social enrichment	-0.377	0.248	1.53	0.686
Parent wished for relief	-0.155	0.533	0.29	0.856
Parent unsatisfied with current arrangement	0.567	0.370	1.54	1.764

Test	F
Overall model evaluation – Wald Test	2.67***
Archer and Lemeshow Lack of Fit Test	1.10

Note. *p <0.05. ***p <0.001. *df* for all t-tests=285. Cox and Snell R^2 = 0.081. Nagelkerke R^2 (max rescaled R^2) = 0.110.

Table C-2

Logistic Regression Analysis of Model 2 (probability of considering a home-based provider with whom there was a prior relationship)

Predictor	β	S.E. β	t-value	e^{β}
Constant	-1.592	1.760	0.90	NA
Rating of center care	-0.087	0.130	0.67	0.917
Rating of family child care home	0.398	0.135	2.95*	1.489
Rating of kith and kin care	-0.415	0.148	2.81*	0.660
Importance of loving environment	0.443	0.462	0.96	1.557
Importance of helping children be ready to learn	0.074	0.269	0.28	1.077
Importance of helping children to get along with others	-0.597	0.333	1.79	0.551
Importance of affordability	0.174	0.267	0.65	1.190
Importance of flexibility	0.224	0.219	1.02	1.251
Parent immigrated	0.725	0.264	2.75*	2.064
Older children present	-0.160	0.214	0.75	0.852
Poverty	-0.319	0.213	1.50	0.727
Subsidy receipt	-0.853	0.305	2.79*	0.426
Child age	-0.013	0.006	2.23*	0.987
Child special needs	0.233	0.357	0.65	1.262
Relatives live nearby, would provide care for no pay	0.772	0.271	2.85*	2.164
Relatives live nearby, would provide care for pay	0.493	0.417	1.18	1.638
Relatives live nearby, would not provide care	-0.162	0.317	0.51	0.850
High poverty density	0.087	0.266	0.33	1.091
Moderate poverty density	0.205	0.222	0.92	1.227
High urban density	0.285	0.329	0.86	1.329
Rural area	0.386	0.475	0.81	1.470
Parent wished to provide social enrichment	-1.418	0.320	4.44***	0.242
Parent wished for relief	0.597	0.482	1.24	1.817
Parent unsatisfied with current arrangement	-0.319	0.435	0.73	0.727

Test	F
Overall model evaluation – Wald Test	4.19***
Archer and Lemeshow Lack of Fit Test	602.23***

Note. *p <0.05. ***p <0.001. *df* for all t-tests=285. Cox and Snell R^2 = 0.147. Nagelkerke R^2 (max rescaled R^2) = 0.213.

Table C-3

Logistic Regression Analysis of Model 3 (probability of considering a home-based provider with whom there was no prior relationship)

Predictor	β	S.E. β	t-value	$e^β$
Constant	-2.031	2.306	0.88	NA
Rating of center care	-0.123	0.191	0.65	0.884
Rating of family child care home	0.140	0.175	0.80	1.150
Rating of kith and kin care	-0.053	0.188	0.28	0.949
Importance of loving environment	0.912	0.599	1.52	2.488
Importance of helping children be ready to learn	-0.532	0.307	1.73	0.588
Importance of helping children to get along with others	0.461	0.290	1.59	1.585
Importance of affordability	-0.451	0.283	1.59	0.637
Importance of flexibility	-0.181	0.241	0.75	0.835
Parent immigrated	-0.431	0.346	1.25	0.650
Older children present	-0.274	0.258	1.06	0.760
Poverty	0.153	0.256	0.60	1.166
Subsidy receipt	-0.217	0.331	0.65	0.805
Child age	-0.004	0.008	0.49	0.996
Child special needs	-0.091	0.579	0.16	0.913
Relatives live nearby, would provide care for no pay	-0.604	0.384	1.57	0.546
Relatives live nearby, would provide care for pay	-0.318	0.365	0.87	0.727
Relatives live nearby, would not provide care	-0.361	0.354	1.02	0.697
High poverty density	-0.196	0.362	0.54	0.822
Moderate poverty density	0.035	0.328	0.11	1.036
High urban density	-0.178	0.329	0.54	0.837
Rural area	0.387	0.477	0.81	1.472
Parent wished to provide social enrichment	-1.212	0.479	2.53*	0.298
Parent wished for relief	-1.528	0.833	1.84	0.217
Parent unsatisfied with current arrangement	-0.533	0.490	1.09	0.587

Test	F
Overall model evaluation – Wald Test	2.39***
Archer and Lemeshow Lack of Fit Test	24518.20***

Note. *$p <0.05$. ***$p <0.001$. *df* for all t-tests=285. Cox and Snell $R^2 = 0.061$. Nagelkerke R^2 (max rescaled R^2) = 0.116.

Table C-4

Logistic Regression Analysis of Model 4 (probability of considering center-based care)

Predictor	β	S.E. β	t-value	$e^{β}$
Constant	2.974	1.614	1.84	NA
Rating of center care	-0.009	0.128	0.07	0.992
Rating of family child care home	-0.234	0.149	1.57	0.791
Rating of kith and kin care	0.015	0.158	0.09	1.015
Importance of loving environment	-0.800	0.479	1.67	0.449
Importance of helping children be ready to learn	0.073	0.286	0.25	1.075
Importance of helping children to get along with others	0.093	0.263	0.35	1.097
Importance of affordability	0.489	0.248	1.97*	1.630
Importance of flexibility	0.061	0.213	0.29	1.063
Parent immigrated	-0.686	0.244	2.81*	0.504
Older children present	0.178	0.208	0.85	1.195
Poverty	-0.220	0.212	1.04	0.803
Subsidy receipt	0.147	0.295	0.50	1.159
Child age	0.018	0.006	3.20*	1.018
Child special needs	-0.085	0.364	0.23	0.919
Relatives live nearby, would provide care for no pay	-0.287	0.272	1.06	0.750
Relatives live nearby, would provide care for pay	-0.218	0.343	0.63	0.805
Relatives live nearby, would not provide care	0.128	0.275	0.47	1.137
High poverty density	0.008	0.247	0.03	1.008
Moderate poverty density	0.096	0.238	0.40	1.101
High urban density	-0.172	0.313	0.55	0.842
Rural area	-0.326	0.439	0.74	0.722
Parent wished to provide social enrichment	1.451	0.278	5.24***	4.269
Parent wished for relief	-0.489	0.468	1.05	0.613
Parent unsatisfied with current arrangement	1.470	0.462	3.18*	4.347
Test	F			
Overall model evaluation – Wald Test	3.64***			
Archer and Lemeshow Lack of Fit Test	1.09			

Note. *$p < 0.05$. ***$p < 0.001$. *df* for all t-tests=285. Cox and Snell $R^2 = 0.140$. Nagelkerke R^2 (max rescaled R^2) = 0.198.

Table C-5

Logistic Regression Analysis of Model 5 (probability of searching by consulting with social network)

Predictor	β	S.E. β	t-value	e^{β}
Constant	2.035	1.379	1.48	NA
Rating of center care	-0.011	0.103	0.11	0.989
Rating of family child care home	-0.041	0.139	0.29	0.960
Rating of kith and kin care	0.280	0.140	2.00*	1.323
Importance of loving environment	-0.070	0.342	0.21	0.932
Importance of helping children be ready to learn	-0.203	0.261	0.78	0.817
Importance of helping children to get along with others	-0.532	0.226	2.36*	0.587
Importance of affordability	0.429	0.238	1.80	1.535
Importance of flexibility	-0.293	0.190	1.54	0.746
Parent immigrated	-0.109	0.209	0.52	0.897
Older children present	-0.057	0.215	0.27	0.945
Poverty	0.044	0.196	0.22	1.045
Subsidy receipt	0.617	0.322	1.91	1.852
Child age	0.001	0.005	0.19	1.001
Child special needs	0.115	0.333	0.35	1.122
Relatives live nearby, would provide care for no pay	-0.164	0.243	0.68	0.848
Relatives live nearby, would provide care for pay	-0.874	0.370	2.37*	0.417
Relatives live nearby, would not provide care	-0.135	0.301	0.45	0.874
High poverty density	-0.068	0.207	0.33	0.934
Moderate poverty density	-0.056	0.182	0.31	0.945
High urban density	-0.087	0.247	0.35	0.916
Rural area	0.313	0.404	0.78	1.368
Parent wished to provide social enrichment	0.256	0.219	1.17	1.292
Parent wished for relief	0.140	0.482	0.29	1.150
Parent unsatisfied with current arrangement	0.900	0.493	1.83	2.460

Test	F
Overall model evaluation – Wald Test	1.61*
Archer and Lemeshow Lack of Fit Test	1.01

Note. *p <0.05. ***p <0.001. *df* for all t-tests=285. Cox and Snell R^2 = 0.065. Nagelkerke R^2 (max rescaled R^2) = 0.087.

Table C-6

Logistic Regression Analysis of Model 6 (probability of searching by looking at advertisements)

Predictor	β	S.E. β	t-value	e^{β}
Constant	0.166	1.832	0.09	NA
Rating of center care	-0.036	0.113	0.32	0.965
Rating of family child care home	-0.144	0.112	1.29	0.866
Rating of kith and kin care	0.078	0.149	0.53	1.081
Importance of loving environment	-0.093	0.420	0.22	0.911
Importance of helping children be ready to learn	0.160	0.270	0.59	1.173
Importance of helping children to get along with others	-0.106	0.367	0.29	0.900
Importance of affordability	0.111	0.289	0.38	1.117
Importance of flexibility	0.028	0.196	0.14	1.028
Parent immigrated	-0.233	0.286	0.81	0.792
Older children present	0.207	0.243	0.85	1.230
Poverty	-0.572	0.231	2.48*	0.564
Subsidy receipt	-0.448	0.323	1.39	0.639
Child age	-0.012	0.006	2.09*	0.988
Child special needs	-0.166	0.401	0.41	0.847
Relatives live nearby, would provide care for no pay	-0.656	0.326	2.02*	0.519
Relatives live nearby, would provide care for pay	-0.004	0.405	0.01	0.996
Relatives live nearby, would not provide care	0.448	0.325	1.38	1.565
High poverty density	0.274	0.263	1.04	1.315
Moderate poverty density	-0.151	0.235	0.64	0.860
High urban density	0.073	0.289	0.25	1.076
Rural area	0.047	0.484	0.10	1.048
Parent wished to provide social enrichment	0.143	0.262	0.55	1.154
Parent wished for relief	-0.334	0.603	0.55	0.716
Parent unsatisfied with current arrangement	0.509	0.461	1.10	1.663

Test	F			
Overall model evaluation – Wald Test	1.33			
Archer and Lemeshow Lack of Fit Test	3.62***			

Note. *$p < 0.05$. ***$p < 0.001$. *df* for all t-tests=285. Cox and Snell $R^2 = 0.074$. Nagelkerke R^2 (max rescaled R^2) = 0.109.

Table C-7

Logistic Regression Analysis of Model 7 (probability of using CCR&R to search for care)

Predictor	β	S.E. β	t-value	e^{β}
Constant	-0.507	2.472	0.21	NA
Rating of center care	-0.208	0.133	1.56	0.813
Rating of family child care home	0.202	0.172	1.18	1.224
Rating of kith and kin care	-0.495	0.167	2.96*	0.610
Importance of loving environment	0.322	0.467	0.69	1.380
Importance of helping children be ready to learn	-0.315	0.296	1.06	0.730
Importance of helping children to get along with others	0.348	0.295	1.18	1.416
Importance of affordability	-0.296	0.268	1.11	0.744
Importance of flexibility	0.071	0.255	0.28	1.073
Parent immigrated	-0.467	0.278	1.68	0.627
Older children present	-0.367	0.267	1.38	0.693
Poverty	0.307	0.244	1.26	1.359
Subsidy receipt	0.128	0.294	0.43	1.136
Child age	0.007	0.008	0.90	1.007
Child special needs	-0.017	0.430	0.04	0.983
Relatives live nearby, would provide care for no pay	0.646	0.346	1.87	1.908
Relatives live nearby, would provide care for pay	0.413	0.460	0.90	1.511
Relatives live nearby, would not provide care	0.309	0.358	0.86	1.362
High poverty density	0.235	0.287	0.82	1.265
Moderate poverty density	0.522	0.266	1.96	1.685
High urban density	-0.006	0.339	0.02	0.994
Rural area	-0.615	0.560	1.10	0.541
Parent wished to provide social enrichment	0.013	0.262	0.05	1.013
Parent wished for relief	-0.441	0.577	0.76	0.644
Parent unsatisfied with current arrangement	0.246	0.504	0.49	1.279

Test	F
Overall model evaluation – Wald Test	1.33
Archer and Lemeshow Lack of Fit Test	1.45

Note. *p <0.05. ***p <0.001. *df* for all t-tests=285. Cox and Snell R^2 = 0.061. Nagelkerke R^2 (max rescaled R^2) = 0.097.

Table C-8

Logistic Regression Analysis of Model 8 (probability of seeking practical information about the provider)

Predictor	β	S.E. β	t-value	e^β
Constant	3.748	2.407	1.56	NA
Rating of center care	0.010	0.192	0.05	1.010
Rating of family child care home	-0.203	0.191	1.06	0.817
Rating of kith and kin care	0.066	0.195	0.34	1.068
Importance of loving environment	-1.484	0.596	2.49*	0.227
Importance of helping children be ready to learn	0.033	0.396	0.08	1.034
Importance of helping children to get along with others	-0.799	0.352	2.27*	0.450
Importance of affordability	0.926	0.301	3.08*	2.524
Importance of flexibility	0.354	0.246	1.44	1.424
Parent immigrated	-0.949	0.350	2.71*	0.387
Older children present	0.147	0.262	0.56	1.159
Poverty	-0.201	0.262	0.77	0.818
Subsidy receipt	0.173	0.534	0.32	1.189
Child age	-0.003	0.007	0.44	0.997
Child special needs	0.129	0.500	0.26	1.137
Relatives live nearby, would provide care for no pay	-0.063	0.356	0.18	0.939
Relatives live nearby, would provide care for pay	-0.477	0.510	0.94	0.621
Relatives live nearby, would not provide care	0.421	0.372	1.13	1.524
High poverty density	0.235	0.370	0.64	1.265
Moderate poverty density	0.339	0.337	1.01	1.403
High urban density	0.295	0.405	0.73	1.343
Rural area	1.187	0.532	2.23*	3.276
Parent wished to provide social enrichment	-0.026	0.308	0.09	0.974
Parent wished for relief	-0.354	0.681	0.52	0.702
Parent unsatisfied with current arrangement	-0.067	0.626	0.11	0.936

Test	F
Overall model evaluation – Wald Test	1.74*
Archer and Lemeshow Lack of Fit Test	3.62***

Test	Value

Note. *$p <0.05$. ***$p <0.001$. *df* for all t-tests=261. Cox and Snell $R^2 = 0.123$. Nagelkerke R^2 (max rescaled R^2) = 0.167.

Table C-9

Logistic Regression Analysis of Model 9 (probability of seeking programmatic information about the provider)

Predictor	β	S.E. β	t-value	e^β
Constant	-4.391	2.564	1.71	NA
Rating of center care	-0.105	0.149	0.70	0.901
Rating of family child care home	0.002	0.159	0.01	1.002
Rating of kith and kin care	0.022	0.179	0.12	1.022
Importance of loving environment	0.457	0.705	0.65	1.579
Importance of helping children be ready to learn	0.747	0.346	2.16*	2.112
Importance of helping children to get along with others	0.387	0.375	1.03	1.473
Importance of affordability	-0.438	0.345	1.27	0.646
Importance of flexibility	0.286	0.264	1.08	1.331
Parent immigrated	-0.454	0.337	1.35	0.635
Older children present	-0.064	0.255	0.25	0.938
Poverty	-0.218	0.281	0.78	0.804
Subsidy receipt	0.418	0.426	0.98	1.519
Child age	0.001	0.007	0.17	1.001
Child special needs	-0.257	0.510	0.50	0.774
Relatives live nearby, would provide care for no pay	-0.093	0.344	0.27	0.911
Relatives live nearby, would provide care for pay	0.309	0.536	0.58	1.363
Relatives live nearby, would not provide care	0.454	0.331	1.37	1.574
High poverty density	0.296	0.311	0.95	1.344
Moderate poverty density	0.466	0.311	1.50	1.594
High urban density	-0.166	0.400	0.42	0.847
Rural area	0.058	0.694	0.08	1.060
Parent wished to provide social enrichment	0.685	0.304	2.25*	1.983
Parent wished for relief	-0.864	0.668	1.29	0.421
Parent unsatisfied with current arrangement	0.085	0.518	0.16	1.089

Test	F
Overall model evaluation – Wald Test	1.18
Archer and Lemeshow Lack of Fit Test	135.46***

Note. $*p < 0.05$. $***p < 0.001$. *df* for all t-tests=261. Cox and Snell $R^2 = 0.090$. Nagelkerke R^2 (max rescaled R^2) = 0.122.

Table C-10

Logistic Regression Analysis of Model 10 (probability of search resulting in a change of care)

Predictor	β	S.E. β	t-value	e^{β}
Constant	0.033	1.717	0.02	NA
Rating of center care	0.172	0.117	1.47	1.187
Rating of family child care home	-0.054	0.131	0.41	0.948
Rating of kith and kin care	0.210	0.147	1.43	1.234
Importance of loving environment	0.361	0.507	0.71	1.435
Importance of helping children be ready to learn	-0.136	0.266	0.51	0.873
Importance of helping children to get along with others	0.186	0.275	0.68	1.205
Importance of affordability	-0.940	0.261	3.61***	0.391
Importance of flexibility	-0.011	0.186	0.06	0.989
Parent immigrated	-0.105	0.252	0.41	0.901
Older children present	0.047	0.210	0.22	1.048
Poverty	-0.329	0.191	1.72	0.719
Subsidy receipt	1.585	0.356	4.45***	4.877
Child age	0.012	0.006	1.94	1.012
Child special needs	0.634	0.399	1.59	1.885
Relatives live nearby, would provide care for no pay	0.008	0.286	0.03	1.008
Relatives live nearby, would provide care for pay	-0.213	0.322	0.66	0.808
Relatives live nearby, would not provide care	-0.015	0.299	0.05	0.985
High poverty density	0.124	0.239	0.52	1.132
Moderate poverty density	-0.094	0.236	0.40	0.910
High urban density	-0.361	0.246	1.46	0.697
Rural area	0.058	0.458	0.13	1.060
Parent wished to provide social enrichment	-0.447	0.215	2.08*	0.640
Parent wished for relief	0.542	0.466	1.16	0.582
Parent unsatisfied with current arrangement	-0.253	0.394	0.64	0.776

Test	F
Overall model evaluation – Wald Test	2.54***
Archer and Lemeshow Lack of Fit Test	1.95*

Note. *p <0.05. ***p <0.001. *df* for all t-tests=285. Cox and Snell R^2 = 0.120. Nagelkerke R^2 (max rescaled R^2) = 0.160.

Table C-11

Logistic Regression Analysis of Model 11 (probability of choosing a provider for practical reasons)

Predictor	β	S.E. β	t-value	e^β
Constant	1.923	2.448	0.79	NA
Rating of center care	-0.334	0.170	1.96	0.716
Rating of family child care home	0.024	0.176	0.14	1.025
Rating of kith and kin care	0.095	0.196	0.48	1.100
Importance of loving environment	-0.819	0.782	1.05	0.441
Importance of helping children be ready to learn	0.267	0.263	1.02	1.306
Importance of helping children to get along with others	-0.512	0.316	1.62	0.599
Importance of affordability	0.578	0.409	1.41	1.782
Importance of flexibility	-0.001	0.285	0.00	0.999
Parent immigrated	-0.367	0.333	1.07	0.700
Older children present	-0.123	0.270	0.46	0.884
Poverty	0.238	0.257	0.92	1.268
Subsidy receipt	-0.751	0.302	2.48*	0.472
Child age	0.025	0.009	2.82*	1.025
Child special needs	0.471	0.413	1.14	0.255
Relatives live nearby, would provide care for no pay	-0.355	0.362	0.98	0.702
Relatives live nearby, would provide care for pay	0.070	0.564	0.12	1.073
Relatives live nearby, would not provide care	-0.498	0.374	1.33	0.608
High poverty density	-0.284	0.331	0.86	0.753
Moderate poverty density	-0.010	0.266	0.04	1.010
High urban density	-1.571	0.340	0.46	0.855
Rural area	0.134	0.598	0.22	1.143
Parent wished to provide social enrichment	-0.500	0.334	1.50	0.606
Parent wished for relief	-1.676	0.696	2.41*	0.187
Parent unsatisfied with current arrangement	0.291	0.657	0.44	1.338

Test	F			
Overall model evaluation – Wald Test	1.53			
Archer and Lemeshow Lack of Fit Test	1.07			

Test	Value			

Note. *p <0.05. ***p <0.001. *df* for all t-tests=264. Cox and Snell R^2 = 0.1171. Nagelkerke R^2 (max rescaled R^2) = 0.1567.

Table C-12

Logistic Regression Analysis of Model 12 (probability of choosing a home-based provider with whom there was a prior relationship)

Predictor	β	S.E. β	t-value	e^{β}
Constant	-8.414	3.241	2.60	NA
Rating of center care	0.183	0.187	0.98	1.20
Rating of family child care home	0.210	0.216	0.97	1.23
Rating of kith and kin care	-0.072	0.239	0.30	0.93
Importance of loving environment	0.350	1.071	0.33	1.42
Importance of helping children be ready to learn	-0.488	0.313	1.56	0.61
Importance of helping children to get along with others	0.006	0.407	0.02	1.01
Importance of affordability	0.222	0.390	0.57	1.25
Importance of flexibility	0.264	0.360	0.73	1.30
Parent immigrated	1.402	0.449	3.12*	4.06
Older children present	-0.127	0.345	0.37	0.88
Poverty	-0.166	0.362	0.46	0.85
Subsidy receipt	-1.245	0.524	2.37*	0.29
Child age	-0.015	0.009	1.80	0.99
Child special needs	-0.185	0.630	0.29	0.83
Relatives live nearby, would provide care for no pay	1.752	0.455	3.85***	5.77
Relatives live nearby, would provide care for pay	1.584	0.755	2.10*	4.88
Relatives live nearby, would not provide care	0.351	0.528	0.67	1.42
High poverty density	0.283	0.474	0.60	1.33
Moderate poverty density	0.453	0.415	1.09	1.57
High urban density	-0.339	0.459	0.74	0.71
Rural area	0.086	0.599	0.14	1.09
Parent wished to provide social enrichment	-1.747	0.490	3.56***	0.17
Parent wished for relief	0.194	0.725	0.27	1.21
Parent unsatisfied with current arrangement	-4.648	0.940	4.94***	0.01

Test	F			
Overall model evaluation – Wald Test	4.44***			
Archer and Lemeshow Lack of Fit Test	1158.05***			

Note. *p <0.05. ****p <0.001. *df* for all t-tests=257. Cox and Snell R^2 = 0.211. Nagelkerke R^2 (max rescaled R^2) = 0.326.

Table C-13

Logistic Regression Analysis of Model 13 (probability of choosing a home-based provider with whom there was no prior relationship)

Predictor	β	S.E. β	t-value	e^{β}
Constant	-7.184	3.396	2.12	NA
Rating of center care	-0.154	0.334	0.46	0.858
Rating of family child care home	0.170	0.228	0.75	1.186
Rating of kith and kin care	0.461	0.248	1.86	1.586
Importance of loving environment	0.082	0.899	0.09	1.086
Importance of helping children be ready to learn	0.507	0.544	0.93	1.660
Importance of helping children to get along with others	0.409	0.577	0.71	1.506
Importance of affordability	-0.397	0.385	1.03	0.672
Importance of flexibility	0.029	0.381	0.08	1.030
Parent immigrated	-0.472	0.499	0.95	0.624
Older children present	1.043	0.400	2.61*	2.836
Poverty	0.565	0.368	1.53	1.759
Subsidy receipt	-0.153	0.434	0.35	0.858
Child age	-0.016	0.012	1.32	0.984
Child special needs	-0.813	0.720	1.13	0.444
Relatives live nearby, would provide care for no pay	-1.070	0.600	1.78	0.343
Relatives live nearby, would provide care for pay	0.245	0.666	0.37	1.278
Relatives live nearby, would not provide care	0.015	0.562	0.03	1.015
High poverty density	-0.843	0.627	1.34	0.430
Moderate poverty density	0.773	0.473	1.64	2.167
High urban density	0.878	0.527	1.67	2.406
Rural area	1.391	0.704	1.98*	4.018
Parent wished to provide social enrichment	-1.486	0.718	2.07*	0.226
Parent wished for relief	-0.325	1.373	0.24	0.722
Parent unsatisfied with current arrangement	0.777	0.769	1.01	0.460

Test	F
Overall model evaluation – Wald Test	3.40***
Archer and Lemeshow Lack of Fit Test	3257.62***

Note. *p <0.05. ***p <0.001. *df* for all t-tests=257. Cox and Snell R^2 = 0.10. Nagelkerke R^2 (max rescaled R^2) = 0.237.

Table C-14

Logistic Regression Analysis of Model 14 (probability of choosing center-based care)

Predictor	β	S.E. β	t-value	$e^β$
Constant	0.409	2.291	0.18	NA
Rating of center care	0.135	0.166	0.82	1.145
Rating of family child care home	0.119	0.204	0.58	1.126
Rating of kith and kin care	-0.299	0.223	1.34	0.741
Importance of loving environment	-0.289	0.721	0.40	0.749
Importance of helping children be ready to learn	0.374	0.326	1.15	1.454
Importance of helping children to get along with others	-0.085	0.362	0.23	0.919
Importance of affordability	-0.150	0.339	0.44	0.860
Importance of flexibility	0.145	0.294	0.49	1.156
Parent immigrated	-0.315	0.393	0.80	0.730
Older children present	-0.152	0.307	0.50	0.859
Poverty	0.339	0.285	1.19	1.403
Subsidy receipt	0.482	0.349	1.38	1.620
Child age	0.026	0.007	3.49***	1.026
Child special needs	0.250	0.484	0.52	1.284
Relatives live nearby, would provide care for no pay	-0.141	0.416	0.34	0.868
Relatives live nearby, would provide care for pay	-0.941	0.545	1.73	0.390
Relatives live nearby, would not provide care	0.123	0.417	0.30	1.131
High poverty density	0.140	0.339	0.41	1.151
Moderate poverty density	-0.183	0.336	0.54	0.833
High urban density	-0.273	0.413	0.66	0.761
Rural area	-1.312	0.531	2.47*	0.269
Parent wished to provide social enrichment	1.248	0.358	3.49***	3.484
Parent wished for relief	-0.894	0.649	1.38	0.409
Parent unsatisfied with current arrangement	0.658	0.686	0.96	1.930

Test	F			
Overall model evaluation – Wald Test	3.12***			
Archer and Lemeshow Lack of Fit Test	65.24***			

Test	Value			

Note. *p <0.05. ***p <0.001. *df* for all t-tests=257. Cox and Snell R^2 = 0.186 Nagelkerke R^2 (max rescaled R^2) = 0.251.

References

Agresti, A. (2002). *Categorical data analysis* (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Ahn, H. (2012). Child care subsidy, child care costs, and employment of low-income single mothers. *Children and Youth Services Review*, *34*(2), 379–387.

Americans With Disabilities Act of 1990, Pub. L. No. 101-336, codified as amended at 42 U.S.C. §12101.

Archer, K. J., & Lemeshow, S. (2006). Goodness-of-fit test for a logistic regression model fitted using survey sample data. *The Stata Journal*, *6*(1), 97–105.

Arizona Early Childhood Development and Health Board (First Things First). (2012). *High-quality child care and early education: What Arizona's parents want*.

Auger, A., Farkas, G., Burchinal, M., Duncan, G. J., & Vandell, D. L. (2014). Preschool center care quality effects on academic achievement: An instrumental variables analysis. *Developmental Psychology*, *50*(12), 2559–2571.

Auger, A., Karoly, L. A., & Schwartz, H. L. (2015). *Evaluation of Delaware Stars for Early Success year 2 report*. Santa Monica, CA: RAND Corporation.

Barofsky, M. (2013). *Maternal well-being, child care, and children's development in families eligible for subsidies*. Unpublished dissertation.

Berglund, P.A. (2014). *Analysis of survey data using the SAS survey procedures: A primer*. [PowerPoint Presentation]. Retrieved from http://www.isr.umich.edu.

Belsky, J., Vandell, D. L., Burchinal, M., Clarke-Stewart, K. A., McCartney, K., Owen, M. T., & NICHD Early Child Care Research Network. (2007). Are there long-term effects of early child care? *Child Development*, *78*(2), 681–701.

Belsley, D. A., Kuh, E., & Welsch, R. E. (1980). *Regression diagnostics: Identiying influential data and sources of collinearity*. New York: John Wiley & Sons, Inc.

Blau, D. M. (2001). *The child care problem: An economic analysis*. New York, NY: Russell Sage Foundation.

Blau, D. M., & Tekin, E. (2007). The determinants and consequences of child care subsidies for single mothers in the USA. *Journal of Population Economics*, *20*(4), 719–741.

Boller, K., Del Grosso, P., Blair, R., Jolly, Y., Fortson, K., Paulsell, D., … Kovac. (2010). *The Seeds to Success modified field test: Findings from the impact and implementation studies*. Olympia, WA: Washington State Department of Early Learning.

Box, G. E. P., & Tidwell, P. W. (1962). Transformation of the indpendent variables. *Technometrics*, *4*, 531–550.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513–531.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, *22*(6), 723–742.

Burchinal, M., Kainz, K., & Cai, Y. (2011). How well do our measures of quality predict child outcomes? A meta-analysis and coordinated analysis of data from large-scale studies of early childhood settings. In M. Zaslow, I. Martinez-Beck, K. Tout, & T. Halle, (Eds.), *Quality Measurement in Early Childhood Settings* (11-32). Baltimore: Paul H. Brookes Publishing Co.

Burchinal, M., Peisner-Feinberg, E., Bryant, D., & Clifford, R. (2000). Children's social and cognitive development and child-care quality: Testing for differential associations related to poverty, gender, or ethnicity. *Applied Developmental Science*, *4*, 149–165.

Burstein, N., & Layzer, J. I. (2007). *Patterns of child care use among low-income families*. Cambridge, MA: Abt Associates, Inc.

Chaudry, A., Henly, J., & Meyers, M. (2010). *Conceptual Frameworks for Child Care Decision making*. Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Washington, DC.

Chaudry, A., Pedroza, J. M., & Sandstrom, H. (2012). Perspectives on Low- income Working Families How Employment Constraints Affect Low-Income Working Parents ' Child Care Decisions. Washington, DC: Urban Institute.

Chaudry, A., Pedroza, J. M., Sandstrom, H., Danziger, A., Grosz, M., Scott, M., & Ting, S. (2011). *Child Care Choices of Low-Income Working Families*. Washington, DC: Urban Institute.

Child Care and Development Block Grant Act of 2014, Pub. L. 113-186, 128 Stat. 1971, codified as amended at 42 U.S.C. § 9801 and 42 U.S.C. § 9858.

Child Care and Development Fund, 45 C.F.R. 98 (1998).

Clements, M., Kalifeh, P., & Grass, S. (2014). *Miami-Dade Quality Counts Workforce Study update*. Tallahassee, FL: Children's Forum.

Cochran, W. G. (1954). Some methods for strengthening the common χ2 tests. *Biometrics*, *10*(4), 417–451.

Coley, R. L., Votruba-Drzal, E., Collins, M. A., & Miller, P. (2014). Selection into early education and care settings: Differences by developmental period. *Early Childhood Research Quarterly*, *29*(3), 319–332.

Coley, R. L., Votruba-Drzal, E., Miller, P., & Koury, A. (2013). Timing, extent, and type of child care and children's behavioral functioning in kindergarten. *Developmental Psychology*, *49*(10), 1859–73.

Connors, M. C., & Morris, P. A. (2014). Comparing state policy approaches to early care and education quality: A multidimensional assessment of quality rating and improvement systems and child care licensing regulations. *Early Childhood Research Quarterly*, *30*, 266–

Cox, D. R., & Snell, E. J. (1989). *Analysis of binary data* (2nd ed.). Boca Raton, FL: CRC Press.

Crawford, A. (2006). The impact of child care subsidies on single mothers' work effort. *Review of Policy Research*, *23*(3), 699–711.

Crosnoe, R., Leventhal, T., Wirth, R. J., Pierce, K. M., & Pianta, R. C. (2010). Family socioeconomic status and consistent environmental stimulation in early childhood. *Child Development*, *81*(3), 972–987.

Cunningham, M., & Magda, J. (2012). *Tennessee report card & Star Quality Program: Year 10 annual report*. Knoxville, TN: The University of Tennessee

Danziger, S. K., Ananat, E. O., & Browning, K. G. (2004). Childcare subsidies and the transition from welfare to work. *Family Relations*, *53*, 219–228.

Davis, E. E., & Connelly, R. (2005). The Influence of local price and availability on parents' choice of child care. *Population Research and Policy Review*, *24*(4), 301–334.

Davis, E. E., Grobe, D., & Weber, R. B. (2010). Rural-urban differences in childcare subsidy use and employment stability. *Applied Economic Perspectives and Policy*, *32*(1), 135–153.

Dearing, E., Mccartney, K., & Taylor, B. A. (2009). Does higher quality early child care promote low-income children's math and reading achievement in middle childhood? *Child Development*, *80*(5), 1329–1349.

Delgado, E. A. (2009). Latinos' use, desire, and type of non-parental child care arrangements. *Journal of Latinos and Education*, *8*(2), 119–140.

Dmitrieva, J., Steinberg, L., & Belsky, J. (2007). Child-care history, classroom composition, and children's functioning in kindergarten. *Psychological Science*, *18*(12), 1032–1039.

Downer, J. T., & Yazejian, N. (2013). *Measuring the quality and quantity of implementation in early childhood interventions*. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Dowsett, C. J., Huston, A. C., Imes, A. E., & Gennetian, L. (2008). Structural and process features in three types of child care for children from high and low income families. *Early Childhood Research Quarterly*, *23*(1), 69–93.

Early, D. M., & Burchinal, M. (2001). Early childhood care: Relations with family characteristics and preferred care characteristics. *Early Childhood Research Quarterly*, *16*, 475–497.

Elicker, J., Langill, C. C., Ruprecht, K. M., Lewsader, J., & Anderson, T. (2011). *Evaluation of "Paths to QUALITY," Indiana's child care quality rating and improvement system: Final report*. West Lafayette, IN: Purdue University.

Ertas, N., & Shields, S. (2012). Child care subsidies and care arrangements of low-income parents. *Children and Youth Services Review*, *34*(1), 179–185.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: Sage Publications.

Forry, N. D., Davis, E. E., & Welti, K. (2013). Ready or not: Associations between participation in subsidized child care arrangements, pre-kindergarten, and Head Start and children's school readiness. *Early Childhood Research Quarterly*, *28*(3), 634–644.

Forry, N. D., Isner, T., Daneri, M. P., & Tout, K. (2014). Child care decision making: understanding priorities and processes used by low-income families in Minnesota. *Early Education and Development*, *25*(7), 995–1015.

Forry, N. D., Simkin, S., Wheeler, E. J., & Bock, A. (2013). "You know how it makes you feel": Low-income parents' childcare priorities and definitions of ideal high-quality childcare. *Journal of Children and Poverty*, (October 2014), 1–20.

Fram, M. S., & Kim, J. (2008). Race/ethnicity and the start of child care: A multi-level analysis of factors influencing first child care experiences. *Early Childhood Research Quarterly*, *23*(4), 575–590.

Fuller, B., Kagan, S. L., Loeb, S., & Chang, Y.-W. (2004). Child care quality: centers and home settings that serve poor families. *Early Childhood Research Quarterly*, *19*(4), 505–527.

Gamble, W. C., Ewing, A. R., & Wilhlem, M. S. (2009). Parental perceptions of characteristics of non-parental child care: belief dimensions, family and child correlates. *Journal of Child and Family Studies*, *18*(1), 70–82.

Gordon, R. A., & Hognas, R. S. (2006). The best laid plans: expectations, preferences, and stability of child-care arrangements. *Journal of Marriage and Family*, *68*, 373–393.

Gormley, W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-K on cognitive development. *Developmental Psychology*, *41*(6), 872–884.

Harms, T., Clifford, R. M., & Cryer, D. (2005). Early Childhood Environment Rating Scale - Revised Edition. New York, NY: Teachers College Press.

Harms, T., Clifford, R. M., & Cryer, D. (2014). Early Childhood Environment Rating Scale, Third Edition (ECERS-3). New York, NY: Teachers College Press.

Hawkinson, L. E., Griffen, A. S., Dong, N., & Maynard, R. A. (2013). The relationship between child care subsidies and children's cognitive development. *Early Childhood Research Quarterly*, *28*(2), 388–404.

Heeringa, S., West, B. T., & Berglund, P. A. (2010). *Applied survey data analysis*. Boca Raton, FL: Taylor & Francis.

Henly, J., & Lyons, S. (2000). The negotiation of child care and employment demands among low-income parents. *Journal of Social Issues*, *56*(4), 683–706.

Herbst, C. M. (2008). Who are the eligible non-recipients of child care subsidies? *Children and Youth Services Review*, *30*(9), 1037–1054.

Herbst, C. M., & Barnow, B. S. (2008). Close to home: a simultaneous equations model of the relationship between child care accessibility and female labor force participation. *Journal of Family and Economic Issues*, *29*(1), 128–151.

Herbst, C. M., & Tekin, E. (2010). Child care subsidies and child development. *Economics of Education Review*, *29*(4), 618–638.

Herbst, C. M., & Tekin, E. (2011). Do child care subsidies influence single mothers' decision to invest in human capital? *Economics of Education Review*, *30*(5), 901–912.

Hestenes, L. L., Kintner-Duffy, V., Wang, Y. C., La Paro, K. M., Mims, S. U., Crosby, D. A., … Cassidy, D. J. (2014). Comparisons among quality measures in child care settings: Understanding the use of multiple measures in North Carolina's QRIS and their links to social-emotional development in preschool children. *Early Childhood Research Quarterly*, *30*, 199–214.

Hirshberg, D., Huang, D. S.-C., & Fuller, B. (2005). Which low-income parents select child-care? *Children and Youth Services Review*, *27*(10), 1119–1148.

Hosmer, D. W., & Lemeshow, S. (2000). *Applied logistic regression* (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Hosmer, D. W., Taber, S., & Lemeshow, S. (1991). The importance of assessing the fit of logistic regression models: A case study. *American Journal of Public Health*, *81*(12), 1630–1635.

Huston, A. C., Chang, Y. E., & Gennetian, L. (2002). Family and individual predictors of child care use by low-income families in different policy contexts. *Early Childhood Research Quarterly*, *17*, 441–469.

Isaacs, J. B. (2008). *Model early childhood programs*. Washington, DC: Urban Institute.

Isaacs, J. B. (2012). *Starting school at a disadvantage: The school readiness of poor children*. Washington, DC: Urban Institute.

Johnson, A. D., Han, W., Ruhm, C. J., & Waldfogel, J. (2014). Child care subsidies and the school readiness of children of immigrants. *Child Development*, *85*(6), 2140-2150.

Johnson, A. D., Martin, A., & Brooks-Gunn, J. (2011). Who uses child care subsidies? Comparing recipients to eligible non-recipients on family background characteristics and child care preferences. *Children and Youth Services Review*, *33*(7), 1072–1083.

Johnson, A. D., Martin, A., & Brooks-Gunn, J. (2013). Child-care subsidies and school readiness in kindergarten. *Child Development*, *84*(5), 1806–22.

Johnson, A. D., Ryan, R. M., & Brooks-Gunn, J. (2012). Child-Care Subsidies: Do They Impact the Quality of Care Children Experience? *Child Development*, *83*(4), 1444–1461.

Keys, T. D., Farkas, G., Burchinal, M., Duncan, G. J., Vandell, D. L., Li, W., … Howes, C. (2013). Preschool center quality and school readiness: Quality effects and variation by demographic and child characteristics. *Child Development*, *84*(4), 1171–1190.

Kim, J., & Fram, M. S. (2009). Profiles of choice: Parents' patterns of priority in child care decision making. *Early Childhood Research Quarterly*, *24*(1), 77–91.

Kim, J. K., & Fuller, W. A. (2004). Fractional hot deck imputation. *Biometrika*, *91*, 559–578.

Kirby, G., Caronongan, P., Malone, L. M., & Boller, K. (2015). What do quality rating levels mean? Examining the implementation of QRIS ratings to inform validation. *Early Childhood Research Quarterly*, *30*, 291–305.

La Paro, K. M., Thomason, A. C., Lower, J. K., Kintner-Duffy, V., & Cassidy, D. J. (2012). Examining the definition and measurement of quality in early childhood education: a review of studies using the ECERS-R from 2003 to 2010. *Early Childhood Research & Practice*, *14*(1).

La Paro, K. M., Williamson, A. C., & Hatfield, B. E. (2014). Assessing quality in toddler classrooms using the CLASS-Toddler and the ITERS-R. *Early Education and Development*, *25*(6), 875–893.

Lahti, M., Cobo-Lewis, A., Dean, A., Rawlings, S., Sawyer, E., & Zollitsch, B. (2011). *Maine's Quality for ME child care quality rating and improvement system (QRIS): Final evaluation report*. Portland, ME: University of Southern Maine.

Layzer, J. I., & Goodson, B. D. (2006). The "quality" of early care and education settings: definitional and measurement issues. *Evaluation Review*, *30*(5), 556–576.

Layzer, J. I., Goodson, B. D., & Brown-Lyons, M. (2007). *Care in the home: A description of family child care and the experiences of the families and children that use it*. Cambridge, MA: Abt Associates, Inc.

Lewis, T. H. (2017). *Complex survey data analysis with SAS*. Boca Raton, FL: CRC Press.

Li, W., Farkas, G., Duncan, G. J., Burchinal, M., & Vandell, D. L. (2013). Timing of high-quality child care and cognitive, language, and preacademic development. *Developmental Psychology*, *49*(8), 1440–1451.

Liang, X., Fuller, B., & Singer, J. D. (2000). Ethnic differences in child care selection: the influence of family structure, parental practices, and home language. *Early Childhood Research Quarterly*, *15*(3), 357–384.

Liu, M., & Anderson, S. G. (2012). Neighborhood effects on working mothers' child care arrangements. *Children and Youth Services Review*, *34*(4), 740–747.

Ma, X., Shen, J., Kavanaugh, A., Lu, X., Brandi, K., Goodman, J., … Watson, G. (2011). Effects of quality improvement system for child care centers. *Journal of Research in Childhood Education*, *25*(4), 399–414.

Markowitz, A. J., Ryan, R. M., & Johnson, A. D. (2014). Child care subsidies and child care choices: The moderating role of household structure. *Children and Youth Services Review*, *36*, 230–240.

Marshall, N. L., Robeson, W. W., Tracy, A. J., Frye, A., & Roberts, J. (2013). Subsidized child care, maternal employment and access to quality, affordable child care. *Early Childhood Research Quarterly*, *28*(4), 808–819.

Matthews, H., & Jang, D. (2012). *The challenges of change: Learning from the child care and early education experiences of immigrant families*. Washington, DC: Center for Law and Social Policy.

McCartney, K., Dearing, E., Taylor, B. A., & Bub, K. L. (2007). Quality child care supports the achievement of low-income children: Direct and indirect pathways through caregiving and the home environment. *Journal of Applied Developmental Psychology*, *28*(5–6), 411–426.

McHugh, M. L. (2013). The chi-square test of indpendence. *Biochemia Medica*, *23*(2), 143–149.

Meyers, M., & Jordan, L. P. (2006). Choice and accommodation in parental child care decisions. *Community Development*, *37*(2), 53–70.

Miller, P., Votruba-Drzal, E., & Coley, R. L. (2013). Predictors of early care and education type among preschool-aged children in immigrant families: The role of region of origin and characteristics of the immigrant experience. *Children and Youth Services Review*, *35*(9), 1342–1355.

Moore, R., & Gordon, N. (2007). *Evaluating child care: Tennessee's Star-Quality Program*. Nashville, TN: Tennessee Offices of Research and Education Accountability.

Muenchow, S., Holod, A., Quick, H. E., Hawkinson, L. E., Gonzalez, R. L., Abram, K., … Mattox, T. (2013). *Local quality improvement efforts and outcomes descriptive study*.

Nagelkerke, N. J. D. (1991). A note on a general definition of the coefficient of determination. *Biometrika*, *78*(3), 691–692.

National Association of Child Care Resource & Referral Agencies. (2009). *Parents' Perceptions of Child Care in the United States*. Arlington, VA.

National Center on Child Care Professional Development Systems and Workforce Initiatives. (2013). *State and territory infant toddler quality initiatives*. Washington, DC.

National Center on Child Care Quality Improvement. (2013). *QRIS Elements*. Fairfax, VA.

National Center on Early Education Quality Assurance. (2017). Designing family-friendly consumer education on child care. Fairfax, VA.

National Survey of Early Care and Education Project Team. (2013). *National Survey of Early Care and Education: Summary Data Collection and Sampling Methodology*. Washington, DC.

National Survey of Early Care and Education Project Team. (2014). *Household Search for and Perceptions of Early Care and Education: Initial Findings from the National Survey of Early Care and Education (NSECE)*. Washington, DC.

National Survey of Early Care and Education Project Team. (2015). NSECE Downloadable Presentation VI: Household Survey. [PowerPoint presentation]. Retrieved from http://www.researchconnections.org.

NICHD Early Child Care Research Network. (2001). Nonmaternal care and family factors in early development: An overview of the NICHD Study of Early Child Care. *Journal of Applied Developmental Psychology*, *22*(5), 457–492.

NICHD Early Child Care Research Network. (2005). Early child care and children's development in the primary grades: Follow-up results from the NICHD Study of Early Child Care. *American Educational Research Journal*, *42*(3), 537–570.

NICHD Early Child Care Research Network. (2006). Child-care effect sizes for the NICHD Study of Early Child Care and Youth Development. *American Psychologist*, *61*(2), 99–116.

Peisner-Feinberg, E., Burchinal, M., Clifford, R., Culkin, M. L., Howes, C., Kagan, S. L., & Yazejian, N. (2001). The relation of preschool child-care quality to children's cognitive and social developmental trajectories through second grade. *Child Development*, *72*(5), 1534–1553.

Peisner-Feinberg, E., Buysse, V., Fuligni, A., Burchinal, M., Espinosa, L. M., Halle, T., & Castro, D. (2014). Using early care and education quality measures with dual language learners: A review of the research. *Early Childhood Research Quarterly*.

Pennsylvania Office of Child Development and Early Learning Research and Evaluation Unit. (2010). *Demonstrating quality: Pennsylvania Keystone STARS 2010 program report*. Harrisburg, PA: Pennsylvania of Child Development and Early Learning.

Personal Responsibility and Work Opportunity Reconciliation Act of 1996, Pub. L. 104-193, 110 Stat. 2105, codified as amended at 42 U.S.C. § 1305.

Peyton, V., Jacobs, A., O'Brien, M., & Roy, C. (2001). Reasons for choosing child care: Associations with family factors, quality, and satisfaction. *Early Childhood Research Quarterly*, *16*(2), 191–208.

Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2008). Classroom Assessment Scoring System[TM]: Manual K-3. *Classroom Assessment Scoring System[TM]: Manual K-3*. Baltimore: Paul H. Brookes Publishing Co.000&site=ehost-live

Pilarz, A. R., & Hill, H. D. (2014). Unstable and multiple child care arrangements and young children's behavior. *Early Childhood Research Quarterly*, *29*(4), 471–483.

Puma, M., Bell, S., Cook, R., & Heid, C. (2010). *Head Start Impact Study Final Report*. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Puma, M., Bell, S., Cook, R., Heid, C., Broene, P., Jenkins, F., … Downer, J. T. (2012). *Third grade follow-up to the Head Start Impact Study Final Report*. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Raikes, H., Torquati, J., Wang, C., & Shjegstad, B. (2012). Parent Experiences with State Child Care Subsidy Systems and Their Perceptions of Choice and Quality in Care Selected. *Early Education and Development*, *23*(4), 558–582.

Riley, L. A., & Glass, J. L. (2002). You can't always get what you want - Infant care preferences and use among employed mothers. *Journal of Marriage and Family*, *64*, 2–15.

Rose, K. K., & Elicker, J. (2008). Parental Decision Making About Child Care. *Journal of Family Issues*, *29*(9), 1161–1184.

Rose, K. K., & Elicker, J. (2010). Maternal child care preferences for infants, toddlers, and preschoolers: the disconnect between policy and preference in the USA. *Community, Work & Family*, *13*(2), 205–229.

Rothenberg, L., Goldhagen, S., Harbin, V., & Forry, N. D. (2013). *Maryland child care choices study: Child care decision making process and child care choices among applicants for temporary cash assistance*. Washington, DC: Child Trends.

Ruzek, E., Burchinal, M., Farkas, G., & Duncan, G. J. (2014). The quality of toddler child care and cognitive skills at 24 months: Propensity score analysis results from the ECLS-B. *Early Childhood Research Quarterly*, *28*(1), 12–21.

Ryan, R. M., Johnson, A. D., Rigby, E., & Brooks-Gunn, J. (2011). The impact of child care subsidy use on child care quality. *Early Childhood Research Quarterly*, *26*(3), 320–331.

Sanchez, M. (2014). *A longitudinal view of educational outcomes for Preschool for All participants in Redwood City School District*. Stanford, CA: Stanford University.

Sandstrom, H., & Chaudry, A. (2012). "You have to choose your childcare to fit your work": Childcare decision making among low-income working families. *Journal of Children and Poverty*, *18*(2), 89–119.

Sandstrom, H., Giesen, L., & Chaudry, A. (2012). *How Contextual Constraints Affect Low-Income Working Parents' Child Care Choices*. Washington, DC: Urban Institute.

SAS Institute Inc. (2016). *SAS 14.2 user's guide*. Cary, NC.

Schaack, D. D. (2008). *Lessons learned from the Qualistar rating and improvement system Rand validation study*. Denver, CO.

Schwartz, H. L., Karoly, L. A., Le, V.-N., Tamargo, J., & Setodji, C. M. (2014). *Evaluation of Delaware Stars for Early Success*.

Scott, E. K., London, A. S., & Hurst, A. (2005). Instability in patchworks of child care when moving from welfare to work. *Journal of Marriage and Family*, *67*(2), 370–386.

Seo, S. (2003). Early child care choices: a theoretical model and research implications. *Early Child Development and Care*, *173*(6), 637–650.

Shlay, A. B. (2010). African American, White and Hispanic child care preferences: A factorial survey analysis of welfare leavers by race and ethnicity. *Social Science Research*, *39*(1), 125–141.

Shlay, A. B., Tran, H., Weinraub, M., & Harmon, M. (2005). Teasing apart the child care conundrum: A factorial survey analysis of perceptions of child care quality, fair market price and willingness to pay by low-income, African American parents. *Early Childhood Research Quarterly*, *20*(4), 393–416.

Shlay, A. B., Weinraub, M., & Harmon, M. (2010). Child care subsidies post TANF: Child care subsidy use by African American, White and Hispanic TANF-leavers. *Children and Youth Services Review*, *32*(12), 1711–1718.

Soliday Hong, S. L., Howes, C., Marcella, J., Zucker, E., & Huang, Y. (2014). Quality Rating and Improvement Systems: Validation of a local implementation in LA County and children's school-readiness. *Early Childhood Research Quarterly*, *30*, 1–14.

Sosinsky, L. S., & Kim, S.-K. (2013). A profile approach to child care quality, quantity, and type of setting: Parent selection of infant child care arrangements. *Applied Developmental Science*, *17*(1), 39–56.

Starr, R., Tout, K., Albertson-Junkans, L., Moodie, S., Rothenberg, L., & Soli, M. (2012). *Kentucky STARS for Kids Now process evaluation evaluation brief #8*. Washington, DC: Child Trends.

Tekin, E. (2007). Childcare Subsidies, Wages, and Employment of Single Mothers. *Journal of Human Resources*, *42*, 453–487.

Tran, H., & Weinraub, M. (2006). Child care effects in context: quality, stability, and multiplicity in non-maternal child care arrangements during the first 15 months of life. *Developmental Psychology*, *42*(3), 566–82.

U.S. Department of Health and Human Services, Administration for Children and Families, & Office of Child Care. (2016). *Characteristics of Families Served by Child Care and Development Fund (CCDF) Based on Preliminary FY 2015 Data*. Washington, DC.

U.S. Department of Health and Human Services, Administration for Children and Families, & Office of Child Care. (2017). *FY 2017 CCDF Allocations*. Washington, DC.

U.S. Senate. Committee on Health, Education, Labor, and Pensions. *Child Care and Development Block Grant Act of 2014* (S. Rep. No. 113-138, 2014).

Uttal, L. (1999). Using kin for child care: Embedment in the socioeconomic networks of extended families. *Journal of Marriage and Family*, *61*, 845–857.

Van Horn, M. L., Ramey, S. L., Mulvihill, B. A., & Newell, W. Y. (2001). Reasons for child care choice and appraisal among low-income mothers. *Child & Youth Care Forum*, *30*, 231–249.

Vandell, D. L., Belsky, J., Burchinal, M., Steinberg, L., Vandergrift, N., & NICHD Early Child Care Research Network. (2010). Do effects of early child care extend to age 15 years? Results from the NICHD Study of Early Child Care and Youth Development. *Child Development*, *81*(3), 737–56.

Votruba-Drzal, E., Coley, R. L., & Chase-Lansdale, P. L. (2004). Child Care and Low-Income Children's Development: Direct and Moderated Effects. *Child Development*, *75*(1), 296–312.

Votruba-Drzal, E., Coley, R. L., Koury, A., & Miller, P. (2013). Center-based child care and cognitive skills development: Importance of timing and household resources. *Journal of Educational Psychology*, *105*(3), 821–838.

Weiland, C., & Yoshikawa, H. (2014). Does higher peer socio-economic status predict children's language and executive function skills gains in prekindergarten? *Journal of Applied Developmental Psychology*, *35*(5), 422–432.

Weinraub, M., Shlay, A. B., Harmon, M., & Tran, H. (2005). Subsidizing child care: How child care subsidies affect the child care used by low-income African American families. *Early Childhood Research Quarterly*, *20*(4), 373–392. 1

White, J. M., & Klein, D. M. (2002). *Family theories*. Thousand Oaks, CA: Sage Publications.

Witte, A. D., & Queralt, M. (2004). *An examination of the child care choices of low-income families receiving child care subsidies*. Wellesley, MA: Wellesley College.

Wolfe, B., & Scrivner, S. (2004). Child Care Use and Parental Desire to Switch Care Type Among a Low-Income Population. *Journal of Family and Economic Issues*, *25*, 139–162.

Yazejian, N., Iruka, I. U., Maxwell, K., & Robertson, N. (2012). *Evaluation of Miami-Dade County's Quality Counts Initiative*. Chapel Hill, NC: University of North Carolina Frank Porter Graham Child Development Institute.

Yesil-Dagli, U. (2011). Center-based childcare use by Hispanic families: Reasons and predictors. *Children and Youth Services Review*, *33*(7), 1298–1308.