National Study of Child Care for Low-Income Families

Patterns of Child Care Use Among Low-Income Families

Final Report

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Introduction

The *National Study of Child Care for Low-Income Families* was a ten-year research effort designed to provide Federal, state and local policy makers with information on the effects of Federal, state and local policies and programs on child care at the community level, and on the employment and child care decisions of low-income families. It also provides insights into the characteristics and functioning of family child care, a type of care frequently used by low-income families, and the experiences of parents and their children with this form of care.[1] Abt Associates Inc. of Cambridge, Massachusetts, and the National Center for Children in Poverty at Columbia University's Joseph Mailman School of Public Health in New York City, conducted the study under contract to the Administration for Children and Families in the U.S. Department in Health and Human Services.

The study looked at how states and communities implement policies and programs to meet the child care needs of families moving from welfare to work, as well as those of other low-income parents; how these policies change over time; and how these policies, as well as other factors, affect the type, amount, and cost of care in communities. In addition, the study investigated the factors that shape the child care choices of low-income families, and the role that child care subsidies play in those choices. Finally, the study examined, in depth and over a period of 2½ years, a group of families that use various kinds of family child care and their child care providers, to develop a better understanding of the family child care environment and to what extent the care provided in that environment supports parents' work-related needs and meets children's needs for a safe, healthy and nurturing environment.

One component of the study gathered information from 17 states about the administration of child care and welfare policies and programs and about resource allocations. Within the 17 states, the study gathered information from respondents in 25 communities about the implementation of state local policies and the influence of those policies and practices on the local child care market and on low-income families. Information on states and communities was collected three times: in 1999, 2001, and 2002, to allow us to investigate change over time in policies and practices.

For the second study component, we gathered information from individual families in the 25 study communities on how state and local policies and programs, as well as other factors, influence parents' decisions about child care, the child care choices they make, how these choices affect their ability to find and retain a job or participate in educational or training programs and the stability and continuity of child care. The Community Survey, a one-time survey of 2,500 low-income parents, conducted in 2000, provided this information.

For the third component of the study, we collected more detailed information on families that use family child care, their providers and the experience of children in family child care. This portion of the study involved multiple data collection efforts over a 2½-year period, making it possible to track changes in parental employment, subsidy status and child care arrangements over time.

[1] In this study family child care is defined as care by an adult unrelated to the child, in that adult's own home and outside the child's home.

Study Reports

An interim report on the first component of the study, the State and Community Substudy, has already been released. A final report on this component of the study is in preparation. An interim report on the third study component, the Neighborhood Substudy was released earlier this year. A final report on the Neighborhood Substudy is in preparation.

Contents of this Report

This report presents results from the second component of the study, the Community Survey. Conducted in 2000, it was a random-digit-dialing (RDD) survey of low-income families with children under the age of 13 in the 25 study communities. The first chapter describes the *research questions, design,* and *conduct* of the survey. Although the survey focused on the characteristics, attitudes, and child care arrangements of families using *non-parental care*, the portion of the interview that screened out other families collected valuable information on child care use and non-use by *all* low-income families. Chapter Two describes this *broader population*, including those families in which the mother stays home, those in which the mother works only while the children are in school, those in which the father cares for the children when the mother is unavailable, and those in which school-aged children care for themselves.

Chapter Three describes *characteristics of low-income families that use non-parental care*. Chapter Four discusses *aspects of non-parental child care*: the types of care chosen; the reasons for these choices; the cost of child care; and parental knowledge and use of subsidies. Finally, Chapters Five and Six present *multivariate analyses of child care modal choice and child care subsidy status*. The report has three appendices. Appendix A describes the procedures used to weight the data and presents response rates for the survey. Appendix B provides technical information on the multivariate analyses described in Chapters Five and Six. To assess the generalizability of the survey findings to similar low-income families nationally, we reanalyzed data from the 1997 National Survey of America's Families (NSAF). The comparisons are noted in Chapters Three and Four of the report. Appendix C presents the results of comparative analyses of two NSAF data sets; a national data set of low-income families using non-parental care; and a data set restricted to similar families in counties with child poverty rates of higher than 13.8 percent, the cut-off point for counties included in the sampling frame for the National Study of Child Care for Low-Income Families. The survey instruments are contained in Volume 2 of the report.

Chapter One: The Community Survey

The Community Survey is the second of the three major components of the National Study of Child Care for Low-Income Families. Completed in 2000, it was a one-time random-digit-dialing telephone survey of poor and near-poor families with working parents in each of the 25 study communities. It addressed the following questions:

- What types of non-parental care arrangements and how many different child care arrangements do low-income families use?
- What are the considerations that influence low-income families' choice of non-parental child care?
- What are low-income families' perceptions about the availability of different kinds of child care in their community and the choices available to them?
- What proportion of family income do low-income families spend on child care?
- How does the presence or absence of a child care subsidy affect parents' child care decisions?

Selection of the 25 Study Communities

For the National Study of Child Care for Low-Income Families, we used the county as our definition of a community, because of the availability of information at the county level from earlier child care studies conducted in a nationally-representative sample of counties.

Because the focus of this study was on low-income families and their child care needs and choices, rather than on families at all income levels, our goal was to select a sample of communities that would, in a broad sense, be representative of where low-income children and families live. Starting with the sample of 100 counties/county groupings used by the 1990 National Child Care Survey,[2] we identified 80 with a 1993 poverty rate for children greater than 13.8 percent.[3] These formed our sampling frame. When properly weighted, these 80 counties/county groups represent more than 90 percent of poor children in the United States. Our sample of 25 counties, selected randomly with probability of selection proportional to size, is a representative sample of the 80 counties/county groupings. The sample of counties is shown in Exhibit 1.1.

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[2] The National Child Care Survey was nationally representative study of 4,392 households with one or more children under the age 13 conduced in late 1989 and early 1990. the study consisted of a survey of parents in randomly selected households with children under age 13 (the Parent Study), a survey of individuals who provide child care in their own homes, a survey of child care providers used by the respondents in the Parent Study, a low-income substudy, and a military substudy (Hofferth et al.1991).

[3] We excluded counties with relatively small numbers of poor children. The study focuses on the impact of welfare reform and child subsidy policies on poor families and we felt that we would learn a little from the more affluent counties excluded. As documented in Appendix C, supplementary analyses of the National Survey of American Families (NSAF) suggests that the exclusion of counties with low levels of child poverty did not result in markedly different results.

Exhibit 1.1

Selected States and Communities

State	Communities (Counties or County Groupings)	State	Communities (Counties or County Groupings)
Alabama	Mobile	New Mexico	Dona Ana Luna/Grant/Hidalgo
California	Los Angeles* Orange Riverside	New York	Orange
Illinois	Cook	North Carolina	Mecklenberg Alamance Johnston
Indiana	Madison	Ohio	Hamilton*
Louisiana	Oachita	Tennessee	Shelby Hardeman/Fayette/Lake/ Lauderdale Marshall/Coffee/Bedford
Massachusetts	Franklin*	Texas	Harris*
Michigan	Wayne	Virginia	Arlington
Minnesota	Hennepin Itasca/Koochiching/ Pennington	Washington	King*
New Jersey	Union		

* Included in the in-depth study of family child care.

Selecting Families for the Community Survey

A random-digit-dialing (RDD) telephone survey was conducted in each of the 25 communities to screen, recruit and interview a total of 2,500 families – 100 in each community. In an RDD survey, blocks of telephone numbers for exchanges within the county are randomly selected, screened to exclude identifiable business numbers and then dialed. Blocks of numbers continue to be randomly selected and released until the desired quota for each county is complete. Interviewers dialed each number up to 10 times before the number was assigned "no contact" status. When the call was answered, the interviewer used a Screening Questionnaire to identify households eligible to participate in the survey. For this study, eligible households were defined as:

- having children under age 13;
- with family income below 200 percent of the Federal Poverty Level (FPL);
- with a mother working or in school more than 20 hours a week;[4] and
- using some form of non-parental child care.

If respondents passed the first three eligibility screens, the interviewer asked about child care arrangements for a randomly selected child (if there was more than one). If the first selected child was in non-parental care, the survey was conducted at that point. Otherwise, the interviewer asked

[4] We were prepared to include father-only families, but the situation did not arise.

about the remaining children, in random order, until a child was identified as in non-parental care (at which point the survey was conducted) or it was determined that no children were in non-parental care (and the screening interview was terminated).

The survey was conducted over a 12-month period, beginning in August 2000 and ending in July 2001.[5]

This survey is the most recent in a series of surveys that have investigated parents' use of child care, among other topics. Where possible, we have compared findings from this survey with the findings for the two most recent surveys on this topic. The first survey, from which child care data were analyzed and reported in "Who's Minding the Kids?" (Smith, 2000), is the U.S. Census Bureau's 1993 Survey of Income and Program Participation (SIPP).[6] The child care module, conducted in fall 1995 was redesigned to collect information on all types of child care arrangements, not just the primary arrangement of employed mothers (the focus of earlier surveys). The respondents for the SIPP child care module were "designated parents" with children under 15 years of age. The goal of the module was: "to present a comprehensive view of the regular weekly experiences of children under 15 years of age." As a consequence, child care was very broadly defined to include school, sports, lessons and clubs, as well as the range of settings typically classified as child care. The survey included families at all levels of income; the analyses distinguish between families in poverty and families not in poverty.

The second survey, conducted in 1997, is the National Survey of American Families (NSAF), a household survey conducted by the Urban Institute as part of *Assessing the New Federalism*,[7] a multi-year effort to examine the devolution of social programs from Federal to state and local levels. Among many other topics, the survey investigated all regular child care arrangements for a nationally-representative sample of children under 13 years of age. The survey oversampled households with incomes below 200 percent of poverty and interviewed "the person most knowledgeable about the child." Analyses of child care are presented in a series of reports that deal with child care for preschool-age children, child care for school-age children, and child care costs.

One frequently encountered problem in comparing survey findings is that questions may be asked differently and results reported in ways that make direct comparisons difficult. We were able to reanalyze NSAF data on low-income families' use of child care arrangements to make comparisons more meaningful.

Both of these surveys differ from the Community Survey in a number of ways: first, and most importantly, they surveyed a nationally representative sample of families. The Community Survey surveyed low-income families living in communities with child poverty rates of 13.8% or higher that represented similar communities nationally. It was possible with the NSAF to calculate means and frequencies including and excluding counties with low levels of child poverty; comparisons between the full and restricted samples are presented in Appendix C. Second, because the Community Survey

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5 Copies of the Screening Questionnaire and Survey instruments can be found in Volume 2 of this report. Appendix A provides information on weighting procedures and response rates.

6 For information on the 1993 SIPP, go to www.bls.census.gov/sipp.

7 For information on *Assessing the New Federalism* and the National Survey of American Families, go to www.urban.org/center/anf.

was concerned with the non-parental child care arrangements of working parents, it includes a substantial number of questions not included in the other surveys (or not presented in reports on child care use) about the hours and schedule of parental employment, use of child care subsidies, parental child care preferences and considerations, among other topics. Thus, for most of the topics discussed in this report, there are no comparisons available from the two surveys.

The Screening Questionnaire and the Survey

As we designed the Screening Questionnaire, we realized that, because of the number and type of questions that were asked to determine eligibility for the survey, the screening instrument itself could provide valuable information to answer a basic question, namely:

- What are patterns of parental employment and child care arrangements in low-income families?

Answers to this question provide a context for the more elaborate discussion of non-parental child care that is the true focus of the survey.

Consequently, this report presents findings from analyses of two samples: a sample of low-income households with children under 13; and a smaller subset of those households with a mother working outside the home or in school and one or more children under 13 in a non-parental child care arrangement.[8]

The sample sizes that we are using ensure a fair amount of statistical precision. The screener sample of 6,160 low-income families with children under age 13 allows us to estimate a true proportion of 50 percent with a standard error of only 0.6 percentage points.[9] The 95 percent confidence interval is +/- 1.3 percentage points. In other words, there is only a five percent chance that, if the true proportion is 50 percent, our sample estimate will err by as much as 1.3 percentage points in either direction. The survey sample of 2,710 families allows us to estimate a proportion of 50 percent with a standard error of 1 percentage point, and a 95 percent confidence interval of 2.0 percentage points.

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[8] Some differences between the two samples should be noted. The child considered in the screener analysis is not necessarily the focus child of the survey analysis. The screener analysis child is the first randomly selected child about whom child care information was collected, while the survey focus child was randomly selected from all children in the family that were in *non-parental* child care. This distinction was made because the screener sample is intended to represent *all* children in low-income families while the survey sample is restricted to children in non-parental care.

[9] Because the sample is nationally representative, it provides an ***unbiased*** estimate of the rate in the population from which the sample was drawn (the true proportion). It does not give an ***exact*** estimate of this rate, however, because of the random sampling variation.

Chapter Two: Who Cares for Children in Low-Income Families?

In this chapter we consider the universe of *all* low-income families and describe their most basic child care decisions. For this study, the population of low-income families was defined operationally as those with annual incomes below 200 percent of the FPL that contain at least one child under the age of 13. Children in these households require adult supervision. What are the options available to families?

The first option is to ensure that children are cared for by one or the other parent. There are a variety of ways in which this might happen. First, the mother may not be employed outside the home,[10] and thus may be always available as a caregiver. (She may still work, however; for example, many family day care providers are themselves mothers of young children, and thus combine care of their own children with an income-producing activity.) Some mothers, e.g., housekeepers, may take their children to work with them. The mother may work outside the home, but may restrict these activities to times when her children are in school (working "mothers' hours"). Finally, she may coordinate her work hours with those of the children's father so that care is always provided by one or the other parent. A second option, if the children are at the older end of the age spectrum, is to have them care for themselves when not in school. As a third option, children may receive some form of non-parental child care: care by a relative in the child's own home or in the relative's home; care by an unrelated adult in the child's home; care by an unrelated adult in a family child care home; or non-relative care in a day care center, preschool program, after- school program, or other nonresidential setting.

Families' child care choices are interwoven with their choices about the mother's employment – whether she works, how far from home, how many hours per week, a fixed *versus* a variable schedule–and potentially with other choices such as car ownership and household composition. Families make all sorts of combinations of work and child care arrangements, and a change in any aspect of one could trigger a change in the other. Unreliable non-parental child care may cause a woman to lose her job; and conversely, loss of a job can cause a woman to take her child out of non-parental care.

The data for this chapter come from the Screening Questionnaire for the Community Survey. The analysis sample comprises **6,160 low-income families with children under age 13**. Below, we summarize the findings from this portion of the survey. A discussion of analytic issues and a more detailed description of the results of the analysis follow the summary.

Summary of Findings

- Just over 60 percent of children under age 13 in low-income families had mothers who were working or in school for more than 20 hours a week.

[10] For ease of exposition, we assume that (a) the primary caregiver is the mother, and (b) the mother is available as a caregiver if she is not working outside the home. Of course the father is the primary caregiver in some situations; and the mother may require child care because she is in school, engaged in job search activities, and so on.

- Almost half (44 percent) of children under age 13 in low-income families were in some form of non-parental child care; most of the rest, (40 percent) had mothers who were not working or in school, and the remainder had another care arrangement (mother worked at home, mother worked only when the child is in school, other parent cared for child or child cared for self).
- Infants and school-aged children were less likely to be in non-parental care than toddlers and preschoolers: infants because their mothers were less likely to be working, and school-age children because their mothers worked during school hours.
- The more children under 13 there were in a family, the less likely it was that the mother worked or, if she did work, the less likely she was to use non-parental care for her children.
- Black[11] mothers in low-income families were much more likely to be working and to use non-parental care than White or Hispanic mothers in low-income families.

Analytic Considerations

Although we have consistent information on child care arrangements for only one (randomly selected) child per family, and we cannot assume that it applies to all children in the family,[12] the information can be generalized to the population of all children by taking account of the numbers and ages of the other children in each family. To determine, for example, the proportion of all low-income children under age 13 that are in families with nonworking mothers, the sample of randomly selected children has been reweighted to match the known distribution of *all children under* 13 in the same set of families with respect to both family size (number of children under 13) and age of selected child.

For most of the analyses reported below, however, the unit of analysis is the *family*. This is the appropriate unit when asking broad questions about the use of non-parental care, such as:

- In what proportion of low-income families does the mother not work? How does this proportion vary by family ethnicity, number of children in the family, and age of youngest child?
- In what proportion of low-income families does the mother use some form of non-parental care? How does this proportion vary by family ethnicity, number of children in the family, and age of youngest child?

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[11] In the tables, we use the U.S. Census categories: non-Hispanic Black, non-Hispanic White, and Hispanic. In the text, for ease of reading, we have used the shorter forms: Black, White, Hispanic.

[12] The number of children in the family for whom we know the mode of child care in fact varies. If the mother reportedly is not working, then the mode of care is *ipso facto* known for all children in the family (maternal). Similarly, if the mother is working, but the family was determined to be ineligible for the full survey, then the mode of care is also known for all children in the family, because each child was determined not to be in non-parental care. For those families that do use non-parental care, however, information on mode of care was only collected *up to the point that a child in non-parental care was identified*. Modes of care for the remaining children are unknown.
For consistency, we limit our analysis in this chapter to the *first* child in each family about whose care arrangements the family was queried. For families with nonworking mothers, we choose a child at random from the reported list of the children's ages.

The use of "some form of non-parental care" is necessarily defined as a family-level variable, without reference to the individual children. Of the families with working mothers in which the first selected child was in parental care, just over 10 percent used non-parental care for at least one other child. At the family level, a meaningful categorization is:

- Mother does not work;
- Mother works, but family does not use any non-parental care;
- Family uses some non-parental care.

For families within the second grouping, a variety of arrangements may be used for the different children–for example, some children may be in school while younger children are in the care of their father or their mother (working at home). Similarly, families within the third grouping may be using a variety of parental and non-parental forms of care. Hence we cannot define the *family-level* variable any more finely with respect to mode of care.

In the sections that follow, we first examine the care arrangements for individual children, relative to the age of the child. We then show how patterns of child care use vary by number of children potentially needing care and by family ethnicity.

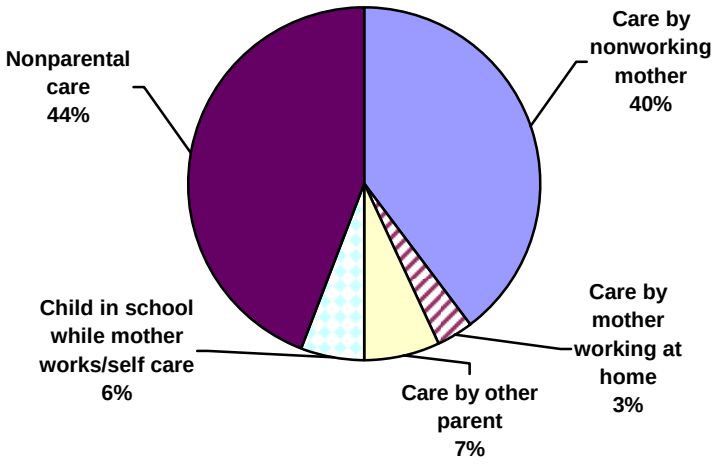
Child Care Arrangements by Age of Child

Of all children under age 13 in low-income families, 56 percent were cared for only by a parent. This total comprises: 40 percent whose mothers did not work; 3 percent whose mothers worked at home; 7 percent who were cared for by their father while their mother worked; 5 percent who were in school when their mother worked, and required no additional care; and 1 percent who cared for themselves after school (Exhibit 2.1).

The remaining 44 percent of children received some non-parental care. They comprise: 20 percent who were looked after by a relative; 6 percent who were in family child care with a non-relative; 3 percent who were cared for by an unrelated adult in their own home, and 15 percent who received care in a child care center, preschool or after-school program. A detailed discussion of the use of non-parental child care appears in Chapter Four. For the remainder of this chapter, we group all non-parental child care modes together and look at the family as a whole.

Exhibit 2.1

Care Arrangements for Low-Income Children



The use of non-parental care differed somewhat by the age of the child, with younger children being more likely to have a nonworking mother. Almost half of all children under the age of one had a stay-at-home mother; 40 percent had nonworking mothers, and an additional 3 percent had mothers who worked at home (Exhibit 2.2). Another 7 percent were cared for by their fathers while their mothers worked, while forty-six percent of children under one were in non-parental care.

Older children were more likely to have a working mother, with the proportion of nonworking mothers declining from 44 percent for infants to 38 percent for school-age children. The proportion of stay-at-home mothers with young children in this low-income population was similar to the proportion found in surveys of the general population. The 1995 SIPP found that almost 43 percent of children under age 5 were in families in which mothers were not working outside the home or attending school (Smith, 2000). In our survey, school-age children were less likely than any of the younger groups to be in non-parental care, because their mothers could work while they were in school (7 percent). Also, in a few cases (2 percent), the children cared for themselves after school.

Exhibit 2.2

Child Care Arrangements of Low-Income Families by Age of Child

	Age of child				All children
	Under age 1	Age 1-2	Age 3-4	Age 5-12	
Parental or Self Care	**%**	**%**	**%**	**%**	**%**
Nonworking mother	44.4	42.2	40.5	38.4	39.8
Mother works at home	2.8	2.3	2.8	3.8	3.3
Father cares for child when mother works	7.3	4.6	5.0	7.8	6.9
Mother works only when child is in school				7.4	4.6
Child cares for self after school				1.8	1.1
Non-parental Care	45.5	50.9	51.7	40.8	44.3
Total	100.0*	100.0	100.0	100.0	100.0

* Throughout the report, actual totals may be slightly less or slightly more than 100%, because of rounding error.

Exhibit 2.3 presents the proportions of families with employed mothers that used parental *versus* non-parental care, for children of different ages. The overwhelming majority of families with children under 6 years of age (82%-86%) used non-parental care as their primary care arrangement. The proportion of families that used parental care or self-care rose to more than one-third (34%) for school-age children, since one or the other parent may have been able to provide care for the hours before or after school,[13] or the child might have been considered old enough to be at home unsupervised.

Exhibit 2.3

Parental versus Non-Parental Care for Children of Low-Income Employed Mothers

	Age of Child[14]			All Children (%)
	Age 0-2 (%)	Age 3-5 (%)	Age 6-12 (%)	
Parental or self-care	14.1	18.5	34.1	26.4
Non-parental care	85.9	81.5	65.9	73.6

Ethnicity, Number of Children, and Use of Non-Parental Care in Low-Income Families

Blacks and Hispanics were more heavily represented in the population of low-income families with children than they are in the population as a whole. In the survey sample, about a third (34 percent) of low-income families with children were Hispanic, 20 percent are Black, just under 8 percent were Asian, Pacific Islander or multi-racial, and the remaining 38 percent were White.

Three-quarters of families (75 percent) had only one or two children under age 13. Households with four or more children comprised 8 percent of the total.

Use of non-parental care varied both by ethnicity and by number of children in the household. These two family characteristics were somewhat related, as White families tended to have fewer children under age 13 than either Hispanic or non-Hispanic Black families. Families with three or more children constituted 21 percent of White families, compared with 27 percent of families in each of the other two groups (Exhibit 2.4).

[13] These proportions differ from those reported in two national surveys, the 1995 SIPP and the 1997 NSAF. These surveys both report parental care as approximately 24 percent of the care arrangements for children under 6 years of age with employed mothers. The comparisons are not very satisfactory however because in one case (NSAF), a footnote explains that "parental care" is a default category, since no questions asked explicitly about parental care. In the case of the SIPP data, although these are categorized as "primary" arrangements, more than one arrangement is included in the table so that percentages sum to more than the category total (Smith, 2000; Capizzano et al., 2000).

[14] Age categories used here to allow comparison with published tabulations from other national data sets.

Exhibit 2.4

Percentage of Low-Income Families by Ethnicity and Number of Children

Number of children	Ethnicity			All Families
	Non-Hispanic White	Non-Hispanic Black	Hispanic	
	%	%	%	%
1	41.8	43.8	37.4	40.7
2	36.8	28.8	35.9	34.8
3	14.9	17.2	19.1	16.7
4 or more	6.6	10.2	7.7	7.8
All families	100.0	100.0	100.0	100.0

Not surprisingly, mothers with fewer children were more likely to work (Exhibit 2.5). The prevalence of *nonworking mothers* increased from almost a third (32 percent) among families with only one child, to more than half (52 percent) among families with four or more children. Families with more children are likely to find it difficult to make informal care arrangements with relatives and, without the aid of a subsidy for child care, may find the cost of child care matches or exceeds what they can earn.

Even when mothers worked, those with a single child were more likely to be able to arrange care by the other parent or work only when the child is in school (19 percent) than mothers with more children (e.g., 6.4% for mothers with four or more children). The use of non-parental care was about the same (48 to 50 percent) for families with one, two or three children, but declined for families with four or more children.

Exhibit 2.5

Percentage of Low-Income Families By Work/Child Care Status and Number of Children

Work/Child Care Status	Number of children in family				All families
	1	2	3	4 or more	
	%	%	%	%	%
Nonworking mother	31.8	38.1	41.8	52.2	37.2
Working mother, no non-parental care	18.6	14.4	9.7	6.4	14.7
Non-parental care	49.6	47.5	48.5	41.4	48.1
Total	100.0	100.0	100.0	100.0	100.0

Ethnic differences in mother's employment and use of non-parental care were striking and cannot be explained by ethnic differences in family size (Exhibit 2.6). Black families were much less likely to have a nonworking mother than either White or Hispanic families (22 percent versus 39 and 42 percent) and much more likely to use non-parental care (65 percent versus 44 and 42 percent).

Exhibit 2.6

Percentage of Low-Income Families by Work/Child Care Status and Ethnicity

Work/Child Care Status	Ethnicity			All families
	Non-Hispanic White	Non-Hispanic Black	Hispanic	
	%	%	%	%
Nonworking mother	39.9	22.4	42.8	37.2
Working mother, no non-parental care	15.6	13.0	14.8	14.7
Working mother, Non-parental care	44.5	64.7	42.4	48.1
Total	100.0	100.0	100.0	100.0

Chapter Three: Characteristics of Low-Income Families that Use Non-Parental Care

This chapter, and the chapters that follow it, deal with the subset of low-income families that use non-parental care for at least one child under the age of 13 while the child's mother works or is in school. In this chapter we describe these families in terms of their *family structure, ethnicity, income, mother's employment,* and *spouse's or partner's employment*. We note that the joint work schedules of the mother and her spouse or partner have implications for the types of child care that can be used.

Analyses are based on **2,264** families in 25 communities, weighted to represent the population of low-income families nationally that live in communities with a child poverty rate of at least 13.8 percent and use non-parental child care. References to "all families" in this chapter refer to this population.

Summary of Findings

- A majority (57%) of the low-income mothers that used non-parental child care lived with a spouse, partner or other adult. Families were small, with two-thirds containing one or two children.
- Over half of low-income families that used non-parental child care were either Black or Hispanic.
- Half of the families had annual incomes below the Federal Poverty Level, and 10 percent had incomes between 185 percent and 200 percent of the FPL.
- More than 70 percent of employed mothers worked irregular or non-standard hours. Non-standard hours were even more common among partners and spouses.
- One-quarter of the families used center-based child care or an afterschool program. Single mothers who were working regular hours were most likely to use a center-based child care program (38%), while mothers who were in school or job training were less likely to do so regardless of whether they were single heads of household (16%) or one of two parents in the home (22%).

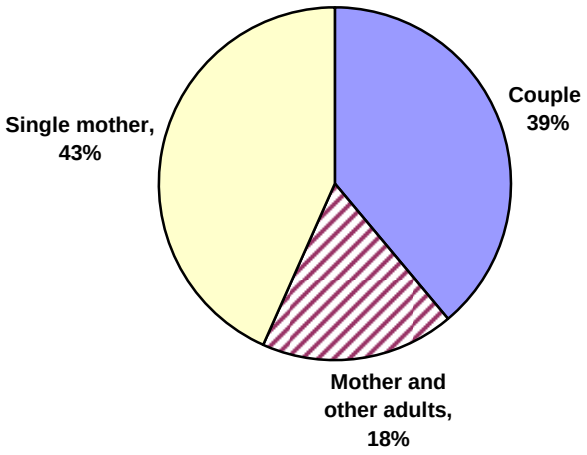
Demographic Characteristics

Household composition: Thirty-nine percent of low-income families that used non-parental care were headed by a couple consisting of the children's mother and her spouse or partner (not necessarily the children's father) with no other adults present (Exhibit 3.1). An additional 18 percent, however, included the mother's parents, siblings, or other related or unrelated adults. Hence, a solid majority (three-fifths) of families contained more than one adult.[15]

[15] In the NSAF sample (restricted to households in counties with a child poverty rate of at least 13.8 percent), 47 percent of low-income families that use non-parental care are headed by a couple, and 16 percent include other related or unrelated adults (Appendix Exhibit C.1).

Exhibit 3.1

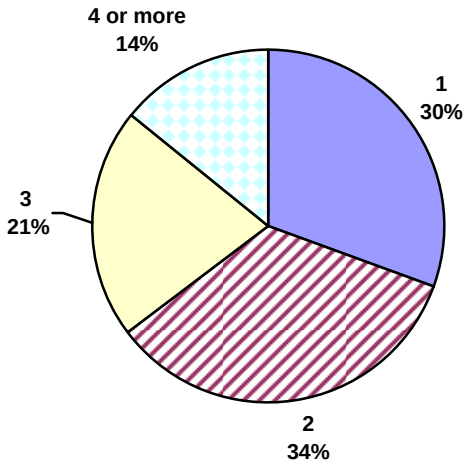
Household Type



These families were typically small, with about a third containing only one child under age 18 and another third containing two children (Exhibit 3.2). Only 14 percent contained four or more children.[16]

Exhibit 3.2

Number of Children in Household

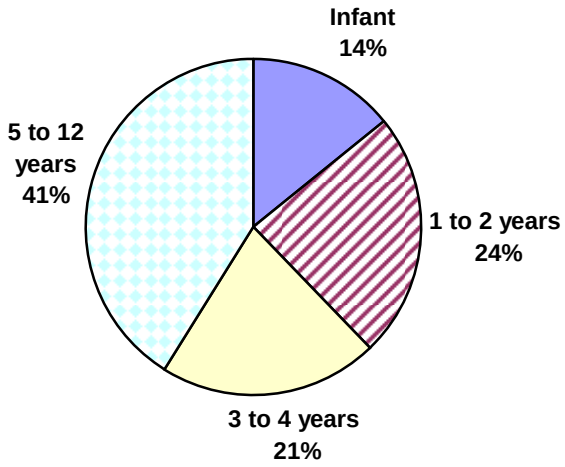


Age of youngest child: Infants were present in 14 percent of families (Exhibit 3.3). Almost a quarter (24 percent) contained a toddler, and, in 21 percent of families, a preschooler was the youngest child. Slightly more than 40 percent of the families contained only school-age children.

[16] In the restricted NSAF sample, 20 percent of low-income families using non-parental child care have only one child, 38 percent have two children, 26 percent have three children, and 17 percent have four or more children (Exhibit C.2).

Exhibit 3.3

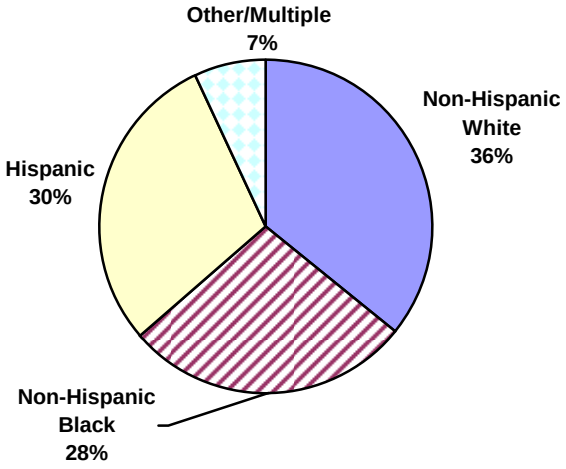
Age of Youngest Child



Ethnicity: While White, non-Hispanic families were the single largest group (36%) of low-income families that used non-parental care for their children, together Black and Hispanic families constituted the majority of non-parental child care users, in proportions much larger than their representation in the general population (Exhibit 3.4).[17,18]

Exhibit 3.4

Family Ethnicity



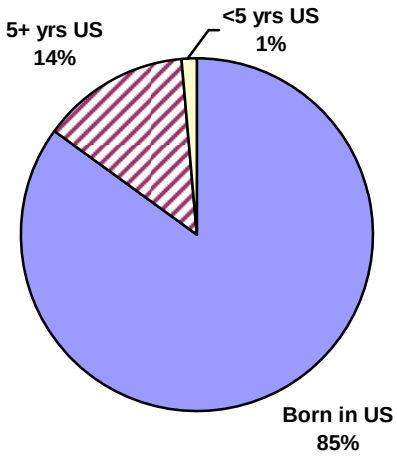
[17] Note that this sample is more heavily Black than the screener sample analyzed in the previous chapter. The difference reflects the fact that Black families are more likely to use non-parental care.

[18] The corresponding proportions in the restricted NSAF sample are 43 percent non-Hispanic White, 32 percent Hispanic Black, 21 percent Hispanic and 4 percent other/multiple (Exhibit C.3). The different distributions in this sample and out sample could reflect the effect of several interviewing events – among them, welfare reform, as well as increasing participation of Hispanic mothers in the workforce, over the three-years between the two surveys.

Immigrant status: In 15 percent of households, the child's mother was born outside the United States (Exhibit 3.5). Recent immigrants (within the past 5 years) comprised 1 percent of respondents.[19]

Exhibit 3.5

Immigrant Status of Families



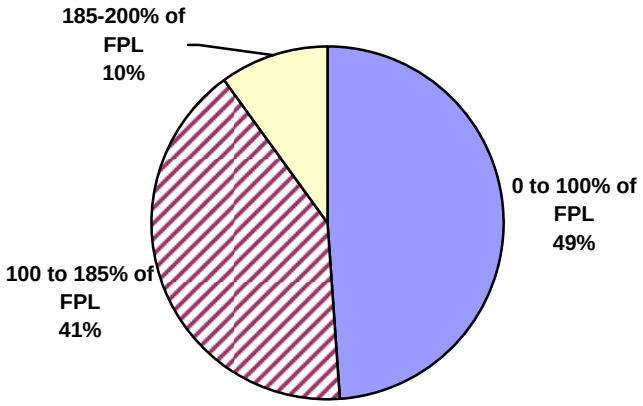
Household Income and Parental Employment

To participate in the survey, families had to have annual incomes below 200 percent of the Federal Poverty Level (FPL). Almost half (49 percent) had incomes below the FPL, and 10 percent had incomes between 185 percent and 200 percent of the FPL (Exhibit 3.6). At the time of the interview, 20 percent were receiving food stamps, and 11 percent had received some TANF payments in the prior year. Sixty percent of families reported that they claimed earned income tax credits in the previous year.

[19] In the NSAF restricted sample, 14 percent of households are headed by non-citizens (Exhibit C.4).

Exhibit 3.6

Household Income Relative to Poverty



Mother's Employment, Earnings, and Job Benefits

Nearly all (96 percent) mothers had worked for pay at some time in the past; most mothers (77 percent) were employed at one job, 6 percent were employed at more than one job, and 17 percent were not working.[20] Among those who were employed, mothers worked an average of 35 hours in the week preceding the interview, earning an average of $323.

Only 27 percent of employed mothers worked regular hours; the remaining 73 percent of mothers worked on an irregular schedule or non-standard hours. Specifically, with a good deal of overlap,

- 39 percent worked different hours from one day to another;
- 40 percent worked different hours from one week to another;
- 14 percent worked at seasonal jobs; and
- 56 percent worked evenings, nights, or weekends.

Each of these situations constrains the use of center-based child care. Center care is rarely available evenings, nights, or weekends, or for irregular and changing hours. In particular centers find it economically disadvantageous to provide care for children part-day or on a changing schedule, since they are licensed for a specific number of full-time slots and would find it difficult to match two part-time arrangements that together made one-full-time slot.

About half of all mothers received medical insurance that covered adults in their household through their employer (52 percent). Nearly as many mothers (47 percent) received medical coverage for their children. Smaller proportions had dental insurance: 43 percent for adults, 38 percent for children. Sick time was available as a job benefit for 44 percent of mothers, paid holidays or vacation for 62 percent of mothers, life insurance for 39 percent, and retirement benefits for 42 percent. In

[20] Those not working were in school, job training or engaged in job search.

addition, 13 percent had access to child care information through their employer, while 5 percent had on-site day care and 4 percent had an emergency or drop-in child care arrangement at their workplace.

Spouse's or Partner's Employment

A minority of families (39 percent) included a partner or spouse. In most of those families (82%), the partner or spouse was employed. Nonstandard hours of employment were even more common among partners and spouses. Eighty-one percent of employed spouses or partners worked non-standard schedules compared with 73 percent of employed mothers.

Work Schedules, Use of Non-Parental Care in General, and Use of Child Care Centers in Particular

The preceding discussion of employment is only a *characterization* of families using non-parental care. We cannot think of these households as a group that decided to use non-parental care because of their employment characteristics. Rather, at the risk of oversimplifying somewhat, we can think of *household structure* (presence of partner or spouse and age of youngest child) and low-income status as exogenous factors that shape both employment and child care decisions. Clearly, low-income parents in general are less likely to have the option not to work than more affluent parents. *Low-income, single parents with infants* may be able to choose not to work (depending on state TANF policy and practice); may choose to work regular or irregular hours and use family day care or in-home care; and may be able to choose to work regular hours and use center care (depending on the availability of center care for infants and of low- to medium-skill jobs with regular hours).

Low-income, single parents with preschoolers are less likely to have the option not to work, but may be able to choose to work regular hours and use center care, although these options may again be limited if their educational attainment is low and they have few job skills. Like other parents, they may also work regular or irregular hours and use family day care or in-home care. *Low-income, single parents with school-age children* may have the additional option of working only when their children are in school. *Low-income couples* have all of these choices, plus the additional option of one parent not working or working only when the other parent is available to provide child care.

When we look at those low-income families that are using non-parental care, therefore, by definition we are excluding significant groups of low-income families, single parents of infants in some states who choose not to work, single parents of school-age children in some states who choose to work only "mothers' hours," and couples that opt to have one parent not work or coordinate their work and child care responsibilities.

Once these groups of families have been eliminated, the choices for families that remain are the joint selection of mode of care and work schedule. Overall, one-quarter of families used center care (or an organized after-school program) (Exhibit 3.7). Use of center care varied by age of child: 30 percent of families with children under 5 years of age used center care, compared with 20 percent of families

with school-age children.[21] Single mothers working irregular hours were substantially less likely to choose center care than those working regular hours (24 percent *versus* 38 percent). Among two-parent families, however, the irregularity of the mother's hours had only a small effect on the likelihood of choosing center care, perhaps because the other parent was available to provide care during the hours that the center-based program did not operate.

Exhibit 3.7

Percent of Low-Income Families Using Non-Parental Care by Parents' Work Schedules

	Mode of care	
Parents' work schedules	**Home-based care**	**Child care center, preschool or after-school program**
	% of Families	**% of Families**
Single mother, regular hours	62.1	37.9
Single mother, irregular hours	75.9	24.1
Single mother in school or job training	78.0	22.1
Couple, mother working regular hours	73.2	26.9
Couple, mother working irregular hours	77.2	22.8
Couple, mother in school, training or job search	83.7	16.3
Couple, spouse/partner not working	72.4	27.6
All families	75.3	24.7

[21] These proportions are similar to those found in this population in other surveys. Analyses of the 1997 NSAF found that, in 1997, 26 percent of employed mother with children under five and with incomes below 200 percent of the FPL used center care as their primary child care arrangement, compared with more than one-third (35 percent) of similar families with higher incomes (Capizzano and Adams, 2000). The 1995 SIPP found that 28 percent of families with children under five used center care (Smith 2000).

Chapter Four: Non-Parental Child Care Among Low-Income Households

In this chapter we describe the non-parental child care arrangements used by low-income families in the study. In the sections that follow, we describe child care arrangements for individual children; the economic aspects of non-parental care; the process by which parents choose non-parental arrangements; and the role of child care subsidies.

Summary of Findings

- Care by a relative in the relative's home was the most common non-parental care arrangement for children in low-income families. Almost a third (31%) of children were cared for in this arrangement.
- Hispanic children were much less likely than White or Black children (14% versus 31% and 27%) to receive care in a center-based program.
- Most children (88%) were in a single non-parental care arrangement. Multiple arrangements were almost twice as common for infants as they were for other age groups.
- More than half of children under age 5 (55%-59%) in non-parental care were in care for more than 30 hours a week.
- Almost half of all families paid nothing for the primary mode of child care. For those who did pay for care, the average per hour cost of care ranged from $1.95 an hour for relative care in the child's own home to $2.89 an hour for care in the child's home by an unrelated adult. On average, families paid $2.11 an hour for child care.
- Families that paid for care spent an average of 17 percent of monthly income on child care. This varied greatly by income level; families living at or below the Federal poverty level who paid for child care spent 22 percent of their income on child care compared with families with incomes between 185 percent and 200 percent of poverty, who spent 10 percent of their income on child care.
- The most frequently cited factors in parents' choice of care arrangement were: the safety of the child; the convenience of the arrangement; and the family's relationship with the provider. The cost of care was cited more frequently by White mothers than by mothers in other ethnic groups, while Hispanic mothers were more likely to cite the safety of the child as a prime consideration for them.
- Almost half of the families that used family child care or in-home care by an unrelated adult knew the caregiver as a friend or neighbor before they made the care arrangement. A friend or neighbor was the most frequent referral source for users of center care (37%), and was almost as common among users of family child care and in-home care.
- Of all low-income families using non-parental child care, 16 percent were receiving a child care subsidy at the time of the interview. The proportion varied by income level; 20 percent of families with incomes below 100 percent of poverty received subsidies, compared with 11 percent of families with incomes between 185 percent and 200 percent of poverty. The majority (61 percent) had never applied for a subsidy.

- Families with children in center care were much more likely to receive subsidies than families that used relative care (31% *versus* 9%). Care in the child's own home, whether by a relative or an unrelated adult, was least likely to be subsidized.
- Of those families that received a child care subsidy, one-third had no out-of-pocket costs for child care; most of the remaining paid the established copayment or more than the copayment.

Non-Parental Child Care Arrangements

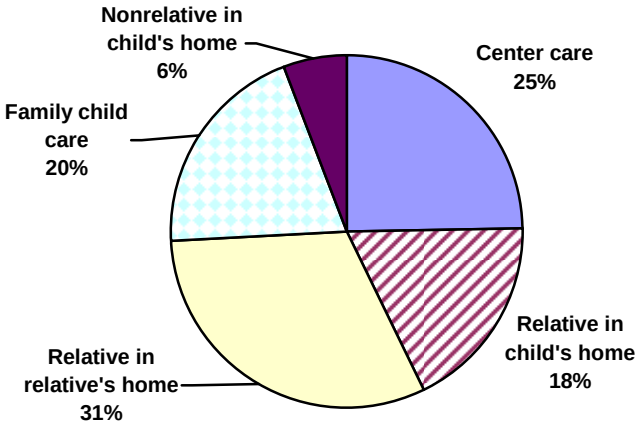
Modes of care can be classified in several ways: by location (child's own home, another person's home, a child care center); by caregiver (relative or non-relative); and by financial arrangement (paid or unpaid). For the purpose of this study, we used a five-way categorization as shown below:

Mode of Care	Location	Caregiver
Center care	Child care center, preschool, afterschool program, etc.	Unrelated adult
In-home relative care	Child's own home	Relative
Out-of-home relative care	Other home	Relative
Family child care	Other home	Unrelated adult
In-home non-relative care	Child's own home	Unrelated adult

Of these five modes, the most common *primary mode of non-parental care*–that is, the mode in which the child spent the most time when not in school–was *out-of home care by a relative*, which accounted for 31 percent of children (Exhibit 4.1). The next most common mode was center care (25%). Family child care and care by a relative in the child's own home accounted for 20 percent and 18 percent of children respectively, leaving 6 percent of children cared for in their own homes.

Exhibit 4.1

Primary Mode of Non-Parental Child Care



Primary mode of care varied by age of child (Exhibit 4.2). Family child care was an equally common choice for all age groups (19 to 21 percent). Use of center care, however, was much more common for preschoolers (39 percent) than for the other age groups. Care in the child's home, either by a relative or by an unrelated adult, was substantially more common for infants and school-age children than for the intermediate age groups.[22,23,24]

Exhibit 4.2

Primary Mode of Non-Parental Child Care by Age of Child

	Age of Child				
Mode of Care	**Under One Year**	**Age 1-2**	**Age 3-4**	**Age 5-12**	**All ages**
	%	%	%	%	%
Center	18.9	27.6	38.7	20.1	24.7
Care by a relative in the child's home	23.2	15.6	13.1	20.0	18.2
Care by a relative in the relative's home	27.5	31.9	25.8	33.8	31.4
Family child care	21.0	20.6	20.1	19.3	19.8
Care by an unrelated adult in the child's own home	9.4	4.4	2.3	6.9	5.9
Total	100.0	100.0	100.0	100.0	100.0

Families in different ethnic groups differed markedly in their choice of non-parental child care arrangement. While 27 to 31 percent of non-Hispanic children were in center care, only 14 percent of

[22] The distribution of children in non-parental care arrangements reported here is similar to that reported in the 1997 NSAF. For example, of children under 5 years in families with incomes below 200% of the FPL and in non-parental care, the NSAF reports 19 percent were in family child care, compared with approximately 21 percent in the community survey (Capizzano and Adams, 2000).

[23] Comparisons for school-aged children are more difficult because the NSAF data are reported separately for five-year-olds, six to nine-year-olds, and 10- to 12-year olds.

[24] In the restricted sample the distribution of primary mode of non-parental care is as follows (Exhibit C.5):

Center care	29%
Care by relative in child's home	30%
Care by relative in other home	25%
Family child care	12%
Care by non-relative in child's home	5%

Furthermore, the distribution by age of child shows patterns similar to those seen in the community survey (Exhibit C.6). In particular, the two forms of relative care are dominant for infants, while center care and relative care in the relative's home are the favored modes for preschoolers. For school-aged children, the NSAF sample shows greater preference for relative care in the child's home versus relative care in the relative's home – 37 vs. 23 percent, compared with a reverse pattern in the community survey (Exhibit 4.2). Also, the NSAF sample shows half (51 percent) of the 3- to 4-year olds in center care, a somewhat more marked concentration than the 39 percent found in the community survey.

Hispanic children were in this care arrangement (Exhibit 4.3). Conversely, Hispanic children were more likely to be in family child care (24%) than children in the other two groups (17% and 19%).[25]

Exhibit 4.3

Primary Mode of Non-Parental Child Care by Ethnicity

	Family Ethnicity			
Mode of Care	**White**	**Black**	**Hispanic**	**All**
	%	%	%	%
Center	30.7	27.0	13.5	24.7
Care by a relative in the child's home	15.5	18.9	21.2	18.2
Care by a relative in the relative's home	27.5	32.5	35.8	31.4
Family child care	18.8	17.0	24.1	19.8
Care by an unrelated adult in the child's own home	17.4	4.7	5.4	5.0
Total	100.0	100.0	100.0	100.0

The great majority of children (88 percent) were in a single non-parental care arrangement, and virtually all of the rest were in two arrangements (Exhibit 4.4).[26] Multiple non-parental arrangements were more likely for infants than for other age groups (19%).

The additional arrangements beyond the first did not markedly change the distribution of children among modes of non-parental care. For example, 19 percent of infants and 25 percent of all children under 13 who were in non-parental care were in a center or after-school program as their primary arrangement (Exhibit 4.2). When all arrangements are considered, the proportions using these types of care increased to 21 percent and 27 percent (Exhibit 4.4, bottom panel).

[25] The NSAF restricted sample shows much less variation by race/ethnicity in primary mode of non-parental care (Exhibit C.7). Black and Hispanic families appear quite similar in their use of center care (28 to 33 percent) and family child (9 percent for both groups of families).

[26] At first sight, these findings seem at odds with the 1995 SIPP data (Smith, 2000) which report an average of two care arrangements for preschool children and 2.3 arrangements for school-aged children during mothers' work hours (Smith, p.16). However, the averages include parental care for both groups and school as well as enrichment activities for the school children, so the findings are not comparable. There is, however, a disparity between our findings and those of the 1997 NSAF, which found a smaller percentage (63%) of low-income preschoolers in a single non-parental care arrangement (Cappizzano and Adams, 2000). In the restricted sample, the proportion of children using a single mode of non-parental care is 58 percent for 3- to 4- year-older, and 74 to 76 percent for the other three age groups (Exhibit C.8)

Exhibit 4.4

Number and Type of Non-Parental Child Care Arrangements, by Age of Child

	Age of Child				
	Under One Year	Age 1 to 2	Age 3 to 4	Age 5 to 12	Total
	%	%	%	%	%
Number of arrangements					
1	80.6	90.1	85.2	89.9	88.2
2	18.7	9.9	14.2	9.5	11.3
3	0.7	0.0	0.6	0.7	0.5
Total	100.0	100.0	100.0	100.0	100.0
Any of child's arrangements is:					
Center care	20.7	28.5	41.4	22.4	26.8
Care by a relative in the child's home	26.3	18.6	15.7	21.8	20.5
Care by a relative in the relative's home	34.7	34.0	31.1	35.4	34.3
Family child care	24.5	22.5	21.6	21.2	21.8
Care by an unrelated adult in the child's own home	10.3	4.5	3.7	7.9	6.7

Note: Column totals sum to greater than 100 percent because children are in multiple modes of care.

Only 43 percent of children under age 13 in non-parental care were in care for more than 30 hours a week (Exhibit 4.5). The percentage was influenced by *school-age children*, most of whom were in school for most of the time that their mothers were working. Over a quarter (26%) of school-age children were in non-parental care for 10 hours a week or less. Among *children under age 5*, however, more than half (55% of infants and toddlers and 59% of preschoolers) were in care over 30 hours a week, and only 10 to 13 percent were in care for 10 hours a week or less. (For preschool children in low-income families in the 1997 NSAF data, the comparable percentages were 40 percent in care over 35 hours a week and 15 percent in care for 1-14 hours a week (Capizzano et al., 2000).[27])

Exhibit 4.5

Total Hours Per Week of Non-Parental Child Care, by Age of Child

	Age of Child				
	Under One	1 to 2	3 to 4	5 to 12	Total
	%	%	%	%	%
Less than 10	10.3	10.0	12.7	25.9	19.1
10 to 20	13.0	14.4	12.9	30.0	22.5
21 to 30	21.4	19.5	15.1	12.4	15.0
Over 30	55.6	56.0	59.3	31.7	43.4
Total	100.0	100.0	100.0	100.0	100.0

[27] In the NSAF restricted sample, 26 percent of children are reportedly in non-parental care for less than 10 hours a week, while 37 percent are in care for more than 30 hours a week – i.e., children are reportedly in care for fewer hours (Exhibit C.9).

The Cost of Care

The cost of child care can be looked at from three perspectives: on an hourly basis, on a weekly basis, and as a percentage of household income. We consider each of these perspectives below. In all cases, the costs represent what was actually paid by the family, net of any subsidy. It must be kept in mind that a substantial portion of low-income families paid nothing for non-parental care—either because they were fully subsidized, or because their relatives provided the care gratis. Other families paid only small amounts. For about a fifth of the low-income population using non-parental child care, however, the cost of care comprised a considerable portion of their income.

On an hourly basis, the most expensive modes of care were non-relative home-based care, either in the child's home or in the caregiver's home (Exhibit 4.6). The average cost per hour ranged across modes, from $0.76 and $0.94 for care by a relative in the child's own home and in the relative's home, respectively, to $1.69 and $1.71 for care by an unrelated adult, either in that adults's home (family child care) or in the child's own home.[28] However, 43 percent of all families and 58 to 64 percent of families that used relative care paid nothing for the primary child care arrangement (Exhibit 4.7).[29] When families that paid nothing for care were excluded from the analysis, the average cost per hour ranged from $1.95 and $2.06 for care by a relative in the child's own home and in the relative's home respectively to $2.06 and $2.89 for home-based care by an unrelated adult.

Exhibit 4.6

Mean Hourly Fee for Primary Arrangement by Mode of Care

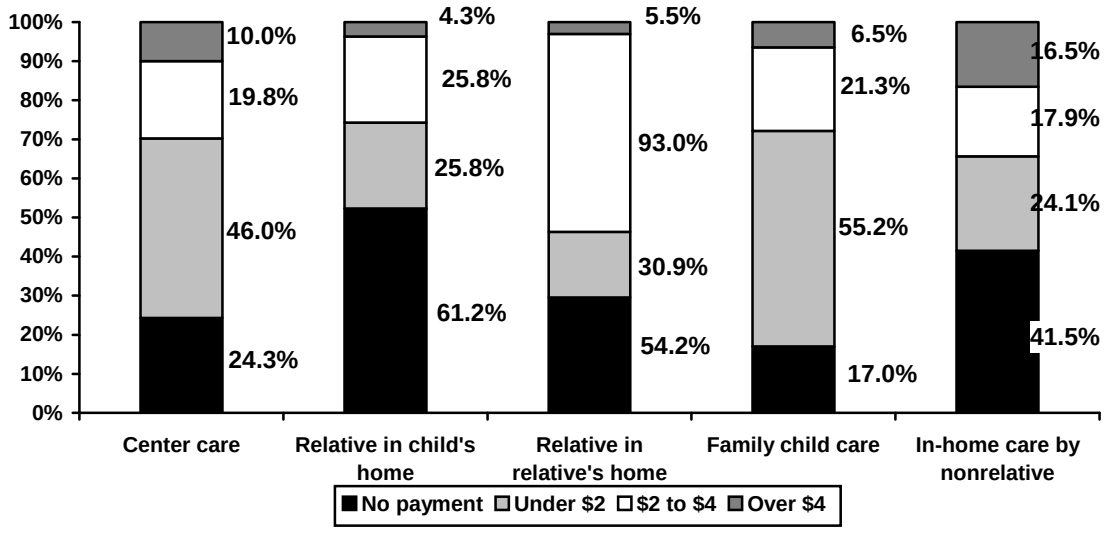
Mode of Care	Mean hourly fee including those who paid nothing	Mean hourly fee excluding those who paid nothing
Center	$1.61	$2.12
Care by a relative in the child's home	$0.76	$1.95
Care by a relative in the relative's home	$0.94	$2.06
Family child care	$1.71	$2.06
Care by an unrelated adult in the child's own home	$1.69	$2.89
All modes	$1.27	$2.11

[28] This latter category includes family child care as well as care in child's own home by unrelated adult.

[29] By comparison, analyses of the 1995 SIPP data show about 35 percent of families below 200 percent of the FPL that used non-parental care paid for child care (Smith, 2000). In 1997, about 40 percent of low-earning families paid for child care (Giannarelli and Barsimantov, 2000).

Exhibit 4.7

Fee Per Hour by Mode of Care



Costs per child-hour reflect the price of child care. Also of interest is the *weekly cost* of care, which naturally varied between full-time and part-time users. Full-time care cost roughly twice as much as part-time care on average, though the pattern varied somewhat across modes (Exhibit 4.8). It is notable that full-time care on a weekly basis was substantially more expensive for non-relative child care than for non-relative care in the child's own home. The latter mode was evidently used for fewer hours per week on average, even for children in full-time care. The weekly cost as well as the hourly price of relative care was lower than that of non-relative care.

As a final measure of the cost of care, we examined the amount that families pay for *all* child care arrangements for *all* children in a month. Comparing this with reported household income gave us a measure of the burden of child care costs.

Exhibit 4.8

Mean Weekly Fee for Primary Arrangement by Mode of Care and Full-Time *versus* Part-Time

	Full-time		Part-time	
	Mean weekly fee including those who paid nothing	Mean weekly fee excluding those who paid nothing	Mean weekly fee including those who paid nothing	Mean weekly fee excluding those who paid nothing
Center	$44.30	$57.78	$29.83	$36.70
Care by a relative in the child's home	$26.91	50.85	11.72	39.05
Care by a relative in the relative's home	$33.18	$55.04	$14.21	$35.83
Family child care	59.55	63.84	26.85	35.95
Care by an unrelated adult in the child's own home	34.69	62.81	24.39	40.95
All modes	41.27	58.19	20.10	37.74

Overall, 35 percent of families paid nothing for any of their child care arrangements and, of the remaining 65 percent, roughly equal proportions paid one to 10 percent of their income, 11 to 20 percent, and more than 20 percent (Exhibit 4.9). On average, these families spent 13 percent of their monthly income on child care. Once again, these proportions were strongly influenced by the large proportion of families that paid nothing for child care. When those families were excluded from the analysis, the average proportion of monthly income spent on child care was 17 percent.

These proportions and averages varied surprisingly little by the number of children in the household under the age of 13. Although one-child families were somewhat more likely (40 percent) to pay nothing than larger families (32 to 33 percent), the patterns were otherwise quite similar. For example, the fractions of households paying more than 20 percent of their income for child care among those having two, three, and four or more children, were 23 percent, 23 percent, and 18 percent, respectively (decreasing rather than increasing with the number of children); and the mean proportion of income spent on child care for all three of these groups of households was 12 percent. A probable explanation is that families with more children were more likely to use relative care.

Exhibit 4.9

Proportion of Income Spent on Child Care by Number of Children in the Family

Proportion of Income	Number of Children				
	1	2	3	>3	All
	% of families	% of families	% of families	% of families	% of families
0	39.7	31.6	33.4	31.8	35.3
0 to 10 percent	23.8	22.2	25.1	28.6	23.8
10 to 20 percent	19.8	22.3	18.6	21.7	20.9
Over 20 percent	16.7	23.0	22.9	17.9	20.0
Mean burden	**9.6**	**12.5**	**12.1**	**11.4**	**11.1**
Mean burden excluding families with zero payment	**15.9**	**18.3**	**18.2**	**16.7**	**17.2**

The proportion of income spent on child care varied strongly by income level. Although households living in poverty were quite likely to spend nothing on child care (38 percent), on average they still spent 13 percent of their income on child care. Families with incomes between 185 percent and 200 percent of poverty, by contrast, were less likely to spend nothing (31 percent), but still spent, on average, less than 7 percent of their income on child care.[30] When we excluded families that paid nothing for child care, these proportions changed, most strikingly for families living in poverty. Families with incomes at or below the Federal poverty level who paid for care spent, on average, 22 percent of their monthly income on child care. Smaller increases in the proportion of family income spent on child care were seen for families with incomes between 101% and 185% of the FPL (from

[30] These percentages are comparable to those found in the NSAF data, where low-earning families (below 200 percent of poverty) spent 16 percent of income on child care, although income categories are not differentiated (Giannarelli and Barsimantov, 2000). They differ dramatically from the findings reported on the basis of the 1995 SIPP, in which low-income families reported spending 35 percent of income on child care (Smith, 2000). Analyses of the earlier (1993) SIPP found that low-income families reported spending 25 percent of income on child care.

10% to 15%) and for families with incomes between 185 percent and 200 percent of FPL (from 7% to 10%); (Exhibit 4.10).

Exhibit 4.10

Proportion of Income Spent on Child Care by Income Level

Proportion of Income	Under 100% of FPL	101 - 185% of FPL	185-200% of FPL	All
	% of families	% of families	% of families	% of families
0	38.3	33.0	31.0	35.3
0 to 10 percent	17.5	26.3	42.3	23.8
10 to 20 percent	16.5	26.0	20.4	20.9
Over 20 percent	27.7	14.7	6.2	20.0
Mean burden	**13.4**	**9.7**	**6.6**	**11.1**
Mean burden excluding families with zero payment	**21.7**	**14.5**	**9.6**	**17.2**

Choice of Child Care Arrangement

Respondents were asked to say in their own words why they chose their child's primary care arrangement. Their responses were grouped in six broad categories:

- Cost
- Practical considerations
- Safety
- Provider qualities
- Child's development
- Relationship with provider

The most significant factors affecting parental choice were *safety, convenience*, and the *family's relationship with the provider*. Each of these broad categories was cited by 17 to 20 percent of respondents as the single most important consideration, and was mentioned as an important factor by 35 to 51 percent of respondents. (Exhibit 4.11).

Reasons varied little across income groups. Families under 100 percent of poverty were 8 to 10 percentage points less likely to mention cost, and 5 to 7 percentage points less likely to mention developmental aspects, than either of the other two income groups. Ethnic variations, however, were striking. White mothers were 13 percentage points more likely than either Black or Hispanic mothers to mention cost as an important factor, while Hispanic mothers were 12 to 13 percentage points more likely than either of the other two groups to mention safety (Exhibit 4.12). Hispanic mothers were also markedly more likely to mention their relationship with the provider as an important factor, and less likely to mention child development considerations.

Mothers who were not using relative care were asked how they first learned about the child's provider. For *family child care and in-home non-relative care*, nearly half of mothers (46 to 49 percent) already knew the provider as a friend or neighbor, and most of the rest (34 to 37 percent)

were referred by relatives, friends, or neighbors. Advertising and agency referrals each comprised only 4 to 6 percent of information sources.

Exhibit 4.11

Reasons for Choosing Primary Child Care Arrangement

Reasons	Most Important Reason	Any Mention
	% of families	% of families
Cost	**11.6**	**28.4**
Cost	11.4	28.2
Accepts subsidy	0.2	0.6
Practical Considerations	**16.8**	**40.3**
Availability	2.4	7.9
Hours	4.2	12.7
Location	9.7	27.9
Transportation	.	0.4
Will care for siblings	0.5	1.9
Safety	**19.3**	**51.4**
Centers are monitored more closely	0.4	1.6
Provider is trustworthy	11.2	30.1
Recommended by someone I trust	1.2	3.5
Safety/health/cleanliness	6.5	26.9
Provider Qualities	**6.7**	**30.7**
Attention/warmth towards children	2.4	14.4
Child was comfortable	1.2	7.7
Experience in caring for children	2.3	10.8
Home-like atmosphere	0.7	5.0
Child Development	**5.4**	**19.7**
Children of different ages	0.2	1.9
Children of same age	.	0.2
Prepare child for school	2.0	6.4
Size of group	0.8	4.0
Staff is trained, professional	2.4	9.7
Program/activities/structure	.	1.0
Relationship with provider	**19.6**	**34.7**
Has same values	0.4	4.6
Like a family member/close relative	1.8	4.8
Relationship to parents	17.3	28.0
Same language/ethnicity	0.0	0.6
No reason given	**20.6**	**20.6**

Exhibit 4.12

Reasons for Choosing Primary Child Care Arrangement, by Ethnicity

Reasons	White	Black	Hispanic	All Respondents*
	% of families	% of families	% of families	% of families
Cost	36.7	23.8	24.0	28.4
Convenience	42.5	40.3	37.3	40.3
Safety	48.3	46.9	59.2	51.3
Provider Qualities	31.9	26.9	34.5	30.8
Development	24.0	20.2	13.5	19.6
Relationship	30.4	34.2	42.5	34.8
No Reason Given	23.1	22.3	15.0	20.6

Note: Columns total more than 100% because multiple responses were permitted.

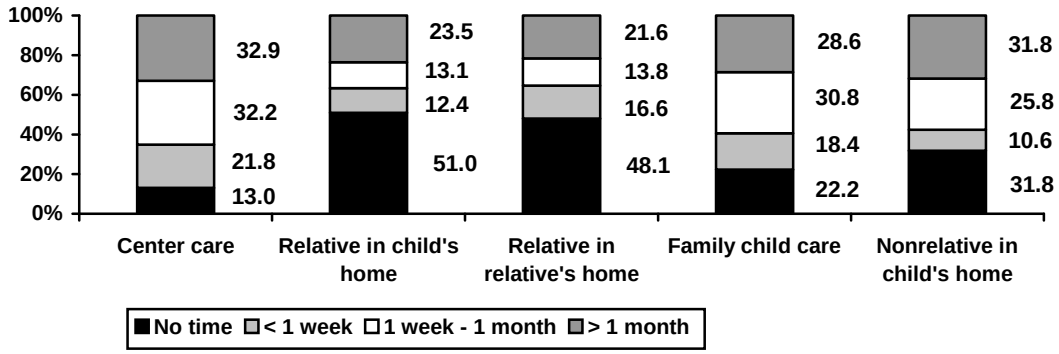
For *center care users*, by contrast, only 15 percent of mothers already knew the provider (e.g., through working at the center, having another child there, seeing it in the neighborhood). The bulk of mothers (37 percent) responded that they were referred to the center by a relative, friend, or neighbor. Social service agency, employer, and child care provider referrals accounted for another 18 percent, and advertisements for 15 percent.

Difficulty in finding satisfactory child care varied by mode of care. Satisfactory *relative* care was the easiest to arrange: only 28 to 32 percent of mothers using relative care in their own home or the relative's home reported that it was difficult to arrange. Finding satisfactory *non-relative* care was more problematic: 44 to 47 percent of mothers who used family child care or in-home care by a non-relative reported difficulties. For those using center care, 37 percent judged it difficult. (For each mode of care, 6 to 7 percent of mothers judged it "neither difficult nor easy to find satisfactory care").

The amount of time it took mothers to reach closure on the arrangements after they started looking reflects two factors: mother's difficulty in finding a satisfactory arrangement, and the flexibility of the provider. Thus, for half of the mothers who used *relative care*, it took no time at all to make final arrangements, and for only one-third did it take as much as a week (Exhibit 4.13). Two-thirds of users of *center* care, by contrast, took a week or more to make final arrangements, and one-third took over a month. Elapsed time for users of non-relative in-home care or family child care fell between the two, with about 40 percent of arrangements settled in less than a week.

Exhibit 4.13

Elapsed Time for Finalizing Child Care Arrangements, by Mode of Care



Special needs were reportedly a consideration for 9 percent of families. This proportion varied little by mode of care, ranging from 8 or 9 percent for children in family child care and relative care, to 11 or 12 percent for children in in-home, non-relative or center care. It also varied little by age of child, ranging from 7 percent for toddlers to 9 or 10 percent for the other three age groups. White mothers were a little more likely to report a special need (11 percent) than Black or Hispanic mothers (7 to 8 percent). The most frequently mentioned special needs were health care issues (3 percent of all children), and physical disabilities, learning disabilities, and behavioral problems (each mentioned for 1 to 2 percent of all children).

Fewer than a quarter of respondents (23 percent) would have preferred an alternative care arrangement for their children. This percentage ranged from 20 to 21 percent for mothers using center care and relative care, to 26 to 29 percent for mothers using family child care and unrelated caregivers in the child's home. Overall, 45 percent of mothers had visited some other arrangement, and 31 percent found at least one satisfactory alternative.

To the extent that parents would have liked a different arrangement at the time they made their choice of arrangement, it appears that they would rather have had their child in "more structured" arrangements. Some mothers whose children were not in center care would have preferred that their child be in a center: 12 percent who were using family child care, and 9 to 10 percent of those using relative care and in-home non-relative care. It seems likely that these were not able to use center care because of considerations of cost, space availability, and the mothers' work schedules. Smaller proportions, 6 and 7 percent of those using relative care and in-home non-relative care, would have preferred to use a family child care arrangement.

On the other hand, 8 percent of mothers who used center care would rather have stayed home with their children. This alternative was preferred by only 4 percent or less of mothers using home-based care of some kind.

The Role of Subsidies

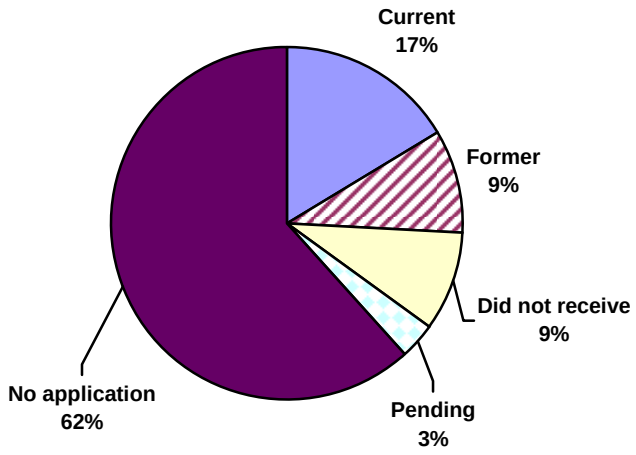
Overall, 16 percent of respondents were receiving a child care subsidy or voucher. This proportion varied as expected with household income, ranging from 11 percent for those between 185 and 200 percent of the FPL up to 20 percent for those with incomes below the FPL.

Some respondents received assistance from other sources in paying for their child care. Of those who were not subsidized, almost one-quarter (23 percent) were helped by the child's other (non-resident) parent; friends, relatives, and others made contributions in a few cases. Among those who did receive subsidies, contributions from the child's non-resident parent were received much less frequently (8 percent).

Many low-income families that were not currently receiving child care subsidies had at least some experience with them. In addition to the 17 percent receiving subsidies, an additional 9 percent had received them in the past, another 9 percent had applied but had not at the time of the interviews, received a subsidy (they may have been found ineligible, or placed on a waiting list), and 3 percent had applications pending (Exhibit 4.14). The remaining 62 percent of families had never applied.[31]

Exhibit 4.14

Subsidy Status of Families



Of those that *had applied for subsidies but did not receive one* (9.4 percent of all families), over half (5.3 percent) were found to be ineligible. About another quarter (1.8 percent) "got tired of waiting". The remaining families did not provide an explanation.

[31] The NSAF restricted sample shows a very similar distribution, especially if we assume that the 16 percent of families that were unable to say whether they ever applied for a subsidy did not do so. Reportedly 17 percent were currently receiving subsidies, 5 percent had formerly done so, 6 percent had applied and been denied, 1 percent had applications pending, and 56 percent had never applied (Exhibit C.10).

Mode of care was strongly related to subsidy status. Families with children in centers were much more likely to receive subsidies (31 percent), and those using relative care much less likely (9 percent), than those using non-relative in-home care or family child care (15 to 17 percent; Exhibit 4.15).[32] This pattern could occur because centers and family child care providers were more likely to encourage enrolled families to apply for subsidies or alternatively, because it was more difficult to get subsidy approval for in-home care. Our earlier investigation of this topic for the State and Community Substudy (Collins *et al*., 2000) suggests that the latter explanation has some validity. Because of concerns about their responsibilities under the Fair Labor Standards Act and the IRS code, as well as concerns about fraud and quality of care, many state policies present obstacles to parents who wish to receive a subsidy for in-home care. For example, some states require that parents who use in-home care formally agree to pay the difference between the minimum wage and the subsidy rate, making the cost of in-home care prohibitive for parents. Even in states where such care is effectively allowed, the state may impose a requirement for a criminal background check, or a home inspection.

The question naturally arises whether receipt of subsidy *permits* or *induces* families to choose more expensive modes such as child care centers, or alternatively whether preference for a more expensive mode of care *induces* families to apply for subsidies. We address this question in two later chapters.

Respondents were asked how they learned about child care subsidies. Of those who knew about subsidies, 42 percent had heard about them from a friend, and 37 percent from an agency. Child care providers were a source of information for an additional 8 percent of respondents, and employers for 4 percent.

We can now look at the relationship between subsidies and how much families pay for child care. Nearly a third (30 percent) of all low-income families received no subsidy, but paid nothing out-of-pocket for child care (Exhibit 4.16). Of the 16 percent that were subsidized, roughly 5 percent paid nothing, 8 percent paid the stated copayment, 1 percent paid more than the copayment, and half a percent paid less than the copayment. Most, but not all, subsidized families were required to make a copayment—state policies vary on this. The small percentage of families that paid less than the required copayment may have reached an agreement with the provider. In some states, providers may charge an additional amount, above and beyond the required copayment. The proportion of families that was subsidized and paid nothing ranged from 8 percent among those living in poverty to about 3 percent for those with incomes between 185 percent and 200 percent of poverty.

[32] Quite similar patterns are seen in the NSAF restricted sample (Exhibit C.11). The proportion of families currently receiving a subsidy is 32 percent for those whose child is in center care, 20 percent for users of family child care, 13 percent for those who use a non-relative in their own home, and only 8 to 10 percent for users of the two forms of relative care.

Exhibit 4.15

Subsidy Status, by Mode of Care

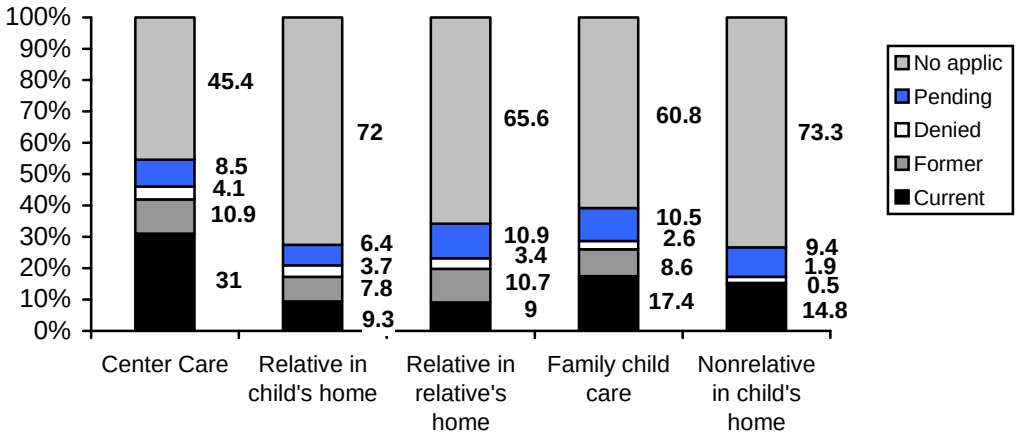


Exhibit 4.16

The Relationship between Subsidies and Child Care Payments by Household Income

Subsidy and Copayment Status	Income Level			
	0-100% of FPL	101 - 185% of FPL	185-200% of FPL	Total
	% of families	% of families	% of families	% of families
No subsidy, parent pays for care	48.3	57.6	62.0	53.7
No subsidy, parent pays nothing for care	30.6	30.6	27.0	30.2
Receives subsidy, no copayment	7.7	3.1	3.4	5.3
Receives subsidy, parent pays less than required copayment	0.6	0.4	0.0	0.5
Receives subsidy, parent pays required copayment	10.2	7.1	6.2	8.5
Receives subsidy, pays amount in addition to copayment	1.2	0.6	1.4	1.0
Receives subsidy, copayment status not known	1.4	0.6	0.0	0.9
Total	100.0	100.0	100.0	100.0

Chapter Five: Determinants of Child Care Modal Choice

For families that have decided to use non-parental care while the mother works, a further decision must be made about the kind of care arrangement they will use. While there are many dimensions to child care arrangements, it is reasonable to think about the choice among modes in terms of three sequential decisions (Exhibit 5.1):

- Will care be provided by someone who is *related to the child*?[33]
- If the caregiver is not related, will care be *in the child's own home*?
- If the caregiver is not related, and care is not in the child's own home, will care be in *a home-based setting* (non-relative family child care)—or alternatively, in a child care center?

A large literature exists on the process by which parents choose among child care options (see review by Burstein and Hiller, 1999). A stylized view of the process is shown in Exhibit 5.2, in which the chosen mode of care is determined on the one hand by parental attitudes and values about child care, and on the other hand by constraints such as whether there are any relatives living in the same household or nearby, family income, and an irregular or nonstandard work schedule.[34] Furthermore, parental attitudes and values can be thought of as influenced by such exogenous family characteristics as mother's education, age of child, and ethnicity, while the likelihood of relatives living in the home or nearby is also affected by ethnicity. Though not shown on the diagram, maternal education could also affect whether relatives live nearby, through its effects on mobility.

Nineteen studies of the determinants of child care modal choice were critically reviewed in an earlier report on this project (Burstein and Hiller, 1999). These previous studies specified modal choice in a wide variety of ways, including formal versus informal, paid versus unpaid, relative versus non-relative, single versus multiple settings, center versus all other, care at home versus care at another home versus center-based care, and so on. Among the substantive findings of that review were that:

[33] We drop the distinction here between relative care in the child's home and in the caregiver's home. Once the family has decided to use relative care, the locale of the care is largely determined by where the relative lives. If the relative is in the same household, then care will of course be in the child's own home. If the relative lives elsewhere, care may occur in either home, depending as much on the caregiver's preferences and characteristics as the parents'. Hence we do not attempt to model the location of relative care.

[34] Each of these constraints could be viewed as being determined *jointly* with mode of care. For example, the mother may choose her work schedule and her child care arrangement simultaneously; family income clearly depends on the mother's hours of work; and in some cases even household composition may be adapted to child care needs. Nonetheless, for the purposes of this study, we consider these factors to be exogenous to child care modal choice.

Exhibit 5.1

Choice of Non-Parental Care

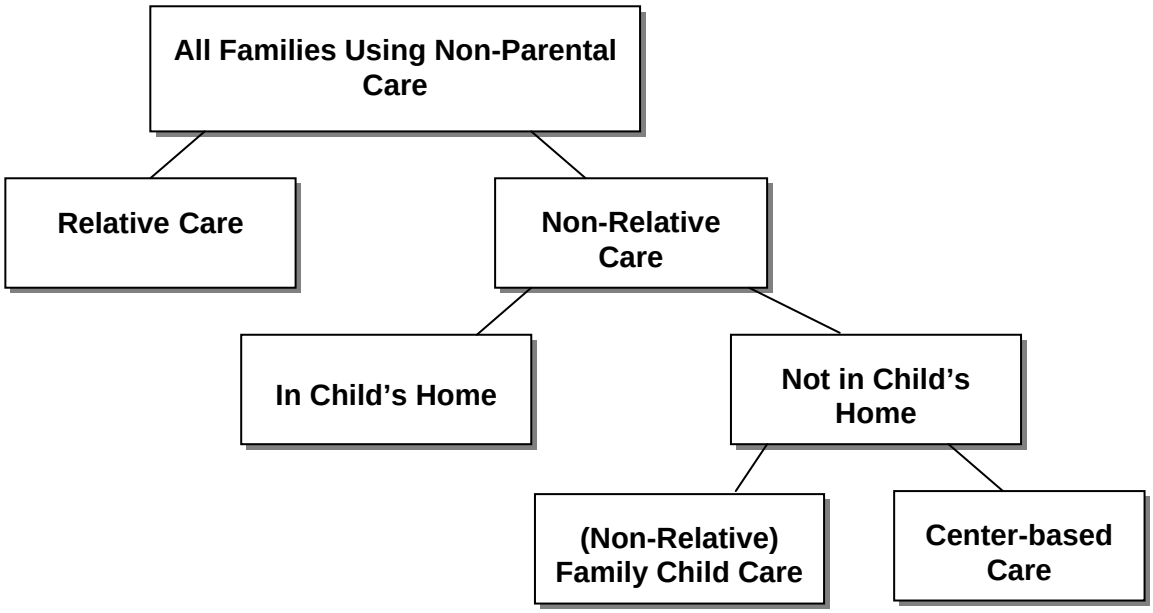
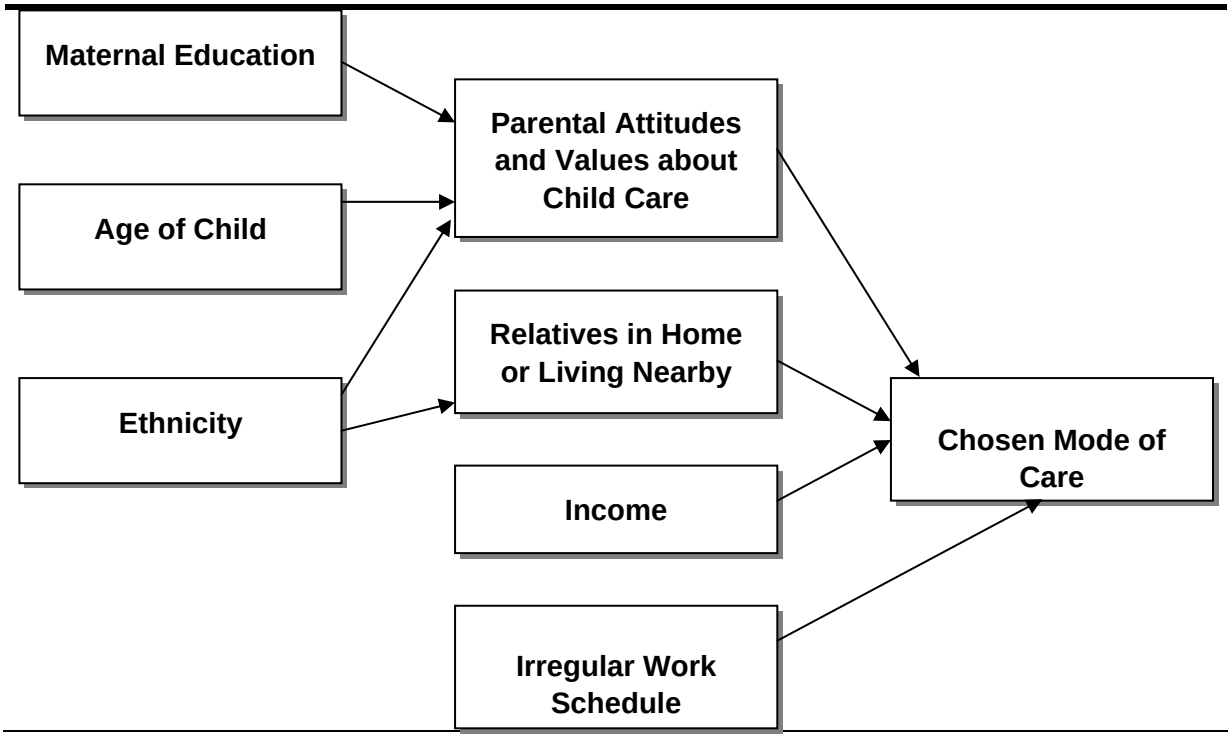


Exhibit 5.2

Determinants of Child Care Modal Choice



- Higher levels of maternal education were generally found to be associated with choice of center-based care or paid care, even after controlling for income and/or mother's employment.
- Age of the child was associated with choice of center-based care or paid care. Usually these options were found to be chosen more frequently for older children, but one study noted that children aged 3 to 5 were more likely to be in center care than either older or younger children (Lehrer and Kawaski 1985).
- The presence of husbands, older siblings, or other relatives in the household consistently and positively predicted choice of unpaid care, non-center based care, or care by relatives.
- A negative relationship was found between the number of children in the family and the likelihood of choosing center-based care or paid care.
- Blacks were more likely than Whites or Hispanics to use center care or paid care. Hispanics were more likely to choose relative care or family child care.
- Several studies found that higher income predicted greater use of center-based care. One study (Fuller et al., 1996) found that for Blacks and Hispanics, increasing income caused first a decrease and then an increase in the likelihood of using center care(perhaps reflecting the effect of subsidies for very low-income Blacks and Hispanics.
- As prices increased, the likelihood of each child care mode being chosen decreased.

We anticipated, and generally found, similar relationships.

Subsidy Receipt and Child Care Modal Choice

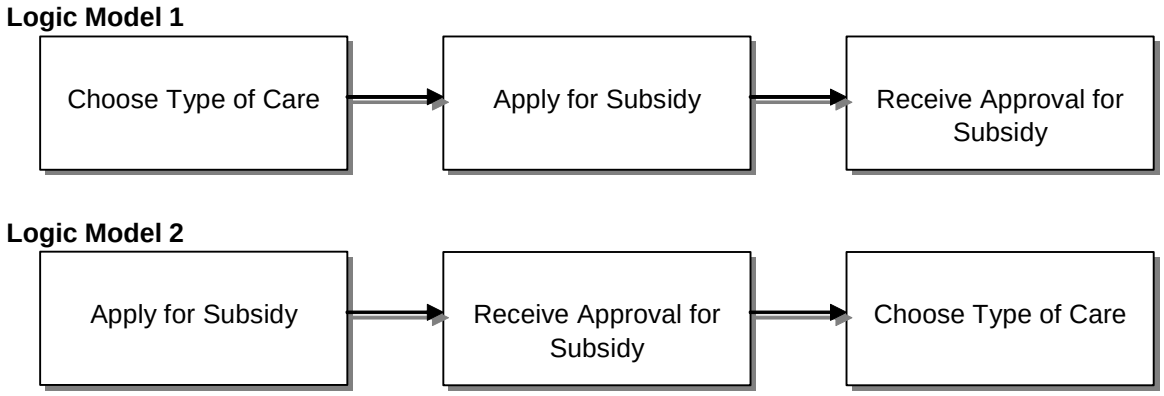
Child care subsidies lower the price of care for families that receive them. Subsidized parents pay co-payments plus any additional charges from providers. Since subsidies lower the price of care for recipients, some researchers have estimated the effects of subsidies by modeling how lowering or raising the price of care will affect the type of care a family selects. These studies found that subsidies that reduce the effective price of formal care (centers and family child care homes) will lead to an increase in the use of these forms of care and a decrease in the use of care by relatives. Similarly, subsidies that lower the price of center-based care will increase the use of centers and decrease the use of family child care by families receiving such subsidies. ***The problem with this line of research is that the models assume everyone receives a subsidy; they do not take into consideration the low take-up rate for child care subsidies and all the factors that affect parents' decisions to apply for child care subsidies.*** Subsidies can only affect the choice of care arrangements for those families that actually receive a subsidy. In addition, while this research may show the potential relationships between subsidies and types of care selected, it does not illuminate the direction of the relationship: i.e., does the use of subsidies result in the use of center-based care, or does formal care use result in subsidy use?

To address this gap in the literature, the study directly examined the effects of subsidy receipt on the type of care chosen, using a subset of data on families that were receiving subsidies at the time of the interview. The initial analyses showed that both subsidy application and receipt were strongly correlated with the type of care used. However, the observed relationship could occur for one of two reasons: either subsidies caused families to select a mode of care or the selection of a particular mode

of care caused families to use subsidies. In the first scenario, families choose a more formal and more expensive form of care and then apply for a subsidy to help pay for it. They may apply for the subsidies because they hear about them from their providers, who may be more likely to know about subsidies than would relatives and neighbors. They also may be more willing to apply for subsidies than families who use less expensive care; co-payments often are the same regardless of the price of care, so the size of the co-payments for some families may be much more than the cost of relative care and other informal care. In the other scenario, a family applies for subsidies without a specific arrangement in mind, and then shops for care. The family finds that, with the additional purchasing power of the subsidy, center care is affordable so it is selected. If the family had not received a subsidy, it might have selected less expensive, and therefore less formal care. Exhibit 5.3 shows the alternative logic models.

Exhibit 5.3

Subsidy Application, Subsidy Receipt, and Child Care Arrangements



To identify the more likely of the two scenarios, the study considered the role played by parental considerations in choosing child care. The survey in *Child Care for Low-Income Families* included a set of variables that indicated parents' priorities in choosing a child care arrangement for their child: relationship with the provider, child's cognitive development, safety, and so on. Research shows that these variables are powerful predictors of the type of care that a family chooses. If subsidy receipt determines the type of care selected, then the path of causation would be closer to Model 2 — parents would first apply for a subsidy, the value of the subsidy would be part of the mix of their considerations about the type of child care preferred, and then they would choose and use a mode of care. On the other hand, parental considerations might lead a parent to choose a specific form of care. For example, parents of a preschool child might prefer a center-based arrangement because they were concerned that the child be prepared for school. The selection of an arrangement might then lead them to apply for and receive a subsidy (Logic Model 1).

Multiple regression analyses that included subsidy and parent preferences found both to be significant. Both scenarios were then tested through analyses that included and then excluded parent preferences. The analyses supported the logic of Model 1, and provide evidence that ***subsidy receipt does not significantly affect the type of care chosen by families that receive subsidies.*** Instead, it is more likely that parents first decide on the mode of care, and are not influenced in this choice by whether or not they receive a subsidy.

In the sections that follow, we summarize the findings, and then present the results of descriptive and multivariate analyses of child care modal choice. For each of the three decisions (relative versus non-relative care, in-home *versus* out-of-home non-relative care, and non-relative family child care versus center care), we first show the proportions of families making the decision within various complementary subgroups (by age of focus child, ethnicity, mother's education, and so on). This enables us to make simple descriptive statements, such as "the prevalence of relative care is no different for children whose mothers were born in the United States than for children whose mothers were born abroad." We then present effects from a multivariate logistic model of child care choice. The impacts estimated in these models correspond to the full effects of each variable, both direct and through their influence on parental attitudes. This analysis supports a different kind of statement, for example that low-income immigrant families are substantially less likely to use relative care, *when we hold maternal education and other things constant*.

Sample sizes did not permit estimation of separate models by age or ethnicity of focus child. Interaction terms were included to allow exploration of the hypothesis that ethnic differences in child care choices varied by age of child. It was deemed that effects of other determinants could reasonably be treated as simply additive with those of child's age and ethnicity.

Additional details, including issues of estimation and the estimated coefficients of the logistic models, are found in Appendix B.

Summary of Findings

Among the most interesting findings regarding the determinants of child care modal choice are the differences between the bivariate and multivariate analyses. The multivariate analyses do not supersede the descriptive comparisons so much as illuminate them. We therefore describe both sets below, highlighting the distinctions.

The existence of local and regional differences in the types of child care that parents choose has been documented, although not explained, in many studies. Availability of child care options may depend on social, geographic, and other factors. For example, absence of relatives or social networks may increase the likelihood of choosing more expensive forms of care. Center-based care is less likely to be available in rural areas. There may be localized shortages or surpluses of some kinds of care in a given neighborhood. Almost all earlier studies included as predictors of modal choice demographic variables that reflected the availability of relatives and/or social networks; several studies also used predictors to capture regional variation or the urban/rural distinction (Blau & Robins, 1991; Folk & Beller, 1993; Hofferth & Wissoker, 1992; Johansen et al., 1996; Michaelopoulos et al., 1992; Ribar, 1992).

Our analyses also show that families in urban and rural communities make different choices about child care, as do families in different regions of the country. In some cases these differences are apparently due to the geographic setting itself, but in other cases the differences are due to the types of families living in each setting.

For example, *relative care* was chosen more often by families living in rural communities and in the West than by families living in urban communities and other parts of the country. When family characteristics are taken into account, however, the regional differences shrink to a few percentage points and the rural/urban difference is only marginally significant. On the other hand, the high

concentration *of in-home nonrelative care* in the Northeast still holds in a multivariate analysis. Similarly, we find that the choice of *center care* over family child care is prevalent in urban communities and the South, in both bivariate and multivariate analyses.

Below, we summarize findings about other factors that are related to parental child care decisions.

Use of Relative versus Non-Relative Care by Low-Income Families

- Care by a relative was more likely to be chosen for infants, toddlers, and school-aged children than for preschoolers. Black and Hispanic families tended to choose relative care more often than White families. Relative care was more prevalent among families with adult relatives in the household or living nearby, and less prevalent among families whose households include unrelated adults. Mothers with less formal education and who did not have regular work schedules were also more likely to choose relative care.
- Many, but not all, of these findings hold up in a multivariate context. The differences in care arrangements for infants and toddlers versus preschoolers are evidently explained by differing parental attitudes about desirable characteristics of child care arrangements depending on the child's age. Similarly, the differences between mothers with more or less formal education disappear in a multivariate context when parental attitudes towards child care are taken into account. Conversely, differences emerge between mothers born in the United States and abroad, with immigrant status strongly predicting use of nonrelative care.
- The preference of minority parents for the use of relative care was concentrated entirely among parents of children who are not preschoolers.
- An interesting sidelight emerging from the multivariate analysis is that parents of a preschooler were more likely to put their other children in non-relative care, presumably to keep the children together in the setting that is preferred for the preschooler.
- Parental considerations that strongly predict use of relative care are cost and commonalities with provider. Considerations that equally strongly predict use of non-relative care are practical ones such as location, transportation, hours when care is needed, etc., provider qualities, and child's cognitive development.

In-Home *versus* Out-of-Home Care by a Non-Relative

- The characteristics that distinguish families that select in-home care by a non-relative from families that use more formal types of care are similar to those that distinguish users of relative care from users of non-relative care. Like children in relative care, children cared for in their own homes by a non-relative were more likely to be infants and school-aged children and similarly, their mothers had less formal education and tended not to be working regular hours. This mode was especially likely to be chosen by families with many children and with an unrelated adult in the household, possibly the caregiver.
- The multivariate analysis confirms that infants and school-aged children were more likely to be cared for in their own home by a non-relative than toddlers or preschoolers, and that families with more children were especially likely to use this mode of care. The effect of mother's work schedule remains, but the effect of maternal education vanishes when other characteristics are taken into account.

- Parental considerations that increase the likelihood of choosing in-home non-relative care included cost and commonalities with provider. Parents who placed a high value on the child's cognitive development were less likely to choose in-home non-relative care.

Family Child Care versus Center Care

- For children in care outside the home by a non-relative, preschoolers were substantially more likely to be in center care than children of other ages. Families that chose family child care over center care were more likely to be Hispanic, to have many children, and to be headed by two parents. Mothers who chose family child care tended to have less formal education. Immigrants were very likely to choose family child care.
- The multivariate results are quite similar to the bivariate comparisons. In particular, the effect of mother's education remains, even when taking other characteristics into account. Parental considerations that encourage the use of family child care include cost, safety, provider qualities, and commonalities with provider. Center care was more often chosen by parents who emphasized the child's cognitive development as an important consideration.

Relative versus Non-Relative Child Care

We began the analysis by examining the use of relative versus non-relative care in various sectors of the low-income population that use non-parental care (Exhibit 5.4). Overall, there is nearly a 50-50 split in the sample. Marked divergences can be seen, however, for many subgroups.
Exhibit 5.4

Exhibit 5.4

Use of Relative and Non-Relative Child Care Among Low-Income Families That Use Non-Parental Care

	Non-Relative Care (percent)	Relative Care (percent)
All families	**50.4**	**49.6**
By age of focus child		
Infant	49.3	50.7
Toddler	52.6	47.4
Preschooler	61.2	38.8
School-aged	46.2	53.8
By ethnicity		
White	56.9	43.1
Black	48.7	51.3
Hispanic	43.0	57.0
By mother's education		
Not a high school graduate	44.9	55.1
High school graduate	48.4	51.6
Some college	55.9	44.1
By mother's country of birth		
United States	50.0	50.0
Other	51.6	48.4
By number of children in household		
1	50.6	49.4
2	52.2	47.8
3	46.7	53.3
4 or more	48.8	51.2
By presence of mother's spouse/partner in household		
Absent	49.3	50.7
Present	52.0	48.0
By presence of other adult relatives in household		
Absent	54.3	45.7
Present	33.8	66.2
By presence of unrelated adults in household		
Absent	49.9	50.1
Present	58.8	41.2
By presence of relatives living nearby		
Absent	61.9	38.1
Present	41.6	58.4
By mother's work schedule		
Working irregular hours	49.7	50.3
Working regular hours	56.9	43.1
In school or training	43.6	56.5
By household income		
Under FPL	48.4	51.6
100% FPL to 185% FPL	52.2	47.8
Between 185% and 200% FPL	53.6	46.4
By recent TANF receipt		
Some	50.1	49.9
None	50.4	49.6
By urban/rural		
Urban	53.4	46.6
Rural	46.3	53.7
By region		
Northeast	58.5	41.5
South	51.6	48.4
Midwest	56.3	43.7
West	42.5	57.5

By family demographics: Preschoolers were much less likely to be in relative care than other age groups. Black families were somewhat more likely and Hispanic families substantially more likely to choose relative care than White families. Families whose mothers had less formal education were also more likely to choose relative care. Virtually no difference was seen with regard to whether the mother was born outside the United States.

By household composition: Families with more children tended to be more likely to choose relative care. While little difference was seen with regard to single mothers *versus* couples, the presence of other adult relatives in the home or living nearby strongly increased the likelihood of families using relative care. Presence of an unrelated adult substantially reduced the likelihood of using relative care.

By employment and income: Mothers who worked irregular hours, and especially mothers who were in school or training, were more likely to use relative care than mothers who were working regular hours. Little difference was seen with regard to household income; there was a slight tendency, however, to decrease use of relative care as income rose in this range. (Recall that all households in the sample had annual income under 200 percent of poverty. The income measure shown here is total household income *for the preceding month*, which may exceed that cutoff.) TANF receipt does not differentiate families with regard to use of relative care.

By geographic setting: Relative care was more common in rural than in urban areas. Among regions, relative care was most prevalent in the West, and least prevalent in the Northeast and Midwest.

All of these differences represent simple contrasts between complementary subgroups of the population without controlling for any differences between them. By and large the results conform to expectations and previous research. That is, relative care was more likely to be chosen by nonwhite families, by mothers with less formal education, by mothers of infants and school-aged children, by larger families, by families with adult relatives in the household or living nearby, and by mothers working irregular hours.

The results from the logistic model were largely similar (Exhibit 5.5; see Exhibit B.1 for the regression equations). When other family characteristics were taken into account, the choice between relative and non-relative care was still significantly determined by the age of the focal child, household composition, and race and ethnicity, in the same direction. In particular:

- Other things being equal, school-aged children were substantially more likely to be in relative care than preschoolers, the reference category (+11 percentage points).
- The presence of a preschooler sibling tended to pull the focal child out of relative care. Infants, toddlers, and school-aged children with preschool-age siblings were significantly less likely to be in relative care than other non-preschoolers (–12 percentage points).
- Black and Hispanic preschoolers were no more likely to be cared for by relatives than White preschoolers; but Black and Hispanic infants, toddlers, and school-aged children were significantly more likely to be cared for by relatives than their White counterparts (+7 to +9 percentage points).
- The presence in the household of the child's grandparents or great-grandparents, or aunts or uncles, or having relatives living nearby, increased the likelihood of using relative care

markedly (+23 percentage points, +13 percentage points, +19 percentage points, respectively).

- Conversely, the presence of unrelated adults in the household substantially reduced the likelihood of using relative care (–17 percentage points).

Exhibit 5.5

Marginal Impacts of Determinants of Relative *versus* Non-Relative Child Care

	Marginal Impact (percentage points)
Age of focus child (reference category: preschooler)	
Infant	+4.6
Toddler	+1.6
School-aged	+11.1*
Age of siblings	
Preschooler with infant, toddler, school-aged sibling	+3.4
Infant, toddler, school-aged with preschooler sibling	-12.0***
Ethnicity and age of focus child	
Black preschooler	-3.9
Black infant, toddler, school-aged	+7.2*
Hispanic preschooler	+3.4
Hispanic infant, toddler, school-aged	+8.8**
Mother's education (reference category: high school graduate)	
Not a high school graduate	+1.0
Some college	-3.6
Mother born outside United States	-11.1***
Other adult relatives in household	
Mother's spouse/partner	+4.4
Child's grandparent(s)/great-grandparent(s)	+23.0***
Child's aunt(s)/uncle(s)	+13.0***
Other relatives	+5.8
Relatives living nearby	+19.4***
Unrelated adults in household	-16.6***
Mother's work schedule (reference category: regular hours)	
Irregular hours	+9.6***
In school or training	+11.9***
Household income as percent of FPL	-1.5
Recent TANF receipt	+4.0
Parent's considerations in choosing child care	
Cost	+17.4***
Convenience	-11.4***
Safety	+1.1
Provider qualities	-11.2***
Child's cognitive development	-37.0***
Commonalities with provider	+36.3***
Geographic setting (reference categories: urban, Northeast)	
Rural	+5.2*
South	-2.2
Midwest	-2.5
West	+2.9

Note: *** statistically significant at the 1 percent level.
** statistically significant at the 5 percent level.
* statistically significant at the 10 percent level.

The logistic model also indicates that mothers who worked irregular hours or who were in school or training were more likely to choose relative care than those who work regular hours. Even though the magnitude of the impacts is similar (+10 and +12 percentage points, respectively) the reasons for doing so might differ between the two categories. Mothers working irregular hours might be on shiftwork, for which non-relative care might not be available. Mothers who are in school or training might not be able to afford to pay for care. They are also even less likely to need regular hours of child are and to avail themselves of the formal market.

The model also includes six indicators for considerations that mothers felt were important in choosing their current child care arrangement. This set of variables had a powerful effect on the likelihood of choosing relative care.

- Mothers for whom the child's *cognitive development* and school readiness were important considerations were substantially less likely to choose relative care than those who do not ((37 percentage points).
- Mothers who stressed *practical considerations* or *provider qualities* were also less likely to choose relative care than their counterparts ((11 percentage points for each).
- Mothers for whom *commonalities with the provider* were important on the other hand, were much more likely to choose relative care (+36 percentage points), and those who cited cost as a primary consideration were also more likely to choose relative care than those who do not (+17 percentage points).

The inclusion of these variables explains away several marked effects seen in the bivariate comparisons, and helps bring a hidden effect to light. Most interestingly, in the multivariate context the age of the focus child is not nearly as strongly associated with use of relative care. The mechanical reason for this result is that parental considerations are very highly correlated with the child's age. For example, developmental considerations were mentioned as important by the mothers of 32 percent of preschoolers, but only 12 to 21 percent of infants, toddlers, and school-aged children (Exhibit 5.6). Conversely, the importance of commonalities with provider was mentioned by only 29 percent of preschoolers' mothers, compared with 34 to 40 percent of mothers of infants, toddlers, and school-aged children. We infer that preschoolers are more likely to be placed in non-relative care *because* mothers of preschoolers are more concerned about cognitive development, while mothers of infants, toddlers, and school-aged children are more concerned about safety and commonalities with the provider.

Exhibit 5.6

Percent of Mothers Mentioning Considerations in Choosing Provider, By Age of Focus Child

Considerations	Age of focus child			
	0	1-2	3-4	5-12
Cost	26%	25%	28%	30%
Practical, logistical concerns	37%	41%	39%	42%
Safety	62%	58%	45%	49%
Provider qualities	33%	29%	36%	29%
Cognitive development	12%	21%	32%	16%
Commonalities with provider	40%	34%	29%	36%

Another difference between the descriptive and multivariate analyses is that mother's education was no longer a significant determinant of choice of relative *versus* nonrelative care. Formal education evidently influences this choice through its association with parental attitudes towards child care.

A third interesting divergence between Exhibits 5.4 and 5.5 pertains to women who have immigrated to the United States. In the multivariate context, such women were significantly less likely to choose relative care after controlling for ethnicity, education, and child care preferences—all of which are correlated with immigrant status. The multivariate analysis appears to disentangle the positive impact on the use of relative care associated with being Hispanic, having lower levels of education, and putting a greater value on commonalities with the provider, from the negative impact associated with being born outside the United States. These mothers' use of non-relative care can be attributed in part to their immigrant status *per se* –that is, that the adult relatives they have in this country are more likely to be recent immigrants themselves, and employed outside the home rather than available to provide child care.

Determinants of Use of In-home *versus* Out-of-home Non-Relative Child Care

The use of in-home, non-relative care among the low-income population may be a cost-effective alternative to other forms of non-relative care (family child care or center care), especially if there are multiple children in the household. For low-income families, this form of child care is typically provided by a neighbor who comes to the mother's home (a "baby sitter"), by contrast with higher income families, whose in-home caregiver is likely to be from a different community (a "nanny"). This type of care has the advantage of great flexibility: the family can arrange and pay for only the hours that are needed.

Among all low-income mothers who use non-relative care, we find that only a small proportion, 12 percent, chose in-home care by a non-relative. We also find that the percentage of mothers who used this form of care varied within many of the subgroups shown in Exhibit 5.7, as described below.

Exhibit 5.7

Use of In-Home and Out-Of Home Child Care Among Low-Income Families that Use Non-Relative Care

	In-Home Care (percent)	Out-of-Home Care (percent)
All families using non-relative care	**11.6**	**88.4**
By age of focus child		
Infant	19.1	80.9
Toddler	8.4	91.6
Preschooler	3.8	96.2
School-aged	14.9	85.1
By ethnicity		
White	13.0	87.1
Black	9.7	90.4
Hispanic	12.5	87.5
By mother's education		
Not a high school graduate	17.7	82.3
High school graduate	11.9	88.1
Some college	8.2	91.8
By mother's country of birth		
United States	11.1	88.9
Other	13.6	86.4
By number of children in household		
1	10.6	89.5
2	10.4	89.6
3	12.2	87.8
4 or more	23.3	76.7
By presence of mother's spouse/partner in household		
Absent	11.7	88.3
Present	11.5	88.6
By presence of unrelated adults in household		
Absent	11.3	88.7
Present	16.9	83.1
By mother's work schedule		
Working irregular hours	12.7	87.3
Working regular hours	6.3	93.7
In school or training	16.8	83.2
By household income		
Under FPL	12.2	87.8
100% FPL to 185% FPL	11.0	89.0
Over 185% FPL	9.5	90.5
By recent TANF receipt		
Some	11.2	88.8
None	11.7	88.3
By urban/rural		
Urban	10.6	89.4
Rural	13.1	86.9
By region		
Northeast	22.0	78.0
South	9.9	90.1
Midwest	14.0	86.0
West	9.6	90.4

By family demographics: Among families that use non-relative care, use of in-home care was much more prevalent for infants and school-aged children than for toddlers and preschoolers. Furthermore, mothers lacking a high school diploma were more than twice as likely to use this form of care as mothers with some college education. There do not appear to be substantial differences among families of different ethnicities, although Blacks were somewhat less likely than Whites and Hispanics to use in-home care. Mothers who were born outside the United States were similar to those born in the United States with respect to use of this mode, conditional on using non-relative care.

By household composition: Families with four or more children were about twice as likely as other families to use in-home non-relative care. And while there was practically no difference in the use of in-home non-relative care between mothers with and without a spouse or partner present, the presence of another unrelated adult (possibly the caregiver) was associated with a greater likelihood that a mother will choose in-home relative care.

By employment and income: Mothers who worked regular hours were less than half as likely to choose in-home *versus* out-of-home non-relative care as mothers who worked irregular hours or who were in school or training. Mothers with incomes below the Federal Poverty Level were more likely to choose in-home non-relative care compared with other low-income mothers, but the difference was slight. Recent TANF recipients were as likely to use in-home non-relative child care as other groups.

By geographic setting: Among users of non-relative care, in-home care was about as frequent in urban as in rural settings. Mothers living in the southern and western regions of the country were similar to each other in their use of in-home non-relative care, and were less likely than mothers living in the Northeast or Midwest to use in-home non-relative care.

These differences resemble those seen between families choosing between relative and non-relative care. The more informal type of care (in this case, in-home) was preferred by mothers with less formal education and those not working regular hours. In-home care was especially attractive to families with more children and with an unrelated adult living in the household—a potential caregiver.[35]

As mentioned in the previous section, the percentages shown in Exhibit 5.7 do not control for confounding factors that might determine the use of in-home non-relative care. In order to determine the marginal effects of family characteristics, we estimated a multivariate logistic regression model similar to the one presented in the previous section, restricting the sample to households using non-relative care. We exclude the indicators for the presence of relatives in the household or living nearby, since these are not expected to be relevant in choosing between types of *non-relative* care. The model appears in full in Exhibit B.2.

For the most part, the regression results (Exhibit 5.8) confirm the relationships shown in Exhibit 5.7.

- Infants and school-aged children were significantly more likely to receive in-home non-relative care than preschoolers, the reference groups (+7 to +8 percentage points).

[35] It is not possible to determine from the survey data whether the caregiver is a member of the household.

- The probability of using in-home non-relative care increased significantly with the number of children present in the household (+1 percentage point per child).
- Mothers who were working irregular hours or in school or training were more likely to use in-home non-relative care, compared with those who were working regular hours (+5 percentage points for each).
- Mothers living in the South, Midwest, and West were significantly less likely to use in-home versus out-of-home non-relative care compared with those living in the Northeast (–4 to –7 percentage points).

Exhibit 5.8

Marginal Impacts of Determinants of Use of In-Home *versus* Out-of-Home Care, Among Low-Income Families Using Non-Relative Care

	Marginal impact (percentage points)
Age of focus child (reference category: preschooler	
Infant	+7.8**
Toddler	+3.7
School-aged	+7.4***
Number of children in household	+1.3**
Ethnicity and age of focus child	
Black toddler, preschooler	-1.2
Black infant, school-aged	-2.6
Hispanic toddler, preschooler	-5.6
Hispanic infant, school-aged	-1.5
Mother's education (reference category: high school graduate)	
Not a high school graduate	+2.6
Some college	-2.1
Mother born outside United States	+1.7
Household includes mother's spouse/partner	+0.5
Unrelated adults in household	+3.0
Mother's work schedule (reference category: regular hours)	
Irregular hours	+5.4***
In school or training	+5.2**
Household income as percent of FPL	+0.9
Recent TANF receipt	-0.4
Parent's considerations in choosing child care	
Cost	+5.3***
Convenience	-1.8
Safety	-0.1
Provider qualities	-1.6
Child's cognitive development	-9.3***
Commonalities with provider	+5.0***
Geographic setting (reference categories: urban, Northeast)	
Rural	+0.9
South	-6.8***
Midwest	-4.2**
West	-5.8***

Note: *** statistically significant at the 1 percent level.
** statistically significant at the 5 percent level.
* statistically significant at the 10 percent level.

Parental considerations also play a role in choosing the child care arrangement. It appears that:

- Mothers who were concerned about cost or those who cited the importance of the *commonalities with the provider* were more likely to use in-home, non-relative care (+5 percentage points each).
- Mothers who cited the importance of *child development and school readiness* were significantly less likely to use in-home, non-relative care ((9 percentage points).

The relationship between the bivariate and multivariate analyses for this choice is similar to that for the choice between relative and non-relative care. The effects of differences in children's ages are less pronounced in the multivariate model than in the bivariate comparisons, because the parental attitudes indicators are partially responsible for the effects of children's age in this choice. Similarly, the effect of maternal education is entirely explained by parental considerations.

Determinants of Use of Non-Relative Family Child Care versus Center Care

Among families that use out-of-home non-relative care, slightly more than half chose center care. As in the previous sections, we first examined the percentage of mothers in each mode of care, stratified by a series of demographic and economic characteristics. Then we estimated a multivariate logistic regression model (see Exhibit B.3) that included these stratifiers as controls, together with a set of six parental considerations. In this section, the sample is restricted to *children in out-of-home non-relative care*.

By family demographics: Among children in non-relative care, preschoolers were less likely to be in family child care, compared with infants, toddlers, and school-aged children. Hispanic families were much more likely than White and Black families to use family child care (Exhibit 5.9). Mothers with lower levels of education are more likely to use family child care, as were mothers who were not born in the United States.

By household composition: Families with four or more children were relatively more likely to use family child care *versus* center care. Mothers with a spouse or partner were more likely to use family child care.

Exhibit 5.9

Use of Center and Family Child Care Among Low-Income Families That Use Out-Of-Home Non-Parental Care

	Family Child Care	Center Care
All families	**44.6**	**55.5**
By age of focus child		
Infant	**52.7**	47.3
Toddler	**42.8**	57.2
Preschooler	**34.2**	65.8
School-aged	**49.0**	51.0
By ethnicity		
White	38.0	**62.0**
Black	38.6	**61.4**
Hispanic	64.1	**35.9**
By mother's education		
Not a high school graduate	**56.0**	**44.0**
High school graduate	**42.5**	**57.5**
Some college	**40.8**	59.2
By mother's country of birth		
United States	**39.8**	60.2
Other	**71.2**	28.8
By number of children in household		
1	**42.3**	57.7
2	**44.2**	55.8
3	**45.2**	54.9
4 or more	**61.7**	38.3
By presence of mother's spouse/partner in household		
Absent	**40.7**	59.3
Present	**50.5**	49.6
By mother's work schedule		
Working irregular hours	**45.5**	54.6
Working regular hours	**40.1**	59.9
In school or training	**49.6**	50.4
By household income		
Under FPL	**46.8**	53.2
100% FPL to 185% FPL	**42.0**	58.0
Over 185% FPL	**49.4**	50.6
By recent TANF receipt		
Some	**46.2**	53.8
None	**44.8**	55.2
By urban/rural		
Urban	**40.7**	59.3
Rural	**50.6**	49.4
By region		
Northeast	**52.6**	47.5
South	**31.3**	68.7
Midwest	**53.6**	46.4
West	**62.2**	37.8

By employment and income: Mothers who worked regular hours were more likely to choose center care over family child care compared with those working irregular hours or those in school or training. Income and TANF receipt do not appear to be significant factors in the choice between family child care and center care.

By geographic setting: Center care was substantially more common among urban families than among rural families using out-of-home non-relative care. Mothers who lived in the South were much more likely to choose center care over family child care relative to those living in other areas of the country. Family child care was most prevalent among mothers living in the Western region of the country.

The same factors seen in the previous two sections as distinguishing between families that use more versus less formal modes of care appear again. The more formal mode (center care) was more likely to be chosen by mothers with more formal education and working regular hours, and to be used for preschool-aged children.

These bivariate statistics are generally supported by the multivariate analysis (Exhibit 5.10). The results are as follows:

- Toddlers and school-aged children was more likely to be in family child care than were preschoolers, the reference category (+15 to +16 percentage points). Infants were much more likely to be in family child care than preschoolers (+22 percentage points).
- Hispanic families was marginally more likely to use family child care, other things equal (+10 percentage points).
- Mothers with a college education are less likely to use family child care (–8 percentage points).
- Immigrants were significantly more likely to use family child care (+21 percentage points).
- Families that included the mother's spouse or partner were marginally more likely to use family child care (+7 percentage points).
- Mothers living in rural areas were more likely to use family child care than those living in urban areas (+11 percentage points). Mothers living in the South were less likely to use family child care than mothers living in the Northeast (-19 percentage points).

Exhibit 5.10

Marginal Impacts of Determinants of Use of Family Child Care *versus* Center Care, Among Low-Income Families Using Out-of-Home Non-Relative Care

	Marginal impact (percentage points
Age of focus child (reference category: preschooler	
Infant	+22.0***
Toddler	+14.6***
School-aged	+15.9***
Household contains both non-school-aged and school-aged children	+5.0
Ethnicity of focus child	
Black	-0.1
Hispanic	+9.5*
Mother's education (reference category: high school graduate)	
Not a high school graduate	+3.1
Some college	-8.1**
Mother born outside United States	+20.5***
Household includes mother's spouse/partner	+6.7*
Mother's work schedule (reference category: regular hours)	
Irregular hours	+4.8
In school or training	+7.8
Household income as percent of FPL	+0.2
Recent TANF receipt	-3.6
Parent's considerations in choosing child care	
Cost	+15.1***
Convenience	+2.8
Safety	+11.4***
Provider qualities	+11.5***
Child's cognitive development	-19.2***
Commonalities with provider	+17.6***
Geographic setting (reference categories: urban, Northeast)	
Rural	+10.9**
South	-18.7***
Midwest	+1.6
West	-6.2

Note: *** statistically significant at the 1 percent level.
** statistically significant at the 5 percent level.
* statistically significant at the 10 percent level.

Parental considerations are also found to be important determinants of the decision to use family child care versus center care. In particular,

- Mothers who indicated child's *cognitive development* as an important reason for choosing the child care arrangement were significantly less likely to use family child care (-19 percentage points).
- Mothers who indicated *cost, safety, quality* and *commonalities with the provider* as important reasons for choosing the child care arrangement were significantly more likely to choose family child care (+12 to +18 percentage points).

Consistent with the bivariate statistics, the multivariate models reveal that household income was not a significant determinant of the choice between center care and family child care among low-income families using out-of-home non-relative care. In addition, mothers who reported being on TANF during the previous year were not significantly different from those who did not receive it with respect to the choice between family child care and center care. It seemed plausible that family child care would be chosen more often by families that contained children of diverse ages, other things being equal, but neither this variable nor alternative measures of presence of siblings showed a significant effect.

Chapter Six: Child Care Subsidy Application and Receipt

In this chapter we address the questions:

- What types of families ever apply for child care subsidies?
- What types of families receive subsidies at a particular time?

The analysis sample differs slightly from that in the previous chapter in that it is restricted to families that are eligible to receive child care subsidies in their state of residence. The families in this study lived in 17 states, each of which had different rules for eligibility. Only about 5 percent of families in the sample were ineligible, however.[36]

Likely predictors of subsidy application include the usual correlates of participation in income support programs such as ethnicity, family structure, and urban residence. In addition, a key factor would seem to be the copayment amount expected of the family. In states where copayments are low (such as California), many more families might be expected to apply than in states where copayments are high (such as Alabama). That said, this is not the case, as will be seen below.

In the sections that follow, we present descriptive analyses of subsidy application and receipt. Because the subsidy applies to the entire family, we use descriptors of the family rather than the focus child where possible—i.e., age of youngest child rather than age of focus child. Likewise, when examining modal choice, we use the primary arrangement for the focus child as a (rough) measure of the family's full array of arrangements, since child care arrangements for the focus child's siblings are unknown.

We use multivariate techniques to model the subsidy application decision, and rely on descriptive statistics to examine subsidy receipt. This is because subsidy application represents a decision made by a family, while subsidy receipt also incorporates decisions made by subsidy agencies.[37]

TANF receipt was given special treatment in the application model. In many states, current and recent TANF recipients are given priority for subsidies, and may be explicitly urged and assisted to apply by their caseworkers. While sample sizes did not permit estimation of separate models for TANF recipients, TANF receipt was interacted with mode of care to explore differences in this key dimension.

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[36] Of the sample of families analyzed in the previous chapter, 185 were dropped in these analyses because of insufficient data on income to determine eligibility. Of the remainder, only 121 were determined to be ineligible for a child care subsidy based on their reported income and household size.

[37] Families that applied but are not currently receiving a subsidy may have been denied or waitlisted, or may have received a subsidy at some point and then failed to reapply. For example, a family that received a subsidy while its young child was in center care full-time might not reapply when the child was in afterschool care for only a few hours per day.

Determinants of Subsidy Application

Overall, 39 percent of income-eligible families had some contact with the child care subsidy system—they received a subsidy in the past, have applied but been denied, have been put on a waiting list, or were currently receiving benefits at the time of the interview.[38] This rate varied markedly across groups of household (Exhibit 6.1).

Exhibit 6.1

Applications for Child Care Subsidies Among Income-Eligible Families That Use Non-Parental Care

	Ever Applied (percent)	Never Applied (percent)
All income-eligible families	38.8	61.2
By age of youngest child		
Infant	33.5	55.6
Toddler	43.1	56.9
Preschooler	45.9	54.1
School-aged	35.0	55.0
By ethnicity		
White	35.8	64.2
Black	52.3	47.7
Hispanic	28.1	71.9
By mother's education		
Not a high school graduate	29.6	70.4
High school graduate	39.4	60.6
Some college	44.4	55.6
By mother's country of birth		
United States	42.1	57.9
Other	20.9	79.1
By number of children in household		
1	36.1	63.9
2	37.7	62.3
3	45.6	54.4
4 or more	42.9	57.1
By presence of mother's spouse/partner in household		
Absent	48.0	52.0
Present	24.4	75.6
By presence of other related adults in household		
Absent	39.1	60.9
Present	27.6	72.4
By presence of unrelated adults in household		
Absent	38.9	61.1
Present	36.6	63.4

[38] This statistic differs slightly from that presented in Chapter Four because the analysis here is limited to families whose income makes them eligible according to state eligibility criteria.

Exhibit 6.1

Applications for Child Care Subsidies Among Income-Eligible Families That Use Non-Parental Care

	Ever Applied (percent)	Never Applied (percent)
By mother's work schedule		
Working irregular hours	39.3	60.7
Working regular hours	40.3	59.7
In school or training	34.7	65.3
By household income		
Under FPL	41.3	58.7
100% FPL to 185% FPL	36.5	63.5
Over 185% FPL	31.9	68.1
By recent TANF receipt		
None	36.0	64.0
Some	58.3	41.7
By mode of care for focus child		
Center	53.9	46.1
Relative, in child's home	28.1	71.9
Relative, in caregiver's home	35.3	64.7
Non-relative, in caregiver's home	40.3	59.7
Non-relative, in child's home	25.5	74.5
By urban/rural		
Urban	39.2	60.8
Rural	38.3	61.7
By region		
Northeast	36.2	63.8
South	39.0	61.0
Midwest	57.0	53.0
West	34.5	65.5

By family demographics: Applications were more common among families whose youngest child was a toddler or preschooler (43 to 46 percent) than among families whose youngest child was an infant or school-aged (34 to 35 percent). Black families were much more likely to have applied (52 percent) than White or Hispanic families (28 to 36 percent). Mothers with more formal education were more likely to have applied than those with less education. Mothers born in this country were substantially more likely to have applied than mothers who immigrated here (42 versus 21 percent).

By household composition: Families with more children were more likely to have applied than those with fewer children. Single-parent families were substantially more likely to have applied than those headed by a couple. The absence of other related adults was also associated with a greater likelihood of having applied.

By employment and income: Mothers in school or training were less likely to have applied than those who are working. Lower income was mildly associated with a greater likelihood of applying, while recent TANF receipt was a strong predictor. In fact, 58 percent of TANF recipients had applied—a greater fraction than any other subgroup we examined.

By mode of care for focus child: As described above, we did not have information on care arrangements for all children in a family, so we relied on the mode used for the focus child to discriminate among households that use different types of care. Applications were more common among those with a child in center care (54 percent) and in non-relative family child care (40 percent) than those with a child in either relative care or non-relative in-home care (26 to 35 percent).

By geographic setting: Subsidy applications were more common in the Midwest and a little less common in the West than in the South and Northeast.

In summary, application for subsidies occurred relatively more frequently among Black families, single parents, and recent TANF recipients—groups that were often found to be more dependent on income support programs. Conversely, immigrants were much less likely to have applied. In addition, subgroups that had previously been shown to be more likely to use non-relative child care were more likely to have applied for subsidies, including families in which mothers had more formal education, families with toddlers and preschoolers, as well as families actually using center care or family child care.

The regression model (Exhibit 6.2 and Exhibit B.4) confirmed many of the results from these simple bivariate comparisons, and some of the estimated impacts were very large indeed. In particular,

- Families in which the youngest child is an infant or school-aged child are significantly less likely to have applied than families in which the youngest child was a preschooler (the reference category; –8 percentage points).
- Blacks are substantially more likely to have applied than the reference category of Whites (+14 percentage points).
- Women who have immigrated to the United States are much less likely to have applied (–16 percentage points).
- Households headed by a couple are significantly less likely to have applied (–21 percentage points).

Exhibit 6.2

Marginal Impacts of Determinants of Subsidy Application Among Eligible Low-Income Families

	Marginal impact (percentage points)
Age of youngest child (reference category: preschooler)	
Infant	–8.0*
Toddler	–1.4
School-aged	–7.6**
Ethnicity (reference category: White)	
Black	+13.9***
Hispanic	+0.9
Mother's education (reference category: high school graduate)	
Not a high school graduate	–3.7
Some college	+3.9
Mother born outside United States	–16.2***
Household includes mother's spouse/partner	–20.9***
Mode of care (reference category: non-relative family child care)	
Relative, in child's home	–9.4**
Relative, in caregiver's home	–0.0
Non-relative, in child's home	–8.7
Center	16.5***
Mother needs full-time care (works full-time, youngest child is under age 5)	+1.7
Household income as percent of FPL	+3.2
Copayment ($100/month)	–3.0
Current or recent TANF receipt by mode of care	
Relative, in child's home	+20.2***
Relative, in caregiver's home	+15.6**
Non-relative, in child's home	+16.3
Non-relative family child care	+43.9***
Center	+21.1***
Parent's considerations in choosing child care	
Cost	+0.2
Convenience	+7.6***
Safety	+0.9
Provider qualities	+6.2**
Child's cognitive development	+5.5*
Commonalities with provider	+2.2
Geographic setting (reference categories: urban, Northeast)	
Rural	+4.7
South	+5.0
Midwest	+14.3***
West	+5.8

Note: *** statistically significant at the 1 percent level.
** statistically significant at the 5 percent level.
* statistically significant at the 10 percent level.

- Families with a child in center care were significantly more likely to have applied than those with a child in non-relative family child care (the reference category; +17 percentage points). Families with a child in relative care in the child's home were likewise less likely to have applied (–9 percentage points).
- Recent TANF recipients were much more likely than other families to have applied for a subsidy, by amounts that varied with chosen mode of care (+44 percentage points for those using non-relative family child care, +21 percentage points for those using center care, +16 to +20 points for those using relative care, and +16 points (not significant) for those using in-home non-relative care).
- Subsidy applications were more common in the Midwest than in the Northeast (the reference category; +14 percentage points).

Also worth noting are three variables that did not have significant impacts. First, household income relative to the FPL did not significantly affect the likelihood of having applied. (Recall that this sample was restricted to income-eligible families.) Furthermore, mother's education, which seemed to be associated with a large difference in the subgroup comparisons, did not have a significant effect. The difference occurred because of the inclusion of mode of care variables: mothers with more formal education tended to choose non-relative care in general and center care in particular. Thus, lack of formal education *per se* did not appear to be a barrier to subsidy application. Finally, and most surprisingly, the copayment amount did not significantly affect application behavior. It would certainly have been expected that families would be more likely to apply if the copayment were lower. These results suggest that a higher copayment is not a barrier to application.[39]

Determinants of Subsidy Receipt

Among income-eligible families, 16 percent were currently receiving a child care subsidy (Exhibit 6.3). Variations were seen across subgroups largely parallel to the variations in applications. It should be emphasized that many of those who applied but who were not receiving subsidies at the time of the interview had received them in the past. The difference between application and receipt thus reflects both actions by the agency (e.g., waitlisting or denying benefits) and by families (e.g., declining to reapply). Even with a subsidy, non-relative care may be more expensive than relative care—the difference between a copayment and no payment at all. Hence, families for whom cost is a major consideration may not reapply.

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[39] To construct the copayment variable, payment schedules were collected from all 17 states in the sample, relating families' payments to such factors as income, household size, number of children in care, and use of part-time *versus* full-time care. For each household in the sample, the copayment was calculated based on their circumstances and state of residence. For example,

- In Alabama, parents' weekly copayment is read off a simple table of household sizes and monthly income cutoffs;
- In Massachusetts, different copayments are associated with preschool children and school-age children;
- North Carolina use a formula, in which the copayment is 7, 8, or 9 percent of household income depending on household size) rounded to the nearest dollar.

Exhibit 6.3

Receipt of Child Care Subsidies among Income-Eligible Families that Used Non-Parental Care

	Ever Applied (percent)	Never Applied (percent)
All income-eligible families	**16.1**	**83.9**
By age of youngest child		
Infant	18.0	82.0
Toddler	24.3	75.7
Preschooler	18.2	81.8
School-aged	9.4	90.6
By ethnicity		
White	12.3	87.7
Black	24.4	75.6
Hispanic	11.8	88.2
By mother's education		
Not a high school graduate	11.2	88.8
High school graduate	16.0	84.0
Some college	19.9	80.1
By mother's country of birth		
United States	17.8	82.2
Other	7.4	92.6
By number of children in household		
1	11.9	88.1
2	16.7	83.3
3	22.7	77.3
4 or more	21.4	78.6
By presence of mother's spouse/partner in household		
Absent	21.7	78.3
Present	7.5	92.5
By presence of other related adults in household		
Absent	16.1	83.9
Present	16.2	83.8
By presence of unrelated adults in household		
Absent	16.1	83.9
Present	16.3	83.8
By mother's work schedule		
Working irregular hours	15.5	84.5
Working regular hours	19.0	81.0
In school or training	14.6	85.4
By household income		
Under FPL	20.6	79.4
100% FPL to 185% FPL	12.0	88.0
Over 185% FPL	5.6	94.4
By recent TANF receipt		
Some	13.4	86.6
None	35.8	64.2

Exhibit 6.3

Receipt of Child Care Subsidies among Income-Eligible Families that Used Non-Parental Care

	Ever Applied (percent)	Never Applied (percent)
By mode of care for focus child		
Center	30.0	70.0
Relative, in child's home	8.5	91.5
Relative, in caregiver's home	9.2	90.8
Non-relative, in caregiver's home	17.2	82.8
Non-relative, in child's home	16.8	83.2
By urban/rural		
Urban	17.8	82.2
Rural	14.1	85.9
By region		
Northeast	16.2	83.8
South	15.1	84.9
Midwest	24.7	75.3
West	12.9	87.1

By family demographics: Receipt of subsidy was most common among families in which the youngest child is a toddler. Black families were much more likely to be receiving subsidies currently than White or Hispanic families (24.4 percent *versus* 12 percent). Mothers with more formal education and those born in the U.S. were more likely to receive subsidies.

By household composition: Families with more children were more likely to be receiving subsidies. Single-parent families were substantially more likely to receive a subsidy than those with spouses or partners; the presence of other adults did not make a difference.

By employment and income: Mothers who worked regular hours were more likely to be receiving a subsidy. Lower income was associated with a greater likelihood of receipt, and recent TANF receipt is also a strong predictor. The proportion of recent TANF recipients receiving a subsidy was 36 percent, greater than for any other subgroup examined. Thus, while receipt of TANF did not ensure receipt of a child care subsidy, the correlation was substantial.

By mode of care for focus child: Receipt of subsidy was much more common among those with a child in center care (30 percent) than those with a child in relative care (9 percent). The other two non-relative modes fell in between (17 percent).

By region: Like subsidy applications, subsidy receipt was more common in the Midwest and a little less common in the West than in the South and Northeast.

These tabulation shows that subsidy receipt, like application, was relatively concentrated among Blacks, single mothers, and recent TANF recipients. Immigrants were much less likely to receive subsidies. In addition, several subgroups that were more likely to use non-relative child care were also more likely to be receiving subsidies, including families in which mothers had more formal education and families without infants. The multivariate analyses (Exhibit B.5) generally supported these findings.

Discussion

At the heart of the Community Survey are a set of related questions:

- What types of non-parental child care arrangements do low-income families choose for their children?
- What are the reasons for their choices? and
- How do child care subsidies affect their choices?

While a number of other large-scale surveys have provided information to answer the first question, there are few that have addressed the second and third questions. Underlying the questions are a set of concerns about the extent to which financial resources determine child care decisions and about whether help, in the form of a subsidy for the child care arrangement changes those decisions. If low-income families choose relative care for their children because the arrangement costs little or nothing, do they switch to regulated care once they receive a subsidy?

The responses to the survey questions, and the results of the multivariate analyses, suggest that there are a number of influences on those decisions, in addition to cost. Parents' decisions to use relative care are strongly influenced by the age of the child, the number of children for whom they need care, their desire to have someone who shares their values care for the child, and the hours for which they need care.

Parents are more likely to choose relative care for infants and toddlers because regulated care for children of this age is more expensive and scarcer than for older children, but also because they are more anxious about this first care arrangement and feel more comfortable with a relative. As children reach preschool age, and parents focus more on readiness for school, these preferences change in favor of non-relative care, and the use of non-relative care for preschoolers changes parents' decisions about where to place their other children. For school-age children, parents who have relatives nearby may choose this form of care because care is needed for only a few hours a day, and is not as burdensome as care for younger children.

Regardless of the age of the child, relative care (or care by a friend) may be the only choice available in many cases if parents need child care for a short period each day, either because their child is in school or because they work a small number of hours, or if they have an irregular work schedule. Regulated providers are licensed to serve a specific number of children, making it economically disadvantageous to serve a child who needs care for a few hours a day or for one or two days a week.

Once parents have made the decision to place the child in care outside the family circle, they face the choice of family child care versus center-based care. Household income does not appear to determine this decision, but parents for whom the cost of care, the safety of the child and their comfort with the caregiver were the most important considerations were more likely to choose family child care. Parents for whom support for the child's development and school readiness was an important factor were more likely to choose center-based care. Center-based care was most likely to be chosen for preschoolers, by parents with more formal education and by those who had regular work hours and schedules.

While parents using center care were more likely both to apply for and to receive a child care subsidy, the results of the multivariate analyses show that subsidy receipt did not significantly affect parents' choice of child care arrangement. Rather, it seems likely that families who select a more formal mode of care, such as center-based care, for some of the reasons discussed above, apply for subsidies as a consequence of that decision. Center staff may be more knowledgeable about the subsidy system and, without help from the provider, parents may be unaware of the range of child care arrangements that would be eligible for subsidies. States and communities may limit the extent to which they advertise subsidies, to avoid building large waiting lists, so that parents are dependent on providers (or friends who also receive subsidies) for information about them.

To say that subsidies did not determine parents' choice of arrangement is not to suggest that they had no effect. It is important to note that the study was not designed to investigate other possible effects of subsidies, for example on employment or on the stability of the child care arrangement. In addition, subsidies did have an effect on the financial situation of low-income families who received them. Those parents with incomes below the Federal poverty level who paid for child care spent, on average, 22 percent of their monthly income on it. Often they needed assistance from a relative or friend to pay for child care. While the majority of parents who received a subsidy were required to make an additional payment to the provider, subsidy receipt greatly reduced the financial burden on families and allowed the poorest working parents to keep more of the income they had earned.

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Appendix A

Analysis Weights and Nonresponse

Appendix A: Analysis Weights and Nonresponse

Weights were calculated for both the screener analysis sample and the survey analysis sample to account for the probability of selection and nonresponse. The weights are intended to make the screener analysis sample representative of *all low-income families with children living in communities with child poverty rates above 14 percent*, and to make the survey analysis sample representative of *all low-income families with children using nonparental care while the mother works or is in school, living in communities with child poverty rates above 14 percent*. The sections below describe how these weights were constructed.

Site Weights

Associated with each of the 25 sites was a probability weight corresponding to its likelihood of selection into the sample, w_i. These weights are shown in Exhibit A.1.

Exhibit A.1

Site Probability Weights

Site	Weight
Mobile, AL	17.572
Los Angeles, CA	1.000
Orange, CA	3.106
Riverside, CA	9.129
Cook, IL	3.342
Madison, IN	56.295
Oachita, LA	44.567
Franklin, MA	146.716
Wayne, MI	1.506
Hennepin, MN	8.819
Itaska, MN	128.023
Alamance, NC	102.024
Johnson, NC	148.026
Mecklenberg, NC	16.713
Union, NJ	18.765
Dona Ana, NM	45.113
Luna, NM	121.904
Orange, NY	23.187
Hamilton, OH	8.979
Hardenman, TN	92.620
Marshall, TN	124.187
Shelby, TN	8.498
Harris, TX	2.370
Arlington, VA	88.657
King, WA	5.475

Basic Analysis Weights

Let n_i be the number of phone numbers dialed in site *i*, and N_i be the total population of phone numbers in site *i*, so that a fraction (n_i / N_i) of the population in site *i* was sampled. Then it may be supposed that the same fraction of low-income families with children under 13 has been sampled, and likewise the same fraction of low-income families using nonparental child care. Hence the basic analysis weight for each respondent in site *i* on both the screener analysis file and the survey analysis file is:

$$w_i \times N_i / n_i.$$

Nonresponse Adjustments

The basic weights are imprecise to the extent that response rates vary among the sites. For site *i*, let R_i be the number of respondents to the screener, NR_i be the number of eligible nonrespondents, I_i be the number of known ineligibles, and U_i be the number with unknown eligibility. Then *faute de mieux*, we calculate $\hat{E}_i$, the estimated total number of eligibles in the site, as equal to

$$\{(R_i + NR_i) / (R_i + NR_i + I_i)\} \times (R_i + NR_i + I_i + U_i)$$

—that is, that the eligibility rate among those of unknown eligibility is assumed to be the same as the rate among those of known eligibility. The response rate in site *i* is then calculated as

$$R_i / \hat{E}_i,$$

and the response-adjusted weight is

$$(w_i \times N_i / n_i) \times (\hat{E}_i / R_i).$$

Note that the weight is the same for all respondents in a site. The survey analysis weights are calculated identically except that different values are used for R_i and $\hat{E}_i$, corresponding to the numbers of *survey* respondents and estimated eligibles.

Aggregate Response Rates

A total of 327,855 telephone numbers were released for dialing in the 25 sites. Of these,

- 129,244 were determined to be ineligible, even without any interviewer contact, because they were not household phone numbers. (They were phone numbers of businesses, FAX numbers, or beepers, or were disconnected).
- 84,007 were not reached, and hence were eligibility unknown.
- The remaining 114,604 were contacted, and fell out as follows:

    1. 106,323 were ineligible for the screener analysis (not a household, or no children, or annual income over 200 percent of FPL)
    2. 1,897 were eligibility unknown for the screener analysis (because they terminated before responding to the questions about presence of children and income threshold)

3. 6,384 were found to be eligible for the screener analysis, of whom 224 refused the screener questions and 6,160 responded.

For calculating the *aggregate screener response rate*, therefore, we use:

R = 6,160
NR = 224
I = 129,244 + 106,323 = 235,567
U = 84,007 + 1,897 = 85,904

These numbers yield $\hat{E} = 0.0264 \times 327{,}855 = 8{,}651$, for an estimated response rate of 71.2%.

Of the screener respondents,

- 3,181 were ineligible for the interview (because they did not use nonparental care);
- 11 were of unknown eligibility for the interview (because they terminated before providing information on use of nonparental care); and
- 2,710 were deemed eligible for the interview, of whom 2,264 responded and 480 refused.

For the survey, therefore, we have:

R = 2,264
NR = 480
I = 129,244 + 106,323 + 3,181 = 238,748
U = 84,007 + 1,897 + 224 + 11 = 86,139

so that $\hat{E} = 0.0123 \times 327{,}855 = 4{,}026$, for an estimated response rate of 61.8%.

Appendix B

The Multivariate Models

Appendix B: The Multivariate Models

In this Appendix, we provide additional detail on the multivariate models. In the sections that follow, we describe the causal structure of the models, discuss issues of estimation, and present the full logistic models cited in Chapter Five along with some alternative versions.

Causal Structure of the Models

Our analysis of child care modal choice is ***conditional on families' previous choice to use non-parental care.*** In reality, these decisions (and others) may be made jointly and simultaneously. For example, a family may see its options as (a) the mother working while the child's grandmother cares for the child or (b) the mother staying home with the child. In this case the mother's decision to work is interlocked with her child care arrangement. Given the structure of this study, however—that our analysis sample comprises families using non-parental care while the mother works—we must make the simplifying assumption that the decision to use non-parental care is causally prior to the choice of mode.

Two other issues of endogeneity, or direction of causality, also need to be addressed. Ideally we would like to explain families' child care modal choices in terms of *predetermined characteristics* such as demographics, household composition, and preferences and attitudes. (The notion that household composition is predetermined, while not invariably valid, does not seem to be seriously troubling. It is, of course, conceivable that a relative would move in for the express purpose of providing child care.) Our data on parental preferences comes from the following items:

> Why did you choose (ARRANGEMENT) instead of another kind of arrangement for (CHILD)? What was the most important reason? (RECORD VERBATIM) What other things were important for you?

Our information may therefore be limited to the positive features of the modes *actually chosen*. For example, a parent might prefer to use a family member, but none is available, so the child is cared for by an unrelated adult in a family child care home. In choosing *that provider*, the preference for a family member is not expressed. Another limitation of these items is that they are asked after the fact. Families may adjust their views of what is important based on what they experience.

In mild defense of these items, it may be said that the second part of the question ("What other things were important for you?") is sufficiently ambiguous that it could elicit responses that were not descriptive of the current provider. Furthermore, we have grouped survey responses into sufficiently broad categories that any of the five modes could in principle provide almost every feature. For example, the category "commonalities with provider" includes such responses as:

- has same values
- like a family member/close relative
- relationship to parents
- same language/ethnicity

This constellation of features would be most salient for care by a relative. Nonetheless, a Hispanic family might choose a center because it has Spanish-speaking staff.

In any event, we feel that these items, though imperfect, are potentially too interesting to ignore. We have therefore conducted all analyses both including and excluding them.

The final issue of endogeneity has to do with the complex relationship between child care arrangements and subsidies. Consider the following scenarios:

(1) Receipt of subsidy determines mode of care

- A family would like its child to have the educational advantages of center care, and applies for a subsidy so that it can afford this mode of care. If the family receives the subsidy, the child enrolls in the center. If not, the child is cared for by his grandmother. In this case receipt of subsidy determines mode.
- A family using relative care applies for and receives a subsidy. When the child turns 2 they enroll the child in a center. If they had not been subsidized they would not have made the switch. In this case, even though the subsidy award did not affect the initial mode of care, its continued receipt determined the subsequent mode.

(2) Mode of care determines receipt of subsidy

- A family applies for and is accepted by a center. The director remarks that they may be eligible for a subsidy, which they then apply for and obtain. Had they used relative care, they would not have learned about the subsidy. In this case, mode of care determines receipt of subsidy.
- A family that uses family child care for its preschooler applies for and receives a subsidy. When the child enters school, the family switches to relative care, and declines to reapply for a subsidy. In this case, change of mode affected continued receipt.

(3) Mode of care and subsidy are determined jointly

- A family on TANF is given a child care subsidy and encouraged by a caseworker to use center care. In this case as well, receipt of subsidy and child care arrangements are jointly determined.
- Some states have contracts with child care centers. A family may only be able to get the subsidy on condition of being at one of those particular centers—another instance of joint determination.[40]

(4) Mode of care and receipt of subsidy are unrelated

- A family is using family child care, and it hears about subsidies through friends. The two facts are causally unrelated.

To sort out these paths of causation, it is helpful to distinguish between *preferred* and *actual* mode of care, and also between *application* and *receipt* of subsidy. We may say that:

- Family demographics and parental attitudes towards child care determine preferred mode of care.
- Subsidy receipt or nonreceipt may combine with preferred mode of care to determine actual mode of care. Alternatively, preferences may be so firm that subsidy receipt has practically no effect on the decision; it is simply treated as "found money".
- Demographics and preferred mode of care determine subsidy application. (For example, if the preferred mode is "relative care" and the value of the subsidy is low, as well as the price of such care, it may be considered not worth the trouble to apply for a subsidy.)
- Actual mode of care may also influence subsidy application (as in the case where a licensed provider encourages a family to apply, or an unlicensed provider refuses to accept subsidy payments).
- In some situations, actual mode of care may further determine subsidy receipt. Whether an eligible applicant is approved should, in principle, be unaffected by the chosen arrangement, as long as it is legal. But agencies may make it difficult for applicants to obtain subsidies if they are using in-home care, because of concerns about fair labor law practices and other issues. In order to protect children in otherwise unregulated family child care and relative care, the agency may impose different requirements on these caregivers that may create additional barriers. They may also make different, and more cumbersome, arrangements for reimbursing caregivers.

[40] In Illinois, Massachusetts, New Jersey, and California the child care subsidy agency has a contract with particular child care centers to pay for a specified number of slots. The parent applies to the center. In order to get a subsidy a parent has to use that particular center when a space becomes open there. All of these states also have vouchers (i.e. portable subsidies that the parent can use anywhere) for most of the child care funding, but there is still a substantial portion delivered through this mechanism: half in California, a third in Massachusetts and New Jersey, and a fifth in Illinois. There are subsidy waiting lists in all of these states except Illinois.

- Finally, actual mode of care may also determine current subsidy receipt because a family that has applied and receive a subsidy may decline to reapply if it switches to a less expensive mode.

The multivariate models attempt to sort out these alternative paths of causation.

Issues of Estimation

Because child care modal choice is multidimensional, an ordered framework is helpful. That is, rather than consider how each characteristic affects the relative probability of a family choosing each of five modes, we may consider a series of binary choices. This simplification greatly eases interpretation of the results.

The most natural way to formulate modal choice appears to be as follows. First, does the family use relative care? This decision is likely to be influenced by such considerations as ethnicity, the presence of adult relatives in the household or living nearby, and the regularity of the mother's work schedule. ***We do not attempt to model the distinction between relative care in the child's home and the relative's home.*** The chosen locale for relative care is somewhat arbitrary and variable, and not strongly related to family characteristics.

For families that do not use relative care, we then ask whether they fall in the relatively small group using in-home care provided by an unrelated adult. This highly flexible choice is likely to be influenced by ethnicity, the presence of an unrelated adult in the household, and the regularity and hours of the mother's work schedule.

Finally, for families that use neither relative care nor in-home care by an unrelated adult, we examine the choice between non-relative family child care and center care. Again, this distinction is liable to depend on ethnicity and the regularity and hours of the mother's work schedule.

In addition to the types of factors just mentioned, other family characteristics (education, income, age of child) are certainly expected play a role, as well as the questionable measures of parents' child care values—and possibly receipt of subsidy. Differences are also seen among regions of the country. For example, regulations are less restrictive in the South, making it easier for center care to enter the market in response to demand.

The models of *subsidy application* and *current subsidy receipt* are restricted to families that are apparently eligible for subsidies, given their states' eligibility criteria and their income as reported on the survey. (This constraint only eliminates about 200 observations.) We considered estimating separate models of subsidy receip*t* for recent TANF recipients and other families, because of the special priority given to the former group. Ultimately, however, we decided to keep the two groups together, but to allow TANF receipt to interact with mode of care. As shown in Chapter Five, while recent TANF receipt is a very powerful predictor of subsidy application and receipt, TANF recipients are by no means certain to receive a subsidy.

An important distinction between the modal choice and subsidy models is that modal choice pertains to a specific child—the focus child—while subsidy application and receipt pertain to the entire family.

Information on child care arrangements is only available for the focus child.[41] We therefore explain subsidy application and current receipt in terms of the parental considerations and mode of care used for one particular child, which may not be the entire picture. For example, we would not know if a younger sibling is in center care given that the focus child is cared for by a relative after school. We have included additional family descriptors in the subsidy models, in particular the age of the youngest child. This latter variable will presumably explain subsidy status better than the age of the focus child.

Missing data were not a huge problem, although there was some tendency for respondents to drop out before the end of the survey (affecting primarily the income questions and whether relatives lived nearby). We took the following empirical approach.

- For variables which were missing in only a handful of cases (e.g. fewer than 5), we imputed the modal value. For example, those few families that did not report mother's education were assigned to the "high school graduate" category.
- Because we already had a "miscellaneous" category for ethnicity—comprising non-Hispanic families that were reportedly American Indian/Alaska native, Asian, Native Hawaiian or other Pacific Islander, or "other", as well as non-Hispanic families that reported multiple ethnicities such as both "black" and "white"—we assigned the dozen or so cases with *no* reported ethnicity to this catchall group.
- For variables that were missing in substantial numbers of cases (a few hundred), we zeroed out the missings and included "missing data" indicators. Thus, "income as percent of poverty" was supplemented with a "missing income" indicator.
- For variables that were ever used as dependent variables (mode of care, application for and receipt of subsidy), missings were left missing, and the affected observations were dropped from the relevant analyses.

The models presented here include all theoretically relevant variables, regardless of statistical significance. Although we may ultimately want to delete some variables for parsimony, we feel that their inclusion for now does no practical harm. Furthermore, in many cases (such as the effect of household income), the absence of statistical significance represents important information—"the dog that didn't bark in the night".

Multiple versions of each model are presented side by side, to show the effects of including variables which—depending on the direction of causation—may or may not belong in the model. For the models of modal choice, these variables are the indicator of subsidy receipt and the parental consideration indicators. For the models of subsidy receipt and application, these variables are the indicators of chosen mode of care.

Software is available (STATA 7) for estimating the three dichotomous mode of care models simultaneously. For this draft we have presented the more transparent binary logistic models only.

[41] It was not feasible to collect information on arrangements for all children in the family. Recall that even in the screener, information on *non-parental* child care was collected for at most one child.

Results: Logistic Coefficients and Marginal Impacts

The estimated logistic models are presented in Exhibits B.1-B.5 below. Calculation of percentage point impacts in nonlinear models like these is somewhat arbitrary, because impacts vary across the sample. The marginal impact estimates shown in Chapter Five were derived by calculating the change in likelihood associated with a one unit change in each variable *for a representative family*. This family was chosen to have the following characteristics, corresponding in general to the regression "reference categories":

- ethnicity: white
- mother's education: high school graduate
- nativity: United States
- age of focus child: preschool
- number of children: one
- household composition: no spouse or partner present, no other related adults, no other unrelated adults
- no relatives living nearby
- working regular hours
- income: 100% FPL
- not recent TANF recipient
- region: Northeast
- no subsidy
- mode of care: non-relative family child care

Choice of a particular set of values for family characteristics has the advantage of making the percentage point impacts comparable across the models—but the disadvantage of underestimating the impacts relative the their value at the sample mean. The significance levels shown in the exhibits in Chapter Five appertain to the logistic coefficients themselves. A variable could have significant effect in the model, but not for a family with particular characteristics, if that family was far from the sample mean.

Exhibit B.1

Logistic Regression Models: Relative *versus* Non-Relative Care

	Model (1)	Model (2)	Model (3)
Ethnicity (reference category: White)			
Black	0.11	0.21 *	0.23 *
Hispanic	0.23 *	0.27 *	0.28 *
Other	0.18	0.39 **	0.49 ***
Mother's education (reference category: high school graduate)			
Not a high school graduate	0.10	0.05	-0.01
Some college	-0.23 **	-0.21 **	-0.11
Mother's country of birth (reference category: United States)			
Other	-0.25 *	-0.33 **	-0.54 ***

	Model (1)	Model (2)	Model (3)
Age of focus child			
(reference category: preschooler)			
Infant	0.54 ***	0.59 ***	0.25
Toddler	0.28 *	0.30 **	0.12
School-aged	0.72 ***	0.61 ***	0.41 ***
Number of children in household	0.01	0.06	0.02
Mother's spouse/partner in household	0.16	0.00	0.05
Other adult relatives in household			
Child's grandparent(s), greatgrandparent(s)	0.99 ***	1.01 ***	0.91 ***
Child's aunt(s), uncle(s)	0.31 *	0.22	0.45 **
Other relatives	0.17	0.15	0.19
Unrelated adults in household	-0.58 ***	-0.66 ***	-0.73 ***
Relatives living nearby	0.79 ***	0.80 ***	0.79 ***
Mother's work schedule			
(reference category: regular hours)			
Irregular hours	0.41 ***	0.35 ***	0.35 ***
In school or training	0.61 ***	0.51 ***	0.40 ***
Household income as a percent of FPL	-0.05	-0.08	-0.09
Recent TANF receipt	-0.03	0.27 *	0.35 **
Currently receive child care subsidy		-1.33 ***	-1.10 ***
Parents' considerations in choosing child care			
Cost			0.59 ***
Convenience			-0.41 ***
Safety			0.06
Provider warmth			-0.42 ***
Child's cognitive development			-1.47 ***
Commonalities with provider			1.44 ***
Region (reference category: Northeast)			
South	-0.18	-0.17	-0.15
Midwest	-0.13	-0.05	-0.08
West	0.15	0.16	0.09
Constant	-1.49 ***	-1.26 ***	-1.18 ***
Sample Size	2337	2325	2325
Pseudo R-squared	0.08	0.11	0.24

*** = p<.001, ** = p<.01, * = p<.05

Exhibit B.2

Logistic Regression Models: In-Home *versus* Out-of-Home Non-Relative Care

	Model (1)	Model (2)	Model (3)
Ethnicity (reference category: White)			
Black	-0.41	-0.34	-0.35
Hispanic	-0.42	-0.39	-0.42
Other	-0.42	-0.26	-0.23
Mother's education (reference category: high school graduate)			
Not a high school graduate	0.42 *	0.39	0.37
Some college	-0.30	-0.27	-0.27
Mother's country of birth (reference category: United States)			
Other	0.35	0.32	0.26
Age of focus child (reference category: preschooler)			
Infant	1.55 ***	1.67 ***	1.44 ***
Toddler	0.66 *	0.77 **	0.66 *
School-aged	1.39 ***	1.44 ***	1.33 ***
Number of children in household	0.22 ***	0.24 ***	0.21 **
Mother's spouse/partner in household	0.04	-0.03	0.01
Unrelated adults in household	0.55 *	0.52 *	0.41
Mother's work schedule (reference category: regular hours)			
Irregular hours	0.83 ***	0.84 ***	0.88 ***
In school or training	0.92 ***	0.91 ***	0.82 ***
Household income as a percent of FPL	0.15	0.14	0.13
Recent TANF receipt	-0.18	-0.02	0.07
Currently receive child care subsidy		-0.58 **	-0.37
Parents' considerations in choosing child care			
Cost			0.77 ***
Convenience			-0.20
Safety			-0.01
Provider warmth			-0.25
Child's cognitive development			-1.39 ***
Commonalities with provider			0.80 ***
Region (reference category: Northeast)			
South	-1.09 ***	-1.09 ***	-1.11 ***
Midwest	-0.67 **	-0.69 ***	-0.72 ***

	Model (1)	Model (2)	Model (3)
West	-0.83 ***	-0.84 ***	-0.93 ***
Constant	-3.49 ***	-3.48 ***	-3.31 ***
Sample Size	1234	1226	1226
Pseudo R-squared	0.10	0.10	0.17

*** = p<.001, ** = p<.01, * = p<.05

Exhibit B.3

Logistic Regression Models: Family Child Care *versus* Center Care

	Model (1)	Model (2)	Model (3)
Ethnicity (reference category: White)			
Black	-0.13	-0.05	-0.10
Hispanic	0.24	0.33	0.37
Other	-0.39	-0.25	-0.18
Mother's education (reference category: high school graduate)			
Not a high school graduate	0.23	0.11	0.00
Some college	-0.21	-0.21	-0.31 **
Mother's country of birth (reference category: United States)			
Other	0.93 ***	0.84 ***	0.74 ***
Age of focus child (reference category: preschooler)			
Infant	1.04 ***	1.09 ***	0.94 ***
Toddler	0.65 ***	0.71 ***	0.61 ***
School-aged	0.76 ***	0.69 ***	0.57 ***
Number of children in household	0.06	0.11	0.09
Mother's spouse/partner in household	0.33 **	0.17	0.12
Unrelated adults in household	-0.54 **	-0.63 **	-0.74 ***
Mother's work schedule (reference category: regular hours)			
Irregular hours	0.21	0.15	0.18
In school or training	0.35	0.31	0.31
Household income as a percent of FPL	-0.02	-0.06	-0.06
Recent TANF receipt	-0.24	0.07	0.14
Currently receive child care subsidy		-0.90 ***	-0.88 ***
Parents' considerations in choosing child care			
Cost			0.50 ***
Convenience			0.18
Safety			0.50 ***
Provider warmth			0.51 ***
Child's cognitive development			-0.78 ***
Commonalities with provider			0.68 ***

	Model (1)	Model (2)	Model (3)
Region (reference category: Northeast)			
South	-1.01 ***	-0.96 ***	-0.90 ***
Midwest	-0.15	-0.04	0.02
West	-0.30	-0.22	-0.31
Constant	-0.68 *	-0.47	-0.77 *
Sample Size	1090	1083	1083
Pseudo R-squared	0.11	0.13	0.18

*** = p<.001, ** = p<.01, * = p<.05

Exhibit B.4

Logistic Regression Models: Subsidy Application

	Model (1)	Model (2)	Model (3)
Ethnicity (reference category: White)			
Black	0.54 ***	0.53 ***	0.54 ***
Hispanic	-0.02	0.02	0.01
Other	0.64 ***	0.65 ***	0.66 ***
Mother's education (reference category: high school graduate)			
Not a high school graduate	-0.19	-0.15	-0.17
Some college	0.22 *	0.15	0.13
Mother's country of birth (reference category: United States)			
Other	-0.77 ***	-0.77 ***	-0.76 ***
Age of youngest child (reference category: preschooler)			
Infant	-0.53 ***	-0.38 **	-0.36 *
Toddler	-0.19	-0.10	-0.09
School-aged	-0.52 ***	-0.36 ***	-0.34 ***
Number of children in household	0.20 ***	0.23 ***	0.23 ***
Mother's spouse/partner in household	-0.84 ***	-0.82 ***	-0.83 ***
Mother works full-time	0.14	0.14	0.13
Household income as a percent of FPL	0.13	0.10	0.08
Recent TANF recipients using:			
Relative care	0.46 **	0.72 ***	0.72 ***
In-home non-relative care	0.21	0.69	0.65
Non-relative family child care	1.85 ***	1.81 ***	1.84 ***
Center care	1.65 ***	1.01 ***	1.00 ***
Mode of care (reference category: non-relative family child care)			
Relative		-0.28 *	-0.20
Center		0.65 ***	0.66 ***
In-home non-relative		-0.52 *	-0.44 *

	Model (1)	Model (2)	Model (3)
Parents' considerations in choosing child care			
Cost			-0.07
Convenience			0.29 ***
Safety			0.04
Provider warmth			0.27 ***
Child's cognitive development			0.24 *
Commonalities with provider			0.15
Region (reference category: Northeast)			
South	0.26	0.13	0.17
Midwest	0.67 ***	0.62 ***	0.62 ***
West	0.34 *	0.28	0.27
Constant	-0.98 ***	-1.04 ***	-1.40 ***
Sample Size	1961	1951	1951
Pseudo R-squared	0.13	0.15	0.15

*** = p<.001, ** = p<.01, * = p<.05

Exhibit B.5

Logistic Regression Models: Subsidy Receipt

	Model (1)	Model (2)	Model (3)
Ethnicity (reference category: White)			
Black	0.59 ***	0.61 ***	0.56 ***
Hispanic	0.20	0.30	0.22
Other	0.85 ***	0.90 ***	0.85 ***
Mother's education (reference category: high school graduate)			
Not a high school graduate	-0.19	-0.19	-0.23
Some college	0.28 *	0.14	0.13
Mother's country of birth (reference category: United States)			
Other	-0.72 ***	-0.72 ***	-0.69 ***
Age of youngest child (reference category: preschooler)			
Infant	-0.21	0.05	0.05
Toddler	0.25	0.41 **	0.40 **
School-aged	-0.64 ***	-0.41 **	-0.40 **
Number of children in household	0.23 ***	0.27 ***	0.29 ***
Mother's spouse/partner in household	-1.05 ***	-1.01 ***	-1.04 ***
Mother works full-time	0.22	0.22	0.22
Household income as a percent of FPL	0.05	-0.07	-0.06
Recent TANF recipients using:			
Relative care	0.26	1.02 ***	0.93 ***
In-home non-relative care	0.62	0.52	0.33
Non-relative family child care	1.43 ***	1.34 ***	1.37 ***
Center care	2.18 ***	1.27 ***	1.28 ***
Mode of care (reference category: non-relative family child care)			
Relative		-0.85 ***	-0.70 ***
Center		0.88 ***	0.84 ***
In-home non-relative		0.00	0.16

	Model (1)	Model (2)	Model (3)
Parents' considerations in choosing child care			
Cost			-0.76 ***
Convenience			0.42 ***
Safety			0.09
Provider warmth			0.33 **
Child's cognitive development			0.22
Commonalities with provider			0.11
Region (reference category: Northeast)			
South	0.06	-0.14	-0.11
Midwest	0.54 **	0.46 *	0.44 *
West	0.10	0.04	0.00
Constant	-2.29 ***	-2.26 ***	-2.58 ***
Sample Size	1957	1947	1947
Pseudo R-squared	0.16	0.21	0.23

*** = p<.001, ** = p<.01, * = p<.05

Appendix C

Comparison of Full and Restricted NSAF Samples

Appendix C: Comparison of Full and Restricted NSAF Samples

The generalizability of the results in this report to the national population of low-income families using non-parental child care depends on the extent to which such families living in communities with relatively high rates of child poverty are similar to *all* such families. To address this question, we conducted a supplementary analysis of the National Survey of American Families (NSAF), which collected data on some of the same topics. With the assistance of staff at the Urban Institute, we identified NSAF sample members living in counties with rates of child poverty above 13.8 percent (the "restricted" sample).[42] We then performed a number of tabulations on both the full and restricted samples, the results of which are reported below. The respective sample sizes are 3,918 and 2,820.

The results from the NSAF *restricted sample* have been alluded to in Chapters 3 and 4. In some cases they differ substantively from those of the community sample. For example, our survey found a much greater difference between Black and Hispanic families in their relative preference for center care *versus* family child care. The purpose of this appendix, however, is simply to compare the full and restricted samples *within the NSAF*. We suggest that, to the extent that the sample restriction makes little difference in the NSAF, we can infer that it made little difference in our survey; that is, that we would have very similar results if we had included all low-income families in our sample frame.

The exhibits in this appendix show that restricting the sample makes no practical difference in the measures of either background characteristics or outcomes. The biggest difference, four percentage points, is seen with respect to race/ethnicity: unsurprisingly, among low-income families, Blacks are relatively more likely and Whites less likely to live in higher-child-poverty counties.[43] Also, current subsidy recipients are a little more common in the restricted sample (17%) than in the full sample (15%).

The marginals of the remaining tables are nearly identical in the restricted and unrestricted sample. For 2-way tables, sizeable differences are occasionally seen in columns that are based on small samples—e.g., the primary mode of care for families whose race/ethnicity is "other" in the full NSAF sample is 16 percent for a non-relative in the non-relative's home, and 8 percent for a non-relative in the child's home; in the restricted sample, the primary mode is 10 percent in each of these categories. But for the major columns of the table (Black, White, Hispanic) the distributions are quite similar. Certainly the qualitative results are unaltered.

This analysis strongly supports the notion that restricting our analysis to children in higher-child-poverty counties did not markedly affect our results.

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[42] UI staff described their procedure to ensure confidentiality as follows, in a private communication:

> To avoid compromising confidentiality we switched the binary value on the county child poverty variable for a total of 12 counties … 7 counties with rates of child poverty of less than 13.8 percent received a value of 1 (or poor) for the county child poverty flag. Five counties with child poverty rates above 13.8 percent received a value of 0 (or non-poor) for the county child poverty flag. In all, the changes affected 51 focal children in 8 different states.

[43] In the full NSAF sample, Whites are 47 percent and Blacks are 28 percent of the total. In the restricted sample, Whites are 43 percent and Blacks are 32 percent (Exhibit C.3).

Exhibit C.1

Household Type

	Full Sample	Restricted Sample
	% of families	% of families
Couple	48.6	47.2
Mother and other adults	14.8	15.5
Single mother	36.6	37.3

Note: This table corresponds to Exhibit 3.1.

Exhibit C.2

Number of Children in Household

	Full Sample	Restricted Sample
	% of families	% of families
One	19.8	20.0
Two	36.6	37.8
Three	26.9	25.5
Four or more	16.7	16.7

Note: This table corresponds to Exhibit 3.2.

Exhibit C.3

Family Ethnicity

	Full Sample	Restricted Sample
	% of families	% of families
Non-Hispanic White	46.8	43.0
Non-Hispanic Black	28.5	32.1
Hispanic	20.4	21.1
Other/Multiple	4.3	3.8

Note: This table corresponds to Exhibit 3.4.

Exhibit C.4

Immigrant Status of Family

	Full Sample	Restricted Sample
	% of families	% of families
Born in US	86.1	85.9
Naturalized Citizen	4.7	4.6
Non-US Citizen	9.2	9.5

Note: This table corresponds to Exhibit 3.5.

Exhibit C.5

Primary Mode of Non-Parental Child Care

Mode of Care	Full Sample	Restricted Sample
	% of families	% of families
Center care	28.2	28.8
Care by a relative in the child's own home	30.4	29.6
Care by a relative in relative's home[1]	23.0	24.6
Family child care[2]	13.0	12.1
Care by an unrelated adult in child's own home	5.4	4.9

Note: This table corresponds to Exhibit 4.1.
According to the NSAF:
1: Care by a relative not in child's home.
2: Care by an unrelated adult not in child's own home.

Exhibit C.6

Primary Mode of Non-Parental Child Care by Age of Child

	Full Sample				
	Age of Child				
Mode of Care	Under One Year	Age 1-2	Age 3-4	Age 5-12	All Ages
	%	%	%	%	%
Center care	6.7	31.9	50.4	23.3	28.2
Care by a relative in the child's own home	37.6	20.9	11.5	37.0	30.4
Care by a relative in relative's home[1]	36.6	25.5	21.5	21.6	23.0
Family child care[2]	17.8	17.6	13.7	11.3	13.0
Care by an unrelated adult in child's own home	1.4	4.2	2.9	6.7	5.4
Total	100.0	100.0	100.0	100.0	100.0

	Restricted Sample				
	Age of Child				
Mode of Care	Under One Year	Age 1-2	Age 3-4	Age 5-12	All Ages
	%	%	%	%	%
Center care	7.6	31.8	51.4	24.0	28.8
Care by a relative in the child's own home	35.6	19.3	10.3	36.7	29.6
Care by a relative in relative's home[1]	35.2	28.5	22.3	23.3	24.6
Family child care[2]	20.5	15.9	12.8	10.2	12.1
Care by an unrelated adult in child's own home	1.2	4.4	3.3	5.7	4.9
Total	100.0	100.0	100.0	100.0	100.0

Note: This table corresponds to Exhibit 4.2.
According to the NSAF:
1: Care by a relative not in child's home.
2: Care by an unrelated adult not in child's own home.

Exhibit C.7

Primary Mode of Non-Parental Child Care by Ethnicity

	Full Sample			
	Family Ethnicity			
Mode of Care	**White**	**Black**	**Hispanic**	**All**
	%	%	%	%
Center care	25.0	32.5	28.5	28.2
Care by a relative in the child's own home	26.8	31.5	38.2	30.4
Care by a relative in relative's home[1]	26.1	21.8	18.6	23.0
Family child care[2]	16.8	8.4	10.0	13.0
Care by an unrelated adult in child's own home	5.2	5.8	4.8	5.4
Total	100.0	100.0	100.0	100.0
	Restricted Sample			
	Family Ethnicity			
Mode of Care	**White**	**Black**	**Hispanic**	**All**
	%	%	%	%
Center care	25.9	32.7	27.6	28.8
Care by a relative in the child's own home	24.7	31.4	37.3	29.6
Care by a relative in relative's home[1]	29.4	22.0	20.2	24.6
Family child care[2]	16.3	8.5	9.3	12.1
Care by an unrelated adult in child's own home	3.7	5.4	5.6	4.9
Total	100.00	100.0	100.0	100.0

Note: This table corresponds to Exhibit 4.3.
According to the NSAF:
1: Care by a relative not in child's home.
2: Care by an unrelated adult not in child's own home.

Exhibit C.8

Number and Type of Non-Parental Child Care Arrangements, by Age of Child

	Full Sample				
	Age of Child				
	Under One Year	**Age 1-2**	**Age 3-4**	**Age 5-12**	Total
	%	%	%	%	%
Number of arrangements					
1	73.0	75.5	58.6	75.8	72.8
2	26.4	20.9	35.6	21.4	23.9
3	0.6	3.7	5.7	2.8	3.3
Total	100.0	100.0	100.0	100.0	100.0
Any of child's arrangements is:					
Center care	7.1	32.9	58.4	32.5	35.5
Care by a relative in the child's own home	50.6	30.7	29.2	43.1	39.4
Care by a relative in relative's home[1]	46.4	35.1	35.2	27.0	30.6
Family child care[2]	19.0	19.5	17.1	14.3	15.8
Care by an unrelated adult in child's own home	4.4	7.5	7.2	9.6	8.6

	Restricted Sample				
	Age of Child				
	Under One Year	**Age 1-2**	**Age 3-4**	**Age 5-12**	Total
	%	%	%	%	%
Number of arrangements					
1	75.1	74.3	58.0	76.2	72.8
2	24.6	21.3	35.7	21.3	23.9
3	0.7	4.5	6.3	2.5	3.3
Total	100.0	100.0	100.0	100.0	100.0
Any of child's arrangements is:					
Center care	8.1	33.6	57.9	33.3	36.0
Care by a relative in the child's own home	45.1	31.2	30.6	42.8	39.2
Care by a relative in relative's home[1]	45.7	39.1	36.0	28.8	32.5
Family child care[2]	21.8	18.5	16.5	12.6	14.6
Care by an unrelated adult in child's own home	5.0	7.7	7.3	8.5	8.0

Note: This table corresponds to Exhibit 4.4.
According to the NSAF:
1: Care by a relative not in child's home.
2: Care by an unrelated adult not in child's own home.

Exhibit C.9

Total Hours Per Week of Non-Parental Child Care, by Age of Child

	Full Sample				
	Age of Child				
	Under One Year	**Age 1-2**	**Age 3-4**	**Age 5-12**	Total
	%	%	%	%	%
Less than 10	29.6	19.2	9.4	34.6	27.9
10 to 20	17.7	8.7	13.6	28.7	22.7
21 to 30	7.6	12.4	16.5	13.0	13.2
Over 30	45.1	59.7	60.4	23.7	36.2
Total	100.0	100.0	100.0	100.0	100.0
	Restricted Sample				
	Age of Child				
	Under One Year	**Age 1-2**	**Age 3-4**	**Age 5-12**	Total
	%	%	%	%	%
Less than 10	26.5	18.2	7.8	32.8	26.2
10 to 20	16.8	8.7	15.1	30.7	24.1
21 to 30	8.2	11.7	15.0	13.2	13.0
Over 30	48.5	61.2	62.1	23.3	36.8
Total	100.0	100.0	100.0	100.0	100.0

Note: This table corresponds to Exhibit 4.5.

Exhibit C.10

Subsidy Status of Families

	Full Sample	Restricted Sample
	% of families	% of families
Current	15.4	17.0
Former	5.0	5.4
Never applied	56.9	55.6
Did not receive	5.5	5.5
Pending	1.0	1.0
Don't know	16.2	15.6

Note: This table corresponds to Exhibit 4.14.

Exhibit C.11

Subsidy Status, by Mode of Care

	Full Sample					
	Family Ethnicity					
Mode of Care	Current	Former	Never applied	Did not receive	Pending	Don't know
	%	%	%	%	%	%
Center care	30.8	5.9	39.4	6.9	1.7	15.3
Care by a relative in the child's own home	6.1	5.3	70.9	3.6	0.4	14.0
Care by a relative in relative's home[1]	9.3	3.1	63.3	6.4	1.2	16.7
Family child care[2]	17.0	6.1	52.7	5.0	0.5	18.8
Care by an unrelated adult in child's own home	9.6	5.0	49.3	7.0	1.9	27.3

	Restricted Sample					
	Family Ethnicity					
Mode of Care	Current	Former	Never applied	Did not receive	Pending	Don't know
	%	%	%	%	%	%
Center care	32.4	5.9	39.1	6.6	1.8	14.2
Care by a relative in the child's own home	7.6	6	68.5	2.8	0.2	14.6
Care by a relative in relative's home[1]	9.8	2.9	64.6	6.5	0.8	15.4
Family child care[2]	20.0	6.6	50.0	6.1	0.5	16.8
Care by an unrelated adult in child's own home	12.6	6.6	41.9	7.9	2.7	28.4

Note: This table corresponds to Exhibit 4.15.
According to the NSAF:
1: Care by a relative not in child's home.
2: Care by an unrelated adult not in child's own home.