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Family and individual predictors of child care use by low-income families in different policy contexts[☆]

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Abstract

We examine family and individual characteristics that predict low-income parents' child care use, problems with child care, and receipt of public subsidies using data from three demonstration studies testing policies to promote employment for low-income parents (primarily single mothers). The characteristics that mattered most, particularly for use of center-based care were family structure (ages and number of children), parents' education, and personal beliefs about family and work. The effects of race and ethnicity were inconsistent suggesting that generalizations about ethnic differences in child care preferences should be viewed with caution. There was little support for the proposition that many low-income parents do not need child care assistance because they use relative care. Child care subsidies and other policies designed to reduce the cost of care and to increase parents' employment appeared to meet the needs associated with caring for very young children and for large families and were most effective in reaching parents with relatively less consistent prior employment experience. Parents whose education and personal beliefs were consistent with a preference for center-based care were most likely to take advantage of the opportunity to choose that option and to use subsidies.

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1. Introduction

Child care is a central issue in both welfare and income-support policies designed to promote parental employment in low-income families. Prior to 1996, federal funding for child care fell

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into three categories: tax credits, child development block grants for assistance to low-income families that began in 1991, and subsidies to recipients of AFDC and to parents at risk for entering AFDC. In 1996, the federal assistance programs for low-income families were combined into the Child Care Development Fund, and levels of funding have increased dramatically since that time (Fuller, Kagan, Casper, & Gauthier, 2002). At present, there is considerable debate about whether current subsidies are adequate; how critical they are as a support for parental employment; and whether they suit the needs and preferences of low-income parents and their children.

These debates can be informed by taking into account the diversity among low-income parents. Among parents at all income levels, individual differences in parents' child care needs, resources, beliefs, and preferences affect decisions about employment and child care within a given policy context. These individual differences may interact with different policies; that is, different policies may match or fail to match the needs of different types of families.

The purpose of this paper is to examine family and individual characteristics that predict decisions about using child care, problems with child care, and the likelihood of receiving subsidies for parents experiencing different policy contexts. One of the stated goals of the 1996 legislation establishing the Child Care Development Fund was "to promote parental choice and to empower working parents to make their own decisions about the child care that best suits their family's needs" (Fuller et al., 2002). Understanding how individual differences among parents affect these choices can assist policy-makers in tailoring public programs to meet the needs and preferences of a range of parents.

We examine four categories of family characteristics suggested by earlier literature on selection of child care—family structure, parents' human capital and resources, ethnic group, and personal characteristics—as predictors of child care decisions among low-income parents (primarily single mothers) who participated in evaluations of three demonstration programs designed to increase employment. These programs were selected because each offered enhanced child care assistance in the form of free on-site or nearby child care providers, generous and efficient subsidies, and/or direct payment to providers. In all three studies, parents were randomly assigned to the program group, which was eligible for enhanced child care assistance, or to a control group, which was eligible for whatever federally- and locally-funded forms of child care assistance were available in their locale. All three programs led to higher use of child care, particularly care in child care centers, by program group families than by controls (Bos et al., 1999; Gennetian & Miller, 2000; Quint, Bos, & Polit, 1997). In this paper, we examine individual differences within each program group in order to understand variations in response to the experimental programs tested.

1.1. *Child care*

Child care is used as an umbrella term referring to any form of nonparental care that occurs on a regular basis. We classify types of care as center, nonrelative or relative care. A *center* refers to a group setting designed for the care of young children. Centers are typically not in a home setting; there are multiple caregivers; and they typically serve relatively large numbers of children. Center care includes programs designed primarily for enrichment or early education (e.g., Head Start, preschools, or after-school programs) as well as settings designed primarily to

provide care while parents are working. In all states, centers must be licensed and are therefore, subject to some regulations regarding physical safety, ratios of caregivers to children, and the like. Center care is generally considered the most “formal” type of care, and it is usually the most expensive for parents unless it is subsidized by public funds (e.g., Head Start). Center care is of particular interest because there is also evidence that, for children from low-income families, it is of higher average quality than home-based care (Chase–Lansdale, Coley, & Li Grining, 2001) and, with quality equated, that it is associated with better cognitive and language development for young children than is home-based care (NICHD Early Child Care Research Network, 2000).

Nonrelative care can occur in the caregiver’s home (e.g., family child care homes) or in the child’s home. Parents typically pay for such care. Some child care homes are licensed, certified, or registered; and some receive training and technical assistance, but many do not. *Relative* care is provided by grandparents, siblings, or other relatives in the child’s home or in their homes. Parents sometimes pay for such care. In some studies, “relatives” include the parent’s partner or the child’s other parent.

1.2. *Child care problems and subsidy use*

As one purpose of this paper was to understand individual differences within various policy contexts, we examined parents’ reports that child care problems interfered with their ability to seek and sustain employment and their use of child care subsidies. Subsidies are designed to facilitate parents’ employment by reducing the cost of child care, but there is considerable disagreement about their effectiveness (Fuller et al., 2002). The National Study of Child Care for Low-Income Families indicates that, despite the large increase in the number of children receiving subsidized care, states served 17% of federally-eligible children in 2000, with a range from 10 to 27% (Layzer & Collins, 2001). Of the 12 states that maintained waiting lists, the number of families who had requested but did not receive subsidies ranged from 3,000 to 31,000 (Collins, Layzer, Kreader, Werner, & Glantz, 2000).

At the same time, there are widespread reports of low take-up rates for child care subsidies (e.g., from state studies of TANF leavers), suggesting that even when child care subsidies are available, most families do not use them (Schumacher & Greenberg, 1999). Low take-up of subsidies could indicate that many parents have relatives or others who can provide unpaid care, but there is also extensive evidence of bureaucratic hassles to receive and maintain eligibility, lack of information about eligibility, and lack of available child care slots (Adams, Snyder, & Sandfort, 2002). Many employed parents with low incomes do use relative care, but close to half (44%) of United States low-income families with employed mothers used nonrelative care for preschool children in a recent national survey (Capizzano, Tout, & Adams, 2000), and 42% used center-based care for their 3- to 5-year-old (Tout, Zaslow, Papillo, & Vandivere, 2001). Moreover, when subsidized care is available, low-income parents increase their use of center care, suggesting that many prefer it to other forms of care (Fuller et al., 2002; Zaslow, Oldham, Moore, & Magenheimer, 1998). Single employed mothers are more likely than employed married mothers to pay for care, and low-income parents who pay for care spend 25–30% of their incomes for that care (Hofferth, 1995; Phillips, 1995). Hence, child care costs lead to difficult choices about employment and deployment of family resources.

One reason for these contradictory conclusions is that current subsidy policies may not fill the needs of some families. Subsidies are intended to permit parents to be employed, but the causal relations between child care and employment are complex. Since 1996, states were required to give priority to parents leaving welfare, so one might expect subsidies to promote employment, but it is also possible that they are used to reduce child care costs by parents who are already employed. In a recent analyses of post-1996 data, [Blau and Tekin \(2001\)](#) conclude that subsidies promote employment and participation in schooling, but only for parents receiving welfare. They attribute this finding to the federal requirement that priority for subsidies be given to parents receiving or at risk for receiving TANF.

Individual differences in families' needs and values were evident in an analysis of in-depth qualitative data collected from a sample of parents in the New Hope study. These included particular combinations of material and social resources, values and beliefs regarding parenting and care, efforts to maintain balance and reduce conflict for themselves and those around them, and the degree of stability and predictability in day-to-day activities. The available subsidy programs addressed the needs and preferences of some families, but not those of others ([Lowe & Weisner, in press](#)).

1.3. Predictors

In our conceptual model, we consider child care decisions as the result of an interaction of families' needs and preferences for child care with the structural/policy child care context in which those families live. We consider parent and family characteristics in the framework of child care needs, resources to meet those needs, and beliefs and preferences about the kind of care parents want for their children. Because parental employment provides the primary impetus for seeking child care, factors that affect likelihood of employment are likely also to affect child care use. Our predictors are selected to provide indices of child care needs and resources, likelihood of employment, and parent beliefs and preferences. They fall in four groups: family structure, human capital and resources, ethnic group, and personal beliefs and supports.

1.3.1. Family structure

Family structure defines fundamental child care needs as well as some of the resources to meet those needs. In general, the larger the family and the younger the children, the greater is the need for care and the more costly and demanding is the child care required ([Singer, Fuller, Keiley, & Wolf, 1998](#)). Child care subsidy use is greatest for parents with preschool children ([Blau & Tekin, 2001](#)). From birth to age 6, the older the children, the more likely they are to be in some type of nonmaternal child care ([Early & Burchinal, 2001](#); [Fuqua & Labensohn, 1986](#); [Leibowitz, Klerman, & Waite, 1992](#); [Tout et al., 2001](#)), and the more likely are their mothers to be employed ([Pungello & Kurtz-Costes, 1999](#)). Older preschool children (3- to 5-year-old) are also more likely to be in formal care than are younger children (birth to 2) ([Early & Burchinal, 2001](#); [Fuller, Holloway, & Liang, 1996](#); [Lehrer, 1983](#); [Leibowitz, Waite, & Wisberger, 1988](#); [Tout et al., 2001](#)). This difference may be due to mothers' beliefs about the developmental needs of their children ([Meyers & Van Leuwen, 1992](#)) as well as to differences in availability and cost between infant and preschool center care ([Hofferth, 1995](#); [Willer et al., 1990](#)). During

the school years, children spend decreasing amounts of time in nonmaternal child care. By about fifth grade, few participate in extended day care, but many spend time in a range of settings that provide some supervision (Belle, 1999; Capizzano et al., 2000; Marshall et al., 1997; Posner & Vandell, 1999).

Children in large families receive less child care than do those in small families (NICHD Early Child Care Research Network, 1997), and when they do participate in child care, it is more likely to be relative or home-based than center-based (Johansen, Leibowitz, & Waite, 1996; Liang, Fuller, & Singer, 2000; NICHD Early Child Care Research Network, 1997; Zaslow et al., 1998). Parents may find it more difficult and expensive to arrange care for a large number of children than for a small number, and the cost of center care for multiple children can be very high. Relative and nonrelative care may be attractive because it is not age-graded in the same way child care centers are; therefore, siblings of different ages can be in the same child care setting rather than requiring separate enrollment, often in separate locations. Finally, in large families, older children may take responsibility for the care of younger siblings.

Adult family members in the house may represent resources to provide child care. Available research indicates that when a second parent or another relative lives in the home, children are likely to receive care from those individuals while mothers are employed (Fuller et al., 1996; NICHD Early Child Care Research Network, 1997). Young parents, especially adolescent mothers, may be more likely than older parents to have parents of their own who can provide child care.

1.3.2. *Human capital and resources*

The child care studied here was used primarily while parents were employed or participating in education and training activities. Although current employment clearly affects the need for child care, we examined *predictors* measured prior to the time parents entered the demonstration programs. Because education, literacy, work history, welfare history, transportation and stable housing may increase the likelihood of future employment, one would expect these indicators of human capital and material resources to be related to the future use of child care. Some of these indicators may also indicate differences in parents' beliefs, preferences, and attitudes.

Available evidence indicates that adults with more human capital use more child care and are more apt to use center-based as opposed to relative care. In general, parents with higher levels of education use more center-based than relative or home-based care (Hofferth & Wissorker, 1992; Zaslow et al., 1998). One reason may be higher incomes (NICHD Early Child Care Research Network, 1997), but education may also signify the value placed on academic and educational stimulation. In a sample of welfare mothers, those who placed their children in early childhood programs provided more cognitive stimulation and emotional support at home than did mothers who did not use nonmaternal care (Zaslow et al., 1998). In another, parents' beliefs and early literacy practices predicted use of center care (Fuller et al., 1996).

Adults with high human capital may be more likely to have stable, full-time jobs with regular schedules and relatively high earnings, all of which increase the likelihood of using child care, especially center care. For the most part, the more hours mothers work, the more likely they are to use paid care, including centers and family child care homes, rather than other forms of care (Capizzano et al., 2000; Connolley & Kimmel, 1999; Edrwins & Buffardi, 1994; Fuller et al., 1996; Fuller et al., 2002; Hofferth & Wissorker, 1992; Kontos, Howes, Shinn, &

Galinsky, 1995; NICHD Early Child Care Research Network, 1997). For school-age children, low-income families use more supervised arrangements and less self-care, but fewer before- and after-school programs than do higher income families (Capizzano et al., 2000).

Transportation and housing circumstances could affect employment as well as access to child care settings. Parents who have to travel far for care or do not have a car may have limited access to child care, particularly when it is not near public transportation (Zigler & Lang, 1991).

1.3.3. *Ethnic group*

Ethnic group membership may affect access to jobs, access to child care, beliefs and attitudes about child care, family resources, and many other aspects of the cultural ecology. Compared to European American families, some studies report that African American families use relative care more and center care less (Hofferth & Wissorker, 1992). When income is controlled, however, African American families are at least as likely to use center-based care (Fuller et al., 1996; Hofferth, Brayfield, Deich, & Holcomb, 1991; Liang et al., 2000; NICHD Early Child Care Research Network, 1996). On average, African American children enter nonparental care earlier than do European American children who in turn enter earlier than Hispanic children (Singer et al., 1998). Regardless of poverty status, African American infants and toddlers are more likely to be in relative care, and preschoolers are more likely to be in center-based care, compared to their European American or Hispanic counterparts (Early & Burchinal, 2001).

Hispanic families are less likely than other groups to use center-based care (Fuller et al., 1996; Hofferth & Wissorker, 1992). The difference in the use of center-based care between Hispanic and other ethnic groups becomes smaller when family's economic factors, maternal education, family structure and parental beliefs and practices are taken into account (Liang et al., 2000).

Interviews with African American and Hispanic parents indicate that they have relatively low trust in home-based providers whom they do not know; if relatives are unavailable, they prefer centers to child care homes because they believe there is less danger of abuse in a relatively public group setting (Lowe & Weisner, in press; Phillips, 1995). Early and Burchinal (2001) argue that African American families may be more likely to select center-based care because they believe that it enhances learning. The high number of Head Starts in the South and greater access to Head Start centers among African American families may also explain the ethnic differences in the use of formal types of child care (Fuller et al., 1996; Liang et al., 2000). African American parents use before- and after-school programs more than Hispanic parents do, and European American children are more likely than African American children to be in self-care by the time they are 10–12 years old, perhaps because of differences in neighborhood safety (Capizzano et al., 2000).

1.3.4. *Personal characteristics and family social context*

Parents' decisions about employment and preferences for use of child care also depend on personal and social characteristics such as psychological adjustment, future orientation, mastery beliefs, beliefs about combining work with family responsibilities, and social support in and outside the family. In two analyses of mothers who were eligible for welfare, there were no relations of personal dispositions (depression or perceived efficacy) to child care patterns

(Yoshikawa, 2001; Zaslow et al., 1998). By contrast, at all income levels, maternal attitudes and beliefs are important predictors of their decisions about employment and child care. Mothers with nontraditional attitudes toward childrearing, gender roles, and women's participation in the labor force use more hours of nonmaternal care and more formal care than do those with more traditional views (Chang & Huston, 2001; NICHD Early Child Care Research Network, 1997; Pungello & Kurtz-Costes, 2000; Vandell, Hyde, Plant, & Essex, 1998). The mother's social context may also support or hinder her ability to sustain employment and may affect her child care choices. If family members provide social support and encourage employment, she may be more likely to sustain employment and to use child care.

1.4. Different policy contexts

Most of the extant literature on child care selection is drawn from studies of employment and child care decisions in "naturally occurring" economic and policy environments. That is, there were no special inducements for employment or child care beyond those in the region where the family resided. In this report, we examine selection processes in three systematically-varied policy contexts. All three demonstration studies analyzed in this report were designed to promote employment of low-income parents, and all of them included policy components specifically designed to reduce the barriers associated with availability or cost of child care. Different factors may be important for parents' child care decisions in these policy contexts than in environments without these policy features. For example, because all three programs were designed to reduce the costs of care, they may have reduced the barriers to employment associated with children's ages, family size, or other family structure variables; they may have enabled parents who preferred formal care and other forms of paid care to use those forms of care. Because the interventions encouraged or, in some instances, required parents to seek training and employment, they may have reduced the differences associated with human capital, resources, and personal characteristics. On the other hand, individual differences in beliefs and family support may have affected parents' responses to these policy contexts.

In summary, the purpose of these analyses was to understand individual differences predicting child care decisions for low-income parents (primarily single mothers) participating in public programs designed to prepare them for or increase their employment. Specifically, we asked how family structure, human capital and resources, ethnic group, and personal beliefs and social circumstances, measured prior to the onset of the program, were related to the amount and type of child care used, child care problems as a barrier to employment, and use of public subsidies.

2. Method

The data for these analyses were taken from three random-assignment experiments: New Chance, New Hope, and the Minnesota Family Investment Program (MFIP). Each study was designed to test a different experimental program intended to increase parental employment. One or two children in each family were identified as focal children for intensive study. Characteristics measured at baseline, before participants were randomly assigned to the program

group, were grouped into four conceptually-guided sets: family structure, human capital and resources, ethnic group, and personal beliefs and social circumstances. In each study, there was one follow-up assessment of the child care variables at 18 months (New Chance), 24 months (New Hope), or 36 months (MFIP) after random assignment.

2.1. Description of the programs

2.1.1. New Chance

New Chance was a voluntary program that provided comprehensive education, training, and other services intended to increase the long-term self-sufficiency and well-being of young mothers and their children (Quint et al., 1997). Participants had 18 months of eligibility for services. The program was carried out in 16 locations across 10 states. Among the many services provided was free child care when mothers were participating in program activities, including jobs. In slightly over half of the sites, there was a child care center at the site where mothers received educational and other services; in the other half, the program helped to arrange nearby off-site care in centers or child care homes or offered referral services to help mothers find care.

2.1.1.1. Sample. The target group of New Chance was mothers 16–22 years old who had given birth at age 19 or younger, were receiving AFDC, and did not have a high school degree or GED. A total of 1,553 applicants were randomly assigned to the program group; approximately 90% of them responded to a follow-up survey 18 months later. One child was selected as the focal child. At random assignment, the children’s ages ranged from 0 to 6 years with an average of 1.5 years. At the 18-month follow-up, they had an average age of 3 years.¹ A total of 1,400 families (one focal child for each family) had complete data for our analyses of child care use. The characteristics of this sample appear in Table 1.

Table 1
Means and standard deviations of child care and selection variables

	New Chance		New Hope		MFIP	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Family structure						
Age of parent (years) ^a	18.8	1.4	2.9	0.9	28.9	6.4
Other adults in household (%)	40.7	–	21.8	–	–	–
Number of kids in household	1.4	0.7	2.2	0.8	2.2	1.1
Youngest child age (years) ^b	1.2	1.1	1.8	0.8	4.4	2.7
Child age ≥ 18 months (%)	42.6	–	–	–	–	–
Child age < 3 years (%)	–	–	23.5	–	19.2	–
Child age 3–5 years (%)	–	–	31.5	–	43.8	–
Child age > 6 years (%)	–	–	44.1	–	37.0	–
Human capital						
Highest grade completed	9.9	1.2	11.4	2.1	11.8	1.8
Reading level (grade)	8.3	2.8	–	–	–	–
Earnings greater than \$500 (%)	20.1	–	–	–	–	–
Earnings past year (\$)	–	–	3745.9	5019.5	3027.7	5763.5

Table 1 (Continued)

	New Chance		New Hope		MFIP	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Ever employed past 12 months (%)	36.6		–	–	51.2	–
Months in full time job past 12 months	–	–	3.7	4.4	–	–
Time on AFDC ^c	–	–	4.6	1.9	–	–
Long-term recipients (%)	–	–	–	–	53.4	–
Have access to a car (%)	–	–	45.1	–	–	–
Number of moves ^d	–	–	2.1	0.8	1.8	1.7
Ethnic group						
European American (%)	25.2	–	15.5	–	63.4	–
African American (%)	51.7	–	59.2	–	25.6	–
Hispanic (%)	23.1	–	25.4	–	–	–
Hispanic, Asian, or others (%)	–	–	–	–	3.6	–
Native American (%)	–	–	–	–	7.5	–
Personal characteristics						
Depression (CESD score)	17.9	10.3	–	–	–	–
Emotional support	2.8	2.1	–	–	–	–
Personal adjustment	–	–	0.03	0.51	–	–
Plans ahead	–	–	0.08	0.66	–	–
Social support	–	–	0.00	0.54	–	–
Others' attitudes	–	–	–0.01	0.87	–	–
Mastery	–	–	–	–	0.00	0.59
Family first	–	–	–	–	0.02	0.62
Social support	–	–	–	–	1.5	0.73
Child care barriers	–	–	–	–	0.01	0.82
Child care over an 18–36-month period—child level						
Ever in any child care (%)	95.3	–	88.7	–	86.4	–
Months in formal care ^e	5.8	6.0	10.3	10.0	9.8	13.0
Months in nonrelative care ^e	1.6	3.6	2.1	5.4	4.2	–
Months in relative care ^e	3.8	5.4	7.7	9.4	12.5	14.0
Child care in prior month—family level						
Reported a child care problem (%)	22.4	–	25.7	–	31.5	–
Received a child care subsidy (%) ^f	–	–	75.3	–	51.4	–

Notes. Sample sizes vary for individual variables because of missing values.

Sample size of New Chance is $N = 1,400$. Sample size for child age and child care use in New Hope is number of focal children ($N = 451$). Descriptive information of all the other variables is based on the family unit ($N = 284$). In MFIP, sample size of child care problem and subsidy use includes families with and without focal child data ($N = 1,460$). All the other descriptive information is based on the families with focal child data ($N = 762$).

Dichotomous variables are coded as (0 = no; 100 = yes).

Personal characteristics variables, except 'supper together' are mean of standardized scores of the items.

^a Age of parent is a categorical variable in New Hope (1 = 18–19 years; 2 = 20–24; 3 = 25–34; 4 = 35–44; 5 = 45–54; 6 = 55 or over).

^b Age of youngest child is a categorical variable in New Hope (1 = 2 or under; 2 = 3–5; 3 = 6 or over).

^c Time on AFDC is categorical variable (1 = none; 2 = less than 4 months; 3 = 4 months to 1 year; 4 = 1–2 years; 5 = 2–5 years; 6 = 5–10 years; 7 = 10 years or more).

^d Number of moves is "Number of moves in past 2 years" and a categorical variable (1 = none; 2 = 1; 3 = 2 or more).

^e Children who ever used any type of care were only included.

^f Families who used paid care were only included.

2.1.1.2. Procedures. Baseline data included questionnaires collected at the time of enrollment and state unemployment records used to determine the amount of employment and earnings during the 12 months prior to enrollment. At the 18-month survey, parents were surveyed about use of child care since random assignment, the number of months the child had spent in different types of care, and whether child care problems had interfered with the mother's ability to get or keep a job.

2.1.2. New Hope

New Hope was conducted in Milwaukee, WI; it offered wage supplements, health care subsidies, and child care subsidies to adults who worked full time (30 or more hours a week). Volunteers were randomly assigned to a program group who were eligible for services or a control group who were not. The New Hope child care subsidy could be used for any child age 12 or younger in any licensed child care center or child care home. Parents were required to contribute a small copayment; the amount depended on their income and family size.

2.1.2.1. Sample. The target group was low-income adults of both sexes. A subgroup of 366 single mothers with 570 focal children ages 1 year, 1 month to 10 years, 11 months at random assignment were the sample for this investigation. Of this group, 284 parents with 451 children responded to a face-to-face survey 24 months after random assignment. They formed the sample for this report. Characteristics of these families are shown in [Table 1](#).

2.1.2.2. Procedure. When they applied for the program, parents filled out a Baseline Information Form providing information about work and welfare histories, attitudes about work, and family structure; and some completed a Private Opinion Survey. Administrative records (state unemployment and AFDC) provided information about employment, income, and welfare receipt in the prior 12 months. Information about child care use, months in different types of care, child care problems, and subsidy use were collected for the 2 years since baseline in the 24-month survey.

2.1.3. Minnesota Family Investment Program

In the Minnesota Family Investment Program (MFIP), recipients of AFDC were enrolled in a welfare waiver demonstration testing two policies—incentives only and mandated participation with incentives. All program group members received financial incentives for employment in the form of an earned income disregard that permitted them to keep part of their welfare grant while they had earnings. In addition, those in the mandated group were required to participate in work-focused employment and training activities. Child care subsidies were available for care while mothers worked or participated in work preparation. The amount of the subsidy was equivalent to that paid by the AFDC or TANF program, but it was paid directly to the provider rather than being part of the welfare grant. Therefore, parents did not have to wait for reimbursement after paying for care.

2.1.3.1. Sample. The target group for MFIP was applicants for and recipients of AFDC. All individuals in these categories during an 8-month period in 1994 were randomly assigned to one of two MFIP programs or to a control group (total $N = 9,363$). Of these, a survey sample

was randomly selected for a follow-up 36 months later. One focal child in each family was selected. Focal children were ages 2–9 years old at random assignment. The sample used in the present analyses consisted of 1,460 families with 762 focal children in one of the two MFIP programs.² The children were ages 5–12 at the 36-month follow-up evaluation.

2.1.3.2. Procedures. Parents completed a Baseline Information Form at the time of enrollment in the program, and some filled out a Private Opinion Survey, but the questions differed from those used in New Hope. Administrative records of employment, earnings, and welfare receipt in the prior 12 months were available. Parents responded to questions about child care on a survey 36 months after random assignment.

2.1.4. Comparison of study samples

There were important differences among the samples in the three studies (see [Table 1](#)). Compared to the other two programs, parents in New Chance were much younger, had fewer and younger children, were less likely to have been married, were more likely to live with another adult, had lower average education, and had less employment experience. The samples in New Hope and New Chance were both volunteers who did not have to be receiving welfare to be eligible, and they had similar ethnic distributions (about half African American and 25–30% Hispanic). Participants in the Minnesota study were all AFDC recipients; some were required to participate in employment activities; the sample was predominantly European American; and some lived in rural areas. New Hope and MFIP were both in the upper Midwest and the sample members were similar in average age, family size, education level, and previous earnings.

2.2. Predictors

All predictors were measured *before* individuals were assigned to program or control groups. Slightly different characteristics were measured in each study, but many were identical or comparable. The means and standard deviations are shown in [Table 1](#).

2.2.1. Family structure

The predictors included age of the target child, age of the youngest child, family size (number of children under 18), age of the parent, and whether or not there were other adult family member(s) in the home.

2.2.2. Parent human capital and resources

Education, defined by years of completed schooling was available for all groups. In New Chance, literacy was measured by the Test of Adult Basic Education ([Quint et al., 1997](#)). The score indicates reading grade level. Employment history was indexed by months in a full time job in the previous year (New Hope), and earnings during the previous year (all groups) derived from administrative records. Welfare history was defined as time receiving AFDC (New Hope) or being a long-term recipient (more than 2 years in MFIP), again from administrative records. New Hope included a measure of access to a car, and both New Hope and MFIP included the number of residential moves in the previous year as indicators of resources.

2.2.3. Ethnic group

Ethnic groups were self-reported. They included European American, African American, Hispanic (“Hispanic, Asian, or others” in MFIP) and Native American (only in MFIP). In New Hope, 12 Native American families were included in the European American group. The European American group is omitted in the analysis as a comparison group.

2.2.4. Parents’ beliefs and social context

Different measures were obtained in each study. In New Chance, *depressive symptoms* were measured with the Center for Epidemiological Studies Depression Scale (CES-D, Radloff, 1977). This is a widely used measure of depressive symptoms; its reported internal consistency is 0.78. The amount of *social support* was indicated by the number of people (friends/family members) who provided emotional support. The Personal Opinion Surveys in New Hope and MFIP contained different questions, but they represented some overlapping constructs. “Standardized scores of the selected items were summed to create the composite variables.”

2.2.4.1. New Hope Personal Opinion Survey. Four variables were created. *Personal work adjustment* consisted of 10 questions dealing with personal problems that interfered with work (e.g., “You and the other workers argued and this got you into trouble,” $\alpha = .77$). High scores indicate few problems. *Plans ahead* (future orientation) was composed of three items indicating planning and goals (e.g., “Are you someone who plans ahead OR someone who does things on the spur of the moment?” $\alpha = .49$). *Others’ attitudes toward employment* was indicated by two questions (e.g., “Among your relatives and friends, how often does a woman going to work cause problems between her and her husband or boyfriend?” $\alpha = .50$). *Social support* contained five questions concerning who is available to help (e.g., “When someone in your household is working, do relatives or friends help when problems come up, like caring for a sick child or shopping?” $\alpha = .43$).

2.2.4.2. MFIP Personal Opinion Survey. The four variables were: *mastery*, six items (e.g., “I have little control over the things that happen to me,” reversed scoring, $\alpha = .73$); *family priority over work*, eight items (e.g., “If you had a choice, which would you prefer, getting a part-time job or staying home to take care of your family?” $\alpha = .78$); *social support*, two items (e.g., “When I have trouble or need help, I have someone to talk to,” $\alpha = .33$); *child care as a barrier to work*, three items (e.g., “I cannot work because I cannot arrange for child care,” $\alpha = .73$). For both New Hope and MFIP, the items in the POS variables had different scales (e.g., some were yes/no, and others were 4- or 5-point Likert-type scales). To create a summary score for each, the items were standardized into scores which have 0 mean and 1 *SD* and summed.

2.3. Child care outcomes

The means and standard deviations of all child care variables appear in Table 1. Four variables described how much and what kind of care children experienced during the period between random assignment and the follow-up evaluation: (a) whether the child had ever been in any type of care during the follow-up period was coded for all focal children (100 = yes; 0 = no). For

children who had been in care, we analyzed (b) months in center care, (c) months in nonrelative care, (d) months in relative care. For all parents, we coded whether they reported child care problems that interfered with work-related activities (100 = yes; 0 = no). For parents who used child care, we coded whether they had ever used child care subsidies (100 = yes; 0 = no).³

2.4. Analysis strategy

For each study, the child care outcome variable was regressed on the available set of predictors in that study. Logistic regressions were used for dichotomous dependent variables—the use of any child care, report of any problems with child care, and the use of a child care subsidy, all of which were coded as 0 = no and 100 = yes. Logistic regression is a maximum likelihood procedure for identifying parameter estimates with error terms, or disturbances, that do not take the form of a standard normal distribution, a key assumption in Ordinary Least Squares (OLS) regression models (Greene, 2000). The overall fit of a logistic regression model can be evaluated by a number of summary statistics. The one that we report is the likelihood ratio; its statistical significance is tested by χ^2 .

The contribution of individual predictors is described both by estimated standardized regression coefficients (Beta) and by changes in odds ratios. In the maximum likelihood procedure, the regression coefficients estimates are chosen as the combination that represents the highest probability of having obtained the observed scores on the dependent variable. They are not identical to regression coefficients in OLS regressions. Their interpretation is aided by the odds ratio. The odds of an event occurring are the ratio of the probability of an event occurring to the probability that it will not occur. This is not simply the probability of an event. The change in odds ratio indicates the increase or decrease in the odds that individuals will have scores of 100 (i.e., yes) that is associated with changes of one unit in the predictor variable. For example, if the odds ratio of highest grade completed on using child care were 1.20, it would mean that the odds of using child care increases by 20% for every year of education. An odds ratio of less than 1.0 (e.g., 0.95) would indicate that the probability of using child care decreases with education. Because odds ratios depend on the scale of measurement for the predictor variable, they cannot be compared across predictors or, in many cases, across studies. The probability associated with the beta applies to the odds ratio as well.

Another index of the accuracy of prediction is the percent of cases correctly predicted. This is calculated by dividing cases at the median and computing the percent that would be correctly placed by the prediction equation (Aldrich & Nelson, 1984).

The continuous dependent variables (months in center, nonrelative, and relative care) were calculated only for those children who had spent some time in child care (i.e., whose mothers had ever used child care for that child). They were analyzed with OLS regressions; adjusted R^2 and standardized regression coefficients are presented for each predictor.

In the analyses of use of any child care, and months in center, nonrelative and relative care, the focal child was the unit of analysis. In the analyses of child care problems and use of subsidies, the family was the unit of analysis. All cases were included in the analysis of child care problems, but only those who had used any care were included in the analysis of subsidy receipt.

Because the variables from the Personal Opinion Survey (POS) were different for each study, and because the number of participants who completed these forms was smaller than those for

whom the other baseline information was available, a second set of analyses was performed adding the POS variables to the models for New Hope and MFIP. In New Hope, 78% of the sample completed the POS. Responders were more likely to be African American and less likely to be Hispanic ($p < .05$) than nonresponders, but did not differ on other predictors. In MFIP, 68% completed the POS. Responders had more children in the household, fewer children between 3 and 5 years old, and had completed more years of school ($p < .05$) than nonresponders.

3. Results

3.1. Child care use

The means for “ever used child care” and months in each type of care (center, nonrelative, and relative) are shown in [Table 1](#). In general, the correlations among the three different types of care were negative. In particular, children who spent more months in center-based care spent fewer months in relative and nonrelative care. The correlations of center care with relative care were $-.23$, $-.34$, and $-.23$ ($p < .001$) for New Chance, New Hope, and MFIP, respectively. The parallel correlations of center care with nonrelative care were $-.15$, $-.19$, and $-.18$ ($p < .001$) and for relative with nonrelative care were $-.09$ ($p < .01$), $-.24$ ($p < .001$), and $-.04$ (ns).

The regressions predicting “ever used child care” and months in each type of care (center, nonrelative, and relative) are shown for New Chance in [Table 2](#), for New Hope in [Table 3](#), and for MFIP in [Table 4](#). The great majority of children in each group had experienced some child care, reducing the possibility for individual differences in the dichotomous index of “use of any care” to emerge. In New Chance, over 95% of the parents had used some child care, and the overall model was not statistically significant. In New Hope, however, the base model predicted correctly in 84% of the cases, and the model including the POS scales predicted 86% correctly. In MFIP, the base model was statistically significant, predicting 67% correctly, and the model containing POS scales predicted 73% correctly.

In the analyses of the three types of care, the predictors accounted for relatively small amounts of variance in New Chance. In New Hope and MFIP, the predictors accounted for considerably more variation in use of center care than in nonrelative or relative care (see R^2 s in [Tables 2–4](#)).

3.1.1. Family structure

Child age was the most consistent predictor of amount of care, particularly of center-based care. In New Chance, where children ranged from young infants to about 6 years old, parents were more likely to use any care and they used more months of center care for those over 18 months than for younger children. In the other two studies, where focal children ranged from 1 to 10 years old, parents used more care for infants and preschool-aged children than for school-aged children. Children’s ages were most consistently related to the use of center care; children under age 6 spent more months in center care than did children over 6. There were few differences by child age in the amount of nonrelative and relative care, but there was

Table 2

Predictors of child care use for parents in the New Chance program over an 18-month follow-up period

Predictors	Used any care (%)		Months in formal care	Months in nonrelative care	Months in relative care
	Beta	Odds ratio	Beta	Beta	Beta
Family structure					
Age of parent	0.06	1.08	−0.01	0.04	−0.04
Other adults in HH	−0.07	0.76	−0.08**	0.09**	0.06 [†]
Number of kids in HH	−0.06	0.85	−0.01	−0.05	−0.03
Child age ≤18 months (omitted category)	–	–	–	–	–
Child age ≥18 months	0.16 [†]	1.80	0.13***	−0.02	−0.04
Human capital					
Reading level	0.14 [†]	1.10	−0.02	0.06*	−0.03
Earnings > \$500 PY	0.02	1.12	0.05	0.02	0.09**
Ethnic group					
European American (omitted category)	–	–	–	–	–
African American	−0.07	0.79	0.00	0.00	0.00
Hispanic	−0.06	0.79	0.03	0.03	0.03
Personal characteristics					
Depression	−0.06	0.99	−0.01	−0.02	0.04
Emotional support	0.08	1.07	0.00	0.04	0.06 [†]
Maximum likelihood χ^2	13.19				
R^2			0.02***	0.01**	0.02***

Note. Results for “used any care” are from logistic regression. Results for “months in care” are from OLS regressions.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

some tendency for children over 6 to spend more months in home-based care with relatives or nonrelatives than did toddlers and preschool children.

With children’s ages controlled, older mothers were less likely to use child care, particularly center care, than were younger mothers in New Hope and MFIP. This pattern was not replicated in New Chance, but those mothers were on average about 10 years younger than the mothers in the other studies. Family size was important in MFIP, but not in the other programs. In MFIP, parents with larger families used less child care for focal children than did those with smaller families. Although the average family size in New Hope was similar to that in MFIP, family size was not related to child care use. In New Chance, most mothers had only one child.

Having another adult in the home could lead to a lower need for care because there is someone else to provide an income, or it could lead to more relative care if that adult is available for child care. Having another adult in the home predicted home-based care by relatives and nonrelatives for the young mothers in New Chance, but not for the older mothers in New Hope (this variable was unavailable in MFIP). It is noteworthy that even among the young mothers in New Chance,

Table 3
Predictors of child care use in New Hope

Predictors	Used any care (%)		Months in formal care	Months in nonrelative care	Months in relative care
	Beta	Odds ratio	Beta	Beta	Beta
Family structure					
Age of parent	-0.21*	0.65	-0.15**	-0.08	0.10 [†]
Other adults in HH	0.17	2.18	-0.07	-0.04	0.04
Number of kids in HH	0.00	1.01	-0.05	0.00	0.02
Child age <3 years (omitted category)	-	-	-	-	-
Child age 3–5 years	0.15	1.01	-0.04	0.05	0.02
Child age >5 years	-0.37*	0.99	-0.31***	0.12 [†]	0.05
Human capital					
Highest grade	0.21**	1.20	0.15**	0.08	-0.09
Earnings past year	0.30	1.00	-0.02	0.06	0.02
Time on AFDC	0.16 [†]	1.16	0.05	0.07	-0.10 [†]
Months employed full time	0.06	1.03	0.06	-0.05	-0.01
Access to a car	0.06	1.24	0.04	0.05	0.06
Number of moves	-0.06	0.88	0.08 [†]	-0.02	-0.15**
Ethnic group					
European American (omitted category)	-	-	-	-	-
African American	0.17	1.86	0.23***	-0.02	-0.14 [†]
Hispanic	-0.02	0.94	0.15*	0.07	-0.19*
Maximum likelihood χ^2 R^2	63.25***		0.17***	0.00	0.05**
Personal characteristics					
Personal adjustment	-0.18	0.51	-0.05	-0.14*	0.07
Plans ahead	0.31*	2.38	0.06	-0.05	-0.11 [†]
Social support	-0.24	0.44	0.03	0.25***	-0.04
Others' attitudes	0.24 [†]	1.63	0.11 [†]	-0.14*	0.12 [†]
Maximum likelihood χ^2 R^2	55.78***		0.16***	0.07**	0.05*

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

fewer than half lived with another adult; in New Hope, only about 20% had another adult in the household.

3.1.2. Human capital and resources

In general, parents with higher human capital used more child care over the follow-up period. Maternal educational attainment in particular predicted use of center care (see Tables 2–4). In New Chance, mothers with higher levels of literacy were more likely to use some child care, and their choices were apt to be home-based care by relatives or nonrelatives. In New

Table 4
Predictors of child care use in Minnesota Family Investment Program (MFIP)

Predictors	Used any care (%)		Months in formal care	Months in nonrelative care	Months in relative care
	Beta	Odds ratio	Beta	Beta	Beta
Family structure					
Age of parent	-0.17*	0.96	-0.05	0.08	-0.09 [†]
Number of kids in HH	-0.13*	0.83	-0.07	-0.05	0.03
Child age <3 years (omitted category)	-	-	-	-	-
Child age 3–5 years	0.05	1.15	-0.03	0.13*	0.01
Child age >5 years	-0.20*	0.53	-0.21***	0.00	0.11 [†]
Human capital					
Highest grade	-0.05	0.96	0.13**	-0.04	0.00
Earnings past year	0.15 [†]	1.00	0.00	0.05	0.04
Long-term recipients	0.00	1.01	0.04	-0.02	-0.13*
Number of moves	0.07	1.06	-0.14***	0.08 [†]	0.01
Ethnic group					
European American (omitted category)	-	-	-	-	-
African American	0.00	1.00	-0.08 [†]	-0.05	-0.03
Native American	-0.07	0.66	-0.10*	-0.10*	0.01
Hispanic, Asian, or others	0.03	1.30	-0.11**	0.00	0.04
Maximum likelihood χ^2	49.41***				
R^2		0.10***	0.03**	0.02*	
Personal characteristics					
Mastery	0.23*	1.79	-0.03	0.04	-0.01
Family first	-0.18*	0.64	-0.11*	0.06	0.06
Social support	-0.02	0.95	0.04	-0.03	0.03
Child care barriers	-0.04	0.92	0.01	0.00	-0.03
Maximum likelihood χ^2	51.99***				
R^2		0.10***	0.03 [†]	0.00	

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Hope and MFIP, however, parents with higher levels of education used more child care, and their choices were apt to be center care. A rough indication of the size of this effect can be seen in a comparison of parents with high and low levels of education (divided at the median). The average months of center care used by parents with above average education in New Hope = 11.65; those with below average education used 8.46 months. In MFIP, above average education parents used 11.54 months of center care; those with below-average education used 6.02 months. Other indicators of human capital (e.g., previous employment and earnings) were not generally related to the amount or type of care used.

Having a history of receiving AFDC was related to use of child care in New Hope and, in both New Hope and MFIP, the type of care most likely to be used was relative care. Residential

mobility had different relations to care in the two studies. In New Hope, moving more frequently was related to more center care and less relative care compared to being more residentially stable. In MFIP, frequent moves were associated with less center care and more nonrelative care.

3.1.3. *Ethnic group*

There were no ethnic group differences in the likelihood of using care, and the differences in type of care were not consistent. In New Hope, African Americans and Hispanics used more center care and less relative care than European Americans did, but in MFIP, African Americans, Native Americans and Hispanics used less center-based care than did European American parents.

3.1.4. *Personal characteristics and social context*

Personal characteristics and social circumstances added to the prediction of child care use and type of care (see [Tables 2–4](#)). Psychological adjustment as indicated by depressive symptoms in New Chance and adjustment in work situations in New Hope were not generally related to child care use except that poor adjustment was associated with use of nonrelative home-based care. In both New Hope and MFIP, however, parents with high levels of perceived mastery (MFIP) or planning for the future (New Hope) were more likely to use care than were parents who were low on these psychological attributes. Mastery and planning generally did not predict the type of care used except that, in New Hope, parents who planned ahead used less relative care than those who did not.

The attitudes and beliefs of the mothers and their support networks concerning women's work and family were related to both the likelihood of using care and the type of care used. In MFIP, mothers who believed that family should have priority over work used less child care and less center care than did those whose beliefs about combining family and work were more favorable. In New Hope, when important other people supported women's efforts to work, the mothers were more likely to use child care, and they used more center care and relative care, but less nonrelative care than did mothers with less supportive individuals in their environments.

A supportive social context was also indexed by measures of general social support. For the most part, these measures were not related to child care use with the exception that high support was associated with nonrelative care in New Hope and with relative care in New Chance. Most of the social support questions dealt with general emotional support, so they may not have indicated sources of child care help.

3.2. *Child care problems and subsidy use*

In this section, we examine the relations of two outcomes—reports of child care problems that interfere with work and use of public subsidies—to the individual and family predictors measured at baseline. The proportions of parents reporting problems and subsidy use are shown in [Table 1](#). The correlations between problems and subsidy use for parents who used child care were nonsignificant in both New Hope, $r(190) = -.10$, and MFIP, $r(690) = 0$. Descriptive statistics revealed that, as expected, those families who reported having a child care subsidy were more likely to use a greater amount of formal care than families who did not use public

child care subsidies in New Hope (13.89 months vs. 5.98 months) and MFIP (15.25 months vs. 8.41 months). The use of formal care among those families who reported no problems with child care was mixed across studies with MFIP being the only study where families who reported no child care problems used more formal care (10.37 months) than families who reported child care problems (6.24 months). The logistic regressions predicting child care problems and subsidy use in each study appear in [Table 5](#). These analyses treated families as units of analysis. There was no information about subsidy use in New Chance, so only the child care problem outcomes are presented. Overall, the variables in our models were moderate predictors of child care problems, correcting classifying 60% in New Chance, 78% in New Hope, and 70% in MFIP. The model for subsidy use was not statistically significant in New Hope; in MFIP, 65% of the families were classified correctly.

3.2.1. Family structure

In both New Chance and MFIP, larger families were associated with a higher likelihood of reported problems with child care, and in MFIP, having younger children was associated with a higher likelihood of reported problems with child care. In New Hope, however, neither family size nor having young children predicted such problems. Having other adults in the household had no impact on child care problems.

In MFIP and New Hope, mothers with very young children were less likely to receive subsidies than were mothers without such young children. Even though being a younger mother was associated with a higher likelihood of reporting a problem with child care in both New Hope and MFIP, there were no consistent associations of maternal age with use of child care subsidies.

3.2.2. Human capital and resources

There were few statistically significant relations of human capital or resources to child care problems. In New Hope, having higher prior earnings and access to a car predicted fewer child care problems. In MFIP, frequent residential changes were associated with child care problems, but that was not true in New Hope.

3.2.3. Ethnic group

In MFIP, African Americans reported more child care problems than did European Americans, and there was some tendency in this direction in New Hope. In MFIP, Native Americans were less likely than European Americans to receive subsidies, and there were statistically nonsignificant tendencies for other ethnic minorities to receive fewer subsidies in New Hope. Hispanics in New Chance reported fewer child care problems, but that pattern did not appear in the other studies.

3.2.4. Personal characteristics

New Chance mothers who had more depressive symptoms at baseline reported more child care problems, but there was no relation of child care problems to indicators of personal adjustment and mastery in the other programs.

Attitudes and beliefs were related to use of child care subsidies. In MFIP, parents who believed in the priority of family over work were less likely to use subsidies than were those

Table 5
Predictors of child care problems and use of subsidies

Predictors	Child care problems						Subsidy use			
	New Chance		New Hope		MFIP		New Hope		MFIP	
	Beta	Odds ratio	Beta	Odds ratio	Beta	Odds ratio	Beta	Odds ratio	Beta	Odds ratio
Family structure										
Age of parent	-0.03	0.96	-0.25*	0.61	-0.12*	0.98	-0.16	0.68	-0.07	0.98
Other adults in HH	-0.04	0.85	0.04	1.21	-	-	-0.07	0.73	-	-
Number of kids in HH	0.08 [†]	1.22	0.06	1.15	0.06 [†]	1.09	0.02	1.04	0.07	1.10
Youngest child age	-0.06	0.91	0.10	1.25	-0.32**	0.89	-0.26	0.52	-0.18**	0.91
Human capital										
High grade	-	-	0.01	1.01	-0.03	0.97	0.05	1.04	-0.11*	0.90
Reading level	-0.01	0.99	-	-	-	-	-	-	-	-
Earnings past year	-	-	-0.34*	1.00	0.04	1.00	-0.22	1.00	-0.12*	1.00
Months in full time job	-0.01	0.99	-	-	-	-	-	-	-	-
Time on AFDC	-	-	0.10	1.04	-	-	0.20	1.08	-	-
Long-term recipient	-	-	0.15	1.16	-	-	-0.03	0.97	-	-
Access to a car	-	-	-0.19*	0.50	-	-	-0.03	0.88	-	-
Number of moves	-	-	-0.08	0.83	0.08*	1.19	0.11	1.27	-0.07	0.86
Ethnic group										
African American	-0.07	0.78	0.15	1.74	0.07 [†]	1.27	-0.16	0.56	-0.02	0.92
Hispanic	-0.11*	0.63	0.15	1.89	-	-	-0.15	0.54	-	-
Hispanic, Asian, or others	-	-	-	-	-0.03	0.78	-	-	-0.02	0.84
Native American	-	-	-	-	0.04	1.29	-	-	-0.11*	0.45
Maximum likelihood χ^2			28.54**		127.35***		20.65 [†]		45.10***	

Personal characteristics										
Depression	0.12**	1.02	–	–	–	–	–	–	–	–
Emotional support	0.00	1.00	–	–	–	–	–	–	–	–
Personal adjustment	–	–	0.09	1.40	–	–	–0.12	0.62	–	–
Plans ahead	–	–	0.20	1.76	–	–	–0.19	0.58	–	–
Social support	–	–	–0.07	0.79	–0.12*	0.74	–0.06	0.78	0.08	1.21
Other's attitudes	–	–	–0.11	0.79	–	–	0.05	1.15	–	–
Mastery	–	–	–	–	–0.05	0.86	–	–	–0.10	0.75
Family first	–	–	–	–	0.01	1.04	–	–	–0.28***	0.36
Child care barriers	–	–	–	–	0.17**	1.37	–	–	0.20**	1.47
Maximum likelihood χ^2	21.70*		36.07**		132.91***		16.38		59.09***	

† $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

who endorsed maternal employment more fully. Of those whose scores on “family first” were above the median, 46.4% used subsidies; of those whose scores were below the median, 54.2% used subsidies.

Social circumstances were related to both problems and subsidy use, primarily in MFIP. Those who reported child care barriers to employment at baseline also had more child care problems after random assignment even though they used more subsidies. Having social supports was related to fewer child care problems, but such social support was unrelated to subsidy use.

4. Discussion

The overall goal of these analyses was to understand to what extent and how individual variations in family structure, human capital and resources, ethnic group, and personal beliefs and social circumstances predicted the amount and type of child care used, child care problems as a barrier to employment, and use of public subsidies for low-income parents who entered programs designed to prepare them for or increase their employment. All three programs included enhanced support for paid child care, particularly center care, as part of the policy package tested. Prior analyses of the effects of these programs on child care use, based on differences between families in the program groups as compared to control groups, showed that all three increased the use of formal child care (Crosby, Gennetian, & Huston, 2001). “What the present study adds is information about how individual parents varied in their responses to each program by examining the familial and individual predictors of child care use. That is, we attempted to determine individual variations within the program groups as a way of understanding better which parents were more or less likely to make use of the child care and other forms of assistance offered.” This information is important because it helps to identify those for whom particular policies may be helpful and those for whom such policies may not be very useful.

4.1. *Individual differences and child care policy context*

Child care decisions can be conceptualized as the result of an interaction between family characteristics and the structural/policy child care context in which those families live. Family characteristics include child care needs, resources to meet those needs, capacity for employment, and beliefs and preferences about the kind of care parents want for their children. Child care needs depend on family structure—the ages and number of children, and the presence of other adults. They also depend on current employment, but our analysis included human capital as indexed by prior employment, welfare receipt, and education because we were interested in what pre-existing factors might predict employment responses to a program. Resources for child care include other adults in the family, earning capacity (as indicated by prior employment) as well as social support.

Capacity for employment depends on many factors, particularly human capital (education, prior employment, welfare history). Even within the constraints imposed by poverty and policies promoting employment, parents’ beliefs and preferences are likely to affect their choices

about employment as well as the amount and type of child care they use. Parents' education, human capital, ethnic group, attitudes about family and work, psychological adjustment, mastery, and future orientation are all potential indicators of these beliefs and preferences.

The policies in these programs were directed primarily at one feature of the child care context cost by providing subsidies and direct payments to providers. As noted earlier, the cost of most center-based and even licensed home-based care is a relatively high percentage of the income of low-wage workers (Layzer & Collins, 2001), so reducing the parent's cost is likely to open a wider range of child care choices. Only one program, New Chance, included policies designed to address availability, access, or quality by providing care on-site or near the site where parents participated in program activities. Subsidies that reduce cost are not helpful if care slots are not available, if care settings are not within a distance that the parent can travel, or if quality is unacceptable. We have little information, however, about availability, access, or quality in New Hope or MFIP, except for an indicator of access to a car in New Hope. People who had a car reported fewer child care problems than those who did not, presumably because they could reach child care settings more easily.

Hence, we can make more inferences about policy-induced variations in potential cost than about policies affecting availability, access, or quality, because all three groups were offered subsidies. Given these limitations, these analyses help to identify individual characteristics that may influence parents' child-care decisions in the context of three slightly different policies and to identify ways in which these programs may have addressed the child care needs of some families more effectively than those of others.

4.2. *Child care needs and resources*

Child care needs depend on the ages and number of children in the family. It is hardly surprising that parents used more child care for toddlers and preschool children than for older children, but the age differences occurred primarily for center care, a finding that is consistent with nationally representative survey data (Tout et al., 2001). Our findings differ from national survey data, however, in that toddlers (1- and 2-year-olds) spent about as much time as did 3- to 5-year-olds in all types of child care, including center-based care. New Chance was the only study in which infants under 1 year of age were focal children, and they did spend less time in center care than did children over 18 months of age, despite the availability of such care without cost. But, the toddlers in New Hope and MFIP, who were 1 and 2 years old at baseline, were as likely as their older preschool counterparts to be in child care centers, suggesting that the programs led to children entering formal care at an earlier age than they might otherwise be expected to do.

Large families pose child care needs and, because of the high cost of paid care per child, can decrease the financial reward from employment. In MFIP, but not in the other programs, parents with larger families reported more child care problems and used less care than did those of smaller families. When they did use care, they were more likely to receive subsidies, but they were still more likely to use relative and nonrelative care.

It appears that the subsidy system tested in New Hope addressed the child care issues associated with having very young children and large families better than the system tested in MFIP. Both programs included direct payment to the provider, but, in New Hope, parents were

eligible for a subsidy that was not only paid directly, but covered the full cost of any licensed care after a small copayment. There was no relation of youngest child's age or family size to child care problems in New Hope, but, in MFIP, parents with younger children and those with more children reported more child care problems. Parents with younger children received more subsidies in both programs, but it appears that the subsidy system available to parents in MFIP was not sufficient to meet the increased needs for child care experienced by people with very young children and those with large families. This finding is particularly relevant to current welfare policies that require most or all parents to participate in employment-related activities because many parents in MFIP were required to participate (the other programs were voluntary), and they were not guaranteed a generous child care subsidy as were parents in New Hope.

The fact that school-aged children spent as many or more months as did infants and preschoolers in home-based care by relatives and nonrelatives across studies suggests that the developmental level of the child had little influence on decisions to use these types of care. Center care is generally more available for preschoolers than for infants or school-aged children; that may be one reason why parents use subsidies more when they have a preschool-aged child. It is also possible that less formal forms of care are easier to arrange for school-age children than for younger children because school occupies some parts of the day during some parts of the year.

Relatives and other adults could serve as a resource to meet child care needs, but we found little support for the proposition that many low-income parents can rely on unpaid relative care. When the young mothers in New Chance lived with another adult, they were slightly more likely to use relative care, but there was no reduction in child care problems that impeded employment. Living with another adult did not predict relative care for the New Hope parents. Even when available without cost, relative care is not necessarily reliable or trouble-free. In ethnographic interviews, parents in the New Hope study often discussed the obligations and potential conflicts as well as advantages when relatives cared for their children (Lowe & Weisner, *in press*). Moreover, the majority of low-income parents in these programs did not have another adult relative in their households, so this source of potential child care was not readily available.

Mothers in their 20s were more likely to use child care than were older mothers, but they experienced more child care problems without receiving correspondingly higher subsidies. It is possible that younger mothers were more responsive to the employment mandates and incentives in these programs, whereas the older mothers may have found it more difficult to overcome the logistic and psychological barriers to increasing their levels of employment. Perhaps subsidies were not reaching younger mothers who needed them as well as they were reaching older mothers, or the available subsidies did not fit their needs as well.

Human capital and resources could be related to child care needs and resources because people with relatively high education, work histories, and other resources are more likely to be employed than were those with low human capital. They are also likely to have higher earnings that would enable them to pay for child care. Despite the links between employment, income, and child care needs, the participants' prior employment, earnings, and welfare were surprisingly unimportant predictors of the amount and type of care used by families in these studies. Parents with the best prospects for employment, as indicated by their prior histories of employment and earnings, did tend to use a little more child care and to report fewer child

care problems, but the relations were inconsistent. Moreover, people with a history of receiving welfare, which may indicate relatively low human capital, were at least as likely to use child care as were those with less prior involvement in the welfare system. These relations of employment and welfare histories to child care use may suggest that the child care assistance in New Hope and MFIP was most effective in reaching parents who needed the most child care help when increasing employment. It does not support the idea that subsidies are most helpful to those who are already succeeding in employment.

4.3. *Beliefs and preferences*

Individual differences predicted use of center-based care more consistently than they did use of relative or nonrelative home-based care. When parents have little choice about being employed, their beliefs and preferences may have little effect on whether or not they use child care, but may have more effect on the type of care they choose. Because the subsidy system affects child care cost and the policies in these studies promoted use of formal care, parents who preferred (or at least did not reject) formal care may have been most likely to take advantage of the opportunity to use it. Parental education appears to be one indicator of beliefs and preferences. Education was consistently associated with using center care, but other aspects of human capital were not. In ethnographic interviews in the New Hope study, several parents said that child care centers offered educational advantages for their children (Lowe & Weisner, *in press*). Parents with more education themselves may seek such advantages actively for their children.

Parents' own beliefs and the beliefs of important people in their lives about combining work with family also predicted their child care decisions in ways that are consistent with findings from a wide range of income levels. Parents who believed in the priority of family over work used less child care, and, when they did use child care, it was less likely to be center care. Although these parents reported as many child care problems as did other parents, they used fewer subsidies, possibly because they were reluctant to use paid care provided by strangers. These parents appear to be similar to a group identified in the New Hope ethnographic sample who had grave reservations about non-family care for their children (Lowe & Weisner, *in press*). By contrast, parents whose own attitudes about employment were positive and those whose partners and other family members supported employment used more child care, especially center-based care. The success or failure of policies designed to promote maternal employment among parents living in poverty may depend in part on the policies' capacity to accommodate these individual differences in attitudes about maternal employment.

Parents with a sense of mastery or control over their environments and those who planned ahead might be expected to prefer formal care, but the findings did not support that hypothesis. They used more child care than other parents, perhaps because they were more successful in finding and maintaining employment, but did not choose any type of care differentially. As there were almost no relations of mastery or future orientation to child care problems or subsidy use, it seems likely that the higher amount of care is due to factors other than programmatic support or availability of child care assistance.

A large body of literature suggests differences in beliefs and preferences across ethnic groups, but our findings were inconsistent across studies. In New Chance and New Hope, most of the sample members were African American or Hispanic. In New Hope, these groups used

more center care than did European Americans. In MFIP, the majority of sample members were European Americans, and they used more center care than families of other origins. It may be that parents are more likely to place their children in a formal care environment when other children in that arrangement have a similar ethnic background. Whatever, the explanation, these findings do not support the frequent generalizations about Hispanic or African American preferences for relative care. They suggest that ethnic group preferences may depend on the social and policy contexts, and that generalizations based on ethnic group alone should be viewed with caution.

There was some tendency for African Americans and Hispanics to be more likely to report having child care problems compared to European Americans. In fact, it appears that child care subsidies were not reaching members of ethnic minority groups as effectively as they were reaching European Americans. The reasons for this difference are probably complex, but these findings suggest that practitioners should be especially attentive to issues of ethnic differences and equity in the delivery of assistance programs.

4.4. *Policy implications*

These findings have implications for child care policy. All of the programs tested contained features to promote use of paid child care, particularly center-based or licensed home care. Center-based care is generally more expensive than other forms of care, particularly for very young children, so public assistance may be especially important for enabling parents to choose this type of care. Conversely, relative care did not suffice for most parents in the sample, suggesting that policies encouraging parent employment cannot be based on the assumption that relatives will be available to provide care. Although these forms of assistance increased the use of center-based care overall, they did not affect all individuals in the same way. It appears that the available policies addressed some of the needs and preferences of some of the families. The policy tested in New Hope, which included generous subsidies and other client services appeared to serve the needs of large families better than did the more modest innovation tested in MFIP.

A comprehensive set of child care policies might be crafted to provide child care for families with widely varying needs, resources, beliefs, and preferences. Except for New Chance, the policies tested in these studies addressed the cost of child care through subsidies and other client services, but did not increase its supply, quality or convenience. They facilitated the use of center-based care, but did less to help people who needed or preferred other types of care. “They did not provide for the needs of people with irregular and nontraditional work hours as well as they did for those of people with regular weekday employment.” Policymakers may need to give more consideration to issues of supply, access, schedule, and quality as well as to individual differences in needs and preferences in order to meet the child care needs of low-income single mothers in the work force.

Notes

1. We analyzed the 18-month follow-up data rather than a later follow-up conducted 42 months after random assignment because individuals' eligibility for the program benefits, including child care, ended after 18 months.

2. The 762 families with focal children were the sample for the analyses of child care use. The larger sample of families, all of whom had one or more children, were the sample for the analyses of child care problems and subsidy use.
3. Sample sizes varied for different dependent variables because we excluded people who did not use child care from some analyses.

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