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**Does Child Care Assistance Matter?  
The Effects of Welfare  
and Employment Programs  
on Child Care for Preschool-  
and Young School-Aged Children**

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*The authors welcome comments and discussion.*



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## The Next Generation Project

This working paper is part of the Next Generation's working paper series. The Next Generation is a project that examines the effects of welfare, antipoverty, and employment policies on children and families. Drawing on rich data from recent welfare reform evaluations, the project aims to inform the work of policymakers, practitioners, and researchers by identifying policy-relevant lessons that cut across evaluations.

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**Does Child Care Assistance Matter?  
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**ABSTRACT**

Child care plays a unique dual role in welfare and employment programs, providing both a critical support for parents seeking and sustaining employment, as well as a context for the cognitive, behavioral, and social development of their children. We examine the effects of 13 experimental welfare and employment programs on single parents' use of child care for their preschool and young school-age children. Parents of pre- and young school-aged children still have important child care needs. In fact, policies designed to encourage employment (e.g., earnings supplements and mandated participation) increase the likelihood of employment and the likelihood that parents will use any child care for these children. Furthermore, policies designed to support paid or regulated care embedded in welfare and employment programs affect the *types* of care used, encouraging the use of formal rather than home-based care. These findings suggest that even for children who are in school for part of the day, parental preferences for care and market supply conditions, child care assistance can expand low-income parents' options for combining work and family responsibilities.

## I. Introduction

Child care plays a unique dual role in welfare and employment programs for low-income families with young children. It is both a critical support for parents seeking employment, as well as a context for the cognitive, behavioral, and social development of their children. Changes ushered in by the 1996 welfare legislation have heightened issues of child care and out-of-school care for low-income families. Welfare reform strategies requiring work or work-related activities (e.g., education, training, and job search) coupled with other policies designed to encourage work and a strong employment market have meant that more mothers are away from home and away from children than ever before. Though much of the public and political discussion of child care focuses on the needs of children under the age of 6, care remains an important support for employment for families with young school-aged children.

Under the best circumstances, affordable quality child care can enhance parental self-sufficiency by facilitating employment, while at the same time providing environments that may improve developmental outcomes for children living in poverty. Alternatively, low-quality, unstable, or unreliable child care or out-of-school care presents a serious barrier to employment for parents and may be detrimental to the well being of children.

We examine how welfare and employment policies affect child care outcomes for single parents and their preschool- to young school- aged children using data collected from a diverse set of experimental programs that took place throughout the late 1980s to the mid-1990s. Although all of these programs were tested prior to the 1996 welfare legislation, many eventually became states' TANF policies, and all of them include policy components currently being implemented or considered by states. These policies include those aimed at increasing employment and earnings (e.g. requirements to participate in employment related activities), and family resources (e.g. financial incentives or earnings supplements that make work pay), as well as those policies specifically targeting child care (e.g. child care subsidies).

By comparing the outcomes of individuals and families in a control group, under the then-current policy environment, with the outcomes of individuals and families in a program group, subject to a new set of policies, we investigate whether variation in the policy “mix” across programs is related to the amount and type of child care used by families. And, more specifically, whether child care policy as one component of these programs differentiates impacts on child care. Our work contributes to the growing body of literature on the effects of federal, state, and local child care policies by offering a uniquely clean test of policy possible with the use of experimental data, and by highlighting treatment differences in child care policies that have, as of yet, been unexplored.

Recognizing that child care is essential to enable welfare recipients to move into the labor force, federal and state governments increased investment in child care, nearly doubling in the past two decades (Raikes 1998). Since child care serves as an important support for employment, it is exactly this kind of assistance that plays a key role, at least in the short term, in enabling families to discontinue cash assistance (Blau and Tekin 2001; Gennetian, Morris, and Vargas 2001). Understanding the role of child care assistance — whether financial, such as through subsidies, or non-financial, such as through support services — in different policy contexts is particularly important in light of research that finds that take-up of child care subsidies is surpris-

ingly low, leading some to question the cost-effectiveness of offering such assistance (Besharov and Samari, in press). At the same time, there are reports that current subsidy levels are not adequately meeting demand. Estimates based on 1998 state administrative data suggest that only 15 percent of children eligible for federally-allocated child care funds received them (U.S. Dept. of Health and Human Services 1999). Early findings from the National Study of Child Care for Low-Income Families suggest that even when additional state funds are included, states are only able to serve 15-20% of eligible children and typically maintain waiting lists for assistance (Collins, Layzer, Kreader, Werner, and Glantz 2000).

Many of the low-income families in our samples used child care for their preschool and young school-aged children. Preschoolers were most likely to be in formal arrangements and young school-aged children were most likely to be in home-based arrangements. Our analyses show that policies that encourage employment (e.g., earnings supplements and employment mandates) affect the *amount* of child care used by these families; but, it is the policies and practices that are specific to child care which affect the *type* of care used (e.g., formal care versus home-based care). Policies that provide support for paid or regulated child care (e.g. efficient payment, referral and information services, subsidies covering total cost of care, on-site care) appear to lead many parents to use formal child care arrangements rather than home-based arrangements. These effects are most pronounced for preschool aged children, and suggest that with the right supports in place for making child care accessible and affordable, child care assistance can help meet the needs of working low-income parents.

## **II. Theoretical Motivation: The Role of Child Care Assistance in the Lives of Working Low-Income Parents and Their Children**

**Employment and Child Care.** The 1990s witnessed marked increases in the labor force participation rate of women with children under the age of 18, especially for never-married, single mothers (Blank 1998). Currently, more than two-thirds of mothers with children younger than age six are in the labor force (U.S. Department of Health and Human Services 1999), and trends in children's child care experiences have mirrored these employment trends. The number of children under age 5 with employed mothers who were in non-parental care more than doubled between 1977 and 1993 (Council of Economic Advisors 1997).

Sweeping changes in the federal welfare system as a result of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) have contributed to increases in the employment of single mothers. The influx of prior welfare participants into the workforce or work-related activities has been accompanied by an increased demand for child care, and this trend is expected to continue.<sup>1</sup> While not all welfare reform strategies institute a 'work first' approach, they do share such components as education, training, and job search activities, that require time away from home and away from children.

Several aspects of parents' employment and employment-related activities have implications for their need for and use of child care. The demand for child care varies in part according to the timing of the hours employed. Low-income parents are more likely than higher-income parents to work full-time, at more than one job, and during nonstandard hours or weekends. Over half of the employed mothers of preschoolers with incomes below 200% of poverty work evenings, weekends, or rotating shifts (U.S. Dept. of Health and Human Services 1999). And, only

10 percent of centers and 6 percent of family child care homes offer care on weekends (Phillips 1995).

In addition to those related to employment, a host of other factors influence parents' decisions about child care. A growing literature on child care selection indicates that a range of parent and family-level factors (e.g., parent education, household composition, ethnicity, age of child, parental values) may determine the types of care that parents choose (see for example, Fuller, Holloway, and Liang, 1997; NICHD Early Child Care Research Network 1997; Huston, Chang, and Gennetian 2001; Singer, Fuller, Keiley, and Wolf 1998).

Moreover, parents, particularly those with low incomes, face several constraints on their child care choices. Transportation issues and cost often make certain care options unfeasible. For most families, and especially single mothers, costs associated with child care comprise the largest proportion of the costs to employment.<sup>2</sup> Although low-income families are less likely to use paid arrangements than are families with higher incomes, those who do use market care expend five times more of their budget for care than do nonpoor families (Smith 2000). Nearly 18 to 20 percent of poor families' incomes are allocated to child care. This is in contrast to 7 percent of total family income for non-poor families (Casper 1995). Decisions about care are also made in the context of market supply conditions, which can vary greatly across states and communities. In general, the supply of child care tends to be lower in low-income neighborhoods than in higher-income neighborhoods, and may be particularly scarce during nonstandard hours and for children with special needs (U.S. GAO 1997). A recent analysis of the availability of child care in the United States indicates that the availability of certain types of care varies across different types of locales, with center care being least available in nonmetropolitan, poor communities and family day care being most available in nonmetropolitan, mixed-income communities (Gordon and Chase-Lansdale 2001).

It is in the context of this complex set of factors that we consider how policy may influence patterns of child care use in low-income families. Child care policy as a component of welfare and employment programs is most likely able to affect the accessibility and affordability of care for families. Child care subsidies play an essential role in allowing parents to go to work and to use care they might not otherwise be able to afford.<sup>3</sup> Recent analyses of the 1997 National Survey of America's Families data suggests that single mothers of children younger than age 13 who received child care subsidies were 5 percentage points more likely to be employed (after controlling for some baseline characteristics) than mothers who did not receive such subsidies (Blau and Tekin 2001). Further support for the notion that child care assistance facilitates employment comes from the limited number of other studies that have examined the relationship between child care policies and single mothers' employment (e.g., McKernan, Lerman, Pindus, and Valente 2000; Meyer and Rosenbaum 1999).

State-level data indicate that center-based care is the most common type of arrangement used by parents receiving federal subsidies (Phillips 1995; U.S. GAO 2001). Child care centers are typically more expensive than are family child care or other home-based arrangements, but they offer advantages over other types of care both as a support for stable employment because they are reliable sources of care that do not often fail unpredictably because of caregiver illness or other problems that might cause parents to miss work (Hofferth 1999). Ethnographic work suggests that low-income parents like the stability and predictability of formal care for employment purposes (Lowe and Weisner 2001). Parents also believe, however, that home-based care

provides the flexibility that may be necessary for sick children or to accommodate employment that is erratic or during nontraditional hours (Emlen, Koren and Schultze 1999).

**Effects on Children's Development.** By allowing parents to purchase nonmaternal forms of care, especially center care, child care assistance may not only assist parents in entering and sustaining employment, but it may also alter the context of children's day to day environments. Patterns of child care use (as a function of parental concerns and care availability) and the implications of care for development vary for different ages of children. In this paper, we focus primarily on preschool and young school-aged children. Child care issues for this age group differ in many ways from those for infants and toddlers, in part because as children enter the school-age years they are likely to only need care for part of the day.

**Preschool-aged care.** Preschoolers are more likely than either younger or older children to be in center-based arrangements. Whereas only 19 percent of children under age 1 are in center-based or family day care, 50 percent of 3 to 4 year olds are in this type of care (Smith 2000). Parents may be increasingly interested in the social and educational benefits of care as their children enter the preschool years. Children between the ages of 3 and 5 also have access to preschool programs, Head Start, and pre-kindergarten programs. Many times these programs are part-day however, and therefore may not be sufficient as parents' sole care arrangement. Consequently, preschool-aged children are more likely than younger children to be in multiple arrangements (Cappizano and Adams 2000; Smith 2000).

Children who attend child care centers in the infant and preschool years perform better on cognitive and language tasks and show better school achievement than do those who spend time in home-based care of comparable quality (e.g. NICHD Early Child Care Research Network 2000; Zaslow, McGroder, Cave, and Mariner 1999).<sup>4</sup> The positive effects of center-based care endure into the first few years of school (Yoshikawa 1999; Broberg, Wessels, Lamb, and Hwang 1997).<sup>5</sup> There are not comparable positive effects of center-based care on children's social behavior, social maturity or behavior problems, and there is some evidence that center care increases the frequency of respiratory and gastrointestinal illnesses in the first year or two of life (NICHD 2001; Zaslow et al. 1999). In general, these studies offer little understanding of why centers may contribute to cognitive and intellectual development. Although the quality of centers varies greatly, they are subject to licensing procedures that govern group size, adult/child ratios, and physical safety in all states. Many centers have materials and activities designed to teach appropriate cognitive and social skills to young children; some of them have personnel trained in child development and early education. Whatever the reason, it appears that centers offer some advantages over other forms of child care for promoting children's intellectual development and school readiness.

**School-aged care.** Much of the research about child care while mothers are employed has focused on infants, toddlers and preschoolers. Yet, school-age child care or other supervised activities will be an emerging issue as mothers continue their employment during their children's school age years. Few jobs offer the flexibility necessary to accommodate a school-aged child's schedule, and this is especially true for those parents who must work full-time to remain self-sufficient or who work nontraditional schedules that do not overlap with school hours. Moreover, U.S. schools are in session 180 days/year, so school-age children need full-day care during the summers and other school vacations.

Child care for older children consists of a wider variety of activities than for younger children and is usually centered around structured activities, educational programs, and socialization. National data from 1995 indicate that 39% of children between the ages of 5 and 14 participated in structured enrichment activities outside of school hours (Smith 2000). In addition, 43% of children in this age group received regular care from a relative, 17% were in center-based or non-relative care, and 18% regularly cared for themselves. Children from low-income families are less likely to participate in enrichment activities or to be in self-care than children from higher-income families; however, the use of relative and nonrelative care for this age group does not differ significantly according to family poverty status (Capizzano, Tout, and Adams 2000).

For children from low-income families, after-school programs appear to provide academic and social benefits. Children in after-school programs have better peer relations, emotional adjustment, grades and conduct in school than peers in other care arrangements (Posner and Vandell 1994, 1999). Teachers report that children in after-school programs receive better grades and are more cooperative (Riley et al. 1994). In contrast, high amounts of self care for school-age children are associated with poor behavior adjustment and academic performance in the sixth grade, particularly for children who live in dangerous neighborhoods (Kerrebrock and Lweit, 1999; Peterson 1989; Petit, Laird, Bates, and Dodge 1997; Vandell and Ramanan 1991). Latchkey children are also at a higher risk for truancy, poor grades, and substance use (Dwyer, Richardson, Danley, Hansen, Sussman, Brannon, Dent, Johnson, and Flay 1990). This risk is increased for those children who spend more hours alone or who begin caring for themselves at a younger age.

Although many of the funds for child care are used to provide child care to pre-school children, a growing share of the funds has been used to develop after-school programs for school-age children.<sup>6</sup> Among children who benefited from funds allocated to the CCDBG, 35 percent were of school age (U.S. Department of Health and Human Services 1999). A striking example is the U.S. Department of Education's 21st Century Community Learning Center grant. In the last five years, the Department of Education has increased total grant amounts from \$1 million to \$846 million. The grant now provides funding for about 6,800 rural and inner-city public schools in 1,420 communities in 47 states (U.S. Department of Education 2000).

### **III. Data and Descriptive Analysis**

**The Studies and the Data.** Using data from 7 experimental evaluation studies that include 13 different welfare and employment programs, our study overcomes many of the limitations in examining the causal effects of policy with other recent data. Appendix Table 1 summarizes these studies, including their purpose, dates of implementation, research strategy and key policy strategy.<sup>7</sup> As can be seen from this table, all of these studies share the common goal of moving welfare and low-income families into work. Some also share the goal of reducing poverty or increasing self-sufficiency. The strategies to reach this goal, however, vary substantially from providing generous earnings supplements (e.g. New Hope and the Canadian Self-Sufficiency Project), to mandatory case management and “work first” and human capital services (e.g. the Minnesota Family Investment Program and National Evaluation of Welfare to Work Strategies), to imposing a time limit on the receipt of welfare benefits (Florida’s Family Transition Program and the Connecticut Jobs-First Program). These studies translate into 13 different



welfare and employment programs. The MFIP study tested two programs: full MFIP which included a mandatory requirement to participate in employment related services and financial incentives, and MFIP Incentives Only which included all of the features of full MFIP except mandatory employment services. In addition, NEWWS is a test of two different programs per each of the three sites (Atlanta, Grand Rapids and Riverside). Each site tested a “labor force attachment” model or a job-search-first program that required participants to look for work immediately and a “human capital development” model or education-first program that initially placed participants in education and training programs.

All of these studies collected three different types of data: demographic and socio-economic characteristics at study entry from baseline information forms, longitudinal information on employment and welfare receipt from unemployment insurance records and public assistance records and information about the characteristics of employment, child care, and other household and personal circumstances (sometimes including child well-being) from follow-up surveys. The follow-up surveys can be categorized into two types: one that generally asks one member of a family, almost always a mother, about employment, income, child care and other demographic or socio-economic information and one that only asks respondents with a child of a certain age (i.e. the “focal child”) about that child’s well-being, from their home environment and child care to that child’s behavior, academic achievement and health. The former is often referred to as the “core” survey whereas the latter is referred to as a special “child outcomes study” or “focal child survey.” Most importantly, the measures collected across these studies are roughly comparable, making a cross-study analysis such as a synthesis of program effects, uniquely possible.

Nearly all of these studies took place during the early to late 1990s, a time period that included vast changes in welfare policy (i.e. the passage of PWORWA), expansions in the Earned Income Tax Credit, expansions in child care funding (i.e. establishment of the Child Care Development Fund), and stable economic growth with low unemployment rates. Even though these changing contexts may affect how successful these programs are in altering employment behavior (i.e. these changing contexts may interact with a program’s “effectiveness”), the treatment difference is preserved because both program and control group members were similarly exposed to changes in welfare and other policies and local or national economic trends.

**Samples.** This paper describes the child care outcomes of children aged 3 to 9 at study entry (or, approximately aged 5 to 12 at the follow-up point). In some studies, information about individual “focal” children was obtained from a subset of the larger sample. To obtain child care outcomes for a specific child in the family, the data presented here come from the relevant child outcomes studies (i.e. CT Jobs-First, MFIP, FTP, NEWWS and New Hope). The details of each are shown in the fourth column of Appendix Table 1. In two studies—New Chance and SSP—child care and child outcomes were collected for children of every survey respondent.

Children were divided into two age groups: pre-school (aged 3 to 5 at study entry and aged 5 to 8 at the follow-up point) and young school-age (aged 6 to 9 at study entry and aged 8 to 12 at the follow-up point). All of the studies contain information about preschool children, but the six NEWWS programs did not collect detailed child-specific child care information for young school-aged children<sup>8</sup>, and there were few children over age 5 in New Chance. Hence, fewer programs are included in the analyses of young school-aged children. The fifth column of

Appendix Table 1 presents the total sample size for each of the data sets used for the analyses in this paper.

The samples for these studies were, for the most part, drawn from the local welfare populations. The exceptions to this are New Hope, which offered its benefits and services to all families or individuals who satisfied income eligibility requirements, and New Chance, which was aimed to assist very young mothers on welfare. The target samples for these studies also varied according to age of youngest child exemptions and other exemptions based on pregnancy, disabilities, welfare or work history, marital status and educational level. Nearly all of the respondents to the follow-up surveys that collected the child care information were mothers, whose average age was roughly 30 (with the exception of New Chance where the average age was 19). The majority of these survey respondents were never married at study entry, had a high school degree or GED and had been on welfare for 2 or more years prior to study entry. The racial/ethnic mix varies substantially by study with the majority of survey respondents in New Chance, New Hope, Atlanta-NEWS and FTP being African-American and the majority of survey respondents in Grand Rapids-NEWS, Riverside-NEWS and MFIP being white, non-Hispanic.<sup>9</sup>

**Measures.** In this paper, child care refers to any nonparental (often nonmaternal) form of care that occurs on a regular basis (e.g. once a week for 10 hours or more during a specified time period). Formal care or center-based care refers to any licensed and regulated care that takes place in a group setting, and includes programs that are designed specifically to enrich or provide early education to young children (e.g. Head Start or Pre-school), as well as programs that primarily provide care while parents are working. For school-aged children, formal care includes center-based before- and after-school care and other structured arrangements. Home-based care refers to care by relatives or non-relatives either in the child's home or the caregiver's home. It includes licensed and certified child care homes as well as more informal arrangements. Although self-care is an important consideration for young school-aged children, information about self-care was not collected in a comparable manner across the studies examined in this paper.

All of the child care outcomes were measured during a two year follow-up period and were not coded to be mutually exclusive; that is, children may have experienced only formal care, only home-based care, or both formal and home-based care during the follow-up period. Even though studies varied in the timing of the follow-up survey, we were able to construct comparable measures with relatively comparable time periods (i.e., over an 18 month to two year time period before the follow-up interview) by using data from a child care calendar in MFIP and in FTP.<sup>10</sup> Average quarterly employment rates are derived from state unemployment insurance records and, thus, exclude any self-employment or employment that is not reported to an unemployment insurance agency in that particular state.

**Descriptive Analysis.** To understand the context in which these programs operated and the natural variation in child care usage across these studies and sites, Appendix Table 2 presents the average employment rates, rates of child care use, and rates of formal and home-based care usage for control group members with preschool aged (Appendix Table 2a) and young school-aged children (Appendix Table 2b).

Average quarterly employment rates for control group members (i.e. respondents who were not subject to requirements of or who did not receive benefits of the program) varied con-

siderably from a low of 16 percent in Riverside-NEWWS to a high of 72 percent in New Hope. Recall that the average employment rates of New Hope control group members stand out because the New Hope study includes all working poor families, i.e. it is not limited to welfare recipients. Child care usage across these studies also shows variation but not nearly as much as average quarterly employment rates. On average, the majority of control group members did use some kind of child care during the follow-up period for their preschoolers, although usage rates ranged from approximately 40 percent in CT Jobs-First to 98 percent in New Chance.<sup>11</sup> Use of home-based care is generally higher than use of formal care (e.g. in the New Hope, MFIP, and Grand Rapids-NEWWS samples). It is interesting that this pattern does not occur in the Atlanta-NEWWS sample and the Riverside-NEWWS sample. For these latter samples rates of usage of home-based care are lower (i.e. Atlanta-NEWWS) or comparable to rates of usage of formal care (i.e. Riverside-NEWWS). Rates of formal care use among those who used any care varied from 19 percent (in FTP) to a high of 86 percent (in Atlanta-NEWWS).

Although average quarterly employment rates do not differ dramatically for parents of young school-aged children compared to parents of preschool-aged children, rates of child care use are unsurprisingly much lower. This may in part reflect less need for child care if the timing of employment hours are such that mothers are working while children are in school, or this may reflect that older children are more likely to engage in self-care. Finally, it may be that these children are indeed in some kind of supervised activity but mothers do not identify this activity as a child care arrangement. Rates of usage for home-based care for young school-aged children are higher than rates of usage for formal care across all of these studies. In fact, formal care usage rates for young school-aged children in this sample were quite low : 1 percent to 31 percent of children were in a formal care arrangement during the follow-up period. Among those young school-aged children who were in any child care arrangement 5 (in CT Jobs-First) to 42 (in New Hope) percent were in formal care.

How do these rates of child care use compare to rates documented in other studies? Data from the 1997 National Survey of America's Families (NSAF) report similar age and type patterns; preschool-aged children are more likely to be in care than are school-aged children, and home-based care is typically used more often than formal care (particularly for families with incomes below 200% of poverty) (Capizzano, Adams, and Sonenstein 2000; Cappizano, Tout, and Adams 2000). The NSAF data generally indicate lower rates of use than those reported here for comparable populations. This is most likely due to the fact that they only report families' primary arrangement, whereas the data we use represent all arrangements used during a two-year time period. Finally, rates of use by control group members reflect the large variability across states that has been documented in the NSAF data as well (Capizzano, Adams, and Sonenstein 2000; Cappizano, Tout, and Adams 2000).

#### **IV. Empirical Technique**

**Estimating Program Effects.** The random assignment method used in these studies provides the strongest possible basis for causal inferences regarding program impacts on child care. Upon entering each of the studies, an individual or family was randomly assigned to a program group that was eligible to the benefits and subject to the requirements of the new welfare or anti-poverty program, or a control group, that had access to the usual benefits and requirements avail-

able to low-income or welfare families. For some of these studies, families were recruited and in most of these studies welfare recipients were randomly assigned to either the experimental or control group when they came in to the welfare office to apply for welfare, their annual redetermination, or recertification of eligibility. Because individuals were assigned at random, any differences in outcomes during the follow-up between individuals in the program and control groups – the “impact”- can be attributed to the policy they faced.

The first step in our empirical analysis was to construct comparable child care outcomes, as discussed above, across these studies and then to estimate program impacts on these outcomes.<sup>12</sup>

**Arraying Program Effects by Policy Dimensions.** Although individual experimental studies have considerable strength in drawing causal conclusions (relative to non-experimental work) about a particular intervention, one drawback of these experimental studies is that the interventions being tested include multiple components, making them difficult to replicate, especially across different sites, and making it difficult to attribute specific effects to specific policy components. By drawing from a variety of welfare and anti-poverty programs that had similar objectives, and in many cases, had broadly similar economic effects on families, the present analyses allow some inferences about which components of policy influence child care outcomes. Most welfare and employment programs rely primarily on earnings supplements, mandatory employment services, time limited benefits or some combinations of these to encourage employment and reduce welfare receipt. To the extent that these policy dimensions differentiate impacts on employment and income, they may also differentiate impacts on child care use (e.g., see Bloom and Michalopoulos [2001] for effects on economic outcomes; and, Morris et al. [2001] for effects on child outcomes).

In addition to the employment-focused policy components, the treatments in these studies also included a range of economic and administrative means of assisting families in meeting their child care needs. Program group members in some of the studies received supports concerning child care over and above what was available to control group members. These supports include expanded child care subsidies, direct payments to providers, on-site child care, and resource and referral programs. In addition to “official” child care policies, caseworkers for program group members sometimes had a different level of access to resources (or, more resources) to assist in child care placement of their clients or were encouraged to promote certain types of care (e.g. formal or home-based) over others compared to caseworkers of control group members. It is important to note that while there was substantial variation in the absolute level of support available to both control and program group members across the studies, this analysis is focused solely on program-control group differences in child care policy and practice. This method allows us to examine whether program impacts on child care use are related to discernible differences in the policies and practices experienced by program and control group members.

To the extent that program-control group differences in child care policy and practice make more types of child care accessible (available and affordable) for working poor families, they may directly affect the types of care arrangements used by parents and experienced by children. Consequently, child care assistance policies as a component of welfare and employment programs may have more direct effects on the types of care parents are able and willing to use with some exceptions. For example, the type of care used may also be influenced (1) by changes in income produced by a program, such as a program with an earnings supplement, that will then

allow parents to buy more or higher quality child care, (2) by hours of employment, e.g. a parent with a rotating schedule with nontraditional hours may be more likely to use a home-based child care arrangement and, (3) by generous earnings disregards that may increase ties to the welfare system and thus access to welfare-related child care assistance.

The second step in our empirical work was to examine the child care policies and practices that differed between research groups within studies (see last column of Appendix 1 for a brief overview). Based on reviews of study reports, field notes, and discussions with project directors and state staff, we found that four studies testing a total of five programs (New Hope, New Chance, MFIP and FTP) had some kind of treatment difference in child care assistance. With these studies in mind, we created a new policy dimension — one focused on child care — to array program impacts (for more detail, see Gennetian, Gassman-Pines, Huston, Crosby, Chang, and Lowe 2001). This broad dimension is based on the following five components that are potentially important in providing support for families' child care needs, particularly in the use of paid or formal care: programmatic promotion of formal care, case management/support services for child care, efficient reimbursement of child care, restriction of subsidy to regulated care, and seamless subsidy system for transitions on and off welfare.

Some research suggests that formal care arrangements may be more advantageous to children beyond their infant years, especially to their cognitive development and safety, and their parents. Yet, other research suggests that home-based care may offer advantages in terms of flexibility. Furthermore, there is a broader policy question about whether or not expanded assistance for child care will encourage families to use more paid or regulated care. With this in mind, we are particularly interested in whether certain child care policies promote the use of certain types of care. To best summarize the treatment differences across the experimental studies, we used a numerical scoring scheme based on the level of variation in child care assistance. Differences between program and control group that reflected substantially larger, or higher, levels of child care support for program group members compared to control group members received a value of 2 (a value of 1 represented a moderate level of expanded support, and 0 represented no treatment difference in support).<sup>13</sup> This allowed us to create one aggregate index, labeled “treatment differences in expanded support for paid or regulated child care”, to array program impacts. Table 1 shows the details of this scoring technique indicating that New Hope and New Chance scored high, meaning they had large treatment differences in policy or practice on many of these five dimensions. MFIP and FTP scored somewhat lower, with large or moderate treatment differences on most of the dimensions. The remaining eight programs contained no policies with respect to child care that were different from those available to members of the control group.

A planned difference in child care policy between program and control group members may not be the only means of generating effects on child care outcomes that may be due to child care assistance policy. The interaction of a program with the general level of child care assistance available in a site to both program and control group members may influence exposure to child care support for program group members, especially in the context of employment mandates. Because policies differ across sites, such exposure could lead to different program effects across sites. In Atlanta-NEWWS, for example, both program and control group members were encouraged to use formal care; in Riverside-NEWWS, caseworkers encouraged clients to seek relative and home-based care (Hamilton, G., T. Brock, M. Farrell, D. Friedlander, and K. Harknett, 1997). Although program and control group members were subject to the same policies within sites, program group members were more likely to hear any message about child care be

**Table 1**

**Score on Aggregate Child Care Policy Index Measuring Relative Treatment Differences in Support for Paid or Regulated Care and Other Key Policy Components that Differ Between Program and Control Group Members**

Program	Score on Child Care Policy Index Measuring Support for Paid or Regulated Care	Mandatory Employment Services <sup>a</sup>	Earnings Supplements <sup>b</sup>	Time Limits <sup>c</sup>	Youngest Child Age Exemption <sup>d</sup>
<b>Programs with a treatment difference in child care policy</b>					
New Hope	9		X		
New Chance	8	X			
MFIP Full	6	X	X		X
MFIP Incentives Only	6		X		X
FTP	5	X	X	X	X
<b>Programs with no treatment difference in child care policy</b>					
Atlanta HCD-NEWWS		X			
Atlanta LFA-NEWWS		X			
Grand Rapids HCD-NEWWS		X			
Grand Rapids LFA-NEWWS		X			
Riverside HCD-NEWWS		X			
Riverside LFA-NEWWS		X			
SSP			X		
CT Jobs-First		X	X	X	X

NOTES: <sup>a</sup>Mandatory employment services are requirements to participate in work or work related activities such as education, training, or job search.

<sup>b</sup>Earnings supplements allow welfare recipients to receive more money for paid work, either by allowing them keep more of their welfare benefits as their earned income increases or receiving an earnings supplement outside of the welfare system.

<sup>c</sup>Time limits place a cap on the number of months a person can receive welfare.

<sup>d</sup>Women whose youngest child is less than a set age are not subject to the welfare program's participation mandate.

cause they were required to participate in an employment related activity. In contrast, control group members heard the equivalent message only if they were self-motivated to engage in an employment-related activity. These types of interactions, as they support or contradict our general findings, will be noted in the discussion of findings.

The latter columns of Table 1 identify other policy components of these same programs that were used to differentiate effects on adult economic outcomes (such as earnings) and child outcomes. A review of this table suggests that the child care policy imbedded in these welfare and employment programs can differentiate these programs from other policy components. For example, programs that generally had larger differences in child care assistance between program and control group members as noted in the aggregate child care policy index (e.g. New Hope or MFIP), as well as programs that had no treatment difference in child care assistance (SSP or the NEWWS studies) both included earnings supplements and mandatory employment services.

## V. Empirical Results

The main empirical findings are presented in Figures 1 to 4 and Tables 2 and 3. Each bar in the figures represents the *difference* between the average outcome, such as use of child care, for individuals in the program group and the average of this same outcome for individuals in the control group. As noted at the top of the figure below the title, these program effects are then arrayed based on their score, i.e. the treatment difference in child care assistance, on the aggregate child care policy index on the left. Programs with no treatment difference in child care assistance are presented on the right. These latter programs are ordered based on other key policy components: the NEWWS programs are clustered together as examples of mandatory employment services, SSP is next as an example of an earnings supplement, and CT Jobs-First is last as an example of a mix of key policies (mandatory employment services, an earnings supplement, and a time limit). Within the set of NEWWS programs, the three sites are arranged according to alphabetical order.<sup>14</sup>

**Impacts on Employment and Use of Any Child Care.** Figures 1 and 2 present impacts on average quarterly employment rates for parents (mostly mothers) and on use of child care of pre-school aged and young school-aged children, respectively. These figures show that, as expected, all of these programs, with the exception of New Chance, had some positive (though, not always statistically significant) effect on employment for parents of preschool and young school-aged children. For parents of pre-school aged children, full MFIP had the largest impact on average quarterly employment rates, with a 21 percentage point difference between program group members compared to control group members, and Grand Rapids' HCD-NEWWS program had the smallest impact with only a few percentage points difference between program group members compared to control group members. Most programs increased the use of child care for pre-school aged children by 5 to 20 percentage points, and, with a few exceptions, program impacts on the use of any care generally mirror program impacts on parents' average quarterly employment. That is, those programs with the largest effects on employment, such as MFIP, also had the largest effects on use of child care.

Figure 2 shows that impacts on average quarterly employment were also positive (though, not always statistically significant) for parents of young school-aged children. Further-

more, with a few exceptions, the effects of these programs on the employment of parents with young school-aged children were smaller than their effects on the employment of parents with preschool aged children. For example, full MFIP increased the employment of parents with preschool aged children by about 21 percentage points, but it increased the employment of parents with young school-aged children by about 10 percentage points. Impacts on the use of any child care for young school-aged children, ranging from an increase of 11 percentage points to a decrease of 6 percentage points, were smaller than effects produced for pre-school aged children, a similar pattern as that observed for effects on employment. Impacts on child care use somewhat mirror impacts on average quarterly employment for young school-aged children, but not as clearly as the patterns observed for pre-school aged children.

For both preschool- and young school-aged children, the aggregate child care policy index (and, the policy subdimensions that comprise the index) does not differentiate program impacts on average quarterly employment or on use of child care. For example, impacts on average quarterly employment and use of child care for pre-school aged children are largest for programs with a child care treatment difference as well as for programs with no treatment difference in child care assistance. These impacts align themselves more closely to policies that are specifically targeted to enhance employment such as earnings supplements (e.g. MFIP and SSP) and work mandates (e.g. Riverside-NEWWS). These findings suggest that, unsurprisingly, policies that increase employment also increase the use of child care.

**Impacts on Type of Care.** Figures 3 and 4 present impacts on the type of child care used for preschool- and young school-aged children, respectively. Impacts on the use of formal care and home-based care are shown together to facilitate comparison between them. Although most programs increased the use of both center-based and home-based care for preschool children (Figure 3), the relative impacts on formal and home-based care appear to depend on whether or not a program also had a treatment difference in child care assistance. Programs that had relatively larger differences in expanded child care support between program and control group members had more positive impacts on the use of formal care (as compared to their impacts on the use of home-based care) than programs that did not have a treatment difference in child care assistance. These same programs also had larger absolute effects on formal care compared to programs that did not have a treatment difference in child care assistance. Two exceptions to this pattern are Atlanta-HCD-NEWWS and Riverside-LFA-NEWWS. Effects on formal care in Atlanta-HCD-NEWWS were larger than effects on formal care in FTP. One possible reason for this is that program group members had more contact with caseworkers and thus, were more likely than control group members in Atlanta to hear a child care message encouraging the use of formal care arrangements. Riverside-LFA-NEWWS had sizable positive impacts on the use of formal care; however, consistent with the general pattern, impacts on the use of home-based care were even more substantial.

The same patterns appear for young school-aged children, shown in Figure 4. With the exception of the MFIP Incentives program, the three programs that had a treatment difference in child care assistance increased the use of formal care and decreased the use of home-based arrangements for young school-aged children. The two programs that had no treatment difference in child care assistance had more positive impacts on home-based care than on formal care.



Figure 1

Program Impacts on Average Quarterly Employment and Use of Any Child Care for Children Ages 3 to 5, by Program Child Care Policy

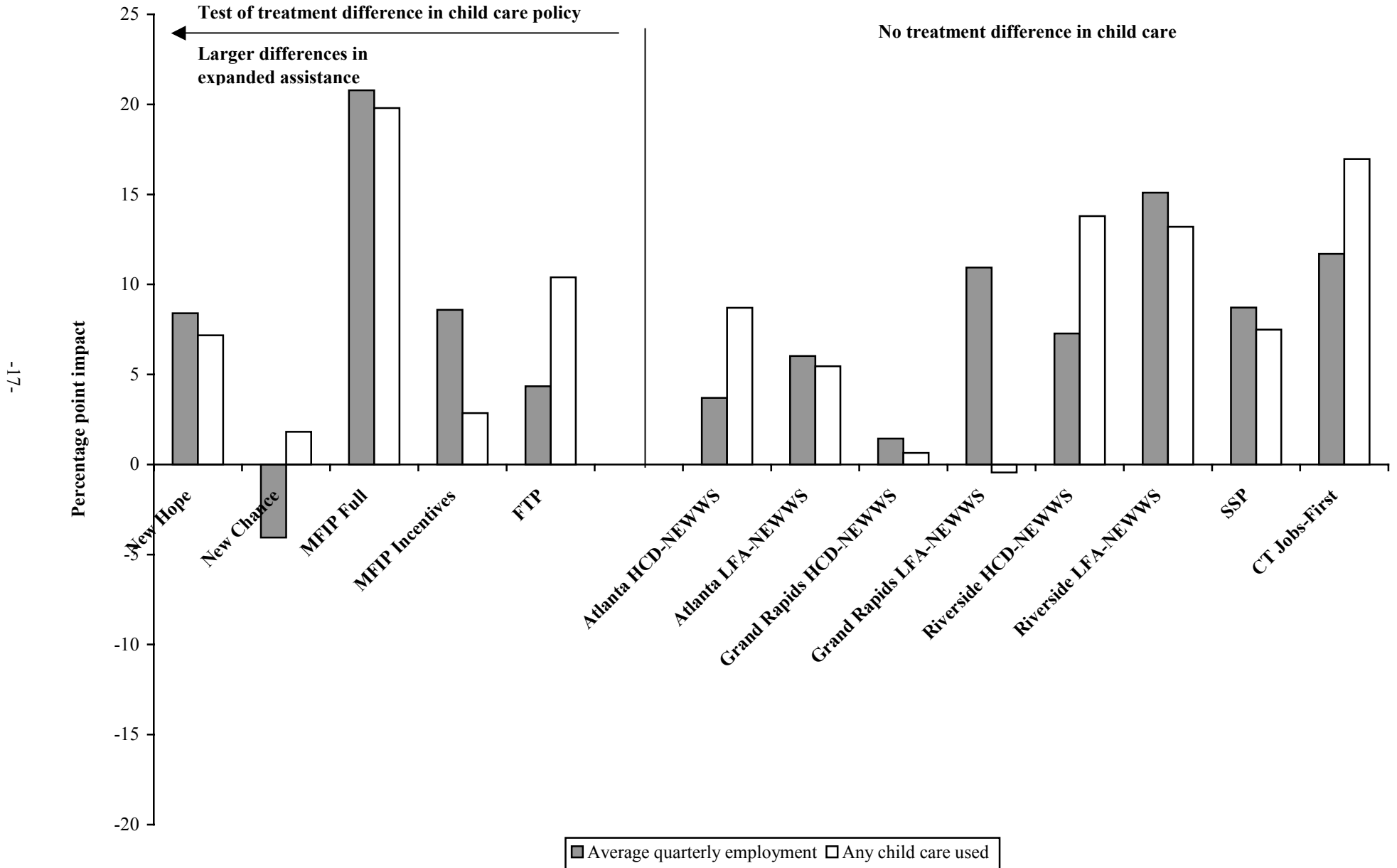


Figure 2

Program Impacts on Average Quarterly Employment and Use of Any Child Care for Children Ages 6 to 9, by Program Child Care Policy

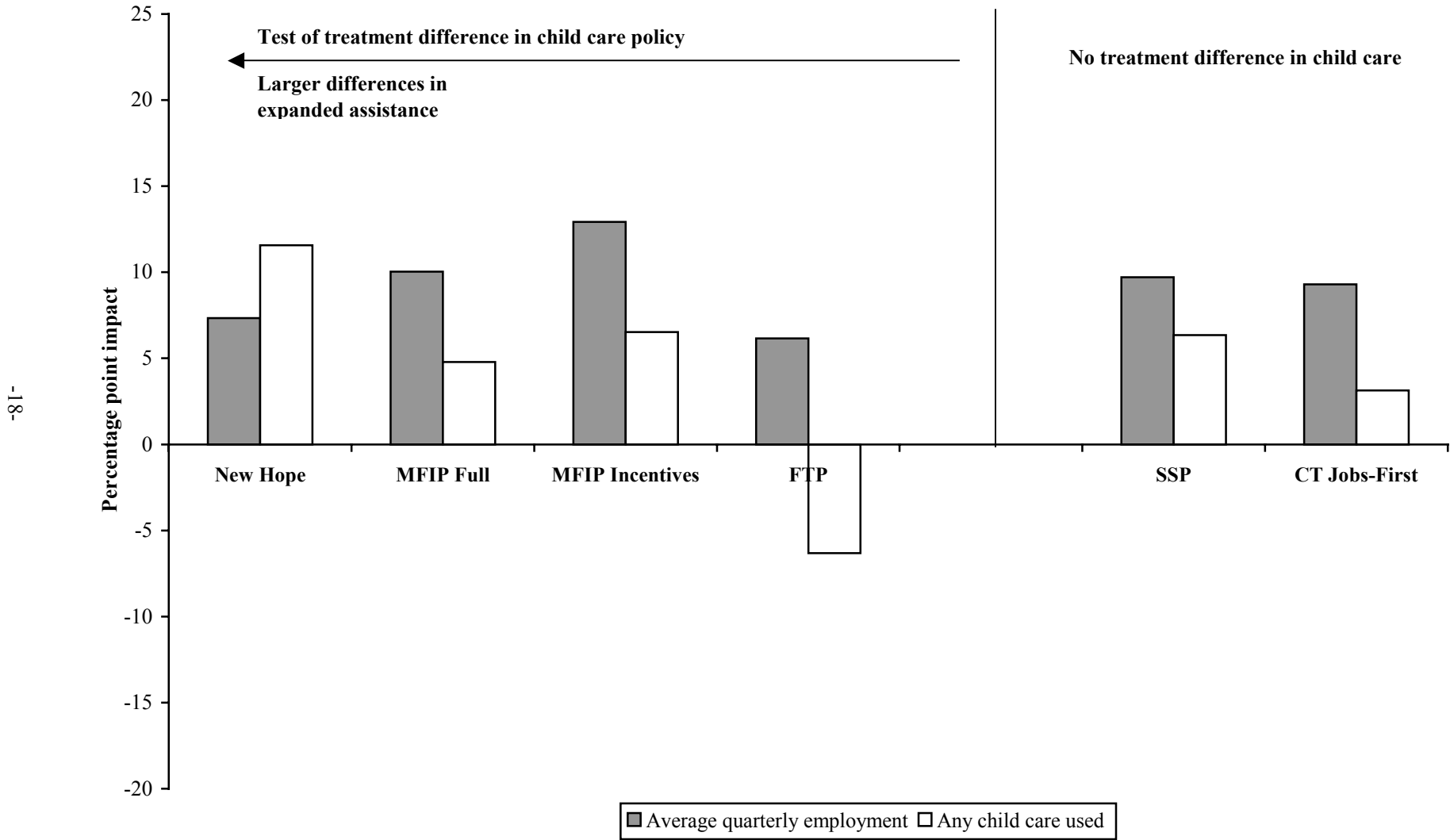


Figure 3

Program Impacts on Type of Care for Children Ages 3 to 5, by Program Child Care Policy

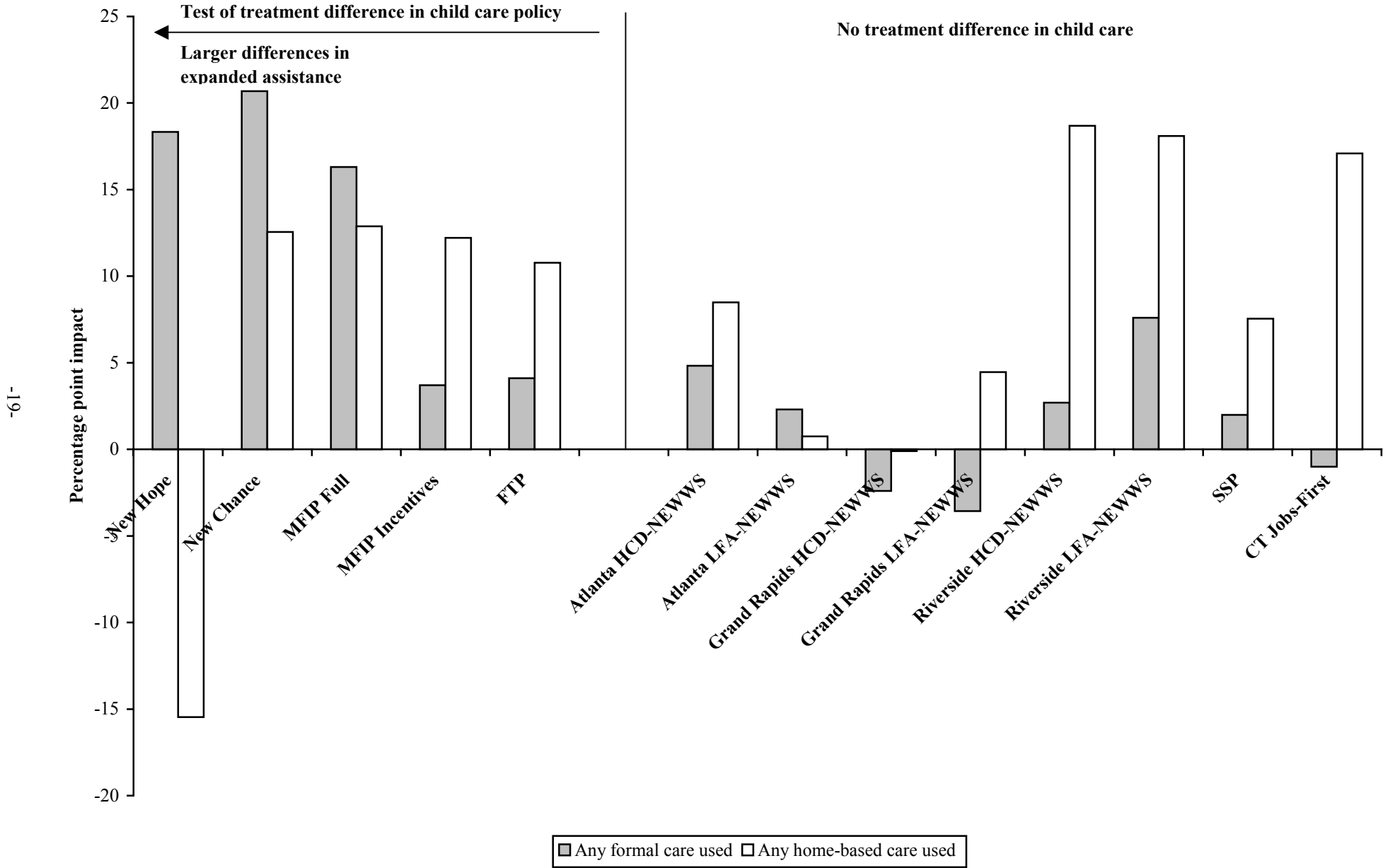
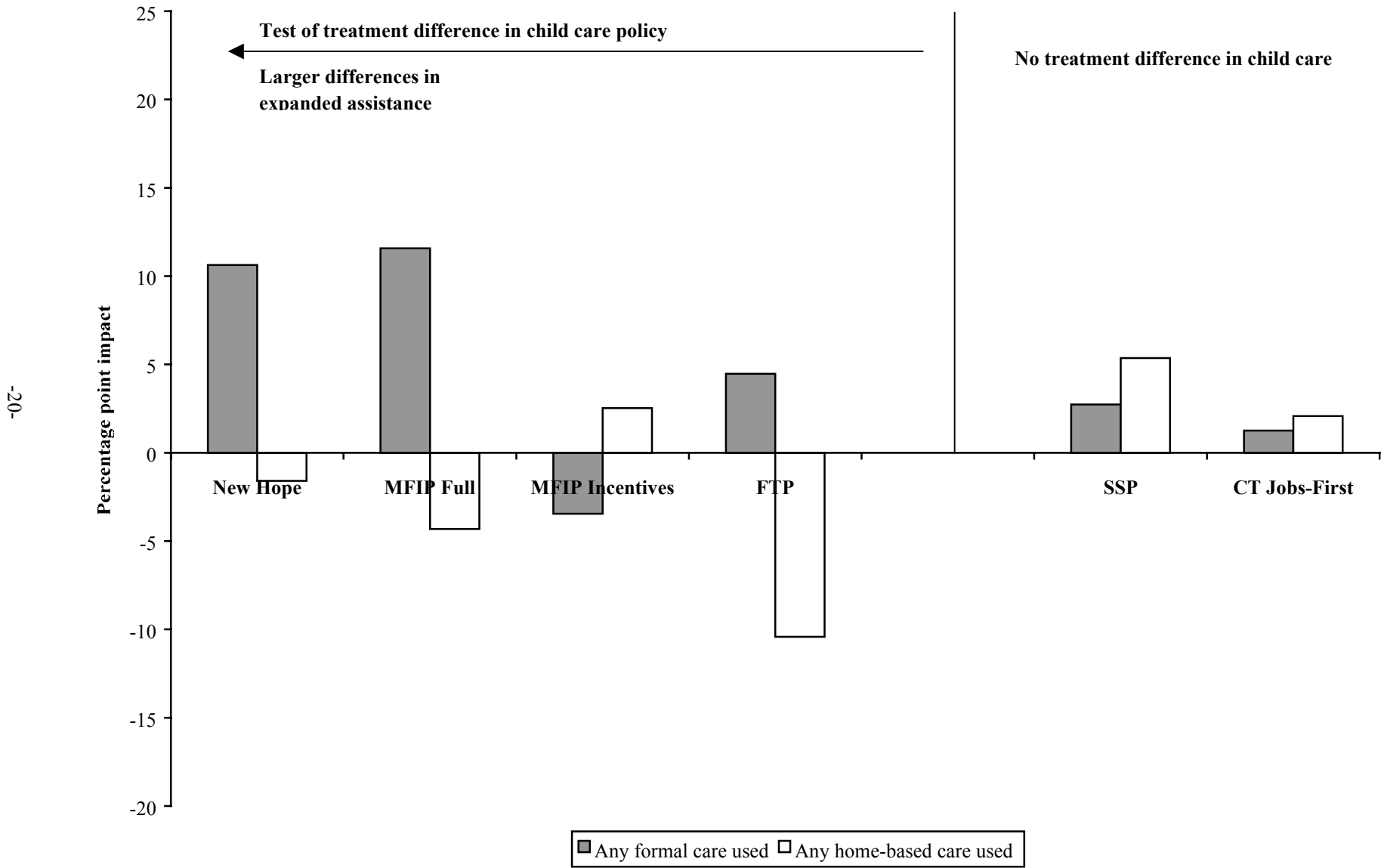


Figure 4

Program Impacts on Type of Care for Children Ages 6 to 9, by Program Child Care Policy



**Impacts on Child Care Stability, Duration and Perceptions of Child Care Quality for Selected Studies.** Several of the studies collected additional information about the characteristics of care being used by families, though these data are less consistently available than the data on overall use and type of care. Tables 2 and 3 (for 3 to 5 and 6 to 9 year olds respectively) present impacts on duration of care, stability of care, parental reports of quality, and parental perceptions of care. In general, more is known about these outcomes for the programs that had a treatment difference in child care assistance than for those that had no treatment difference.

Although in almost all of the studies children in program families were more likely than children in control families to have spent at least some time in a nonmaternal care arrangement, there are not consistent differences in the number of months children spent in care overall. When specific types of care are examined, however, programs that had a larger treatment difference in child care assistance, especially if this difference provided a relatively higher level of child care support than what was offered to control group members, tended to increase the number of months preschoolers spent in formal care and decrease the number of months spent in home-based care. FTP, however, did increase the number of months preschoolers spent in home-based arrangements. This general pattern was not observed for children aged 6 to 9 at study entry; impacts for young school-aged children on duration and stability of care were generally nonsignificant and often negative. The one exception was that young school-aged children in families participating in the New Hope program were in care, particularly formal care, for more months during the two-year period than were children in control group families.

Two studies collected information about the stability of care arrangements over the follow-up period. These data indicate that program group families in the full MFIP program and FTP were more likely than control group families to have used a particular care arrangement for their preschool-aged child for 12 consecutive months or longer. Moreover, MFIP program families were more likely than control families to have consistently used a formal arrangement.

In many of the studies, parents were asked about characteristics of their current care arrangement. Child to adult ratios, group size, provider education and training, and parental perceptions of care provide some, albeit limited, information about the quality of care experienced by children. Several studies have demonstrated that structural and caregiver characteristics are significantly related to more in-depth measures of process quality (i.e., experiences that occur in the child care setting), but these parents are not always accurate reporters of these features of child care (see review by Vandell and Wolfe 2000). As shown in Tables 2 and 3, parents in the present studies reported very few consistent program-control group differences in parental reports of structural indices of quality.

For preschool-aged children, parents from program families in New Hope, New Chance, MFIP, and FTP reported being somewhat more satisfied with their care arrangements than did control parents, though again differences were not statistically significant. The opposite trend was true for parents of school-aged children, with the exception of the FTP program.

**Table 2**  
**Program Impacts on Duration and Stability of Care for Children Ages 3-5 at Study Entry**

Program	Number of months in any care		Number of months in formal care		Number of months in home-based care		% in any care for 12+ consecutive months		% in formal care for 12+ consecutive months		Sample size
	Control		Control		Control		Control		Control		
	Group	Impact	Group	Impact	Group	Impact	Group	Impact	Group	Impact	
<b>New Hope</b>	16.80	1.46	8.18	4.62 ***	10.53	-2.61 **	----	----	----	----	265
<b>New Chance</b>	11.38	-0.43	6.26	1.47	7.15	-2.78 ***	----	----	----	----	202
<b>MFIP Full</b>	9.66	3.34 ***	3.99	2.97 ***	6.51	0.63	0.45	0.17 ***	0.16	0.16 ***	289
<b>MFIP Incentives</b>	9.66	-1.39	3.99	0.01	6.51	-1.19	0.45	-0.09	0.16	0.00	286
<b>FTP</b>	11.12	2.62 ***	3.62	1.07	7.82	2.39 **	0.43	0.10 **	0.12	0.04	456

**Program Impacts on Parental Perceptions of Care Quality for Children Ages 3-5 at Study Entry**

Program	Child/Adult ratio		Group size		Provider has GED/HS diploma		Provider has early childhood training		Parental satisfaction with care		Sample size
	Control		Control		Control		Control		Control		
	Group	Impact	Group	Impact	Group	Impact	Group	Impact	Group	Impact	
<b>New Hope</b>	6.65	0.86	15.13	0.80	----	----	----	----	1.56	0.15	242
<b>New Chance</b>	0.79	4.39 ***	5.08	5.27 ***	----	----	----	----	8.93	0.40	73
<b>MFIP Full</b>	4.27	-0.14	8.58	-0.28	----	----	----	----	36.39	5.30	289
<b>MFIP Incentives</b>	4.27	-0.65	8.58	0.16	----	----	----	----	36.39	6.50	286
<b>FTP</b>	----	----	----	----	----	----	----	----	29.39	2.35	456
<b>Atlanta HCD-NEWWS</b>	----	----	----	----	48.2	3.7	35.1	6.7 **	----	----	893
<b>Atlanta LFA-NEWWS</b>	----	----	----	----	48.2	-6.3 *	35.8	-3.2	----	----	791
<b>Grand Rapids HCD-NEWWS</b>	----	----	----	----	53.1	7.5	27.8	2.7	----	----	379
<b>Grand Rapids LFA-NEWWS</b>	----	----	----	----	53.1	5.5	28.4	-3.0	----	----	393
<b>Riverside HCD-NEWWS</b>	----	----	----	----	27.7	8.4 **	22.3	1.8	----	----	487
<b>Riverside LFA-NEWWS</b>	----	----	----	----	36.9	8.7	27.9	0.5	----	----	824

## Table 2 (continued)

NOTES: Impacts represent the difference between the program group and control group means.

Categories for type of care are not mutually exclusive and therefore do not add up to 100 percent.

Impacts on structural indices of quality and parental satisfaction with care refer to the current arrangement (at the time of the interview), except for the New Hope project where reference is to the arrangement used for the longest period of time .

Child/adult ratio data were collected for center care in New Hope and MFIP, and for all types of care in New Chance.

Parental satisfaction with care was measured differently across the studies. In New Hope, parents were asked how much they like to change their care on scale of 1 ("not at all") to 5 ("a great deal"); score was reflected to indicate satisfaction (1 = low, 5 = high).

In New Chance, parents rated their current primary arrangement on 4 dimensions (convenience, educational value, cost and reliability) using a scale of 1 ("extremely dissatisfied") to 10 ("extremely satisfied"); impacts are presented for the average score across these items. In MFIP and FTP, the satisfaction variable represents the proportion of parents who rate their current primary arrangement as "high quality" (total score greater than 36 on a 12-item Emlen scale). Items ask about the extent to which parents felt their arrangement in the last week was safe and secure, treated the child with respect, and handled discipline matters appropriately.

Italicized numbers indicate nonexperimental comparisons. Respondents who did not report a current child care arrangement were excluded.

**Table 3**  
**Program Impacts on Duration and Stability of Care for Children Ages 6-9 at Study Entry**

Program	Number of months in any care		Number of months in formal care		Number of months in home-based care		% in any care for 12+ consecutive months		% in formal care for 12+ consecutive months		Sample size
	Control Group	Impact	Control Group	Impact	Control Group	Impact	Control Group	Impact	Control Group	Impact	
<b>New Hope</b>	11.51	3.04 ***	3.64	2.04 **	8.42	1.24	----	----	----	----	276
<b>MFIP Full</b>	8.08	-1.06	2.86	-0.29	6.42	-1.82	35.10	-6.70	9.80	-0.80	199
<b>MFIP Incentives</b>	8.08	0.83	2.86	-1.34	6.42	1.09	35.10	2.80	9.80	-2.30	186
<b>FTP</b>	10.48	-0.53	1.93	0.29	8.98	-0.82	41.10	-0.70	4.70	1.30	282

**Program Impacts on Parental Perceptions of Care Quality for Children Ages 6-9 at Study Entry**

Program	Child/Adult ratio		Group size		Provider GED/HS diploma		Provider has early childhood training		Parental satisfaction with care		Sample size
	Control Group	Impact	Control Group	Impact	Control Group	Impact	Control Group	Impact	Control Group	Impact	
<b>New Hope</b>	7.23	-4.04	18.55	-0.33	----	----	----	----	1.71	-0.10	206
<b>MFIP Full</b>	1.36	1.69 *	-1.74	8.83	----	----	----	----	25.65	-7.60	177
<b>MFIP Incentives</b>	1.36	2.09 **	-1.74	14.08 **	----	----	----	----	25.65	-1.00	159
<b>FTP</b>	----	----	----	----	----	----	----	----	21.56	2.85	282

NOTES: Impacts represent the difference between the program group and control group means.

Categories for type of care are not mutually exclusive and therefore do not add up to 100 percent.

Impacts on structural indices of quality and parental satisfaction with care refer to the current arrangement (at the time of the interview), except for the New Hope project where reference is to the arrangement used for the longest period of time .

Child/adult ratio data were collected for center care in New Hope and MFIP.

Parental satisfaction with care was measured differently across the studies. In New Hope, parents were asked how much they would like to change their care on scale of 1 ("not at all") to 5 ("a great deal"); score was reflected to indicate satisfaction (1 = low, 5 = high). In MFIP and FTP, the satisfaction variable represents the proportion of parents who rate their current primary arrangement as "high quality" (total score greater than 36 on a 12-item Emlen scale). Items ask about the extent to which parents feel their arrangement in the last week was safe and secure, treated the child with respect, and handled discipline matters appropriately.



## VI. Discussion and Conclusions

Using data collected from a diverse set of experimental programs for low-income parents that took place throughout the late 1980s to the mid-1990s, we examine how welfare and employment policy affects child care outcomes for parents and their pre- to young school aged children. Comparing the outcomes of individuals and families in a control group, under the then-current policy environment, with the outcomes of individuals and families in a program group, under a new policy environment, offers a clean test of the effect of policy. We used variation in the policy “mix” across the programs to differentiate if and how individual policy components influence effects on outcomes. Our work contributes to the growing body of literature on the effects of federal, state, and local child care policies by offering a uniquely clean test of policy possible with the use of experimental data, and by highlighting treatment differences in child care assistance that have, as of yet, been unexplored. We hypothesized that treatment differences in child care assistance that support paid or regulated care would differentiate program effects on the use of formal care versus home-based care, and would have a greater influence than policies aimed at increasing employment, income or reducing dependence on welfare.

Many of the low-income families in our samples used child care for their preschool and young school-aged children, with most of the usage being in formal arrangements for preschoolers and home-based arrangements for young school-aged children. Consistent with our expectations, we do find that income and employment policies (e.g., earnings supplements and employment mandates) affect child care use, but that it is policies and practices specific to child care that affect the *types* of care used. When policies support families’ child care needs in general and encourage formal care specifically, parents use more center-based and formal care. When policies do not support and do little to encourage formal care, parents use more home-based and relative care. Furthermore, data from a subset of the studies suggest that programs with high support for child care not only increase the likelihood that children will be in formal arrangements, but also increase the number of months spent in these arrangements (and decrease the number of months spent in home-based arrangements). Two of the programs that had a treatment difference in child care assistance (MFIP and FTP) also increased the stability of families’ child care arrangements.

The aggregate child care policy index examined in this paper consists of many different policies and practices and is embedded in programs that contained different combinations of employment and income policies. Consequently, it is difficult to untangle which specific policies were particularly important in accounting for the effects on type of care. Payment efficiency, supportive subsidies, seamless services, case management, and restricting subsidies to regulated care may all contribute to these outcomes. It may be the presence of multiple care-related supports and services that leads these programs to alter the types of care used by families. A program such as New Hope contained such a combination (e.g., an earnings supplement conditional on full-time work and a generous child care subsidy) and showed clear effects on increasing formal care. That the programs that provided additional support for paid or regulated care increased the use of formal care adds to the growing number of studies indicating a preference for and differential increase in formal care by welfare-receiving families participating in employment-focused programs (see review by Zaslow, Oldham, Moore, and Magenheimer 1998). Taken together, this set of findings highlights the importance of subsidy rates being tied to *current* market rate surveys, and being sufficient for use in formal care settings.

Programs that had no treatment difference in child care assistance also produced important effects on child care outcomes, particularly for the type of child care used. One possible reason for these effects is site differences in child care policy, and the interaction of these site-level differences in child care policy with the program treatments.<sup>15</sup> For example, two of the NEWWS programs (in Atlanta and Riverside) increased formal and home-based care. Caseworkers in Atlanta encouraged the use of formal care, based on the reasoning that this kind of arrangement was more stable and reliable for working families whereas caseworkers in Riverside encouraged the use of informal care because these are the types of arrangements that families could afford once program assistance ended. Because program group members had increased exposure to caseworkers and other program-related staff they heard the message about the advantages of certain types of child care more frequently than did control group members. They may also have received referrals and information about different types of care from their case workers.

What should we infer from the fact that child care assistance policies *can* alter the types of arrangements that parents use to care for their children while they are working?

As discussed earlier, the types of care that families use are likely determined by a range of factors, many outside the influence of these policies, including characteristics of parents' employment (e.g. schedule), parental beliefs and attitudes, child characteristics, family resources, and the availability, affordability, and quality of care. Given the multiple and diverse contexts and ways that child care decisions are made, it is notable that child care policy as a component of welfare and employment programs can influence families' child care decisions. The present findings suggest that some parents prefer to use formal, more structured, and therefore more expensive care, and that policies supporting such care allow them to choose arrangements that suit their needs. Decisions about care are not based solely on what is affordable and available, but are also influenced by how particular arrangements "fit" with a range of needs. In ethnographic studies, parents describe using a mixture of formal and home-based arrangements to meet these needs (e.g. Lowe and Weisner 2001). Child care assistance as described in this paper as supporting paid or regulated child care may have increased families' abilities to coordinate their care arrangements with other aspects of family life, and for some (but not all) families this translated into increased use of formal care.

These analyses leave unanswered questions about how child care assistance that support paid or regulated care may have affected parent and child well-being. As discussed earlier, there is some empirical support for the notion that formal care arrangements may have benefits for parental employment as well as for developmental outcomes, but a restrictive child care policy focused only on promoting formal care may not serve the best interests of *all* families. Understanding how welfare and employment programs and child care policy affect the quality of care experienced by children is critical. Formal care arrangements may vary greatly in the quality of care, and there is some evidence that at-risk children are more positively affected by high-quality care and more negatively affected by low-quality care than are more advantaged children (Peisner-Feinberg, Burchinal, Clifford, Culkin, Howes, Kagan, Yazejian, Byler, Rustici, and Zelazo 2000). In addition, while parents recognize the educational benefit of formal care, some have concerns about negative social and moral influences, as well as health and safety issues in these settings (Lowe and Weisner 2001). Parental perceptions of care quality may play an important role in their employment efforts and success (see discussion in Vandell and Wolfe 2000). Furthermore, formal care arrangements are not necessarily the best match for parents who work non-traditional or nonfixed hours, and in fact, parents who work in the evenings or weekends express considerable wariness about using care by people they do not know well.

**Appendix Table 1**  
**Brief Summary of Projects**

<b>Evaluation/ Demonstration</b>	<b>Purpose</b>	<b>Dates of evaluation</b>	<b>General Research Strategies</b>	<b>Sample Size for Present Analyses</b>	<b>Key Policy Strategies</b>
<b>Milwaukee's New Hope Project (New Hope)</b>	To evaluate an anti-poverty program with financial incentives to work and a stated goal of reducing the social costs of welfare and poverty.	1994-2002	Random assignment evaluation of a program linking income support to full-time employment; technical assistance in project design and implementation. Targeted to and eligible for all households with incomes below 150 percent of poverty line with an adult willing to work 30 hours a week or more.  Special study of focal children aged 2 to 10 at time of study entry.	Children ages 3-9 at study entry: 541	Participation Mandate  Make-Work-Pay Strategies  Child care and health care subsidies  Child care subsidy promoted and marketed; and restricted to licensed care. Cost of care paid in full after copayment based on earnings and number of children. Caseworkers encouraged use of formal care because more reliable.
<b>New Chance Demonstration (New Chance)</b>	To develop and test a mix of educational, personal development, employment-related, and support services aimed at helping 16- to 22-year-old mothers on welfare become more self-sufficient, and encouraging the healthy development of their children.	1986-1997	Random assignment design; process, impact, and benefit-cost analyses of program serving teen parents on welfare. Explicitly two-generational in focus and design. Over 16 sites in the U.S.	Children ages 3-5 at study entry: 202	Services  Center care encouraged; and provided on site or nearby off-site.

<b>Evaluation/ Demonstration</b>	<b>Purpose</b>	<b>Dates of evaluation</b>	<b>General Research Strategies</b>	<b>Sample Size for Present Analyses</b>	<b>Key Policy Strategies</b>
<b>Minnesota's Family Investment Program (MFIP Full &amp; MFIP Incentives)</b>	To evaluate separately the effects of changing financial incentives to work and mandatory case management services.	1993-2000	Random assignment evaluation of an anti-poverty program with large financial work incentives for cases and intensive case management. Includes 3 urban and 4 rural counties.  Special study of focal children aged 2 to 9 at study entry.	Children ages 3-9 at study entry: 721	Participation Mandate Make-Work-Pay Strategies Services Child care reimbursed directly and consistently to child care provider
<b>Florida's Family Transition Program (FTP)</b>	To evaluate one of the first operational programs including time limits on AFDC receipt, financial work incentives, and enhanced employment, training, and social services.	1994-2000	Random assignment evaluation of a program that includes time limits, financial work incentives, and enhanced employment services. (In Escambia county, FL)  Special study of focal children aged 1 to 8 at study entry.	Children ages 3-9 at study entry: 738	Participation Mandate Make-Work-Pay Strategies Time Limit Services Resource and Referral agent located at welfare office; eligibility for transitional child care benefits extended.
<b>National Evaluation of Welfare to Work Strategies (NEWWS)</b>	To evaluate the differential effects of programs that emphasize work first and those that emphasize education/training, implemented under the federal JOBS program in a variety of sites across the country.	1989-2001 (control group embargo slightly varied by site)	Random assignment of 50,000 AFDC and AFDC-UP cases; innovative procedures to test effects of different JOBS approaches. Sites included in the present analyses include Riverside (CA), Atlanta (GA), and Grand Rapids (MI).  Special study of focal children aged 3 to 5 at study entry.	Children ages 3-5 at study entry: 3,090	Participation Mandate Services

<b>Evaluation/ Demonstration</b>	<b>Purpose</b>	<b>Dates of evaluation</b>	<b>General Research Strategies</b>	<b>Sample Size for Present Analyses</b>	<b>Key Policy Strategies</b>
<b>Connecticut Jobs-First Program (CT Jobs- First)</b>	To evaluate a program that includes one of the nation's shortest time limits on welfare receipt (21 months) and a generous financial work incentive. Also one of the first programs to impose a time limit in major urban areas.	1996-2002	Random assignment evaluation of program that includes time limits and financial work incentives. Sites include New Haven and Manchester.  Special study of focal children aged 0 to 11 at study entry.	Children ages 3-9 at study entry: 445	Participation Mandate Make-Work-Pay Strategies Time Limit Services
<b>Canadian Self- Sufficiency Project (SSP)</b>	To implement a program providing an earnings supplement to single parents (a small group of long-term recipients receive voluntary services as well) who have been on public assistance for at least the full preceding year, and who agree to leave welfare and maintain full-time employment, and to evaluate the program's take-up rate and effectiveness.	1992-2001	Largest random assignment study of increased work incentives; intensive technical assistance provided to administration systems. Includes two provinces: British Columbia and New Brunswick.	Children ages 3-9 at study entry: 2,206	Make-Work-Pay Strategies

**Appendix Table 2a**  
**Employment and Child Care Use by Control Group Members During a Two-Year Period**  
**for Children Ages 3-5 at Study Entry**

Program	<i>Total sample size</i>	Control		Control		Control		Control	
		Group	Impact	Group	Impact	Group	Impact	Group	Impact
		<b>Employment</b>				<b>Child Care</b>			
		<u>Average Quarterly Employment</u>		<u>% Using Any Care</u>		<u>% Using Formal Care</u>		<u>% Using Home-Based Care</u>	
New Hope	265	74.3	7.4	89.3	7.2 **	58.6	18.3 ***	73.2	-15.5 ***
New Chance	198	21.1	11.3	98.2	1.8	62.8	20.7 ***	68.1	-0.4
Full MFIP	289	39.4	19.6 ***	57.9	19.8 **	32.0	16.3 ***	44.7	12.9 **
MFIP Incentives	286	39.4	6.8 *	57.9	2.9	32.0	3.7	44.7	12.2
FTP	456	45.5	5.5 *	58.3	10.4 **	22.7	4.1	42.5	10.8 *
Atlanta HCD-NEWWS	1026	36.4	3.7 *	77.6	8.7 ***	67.5	4.8 *	38.1	8.5 ***
Atlanta LFA-NEWWS	902	36.4	6.0 ***	77.6	5.5 **	67.5	2.3	38.1	0.8
Grand Rapids HCD-NEWWS	421	39.6	1.4	91.8	0.6	69.0	-2.4	76.9	-0.1
Grand Rapids LFA-NEWWS	441	39.6	10.9 ***	91.8	-0.4	69.0	-3.6	76.9	4.5
Riverside HCD-NEWWS	578	15.6	7.3 ***	64.1	13.8 ***	46.0	2.7	40.9	18.7 ***
Riverside LFA-NEWWS	950	20.7	15.1 ***	68.8	13.2 ***	49.1	7.6 **	45.1	16.4 ***
SSP	1058	25.8	10.2 ***	42.4	7.5 **	16.5	2.0	31.9	7.5 **
CT Jobs-First	132	43.9	12.7 *	39.1	17.0 *	9.7	-1.0	25.7	17.1 **

NOTES: Child care type categories are not mutually exclusive and therefore do not add to 100 percent.

Control group means and sample sizes differ for Riverside-NEWWS programs because for the HCD program, the relevant control group is limited to those sample members without a high school diploma.

**Appendix Table 2b**  
**Employment and Child Care Use by Control Group Members During a Two-Year Period for**  
**Children Ages 6-9 at Study Entry**

Program	<i>Total sample size</i>	Control Group	Impact	Control Group	Impact	Control Group	Impact	Control Group	Impact
		<b>Employment</b>				<b>Child Care</b>			
		<u>Average Quarterly Employment</u>		<u>% Using Any Care</u>		<u>% Using Formal Care</u>		<u>% Using Home-Based Care</u>	
New Hope	276	71.4	5.5	74.7	11.6 **	31.4	10.6 *	64.9	-1.6
Full MFIP	199	35.0	10.0 **	51.2	4.8	18.9	11.6 *	47.3	-4.3
MFIP Incentives	186	35.0	12.9 **	51.2	6.5	18.9	-3.5	47.3	2.5
FTP	282	46.8	6.6	55	-6.9	11.4	4.5	48.9	-10.4
SSP	1148	27.4	9.2	31.3	6.4	2.7	2.7	5.4	5.4
CT Jobs-First	313	42.8	11.1 ***	20.6	3.1	1.0	1.3	18.5	2.1

NOTES: Child care type categories are not mutually exclusive and therefore do not add to 100 percent.

Control group means and sample sizes differ for Riverside-NEWWS programs because for the HCD program, the relevant control group is limited to those sample members without a high school diploma.

## References

- Besharov, D. and N. Samari. In press. In R. Haskins and R. Blank (Eds.) *The New World of Welfare: An Agenda for Reauthorization and Beyond*. The Brookings Institute.
- Blank, R. 1998. "Female Labor Force Participation." Paper presented at the first meeting of Welfare Reform Evaluation Committee, May 28-30, 1998, School of Public Affairs, University of Maryland.
- Blau, D.M. and E. Tekin. 2001. "The Determinants and Consequences of Child Care Subsidy Receipt by Low-Income Families." Department of Economics, University of North Carolina, Chapel Hill, NC.
- Blau, D. 2000. "Child Care Subsidy Programs." National Bureau of Economic Research. Working Paper 7806.
- Bloom, D. and C. Michalopoulos. 2001. *How Welfare and Work Policies Affect Employment and Income: A Synthesis of Research*. New York: Manpower Demonstration Research Corporation.
- Bloom, D., L. Melton, C. Michalopoulos, S. Scrivener, and J. Walter. 2000. *Implementation and Early Impacts of Connecticut's Welfare Reform Initiative*. New York: Manpower Demonstration Research Corporation.
- Bloom, D., J.J. Kemple, P. Morris, S. Scrivener, N. Verma, and R. Hendra. 2000. *The Family Transition Program: Final Report on Florida's Initial Time-Limited Welfare Program*. New York: Manpower Demonstration Research Corporation.
- Bos, J., A. Huston, R. Granger, G. Duncan, T. Brock, and V. McLoyd. 1999. *New Hope for People with Low Incomes*. New York: Manpower Demonstration Research Corporation.
- Broberg, A., H. Wessels, M.E. Lamb, and C.P. Hwang. 1997. "Effects of Day Care on the Development of Cognitive Abilities in 8-Year-Olds: A Longitudinal Study." *Developmental Psychology*, 33(1): 62-69.
- Capizzano, J., G. Adams, and F. Sonenstein. 2000. "Child Care Arrangements for Children Under Five: Variation Across States." Washington, D.C.: The Urban Institute Press. *Assessing the New Federalism*.
- Cappizano, J. and G. Adams. 2000. "The Hours That Children Under Five Spend in Child Care: Variation Across States." Washington, D.C.: The Urban Institute Press. *Assessing the New Federalism*.
- Cappizano, J., K. Tout, and G. Adams. 2000. "Child Care Patterns of School-Age Children With Employed Mothers." Washington, D.C.: The Urban Institute Press. *Assessing the New Federalism*.
- Casper, L. 1995. "What Does it Cost to Mind Our Preschoolers?" U.S. Bureau of the Census, Current Population Reports, P-70, No. 52, Washington, DC.
- Chaplin, D, Robins, P.K., S.L. Hofferth, D.A. Wissoker & P. Fronstin. (1999) "The Price Elasticity of Child Care Demand: A Sensitivity Analysis." Working paper. Washington, DC: The Urban Institute.



- Collins, A.M., J.I. Layzer, J.L. Kreader, A. Werner, and F.B. Glantz. 2000. *National Study of Child Care for Low-Income Families: State and Community Substudy Interim Report*. Washington, D.C.: U.S. Dept. of Health and Human Services, Administration for Children and Families.
- Council of Economic Advisers. 1997. *The economics of child care*. Washington, D.C., December.
- Dwyer, K.M., J.L. Richardson, K.L. Danley, W.B. Hansen, S.Y. Sussman, B. Brannon, C.W. Dent, C.A. Johnson, and B.R. Flay. 1990. "Characteristics of Eighth-Grade Students Who Initiate Self-Care in Elementary and Junior High School." *Pediatrics*, 86: 448-454.
- Emlen, A., P.E. Koren & K.H. Schultze. 1999. "From A Parent's Point of View: Measuring The Quality of Child Care: Final Report." Portland, OR: Regional Research Institute for Human Services, Portland State University.
- Freedman, S., D. Friedlander, G. Hamilton, J. Rock, M. Mitchell, J. Nudelman, A. Schweder, and L. Storto. 2000. *Evaluating Alternative Welfare-to-Work Approaches: Two-Year Impacts for Eleven Programs*. National Evaluation of Welfare-to-Work Strategies. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and Administration for Children and Families; and U.S. Department of Education, Office of the Under Secretary and Office of Vocational and Adult Education.
- Fuller, B., Holloway, S.D., & Liang, X. 1996. "Family Selection of Child-Care Centers: The Influence of Household Support, Ethnicity, and Parental Practices." *Child Development*, 67: 3320-3337.
- Gennetian, L., A. Gassman-Pines, A. Huston, D. Crosby, Y. Chang, and T. Lowe. 2001. "A Review of Treatment Differences in Child Care Policy in Experimental Welfare and Employment Programs." Next Generation Working Paper. New York, NY: Manpower Demonstration Research Corporation.
- Gennetian, L., P. Morris and W. Vargas. 2001. "Dynamics of Child Care Subsidy Use Under a Welfare Reform Policy." Mimeo. New York, NY: Manpower Demonstration Research Corporation.
- Gordon, R.A., and L. Chase-Lansdale. 2001. "Availability of Child Care in the United States: A Description and Analysis of Data Sources." *Demography*, 38 (2): 299-316.
- Hamilton, G., T. Brock, M. Farrell, D. Friedlander, and K. Harknett. 1997. National Evaluation of Welfare-to-Work Strategies: Evaluating Two Welfare-to-Work Program Approaches: Two Year Findings on the Labor Force Attachment and Human Capital Development Programs in Three Sites. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and Administration for Children and Families; and U.S. Department of Education, Office of the Under Secretary and Office of Vocational and Adult Education.
- Hofferth, S.L. 1999. "Child care in the first three years of life and preschoolers' language and behavior." Albuquerque NM: Paper presented at the Biennial Meeting of the Society for Research in Child Development.
- Huston, A., Y. Chang and L. Gennetian. 2001. "Family and Individual Predictors of Child Care Use by Low-Income Families in Different Policy Contexts." Next Generation Working Paper. New York, NY: Manpower Demonstration Research Corporation.
- Kerrebrock, N., and E.M. Lewit. 1999. "Child Indicators: Children in Self-Care." *The Future of Children*, 9(2): 151-160.

- Layzer, J. and A. Collins. 2000. National Study of Child Care for Low-Income Families: State and Community Substudy. Interim Report. Abt Associates. Prepared for Richard Jakopic and Gilda Morelli, U.S. Department of Health and Human Services, Administration for Children and Families.
- Lowe, E. D. and T. S. Weisner. 2001. "Situating Child Care and Child Care Subsidy Use in the Daily Routines of Lower Income Families." Next Generation Working Paper. New York, NY: Manpower Demonstration Research Corporation.
- McGroder, S.M., M.J. Zaslow, K.A. Moore, and S.M. LeMenestrel. 2000. *Impacts on Young Children and Their Families Two Years After Enrollment: Findings from the Child Outcomes Study*. National Evaluation of Welfare-to-Work Strategies. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and Administration for Children and Families; and U.S. Department of Education, Office of the Under Secretary and Office of Vocational and Adult Education.
- McKernan, S., R. Lerman, N. Pindus and J. Valente. 2000. "The Relationship Between Metropolitan and Non-Metropolitan Locations, Changing Welfare Policies, and the Employment of Single Mothers." Washington, D.C.: The Urban Institute.
- Meyer, B. and D. Rosenbaum. 1999. "The Effects of Welfare Reform: The Material Well-Being of Single Mothers in the 1980s and 1990s" Mimeo, Joint Center for Poverty Research, Northwestern University/University of Chicago.
- Michalopoulos, C., D. Card, L. Gennetian, K. Harknett, and P.K. Robins. 2000. *The Self-Sufficiency Project at 36 Months: Effects of a Financial Work Incentive on Employment and Income*. Ottawa: Social Research and Demonstration Corporation.
- Miller, C., V. Knox, L. Gennetian, M. Doodoo, J. Hunter, and C. Redcross. 2000. *Reforming Welfare and Rewarding Work: Final Report on the Minnesota Family Investment Program*, Vol. 1, *Effects on Adults*. New York: Manpower Demonstration Research Corporation.
- Morris, P., A.C. Huston, G.J. Duncan, D.A. Crosby, & J.M. Bos. 2001. *How Welfare and Work Policies Affect Children: A Synthesis of Research*. New York: Manpower Demonstration Research Corporation.
- NICHD Early Child Care Research Network. 1997. "Familial Factors Associated with Characteristics of Nonmaternal Care for Infants." *Journal of Marriage and the Family*, 59: 389-408.
- NICHD Early Child Care Research Network 2000. The Relation of Child Care to Cognitive and Language Development. *Child Development*, 71: 960-980.
- NICHD Early Child Care Research Network. Forthcoming, 2001. "Child Care and Common Communicable Illnesses: Results from the NICHD Study of Early Child Care." *Archives of Pediatrics and Adolescent Medicine*.
- Peisner-Feinberg, E.S., M.R. Burchinal, R.M. Clifford, M.L. Culkin, C. Howes, S.L. Kagan, N. Yazejian, P. Byler, J. Rustici, and J. Zelazo. 2000. *The Children of the Cost, Quality, and Outcomes Study Go To School: Technical Report*. Chapel Hill: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center.
- Peterson, L. 1989. "Latchkey Children's Preparation for Self-Care: Overestimated, Underrehearsed, and Unsafe." *Journal of Clinical Child Psychology*, 18: 36-43.

- Petit, G.S., R.D. Laird, J.D. Bates, and K.A. Dodge. 1997. "Patterns of After-School Care in Middle Childhood: Risk Factors and Developmental Outcomes." *Merrill Palmer Quarterly*, 43: 515-538.
- Phillips, D. A. (Ed.). 1995. *Child care for low-income families: A summary of two workshops*. Washington DC: National Academy Press.
- Posner, J.K. and D.L. Vandell. 1994. "Low-Income Children's After-School Care: Are There Beneficial Effects Of After-School Programs?" *Child Development*, 65: 440-456.
- Posner, J.K., and D.L. Vandell. 1999. "After-School Activities and The Development of Low-Income Urban Children: A Longitudinal Study." *Developmental Psychology*, 35: 868-879.
- Quint, J.C., J.M. Bos, and D.F. Polit. 1997. *New Chance: Final Report On A Comprehensive Program for Young Mothers in Poverty and Their Children*. New York: Manpower Demonstration Research Corporation.
- Raikes H. 1998. "Investigating Child Care Subsidy: What Are We Buying?" *Social Policy Report: Society for Research in Child Development*, 12(2): 1-18.
- Riley, D. et al. 1994. *Preventing Problem Behavior and Raising Academic Performance in the Nation's Youth: The Impacts of 64 School-Age Child Care Programs in 15 States Supported by the Cooperative Extension Service Youth -At-Risk Initiative*. University of Wisconsin, Madison.
- Singer, J.D., B. Fuller, M.K. Keiley, and A. Wolf. 1998. "Early Child-Care Selection: Variation by Geographic Location, Maternal Characteristics, and Family Structure." *Developmental Psychology*, 34(5): 1129-1144.
- Smith, K. 2000. "Who's Minding the Kids? Child Care Arrangements." Current Population Reports P70-70. Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau.
- U.S. Department of Education. 2000. *21<sup>st</sup> Century Community Learning Centers Program Notices*. <http://www.ed.gov/21stcclc/#pubs>.
- U.S. Department of Health and Human Services. 1999. "Access to Child Care for Low-Income Families." <http://www.acf.dhhs.gov/news/press/ccreport.htm>.
- U.S. General Accounting Office. 1997. *Welfare Reform: Implications of Increased Work Participation for Child Care*. HEHS-97-95. Washington, DC: U.S. Government Printing Office.
- U.S. General Accounting Office. 2001. *Child Care: States Increased Spending on Low-Income Families*. GAO-01-293. Washington, DC: U.S. Government Printing Office.
- Vandell, D. L., and J. Ramanan. 1991. "Children of the National Longitudinal Survey of Youth: Choices in After-School Care and Child Development." *Development Psychology*, 27: 637-643.
- Vandell, D. and B. Wolfe. 2000. "Child Care Quality: Does It Matter and Does It Need To Be Improved?" Washington DC: U.S. Department of Health and Human Services.
- Yoshikawa, H. 1999. "Welfare Dynamics, Support Services, Mothers' Earnings and Child Cognitive Development: Implications for Contemporary Welfare Reform." *Child Development*, 70: 779-801.
- Zaslow, M. J., E. Oldham, K.A. Moore, and E. Magenheimer. 1998. Welfare families' use of early childhood care and education programs, and implications for their children's development. *Early Childhood Research Quarterly*, 13, 535-563.

Zaslow, M.J., S.M. McGroder, G. Cave, and C.L. Mariner. 1999. "Maternal Employment and Measures of Children's Health and Development Among Families with Some History of Welfare Receipt." In R. Hodson & T. L. arcel (Eds.), *Research in the sociology of work: Vol. 7. Work and family*. (pp. 233-259). Stanford CT: JAI Press.

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## Endnotes

<sup>1</sup> There is some indication that the supply of child care has not increased at the same pace as the demand for child care, especially care during nonstandard hours, care for infants and for sick children (Layzer and Collins 2000).

<sup>2</sup> Employment changes may translate into changes in the financial resources available to families. For some families, the increased earnings that accompany increased work efforts may improve their financial well being; for other families, however, the costs of employment (e.g. transportation and child care costs) and a loss of welfare benefits may mean that overall income decreases or remains unchanged despite increased employment.

<sup>3</sup> Two useful summaries of the research in economics are Chaplin, Robins, Hofferth, Wissoker, and Fronstin (1999) and Blau (2000). Chaplin et al. (1999) found that among a number of studies of child care use, increasing the cost of child care by 10 percent would reduce the proportion of families using paid care by about 5.5 to 11 percent (depending upon the selection of studies). Furthermore, Blau (2000) found that reducing the cost of child care by 10 percent would increase the number of working mothers by about 1.5 to 3.5 percent (depending upon the selection of studies). Few of these studies, however, focused on low-income families. Those that do examine such families report price elasticities of employment that are much larger than for higher-income families. Blau (2000) also summarized a series of experimental demonstration programs designed to help families achieve economic self-sufficiency that included child care subsidies along with other benefits and services and natural experiments.

<sup>4</sup> In a large longitudinal sample, the more time children attended centers in the first three years of life the better their language and cognitive development was, even with extensive controls for selection and for the quality and amount of child care they had received (NICHD Early Child care Research Network 2000). Children in a sample of welfare families who attended center-based early childhood programs performed better on a measure of cognitive development than did those cared for by their mothers at home (Zaslow et al. 1999).

<sup>5</sup> In an analysis of children in the NLSY, children who had experienced center-based care performed better on a measure of vocabulary than did other children. Those who had been in “babysitter” care did less well than did other children, particularly when their mothers had engaged in little paid employment (Yoshikawa 1999). Similarly, in a Swedish sample, second graders’ performance on standardized measures of cognitive ability was predicted by the number of months they had spent in center-based care before 3.5 years of age. Children who had been in family child care performed more poorly than did those who experienced centers or fulltime parent care (Broberg et al. 1997).

<sup>6</sup> Despite its greater availability in recent years, the supply of child care for school-aged children remains relatively limited, particularly for low-income families. While low-income parents may wish to provide enriching environments and supervision for their school age children, they often cannot afford expensive private lessons or club memberships, lack the transportation necessary to take advantage of programs, and worry about neighborhood safety. Estimates suggest that by the year 2002, the supply of school-age child care will meet less than 25 percent of the demand in urban areas (U.S. GAO 1997).

<sup>7</sup> For more detail about these studies see: Bos, Huston, Granger, Duncan, Brock and McLoyd, 1999 (for New Hope); Quint, Bos, and Polit, 1997 (for New Chance); Miller, Knox, Gennetian, Doodoo, Hunter, and Redcross, 2000, (for MFIP); Bloom, Kemple, Morris, Scrivener, Verma, and Hendra, 2000 (for FTP); Freedman, Fiedlander, Hamilton, Rock, Mitchell, Nudelman, Schweder, and Storto, 2000 and McGroder, Zaslow, Moore, and LeMenestrel, 2000 (for NEWWS); Bloom, Melton, Michalopoulos, Scrivener, and Walter, 1998 (for CT) and Michalopoulos, Card, Gennetian, Harknett, and Robins, 2000 (for SSP).

<sup>8</sup> For 20 years prior to 1988 and the passage of the Family Support Act (FSA), women receiving welfare who had children under age 6 generally were not subject to employment mandates. With the passage of the FSA, women with children as young as age 3 (or as young as age 1, at state option) were newly designated as mandatory participants. The child outcomes study as part of the NEWWS evaluation was explicitly targeted to mothers with pre-school aged children to assess the effect of these new child age exemptions on mothers and children (see McGroder et al. 2000).

<sup>9</sup> Details about the target samples and baseline characteristics of the survey samples are available upon request from the authors.

<sup>10</sup> The follow-up period for New Hope and the NEWWS studies was two years after random assignment. New Chance and Connecticut had an 18-month follow-up period. The child care questions in SSP referred to the 18 months prior to the 36 month survey.

<sup>11</sup> New Chance includes data from over 16 sites throughout the U.S.

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<sup>12</sup> All impacts were estimated using a regression based approach controlling for a number of pre-random assignment and baseline characteristics such as a parent being ever married, number of children, race/ethnicity, and prior welfare and work history.

<sup>13</sup> The scoring technique is not a qualitative assessment of state or local child care policy, and do not necessarily reflect the current child care environment in these cities, counties and states. Furthermore, control group members in these programs were always eligible for child care subsidies and assistance that existed within the pre-PRWORA, AFDC system or under TANF or low-income child care assistance.

<sup>14</sup> The alphabetical ordering of the sites, also coincidentally organizes the sites by emphasis on formal or home-based child care, with caseworkers in Atlanta generally emphasizing formal care and caseworkers in Riverside generally emphasizing home-based care. As noted earlier, the policies within sites did not differ for program and control group members, but program-group members may have been exposed to the site policy more intensively than controls because participation in employment services was mandatory.

<sup>15</sup> Another possible reason for these effects is program effects on employment and characteristics of employment. Riverside-LFA-NEWS' effects on formal care may be associated with the effects of this program on full-time employment (Freedman et al. 2001). However, full-time employment is not likely to be the only explanation. SSP also produced large effects on full-time employment and relatively small effects on use of formal care (Michalopoulos et al. 2000).