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Stability and Change in Child Care and Employment

Evidence from Three States

Cynthia Miller

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The Next Generation Project

This 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.

Project directors
Virginia Knox, Senior Research Associate, MDRC, 16 East 34th St., New York, NY 10016
Email: virginia.knox@mdrc.org; phone: (212) 640-8678

Project Web site
For information about MDRC and the Next Generation, see www.mdrc.org.

For further information on this paper, address correspondence to:
Cynthia Miller (212) 340-8693; e-mail: cynthia_miller@mdrc.org

Acknowledgments

Introduction

A key goal of the welfare reform legislation of 1996 was to move women off of welfare and into work. Although there is debate about whether welfare reform, the expanding economy, or other factors were the cause, welfare caseloads have fallen dramatically since the mid-1990s, matched by an increase in the number of single mothers in the workforce. While this would seem to be a success, many of the women who left welfare for work have had difficulty staying employed. Studies of women who left welfare in several states found that only about a third of them worked consistently during the subsequent year (Isaacs and Lyon 2000). Stable employment is key to self-sufficiency and earnings growth.

In response to falling caseloads and a new emphasis on self-sufficiency, policymakers have begun focusing on programs designed to increase employment retention (Bloom et al. 2002), and the first step in designing these programs has been figuring out why employment is unstable. Former welfare recipients face a range of disadvantages that might easily contribute to job instability, such as limited work experience, low education levels, and the challenges of working and raising children with a limited income. But what about child care? There is some evidence that lack of available child care hinders women's ability to take jobs (Schumacher and Greenberg 1999), but is unstable child care a major reason they leave jobs? The answer has clear implications for the design of employment retention programs.

Although there is a growing research on the types of child care used among welfare recipients and low-income women in general, there is less information on child care stability. The research shows, for example, that many women use informal care by relatives, but there is less information about how often they change types of care from month to month and about how often they have interruptions in care. There is also limited evidence on how child care instability affects employment, in part because of a lack of appropriate data but also because it is difficult to prove that one factor causes the other. Although the same women who have unstable child care typically have unstable work patterns, this association may arise simply because both of these outcomes are caused by some other factor, such low education levels or family instability.

Using a unique data set consisting of over 3,500 women targeted for welfare-to-work programs in three states, this paper examines child care stability and its association with employment stability among current and former welfare recipients. Each of the three programs was evaluated using a random assignment design, in which some women were assigned to the new program being tested while others were assigned to the then-existing welfare system in the state or to Aid to Families with Dependent Children (AFDC).

These data provide several advantages. First, each of the programs evaluated includes components that are now key elements of many states' new Temporary Assistance for Needy

Families (TANF) programs, such as time limits, work requirements, and financial incentives, used alone or in combination. Focusing on the women in the new programs allow us to infer patterns of child care use under the new welfare system. Second, each evaluation includes a follow-up survey with detailed child care and employment calendars, allowing us to track changes in types of care over time, interruptions in care, and how these changes are related to patterns of employment. Finally, each of the programs increased employment, meaning that they encouraged women who would not have otherwise worked to take jobs. We take advantage of this "exogenous" increase in work, or an increase that is not associated with women's background characteristics that might also be associated with child care use, to more accurately measure the relationship between employment and child care stability.

The paper begins by describing patterns of child care use over time and examining various ways in which it might be considered unstable. For example, how often do women change arrangements over time? How often do they drop care for a month or more? It also examines which types of families have the most unstable care. The paper next measures the association between child care instability and employment instability. Is dropping care associated with losing employment? Does frequently changing types of child care indicate instability in use that affects women's employment?

Findings in Brief

Child care use is fairly stable for this population

Most women in the sample who used care used it fairly consistently. In any given month, less than 4 percent of the sample dropped child care for a month or more. Over the entire two-year period, about a third of the women had dropped care at some point. Several factors are associated with child care instability — such as low education levels and limited work experience — and many of these same factors are also associated with work instability. Child care stability did not differ for older versus younger children. There is evidence that transitioning into the summer months causes disruptions in care for some women.

Changing arrangements and using multiple types of care in a given month are more common than dropping care, but they do not seem to be indications of instability

Changing arrangements during the observation period was much more common than dropping care. More than half the women who used care during the two-year period changed arrangements at some point. In addition, almost one in five women who used care during the period used at least two arrangements in most months. Nonetheless, women who change types

of care or use multiple arrangements are not more likely than other women to experience interruptions in care.

Some women lost child care before leaving employment; however, this outcome was relatively rare among current and former welfare recipients with unstable employment

Women who dropped child care in a given month were 8 percentage points more likely than other women to leave work in the next month. However, because less than 4 percent of women dropped care in any given month, dropping care does not account for the majority of transitions out of work. Other factors associated with job loss are low education levels and limited work experience.

Child care instability and employment instability are correlated; however, the evidence suggests that a significant fraction of child care instability is caused by employment instability and not the other way around

Experimental comparisons, which provide the most valid and unbiased estimates, indicate that child care stability and employment stability are related. Most of the programs that increased stable employment also increased stable child care, although the evidence does not prove that one outcome caused the other. Since the programs focused on increasing employment, however, it is likely that stable employment led to stable child care use. This conclusion is not inconsistent with the finding that interruptions in child care increases the likelihood of job loss. It is possible that each outcome affects the other to some extent, with one exerting a relatively stronger influence.

This paper is the third in a series by MDRC examining the effects of welfare-to-work programs on child care use. Gennetian and Michalopoulos (2003) summarize the effects of a range of programs on child care use and child care subsidy use and find that the increases in child care use caused by the programs mirrored the increases in employment but were usually smaller in size. Also, the effects on employment, child care use, and subsidy use did not vary according to whether the programs had specific child care components as part of their models. Robins (2002) finds that much of the increase in care created by the programs was informal care (by relatives). The findings suggest that lack of child care may be a barrier to employment but is probably not a major barrier.

The results presented here are similar in that they suggest that child care instability can contribute to job instability but that it is not a major reason women leave their jobs. In this case, employment retention programs should continue to consider child care issues but would do best to also focus on other barriers to keeping jobs, like low education levels and limited work histo-

ries. Note that these findings do not suggest that child care instability should be ignored. Changing and dropping care, although not necessarily problems from an employment stability perspective, have been found to have negative effects on children.

Background

The dramatic fall in welfare caseloads has prompted researchers to look at the status of welfare leavers, and one of the key outcomes studied has been their use of child care. Schumacher and Greenberg (1999) summarize findings from several of the state "leaver" studies. The majority of employed leavers, for example, are not using child care subsidies, even though most are probably still eligible. The most common type of care used is relatives, friends, or other informal arrangements. The fact that so many women use unpaid forms of care may be one reason that the price elasticity of child care use has been found to be so low, meaning that changes in the price of care through subsidies or other tools have only small effects on the amount of care mothers choose to use (Blau 2000).

There has been less research on the stability of child care arrangements. Some of the earliest studies are from Blau and Robins (1991a, 1991b, 1998), using data from the National Longitudinal Survey of Youth (NLSY), a panel survey of youth who were between the ages of 14 and 21 in 1979. Blau and Robins (1991a) examine child care transitions for NLSY mothers during the first three years of their children's lives. They find that turnover — defined as changing arrangements over a given period, either across mode or within mode — is fairly low, affecting less than 10 percent of the children annually. Turnover is positively associated with the women's socioeconomic status, suggesting that changing care is a normal good, or a good that families buy more of as their incomes increase. Blau and Robins (1998) use data on all children up to age 13 in the NLSY and find higher rates of turnover. Among those families using paid care at a given yearly survey, for example, 21 percent switched to unpaid care, and 17 percent left care for nonemployment by the next year. Hofferth, Brayfield, Deich, and Holcomb (1991) use data from the National Child Care Survey of 1990 and find that about 11 percent of families of preschool-aged children switched child care arrangements during the year. The authors also find that families with higher incomes and families with older children are more likely to change arrangements.

Although more recent studies focus on child care subsidy use, evidence from this research also provides information about stability. Gennetian, Morris, and Vargas (2001) use data from Florida's Family Transition Program (FTP) and find that rates of subsidy use are fairly low among current and former welfare recipients and that families who do use subsidies do not use them for long. The authors argue that the transition from welfare-related to employment-related subsidies as women leave welfare may be one place where they fall through the cracks, accounting for the short use of subsidies. Weber and Davis (2002) also find that spells of sub-

sidy use are quite short. Across the five states examined, the median spell length ranged from three to seven months. Length of subsidy use did not vary by the age of the child. The authors were also able to examine the stability of arrangements while families were receiving subsidies. Among those who received subsidies for six months, for example, from 52 percent to 83 percent stayed in the same arrangement during this period.

What are the effects of child care instability? It has been well established that child care instability has negative effects on children's development (see, for example, Hayes, Palmer, and Zaslow 1990). For the purposes of this paper, however, we focus on its effects on women's employment. The research suggests that child care problems are one of several potential barriers to work. In the studies summarized by Schumacher and Greenberg (1999), several of the surveys asked nonworking leavers why they were not working. Lack of child care was one reason given, but not the most common — across relevant studies, the percentage who answered "yes" to "lack of child care" ranged from 5 percent to 30 percent. Results from one state survey suggest that child care problems may contribute to employment instability. In Florida, 22 percent of all welfare leavers reported that child care problems led to a change in jobs. Finally, Blau and Robins (1991a) examine the causes of child care and employment transitions. They conclude that the two outcomes are correlated but cannot determine whether one outcome causes the other.

Data and Methods

The data used for the analysis come from recent welfare waiver evaluations in Connecticut, Florida, and Minnesota. Each of the programs was evaluated using a random assignment design, in which about half of ongoing welfare recipients and new applicants for welfare were assigned to the program being tested and half were assigned to the existing welfare program (AFDC) in the state at the time of the evaluation.

Connecticut's Jobs First Program

The Jobs First program evaluated the effects of a 21-month time limit on welfare receipt. The program also included very generous financial incentives to encourage work — all of the recipient's earnings were disregarded when calculating her grant level and food stamp benefits until her earnings reached the poverty line. A subset of the full sample was given a survey three years after program entry. See Bloom (2000) for more information about the program.

Florida's Family Transition Program (FTP)

FTP tested the effects of 24- and 36-month time limits on welfare receipt for a sample of 2,800 single-parent families in Escambia County, Florida. The program, which started in 1994, offered financial incentives as well as enhanced services designed to help recipients find

jobs. A subset of the sample was given a survey four years after program entry. See Bloom et al. (2000) for the final report on the program's effects.

The Minnesota Family Investment Program (MFIP)

MFIP tested the effects of a strategy that combined financial incentives to work, in the form of enhanced earnings disregards relative to the AFDC system, and mandated participation in work-focused activities. A subset of the full sample of over 13,000 families was given a survey three years after they entered the program. See Knox et al. (2000) for a summary of the program's effects.

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Although the programs were implemented prior to welfare reform, they included three key elements — financial incentives, time limits, and work requirements — that most states now use as part of their new TANF programs. Thus, the environment faced by families in the program groups in these evaluations is similar in many ways to the postreform era. Each of the programs also included expanded assistance for child care. The biggest treatment differences were in FTP and MFIP: FTP provided two years of transitional child care assistance for families leaving welfare, compared with one year for families in the traditional AFDC program; MFIP paid child care costs directly to providers, rather than requiring participants to pay the costs up-front and reimbursing them later, as was done in Minnesota's traditional AFDC program. Jobs First also included a child care component — child care assistance for families leaving welfare was extended for those in the program group beyond the one year typically offered under AFDC. In practice, however, the treatment difference in Jobs First was relatively small, since families in the control group had access to child care subsidies outside the welfare system.

The key data from the evaluation for our purposes are surveys administered to respondents three to four years after they entered the evaluation. The surveys collected data on household composition, program participation, employment, and material hardship. The child sections of the surveys focused on the experiences and well-being of a randomly selected "focal child" within the family. All focal children were between the ages of 2 and 9 when their families entered the evaluation. The child part of the surveys also collected child care calendars, asking respondents about the types of care used in each of the months during the two years prior to the survey.[1] For MFIP and Jobs First, monthly child care data are available from months 12 to 36 after random assignment. For FTP, child care data refer to months 24 to 48.[2] Thus, a limita-

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[1] The MFIP calendar covers the entire three-year follow-up period. For this analysis, the MFIP data are restricted to the two years prior to the survey for comparability with the other evaluations.

[2] The periods of 12 to 36 months in MFIP and Jobs First and 24 to 48 months in FTP are approximations, since some families were surveyed after month 36 (in MFIP and Jobs First) or month 48 (in FTP).

tion of these data is that they begin in the middle of the follow-up period, after many women had already started working and using care. Many of them may have already experienced several changes in care before our window of observation.

The child care calendar data were collected via computer, and on paper for one evaluation, and could be viewed by the mother. To assist in the process, interviewers typically marked on the calendar the focal child's birth date and the start and end dates of any jobs the mother had during the follow-up period. In FTP and Jobs First, mothers received somewhat more prompting than in MFIP: Interviewers also pointed out on the calendar periods in which the mother was in school or in training and periods in which the child was either in school or on summer break. For this reason, the data for these two evaluations might suffer from less recall error. In addition to the potential for recall error, the calendar data also have other limitations for the purposes of describing stability. First, they do not indicate changes in arrangements within mode, such as a change from one relative to another relative or from one center to another center. Second, they do not capture interruptions in care of less than one month. In addition, the calendar data do not indicate which arrangement in a given month was the primary arrangement. This information may be important to the extent that changes in primary arrangements are more disruptive than changes in secondary arrangements. Finally, because the samples in these evaluations are restricted to children who were between the ages of 2 and 9 at random assignment, this analysis does not capture the child care experiences of very young children.

For the descriptive section that follows, we restrict the analysis to women in the program groups. Since these women faced the new programs being tested, their experiences are most relevant to the current environment. Data for women in the control groups are used in the final section that examines the impacts of the programs on employment and child care stability. The data are pooled in most cases and shown by individual program when the results are not consistent across programs.[3] Much of the analysis is also conducted separately for older versus younger focal children. Younger children are defined as those who were age 6 or younger at the start of the child care calendar period, and older children are those who were older than 6.

Patterns of Child Care Use

Types of Care Used

Table 1 shows the types of care used by the women in the program groups during the two years prior to the follow-up survey. As shown in the earlier evaluation reports, and also found in other research, the majority (77.6 percent) of these current and ex-recipients used child

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[3]In the pooled analyses, the data are not weighted.

care at some point during the period, and the most common type of care used was care by a relative other than the father or spouse/partner. Grandparents made up the majority of other relative care. Extended day programs (either before or after school) are the second most common type of care, followed by formal daycare centers and babysitters. The only difference across individual programs is that mothers in MFIP were much more likely than mothers in FTP and Jobs First to use formal daycare. The MFIP program increased the use of child care during the follow-up period and most of this increase was in formal care, an effect that may have been due to its particular child care component (Gennetian and Miller 2000). FTP and Jobs First also increased the use of child care, but these increases were not concentrated in formal care.

Not surprisingly, the type of care use differs by the child's age. Older children, or those over age 6 at the start of the period, were less likely than younger children to have been in care during the period (73.5 percent versus 81.9 percent) and they tended to be in different types of care. Older children, for example, were more likely to be cared for by siblings and were less likely to spend time in daycare centers.

Figure 1 presents child care use from 24 months prior to the survey to the month of the survey. The fraction of respondents using care in each month is fairly stable and increases by a few percentage points over the period.

Stability

Figure 1 suggests that the use of care is fairly stable, but a stable percentage from month to month could mask a lot of movement into and out of care for individual women. There are a variety of ways to measure stability of child care, and the next several tables look at it from several angles. Table 2 presents the continuity of using any type of care. According to this measure, child care use is fairly stable for most women. Over 80 percent of women in the sample used care at some point during the first 6 months of the period. Among those women, 74 percent used care consistently, that is, used care for at least 13 consecutive months. On the other hand, almost 30 percent percent left care, for at least one month, within a year. Stability does not differ much for older versus younger children.

Number of Arrangements Used

Although the continuity of care seems to be fairly high for this sample, this measure may not capture the potential problems that women face in maintaining at least at one type of care each month. Table 3 presents data on the number of arrangements used. Among those who used care during the period, almost 40 percent used two or more types of care for at least one month, and half of these women (23 percent plus 28 percent) used two or more types of care for 10 or more of the 24 months. It is not clear whether using several types of care in a given month

is a sign of child care problems or instability that may ultimately affect employment stability.[4] It may simply be a measure of access, in that women who have more options available, such as ex-spouses, take advantage of those options. A later section examines whether the number of arrangements used is associated with other measures of child care stability and with employment stability.

Three Cases

To see what these numbers mean in terms of individual women, Figure 2 presents the child care histories of three women from the MFIP evaluation, who roughly represent each of the scenarios shown in Table 3, for example, women who use only one type of care each month (63 percent of the sample), women who use two or more types of care for a few months (18 percent of the sample), and women who use two or more types of care for most months (18 percent of the sample).

The top panel represents the most common pattern, although not necessarily the most common type of care used. Woman #1 used care and worked consistently throughout the 24-month period. In this case, an older sibling cared for the focal child each month. Woman #2 used two types of care in each month — a babysitter and a spouse/partner. She worked while using care, but only for 8 of the 24 months. This case highlights the association between child care instability and employment instability, although it is difficult to distinguish between cause and effect. Finally, woman #3 used three types of care for most months, even prior to working. (She may have been participating in employment and training activities in the early months.) In most months, the focal child was cared for by a combination of an older sibling, the biological father, and another relative.

The third woman's child care use illustrates another possible measure of instability — changing types of care. Although she used care consistently over the entire period, she reportedly stopped using "other relative" care in month 20. This by itself may create instability, particularly if this arrangement was the primary arrangement. (Recall that the child care calendar data do identify the primary arrangement each month.) Changing types of care is another measure of instability and can be defined in two ways — (1) changing *all* arrangements from one month to the next or (2) changing *any* arrangement from one month to the next. For women who use only one type of care each month, these two definitions will be the same. Where they will differ is for women who use multiple arrangements. Using the first definition (changing all arrangements), for example, the third woman in Figure 2 would not be defined as having changed types of care over the period. Dropping "other relative" care in month 20 would not be

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[4]In fact, having more than one arrangement may be desirable from the child's standpoint if it better suits his or her developmental needs.

counted as a change since at least one other type of care remained constant from month 19 to month 20. Using the second definition, the third woman would be defined as having changed care twice during the period, once in month 2 and again in month 20. Of course, it is an open question whether changing any or all arrangements causes employment instability. This issue is addressed in a later section.

Changing Types of Care Used

Figure 3 presents the fraction of women who experienced any changes in child care arrangements each month, including going from care to no care and changing types. The numbers are calculated as percentages among all women who ever used care during the period. Recall that the calendar data only allow us to identify changes in care across the eight modes listed in Table 1. For this reason, the incidence of changing types of care is most likely underestimated.

The figure shows that, in any given month, only about 2 percent to 3 percent of women dropped care. (The data are not shown separately for younger and older children since the patterns did not differ for the two groups.) A similar fraction changed all types of care. Changing at least some types of care was more common — about 5 percent to 9 percent changed at least one type each month. The rate of changing at least some types of care increased over the period, which may partly reflect the aging of the children. The data also show somewhat of a seasonal pattern, with the incidence of changes higher in months 12 through 15. The next section explores seasonal patterns of use.

Table 4 presents summary measures over the entire two-year period. Although the rate of dropping care is fairly low in any given month, almost 38 percent of the women dropped care at some point during the period. A similar fraction changed all of their arrangements at some point, while a substantially higher fraction (56 percent) changed at least one arrangement. These numbers are somewhat higher than found in earlier studies (for example, Blau and Robins 1998 and Hofferth et al., 1991). Possible reasons for this difference are differences in samples and time periods. In addition, Blau and Robins (1998) report changes across fairly broad modes of care (unpaid versus paid), whereas this paper uses eight modes of care and, thus, captures more changes.

Child Care Transitions by Type

The previous findings raise the question of whether certain types of care are more stable than others. It is difficult to prove that some types of care are inherently unstable. If daycare is less stable than babysitter care, for example, it may simply be that women with less stable work and family lives are more likely to choose daycare over sitter care. With this caveat in mind, Table 5 presents a transition matrix, showing movement from each type of care in a given month (called time t) to the same or another type of care six months later. The first row of the

table, for example, shows that among those women who used the biological father for care in a given month, 88 percent of them also used the biological father six months later. (The numbers in a given column sum to more than 100 percent since many women use more than one type of care in a month.) Similarly, among those using "other relative" care in a given month, 85 percent were using the same type of care six months later. A look down the diagonal of the matrix shows the types of care that are the most stable. Excluding summer camp and extended day programs, daycare is the least stable type of care; among those using daycare in a given month, only 78 percent were still using daycare 6 months later. In general, relative care (care by a father, sibling, or other relative) is more stable than nonrelative care (babysitter or daycare center).

Summer Transitions

Although they do not account for the majority of child care transitions, summer months undoubtedly contribute to changes in arrangements for many children. Figure 3 showed a slight increase in the rate of changing care during the middle of the 24-month period and another increase 12 months later. This pattern largely reflects the school year and movement into summer programs, particularly among older children. Figure 4 shows rates of use of each type of care by calendar month rather than follow-up month. The figure shows an increase in the use of summer programs during the summer months, peaking at about 12 percent in July. This increase in summer care is matched by a reduction in the use of extended day programs.

Moving children out of their usual provider and into summer programs is not necessarily an indication of instability. However, the loss of after-school programs may present a hardship for some women who cannot find other types of care for their children during the summer months. In the analyses that follow, child care changes in the summer months are distinguished from other changes in care in order to assess whether they represent a source of instability for women's employment.

Correlates of Unstable Care

The previous section identifies several possible measures of child care instability. This section examines the correlates of unstable child care, where instability is defined as dropping care or changing arrangements.

Table 6 presents estimates from monthly transition models estimated for women in the program groups. For these models, the data were converted to person-month format, and the outcome is whether a woman dropped or changed care in a month, given that she was using some type of care in the previous month. Thus, the sample consists of each month that a woman was using some type of care, for a total of over 26,000 person-months. The first two columns

present results for the model of dropping care in a given month, and the remaining columns present results for changing types of care (any arrangements and all arrangements).

Although using multiple types of care per month is not an outcome in this analysis, it is included as a predictor to test whether it is associated with instability. As shown in the second row of column one, using more than one type of care in a given month reduces the probability of dropping care the next month. The coefficient indicates that it reduces this probability by 1.9 percentage points. Looking across the row shows that it also reduces the likelihood of changing all arrangements in the following month but increases the likelihood of changing any arrangement. For the model that predicts dropping care, we also include a variable capturing whether the child care arrangements had been changed in the previous month. The coefficient on this variable indicates that it does not increase or decrease the likelihood that child care is dropped in the next month.

The next several rows show the effects of several demographic characteristics. Less disadvantaged women are less likely to drop care in a given month; women with a high school diploma are less likely to drop care in a given month, as are women who were employed in the quarter prior to entering the evaluation. These same factors are also associated with employment outcomes (as shown in a later section). More educated women, however, are also more likely to change types of care in a given month, as shown by the positive and statistically significant coefficient on high school completion in the third model. Never-married women are not less likely to drop care (column 1), but they change arrangements less frequently than their previously married counterparts (columns 3 and 5). The results for education and marital status suggest that changing arrangements may be related to the number of options women have available to them. Previously married women, for example, may have more options because they have ex-spouses to rely on for care. Black women are not more likely to drop care, but they are more likely than non-black women to change arrangements in a given month. Consistent with the earlier tables, the age of the child does not appear to have a large effect on child care stability. Parents are not more likely to drop care for younger children, relative to care for older children. They are, however, somewhat less likely to change arrangements.

Previous work suggests that leaving welfare may be a point at which many women fall through the cracks in terms of continuing to receive benefits for which they are eligible (Gennetian et al. 2001). If women lose child care subsidies when they leave welfare, we might expect to see an increase in instability around this point. We included in the models three variables to indicate whether the woman left welfare in the current month and in each of the previous two months (to account for possible lagged effects). Although the coefficients (in model 1) are not statistically significant, they suggest, if anything, that leaving welfare in a given month reduces the likelihood of dropping care in the next month. On the other hand, leaving welfare seems to increase the likelihood of changing types of care, which may reflect women losing subsidies and

having to adjust their use of care in response. Finally, the results show that summer has a fairly strong effect on child care use. The results in model 1, for example, indicate that if the month is a summer month (June, July, or August), as compared with a nonsummer month, the woman is more likely to drop care in the next month. The largest effects of summer are on changing care. The next section examines the effect of summer months on employment stability.

Table 7 presents the models for dropping care, estimated for the three evaluations separately. The results are consistent across samples, with a few exceptions. Education, for example, is significantly related to dropping care only for the MFIP sample. Also, care is more likely to be dropped for younger children in FTP but less likely to be dropped for younger children in MFIP.

One difference that might be expected across evaluations is the effects of leaving welfare. Since Jobs First and FTP included time limits on welfare receipt, leaving welfare in these two programs might be associated with increased hardship, which could include losing child care. The results, however, show that leaving welfare has little effect on the likelihood of dropping child care. This lack of effect may be due to the fact that many of the people in these programs left welfare before reaching their time limit. It may also be that women who reached their time limits were less likely to have been using care in the first place.

Employment Stability and Child Care Stability

The previous sections illustrate the extent of child care instability for a sample of current and ex-welfare recipients. About a third of women dropped child care for at least one month at some point during the period, and a much higher fraction changed types of care. This section examines the implications of these changes for women's employment stability.

Experimental Impacts

The first way to measure the association between these two outcomes is to take advantage of the experimental design of the evaluations. Child care stability and employment stability may be associated because the same underlying factor, such as personal stability or help from friends and family, is associated with both outcomes, not because one causes the other. In this case, women who are stably employed will be so because they are more stable in general and not because they have stable child care. What is necessary in this case is to create an "exogenous" change in one of the outcomes, such as encouraging some women to work stably who would not have otherwise done so. Then the true association between employment and child care stability can be assessed by examining it for these particular women. The evaluations are wellsuited for this analysis, since each of the programs led to an increase in stable employment.

Table 8 presents impacts of the programs on child care and employment. The first several columns present data for the pooled sample — the mean for the program group, the mean for the control group, and the impact of the program, or the difference between the two means. The last three columns present the impacts only for each of the three programs separately.

On the whole, the programs increased the use of child care during the first six months of the observation period (by 6.2 percentage points), and most of this care was stable, as shown by the 4.3 percentage point increase in child care that lasted 12 or more consecutive months. Among the three programs, MFIP increased stable child care the least, and Jobs First increased it the most. These differences across programs are unlikely to be due to differences in child care assistance — recall that Jobs First was determined to have the smallest treatment difference in child care policies. Gennetian and Michalopoulos (2003) also found that differences in child care policies across programs had little to do with their impacts on child care use.

The next several rows look at child care stability using interruptions in care and tell a similar story. Of the 6.2 percentage point increase in care used during the first six months, 4.2 percentage points of this was care that was subsequently never dropped during the observation period. Again, Jobs First led to the largest increase in the number of people who never dropped care.

Data for changing care and the number of types used tell a somewhat different story. About half of the people who used care because of the program (3.0 percentage points) never changed types of care during the observation period, but most of the other half changed types at least twice. Similarly, the increase in the use of care was evenly split between those who used only one type each month and those who used at least two types at some point. For these outcomes, the effects vary across programs. In FTP, most of the people who used care because of the program never changed types (5.7 percentage points out of 9.7 percentage points), and most also used only one type of care (7.5 percentage points out of 9.7 percentage points). The effects of Jobs First are the opposite — it led to an increase in the number of people who changed types at least twice and to an increase in the use of two or more types in at least one month. These results suggest that stability, as measured by continuous months of care, has little to do with how often women change types of care or how many arrangements they use per month. The earlier section reached a similar conclusion.

The next panel presents impacts on employment stability. For the pooled sample, the program increased employment during the first six months of the observation period, and most of this new employment was stable (6 percentage points out of 8.7 percentage points). The results are consistent across individual programs, with Jobs First leading to the biggest increase in stable employment.

The first two panels, taken together, suggest that stable child care is associated with stable employment. However, it is difficult to tell from the separate impacts whether it is the same

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individuals who are experiencing both outcomes, for example. whether the same people who had stable employment because of the program also had stable child care. This association can be tested by creating joint outcomes, such as "had stable employment and stable child care" and "had stable employment and unstable child care." If it is the case that the same people experienced both outcomes, then the increase in stable employment should be equal to the increase in "had stable employment and had stable child care."

As seen from the first row in the third panel, the programs increased the number of women who worked and used child care at some point during the first 6 months of the observation period. (Because they are required to have worked and used child care during the first 6 months, the numbers in this panel do not exactly match those in the first two.) We then divide the people who met this criterion into stable versus unstable work and, within these categories, into stable and unstable child care. Stable child care is defined as having continuous care for more than 12 months. The results show that stable child care is associated with stable employment but that the relationship is somewhat weaker than we might have expected. For example, 74 percent (or 3.9/5.3) of the increase in stable work was also associated with stable child care. In other words, most of those people who worked stably because of the program also had stable child care. However, 25 percent did not. In addition, most of the increase in unstable employment (1.7 percentage points out of 2.5 percentage points, or 68 percent) was associated with stable child care. Stated differently, among the people who went to work because of the program but did not hold their jobs consistently, most had stable child care arrangements. The story varies across individual programs, with stable employment more strongly associated with stable child care in Jobs First.

Trigger Events

Another way to assess the relationship between child care and employment is to take advantage of the timing of child care changes and job loss. We can consider changes in child care type or losing child care as trigger events for job loss, meaning that they are associated with leaving employment in the subsequent few months. The analysis in this section is restricted to women in the program groups.

Table 9 presents the results. For this analysis, the data were converted to eligible person-months, meaning all months in which a given woman was employed. In any given eligible month, 3 percent of women transitioned from work to no work. We then stratify the sample by whether child care was dropped in the previous two months. The table shows some relationship between leaving child care and subsequently leaving work. In months that were preceded by the loss of child care, 7.5 percent of women left work. In months that were not preceded by the loss of child care, only 2.5 percent of women left work. This difference suggests that child care instability does lead to employment instability to some extent. Changing child care types, on the other hand, is not associated with subsequent job loss.

Figure 5 presents the data another way by showing the percentage of women who dropped care in the months surrounding month t, by whether they left work or did not leave work in month t. The figure shows that the most common pattern is for employment and child care to be dropped in the same month. In those months in which women left work, 28.1 percent also dropped child care in the same month. In contrast, in those months in which women did not leave work, only 1.5 percent dropped child care.

Looking at month t-1, or the month before the focus month, shows that employment loss is associated with dropping child care in the previous month. In other words, for those months in which women left work, 4.6 percent left child care in the month before. In contrast, for those months in which women did not leave work, only 1.3 percent left child care in the month before. This is similar to the results in Table 9 and suggests that leaving child care does cause some women to leave work. But what if the relationship is not causal and women who leave work are more likely to leave child care in the months surrounding their job loss? If this were true, then we would expect to see higher rates of dropping child care even in the months immediately after job loss. The right part of Figure 5 presents results for the month after the focus month. The fraction of women who dropped care in this month is similar, regardless of whether they left work or did not leave work in the previous month. This finding gives some credence to the idea that dropping child care leads to subsequent job loss.

Table 10 presents results from a model predicting monthly transitions out of employment. The data are in person-month format and include all months in which a woman worked. The outcome is whether she left work in the subsequent month. The model includes child care changes in the previous two months and several background characteristics. The first column shows the model without child care changes included as predictors. The results are as expected — women are less likely to leave work in a given month the longer they have been employed (as shown by the coefficient on "length of spell"), if they have at least a high school diploma and if they have prior work experience. Black women are also more likely to leave work in a given month than their nonblack counterparts.

We also included the age of the focal child at the start of the observation period, in this case broken down by individual years. The idea behind this specification is to identify the potential effects of school as a consistent source of child care, since school is not captured as a type of child care in the child care calendar. If school is a source of stable child care that affects employment, then school-aged children should affect employment differently than younger children, and this difference should be evident as the child's age changes from 5 to 6. The results show some support for this idea. Relative to parents with children (specifically, the focal child) who are age 6, parents with younger children are more likely to leave employment; the coefficients on "focal child age 3 to 4" and "focal child age 5" are both positive and significant. On the other hand, women with children who are aged 8 or 9 are no more likely to leave em-

ployment than those with children who are age 6 (the omitted category). Finally, the results in column one show that dropping welfare within the 3 prior months has little effect on the likelihood of leaving work. Women are also no more likely to leave work in the summer months than in other parts of the year.

The second column presents results from the model that includes dropping and changing child care. The results show that dropping child care in the preceding months increases the probability of leaving work. Women who dropped care in the preceding month, for example, are 7.7 percentage points more likely to leave work than those who did not drop care. Dropping care two months prior to the reference month also increases the probability of job loss, although by a much smaller amount. Changing types of care, on the other hand, has little effect on employment. The results for changing types of care are consistent with the earlier results in that they also had no effect on the likelihood of dropping care. The results were generally similar when estimated for each evaluation separately.

Conclusion

As more and more women move off of welfare and into work, it will be important to document and understand factors that either support or hinder their efforts to become self-sufficient. The findings here suggest that child care instability is one of those factors but not a major one. Child care instability does cause employment instability to some extent. However, because the majority of women do not have unstable child care (defined as interruptions in care), it is unlikely to be a major cause of job loss. Less than 4 percent of women dropped child care in any given month, and only about a third of the women did so at least once over the two-year period. The results suggest that efforts to increase job retention and advancement among current and ex-welfare recipients, although not losing focus on child care, should concentrate on other potential barriers to staying employed. This analysis also focuses only on employment stability, and does not speak to the importance of child care in helping women move into work.

Despite the fact that child care use appears to be relatively stable in terms of its continuity, the data show a fair amount of change over time. About 4 percent to 9 percent of women changed arrangements in any given month, and more than half changed arrangements at some point during the two-year period. A fair number of women also used multiple arrangements per month. However, changing types of care and using more than one arrangement per month do not seem to indicate instability, in the sense that they contribute to child care loss or job loss. Women who change types of care, for example, are not more likely than other women to subsequently drop care. Note that these findings do not suggest that child care changes or interruptions are not important. Although not necessarily problems from an employment perspective, this type of instability has been found to have negative effects on children.

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Table 1: Child Care Use Over the Two-Year Period

	All Children	Younger Children	Older Children
Ever used any care	77.6	81.9	73.5
Type of care used:			
Father	10.4	12	9.1
Sibling	11.8	7.4	17.8
Other relative	41.9	45.1	38.6
Spouse/partner	9.6	10.2	9.7
Babysitter	13.4	15.8	11.7
Daycare center	17.4	23.6	12.1
Summer camp	13.0	12.4	14.4
Extended day program	22.5	24.7	19.3

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 2,266. Younger children are those who were under age 6 at the start of the child care calendar.

Table 2: Stability of Child Care Use

	All Children	Younger Children	Older Children
Used care within first 6 months	83.8	82.1	85.1
Among those who used care within the first 6 months			
Consistently used care for less than 6 months	14.2	15.0	13.6
Consistently used care for 6 to 12 months	11.6	13.0	10.5
Consistently used care for 12 or more months	74.1	72.0	75.8

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 2,266. Younger children are those who were under age 6 at the start of the child care calendar.

Table 3: Number of Child Care Arrangements Used

	All Children	Younger Children	Older Children
Never used more than one type per month	62.7	60.7	63.3
Used 2 or more types at some point	37.3	39.3	36.7
Among those who used 2 or more types:			
Used 2 or more types for less than 10 months	48.8	45.3	53.1
Used 2 or more types for 10 to 20 months	23.3	27.0	19.3
Used 2 or more types for 20 or more months	27.6	27.7	27.5

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 2,266. Younger children are defined as those who were under age 6 at the start of the child care calendar.

Table 4: Changing or Dropping Care Over the Two-Year Period

	All Children	Younger Children	Older Children
Ever dropped care	37.7	37.1	38.0
Ever changed all arrangements	37.4	38.5	36.4
Ever changed any arrangement	56.4	58.6	55.5

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 2,266. Younger children are defined as those who were under age 6 at the start of the child care calendar.

Table 5: Child Care Transitions, by Type of Care

Child Care Type at Time t:	Father	Sibling	Other Relative	Spouse	Babysitter	Daycare Center	Summer Camp	Extended Day Program
Child care type at time t+6:								
Father	**0.88**	0.12	0.09	0.05	0.08	0.04	0.06	0.07
Sibling	0.14	**0.89**	0.06	0.09	0.09	0.04	0.11	0.06
Other Relative	0.37	0.19	**0.85**	0.34	0.25	0.19	0.32	0.27
Spouse	0.04	0.06	0.07	**0.84**	0.08	0.06	0.07	0.06
Babysitter	0.08	0.08	0.07	0.11	**0.79**	0.08	0.08	0.07
Daycare center	0.06	0.04	0.06	0.10	0.11	**0.78**	0.14	0.08
Summer camp	0.02	0.02	0.02	0.02	0.02	0.03	**0.07**	0.07
Extended day program	0.12	0.09	0.12	0.15	0.11	0.10	0.41	**0.71**
None	0.05	0.07	0.09	0.07	0.09	0.10	0.20	0.11

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Note: The sample size is 2,266.

Table 6: Factors Associated with Dropping and Changing Child Care

Variable	Dropped Child Care		Changed Any Arrangement		Changed All Arrangements	
	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error
Intercept	0.058	0.004 ***	-0.011	0.005 **	0.014	0.003 ***
Used 2 or more types of care	-0.019	0.002 ***	0.095	0.003 ***	-0.005	0.002 **
Length of current spell	-0.002	0.000 ***	0.001	0.000 ***	0.000	0.000
Changed any arrangements	-0.005	0.003				
High school diploma or GED	-0.004	0.002	0.001	0.003	0.007	0.002 ***
Black	0.003	0.002	0.016	0.003 ***	0.008	0.002 ***
Never married	0.001	0.002	-0.008	0.003 **	-0.005	0.002 **
Employed in prior quarter	-0.007	0.002 **	-0.003	0.003	-0.004	0.002 **
Focal child under age 6	0.001	0.002	-0.006	0.003 *	-0.001	0.002
Dropped welfare in month t	-0.011	0.007	0.007	0.010	-0.001	0.006
Dropped welfare in month t-1	-0.009	0.007	0.023	0.010 **	0.004	0.006
Dropped welfare in month t-2	-0.007	0.007	-0.005	0.010	0.004	0.006
Summer month	0.029	0.002 ***	0.104	0.003 ***	0.035	0.002 ***
Jobs First evaluation	0.001	0.002	-0.004	0.003	-0.010	0.002 ***
FTP evaluation	0.001	0.003	-0.027	0.005 ***	-0.020	0.003 ***

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 22,739. The models are estimated as monthly transition models, in which the outcome is whether the woman dropped or changed child care in month t+1, given that she was using child care in month t. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Table 7: Factors Associated with Dropping Care

Variable	Jobs First		FTP		MFIP	
	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error
Intercept	0.057	0.005 ***	0.055	0.009 ***	0.066	0.006 ***
Used 2 or more types of care	-0.028	0.003 ***	-0.015	0.008 *	-0.012	0.003 ***
Length of current spell	-0.002	0.000 ***	-0.003	0.000 ***	-0.002	0.000 ***
Changed any arrangements	0.000	0.004	0.007	0.012	-0.012	0.005 ***
High school diploma or GED	-0.001	0.003	0.002	0.006	-0.011	0.004 ***
Black	0.003	0.003	-0.003	0.006	0.007	0.004 *
Never married	0.003	0.004	-0.010	0.006	0.005	0.003
Employed in prior quarter	-0.006	0.003 *	0.002	0.006	-0.009	0.003 **
Focal child under age 6	-0.002	0.003	0.020	0.006 ***	-0.008	0.003 **
Dropped welfare in month t	-0.005	0.008	-0.018	0.017	-0.033	0.026
Dropped welfare in month t-1	-0.017	0.008 *	0.009	0.017	0.019	0.026
Dropped welfare in month t-2	-0.003	0.008	-0.016	0.017	-0.008	0.026
Summer month	0.032	0.003 ***	0.047	0.006 ***	0.017	0.004 ***

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: Sample sizes are 10,955, 4,455, and 11,327, respectively. The models are estimated as monthly transition models, in which the outcome is whether the woman dropped child care in month t+1, given that she was using child care in month t. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Table 8: Program Impacts on Child Care Stability and Employment Stability

	All Programs Combined				Impacts by Evaluation		
	Program	Control	Impact	P-value	Jobs First	FTP	MFIP
Child care stability							
Used child care with first 6 months and…	66.9	60.7	6.2 ***	0.000	5.2 **	9.7 ***	4
child care use was stable	50.6	46.3	4.3 ***	0.007	5.5 **	5.1 *	1.6
never dropped care	44.6	40.4	4.2 ***	0.009	6 **	4.5	1
dropped care once	13.4	12.9	0.5	0.668	-2.1	2.8	1.8
dropped care two or more times	8.9	7.4	1.5 *	0.086	1.3	2.5	1.2
never changed types	37.2	34.2	3.0 *	0.058	1.8	5.7 *	0.8
changed types once	9.1	8.2	0.9	0.327	0.7	1.4	2.2
changed types 2 or more times	20.6	18.2	2.3 *	0.067	4.1	2.6 *	0.9
used only 1 type each month	39.6	36.5	3.1 *	0.050	-2.1	7.5 **	4.5
used 2 or more types in at least one month	27.3	24.2	3.1 **	0.026	7.2 ***	2.2	-0.5
Employment stability							
Worked within first 6 months	65.2	56.5	8.7 ***	0.000	8.4 ***	8.6 ***	8.9 ***
and employment was stable	46.2	40.2	6.0 ***	0.000	7.1 ***	5.7 *	4.8 *
Employment and child care							
Worked and used child care within first 6 months	52.0	44.2	7.8 ***	0.000	7.0 ***	10.0 ***	6.3 **
Stable employment	37.8	32.6	5.3 ***	0.001	5.2 **	7.6 ***	2.6
and stable child care	32.6	28.7	3.9 ***	0.008	5.4 **	4.1	1.1
and unstable child care	5.2	3.9	1.3 **	0.049	-0.2	3.5 **	1.5
Unstable employment	14.2	11.7	2.5 **	0.021	1.7	2.4	3.6 *
and stable child care	7.2	5.6	1.7 **	0.038	1.5	1.1	2.2 *
and unstable child care	7.0	6.1	0.9	0.279	0.2	1.3	1.4

(continued)

Table 8 (continued)

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 3,784. All impacts are tested for statistical significance. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Table 9: Monthly Transitions out of Work

	Percentage Who Left Work
All eligible months	3.0
Dropping care	
Eligible months in which child care was dropped in previous 2 months	7.5
Eligible months in which child care was not dropped in previous 2 months	2.3
Changing types of care	
Eligible months in which child care type was changed in previous 2 months	2.8
Eligible months in which child care type was not changed in previous 2 months	3.1

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The data are set up as eligible person-months, or every month in which a woman was employed. The sample size is 39,286.

Table 10: Factors Associated with Monthly Transitions out of Work

	(1) Estimate	(1) Standard Error		(2) Estimate	(2) Standard Error	
Intercept	0.050	0.004	***	0.048	0.004	***
Length of current spell	-0.001	0.000	***	-0.001	0.000	***
High school diploma or GED	-0.013	0.002	***	-0.012	0.002	***
Black	0.004	0.002	**	0.004	0.002	**
Never married	0.001	0.002		0.002	0.002	
Employed in previous quarter	-0.008	0.002	***	-0.008	0.002	***
Focal child age 3 or 4	0.006	0.003	**	0.006	0.003	**
Focal child age 5	0.007	0.003	**	0.007	0.003	**
Focal child age 7	0.005	0.003		0.005	0.003	
Focal child age 8 or 9	0.000	0.003		0.000	0.003	
Left welfare in previous 3 months	0.003	0.003		0.004	0.003	
Dropped child care in month t				0.077	0.007	***
Dropped child care in month t-1				0.015	0.007	**
Changed arrangements, month t				0.001	0.004	
Changed arrangement, month t-1				-0.004	0.004	
Summer month	0.002	0.002		0.002	0.002	
Jobs First evaluation	0.001	0.002		0.001	0.002	
FTP evaluation	-0.002	0.002		-0.004	0.002	

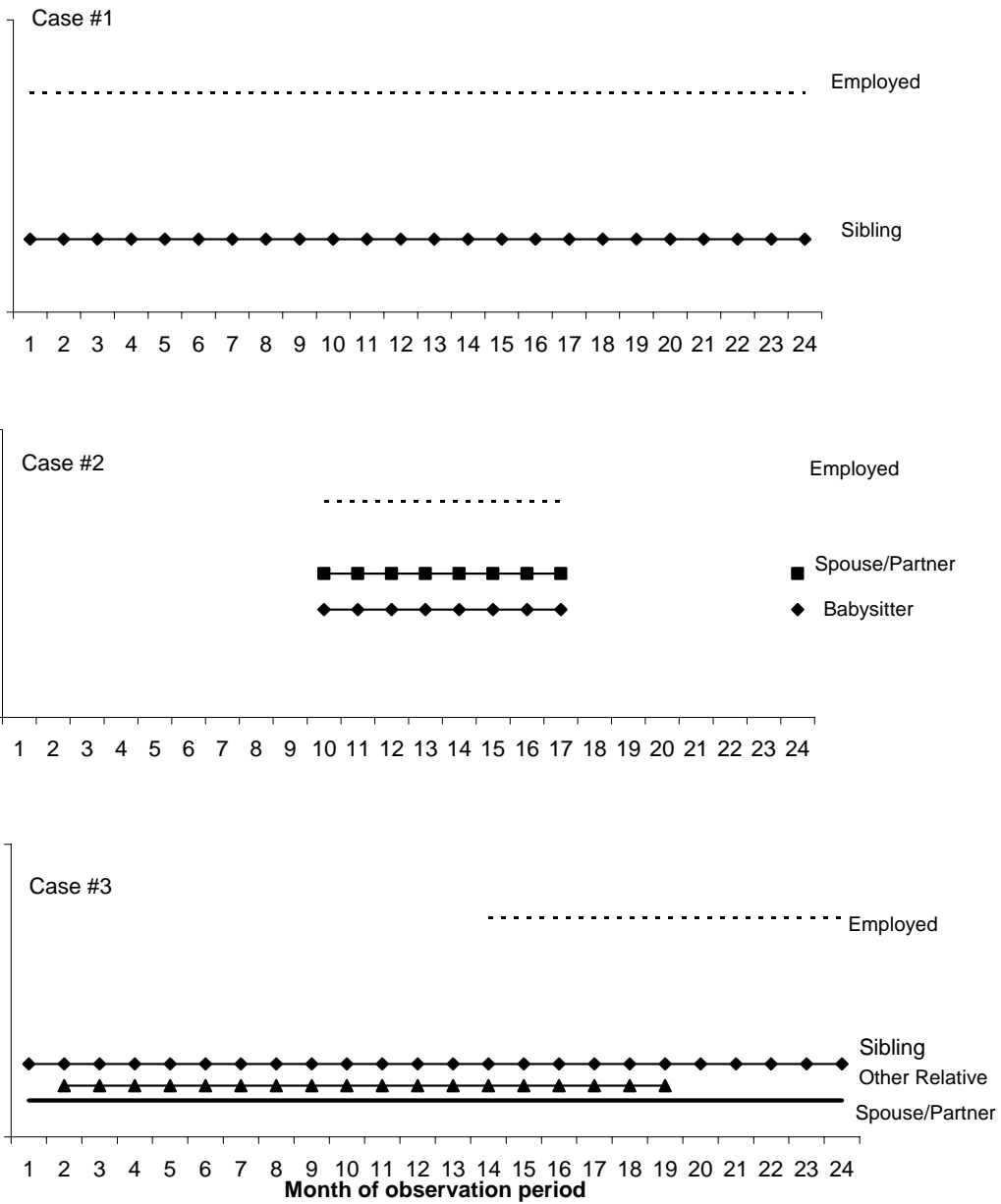Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Notes: The sample size is 39,286. The models are estimated as monthly transition models, in which the outcome is whether the woman left work in month t+1, given that she was working in month t. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.
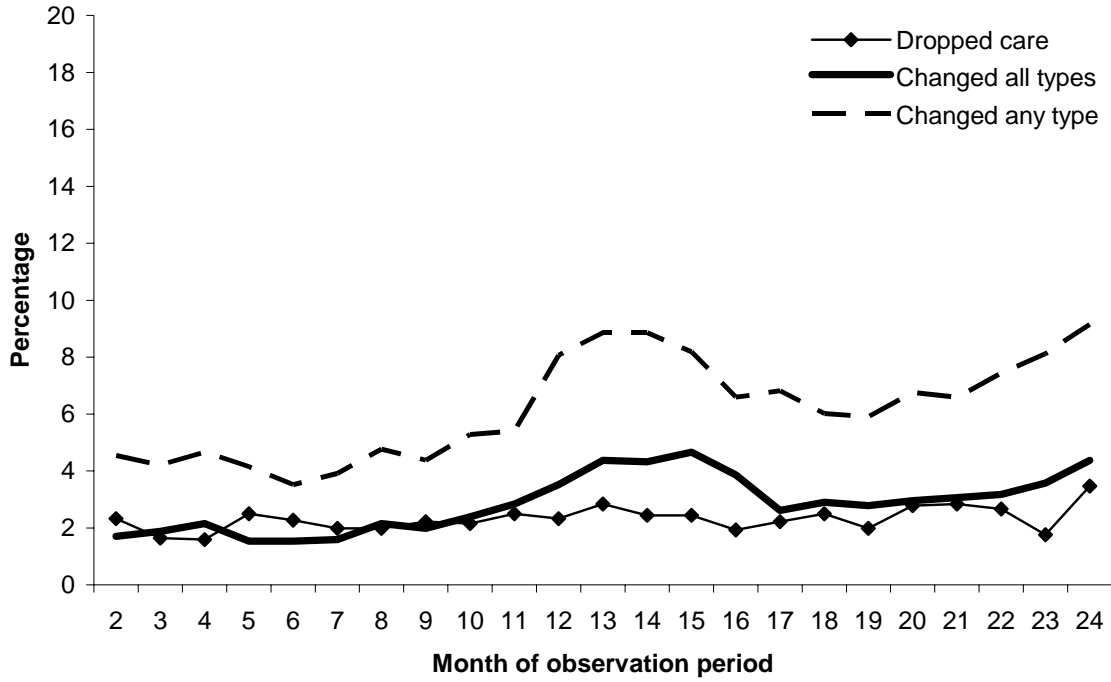
Figure 1: Child Care Use Over Time
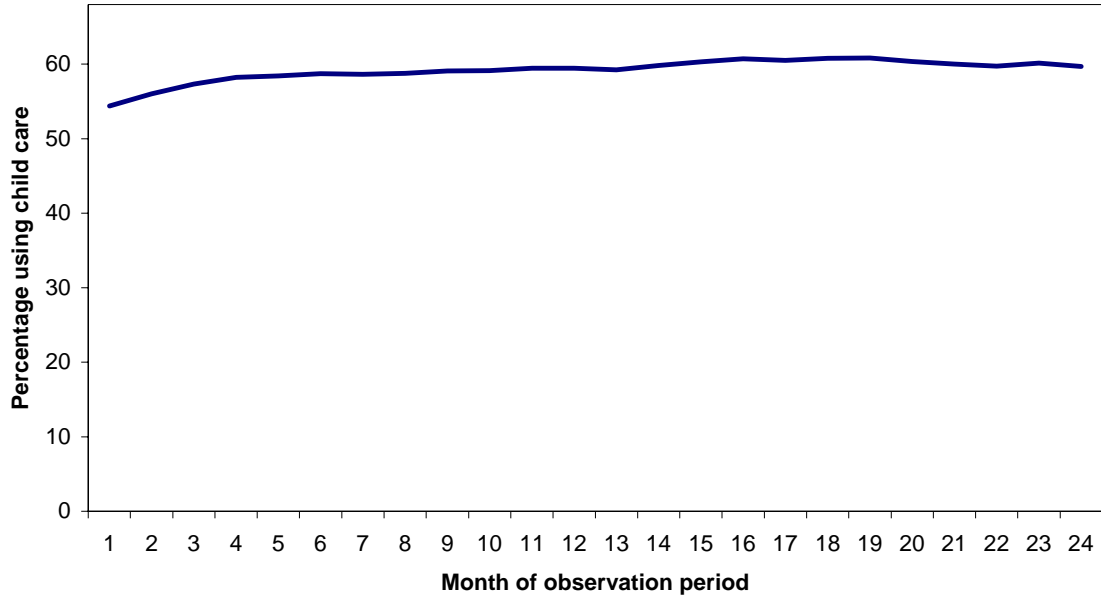
Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Figure 2: Patterns of Child Care Use and Work for Three Women

Case #1

Case #2
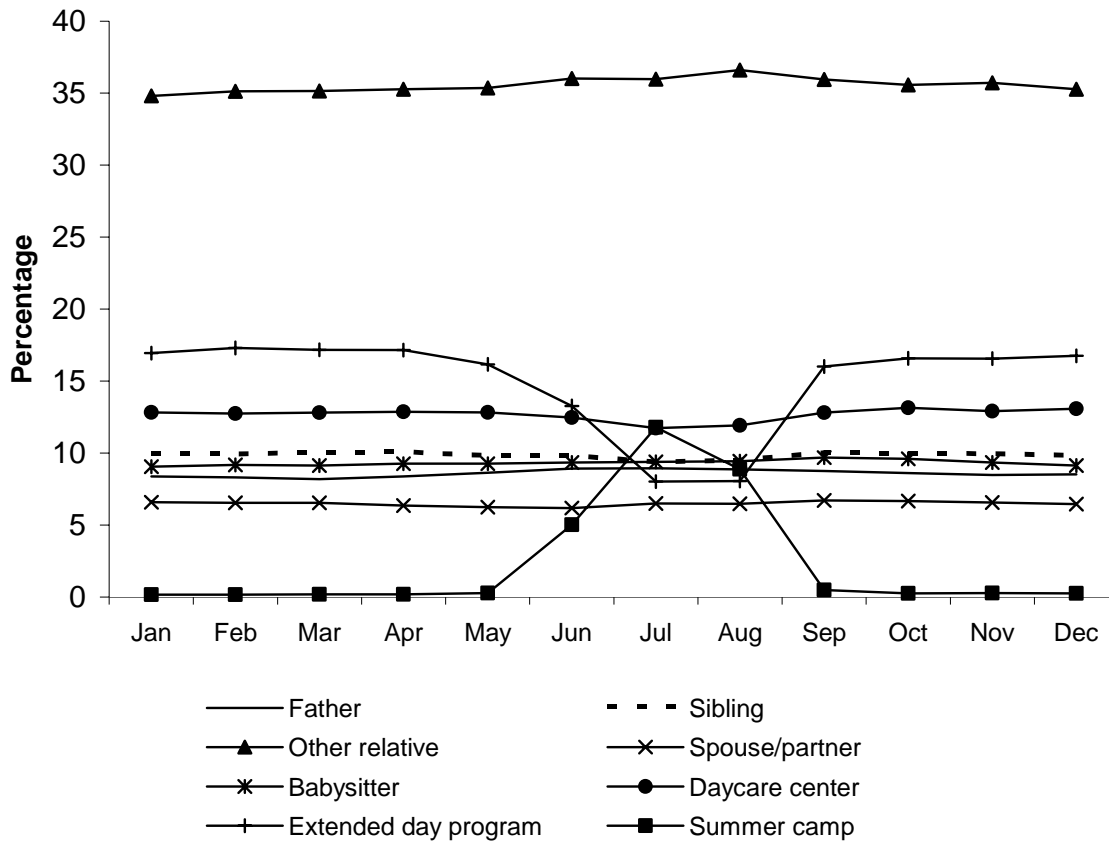

Case #3

Month of observation period

Source: MDRC calculations from the MFIP survey.

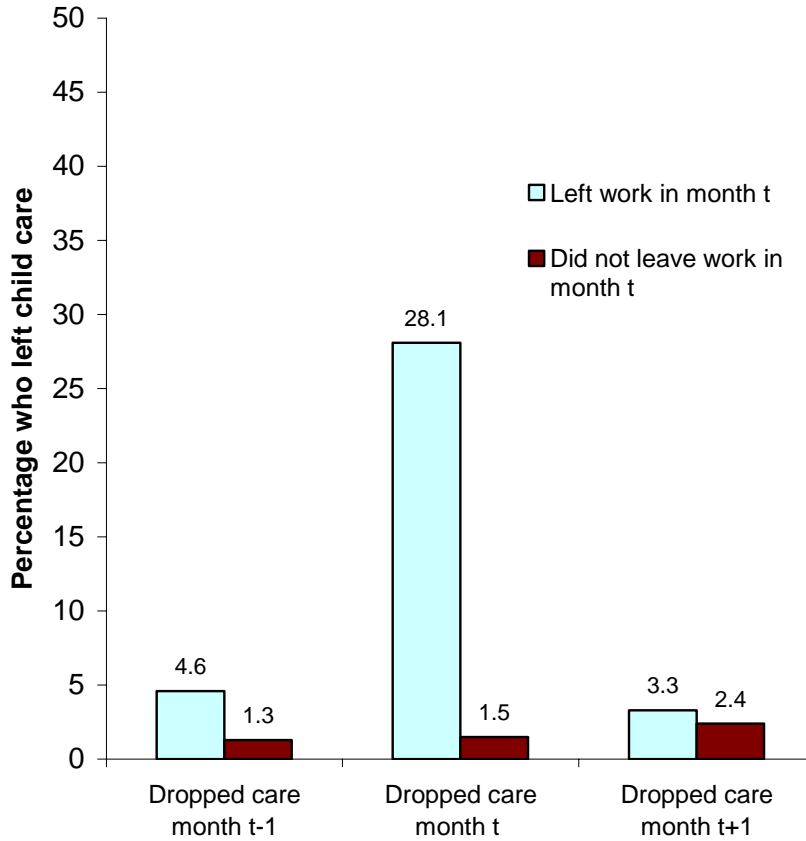**Figure 3: Dropping and Changing Care Over Time**

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Figure 4: Patterns of Child Care Use Over the Calendar Year

Source: MDRC calculations from the Jobs First, FTP, and MFIP surveys.

Figure 5: The Rate of Leaving Child Care

Sources: MDRC calculations from the Jobs First, FTP and MFIP surveys.

Notes: The data are set up as eligible person-months, or all months in which the woman was working. For example, in those months in which women transitioned out of work, 28.1 percent left child care in that same month. In those months in which women did not transition out of work, only 1.5 percent left child care in that month. For all months in which women left work, 4.6 percent left child care in the prior month. In contrast, in the months in which women did not leave work, only 1.3 percent left child care in the previous month.