RESEARCH REPORT

Determinants of Subsidy Stability and Child Care Continuity

Final Report for the Illinois–New York Child Care Research Partnership

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Contents

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Executive Summary

Child care assistance is a critical support for low-income families. Approximately 1.5 million children receive child care subsidies through the Child Care and Development Fund each month.[1] With support paying for child care, parents are better able to participate in the labor market and secure developmentally appropriate, high-quality child care programs for their children. Yet recent studies have found many enrolled families receive a subsidy for only brief periods, or cycle off and then back on the subsidy program, frequently returning with a new child care provider (Davis et al. 2013; Ha, Magnuson, and Ybarra 2012; Ha and Meyer 2010; Meyers et al. 2002; Ros, Claessens, and Henly 2012; Weber, Grobe, and Davis 2014). Instability in subsidy use may contribute to discontinuity in children's care arrangements (Ha et al. 2012; Weber 2005). Given the importance of child care continuity both for promoting children's development and supporting parental employment (Adams and Rohacek 2010; Cryer et al. 2005; Loeb et al. 2004; Raikes 1996; Tran and Weinraub 2006; Youngblade 2003), understanding the factors that contribute to instability in subsidy use and child care providers is critical.

Despite a growing awareness of subsidy instability, knowledge remains limited regarding its determinants and how families and their child care providers respond to a break in program enrollment. In an effort to address this knowledge gap and to support policy efforts to improve the design and delivery of child care assistance to low-income families, researchers from the University of Chicago and the Urban Institute partnered with state child care administrators in Illinois and New York to conduct a study examining the factors that contribute to instability in families' receipt of child care subsidies and how this instability may affect the continuity of their care arrangements. This mixed-methods multiyear (2010–14) study, known as the Illinois–New York Child Care Research Partnership Study (IL–NY CCRP): Phase 1, analyzed the subsidy and child care experiences of a new cohort of subsidy clients residing in four diverse sites in Illinois and New York that represent both large and small urban centers and both rural and suburban counties. The study used longitudinal state administrative data of child care payment records in combination with newly collected subsidy client data from telephone surveys and in-depth qualitative interviews. This research report discusses key findings from the administrative and survey components of the study; a companion report, *Determinants of Subsidy Stability and Child Care Continuity: Findings from the Qualitative Substudy of the Illinois–New York Child Care Research Partnership*, presents key findings from the qualitative study component.

Overview of the Illinois–New York Child Care Research Partnership Study

The IL–NY CCRP builds on existing research by closely examining the determinants of subsidy instability and child care continuity by using multiple data sources and a mixed-methods approach. The four study sites include Nassau and Westchester Counties in New York State and two service delivery areas (SDAs) in Illinois—SDA 6, which encompasses Cook County where Chicago is located, and SDA 14, which serves seven counties in the southwestern portion of Illinois: Bond, Clinton, Madison, Monroe, Randolph, Saint Clair, and Washington Counties.

The study addresses six research questions:

1. What are the different patterns of subsidy use and stability over time?
2. To what extent do subsidy program characteristics and parental work circumstances influence subsidy use and stability?
3. How stable are child care providers for subsidy-receiving families both during a subsidy spell and over time?
4. To what extent do subsidy program characteristics and parental work circumstances influence the stability of child care providers?
5. What challenges to subsidy stability and child care stability do parents perceive to be most difficult?
6. What challenges to subsidy stability and child care stability are particularly salient for parents with nontraditional jobs or nonstandard work schedules, Temporary Assistance for Needy Families (TANF) recipients, and non-English-speaking, immigrant parents?

Methods

A key strength of this project is its multicomponent empirical design. CCRP Phase 1 included four empirical components:

1. **Administrative data component.** Child care assistance payment records for a cohort of new subsidy entrants (5,893 families in the two Illinois sites and 1,819 families in the two New York sites) were analyzed to track patterns of subsidy use across an 18-month period, including continuous participation, program exits without return, and program exits followed by a return within the observation period. With these data, we calculate the length of child care subsidy

spells, examine continuity in subsidized provider spells, and determine how they differ in terms of family and child characteristics, such as initial type of care, child age, and study site.

2. **Survey component.** A telephone survey was conducted of new subsidy clients sampled from administrative records in the four study regions (N = 612). The survey collected retrospective data on clients' experiences with the subsidy program at approximately 14 months after entering the program. The data provide a historical view of subsidy clients' child care usage and employment situation during periods on and off the program as well as reports of family well-being, including parental stress, perceived social support, work-care fit, child behavior, and material hardship.
3. **Qualitative component.** In-depth interviews were conducted with a purposive sample of survey respondents (N = 85) who represented one of three subsidy trajectories at the time of the survey. These three groups were survey respondents who received assistance for one eligibility period or less; completed at least one recertification period without a break in subsidy use; or cycled off and on the subsidy program during the observation period. The qualitative sample was also purposively selected to include diversity in four areas: immigrant status, TANF receipt, age and number of children, and employment circumstances. Findings highlight the benefits of subsidy program participation as well as the challenges clients face with accessing the program and maintaining eligibility.
4. **Linked data analyses component.** Cross-cutting data analyses using linked survey and administrative data provided a more comprehensive picture of the associations between subsidy program characteristics, work circumstances, child care subsidy stability, and continuity in child care providers.

Sampling Approach

To be eligible for inclusion in the study, a family had to be a new entrant into the subsidy program (defined as not having received a subsidy for at least two years prior to their entry date) and receive its first subsidy payment for services rendered between August 2011 and February 2012 in the two Illinois sites and between March 2011 and December 2011 in the two New York counties. Eligibility was further limited to cases with at least one non-school-aged child (i.e., not age eligible for kindergarten when the family began receiving a subsidy). In Illinois, the sample was restricted to cases that had a subsidy reason code indicating their eligibility was due to parental employment. This reason code includes employed TANF recipients but excludes TANF recipients who received the subsidy for other

reasons. Thus, in Illinois, any new entrants with non-school-aged children who were approved for a subsidy because the applicant was in school/training or receiving TANF but not employed were excluded. The same exclusion criteria were not used in New York, where only preventive and protective cases (i.e., foster care) were excluded from inclusion, resulting in a New York sample that was nevertheless overwhelmingly employment cases (90 percent) but also included training/education and TANF transitional cases.

Sample Characteristics

The sample of 5,893 families from Illinois is concentrated more heavily in Cook County (SDA 6; 88 percent) than in Southwestern Illinois (SDA 14; 12 percent). In New York, just over half (55 percent) of the sample of 1,819 families reside in Nassau County, and 45 percent live in Westchester County. The focal children in the sample families are about half male and half female. In Illinois, the greatest share of children (49 percent) is black, and 28 percent are Latino, 14 percent are white, and 8 percent are some other race/ethnicity. The majority of families in New York are Latino (54 percent); 36 percent are black, 10 percent are white, and 1 percent is some other race/ethnicity. The Illinois sample has a slightly greater share of children under age 1 than New York, and the New York sample has a slightly greater share of 2-, 3-, and 4-year-olds. The median annual household income at the time of applying for the child care subsidy was about $17,600 in Illinois and $18,700 in New York. Due to the sampling strategy, a greater share of cases in New York (23 percent) are TANF cases compared to Illinois (8 percent).

The subsidized child care provider used at program entry is considered the "focal" child care arrangement for these analyses. The first most common type of focal child care arrangement in both states is a center-based arrangement (56 percent in Illinois; 46 percent in New York). In New York, the second-most common type of care is licensed family child care (43 percent) followed by informal care (9 percent), but in Illinois the use of informal care providers is much greater (22 percent) than in New York, and slightly more common than licensed family child care (21 percent). Few families used multiple subsidized providers (1 percent in Illinois; 2 percent in New York). The distribution by type of care is similar in the two Illinois regions. However, Nassau County participants are almost exclusively in licensed arrangements (45 percent centers and 54 percent licensed family homes), explained by their largely contracted care system and their use of Title XX funds to support subsidized licensed child care during our study period. Westchester County participants look similar to Illinois participants, with 21 percent using licensed-exempt, informal providers.

Key Findings

Patterns of Subsidy Use and Stability over Time

From our analysis of child care payment records over an 18-month period, we find child care subsidy spells are relatively short in duration, with a median length of 11 months in New York and 9 months in Illinois, corresponding to the longer eligibility period in New York relative to Illinois.

Overall, about two-thirds of families in New York and almost three-quarters of families in Illinois exit the subsidy program within 18 months, and more than half (57 percent in New York; 67 percent in Illinois) exit within 12 months. In both states, among families who exit the program within 12 months, about one-third return quickly, within 3 months, and about 40 percent return within 6 months. Thus, the longitudinal analyses of 18 months of child care payment records in the four study sites illustrate a common pattern of churning in and out of the subsidy program.

Determinants of Subsidy Stability

To examine the determinants of subsidy stability, we first use longitudinal administrative program records to predict subsidy exits, length of subsidy receipt, and program churning, and then link administrative and survey data to identify factors that predict a subsidy exit among the sample of survey respondents by using a richer set of family, employment, and child care characteristics.

The findings reinforce the importance of the local eligibility period to subsidy stability. Even taking into account the rich set of survey covariates, New York respondents stay in the program longer than Illinois respondents, and exits from the program appear to be particularly clustered around the two distinct eligibility periods of 12 and 6 months, respectively.

Several family characteristics are strongly associated with subsidy stability. TANF recipients in New York, who have a 6-month recertification period, have significantly shorter spells (median spell is 6 months) than non-TANF income-eligible families in New York (median spell is 13 months). TANF recipients are also more likely to exit the program and to experience more churning (more spells) relative to non-TANF, income-eligible families in New York, but not in Illinois.

Families with preschool-aged children have shorter subsidy spells on average than families with infants and toddlers, are more likely to exit within 18 months, and are less likely to reenter the subsidy

program after an exit. This finding is consistent with the expectation that older children move into other publicly subsidized preschool programs or enter school and require less child care. Living with a partner (compared to living alone) is associated with an increased risk of exiting the subsidy program; immigrant families show a lower risk of leaving the program as compared to nonimmigrant families.

Type of care at entry into the subsidy program is also associated with subsidy stability, particularly in Illinois, where entering the program with center-based care versus licensed family child care is associated with more churning in and out of the subsidy program. In contrast, in New York, informal care is associated with more churning than center-based care.

Parental employment circumstances and experiences with the subsidy program are also associated with subsidy stability. Job loss contributes to a heightened risk of exiting the subsidy program, as does employment in a job with unexpected hours, limited schedule control, and working fewer hours than average. This latter finding suggests that subsidy clients in low-hour jobs may not find the reduced value of the subsidy program sufficient to justify the difficulties of maintaining enrollment, or perhaps low-hour jobs complicate continuous program enrollment, especially in meeting minimum work-hour eligibility requirements. Families who report challenges with the subsidy program, such as difficulty completing application forms and delayed processing of the application, show an elevated risk of leaving the program during the 18-month observation period.

We expected certain child care measures, particularly provider flexibility and the availability of nonstandard care hours, to be associated with a lower risk of exiting the subsidy program, but we did not find this to be the case. However, provider safety, as perceived by parents, is related to a lower risk of subsidy exit.

Stability of Subsidized Child Care Arrangements

FINDINGS FROM ADMINISTRATIVE DATA ANALYSES

Using child care payment records, we examine three measures of stability in subsidized child care providers: (1) the total number of subsidized providers the focal child experiences over the 18-month observation period; (2) the number of changes in providers the focal child experiences during a continuous period of subsidy receipt (i.e., subsidy spell); and (3) among families who exit and reenter the program, whether the focal child returns to the program with the same or a different provider.

Most children experience only one subsidized child care provider during the 18-month observation period. A minority of children experience a change in providers during a period of continuous subsidy receipt: 14 percent in the two-site New York sample and 21 percent in the two-site Illinois sample. Most of these changes involve switching from one provider to another within the same type of care, whether center-based, licensed family child care, or informal care.

The type of child care families use with their subsidy is related to the stability of the subsidized child care arrangement. Children who first use the subsidy for informal or licensed family child care experience a slightly greater number of total providers within the 18-month observation period compared to children who use center-based care. In New York, these children are also more likely to experience a change in their provider during a continuous subsidy spell. Controlling for the number of months of subsidy receipt, children with a greater number of subsidy spells (i.e., children who cycle off and on) also experience a greater number of total providers and are more likely to experience a provider change within a continuous subsidy spell than children with fewer spells of subsidy receipt. This finding suggests that instability in subsidy receipt and instability in providers are closely linked.

Roughly one-third of children who exit and reenter the subsidy program use different providers before and after their subsidy gap. Having a longer subsidy gap is associated with higher odds of switching providers between the end of one subsidy spell and the beginning of the next spell. In Illinois, starting the subsidy program with licensed family child care or informal care versus starting with center-based care is associated with higher odds of changing providers between spells. Just over half of children in both Illinois and New York who experience a change in providers between spells switch to a provider of the same type (e.g., center to center). Changing from a less formal arrangement to center-based care is more common in Illinois, but in New York, a larger percentage of children move from a center to a less formal arrangement during a gap in assistance.

FINDINGS FROM SURVEY DATA LINKED TO CHILD CARE PAYMENT RECORDS

Although child care payment records are useful for examining the stability of subsidized care arrangements, they lack information about child care during periods when a family is not enrolled in the subsidy program. By linking these administrative records to survey data, we can examine the continuity of a subsidized child care arrangement after a family's exit from the subsidy program. Using a multivariate Cox proportional hazards model, we estimate the relative risks of leaving the initial subsidized child care arrangement during the 18-month observation window, regardless of whether a family leaves the subsidy program.

Almost half the survey respondents who experienced a subsidy exit report they left their subsidized child care arrangement upon leaving the child care assistance program. When asked why they stopped using their subsidized child care provider, respondents report a range of reasons related to the subsidy program itself (including losing the subsidy), as well as factors related to their job, child care provider, and family circumstances (all of which can also compromise their enrollment in the subsidy program).

Still, over half the survey respondents report maintaining their subsidized child care arrangement upon leaving the subsidy program. In fact, in each of the four study sites, the median duration of a family's initial subsidized child care arrangement spell is longer than its median subsidy program spell.

Multivariate analyses reveal that short subsidy spells (regardless of geographic site) put families at a significantly heightened risk for child care discontinuity. In the two New York counties, the median length of the first subsidized child care arrangement is longer than in the Illinois sites, perhaps because New York families do not need to recertify their subsidy eligibility as frequently as do Illinois families. In addition to subsidy loss, respondents who report having had difficulty with the subsidy application process and whose providers had experienced problems receiving payments from the subsidy program also show an increased risk of leaving their initial child care arrangement within 18 months of starting the subsidy.

The risk of leaving the initial subsidized child care arrangement is higher for preschool-aged children and for nonwhite respondents, but lower for immigrant respondents. Respondents who share a residence with nonpartner adults face a lower risk of leaving this child care provider than respondents living alone with their children, suggesting that these household members can offer financial or instrumental support to help maintain the arrangement over time. Importantly, respondents living with a partner do not experience a lower risk of leaving a child care provider relative to single respondents.

Job loss increases the risk of child care discontinuity, similar to its risk for subsidy instability. Once job loss is taken into account, however, other measured job characteristics do not put respondents at a heightened risk of exiting the child care arrangement with which they started using the subsidy program.

Respondents who first used the subsidy for a licensed family child care provider as compared to a center face an increased risk of leaving that provider during the 18-month observation period. Somewhat unexpectedly, greater availability of backup providers is associated with an increased risk of provider discontinuity, suggesting that the availability of backup care is a proxy for a greater number of child care options, which may make switching providers easier when an arrangement is not working well. Other aspects related to the quality of the care arrangement predict greater continuity of care.

Having used the subsidized provider before enrolling in the subsidy program (i.e., having an existing relationship with the provider), using a provider for nonstandard-hour care when necessary (i.e., greater availability), and feeling the provider keeps one's child safe and secure all contribute to a lower risk of leaving the provider within 18 months of first receiving a subsidy.

Together, these analyses suggest that the continuity of child care arrangements depends on a confluence of demographic, employment, provider, and subsidy program factors. Regarding the subsidy program in particular, policy parameters such as longer eligibility periods and simpler recertification processes not only contribute to the stability of subsidy receipt but also promote continuity of care.

Implications for Subsidy Program Policy

The Child Care and Development Block Grant Act of 2014 reaffirms the importance of child care assistance for low-income working families and recognizes the importance of high-quality, stable care arrangements for children and parents alike. Moreover, the newly reauthorized law underscores the need for lead agencies to provide greater transparency and a more family-friendly child care assistance program that more carefully considers the circumstances of low-income working families. The implications of the IL–NY CCRP findings are wholly consistent with the aims of the 2014 Child Care and Development Block Grant law and in some cases may provide guidance to administrators in their efforts to implement its various components in the coming years.

First, our findings suggest the following reforms would be consistent with the goal of promoting the stability of subsidy receipt and the lengthening of child care arrangement duration:

- Simplification and greater transparency of application and recertification requirements,
- Adoption of a 12-month continuous child care assistance eligibility period that does not require verification of continued eligibility throughout the 12-month period, and
- Improved timeliness of child care payments to providers.

Second, because our findings suggest that TANF families may face particular challenges maintaining their benefits, TANF families would be particularly well served by the following reforms:

- Simplification and greater transparency of eligibility and recertification requirements for TANF families, TANF caseworkers, and child care assistance caseworkers;
- Adoption of a 12-month eligibility period for TANF families; and

- Allowance for TANF families to maintain a subsidy after TANF work activities have been completed and provision of additional caseworker support to transitional TANF cases.

Third, because our findings demonstrate that job instability heightens the risk of subsidy instability and child care provider discontinuity, we suggest reforms specific to low-income families' job circumstances, such as

- Adoption of job search allowances of at least three months to support subsidy continuity in the face of a job loss;
- Modification of eligibility requirements to account for variable, fluctuating, and unpredictable work hours and job schedules that affect the timing of care needs and family earnings;
- Implementation of graduated income caps to allow subsidized families to work toward increasing their earned income without become ineligible; and
- Raising awareness among subsidized families about rules regarding subsidy eligibility during periods of unemployment or employment changes.

Fourth, because our findings demonstrate that two-parent families are at heightened risk of subsidy exit, there may be merit in devoting policy attention to the unique child care challenges of two-parent families. The following reforms would be consistent with the goal of increasing the stability of subsidy receipt for two-parent families:

- Adoption of job search allowances to permit an unemployed parent in a two-parent family to search for work without risk of losing child care assistance, and
- Adjustment of the structure and level of income thresholds to better meet the needs of all families, including two-parent, low-income working families.

Fifth, our findings suggest there are complicated relationships between child care type, subsidy dynamics, and child care continuity that require ongoing attention by program administrators and researchers, including

- Understanding the causes of gaps in program receipt and when they reflect problematic administrative churning versus intentional program exits;

- Identifying strategies to keep children in care during gaps in subsidy coverage, whether the gap is a result of brief periods of ineligibility or administrative or budgetary disruptions in state payments to providers; and
- Identifying site-specific factors that may heighten risk of instability in child care arrangements in particular modes of care and craft responses appropriate to each type of care.

Chapter 1. Introduction

Child care assistance is a critical support for low-income families. Approximately 1.5 million children receive child care subsidies through the Child Care and Development Fund each month.[2] Reduced child care expenses are meant to help subsidized families more successfully participate in the labor market and secure developmentally appropriate, high-quality child care programs for their children. Yet recent studies have found that enrolled families often experience only brief periods of subsidy receipt or cycle into and then out of the program, frequently returning with a new child care provider (Davis et al. 2013; Ha, Magnuson, and Ybarra 2012; Ha and Meyer 2010; Meyers et al. 2002; Ros, Claessens, and Henly 2012; Weber, Grobe, and Davis 2014). These findings suggest that instability in subsidy use may contribute to discontinuity in child care providers. Given the importance of child care continuity both for promoting children's development and supporting parental employment (Adams and Rohacek 2010; Cryer et al. 2005; Loeb et al. 2004; Raikes 1996; Tran and Weinraub 2006; Youngblade 2003), this instability in subsidy use is cause for concern.

Current Policy Context

Ensuring low-income families can maintain stable child care assistance has important implications for both family economic security and child well-being. Historically, part of the challenge of promoting stability has stemmed from variations in subsidy program policy and administration at the state and local levels. For example, as of October 2013, about half the states and territories set eligibility periods at 6 months; most others have a 12-month period, which may allow for greater continuity of services (Minton, Durham, and Giannarelli 2014). Only 21 states and the District of Columbia include job search as an approved employment-related activity for families applying for or continuing to receive a child care subsidy (Forry et al. 2014). Parents who temporarily lose their job consequently lose their child care subsidy in states that do not permit coverage during job searches. Additionally, only 27 states and territories allow subsidized care to continue for a period ranging from 2 to 12 weeks while parents are on maternity or paternity leave from work (Minton, Durham, and Giannarelli 2014); subsidized care is not covered at all during maternity or paternity leave in the remaining states and territories, so the assistance ends when the parent stops working. These and other policies largely affect low-income families' ability to stably maintain their receipt of child care assistance and their subsidized child care providers.

Moreover, past research has documented the difficulties families experience when navigating the child care subsidy system. For example, under the Assessing the New Federalism project over a decade ago, researchers interviewed state and local child care administrators, caseworkers, parents, and providers in 12 states and uncovered the multiple points at which parents must take action to get and retain their subsidy, the relative ease or difficulty parents have in completing the required steps depending on the local agency's policies and practices, and the cumulative burden placed on parents, which placed their employment and child care in jeopardy (Adams, Snyder, and Sandfort 2002). Recommended strategies for redesigning the subsidy system to better meet the needs of families include simplifying application and redetermination processes, simplifying requirements for reporting interim changes in circumstances, implementing strategies to provide continuous assistance during temporary gaps, and improving overall customer service practices (Adams, Snyder, and Banghart 2008). National targeted technical assistance efforts have led to policy adjustments and streamlined business processes in some states and local regions to reduce subsidy instability (Adams and Matthews 2013), but widespread systematic barriers continue to pose a challenge.

In efforts to promote continuity, the 2014 reauthorization of the Child Care and Development Block Grant sets new regulations to encourage lead agencies that administer subsidies to adopt policies promoting continuity of child care services for the benefit of children and families. New requirements include lengthening eligibility periods to a minimum of 12 months unless a family's income exceeds 85 percent of the state median income level, continuing assistance at redetermination for families whose income is above the state's initial eligibility limit but still below 85 percent of the state median income level, permitting a minimum of 3 months of job search after a job loss, taking into account irregular fluctuations in earnings in determining eligibility, and other policies to reduce administrative burden and improve timeliness of provider payments. These new regulations have the potential to promote policy solutions that increase continuity, but the strategies lead agencies develop in response and the actual implementation of the regulations are still unclear.

Despite this growing awareness and policy attention to subsidy instability and child care discontinuity, existing knowledge remains limited regarding the determinants of subsidy instability—specifically why families experience short spells—and the effects of subsidy instability on the continuity of child care. Further, although evidence suggests the importance of child care continuity, few researchers have examined reasons for changes in child care providers and the types of care families switch to during periods on and off child care assistance.

In an effort to address these knowledge gaps and to support policy efforts to improve the design and delivery of child care assistance to low-income families, researchers from the University of Chicago

and the Urban Institute partnered with state child care administrators in Illinois and New York to design a study examining the factors that predict instability in families' receipt of child care subsidies and how this instability may affect their child care providers. This mixed-methods multiyear (2010–14) study, known as the Illinois–New York Child Care Research Partnership Study (IL–NY CCRP): Phase 1,[3] analyzed the subsidy and child care experiences of a new cohort of subsidy clients by using state administrative data in combination with newly collected telephone survey data and in-depth interview data with a subset of survey respondents. This research report discusses key findings from the administrative and survey components of the study; a companion report, *Determinants of Subsidy Stability and Child Care Continuity: Findings from the Qualitative Substudy of the Illinois–New York Child Care Research Partnership*, presents key findings from the qualitative study component.

Literature Review

In developing this study, we were fortunate to be able to build upon a relatively strong research base. In this section, we review the relevant literature on the importance of child care continuity, the relationship between subsidy stability and child care continuity, and the factors related to child care subsidy stability.

Child Care Continuity

The stability or continuity of care providers is an important ingredient of both stable employment and high-quality child care. Stability is important to children's growth and development (NSCDC 2007; Sandstrom and Huerta 2013; Shonkoff and Phillips 2000; Thompson 2000), yet studies suggest that low-income children in particular face significant instability in child care arrangements, marked by frequent changes in providers (Chaudry 2004; Hofferth 1996; NICHD 1997; Scott, London, and Hurst 2005; Weber 2005).

Child care changes do not necessarily reflect volatility or instability that is harmful for children. Some changes represent a move from a poorer-quality to a higher-quality provider or an age-related graduation into a new environment, such as a move to preschool when a child turns 3 or 4 years of age, that may lead to more positive developmental outcomes (Ansari and Winsler 2013; Morrissey 2010). However, child care changes caused by a breakdown in care or to shifting care needs as a result of variable work or school schedules may indicate instability that is undesirable and even harmful for

children. Several qualitative studies of low-income families illustrate frequent breakdowns in providers, which would seem to reflect negative forms of instability (Chaudry 2004; Henly and Lyons 2000; Lowe and Weisner 2004). Importantly, child care instability has been linked to adverse child development outcomes (Claessens and Chen 2013; Cryer et al. 2005; Morrissey 2009; NICHD 1998; Pilarz and Hill 2014) and to parental work disruptions (Boushey 2003; Hofferth and Collins 2000; Kimmel 2006), underscoring the importance of identifying effective strategies for improving the continuity of care for children.

Child Care Subsidy Stability and Child Care Continuity

Child care subsidies are designed with the goal of helping parents meet employment and caregiving responsibilities, primarily through reducing the cost of care and offering parents greater choice in care providers. Research suggests that only a minority of low-income eligible families use publicly subsidized care (Collins et al. 2000; Goerge et al. 2009), and although the length of subsidy spells varies by state, they are generally short, typically ranging between three and seven months (Ha 2009; Meyers et al. 2002). An analysis of new entrants into the subsidy program in Illinois in 2005, who were observed for two years postentry, revealed that the median length of the first spell was six months and that children experienced, on average, two spells on the program during the two-year observation period (Ros et al. 2012). This observation is consistent with prior research on subsidy dynamics that has shown many families return to the program, but that these families return for another short spell (Meyers et al. 2002).

The relatively short spells of subsidy receipt documented by research raise concerns about the ability of subsidies to support child care continuity. If subsidies are allowing parents to purchase care that would be economically out of reach without the subsidy, it seems a reasonable expectation that these higher-cost providers may not remain an option after a family's exit from the subsidy program.

Although two survey studies suggest that the providers used by subsidized families are more stable than those used by their unsubsidized counterparts (Brooks et al. 2002; Danziger et al. 2003), recent analyses of longitudinal subsidy administrative records nevertheless demonstrate considerable instability in providers among subsidy-receiving families. Studies in Oregon, Wisconsin, and Illinois show children experience considerable instability in subsidized child care providers. Weber (2005) analyzed subsidy records from Oregon and found that 70 percent of children experienced a change in providers within one year, and by three years, 83 percent had at least one provider change.

Using data from Wisconsin, Ha and colleagues (2012) followed a sample of children under age 3 until their fifth birthday. They found, on average, children experienced 2.7 subsidized child care providers during the observation period, and of those children with two or more spells, only 37 percent returned to the same subsidized provider they had been using before exiting the subsidy program. They also found a positive association between the number of child care subsidy spells and the number of subsidized providers children experienced, with the most disadvantaged families experiencing the most instability in subsidy spells and subsidized providers.

Using a similar sample of children under age 3 in Illinois, Claessens, Ros, and Henly (2012) similarly found that 36 percent of children with two or more spells returned to the same subsidized provider they had been using before exiting the subsidy program. This study also found a positive association between the number of subsidy spells and changes in subsidized providers—both provider changes within a spell (during a period of continuous subsidy receipt) and provider changes between spells (between the end of one subsidy spell and the start of the next spell). Because all these studies rely on longitudinal administrative records, it is not possible to know whether families remained with the subsidized provider during the periods they were off the subsidy, whether they switched to a different provider during this time, or whether they went without child care.

Factors Related to Child Care Subsidy and Child Care Provider Dynamics

To date limited research exists on the factors related to movement off and on subsidies or the implications of these dynamics for families' child care providers. Program characteristics and work characteristics are two key factors that have been suggested as important contributors to subsidy stability and child care stability. For example, longer eligibility periods and a simpler redetermination process may contribute to a longer subsidy duration, which may in turn have implications for care continuity. In fact, Meyers and colleagues (2002) found that subsidy recipients in states that require recertification after a shorter period of time had, on average, shorter subsidy spells than recipients in states that did not require as frequent recertification. Similarly, Grobe, Weber, and Davis (2008) found that being in the last month of an eligibility period more than doubled the likelihood of exiting the subsidy program in Oregon. This finding was replicated in their more recent study, also using Oregon data (Weber et al. 2014). Meyers and colleagues (2002) also found that the populations served by state subsidy systems mattered for average spell duration, although specific policy characteristics (such as generosity of reimbursement rates, copayment levels, and income thresholds) did not consistently relate to subsidy spell length or the likelihood of recertification. Overall, quantitative findings regarding

the relationship between program generosity and subsidy continuity are equivocal (Schexnayder and Schroeder 2008; Weber et al. 2014; Witte and Queralt 2005). In contrast, qualitative studies suggest program features do matter. For example, implementation challenges and administrative difficulties in meeting and maintaining eligibility can contribute to low participation and short spells (Adams et al. 2002, 2008; Shlay et al. 2004). More research is needed to better understand the role of program characteristics in shaping subsidy trajectories and under what conditions or for what populations particular program features may matter most.

The employment circumstances of low-income families may also be important to understanding subsidy and child care stability (Weber et al. 2014). Employment is a condition of subsidy receipt, with states requiring proof of employment before enrollment in the subsidy program. As part of the application process, many states collect information on aspects of parents' employment situation, especially their work schedule and its fit with the identified child care provider's schedule. To the extent that employment schedules vary or hours fluctuate from week to week, subsidy applicants face a restricted range of child care providers with flexible schedules and may face difficulties successfully securing a subsidy (Henly and Lambert 2005; Sandstrom and Chaudry 2012). Settings that offer care to children during fixed, daytime, weekday hours remain out of reach to many families whose care needs require flexible, evening, and weekend care. Several studies document the disproportionate use of family, friend, and neighbor care (especially relative care) among parents employed in nonstandard-schedule jobs (Han 2004; Henly and Lyons 2000; Presser 2003). Nonstandard work schedules can also require parents to package care across a range of providers who are able to tolerate unreliable payments and variable care needs (Henly and Lambert 2005; Henly, Shaefer, and Waxman 2006; Presser 2003; Scott et al. 2005).

However, quantitative analyses suggest that nonstandard work schedules are not necessarily a barrier to subsidy access. Goerge and colleagues' (2009) study of subsidy recipients in Illinois, Texas, and Maryland suggests that for Illinois (but not the other two states), nonstandard workers in single-parent families were slightly more likely to receive subsidies than single parents working standard-schedule jobs, although the duration of subsidy receipt for these two groups was not reported.

Moreover, depending on program rules related to job search allowances after a job loss, employment instability may be an important contributor to subsidy instability, just as subsidy instability may itself contribute to job loss. When subsidy users lose a job, some states provide a set number of days for them to search for a new job before losing their assistance; in other states, clients become ineligible immediately following the job loss. Thus, whether a parent is able to maintain a subsidy after

job loss is likely dependent on the job search allowance and their success at finding a new job during that period.

In their analysis of Wisconsin administrative data, Ha and Meyer (2010) find that job loss and low earnings account for most subsidy exits. Weber et al. (2014) also find that job loss (losing a job or experiencing a reduction of at least 33 percent of work hours), as measured with administrative unemployment insurance data, was related to subsidy instability, although their data do not allow them to determine the causal direction. Somewhat surprisingly, in another study, Grobe and colleagues (2008) do not find employment characteristics to be powerful predictors of subsidy exit in their analysis of Oregon administrative records, although their accompanying survey data show that subsidy exits were often due to employment-related reasons for the subsample of survey respondents who had left the subsidy program (Weber et al. 2014). Specifically, the authors report that in their survey of subsidy recipients in Oregon, 62 percent of respondents who reported leaving the subsidy program within five months of being interviewed reported an employment-related reason, most often job loss. Nevertheless, their administrative analyses revealed that subsidy recipients were likely to remain eligible for subsidies at the point of subsidy exit, many continued to remain on other public assistance programs, and importantly, subsidized families were often stably employed. Thus, although employment instability can be an important contributor to leaving the subsidy program, it is likely not a sufficient explanation for the high rates of subsidy instability observed across several studies.

Study Overview

The IL–NY CCRP builds on existing research by closely examining the determinants of subsidy instability and child care continuity using multiple data sources and a mixed-methods approach. The study addresses six research questions:

1. What are the different patterns of subsidy use and stability over time?
2. To what extent do subsidy program characteristics and parental work circumstances influence subsidy use and stability?
3. How stable are child care providers for subsidy-receiving families both during a subsidy spell and over time?
4. To what extent do subsidy program characteristics and parental work circumstances influence the stability of child care providers?

5. What challenges to subsidy stability and child care stability do parents perceive to be most difficult?
6. What challenges to subsidy stability and child care stability are particularly salient for parents with nontraditional jobs and/or nonstandard work schedules, TANF recipients, and non-English speaking, immigrant parents?

A key strength of this project is the use of mixed methods to examine the question of child care subsidy instability and its causes and consequences. CCRP Phase 1 included four empirical components:

1. **Administrative data component.** Longitudinal child care assistance payment records were analyzed for a cohort of new subsidy entrants across an 18-month period.
2. **Survey component.** A telephone survey was conducted of new subsidy clients sampled from administrative records in the four study regions (N = 612) that collected retrospective data on clients' experiences with the subsidy program at approximately 14 months after entering the program. Other survey topics include child care history and employment history and indicators of family well-being including parental stress, perceived social support, work-care fit, child behavior, and material hardship.
3. **Qualitative component.** In-depth interviews were conducted with a purposive sample of survey respondents who represent one of three different subsidy trajectories. These three groups included survey respondents who received assistance for one eligibility period or less; completed at least one recertification period without a break in subsidy use; or cycled off and on the subsidy program during the observation period (N = 85). The qualitative sample includes diversity in four areas: TANF-child care and non-TANF-child care families; families with standard and nonstandard work schedules; families needing care for a single child under age 5 and families with multiple and school-aged children; and Spanish-speaking, immigrant families and English-speaking, native families. Interviews were conducted within several months following the survey, providing an average of two years of historical data since participants first received subsidized care.
4. **Linked data analyses component.** Cross-cutting data analyses using linked survey and administrative data were conducted to provide a more comprehensive picture of the associations between subsidy program characteristics, work circumstances, subsidy stability, and continuity in child care providers.

Data from administrative records, the survey, and qualitative interviews all offer a unique lens in terms of the information that can be captured to address the research questions. The nested approach to data collection also allows for the linking of data across components. First, we follow a cohort of new

subsidy entrants with state administrative data to track their patterns of subsidy use. Child care payment records provide details on multiple variables, such as when subsidized child care was provided and for which children on the subsidy case (if multiple), the type of subsidized child care provider (e.g., center, licensed family child care, legally exempt individual), the payment amount, and the copayment or family share. These data have allowed us to calculate the length of child care subsidy spells, examine continuity in subsidized provider spells, and determine how they differ in terms of family and child characteristics, such as initial type of care, child age, and study site.

The survey provides a historical view of respondents' child care usage and employment situation during periods on and off the program as well as ratings of their experiences with the subsidy program. In addition to analyzing the survey data to descriptively explore the types of child care children use and parents' reasons for changing providers (among other issues), we have linked the survey data to administrative program records to examine predictors of subsidy instability—specifically, any exit from the program and the length of subsidy spells.

Findings from the linked administrative records-survey data are bolstered by in-depth qualitative interviews with a subset of survey respondents representing diverse characteristics and different subsidy trajectories. The stories participants share highlight the benefits of subsidy program participation as well as the challenges clients face with accessing the program and maintaining eligibility. From participants who left the program or experienced a short-term break we learn about the reasons for exiting and what happened to their child care providers, jobs, and overall economic security after exiting or during a gap in coverage. Conversely, those who successfully maintained their subsidy over time describe the strategies they used to maintain their benefits. Both groups offer recommendations for ways to improve the subsidy program to better assist low-income children and families.

This report presents the key findings for research questions 1 through 4. A companion report, *Determinants of Subsidy Stability and Child Care Continuity: Findings from the Qualitative Substudy of the Illinois–New York Child Care Research Partnership*, more fully addresses research questions 5 and 6.

Conceptual Framework

The conceptual framework undergirding the current study is shown in figure 1. This framework is a simplified description of how different types of stability—in work, subsidy receipt, and child care providers—may influence low-income children's development and parents' employment outcomes. The

purpose of the framework is to illustrate the key pathways of interest to this proposed research project and to serve as an organizing framework for existing knowledge about these pathways. It is not meant to capture all (or even most) of the important influences on low-income families' well-being or on any of the separate boxes in the model, nor does it imply there are no additional relationships between the boxes.

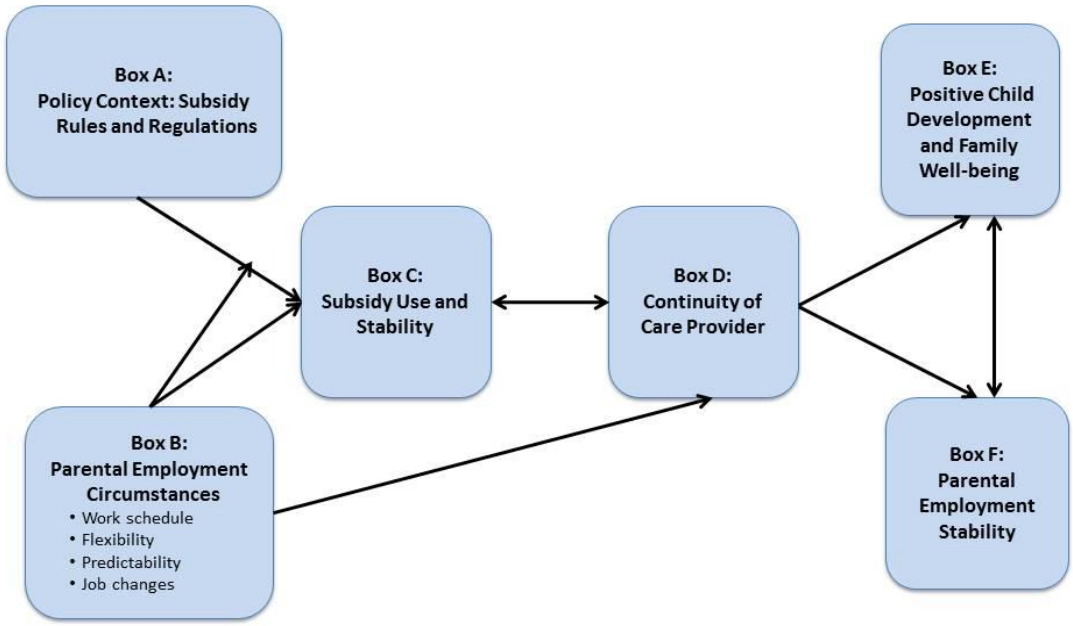
Both child care subsidy program characteristics (box A) and parental work circumstances (box B) were hypothesized to influence the use and stability of child care subsidies (box C). The child care subsidy program characteristics of particular interest to us were the length of the eligibility period, eligibility rules, copayments, reimbursement rates, and the length of job search allowances. In terms of employment characteristics, we were interested in the circumstances of employment exits (i.e., losing a job), nontraditional job statuses and nonstandard work schedules, and job flexibility. In turn, subsidy use and stability (box C) were hypothesized to contribute to the continuity or stability of child care providers (box D). In terms of child care continuity, we were interested in the stability of providers over time, both during a continuous subsidy spell and during gaps in assistance. Although the conceptual model assumes that subsidy stability leads to child care continuity, we fully recognize the direction of influence may also go the other way, or a reciprocal relationship might exist.

Additionally, child care provider stability (box D) was expected to be directly influenced by program characteristics (box A) and parental work circumstances (box B). The role of parental work circumstances (box B) was further hypothesized to moderate the relationship between subsidy program characteristics (box A) and subsidy use and stability (box C) such that the influence of program characteristics on subsidy use and stability would depend on characteristics of parental employment. Finally, our justification for examining the pathways to the stability of child care providers rested on the expectation from previous research that continuity of care (box D) contributes positively to child development and family well-being (box E) and parental employment outcomes (box F).

We test these associations using our multiple data sources and various analytic approaches. This research report presents the findings and describes how these hypothesized relationships were supported by the data.

FIGURE 1

Conceptual Framework for Phase 1 of Child Care Research Partnership: Determinants of Subsidy Stability and Continuity of Child Care in Illinois and New York



Note: This is a simplified diagram suggesting one possible set of pathways to child care arrangement stability, child and family well-being, and parental employment stability.

Organization of Report

This report's chapters guide the reader through the key findings pertaining to each research question. Chapter 2 discusses the research methods, and chapter 3 describes descriptive characteristics of the study sample. Chapters 4 through 7 present study findings. Chapter 4 discusses the results of administrative data analyses that examined patterns of subsidy use and stability over time. Chapter 5 discusses the results of multivariate analyses that estimate the likelihood of leaving the subsidy program given program experiences and job characteristics, as well as demographic and child care characteristics. It also discusses respondents' self-reported reasons for a subsidy exit. Chapter 6 provides a descriptive look at the stability of subsidized child care providers within and between subsidy spells and after exiting the program. Both chapters 5 and 6 draw from a combination of administrative and survey data. Chapter 7 presents the results of survey data-based multivariate analyses that estimate predictors of ending the first subsidized child care provider spell. Chapter 8 concludes with an integrated discussion of findings and implications for policy, practice, and future research.

Chapter 2. Methods

In this chapter, we briefly describe the four study sites included in the current study, our sampling approach, and the contents of the child care administrative data and survey data. We also compare our four-site administrative data and survey samples to the broader subsidy-receiving populations in New York and Illinois and compare our administrative and survey samples to each other. A technical appendix (appendix A) elaborates on each study component, including sampling procedures, recruitment and data collection procedures, measures, response rates and nonresponse bias, and the analytic approach.

Study Sites

The study includes four sites in two states: Nassau and Westchester Counties in New York State and two service delivery areas (SDAs) in Illinois: SDA 6, which encompasses Cook County where Chicago is located, and SDA 14, which serves seven counties in the southwestern portion of Illinois, including Bond, Clinton, Madison, Monroe, Randolph, Saint Clair, and Washington Counties. (In the remainder of the report we refer to SDA 6 as Cook County and SDA 14 as Southwestern Illinois for ease of discussion and interpretation.)

These four sites were selected because they differ in key ways on subsidy program policies and administration. Table 2.1 shows key characteristics of the subsidy program across the two states. In New York, child care assistance is administered at the local level by social services departments (local governmental agencies), and these agencies have discretion in setting policies related to eligibility standards, family copayments, and other policies. In Illinois, the child care assistance program is administered at the local level by child care resource and referral agencies (local community-based organizations) that receive state contracts for their services to cover a particular SDA. Subsidy policy parameters are determined by the state of Illinois; thus, compared to New York counties, SDAs have much less discretion in setting administrative policies. Important differences in length of eligibility periods (12 months in the selected New York counties and 6 months in Illinois), job search time limits, work requirements, referral practices, and other policies also offer a unique opportunity for comparison of program factors that lead to subsidy instability.

The selected sites also vary in terms of staffing models. The two New York counties use a caseworker model. In Westchester County, newly approved cases are assigned by alphabet, according

to the applicant's last name, to an individual caseworker who oversees the case and processes recertification documents and change notices. In Nassau County, caseworkers are responsible for a specific city or region of the county and oversee all clients using providers in those areas. In both New York counties, a separate group of workers processes new applications and applications for Temporary Assistance for Needy Families (TANF) clients. In Illinois, the two sites use distinct staffing models. In Cook County, cases are not assigned caseworkers. Instead, all subsidy eligibility workers are trained to serve clients across the system, rather than following a particular caseload of clients throughout their time on the subsidy program. In contrast, Southwestern Illinois uses a caseworker model. Caseworkers are assigned to providers and manage clients based on these provider assignments. For example, a caseworker may have all his or her clients from one particularly large center, from a few centers, from a group of family child care homes, or dispersed across many license-exempt providers.

The sites also differ in terms of funding streams. Both New York and Illinois offer child care assistance to low-income families with funding from the Child Care and Development Fund. Illinois' Child Care Assistance Program is also funded with TANF, Title XX, and state general revenue funds. New York has a relatively large TANF child care population in comparison to Illinois. New York uses TANF funding to offer child care assistance to TANF clients, and New York provides transitional child care assistance for up to one year for clients transitioning off of TANF. At the time of data collection, Nassau County was also using Title XX funds to offer child care assistance to families up to 275 percent of the federal poverty level, with the requirement that the subsidy had to be used for an approved provider within the county's contracted care system (which excluded informal providers such as relatives).

TABLE 2.1

Subsidy Program Characteristics in the Selected Study Sites as of 2011[a]

Program characteristic	Illinois	New York
Level of administration	State-administered. Application and redetermination administered through local child care resource and referral agencies	County-administered. Application and redetermination administered through local department of social services
Length of eligibility period	6 months	12 months for low-income and Title XX cases; 6 months for TANF cases; Nassau requires a 6-month income verification
Income eligibility	185% of FPL	200% of FPL for low-income cases; 275% of FPL for Title XX cases (suspended in Nassau as of 2013; temporarily suspended in Westchester 2011–13)

Program characteristic	Illinois	New York
Postsecondary education and training requirements	Eligibility up to and including the acquisition of the first associate's degree or the first bachelor's degree	*Nassau:* Single parents may be eligible for approved occupational training programs for a period not to exceed 12 consecutive calendar months when lacking basic job skills. *Westchester:* Limited to TANF cases, if approved as part of self-sufficiency plan. Up to a two-year college degree program. Low-income clients employed for 30 hours per week may be eligible for approved occupational training programs, at local discretion.
Minimum number of work hours required	No minimum	20 hours (considered eligible for full-time subsidy if working 30 or more hours per week)
Job search time limit	30 days per job loss occurrence, up to 90 days per year for continuing clients only	*Nassau:* 0 days *Westchester*: 30 days for continuing clients only
Pays for breaks in approved activity required for program eligibility	Parents who are enrolled in approved education programs have up to a 30-day grace period for school vacations, semester breaks, and postgraduation.	*Nassau:* Will pay up to two weeks when a teen parent attending high school is on school break; client leaves job and has definite job offer to begin within two weeks; client completes approved training and will begin employment within two weeks *Westchester:* No breaks covered
Family copayment calculation	Based on income and family size with the exception of part-time school-age. Amount ranges from $2 at lowest incomes to approximately 9% of incomes near 185% of FPL.	*Nassau:* 17.5% of income exceeding the State Income Standard as of 2011 (20% in 2014); $0 for TANF families *Westchester:* 15% of income exceeding the State Income Standard as of 2011 (27% in 2014)
Maximum provider reimbursement rate for 3-year old ($/month)[b]	$826 (licensed center care) $618 (family child care) $308 (informal care)	$1,343 (licensed center care) $1,166 (family child care) $741 (informal care)

Sources: *The CCDF Policies Database Book of Tables*, as of October 1, 2011 (Minton et al. 2012); New York County Child Care and Development Fund Plans (http://www.ocfs.state.ny.us/main/childcare/plans/plans.asp); Illinois Action for Children and Children's Home and Aid, personal communications; New York State Office of Children and Family Services, "Local Commissioners Memorandum, Child Care Market Rates 2011-2013," September 2011 (http://ocfs.ny.gov/main/policies/external/OCFS_2011/LCMs/11-OCFS-LCM-12%20Child%20Care%20Market%20Rates%202011-2013.pdf).

Note: FPL = federal poverty level.

[a] Characteristics reflect subsidy program as of 2011 when the study sample entered the subsidy program, unless otherwise specified.

[b] Numbers reflect weekly maximum payments multiplied by an average 4.33 weeks per month. For New York counties, family child care amount reflects the average of "registered family daycare" and "group family daycare."

Sampling Approach

Our administrative data sample, which also forms the sampling frame for our survey, is based on child care assistance program payment records obtained through data sharing agreements with our state research partners. Our sampling frame is identified by specific parameters, which varied by state. To be eligible for inclusion, a family had to be a new entrant into the subsidy program and receive its first subsidy payment for services rendered between August 2011 and February 2012 in the two Illinois sites and between March 2011 and December 2011 in the two New York sites. To qualify as a new entrant, a family could not have received a subsidy for at least two years before their entry date. These dates were different in the two states because we wanted to survey respondents at least 2 months after their expected recertification date (8 months postentry into the subsidy program in Illinois and 14 months postentry in New York), and we planned to initiate data collection in early fall 2012. Also, subsidy enrollment numbers in the two participating counties were smaller than the caseloads in Illinois, so 10 (versus 7) months of new entrants were needed to produce a sufficient sample size in New York. Additionally, eligibility was limited to cases with at least one nonschool-aged child (i.e., not age eligible for kindergarten when the family began receiving a subsidy or in the fall of 2011).[4]

Further, in Illinois, subsidy reason codes were used to select cases initially eligible for a subsidy due to parental employment, including employed TANF recipients. Any cases that were approved for a subsidy because the applicant was in school or training or receiving TANF but not employed were excluded. In New York, the TANF child care program is much larger than in Illinois (about 23 percent of cases across the two New York counties were receiving TANF), and state partners were interested in these families' experiences with the program; therefore, TANF cases were not limited to those who were working. In New York, only preventive and protective cases (i.e., foster care) were excluded, which accounted for an estimated 7 percent of new entrants. About 90 percent of all New York cases meeting our sampling criteria (including TANF cases) were employed, 6 percent were in school or training, and 3 percent were TANF transitional cases.

The sampling procedures yielded a sampling frame of N = 5,902 in the two Illinois sites and N = 1,819 in the two New York sites. Given the smaller sampling frame in New York, all 1,819 families were contacted to participate in the survey. In Illinois, we identified 1,000 representative cases (i.e., replicates) to be fielded from the 5,902 in the full sampling frame to ensure an adequate response rate.

Appendix A provides additional detail on the sampling approach for the administrative sample, as well as the sampling and recruitment procedures for the survey and the qualitative interviews, survey response rates, and estimates of nonresponse bias.

Child Care Administrative Data

To address our research questions, we analyzed child care assistance program payment records for the families included in our sampling frame: 5,893 families in the Illinois sites and 1,819 families in the New York sites.[5] The administrative data contained basic information on child and family characteristics from the child care subsidy application, including children's date of birth, household income at the time of application, children's race/ethnicity, and children's gender. The data also included payment files containing information on the dates child care services were rendered, the type of care of the subsidized provider(s), an identification number for the provider(s), and family copay amounts. In New York, the data also contained information on the type of case to which the family was assigned during each service period (TANF, low income, or Title XX), and in Illinois, we had information on whether a family was receiving TANF in the month of entry to the subsidy program. For the sake of analysis and consistency across sites, we recoded the type of care measures into three categories: center-based care, licensed family child care, and informal care (i.e., license-exempt care provided by relatives or nonrelatives). We also noted if families and focal children received subsidized care from multiple providers at the same time. (Appendix A, section III explains our recoding of child care type and treatment of multiple providers in detail.) Additionally, the youngest subsidized child on the case was identified as the focal child for the purpose of analysis at the child level.

The administrative data records were structured differently across the two states. In Illinois, service dates for child care services rendered were coded at the month level, so if a child received any services in a particular month, the data contained a service record for that month. In New York, service records had exact start and end dates, listing the exact days the services began and ended. To make the data consistent, we recoded the New York data to the month level. More detail on recoding procedures is available in appendix A, section III.

We used these data on when child care services were rendered to create start and end dates of subsidy spells and exits. We defined a subsidy spell as a period of one or more consecutive months in which a child or family received subsidized child care. We defined a subsidy exit as a period of one or more consecutive months in which a child or family did not receive any subsidized child care following a subsidy spell. In chapters 4 and 6, we present results of sensitivity analyses that test this definition of an exit by redefining a subsidy exit as two or more months of no subsidy receipt following a spell.

For our analyses of subsidy dynamics (e.g., length of first subsidy spell, number of spells, total months of subsidy receipt), we used family-level subsidy receipt rather than child-level subsidy receipt. This decision was primarily due to data limitations in the Illinois administrative records (as detailed in

appendix A, section III) and also because we expected predictors of subsidy receipt to be mainly family-level factors, such as parents' work schedule changes, changes in household income, or other factors that facilitate or inhibit parents' ability to access subsidized care for the whole family as opposed to an individual child. To define family-level subsidy spells, we coded a family as starting a subsidy spell in the first month that any child in the family first received subsidized care, and we coded a subsidy exit as starting in the first month in which no child in the family received subsidized care.

For our analyses of child care provider stability, we used child-level data as the focus was on children's ability to maintain stable relationships with their child care providers, rather than on whether families were juggling multiple providers for multiple children.

In order to observe families and children for a consistent period across the two states, we created an 18-month observation period for each focal child and each family, starting with their first month of subsidy receipt and ending 18 months later. For example, using administrative data records, we observed families who received their first subsidy payment in November 2011 through April 2013.

Chapter 3 describes the administrative data samples in each state, including family and child characteristics and experiences with child care at program entry.

Survey Data

A telephone survey was administered to a sample of 616 participants (424 in Illinois; 192 in New York) drawn from the sampling frame of administrative child care records. This sample number represents an overall response rate of 64.8 percent of fielded cases with valid contact information and 21.9 percent of all fielded cases. The response rate of all fielded cases for Cook County was the highest across the four sites at 50.4 percent. Recruitment into the survey sample was hampered by a written consent requirement in the two New York counties; verbal consent was sufficient in the two Illinois regions. Results of a nonresponse bias analysis comparing the characteristics and subsidy-provider dynamics of the full sampling frame in each state to those of the survey respondents are summarized in the next section and detailed in appendix A.

The survey collected data on the following key topics: subsidy use and experiences, employment history and job characteristics, current child care providers for all children in the household, and child care history information for the primary providers of the focal child (i.e., the youngest subsidized child on the case). Additional items pertained to work-care fit, child and family well-being, sources of income

support, household composition, and demographic and respondent characteristics. Table A.5 in appendix A provides more detail on the content of survey items. Chapter 3 details the measures we use in our analyses as presented in chapters 5, 6, and 7.

Comparing the Survey Sample to the Sampling Frame

We conducted a nonresponse bias analysis comparing survey respondents and nonrespondents in each state to determine whether survey respondents significantly differed from nonrespondents (see appendix A, section III). Among the variables we can observe in the administrative data, no differences were found in terms of household income, subsidy copayment amount (i.e., the family's share of child care expenses, which is determined by household income and family size), or age or gender of the focal child.

In New York, we found significant differences between survey respondents and nonrespondents with respect to site and case type: survey respondents were more likely to be from Westchester County than Nassau County and were more likely than nonrespondents to have a low-income case instead of a TANF-child care case. New York respondents also had longer subsidy spells and were less likely to exit the subsidy program compared to nonrespondents. These differences suggest that survey respondents in New York were on average higher income and more stable than nonrespondents.

Compared to Illinois families who were invited to participate in the survey but did not participate, Illinois families who participated in the survey differed with respect to site and race/ethnicity of the focal child. Illinois survey respondents were more likely to be from Cook County and less likely to be from Southwestern Illinois; they were also more likely to be black and less likely to be white than nonrespondents. (In appendix A, section III, we provide a comparison of Illinois survey respondents and nonrespondents among the full sampling frame—not just among those invited to participate—to show how representative survey respondents are of the population from which we drew the sample.)

Subsidy Recipients in New York and Illinois Overall

Our selection of two suburban counties in New York and two service delivery areas in Illinois was based on our desire to include diverse policy, demographic, and geographic contexts in our study, not to draw a sample that is representative of the states of Illinois and New York overall. However, to give a sense of how the two areas in each state compare to the overall child care subsidy population in New York and

Illinois, we present some information on the characteristics of the families receiving child care subsidies in each state.

In 2011, when families in our sampling frame were entering the subsidy program, just over 35,900 families or roughly 63,000 children were receiving child care subsidies in Illinois and about 78,600 families or 130,800 children were receiving child care subsidies in New York (Administration for Children and Families, Office of Child Care 2014a). Westchester and Nassau Counties make up a relatively small share of the overall New York State child care subsidy population: in 2011, Nassau County was home to approximately 4 percent of families receiving a subsidy in the state, and Westchester County was home to 3 percent of families receiving subsidies in the state.[6] In Illinois, Cook County is the largest SDA and comprises 53 percent of subsidy-receiving families; SDA 14 (Southwestern Illinois) comprises 6 percent of subsidy-receiving families in the state.[7]

Additionally, we selected only families with at least one non-school-aged child (younger than 5 years or not age eligible for kindergarten at program entry). Overall, in Illinois in fiscal year 2011, 50 percent of children receiving child care subsidies were under age 5, 10 percent were age 5, and 40 percent were age 6 or older. In New York, 56 percent were under age 5, 9 percent were age 5, and 35 percent were age 6 or older (Administration for Children and Families, Office of Child Care 2014a).

Among all child care subsidy recipients in New York State in 2011–12, about 34 percent were in licensed center-based care, 29 percent were in licensed family or group home care, and 37 percent were in some type of license-exempt care (Administration for Children and Families, Office of Child Care 2014a). In comparison, our two-county administrative data sampling frame and our survey sample had higher shares in center-based care and lower shares in informal care. Among all child care subsidy recipients in Illinois over this period, about 36 percent were in licensed center-based care, 22 percent were in licensed family or group home care, and 42 percent were in some kind of license-exempt care (Administration for Children and Families, Office of Child Care 2014a). Again, our administrative data and survey samples from the two Illinois sites were more heavily weighted toward center-based care than recipients in the state overall, and smaller shares were in license-exempt care. The larger share of children in center-based care in our sample relates to the fact that our sample excludes families with only school-aged children; Child Care and Development Fund data show that, compared to younger children, a smaller share of school-aged children use center-based care (Administration for Children and Families, Office of Child Care 2014a).

In Illinois, 20 percent of children were Latino in fiscal year 2011. The majority of children were black (54 percent); 21 percent were white; 8 percent were Native American, Asian or Pacific Islander, or

multiracial; and 20 percent did not report race. Our administrative and survey samples varied from the statewide average: the Southwestern Illinois sample had a smaller share of black and Latino children and a larger share of white children compared to the state subsidy caseload, and the sample from Cook County had a smaller share who were white than the state average.

In New York, 29 percent of all children receiving child care subsidies were Latino. The racial breakdown was 50 percent black; 42 percent white; and 8 percent Native American, Asian or Pacific Island, or multiracial (Administration for Children and Families, Office of Child Care 2014a). Our two-county administrative data sample in New York had a higher share of Latino children than this statewide average.

Finally, in 2011–12, 9 percent of all subsidized families in Illinois had TANF child care cases, compared to 39 percent in New York (Administration for Children and Families, Office of Child Care 2014a). We observe a similar rate of TANF receipt in the sampling frame for the two Illinois sites (8 percent), but the overall state rate is higher than what we observed in our sampling frame for the two New York counties (23 percent). We generally observed much higher TANF rates in our New York sample than our Illinois sample.

We turn now to chapter 3, which describes the administrative data sample in each state, including family and child characteristics, and experiences with child care at the start of the subsidy. It also describes characteristics of the sample on key survey measures.

Chapter 3. Characteristics of Study Sample

In this chapter, we describe the characteristics and experiences of study participants that will inform the interpretation of findings in subsequent chapters. In doing so, we also detail the survey measures we employed in our analyses. We begin this chapter by describing the characteristics of the administrative data sample, which formed the sampling universe of the survey sample. We then describe the demographic, employment, and child care characteristics of the survey sample. Two characteristics in particular—the employment characteristics of the survey sample at the start of the subsidy and survey respondents' experiences applying for a subsidy—form key predictors in the analyses presented in later chapters.

Characteristics of Administrative Data Sample

Beyond providing data for our study, the administrative data sample also forms the sampling frame for the survey. It can be viewed as the universe of all families with at least one child under age 5 or ineligible for kindergarten who started to receive subsidized child care[8] within the specified time frame in the two New York counties and two service delivery areas (SDAs) in Illinois. Table 3.1 shows the demographic characteristics of this administrative data sample.

Demographic Characteristics

Our sample of 5,893 families from Illinois is concentrated more heavily in Cook County than in Southwestern Illinois: 88 percent of the Illinois sample lived in Cook County, where Chicago is located, and 12 percent in Southwestern Illinois, which includes seven counties in the southwest portion of the state. In New York, just over half (55 percent) of the administrative sample of 1,819 families lived in Nassau County on Long Island and 45 percent lived in Westchester County, north of New York City. The focal children in the sample families were about half male and half female. The majority of families in New York were Latino (54 percent); 36 percent were black, 10 percent were white, and 1 percent were some other race/ethnicity. In Illinois, the greatest share of children (49 percent) were black, and 28 percent were Latino, 14 percent were white, and 8 percent were some other race/ethnicity. Table

3.1 also shows the age distributions of focal children in these families. The Illinois sample had a slightly greater share of young infants (children under age 1) than New York, and the New York sample had a slightly greater share of 2-, 3-, and 4-year-olds. The median annual household income at the time of applying for the child care subsidy was approximately $18,700 in New York and $17,600 in Illinois; mean income did not vary significantly across the two states.

TABLE 3.1

Administrative Sample Characteristics

	New York				Illinois			
	Total		Nassau County	Westchester County	Total		Cook County	Southwestern IL
	n	% or mean (SD)	% or mean (SD)	% or mean (SD)	*n*	% or mean (SD)	% or mean (SD)	% or mean (SD)
Study site								
Nassau County	1,002	55%	—	—	—	—	—	—
Westchester County	817	45%	—	—	—	—	—	—
Cook County	—	—	—	—	5,163	88%	—	—
Southwestern IL	—	—	—	—	730	12%	—	—
Focal child characteristics								
Gender								
Male	950	52%	52%	53%	2,987	51%	50%	53%
Female	869	48%	48%	47%	2,906	49%	50%	47%
Race/ethnicity								
Black	646	**36%**	25%	48%	2,909	**49%**	51%	42%
White	172	**9%**	13%	5%	826	**14%**	8%	54%
Latino	976	**54%**	59%	47%	1,654	**28%**	32%	3%
Other	25	**1%**	2%	0%	459	**8%**	9%	1%
Missing	0	0%	0%	0%	45	1%	1%	1%
Age at subsidy start								
Age 0	453	**25%**	25%	25%	1,934	**33%**	32%	38%
Age 1	467	26%	26%	25%	1,403	24%	24%	23%
Age 2	442	**24%**	26%	22%	1,093	**19%**	19%	15%
Age 3	317	**17%**	17%	18%	813	**14%**	14%	13%
Age 4[a]	140	**8%**	7%	9%	650	**11%**	11%	10%
Family characteristics								
Average household income at entry (annual)	—	$19,276 ($12,372)	$19,761 ($14,029)	$18,681 ($9,949)	—	$18,864 ($8,589)	$18,800 ($8,465)	$19,318 ($9,409)
Median household income at entry (annual)	—	$18,719	$19,690	$18,186	—	$17,568	$17,508	$17,712
N	1,819				5,893			

Note: Boldface values indicate a significant difference ($p < .05$) between the New York and Illinois estimates. SD = standard deviation. — = not applicable.

[a] In Illinois, 61 children were age 5 (60 to 65 months in age) when they entered the subsidy program; they are included in the "age 4" category.

Child Care Experiences at Program Entry

TYPE OF CASE AND TYPE OF CHILD CARE AT SUBSIDY START

Administrative data records in New York contain information about the funding source and case eligibility type when the family first started using the subsidy program. In Illinois, we obtained information as to whether the family was using TANF when they began using the subsidy program. The distribution of case type is presented in table 3.2. A much greater share of cases in New York were TANF cases (23 percent) compared to Illinois (8 percent).[9] The distribution of case type is the same across the two sites in Illinois but varies significantly across the two New York counties. In particular, because the Title XX program was temporarily discontinued in Westchester County during our study period, there are only two Title XX cases in Westchester, and 21 percent of all cases in Nassau are Title XX cases. Consequently, Westchester has a greater share of TANF eligible cases (30 versus 17 percent) and low-income eligible cases (70 versus 62 percent) relative to Nassau.

According to child care assistance program payment records, families in our administrative data sample most commonly used center-based care (56 percent in Illinois; 46 percent in New York) as their first subsidized provider (see table 3.2). In New York, the second-most common type of care was family child care (43 percent), followed by informal care providers (9 percent). In Illinois the use of informal care providers was much greater (22 percent) than in New York, and as common as family child care (21 percent).[10] Few families used multiple subsidized providers (2 percent in New York; 1 percent in Illinois).[11]

However, when types of provider are broken down by county (see table 3.2), we can see that almost all families in Nassau County began the program in group care settings, 45 percent in center-based care, and 54 percent in licensed family child care homes. Nassau County has a large contracted care system, which may make informal license-exempt care a less attractive alternative to families using child care subsidies. Also, at the time, Nassau County (but not Westchester) used Title XX funding for child care assistance for families above the low-income threshold, and Title XX subsidies could only be used with contracted centers or family child care providers and not informal providers. In contrast, in Westchester County, 21 percent of the sample used license-exempt informal providers at subsidy start. The pattern of provider use in Westchester County is more similar to the families in Illinois. Table 3.2 shows that 56 percent of families in Illinois began the program using a center-based provider, and the remaining families were fairly evenly split between licensed family child care homes (21 percent) and license-exempt, informal providers (22 percent). Unlike New York, in Illinois this distribution across different types of providers is quite similar across the two sites (table 3.2, columns 5 through 7).

However, the use of family child care was higher in Cook County than in Southwestern Illinois (22 and 17 percent, respectively), but in Southwestern Illinois, informal care was more common than in Cook County (28 and 22 percent, respectively).

We next look at the type of care used by individual focal children at program entry, by family and child characteristics. We provide these detailed breakdowns at the child level rather than the family level to match our analyses of experiences with providers, which are presented in chapter 6. These numbers are shown in appendix B, table B.3.1. Across both states, center-based care was the most common type of care across racial and ethnic groups (i.e., black, white, and Latino) but some racial and ethnic differences are observed by type of care. In New York, a similar percentage of focal children from different racial and ethnic backgrounds used centers (approximately half), but in Illinois, white children were much more likely than black, Latino, and other race children to be in center-based care (73 percent compared to 45, 65, and 67 percent, respectively). Black children in both states were much more likely than white and Latino children to use informal care (nearly 31 percent in Illinois and 18 percent in New York). Family child care use was mixed; in New York, white and Latino children were more likely than black children to use family child care, but in Illinois, black and Latino children were more likely than white and other race children to be in family child care.

Some differences are also observed by child age when focal children first enter the subsidy program. In general, infants were less likely to be in center-based care and more likely to be in informal care or family child care compared to older children. Yet in Illinois, by age 1, over half of focal children were using their subsidies for a center-based provider; in New York, the use of center-based care was less common than use of family child care until children were 3 years old.

Type of care also varied by the type of case, whether the family was TANF eligible or income eligible. In New York, a relatively equal split of children funded by Title XX used center-based care (49 percent) or family child care (51 percent). Children funded by Child Care and Development Fund low-income subsidies also used centers and family child care at relatively equal rates (46 and 45 percent, respectively), but about 8 percent used informal care. The same percentage of TANF child care cases used centers (46 percent), but TANF cases were much more likely than children funded by other sources to use informal care providers, at a rate of approximately 20 percent. In Illinois, TANF cases relative to low-income eligible cases were less likely to use center-based care (36 versus 58 percent), more likely to use family child care (27 versus 21 percent), and more likely to use informal care (36 versus 21 percent). In each state, there was a small percentage (between 1 and 2 percent) of families who used multiple subsidized providers, which we defined as experiencing two or more concurrent providers for three or more consecutive months or having "stable, multiple providers" (see appendix A,

section III for more detail). The most common combination of multiple providers in both states was two center-based providers.

MONTH OF ENTRY AND FAMILY COPAY AT SUBSIDY START

The month in which families started using the program was relatively evenly distributed across the selection period in each state (March through December 2011 in New York and August 2011 through February 2012 in Illinois), with a small spike in the number of cases starting at the beginning of the school year. In regard to family copayment at entry, on average, families in New York paid $11.17 per month, but this figure masks the fact that the median copayment in both counties was zero, because families with TANF cases in New York do not pay any copay. The average monthly copayment was $19.06 in Nassau County and $1.48 in Westchester County, reflecting the inclusion of families with higher incomes (up to 275 percent of the federal poverty level) through the Title XX program in Nassau.[12] In contrast, in Illinois, the average monthly copayment was $66.61 per month and the median copayment was $47, with no significant differences between the two sites.

Taken as a whole, tables 3.1 and 3.2 show the two New York counties differ from each other in terms of type of care, case type (i.e., funding sources), and copayment amounts. The two sites in Illinois are quite similar along these characteristics.

TABLE 3.2

Characteristics of the Family at First Subsidy Receipt

	New York				Illinois			
	All	Nassau County	Westchester County	Sig.	All	Cook County	Southwestern IL	Sig.
Type of case in first spell								
Low income	**65%**	62%	70%	***	**92%**	92%	92%	
TANF	**23%**	17%	30%	***	**8%**	8%	8%	
Title XX	12%	21%	0%	***	—	—	—	
Type of provider at entry								
Center-based care	**46%**	45%	48%		**56%**	56%	53%	
Family child care	**43%**	54%	29%	***	**21%**	22%	17%	**
Informal care	**9%**	0%	21%	***	**22%**	21%	28%	***
Multiple provider types	2%	2%	2%		1%	1%	2%	
Month of entry								
January	—	—	—		13%	13%	15%	
February	—	—	—		10%	10%	12%	
March	11%	12%	11%		—	—	—	
April	10%	12%	8%	**	—	—	—	
May	10%	10%	9%		—	—	—	
June	8%	8%	7%		—	—	—	
July	12%	12%	11%		—	—	—	
August	**9%**	10%	8%		**18%**	17%	22%	***
September	**15%**	13%	18%	*	**19%**	19%	18%	
October	**11%**	10%	11%		**16%**	16%	14%	
November	**8%**	7%	9%		**13%**	13%	11%	^
December	**7%**	5%	8%	*	**11%**	12%	9%	*
Family copayment at entry (monthly)								
Median	$0.00	$0.00	$0.00	***	$47.00	$47.00	$55.00	
Mean (SD)	**$11.17 (31.13)**	$19.06 (39.61)	$1.48 (7.96)	***	**$66.61 (59)**	$66.49 (60)	$67.39 (58)	
N	1,819	1,002	817		5,893	5,163	730	

Notes: The significance (Sig.) columns indicate whether differences in each characteristic are statistically significant between Nassau and Westchester Counties in New York and between Cook County and the Southwestern site in Illinois. Boldface values indicate a significant difference ($p < .05$) between New York and Illinois two-site estimates. SD = standard deviation. — = not applicable.
^ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.

Characteristics of Survey Sample

Demographic Characteristics

The survey sample includes families selected out of the administrative data universe who participated in the telephone survey. Table 3.3 shows the demographic characteristics of the survey sample. Illinois contributed more members to the survey sample than New York (423 compared to 189). Overall, just over half the survey respondents were black, about a quarter were Latino, 16 percent were white, and 6 percent were some other race/ethnicity. These shares varied by area: Cook County and Westchester County had higher shares of black respondents than Southwestern Illinois or Nassau County; Southwestern Illinois had a higher share of white respondents and fewer Latino respondents than the other three sites.

The survey collected information on some family characteristics that were not available through administrative records, such as parents' educational attainment, family structure, and immigration status. These data illustrate the diversity represented in the survey sample. Forty-eight percent had some college education but lacked a bachelor's degree, 36 percent had no more than a high school education, and 16 percent had a bachelor's degree or higher education. Of the four regions studied, Nassau County had the highest share with a bachelor's or higher degree (28 percent) and Cook County the lowest (12 percent). Most respondents (over 80 percent) were single, either living alone with their children (58 percent) or with other adults (25 percent), and the remaining 17 percent were living with a partner (married or cohabiting). Respondents in Westchester were most likely to live alone with their children (69 percent) compared to only 40 percent in Nassau, which had relatively more single respondents living with other adults. The mean age of the respondents was about 29 years. Across sites, the average family had 1.4 children on the subsidy program, and the average age of the focal child—the youngest child in the household—was about 2 years old.

Survey respondents in New York were more likely to start with a TANF case than those in Illinois (28 and 14 percent in Westchester and Nassau, respectively, compared to 10 percent in Cook County and 6 percent in Southwestern Illinois), in part due to the different frames from which the samples were drawn. Because TANF child care cases face somewhat different eligibility requirements than other clients and may be using the subsidy to support job training rather than employment (at least in New York), in our analyses in later chapters, we control for whether a respondent received TANF, and we assess the possibility of interactions between site and TANF.

TABLE 3.3

Descriptive Characteristics of Survey Sample by Site

	Cook County (*n* = 344)	Southwestern IL (*n* = 79)	Nassau County (*n* = 91)	Westchester County (*n* = 98)	Total	Sig.
Parental race						
White	9%	59%	13%	12%	16%	***
Black	59%	34%	38%	49%	51%	***
Latino	26%	1%	38%	35%	26%	***
Other	6%	6%	11%	4%	6%	
Parent's highest level of education						
High school diploma or less	35%	27%	33%	44%	36%	
Some college/associate's degree	53%	52%	39%	39%	48%	*
Bachelor's degree or higher	12%	21%	28%	17%	16%	**
Household structure						
Living with partner	18%	24%	15%	12%	17%	
Single, living with other adults	22%	19%	45%	18%	25%	***
Single, living with no adults	60%	57%	40%	69%	58%	***
Immigrant status	19%	4%	42%	34%	23%	***
Parental age (mean)	28.6	29.3	29.6	30.1	29.1	*
Age of focal child at subsidy start (mean)	2.0	1.9	1.9	2.0	1.9	
Number of children on the subsidy (mean)	1.4	1.4	1.4	1.4	1.4	
TANF child care case	10%	6%	14%	28%	13%	***
Family child care copayment (mean)	$71.30	$84.90	$21.30	$1.50	$54.50	***

Note: Significance (Sig.) tests represent chi-squared tests of the correlation between site and each variable.
^ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.

In the analyses presented in subsequent chapters, we also control for the size of the family's child care copayment at entry into the subsidy program,[13] which is a function of income and family size in both states. Copayments varied significantly by site: the mean family copayment was about $85 in Southwestern Illinois, $71 in Cook County, $21 in Nassau County, and only $1.50 in Westchester County. As mentioned above, the difference by county in New York is a reflection of the fact that Nassau County was funding child care for higher-income families (up to 275 percent of the federal poverty level) during our study period, but Westchester County did not.

Employment Experiences

Given the strong evidence from past research of the relationship between parents' work experiences and subsidy access and maintenance, the telephone survey collected detailed information on employment history. Table 3.4 summarizes the descriptive findings for the overall survey sample and by site. The first measure shows that the vast majority of respondents (over 80 percent) held a job before obtaining the subsidy, reflecting the importance of work as a condition to subsidy eligibility in most cases. Fifteen percent of respondents experienced *early job loss*, meaning the job held at subsidy start was lost within the first six months of subsidy receipt (or for those who exited before six months of receipt, early job loss indicates losing the job before exiting the subsidy program).[14] Note that this variable indicates whether a respondent left a job and does not address whether she changed to a new job, so it should not be considered a measure of unemployment.

To assess how characteristics of the primary job at the start of the subsidy contribute to subsidy and child care stability, we include in our analyses several items related to pay status, hours, and job schedule. The way an employee is paid and how much she works are both related to work behavior and the stability of earnings, which themselves may influence subsidy use; we therefore include variables for *hourly job*, which indicated whether the respondent was paid by the hour (versus by salary), and *hours worked*, a continuous measure indicating the number of hours the respondent usually worked per week. Most respondents (79 percent) were paid on an hourly basis, and this was more common in Illinois than in New York. On average, respondents worked about 33 hours per week, with little variation across sites.

TABLE 3.4

Employment Characteristics

	Cook County (*n* = 344)	Southwestern IL (*n* = 79)	Nassau County (*n* = 91)	Westchester County (*n* = 98)	Total	Sig.
Had a job before the subsidy	83%	81%	74%	82%	81%	
Early job loss (job loss within 6 months before subsidy exit)	18%	14%	13%	10%	15%	
Paid hourly	83%	89%	68%	67%	79%	***
Number of hours worked per week (mean)	33.5	35.3	32.4	30.7	33.1	
Any nonstandard hours (evening, weekend, and overnight)	71%	65%	54%	52%	64%	**
Number of nonstandard shifts (0–3)	1.3	1.3	1.1	0.9	1.2	
Work hours vary a lot/sometimes	30%	33%	37%	38%	33%	
Limited advance notice of work hours (one week or less notice)	39%	31%	43%	36%	38%	
Unexpected work (very often/sometimes has to go into work unexpectedly or stay later than scheduled)	36%	25%	37%	21%	33%	*
No input into work schedule	31%	41%	29%	29%	31%	
Very difficult to take off working during the day to attend to family matters	22%	27%	17%	26%	23%	

Note: Significance (Sig.) tests represent chi-squared tests of the correlation between site and each variable.
^ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.

To assess whether subsidy and child care stability are a function of the timing, variability, predictability, and control that employees had over their job schedule, the analyses presented in later chapters include six measures about the job schedule itself. We used a cumulative measure of the number of different types of *nonstandard shifts* (weekend, evening hours after 6 p.m., and overnight hours) the respondent reported typically working. The range was 0 (no nonstandard work) to 3 (all three types of nonstandard shifts were regularly worked). Overall, 64 percent of respondents typically worked at least some nonstandard shifts, and the average respondent worked 1.2 different types of nonstandard shifts. Respondents from the two Illinois sites were more likely to work at least some nonstandard shifts compared to respondents from the two New York counties.

To assess variability in job hours, we created a dichotomous indicator of whether the *number of hours of work varied a lot or sometimes* versus *not at all*. One-third of respondents said their hours varied a lot or sometimes. To assess job schedule unpredictability, we constructed two dichotomous variables that assessed *limited advance notice of work hours* (one week or less notice versus more than one week) and *unexpected hours*, a measure that indicates if the respondent either sometimes or very often had to go into work unexpectedly or stay later than she was scheduled (versus almost never or once in a while). Substantial shares had limited advance notice of work hours: 38 percent overall, ranging from 31 percent in Southwestern Illinois to 43 percent in Nassau County. Overall, one-third "very often" or "sometimes" had unexpected hours, and two-thirds had this happen "once in a while" or "almost never." Unexpected hours were somewhat more common in Cook County and Nassau County than in Westchester County or Southwestern Illinois.

Finally, we created two dichotomous measures of schedule control: *no input into schedule*, indicating the respondent reported having no input into her work schedule (versus a little, some, or a lot of input) and *limited ability to take time off*, indicating the respondent had a very difficult time taking time off during the day to attend to family matters (other categories were not difficult at all, not too difficult, and somewhat difficult). Thirty-one percent of respondents said they had no input into their work schedule, and 23 percent said it was "very difficult" to take time off during the day to attend to family matters.

Child Care at Subsidy Start

Table 3.5 presents the type of child care accessed by families at subsidy start, drawn from the administrative data for just the survey sample, and then provides more detailed information on the child care provider from the survey itself. The pattern of subsidized child care providers generally reflects the pattern observed in the full sampling frame. Center-based care was the most common type of care in all

sites, and licensed family child care was also used heavily in Nassau County (where informal care was not used at all). Forty-six percent of survey respondents reported having used the same provider before enrolling in the subsidy program. To indicate whether the subsidy was used for the primary child care provider at the start of the survey, we identified whether the primary child care provider reported at the start of the survey (in the first month of official subsidy use) matched the state-listed provider(s) in the administrative data for each case. As shown in table 3.5, the majority of families (87 percent) used the subsidy for their primary provider.

We hypothesized that respondents with more flexible child care providers may have an easier time maintaining stability, so we created an index of *provider flexibility* based on the mean of three items. On a four-point scale respondents rated whether the subsidized provider's schedule covered the hours of care needed, whether the provider was willing to work with them around work schedules, and whether the respondent relied on the provider to be flexible around the hours of care they provided. Items were reverse scored (recoded as 1 = strongly disagree to 4 = strongly agree), so that higher scores on the index indicate more flexibility (alpha = .68). The mean for this index is 3.5.

In addition, we included in our analyses an item for whether the provider offered any nonstandard hours of care (including early mornings as well as evenings, weekends, and overnight). We find that over two-thirds of providers did offer nonstandard hours, disproportionately early mornings. To gauge the availability of care in the event the regular provider was not available, we included one survey item asking respondents how much they agreed on a four-point scale that a backup provider was available to them (reverse scored, recoded as 1 = strongly disagree to 4 = strongly agree). The mean of this item is 3.0, with the two Illinois sites reporting greater agreement overall compared to the New York sites.

We also included an item gauging perceived provider safety that asks on a five-point scale (rarely to always) whether the respondent usually felt the child was safe and secure with his or her provider. Given the responses were heavily weighted to the high end of this scale, we created a binary measure indicating whether the respondent frequently or always felt the child was safe and secure (versus usually, sometimes, or rarely). In the overall sample, 88 percent of respondent said they frequently or always felt their child was safe and secure while in the care of the provider.

TABLE 3.5

Child Care Providers at Subsidy Start

	Cook County (*n* = 344)	Southwestern IL (*n* = 79)	Nassau County (*n* = 91)	Westchester County (*n* = 98)	Total	Sig.
Type of subsidized provider at start						
Informal or unlicensed care	19%	19%	0%	24%	17%	***
Licensed family home	24%	16%	48%	34%	28%	***
Center	57%	65%	52%	42%	54%	*
Used the same provider before the subsidy start	47%	48%	39%	49%	46%	
Subsidy used for primary provider at start	89%	91%	92%	83%	87%	
Provider flexibility index (mean, range 1–4)	3.5	3.4	3.5	3.6	3.5	
Provider offered nonstandard hours of care (early morning, evening, night, and/or weekend)	68%	66%	58%	70%	67%	
Had a backup provider (mean, range 1–4)	3.2	3.2	2.7	2.7	3.0	**
Respondent felt child was safe and secure with provider (frequently/always)	89%	83%	88%	89%	88%	

Note: Significance (Sig.) tests represent chi-squared tests of the correlation between site and each variable.
^$p < .10$ *$p < .05$ *$p < .01$ ***$p < .001$.

Subsidy Experiences

The survey included several items that assessed families' experiences with the subsidy program, particularly at the point of application. We first created a scale called "difficulties finding a provider," which is the mean of four items rated on a four-point scale of agreement. The items included "it was difficult to find a child care provider that fit with your work schedule," "you felt under time pressure to find a child care provider," "you had trouble finding a child care provider that was eligible for the child care assistance program," and "it was hard to find a high-quality provider with the characteristics you were looking for" (alpha = .81). Higher scores on the original items suggested disagreement with the statements; however, each item was reverse scored before calculating the mean score, resulting in higher scores reflecting greater agreement (recoded as 1 = strongly disagree to 4 = strongly agree), and hence indicating greater difficulty finding a provider. The average value for the scale is 1.7, representing a medium level of difficulty finding a provider when applying for a subsidy (see table 3.6). Nassau County respondents reported significantly greater difficulty finding a provider than respondents in the other sites.

To assess difficulty with the subsidy application process, we constructed a variable derived from the mean of two items: "I found the application form easy to understand" (1 = strongly agree to 4 = strongly disagree) and "I found it hard to assemble all the different pieces of information I needed to prove my eligibility" (reverse scored, recoded as 1 = strongly disagree to 4 = strongly agree). Higher scores indicate greater difficulty with the subsidy application process. The mean score for this scale is 1.7, with limited variation in application difficulty across sites.

We measured delays in application processing by using respondents' agreement on a four-point scale (reverse scored, recoded as 1 = strongly disagree to 4 = strongly agree) to a single item asking whether it "took a long time for my application to be approved." The average response was 2.7, representing a reasonable level of agreement that the application approval process was slow. Southwestern Illinois respondents reported less agreement that the application took a long time to be approved.

Finally, we used two items related to families' experiences while receiving a subsidy. The first item is a dichotomous variable indicating whether the respondent reports that her provider ever had a problem receiving a payment from the program (no problem is the referent category). The second item measured whether the subsidy program covered child care for all the respondent's weekly work hours (1 = less than half hours covered to 4 = all hours covered). Twenty-nine percent of respondents reported experiencing a problem with providers receiving payments. The average value for the work hours covered by the program was 3.6, representing a greater degree of weekly hours covered by the subsidy program.

TABLE 3.6

Subsidy Experiences

	Cook County (*n* = 344)	Southwestern IL (*n* = 79)	Nassau County (*n* = 91)	Westchester County (*n* = 98)	Total	Sig.
Difficulty finding a provider (scale range 1–4)	1.6	1.7	2.2	1.8	1.7	***
Difficulty with application process (scale range 1–4)	1.7	1.8	1.8	1.8	1.7	
Took a long time for application to be approved (scale range 1–4)	2.8	2.2	2.8	2.7	2.7	**
Ever had a problem receiving a payment from the program	28%	21%	32%	36%	29%	
Work hours covered by the subsidy program (scale range 1–4)	3.6	3.6	3.7	3.7	3.6	

Note: Significance (Sig.) tests represent chi-squared tests of the correlation between site and each variable.
$^{*}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$.

Chapter 4. Patterns of Subsidy Use and Stability over Time

Our investigation of the patterns of child care subsidy use and stability provides an important foundation for examining possible effects of subsidy instability on children and families. In this chapter, we present the study findings that address the first set of research questions: What are the different patterns of subsidy use and stability over time? What are the characteristics of families who demonstrate different subsidy patterns?

To address these questions, we use administrative child care assistance program records from the four study sites: Westchester and Nassau Counties in New York and Cook County and Southwestern Illinois. As described in chapter 2, Methods, the sample includes families with at least one child under age 5 who had newly entered the program. To have a consistent observation window across each state, we examine families' experiences with the subsidy program over an 18-month period, beginning with a family's first month of program use and ending 18 months later. Although 18 months is generally shorter than families' lifetime use of the child care subsidy program, this window allows us to observe families' experiences with the subsidy program through and past the recertification periods in these two states (6 months in Illinois and 12 months in New York). We are most interested in understanding the extent to which families maintain their subsidy through the recertification period, or in other words, how commonly the recertification requirement is associated with families leaving the subsidy program.

First, we calculate how long families stay in the subsidy program before first exiting, and how this duration (i.e., subsidy spell length) is associated with the length of eligibility periods in each state, with family characteristics, and with other characteristics of families' subsidy use. Second, we examine the total number of subsidy spells a family experiences during the 18-month window and the total number of months they access the subsidy during this period, looking at how family and child care characteristics are associated with differential subsidy use over time. Finally, we examine gaps in program use, estimating the extent to which families cycle off and on the subsidy program, how long families go without subsidies after first exiting the program, and how family and child care characteristics are associated with the speed of reentering the program. For this set of analyses, we use family-level administrative records, both because the factors shaping access—or lack of access—to child care subsidies are generally family-level processes and because of data limitations in Illinois (described in detail in chapter 2 and appendix A, section III). However, we test the sensitivity of our results using

child-level data from New York and a subsample of families in Illinois for which we have valid child-level data.

Based on the limited prior literature on families' child care subsidy use, we have a few expectations as to what we will uncover in this investigation. Given that prior studies have found that subsidy spell duration typically mirrors the length of states' recertification periods (Ha 2009; Meyers et al. 2002), we expect families in the New York sample will have longer spell lengths than those in Illinois, because in Illinois, recertification is required after 6 months of subsidy receipt, but in New York it is required after 12 months.

We also expect child age and type of provider will be associated with differential subsidy spells and patterns of use. Families often stop receiving subsidized child care for preschool-aged children once they become eligible for other types of subsidized child care programs at age 3 or 4 (such as Head Start) or once they enter kindergarten, at age 5. Some preschool-aged focal children in the sample may enter other child care programs or kindergarten during the 18-month observation period, and therefore, this group of older children may be more likely to exit and to exit more quickly relative to younger children. Prior research has found some variation in the length of subsidy spells by provider type; however, there were no clear patterns in the relationship between type of care and spell duration across states (Meyers et al. 2002). For example, in Illinois, children in family child care had the longest spells (seven months versus five months for those in center-based care), but in other states, such as Massachusetts and Oregon, children in family child care had spells that were as long as or shorter than those in other types of care.

We further expect that families in Southwestern Illinois, a region spread out across seven counties with only one child care subsidy office, may have less access to the subsidy program and more difficulty maintaining a subsidy. However, given the availability of phone, mail, and fax communication alternatives, the extent to which this distance barrier has an impact on subsidy spell length may be limited.

Given that Temporary Assistance for Needy Families (TANF) cases in New York have a 6-month rather than a 12-month eligibility period, we also expect that TANF recipients in New York will have shorter spells than families with a low-income or Title XX case type (more information on TANF, Title XX, and low-income child subsidy programs in New York is available in chapter 2). Finally, based on prior literature, we expect to find that families cycle off and on the program at high rates over the 18-month period (Ha 2009; Meyers et al. 2002; Weber and Davis 2002).

Subsidy Spell Lengths

Descriptive Results

We first provide descriptive results for the length of families' first subsidy spell. We define the first spell as ending when the family does not use a subsidy for at least one month. The month of exit from the program is defined as the last month of subsidy receipt in the family's first subsidy spell.

Table 4.1 describes how long families stay on the subsidy program before their first exit. We present Kaplan-Meier survivor function estimates of the median length of families' first subsidy spell across the two states and four sites, as well as estimates for the proportion of families who exit by 3, 6, and 12 months. We use Kaplan-Meier survivor function estimates to adjust for right-side censoring in subsidy spells, as some families' spells are ongoing at the end of our observation period.[15] As expected, families in the two-county New York sample have a significantly longer median first spell than those in the two Illinois sites (11 versus 9 months, respectively). The median subsidy spell lengths also vary by county and district within a state; the median first spell length is 2 months longer in Nassau than in Westchester, and 3 months longer in Cook County than in Southwestern Illinois.

We also examine the proportion of families who exit by 3 months to capture short spells (1 to 3 months of use), and then we examine those who leave the program by 6 months and 12 months to capture the recertification periods in each state (6 months in Illinois and 12 months in New York). In the two-county New York sample, 16 percent of the sample has a first spell that is 3 months or shorter, 32 percent of families leave the program by 6 months, and 56 percent have a first spell lasting 12 months or less. Families in Westchester County are slightly more likely than families in Nassau County to leave by 6 months (35 percent in Westchester County; 29 percent in Nassau County) and by 12 months (63 percent in Westchester County; 50 percent in Nassau). As hypothesized, in the Illinois sample, families exit the program more quickly than in New York. This difference is likely due in part to the recertification periods in each state. In Illinois, a similar proportion (16 percent) of families as in New York exit by 3 months. However, a higher proportion of families in Illinois exit by 6 and 12 months compared to New York: 45 percent of families in Illinois exit by 6 months, and 67 percent exit by 12 months. Across the two sites in Illinois, these proportions vary somewhat, with families in Southwestern Illinois more likely to exit sooner than families in Cook County, despite facing the same 6-month recertification period.

Figures 4.1 and 4.2 show the median spell lengths by site and by key family and provider characteristics in New York and Illinois, respectively. As hypothesized, preschool-aged children (age 4) have shorter median first spells than the other age groups in both states. In New York, families who enter the program using informal, license-exempt care have shorter median spell lengths than families who enter with center-based or family child care (7, 12, and 11 months, respectively). In Illinois, as in New York, families with informal care at the start of the subsidy program have shorter median first spells (7 months) than families who use family child care (11 months), but unlike New York, this result is also true of families who start the program using center-based child care in Illinois (8 months).

In New York, families who begin the program as a TANF case have significantly shorter first spells, on average, than families who are eligible as a low-income or Title XX case (6 months for TANF recipients compared to 13 months for low-income and Title XX cases). The difference in the median spell length for TANF recipients in Illinois was not significantly different from that of non-TANF (i.e., low-income) cases.

TABLE 4.1

Descriptive Statistics for Families' First Subsidy Spell

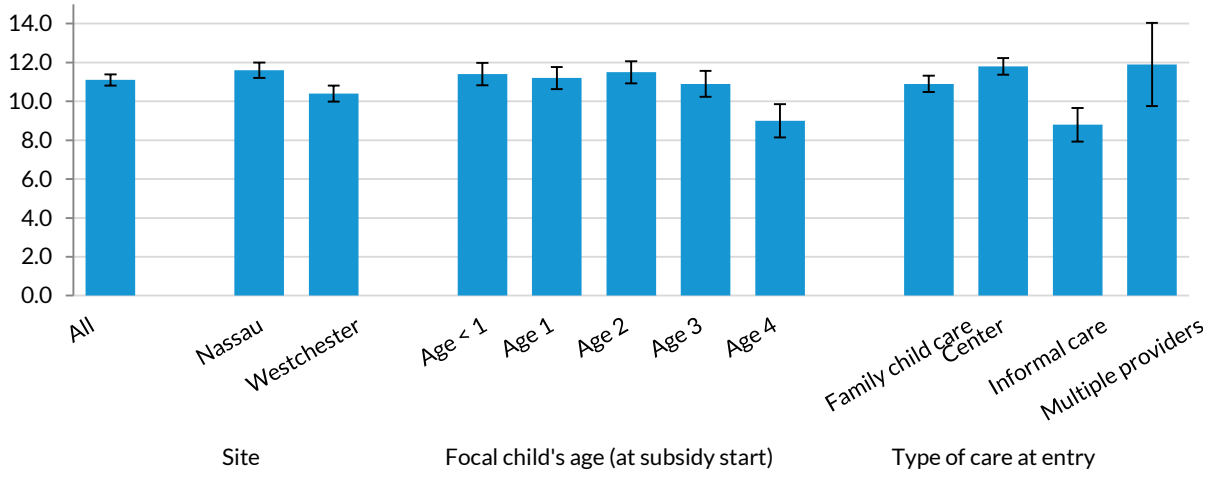
	New York				Illinois			
	Total	Nassau County	Westchester County	Sig.	Total	Cook County	Southwestern IL	Sig.
Median survival time	**11**	12	10	*	**9**	9	6	*
Share with first spell between 1–3 months long	16%	16%	16%		16%	16%	21%	**
Share with first spell between 1–6 months long	**32%**	29%	35%	*	**45%**	44%	51%	***
Share with first spell between 1–12 months long	**56%**	50%	63%	***	**67%**	66%	73%	**
N	1,819	1,002	817		5,893	5,163	730	

Notes: Kaplan-Meier survival function estimates are presented in the table. Median survival time is a measure of the average length of the first subsidy spell after adjusting for censoring. It is the number of months at which 50 percent of the sample is expected to have left the subsidy program, assuming the prospect of survival individuals who are still on the subsidy at 18 months have the same prospect of survival as those who continue to be followed. The significance (Sig.) column indicates whether differences in each characteristic are statistically significant for differences between Nassau and Westchester in New York and between the Cook County and Southwestern Illinois sites. Boldface values indicate a significant difference ($p < .05$) between New York and Illinois two-site estimates.

*$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

FIGURE 4.1

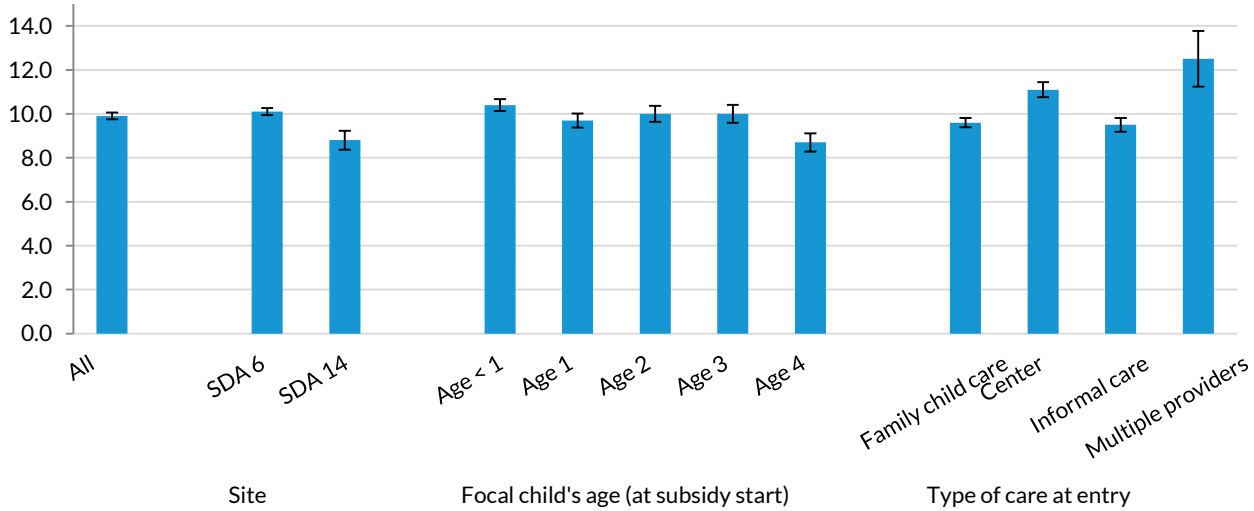
Median Spell Lengths by Key Characteristics in New York



Source: Authors' calculations based on state administrative data from child care assistance program.

FIGURE 4.2

Median Spell Lengths by Key Characteristics in Illinois

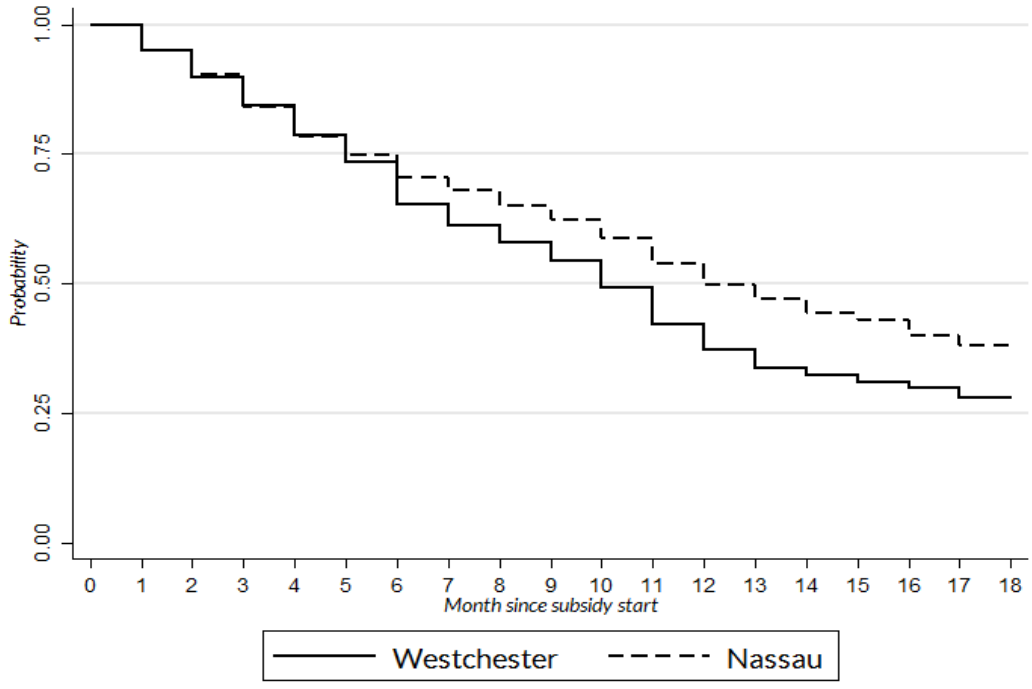


Source: Authors' calculations based on state administrative data from child care assistance program.

Figures 4.3 and 4.4 show these patterns by site and Figures 4.5 and 4.6 by type of care in New York and Illinois, respectively. Figures 4.3 and 4.4 show the Kaplan-Meier survivor function estimates across the 18-month observation period: the *x*-axis represents the number of months since the start of the observation period, and the *y*-axis represents the probability of continuing to receive a subsidy in a given month. These graphs show the same differences as described above—faster subsidy exits in Westchester versus Nassau and in Southwestern Illinois versus Cook County, as well as faster exits among those who start with informal care in New York and informal or center-based care in Illinois—but they create a clearer picture of the timing of the exit by families with different characteristics. Figure 4.3, for example, illustrates that the likelihood of exit is similar in the two counties in New York up until the 6-month point, when it begins to diverge as families in Westchester exit more quickly. Figure 4.4 makes clear that families in Illinois are particularly likely to exit the subsidy at 6 or 12 months, during families' first or second recertification period, and that the drop-off at the first 6-month recertification point appears to be greater in Cook County than in Southwestern Illinois, even though families in Southwestern Illinois are more likely than families in Cook County to exit the subsidy before the sixth month.

FIGURE 4.3

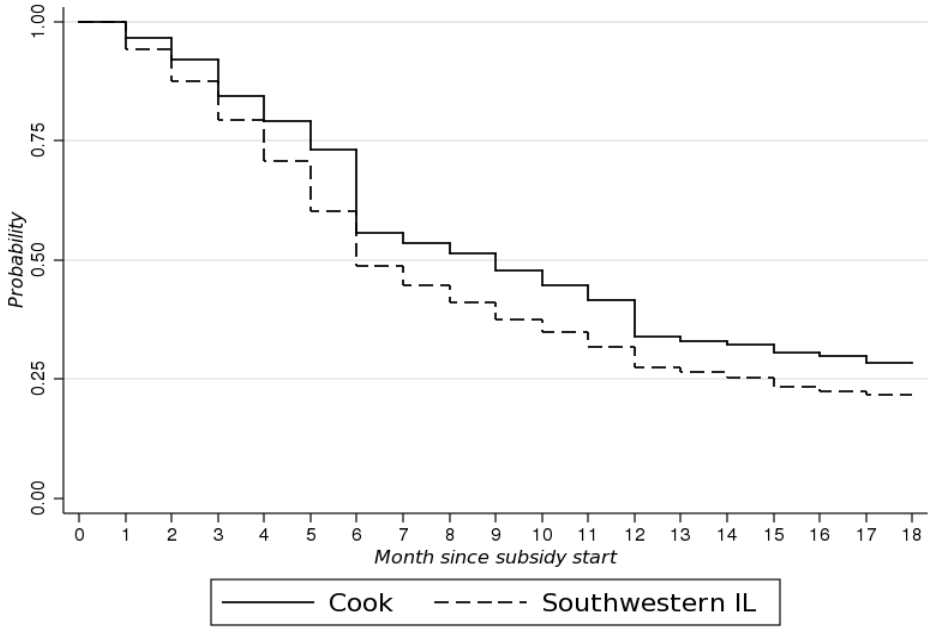
Kaplan-Meier Survival Curve of First Subsidy Spell in New York, by Site



Source: Authors' calculations based on state administrative data from child care assistance program.

FIGURE 4.4

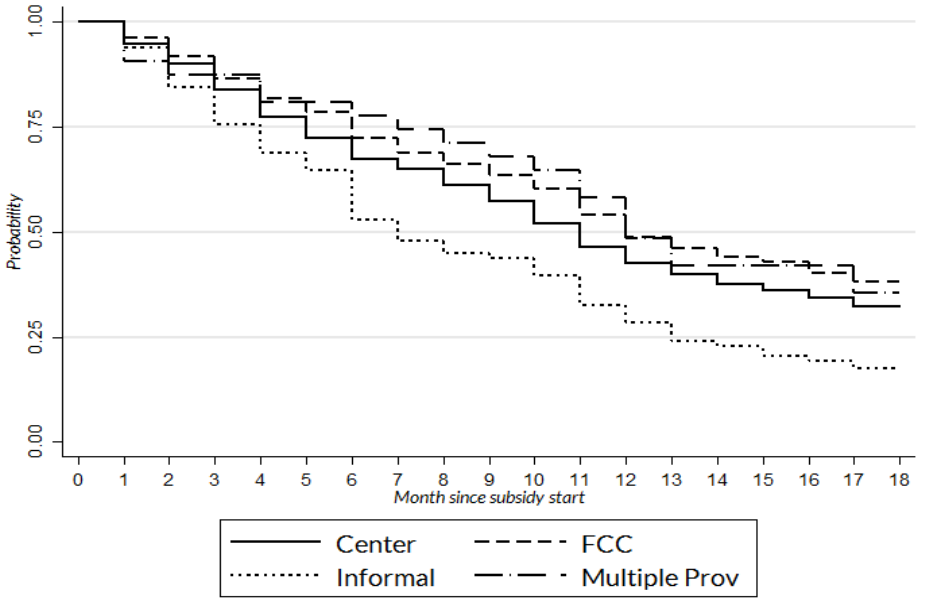
Kaplan-Meier Survival Curve of First Subsidy Spell in Illinois, by Site



Source: Authors' calculations based on state administrative data from child care assistance program.

FIGURE 4.5

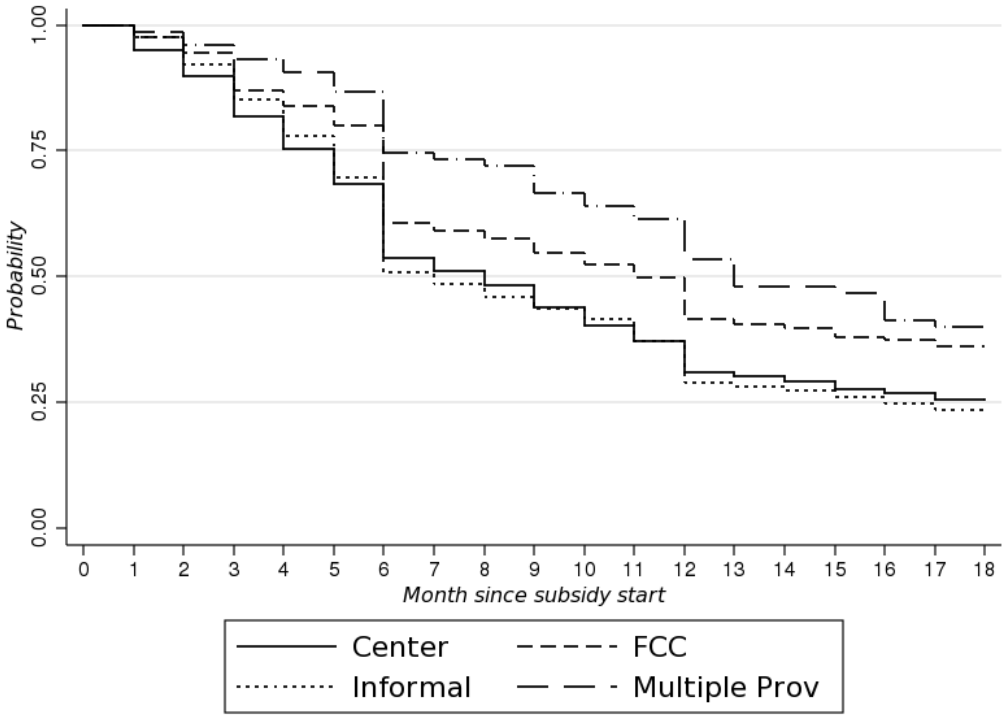
Kaplan-Meier Survival Curve of First Subsidy Spell in New York, by Type of Care at Subsidy Start



Source: Authors' calculations based on state administrative data from child care assistance program.

FIGURE 4.6

Kaplan-Meier Survival Curve of First Subsidy Spell in Illinois by Type of Care at Subsidy Start



Source: Authors' calculations based on state administrative data from child care assistance program.

Survival Analysis

To test associations between family and child characteristics and the duration of families' first subsidy spells, adjusting for right-side censoring of the data, we next estimate Cox proportional hazard models predicting the first subsidy spell exit within the 18 months of data available. Table 4.2 presents the results of this model. We employ survival analysis methods because our key dependent variable is length of time (i.e., number of months) measured over our 18-month observation period, and we do not observe the termination of every family's first child care subsidy spell. In our analyses, we use hazard models to estimate the relationship between the length of a family's first child care subsidy spell (in months) and family, child, and child care provider characteristics. These models estimate the hazard (or relative risk) ratios of each independent variable in predicting the family's first subsidy spell exit. The hazard ratio can be interpreted as the relative risk of exiting the subsidy program relative to the baseline (or reference) group.

This model shows that families in Southwestern Illinois are significantly more likely to exit the subsidy program (with a 23 percent higher hazard rate) than those in Cook County; the differences between the two New York counties are not significant. As we expected, children who are age 4 when they enter the program (and age 3 in New York only) have a higher likelihood of exiting the subsidy compared to infants (younger than 12 months). In the two-county New York sample, families who enter the program using informal care have a higher hazard rate (28 percent higher) than families who start with center-based care, but in Illinois, those who start with family child care or multiple providers have a lower hazard of exiting than those who start with center-based care (24 and 40 percent lower hazard rate, respectively). In both states, TANF-eligible families are more likely to exit the program than families who are not eligible for TANF. In New York, the hazard of exiting is more than twice as great for TANF-eligible families, but in Illinois the difference is relatively small (the hazard is 16 percent higher for TANF-eligible families).

TABLE 4.2

Cox Proportional Hazards Model of the First Subsidy Spell Exit

	New York (*N* = 1,819)			Illinois (*N* = 5,854)		
	HR	**SE**	**Sig.**	**HR**	**SE**	**Sig.**
Study site						
Westchester (ref.)						
Nassau	0.91	0.06				
Cook (ref.)						
Southwestern IL				1.23	0.06	***
Gender of focal child						
Male (ref.)						
Female	1.07	0.06		1.04	0.03	
Race/ethnicity of focal child						
White (ref.)						
Black	1.21	0.13	^	1.01	0.05	
Latino	1.13	0.12		0.90	0.05	^
Asian/other	0.93	0.27		1.01	0.07	
Age of focal child at subsidy start						
Age 0 (ref.)						
Age 1	0.98	0.08		1.12	0.05	*
Age 2	1.05	0.09		1.06	0.05	
Age 3	1.26	0.12	*	1.07	0.05	
Age 4	1.97	0.22	***	1.37	0.07	***
Family copay at subsidy start ($10)	**0.99**	**0.01**		**1.00**	**0.00**	
Type of child care at subsidy start						
Center-based care (ref.)						
Family child care	0.94	0.06		0.76	0.03	***
Informal care	1.28	0.13	*	1.01	0.04	
Multiple provider types	0.95	0.22		0.60	0.09	**
Type of case at subsidy start						
Low income (ref.)						
TANF	2.22	0.15	***	1.16	0.06	**
Title XX	1.26	0.13	*			

Notes: The significance (Sig.) column indicates whether coefficients are significantly different than those for the reference group (ref.). All models control for month of entry into the subsidy program.
HR = hazard ratio; SE = standard error.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

The Cox proportional hazards model assumes, as indicated by the name, that hazards between different groups are proportional over time, that is, that the ratio of the hazard of exit among Latino families and white families, for example, remains constant over each month of families' subsidy experiences. However, our descriptive analyses above and statistical tests of the proportional hazards assumption indicate that the rate of exit varies within some groups over time. We present findings from the Cox proportional hazards model for ease of interpretation and to present average differences in the likelihood of exit over time among different groups. However, to address this issue, we also estimate piecewise exponential survival models, which allow us to model changes in the hazard rate over time, across key time periods, for key subgroups for which we expect the hazard to vary across time: site, child age at program entry, type of care at entry, and type of case at entry. We focus on four key time periods—1 to 3, 4 to 6, 7 to 12, and 13 to 18 months—and use interactions between these time periods and the key subgroups to test whether the hazard significantly varies across time for these groups. For ease of interpretation, we present in table 4.3 the proportion of families who exit within each key time period across these key groups and discuss below the statistically significant differences we detect in the piecewise exponential survival model. Results from the piecewise exponential survival model are shown in appendix B, table B.4.1.

Results from the piecewise exponential survival model suggest that the hazard of exiting the subsidy program varies significantly across time for these key subgroups (see table 4.3). In New York, families in Westchester exit at the same rate as families in Nassau during the first 3 months, but about half (47 percent) of the sample in Westchester exits the subsidy program in months 4 to 6 or months 7 to 12; only 34 percent of the sample in Nassau exits during that period. In Illinois, a larger share (21 percent) of families in the Southwestern site exit the program by 3 months compared to Cook County (16 percent), but in months 4 to 6, 7 to 12, and 13 to 18 rates of exit are similar in the two districts.

With regard to child age, our results show that 4-year-old children have a similar hazard as children younger than 12 months during the first time period (1 to 3 months), but they have a higher hazard of exiting in subsequent time periods (within 4 to 6 months or 7 to 12 months in Illinois and within 7 to 12 months or 13 to 18 months in New York). For example, in Illinois, 16 percent of 4-year-old children exit in months 1 to 3 compared to 15 percent of children younger than age 1, but 35 percent of 4-year-old children exit in months 4 to 6 compared to 27 percent of children younger than age 1.

In Illinois only, we also find that children in center-based care are more likely to exit in months 1 to 3 compared to each of the three other care types (18 percent of children in center-based care exit in months 1 to 3 compared to 7 to 15 percent in the other groups); however, the hazard of exiting for children in license-exempt informal care increases over time (relative to those in center-based care),

and these children become more or as likely to exit than children in center-based care in months 4 to 6 and later.

In New York, we also observe differences by case type, with TANF families having a higher hazard of exiting in months 1 to 3 (31 percent of TANF families exit compared to 10 to 16 percent in the other case types), but non-TANF low-income families' hazard increases in months 7 to 12, and they become more likely to exit in months 7 to 12 relative to TANF families.

Overall, we find that first subsidy spells are short in duration, but shorter in Illinois than in New York. In addition, we find that child age, type of child care, and type of child care subsidy case at program entry are each associated with the risk of exiting the subsidy program. These results are consistent with prior research on child care subsidy spells and consistent with our expectations that differences in state recertification periods and stability of care might be associated with child care subsidy spells.

TABLE 4.3

Timing of First Subsidy Spell Exit by Key Characteristics

	New York					Illinois				
	Share exiting within 1–3 months	Share exiting within 4–6 months	Share exiting within 7–12 months	Share exiting within 13–18 months[a]	Share with no exit[b]	Share exiting within 1–3 months	Share exiting within 4–6 months	Share exiting within 7–12 months	Share exiting within 13–18 months[a]	Share with no exit[b]
Full sample	15.8	**15.9**	24.2	**10.6**	**33.5**	16.2	**29.0**	21.8	**5.5**	**27.5**
Study site										
Westchester County	15.7	19.0	28.3	9.2	27.9	—	—	—	—	—
Nassau County	16.0	13.5	20.9	11.7	38.0	—	—	—	—	—
Cook County	—	—	—	—	—	15.6	28.7	21.9	5.5	28.3
Southwestern IL	—	—	—	—	—	20.7	30.7	21.2	5.6	21.8
Age at subsidy start										
Age< 1	15.2	15.2	21.9	10.2	37.5	15.3	27.5	20.6	5.9	30.7
Age 1	16.9	17.3	19.5	10.1	36.2	17.9	29.5	20.3	5.1	27.2
Age 2	14.3	14.7	24.7	9.7	36.7	16.3	27.7	22.0	5.1	29.0
Age 3	15.1	17.7	26.5	11.7	29.0	15.5	28.3	22.3	7.0	26.9
Age 4	20.7	13.6	40.7	13.6	11.4	16.3	35.0	27.3	4.3	17.2
Type of provider at entry										
Center-based care	16.3	16.5	24.6	10.3	32.3	18.2	28.0	22.7	5.5	25.5
Family child care	13.6	14.1	23.5	10.6	38.2	13.1	26.3	19.2	5.4	36.0
Informal care	24.4	22.7	24.4	11.1	17.4	14.8	34.5	22.0	5.2	23.5
Multiple providers	12.9	9.7	29.0	12.9	35.5	6.7	18.7	21.3	13.3	40.0
Type of case										
Low income	10.2	13.1	26.3	10.1	40.3	16.0	28.8	21.6	5.5	28.0
TANF	31.6	24.9	20.9	9.3	13.3	18.6	30.2	23.8	5.6	21.7
Title XX	16.0	14.2	18.9	15.6	35.4	—	—	—	—	—
N	288	290	440	192	609	957	1,706	1,283	325	1,622

Notes: Boldface values indicate a significant difference ($p < .05$) between New York and Illinois estimates. We only tested the significance of the difference between the two states for the full sample estimates, not estimates by age, type of care, or type of case. — = not applicable.

[a] This category includes only families who exited by or in month 18.

[b] This category includes families whose spells were ongoing at the end of the 18-month window.

Number of Spells and Total Months of Receipt

Descriptive Results

Next, we examine families' total number of child care subsidy spells during the 18-month observation period and the total months of child care subsidy receipt during this period. Table 4.4 shows results for each state and each site. Most families, on average, have only one child care subsidy spell, but this share is significantly higher in the two-site New York sample than in the two-site Illinois sample; nearly three-quarters (73 percent) of families in New York have only one spell, but in Illinois two-thirds (67 percent) have one spell. A slightly higher percentage of families in the Illinois sample have exactly two spells (27 percent) compared to families in the New York sample (22 percent). Few families have more than two spells in 18 months (only 5 percent in each state). In New York, the number of spells varies somewhat by county, with families in Westchester County having slightly more spells; 26 percent have two spells compared to 19 percent in Nassau County. The patterns in Illinois are similar across each site.

On average, families in the two states receive a subsidy for a total of about 12 months within the 18-month observation period, and families in New York receive a subsidy for a significantly but only slightly longer period of time (12.1 months in Illinois; 12.8 months in New York). The similarity in total months of subsidy receipt suggests that although families in Illinois have a shorter first spell than families in New York, they are more likely than families in New York to return to the subsidy program for a second spell. Not surprisingly, based on previous results, families in Nassau use the subsidy for a greater number of total months compared to families in Westchester, and families in Cook County use the subsidy for a greater number of total months than families in Southwestern Illinois.

TABLE 4.4

Number of Spells and Total Months of Subsidy Receipt over the 18-Month Observation Period

	New York				Illinois			
	Total	Nassau County	Westchester County	Sig.	Total	Cook County	Southwestern IL	Sig.
Total number of spells								
1	**73%**	76%	69%	**	**67%**	67%	70%	^
2	**22%**	19%	26%	**	**27%**	28%	24%	*
3 or more	5%	5%	5%		6%	6%	6%	
Total months of subsidy receipt across all spells								
Mean	**12.8**	13.1	12.4	**	**12.1**	12.3	10.6	***
Standard deviation	5.4	5.5	5.3		5.5	5.4	5.8	
Minimum	1	1	1		1	1	1	
Median	14	15	13	***	13	13	11	***
Maximum	18	18	18		18	18	18	
N	1,819	1,002	817		5,893	5,163	730	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. Boldface values indicate a significant difference ($p < .05$) between the New York and Illinois estimates.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Tables B.4.2 through B.4.5 in appendix B display these same descriptive statistics on number of spells and total months of receipt by child, family, and provider characteristics for both states. Here we point to a few interesting patterns. In both New York and Illinois, older children experience fewer spells and fewer months of total subsidy receipt. In New York, informal provider use is associated with experiencing more spells compared to using family child care or center-based care, but in Illinois, using informal providers or center-based care is associated with experiencing more child care subsidy spells compared to using family child care or multiple providers. Finally, in New York, being a TANF-approved case is associated with more child care subsidy spells relative to the other two case types, and similarly in Illinois, TANF-eligible cases experience more spells relative to non-TANF low-income eligible cases.

Predicting Number of Spells

We next estimate regression models predicting the total number of spells and the total number of months of subsidy receipt, separately. In table 4.5, we present the results from Poisson regression models predicting the total number of spells over the 18-month period. We use Poisson regression models because our dependent variable is a count variable with a distribution that is highly skewed toward the value of one. To facilitate interpretation of the coefficients, we present the results in terms of incidence rate ratios, which are calculated by exponentiating the coefficients. The incidence rate ratios in our models can be interpreted as the percentage change in the expected number of child care subsidy spells associated with a one-unit increase in the explanatory variable.

As shown in table 4.5, in both states the expected number of subsidy spells is lower for older children than the youngest children. For example, the expected number of subsidy spells is 8 percent lower for children who are age 4 relative to children who are younger than age 1 in Illinois and is 7 percent lower in New York. In Illinois only, entering the program using family child care or multiple providers is associated with experiencing fewer spells relative to center-based care; we find no differences by type of care in New York. Higher copayments are also associated with slightly fewer spells in both states: a $10 increase in copayment is associated with an approximately 1 percent lower number of expected subsidy spells. Those families receiving subsidies because they are TANF cases in both states are also expected to experience more spells than those families who are non-TANF income eligible. Finally, in the Illinois sample, black children are expected to experience more subsidy spells than white children, although the difference is small.

TABLE 4.5

Poisson Model Predicting Number of Subsidy Spells within 18 Months

	New York (*N* = 1,819)			Illinois (*N* = 5,854)		
	IRR	**Robust SE**	**Sig.**	**IRR**	**Robust SE**	**Sig.**
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	0.99	0.02		—	—	
Cook (ref.)	—	—		—	—	
Southwestern IL	—	—		0.98	0.02	
Gender of focal child						
Male (ref.)	—	—		—	—	
Female	1.02	0.02		1.02	0.01	^
Race/ethnicity of focal child						
White (ref.)	—	—		—	—	
Black	1.03	0.04		1.05	0.02	**
Latino	1.00	0.03		1.00	0.02	
Asian / other	1.02	0.07		0.97	0.03	
Age of focal child at subsidy start						
Age 0 (ref.)	—	—		—	—	
Age 1	0.95	0.03	^	1.01	0.02	
Age 2	0.93	0.03	*	0.96	0.02	*
Age 3	0.94	0.03	*	0.94	0.02	**
Age 4	0.93	0.04	^	0.92	0.02	***
Family copay at subsidy start ($10)	0.99	0.00	**	0.99	0.00	*
Type of child care at subsidy start						
Center-based care (ref.)	—	—		—	—	
Family child care	0.97	0.02		0.90	0.01	***
Informal care	1.02	0.04		0.99	0.02	
Multiple provider types	0.96	0.06		0.86	0.04	***
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	1.20	0.03	***	1.06	0.02	**
Title XX	1.05	0.04		—	—	
Constant	1.26	0.06	***	1.43	0.04	***

Notes: The significance (Sig.) column indicates whether coefficients are significantly different from the reference group (ref.). All models control for month of entry into the subsidy program. IRR = incidence rate ratio; SE = standard error. — = not applicable.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Predicting Total Months of Subsidy Receipt

Table 4.6 presents ordinary least squares regression results predicting the total number of months of subsidy receipt during the 18-month observation period. We present the coefficients and standard errors from the ordinary least squares regression models in the table. We also test the robustness of our results to other functional forms and find a similar pattern of results.

Across both states, older children receive child care subsidies for fewer months than the youngest children. Entering the subsidy program with informal care is associated with fewer months of subsidy receipt in New York relative to center-based care, but using family child care or multiple providers is associated with more months of subsidy receipt in Illinois relative to center-based care. In both states, TANF-approved cases have fewer months of subsidy receipt compared to non-TANF income-eligible cases. In Illinois, not surprisingly, more subsidy spells are associated with more months of subsidy use, and families in Southwestern Illinois have fewer months of subsidy receipt relative to families in Cook County.

TABLE 4.6

Ordinary Least Squares Regression Models Predicting Total Months of Subsidy Receipt

	New York State (*N* = 1,819)			Illinois (*N* = 5,854)		
	B	**SE**	**Sig.**	**B**	**SE**	**Sig.**
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	0.01	0.29		—	—	
Cook (ref.)	—	—		—	—	
Southwestern IL	—	—		-1.50	0.24	***
Gender of focal child						
Male (ref.)	—	—		—	—	
Female	-0.32	0.24		-0.04	0.14	
Race/ethnicity of focal child						
White (ref.)	—	—		—	—	
Black	-0.90	0.46	^	0.10	0.24	
Latino	-0.71	0.44		0.45	0.26	^
Asian/other	0.51	1.12		-0.44	0.33	
Age at subsidy start						
Age 0 (ref.)	—	—		—	—	
Age 1	-0.28	0.34		-0.59	0.19	**
Age 2	-0.66	0.35	^	-0.76	0.21	***
Age 3	-1.35	0.39	**	-0.81	0.23	**
Age 4	-3.49	0.52	***	-2.38	0.25	***
Family copay at subsidy start ($10)	0.03	0.04		-0.01	0.01	
Type of child care at subsidy start						
Center (ref.)	—	—		—	—	
Family child care	0.09	0.27		0.77	0.19	***
Informal	-1.25	0.47	**	-0.14	0.19	
Multiple	0.71	0.95		2.15	0.63	**
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	-3.10	0.31	***	-0.68	0.26	*
Title XX	-0.90	0.43	*	—	—	
Number of subsidy spells in 18 months						
1 (ref.)	—	—		—	—	
2	-0.02	0.30		1.14	0.16	***
3 or more	0.09	0.56		0.69	0.31	*
Constant	15.60	0.60	***	12.25	0.32	***

Notes: Ordinary least squares regression coefficients (B) and standard errors (SE) are shown. All models control for month of entry into the subsidy program. Ref. = reference group. — = not applicable.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Exiting and Returning

To provide a more complete picture of families' child care subsidy use patterns and stability of program use, we now examine the dynamics of exiting and returning to the program. We focus on families who exit the program and examine which families return and how quickly they return. We examine differences across states and sites, and we examine differences in these patterns by characteristics of children, families, and type of provider and case at program entry.

Descriptive Results

As shown in table 4.7, 67 percent of families in the two-site New York sample exit the child care subsidy program during the 18-month observation period. This varies by county, with 62 percent of families in Nassau County exiting and 72 percent of families in Westchester County exiting. In the two-site Illinois sample, 72 percent of all families exit the program within the observation period, with 78 percent of families in Southwestern Illinois exiting compared to 72 percent in Cook County. The shares of families exiting are significantly different between the Illinois and New York samples.

Just less than half of those families who exit the subsidy program return to the program within 18 months. Among all families in the New York sample, 27 percent exit and return; in Illinois, one-third of the sample both exits the program and returns within the observation window.

A significant share of families appears to experience very short breaks in subsidy receipt between spells. Table 4.7 shows the percentage of families who experience 1- or 2-month-long gaps in subsidy receipt in between two spells among all families who exit the program (i.e., *exiters*) and among all families who exit and reenter the program (i.e., *cyclers*). A gap is defined as the number of months between the end of the first spell and the beginning of the second spell. In New York, 24 percent of families who ever exit the program experience a 1- to 2-month-long gap, and in Illinois, 28 percent of families experience a 1- to 2-month-long gap. The percentage of exiters with a 1-month-long gap is significantly greater in Illinois (20 percent) compared to New York (15 percent). Approximately 60 percent of cyclers in both states (59 percent in New York; 63 percent in Illinois) experience a 1- or 2-month-long gap.

TABLE 4.7

Family Subsidy Exits and Subsidy Reentry over the 18-Month Observation Period

	New York				Illinois			
	Total	Nassau County	Westchester County	Sig.	Total	Cook County	Southwestern IL	Sig.
Share of full sample who exit	**67%**	62%	72%	***	**72%**	72%	78%	***
Share of full sample who exit and return	**27%**	24%	31%	**	**33%**	33%	30%	^
Share with 1-month gap among exiters[a]	**15%**	15%	16%		**20%**	21%	15%	**
Share with 2-month gap among exiters[a]	9%	9%	8%		8%	8%	7%	
Share with 1-month gap among cyclers[b]	38%	38%	37%		44%	45%	40%	
Share with 2-month gap among cyclers[b]	21%	20%	21%		18%	18%	18%	
Among subsample of families with a 12-month or shorter first spell								
Return within 1–3 months	32%	30%	33%		32%	33%	26%	**
Return within 4–6 months	9%	8%	10%		8%	8%	7%	
Return in 6+ months or never	59%	62%	57%		60%	59%	66%	**
N	1,819	1,002	817		5,893	5,163	730	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. Boldface values indicate a significant difference ($p < .05$) between the New York and Illinois estimates.

[a] Among those who exited their first subsidy spell within the 18-month observation period.

[b] Among those who exited their first subsidy spell and started a second subsidy spell within the 18-month observation period.

^ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.

Because we only observe families' subsidy trajectories for 18 months, it is difficult to estimate the average length of families' absence from the subsidy program before reentering, which we refer to as a subsidy gap. If a family's first subsidy spell is 15 months in length (i.e., we observe 15 months of continuous subsidy receipt prior to exiting), we can only observe whether they reenter the program in the 3 remaining months of their 18-month observation period. To best address this censoring issue given our data limitations, we examine the length of families' first subsidy gap after limiting the sample to families who exit the subsidy program within the first 12 months and whom we can observe for at least 6 months after their exit. As shown in the lower three rows of Table 4.7, of this subsample, about 40 percent return to the subsidy program within 6 months in both states, and about 32 percent return to the program within 1 to 3 months, again suggesting that a significant share of families experiences short breaks in subsidy receipt. The rate of return is similar between the two New York counties, but more families in Cook County return to the program within 3 months than families in Southwestern Illinois (33 versus 26 percent, respectively).

Predicting Reentry to the Subsidy Program

Tables 4.8 and 4.9 show the results of a multinomial logistic regression model predicting the speed of reentry to the subsidy program among families who exit within 12 months (i.e., their first spell is 12 months or shorter). Specifically, we model reentering the subsidy program by using the following three categories: (1) reenter within 1 to 3 months after exiting; (2) reenter within 4 to 6 months after exiting; and (3) reenter later than 6 months (after the end of the observation period) or never reentering. We show contrasts between all three categories. We present the relative risk ratios (exponentiated coefficients), which show the percentage difference in the odds of reentering the subsidy program relative to the reference category.

Results from this model suggest that families in Southwestern Illinois have about 30 percent lower odds of reentering the subsidy program within 1 to 3 months compared to families in Cook County. The results also show that in both states families with older children (particularly ages 3 and 4) have lower odds of reentering the program within either time period (1 to 3 or 4 to 6 months) compared to children younger than 12 months, suggesting that once these older children exit the program, they are more likely to be out of the program for longer periods or to never return.

In Illinois only, we find significant differences by copayment rates, type of care, and length of the first subsidy spell. Higher copayments are associated with slightly lower odds of reentering the program within 4 to 6 months versus reentering later or never reentering. Families who enter the subsidy

program with family child care relative to center-based care have about 36 percent lower odds of reentering the program within 3 months compared to reentering later or never reentering. Additionally, longer subsidy spells are associated with a lower likelihood of quickly reentering the program; families with a first spell lasting 4 to 6 months or 7 to 12 months (relative to those with a first spell lasting 1 to 3 months) have lower odds of returning to the subsidy program within 1 to 3 months relative to reentering later or never reentering. However, when we conduct sensitivity tests in which we define a subsidy exit as 2 or more months of no subsidy receipt (instead of 1 month of no subsidy receipt), we do not find a relationship between the length of the first spell and the speed of reentry, suggesting that the relationship between subsidy spell length and reentering within 1 to 3 months may be driven by families who reenter within 1 month.

TABLE 4.8

Multinomial Logistic Regression Models Predicting Reentry to Program among Families Who Exit the Program within 12 Months, New York

	(Reference category = returning in 6+ months or never)						(Reference category = returning in 4–6 months)		
	Return to Subsidy within 1–3 Months			Return to Subsidy within 4–6 Months			Return to Subsidy within 1–3 Months		
	RRR	SE	Sig.	RRR	SE	Sig.	RRR	SE	Sig.
Study site									
Westchester (ref.)	—	—		—	—		—	—	
Nassau	0.82	0.14		0.78	0.24		1.05	0.34	
Gender of focal child									
Male (ref.)	—	—		—	—		—	—	
Female	1.18	0.17		0.81	0.21		1.46	0.40	
Race/ethnicity of focal child									
White (ref.)	—	—		—	—		—	—	
Black	0.96	0.28		0.51	0.22		1.88	0.86	
Latino	0.94	0.27		0.35	0.15	*	2.67	1.21	*
Asian/other	1.21	0.85		1.45	1.32		0.84	0.82	
Age of focal child at subsidy start									
Age 0 (ref.)	—	—		—	—		—	—	
Age 1	0.71	0.14	^	0.6	0.21		1.20	0.44	
Age 2	0.67	0.14	^	0.75	0.27		0.89	0.33	
Age 3	0.54	0.12	**	0.52	0.22		1.05	0.46	
Age 4	0.36	0.11	**	0.39	0.21	^	0.91	0.53	
Family copay at subsidy start ($10)	0.97	0.03		0.88	0.07		1.10	0.09	
Type of child care at subsidy start									
Center-based care (ref.)	—	—		—	—		—	—	
Family child care	0.81	0.13		1.08	0.32		0.75	0.23	
Informal care	0.70	0.17		0.83	0.35		0.85	0.38	
Multiple provider types	1.52	0.84		0.83	0.93		1.84	2.06	
Type of case at subsidy start									
Low income (ref.)	—	—		—	—		—	—	
TANF	1.21	0.20		1.69	0.50	^	0.72	0.22	
Title XX	1.07	0.29		1.49	0.73		0.72	0.37	

	(Reference category = returning in 6+ months or never)						(Reference category = returning in 4–6 months)		
	Return to Subsidy within 1–3 Months			Return to Subsidy within 4–6 Months			Return to Subsidy within 1–3 Months		
	RRR	SE	Sig.	RRR	SE	Sig.	RRR	SE	Sig.
Length of first subsidy spell (months)									
Length 1–3 months (ref.)	—	—		—	—		—	—	
Length 4–6 months	0.80	0.15		0.72	0.24		1.11	0.38	
Length 7–12 months	1.04	0.19		0.69	0.23		1.52	0.53	
Constant	0.54	0.22		0.44	0.29		1.21	0.84	
N	1,018			1,018			1,018		

Notes: The significance (Sig.) column indicates whether coefficients are significantly different than those for the reference group (ref.). All models control for month of entry into the subsidy program. RRR = relative risk ratio; SE = standard error. — = not applicable.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

TABLE 4.9

Multinomial Logistic Regression Models Predicting Reentry to Program among Families Who Exit the Program within 12 Months, Illinois

	(Reference Category = Returning within 6+ Months or Never)						(Reference Category = Returning within 4–6 Months)		
	Return to subsidy within 1–3 months			Return to subsidy within 4–6 months			Return to subsidy within 1–3 months		
	RRR	SE	Sig.	RRR	SE	Sig.	RRR	SE	Sig.
Study site									
Cook (ref.)	—	—		—	—		—	—	
Southwestern IL	0.69	0.08	**	0.90	0.18		0.77	0.17	
Gender of focal child									
Male (ref.)	—	—		—	—		—	—	
Female	1.11	0.08		1.22	0.15		0.91	0.12	
Race/ethnicity of focal child									
White (ref.)	—	—		—	—		—	—	
Black	1.18	0.14		1.76	0.39	*	0.67	0.16	^
Latino	1.11	0.14		1.15	0.29		0.97	0.25	
Asian/other	0.69	0.12	*	1.20	0.36		0.57	0.18	^
Age of focal child at subsidy start									
Age 0 (ref.)	—	—		—	—		—	—	
Age 1	0.97	0.09		1.11	0.17		0.87	0.14	
Age 2	0.71	0.08	**	0.77	0.14		0.92	0.18	
Age 3	0.66	0.08	***	0.53	0.12	**	1.25	0.29	
Age 4	0.48	0.06	***	0.47	0.11	**	1.02	0.25	
Family copay at subsidy start ($10)	1.00	0.01		0.97	0.01	**	1.03	0.01	**
Type of child care at subsidy start									
Center (ref.)	—	—		—	—		—	—	
Family child care	0.64	0.06	***	0.91	0.15		0.70	0.12	*
Informal	0.88	0.08		0.91	0.14		0.97	0.16	
Multiple	0.70	0.26		0.26	0.27		2.68	2.82	
Type of case at subsidy start									
Low income (ref.)	—	—		—	—		—	—	
TANF	1.12	0.14		0.88	0.19		1.27	0.28	

	(Reference Category = Returning within 6+ Months or Never)						(Reference Category = Returning within 4–6 Months)		
	Return to subsidy within 1–3 months			Return to subsidy within 4–6 months			Return to subsidy within 1–3 months		
	RRR	SE	Sig.	RRR	SE	Sig.	RRR	SE	Sig.
Length of first subsidy spell (months)									
Length 1–3 months (ref.)	—	—		—	—		—	—	
Length 4–6 months	0.68	0.06	***	0.95	0.15		0.72	0.12	*
Length 7–12 months	0.80	0.08	*	0.89	0.15		0.91	0.16	
Constant	0.84	0.14		0.16	0.05	***	5.18	1.63	***
N	3,920			3,920			3,920		

Notes: The significance (Sig.) column indicates whether coefficients are significantly different than those for the reference group (ref.). All models control for month of entry into the subsidy program. RRR = relative risk ratio; SE = standard error. — = not applicable.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Sensitivity Analyses

We perform several sets of sensitivity analyses to test the robustness of the results presented above. First, we examine whether the results are sensitive to our definition of a subsidy program exit as a one-month or longer period of no subsidy receipt. Although our definition of an end to a spell means a family receives no subsidized child care in a given month, we confirm that relaxing this definition to two months does not change the pattern of results reported here. Table 4.10 presents descriptive statistics defining a subsidy exit as a two-month or longer period of no subsidy receipt and shows that our results are very similar to those presented above. Not surprisingly, median spell lengths are slightly longer using this definition, but the pattern of results is the same.

Next, we examine whether our results are sensitive to the use of family-level administrative data rather than child-level data. Child-level data are available for the full administrative data sample in New York, but only for about 86 percent of the full sample in Illinois. We present descriptive results in table 4.11. The results using child-level data are consistent with those using family-level data, suggesting that using family-level data is not biasing our results.

Finally, because the two sites in New York and the two sites in Illinois appear to be quite different in some important ways, we examine whether there are any significant interactions by site in our analyses of subsidy exits, number of spells, total months of subsidy receipt, and reentry into the subsidy program. The results suggest the findings we present above are similar across sites within each state (results are not shown).

TABLE 4.10

Subsidy Descriptive Statistics Using a Two-Month Definition of a Gap in Subsidy Receipt

	New York				Illinois			
	Total	**Nassau**	**Westchester**	**Sig.**	**Total**	**Cook**	**Southwestern IL**	**Sig.**
Median survival time	**13**	14	11	*	**11**	12	8	*
Share with first spell between 1–3 months long	13%	13%	13%		12%	11%	18%	***
Share with first spell between 1–6 months long	**27%**	25%	30%	*	**38%**	37%	45%	***
Share with first spell between 1–12 months long	**49%**	45%	55%	***	**58%**	57%	65%	***
Total number of spells								
1	82%	84%	79%	**	80%	80%	81%	
2	**16%**	14%	20%	**	**19%**	19%	18%	
3 or more	2%	2%	1%		1%	1%	2%	^
Share of full sample who exit	61%	56%	66%	***	63%	62%	71%	***
Share of full sample who exit and return to subsidy	18%	16%	21%	**	20%	20%	19%	
Share with 1-month gap among exiters[a]	0%	0%	0%		0%	0%	0%	
Share with 2-month gap among exiters[a]	10%	9%	11%		10%	11%	9%	
Share with 1-month gap among cyclers[b]	0%	0%	0%		0%	0%	0%	
Share with 2-month gap among cyclers[b]	33%	32%	35%		33%	33%	32%	
Among subsample of families with a 12-month or shorter first spell:								
Return within 1–3 months	17%	16%	18%		16%	16%	14%	
Return within 4–6 months	8%	8%	9%		10%	10%	8%	
Return in 6+ months or never return	74%	76%	72%		75%	74%	77%	
N	1,819	1,002	817		5,893	5,163	730	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. Boldface values indicate a significant difference ($p < .05$) between the New York and Illinois estimates.

[a] Among those who exited their first subsidy spell within the 18-month observation period.

[b] Among those who exited their first subsidy spell and started a second subsidy spell within the 18-month observation period.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

TABLE 4.11

Subsidy Descriptive Statistics Using Child-Level Data on Focal Children

	New York				Illinois			
	Total	Nassau	Westchester	Sig.	Total	Cook	Southwestern IL	Sig.
Median survival time	**11**	12	10	*	**8**	9	6	*
Share with first spell between 1–3 months long	16%	16%	16%		17%	16%	21%	***
Share with first spell between 1–6 months long	**32%**	30%	35%	**	**46%**	45%	51%	**
Share with first spell between 1–12 months long	**57%**	51%	64%	***	**68%**	67%	74%	**
Total number of spells								
1	**72%**	76%	67%	***	**67%**	66%	69%	
2	**22%**	19%	27%	***	**27%**	28%	25%	
3 or more	5%	5%	6%		6%	6%	6%	
Total length of subsidy receipt (months)								
Mean	**12.7**	13.0	12.3	**	**11.9**	12.1	10.5	***
Standard deviation	5.4	5.5	5.3		5.5	5.4	5.8	
Minimum	1	1	1		1	1	1	
Median	14	15	13	***	12	13	10	***
Maximum	18	18	18		18	18	18	
Share of full sample who exit	**67%**	62%	73%	***	**74%**	73%	79%	***
Share of full sample who exit and return to subsidy	**28%**	24%	33%	***	**33%**	34%	31%	
Share with 1-month gap among exiters[a]	**16%**	15%	18%		**20%**	21%	16%	*
Share with 2-month gap among exiters[a]	8%	7%	9%		8%	8%	6%	
Share with 1-month gap among cyclers[b]	39%	39%	39%		45%	46%	42%	
Share with 2-month gap among cyclers[b]	19%	19%	20%		17%	17%	16%	
Among subsample of families with a 12-month or shorter spell								
Return within 1–3 months	32%	30%	34%		32%	33%	26%	**
Return within 4–6 months	9%	8%	10%		8%	8%	7%	
Return in 6+ months or never return	59%	63%	56%	*	60%	59%	67%	**
N	1,819	1,002	817		5,094	4,461	633	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. Boldface values indicate a significant difference ($p < .05$) between the New York and Illinois estimates.

[a] Among those who exited their first subsidy spell within the 18-month observation period.

[b] Among those who exited their first subsidy spell and started a second subsidy spell within the 18-month observation period.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Summary and Conclusions

In this chapter, we describe the patterns of child care subsidy use and stability over an 18-month period in the four study sites in Illinois and New York. We focus on how the patterns differ across and within states, and on what child, family, and child care characteristics are associated with different subsidy patterns. As expected, we find that child care subsidy spells are short in duration, with a median length of 9 months in Illinois and 11 months in New York. This finding is similar to the results found using data from the late 1990s in five states (Meyers et al. 2002). We also find variation across the two states in terms of spell lengths, suggesting that recertification periods are likely associated with the length of child care subsidy spells. In New York spells are longer than in Illinois, and this is consistent with a typical recertification period that is 6 months longer in New York. Additionally, we find that TANF cases in New York, which have a 6-month recertification period, have significantly shorter spells (median spell is 6 months) than non-TANF income-eligible cases (median spell is 13 months), suggesting that the length of recertification periods matters for subsidy stability.

Our findings suggest that families exit and reenter the program at high rates. Overall, about two-thirds of families in New York and almost three-quarters of families in Illinois exit the subsidy program within 18 months, and more than half (56 percent in New York; 67 percent in Illinois) exit within 12 months. Moreover, in both states, among families who exit the program within 12 months, about one-third return within 3 months, and about 40 percent return within 6 months. Although families in both states experience substantial churning in and out of the program, when we examine families' total number of subsidy spells and total number of months of subsidy receipt within the 18-month observation period, we find that families in New York experience fewer spells and spend a slightly longer amount of time in the subsidy program compared to families in Illinois, again suggesting that difference in subsidy program parameters across states affect subsidy stability.

We also find that child age, type of care, and TANF receipt are associated with different subsidy patterns. As expected, we find that older children (particularly 3- and 4-year-olds) experience shorter subsidy spells than younger children and are less likely to reenter the subsidy program after an exit. We also find that older children experience fewer total spells and fewer total months of subsidy receipt during the 18-month observation period. This finding is consistent with the expectation that older children move into other publicly subsidized preschool programs or enter school and require less child care over time relative to younger children.

Type of care at entry is also associated with families' risk of leaving the subsidy program, particularly in Illinois. Families in Illinois using licensed family child care, informal license-exempt care,

or multiple providers have a lower rate of exit relative to families using center-based care in the first few months of receipt. However, over time, families who enter the program using informal care become as or more likely to exit relative to families who start in center-based care. Moreover, we find that families who enter the program with a center-based provider experience more subsidy spells over time and are more likely to reenter the program more quickly after an exit compared to families in licensed family child care. Given that families who enter the program with a center-based provider experience more churning in and out of the program, it is not surprising that they also use the program for a shorter number of total months relative to families in licensed family child care. We observe no differences in subsidy stability in Illinois between families who enter the program with a center-based provider and those who enter with a license-exempt informal provider, suggesting that families in licensed family child care in Illinois experience more stability in subsidy use than those in center-based care or informal care. In New York, we find that families who enter the program with a license-exempt informal provider experience a greater risk of exiting the program and fewer total months of subsidy receipt relative to families in center-based care, but no other differences by care type. These different findings across states suggest that the relationship between type of care and subsidy stability depends on the state context and is consistent with prior research that found no clear patterns in these relationships across states (Meyers et al. 2002).

With regard to TANF receipt, particularly in New York, we find that TANF-eligible cases have a higher risk of exiting the program and experience more churning (a greater number of spells) and fewer total months of subsidy receipt relative to non-TANF income-eligible cases. Thus, some of the most economically disadvantaged families in the subsidy system appear to be most at risk of instability.

Chapter 5. Determinants of Subsidy Stability

This chapter examines demographic, employment, child care, and subsidy program factors associated with the duration of subsidy spells based on analysis of linked survey-administrative data. Short spells on the subsidy program can thwart the child care assistance program's goal of supporting families in their employment and child care needs. We know from the broader literature that subsidy spells tend to be short, often similar in length to the state eligibility period. In chapter 4 we confirmed these prior findings with our analyses of child care administrative records in Illinois and New York, where we found that the median survival time on the program is 9 months in Illinois (6 months in Southwestern Illinois; 9 months in Cook County) and 11 months in New York (12 months in Nassau County; 10 months in Westchester County). About one-third of families in New York and over two-fifths in Illinois leave the subsidy program after only 6 months (16 percent had spells lasting 3 months or shorter in both states). Overall, two-thirds of subsidized families (67 percent in New York; 72 percent in Illinois) experience a break from the subsidy program at some point within the 18-month observation period. Although almost half of those families who exit return during this 18-month period, a break in subsidy receipt nevertheless represents instability in program use, which may challenge the ability of families to maintain child care and employment. By examining factors associated with subsidy exits, as we do in this chapter, we can better understand the kinds of experiences that contribute to subsidy instability.

We began to address the question of what predicts a subsidy exit in chapter 4, in which we examined correlates to leaving the program. However, our ability to do so was limited to the small number of variables included in the administrative data (i.e., tenure on the program, site, child age and gender, race/ethnicity, month of subsidy start, family copay, type of care, and type of case). Overall, we found that preschoolers have shorter subsidy spells than infants and toddlers; that children in Southwestern Illinois have shorter subsidy spells than those in Cook County; and that children with Temporary Assistance for Needy Families (TANF) cases in New York have shorter subsidy spells than those with low-income or Title XX cases. We also found that type of care at entry is associated with leaving the program sooner, particularly in Illinois. Illinois families in the two sites who use licensed family child care, informal licensed-exempt care, or multiple providers have a lower rate of exit relative to families using center-based care in the first few months of receipt. However, over time, families who enter the program using informal care become as or more likely to exit relative to families who start in center-based care. In other words, informal care is related to more stable initial subsidy use, but in the

long term, families using these providers experience more subsidy instability. This instability is potentially due to complications recertifying, but it may also be related to the availability or reliability of the provider.

To further explore the factors that contribute to a subsidy exit, we turn to the survey data, which include a rich set of variables related to parental employment, child care provider characteristics, and subsidy program experiences.

Methods

Analytic Approach

The sample used for these analyses includes 558 survey respondents for whom we have valid information on the month of subsidy exit. We use the same 18-month observation period used for the administrative data analyses presented in chapter 4. We first compare respondents who exited the subsidy program during the 18-month observation period to those who remained in the program on each of the covariates in the multivariate model. Using a Cox proportional hazards model, we then estimate the relationship between the duration of the first child care subsidy spell (in months) and these covariates; in a second model, we reestimate these models with the inclusion of an interaction term between state and TANF. We conduct all analyses using the full survey sample, rather than separately by state, given the large number of covariates in our model relative to the survey sample size.

We suspect there may be differences in the duration of subsidy spells for TANF participants in New York and Illinois regions partly as an artifact of how TANF participants entered our sample. In particular, in New York counties, we included families in our sample who were eligible for child care assistance because they were receiving TANF, regardless of whether they were employed, and thus their subsidy was funded with TANF dollars. These clients had a 6-month rather than 12-month eligibility period. In Illinois, we only sampled low-income, employed child care subsidy participants and did not sample from the TANF-subsidy caseload. Thus, the TANF participants that enter our sample in Illinois are using the subsidy program for employment reasons and not because they are in a TANF job training program or otherwise identified as a TANF child care case. Like other Illinois clients, these families also have a 6-month eligibility period.

The Cox model adjusts for the right-side censoring of subsidy spells in the data and estimates hazard (or risk) ratios of each independent variable. The hazard ratio can be interpreted as the chance of exiting the subsidy program relative to the baseline (or reference) group. A hazard ratio below 1 indicates a lower risk, and above 1 indicates a higher risk of exiting the subsidy program.

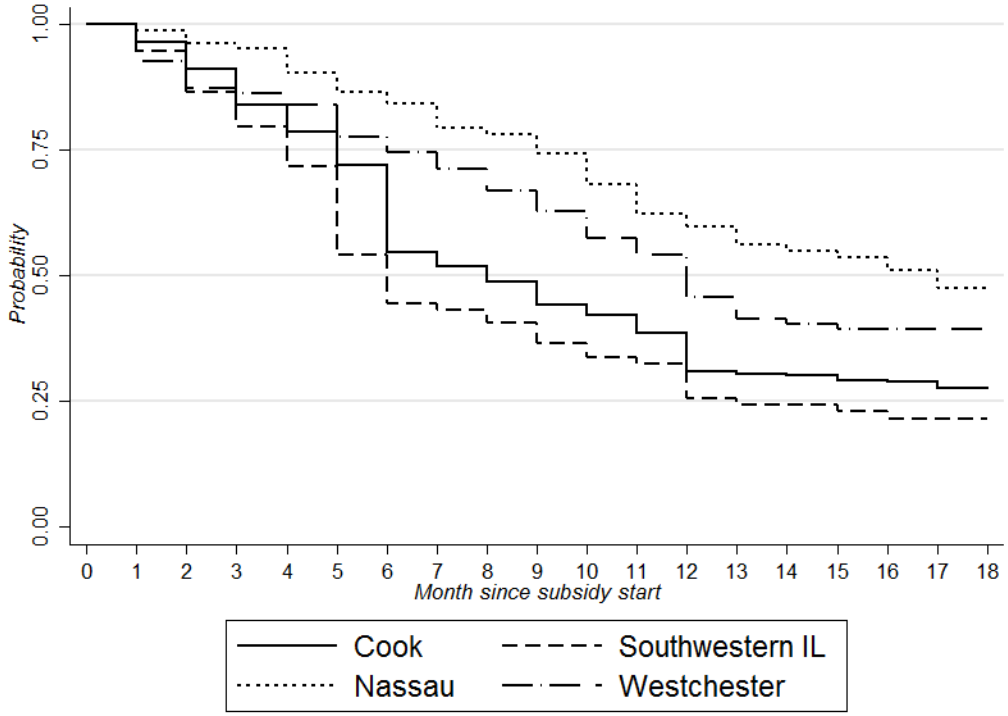
Dependent Variable

The key dependent variable is the month in which the respondent exited the program during the 18-month observation window ("no exit during 18 months" is a valid value). As with the administrative data analyses reported in chapter 4, the month of exit from the program is defined as the last month the family received the subsidy. For example, if a family had a 6-month-long first spell, they would exit in month six. To determine whether a respondent exited the program during this time, we linked the respondent survey data to the administrative child care records for the subset of New York and Illinois respondents who agreed to have their survey data linked (87 percent of the sample). For the nonconsenting cases, we relied on self-reported responses to a survey item asking whether they had left the subsidy program, and if so, the date of the exit. This process provided us data for 33 additional cases from the nonconsenting respondents.

Overall, 68 percent of survey respondents exited the subsidy program and 32 percent remained on the program continuously during the 18-month observation period. The Kaplan-Meier survival curves displayed in figure 5.1 illustrate that the Illinois survey respondents left the program more quickly than the New York respondents, consistent with the results presented in chapter 4 that used administrative data from the full sampling frame.

FIGURE 5.1

Kaplan-Meier Survival Curve of First Subsidy Spell for Illinois and New York Survey Respondents by Site



Source: Telephone survey data collected by authors.

Independent Variables

The independent variables include *region* (Westchester, Nassau, and Cook Counties and Southwestern Illinois), a set of *demographic variables* (i.e., parent's age, race, immigrant status, education level, household structure, focal child's age, number of subsidized children, and an indicator of whether the family receives TANF), a set of variables describing the parent's *employment situation* (i.e., held same job before entering subsidy program, job loss within first six months of subsidy receipt, number of weekly work hours, and six indicators of work schedule characteristics), *child care experience variables* (i.e., type of subsidized child care at start of subsidy, whether the subsidized provider is the primary provider, whether the subsidized provider was used before subsidy start, subsidized provider flexibility, perceived safety of the subsidized provider, and whether the respondent uses the subsidized provider for nonstandard hours), and *subsidy program variables* (i.e., work hours covered by subsidy, difficulty finding a provider, application difficulties, application delay, and payment problems). The specific definition and operationalization of each of these variables is described in chapter 3.

Table B.5.1 in appendix B provides bivariate descriptive statistics for each of the independent variables by whether the family exited the subsidy program during the 18-month window. These descriptive statistics do not adjust for right-side censoring as is done in the multivariate hazards model reported below.

A few additional coding decisions used in the multivariate models are worth noting. First, because of the survey sample size, we use a dichotomous (white/nonwhite) rather than a multinomial (race/ethnicity) variable, and we code the type of child care used at subsidy start by using three rather than four categories. Specifically, unlike our method in chapters 4 and 6, here we do not include multiple providers as a fourth care category. Rather, we classify the handful of multiple care users in the survey according to the most formal provider used.[16]

Second, although chapters 4 and 6 run separate multivariate models for each state, here we combine survey data on both states, and we include dummies representing each site, using Westchester County as the reference category. We treat Westchester as the referent category because the two Illinois sites both have a 6-month eligibility period, and the Nassau County site has a 6-month employment verification requirement (i.e., "mini-recertification"). Therefore, the coefficients for each site offer a comparison with a 12-month eligibility period with no interim employment verification requirement. We expect Westchester County respondents to have a longer first subsidy spell given their longer eligibility period.

Finally, we control for seasonality of entry into the child care subsidy program to account for differences in sampling methods across states (i.e., March through December 2011 subsidy start dates in New York and August 2011 through February 2012 subsidy start dates in Illinois). To conserve power in our survey analyses, we use a slightly different construction of month of subsidy entry than is done in chapter 4, which uses the larger administrative sample. Specifically, we do not enter every month as a separate dummy variable but rather construct groups of months based roughly on season. Entrants are grouped as winter (January and February), spring (March, April, and May), summer (June and July), and late fall (November and December), with early fall entrants (August, September, and October) as the reference group.

Results of Multivariate Analyses

The Cox proportional hazards model estimates the hazard (or risk) ratios for each independent variable in the multivariate model. The hazard ratio can be interpreted as the likelihood of exiting the

subsidy program relative to the baseline (or reference) group. The full model results are presented in table 5.1.

Site Differences

As expected, there were important differences by study site in the risk of leaving the subsidy program during the 18-month window. Compared to families in Westchester County who have a 12-month eligibility period, Illinois families—who face a 6-month eligibility period—have an increased hazard of exiting the program during the 18-month window. Specifically, Cook County families have a 35 percent greater risk and Southwestern Illinois families over a 100 percent greater risk of leaving the subsidy program during the 18-month window as compared to Westchester County families. Despite the 6-month employment verification requirement in Nassau County, these families nevertheless have a lower hazard of leaving the subsidy program as compared to those in Westchester County.

TABLE 5.1

Cox Proportional Hazard Models of the Likelihood of Exit from Subsidy Program within 18 Months of Entry (*N* = 558)

Independent variable	HR	SE
Study site		
Westchester (ref.)	—	—
Cook	1.29**	(0.13)
Southwestern IL	1.90***	(0.24)
Nassau	0.68***	(0.064)
Demographic variables		
Parent's age	0.99	(0.008)
Race		
White (ref.)	—	—
Nonwhite	1.25	(0.21)
Education		
High school diploma or less (ref.)	—	—
Some college/associate's degree	1.00	(0.089)
Bachelor's degree or higher	1.16^	(0.093)
Immigrant status	0.72***	(0.055)
Household structure		
Single, no adults (ref.)	—	—
Single, living with adults	0.98	(0.045)
Living with partner	1.50**	(0.18)
Age of focal child at subsidy start	1.09***	(0.021)
Number of subsidized children at subsidy start	0.94	(0.037)
Family receives TANF	1.2	(0.27)

Independent variable	HR	SE
Amount of family child care copayment ($10)	1.031	(0.010)
Employment Variables		
Number of hours worked per week	0.99***	(0.0013)
Early job loss (within first six months of subsidy receipt)	1.46***	(0.16)
Number of nonstandard shifts	0.99	(0.019)
Work hours vary a lot/sometimes	0.78^	(0.11)
Unexpected work (very often/sometimes has to go into work unexpectedly or stay later than scheduled)	1.22*	(0.11)
Limited advance notice of work hours (one week or less notice)	0.99	(0.077)
No input into work schedule	1.24***	(0.067)
Very difficult to take off working during the day to attend to family matters	0.99	(0.038)
Had a job before the subsidy	1.12**	(0.038)
Child Care Variables		
Used the same provider before the subsidy start	1.02	(0.078)
Type of subsidized provider at start		
Center (ref.)	—	—
Licensed family child care	0.87*	(0.053)
Informal care	0.84	(0.11)
Provider flexibility index	1.03	(0.079)
Respondent feels child is safe and secure with provider	0.70***	(0.059)
Provider offers any nonstandard hours of care (morning, evening, night, and/or weekend)	0.95	(0.11)
Subsidy Experience Variables		
Difficulty finding a provider	1.10^	(0.054)
Difficulty with application process	1.12***	(0.036)
Took a long time for application to be approved	1.09*	(0.046)
Provider ever had a problem receiving payment from program	1.09	(0.11)
Work hours covered by subsidy	0.94**	(0.023)
Subsidy used for primary provider at start	0.55***	(0.068)

Notes: Sample is restricted to respondents for whom month of subsidy exit is known. Model includes controls for the season of entry into the subsidy program, though coefficients are not shown. HR = hazard ratio; SE = standard error; ref. = reference group. — = not applicable.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Demographic and Employment Variables

We find important demographic differences in the hazard of leaving the program during the 18-month window. In particular, immigrants have a lower hazard of exiting as compared to natives, and the hazard of exiting the program is marginally lower for families with more children on the subsidy

program. Respondents with a bachelor's degree or higher compared with a high school diploma or lower and those whose children are older at the start of the subsidy program have a somewhat greater risk of leaving the subsidy program. Compared to respondents living alone with their children, those living with a partner have a 48 percent greater hazard of leaving the program. None of the other demographic variables show statistically significant associations with exiting the subsidy program during the 18-month window.

Employment characteristics are also related to risk of leaving the subsidy program. Not surprisingly, respondents who experience early job loss—defined as exiting their job within 6 months of entering the subsidy program—have a 50 percent higher hazard of leaving the program in the 18-month observation period. Survey respondents who work more hours per week have a somewhat lower risk of exiting the program, but respondents who report holding a job that requires them to work unexpected hours and schedules over which they have no control have a higher risk of exiting the program. Somewhat unexpectedly, respondents reporting variable work hours have a marginally lower risk of exiting the subsidy program than those without variable work hours, and those working nonstandard hours show no elevated risk of leaving the subsidy program during the observation period. Respondents in 15 cases were unemployed at the start of the subsidy program. In the multivariate analyses, these cases are included and their employment characteristics set to 0. Sensitivity analyses excluding these 15 cases from these models showed no substantive differences.

Child Care and Subsidy Experience Variables

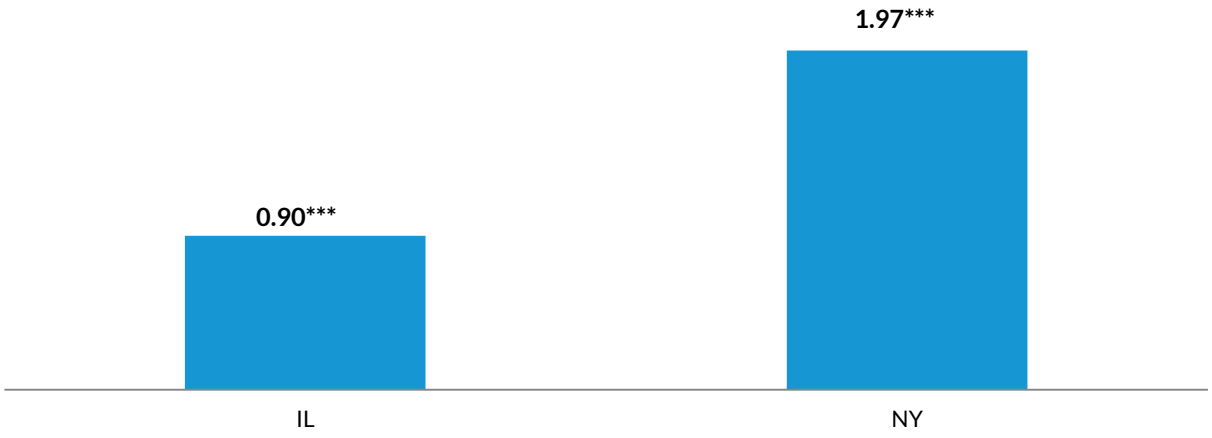
The hazard of leaving the subsidy program is lower for respondents who use a licensed home-based provider (compared to a center) and who report that their child always or frequently feels safe and secure with his or her provider (compared to rarely, sometimes, or usually).

Several subsidy characteristics are related to the risk of leaving the subsidy program during the 18-month observation window. In particular, respondents who use the subsidy to help pay for their primary child care provider (i.e., the provider who cares for the child for the most hours in a week) have a lower risk of leaving the subsidy program. Those who report that the subsidy covers more work hours also have a lower risk of leaving the subsidy program. Respondents who report having difficulty finding a child care provider and respondents who report finding the application process difficult or that it took a long time for the application to be approved have a greater risk of leaving the subsidy program during the 18-month observation window.

Although families who receive TANF do not show a greater hazard of leaving the subsidy program than non-TANF recipients, subsequent analyses that assess the interaction of TANF by state demonstrate that TANF recipients experience different risks of leaving the subsidy program in Illinois and New York. In particular, the hazard of leaving the subsidy program during the 18-month period is almost twice as great for TANF recipients relative to non-TANF recipients in New York. In Illinois, however, TANF recipients have a slightly lower risk of exiting the subsidy program during the observation window than their non-TANF counterparts (see figure 5.2). This difference in behavior between the TANF and non-TANF groups by state likely explains why a main effect for TANF is not observed in the full regression model (as shown in table 5.1).

FIGURE 5.2

Hazard Ratio for TANF Relative to Non-TANF Participants by State



Source: Telephone survey data collected by authors.
Note: Comparison group is non-TANF. Hazard ratios are adjusted for all model covariates (see table 5.1).
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Reasons for Leaving the Subsidy Program

To further explore the determinants of leaving the subsidy program, we close this chapter with an exploration of descriptive findings in response to a survey item asking respondents about their self-reported reasons for leaving the subsidy program. The actual survey item asks: *"I'd like to know more about why you stopped receiving help to pay for child care. Please answer YES or NO to each of the following reasons for why you stopped receiving assistance from the child care assistance program."* As the wording indicates, more than one affirmative response was possible. The options included y*ou stopped working or lost your job*, *you were no longer eligible because of an increase in your family income*, *it was too much*

trouble for you to stay in the program, *your child care provider stopped accepting payments from the child care assistance program*, *you no longer needed help to pay for child care*, *you switched child care providers*, *you no longer needed child care*, and *other*. Several responses were provided in the *other* category that were recoded into one of the seven options by our analysis team or placed in a new category. In 14 cases, we chose to leave the response as *other* because it could not be classified into one of the existing categories and was too vague to otherwise identify. In coding responses to this survey item, we are aided by findings from the qualitative companion study, which provided insights into our interpretation of some responses as indicated below.

TABLE 5.2

Reasons That Subsidy Assistance Stopped (*n* = 308)

	n	%
Not in an approved activity (e.g., lost job, went back to school, school ended)	99	32.14
No longer eligible due to changes in income	52	16.88
Subsidy-related issue		
Subsidy-related paperwork issue (e.g., client did not send paperwork, subsidy office processing issue, employer refused to sign paperwork)	71	23.05
Subsidy program state funding issue (lack of funds)	8	2.60
Other subsidy-related eligibility issue	7	2.27
Child care too costly even with subsidy	6	1.95
Child care provider issue		
Switched child care providers	41	13.31
Child care provider stopped accepting the subsidy	20	6.49
Other child care provider issue	24	7.79
No longer needed the subsidy		
No longer needed child care	66	21.43
No longer needed help to pay for child care	46	14.94
Child aged out	9	2.92
Maternity leave	5	1.62
Chose to end assistance	2	0.65
Moved	16	5.19
Other	14	4.55

Note: More than one reason code may apply to a subsidy exit. Therefore, the column total will add to greater than *n* = 308. Thirty percent of the sample reports more than one reason code. We did not impute reasons for exiting for respondents who did not answer this survey question.

The most common reason given for why the subsidy stopped is that the respondent was no longer in an approved activity qualifying her for the subsidy program—32% of responses fall into this category (see table 5.2). Employment loss is one of the primary reasons included here, although eligibility problems related to returning to school and school ending are also included. This study did not focus on education-related issues shaping subsidy trajectories, but these responses, as well as

findings from our qualitative study, suggest that school schedules, the increase in online classes, and eligibility rules related to these aspects of education pose unique challenges that require further research and policy attention. The regions we studied have different eligibility requirements and practices for parents pursuing further education.

The second reason we explore concerns income changes. Almost 17 percent of survey respondents report that they stopped receiving child care assistance because of income changes. Income changes can occur for a variety of reasons, including employment circumstances of the respondent or her partner, and additional income sources not related to employment, such as child support and social security, can place a family's income over the income eligibility limit. Based on our qualitative study findings, we suspect some of these income changes are temporary, perhaps the result of a one-time bonus or a temporary increase in work hours.

These two reasons—not in an approved activity and income changes—represent almost 50 percent of the responses given by respondents for why their subsidy assistance stopped. Other reasons identified by over 30 percent of respondents concern issues with the subsidy program. These are overwhelmingly due to paperwork or communication problems with the subsidy office. Other subsidy-related issues identified by a small number of respondents include problems with the program "running out of funds," which disrupts subsidy access (n = 8), and problems related to the high cost of child care expenses beyond what is covered by the subsidy (n = 6). Finally, an additional seven respondents identified other miscellaneous subsidy-related issues particular to their case. The range of subsidy-related reasons identified here is discussed in greater detail in our qualitative study.

Another one-quarter of responses concern various child care provider-related issues; about half of that one-quarter mention child care provider changes that resulted in a loss of the subsidy. Based on survey data alone, we are unable to tell whether respondents who switched child care providers no longer needed the subsidy, whether they experienced an undesired subsidy exit as a result of miscommunication with the subsidy office about the child care provider change, or whether they switched to a provider who herself was not eligible or did not want to accept the subsidy. All of these seem like viable possibilities, and each example is supported by evidence from the qualitative study. The other two provider-related reasons concern the provider not accepting the subsidy (n = 20) or another undefined child care-related issue (n = 24).

Over one-third of the survey responses indicate that either the respondent no longer needed child care (n = 66), no longer needed help to pay for child care (n = 46), or chose to end the assistance (n = 2). There is not sufficient information in these responses to further identify why child care or the subsidy

was not needed. This change could be the result of a job loss or school ending, or because of a family structure change or earnings increase. In nine cases respondents note that the child aged out of the program, which in this study, given that all focal children were non-school age, meant that a preschooler started school and not that the child was no longer of subsidy-eligible age.

Five respondents reported maternity leave as a reason for stopping assistance. Although we have classified that reason under the broad category "no longer needed the subsidy," qualitative interviews with some of these same women suggest that some new mothers would prefer to have their older child remain in child care after the birth of a new child but are prevented from doing so due to program rules. In fact, the study sites varied in whether they allowed mothers in the program to continue receiving assistance while home on maternity leave. Illinois allows up to 12 weeks of coverage for mothers whose jobs will be available upon return, but New York does not provide any assistance; cases in New York are not necessarily closed, but payments are suspended until the mother has returned to work.

In 16 cases (5 percent), respondents reported that their assistance stopped because of a residential move. It is unclear from these responses whether the move inadvertently disrupted subsidy receipt because of complications with an address change (e.g., undelivered recertification paperwork) or whether these moves involved cross-county or state moves that may have required the case be closed and reopened in a different region. We observe both kinds of reasons for subsidy exits in our qualitative study.

Summary and Conclusions

This chapter sheds light on the factors that explain why families leave the subsidy program. Taking into account a rich set of covariates drawn from both administrative and survey data, we estimate the risk of exiting the subsidy program during an 18-month observation window. Our findings reinforce the importance of the local eligibility period in explaining a subsidy exit. We find that New York respondents stay in the program longer than Illinois respondents, and exits from the program appear to be clustered around the two distinct eligibility periods of 12 and 6 months, respectively (as illustrated in figure 5.1). In the Illinois study sites, a disproportionate drop from the program occurs around 6 and 12 months, both points at which respondents would face the requirement to recertify their eligibility for benefits. These results mirror the subsidy spell analyses in chapter 4 that rely on longitudinal administrative data for the study population.

The results also suggest that several other factors, in addition to the length of the eligibility period, are related to the risk of leaving the program within 18 months of entering. We find that family demographics, child care and employment characteristics, and subsidy program experiences are all important predictors. For example, several demographic variables, including parent's educational attainment, child's age, parent's immigration status, and number of children on the subsidy program, show clear relationships to exiting the subsidy program. Although immigrant families and those with multiple subsidized children appear to be more stably enrolled, parents with a bachelor's degree (compared to those with no more than a high school diploma) are more likely to leave the program, suggesting that they are earning too much to qualify for continuous assistance.

Our observations of TANF–state interactions also suggest that TANF operates differently in Illinois (where TANF recipients had a lower hazard of leaving the program than non-TANF recipients) than in New York (where TANF recipients faced an increased hazard of exit). This state difference might reflect our sampling strategy, which captured TANF participants with unique routes into the subsidy program in the two states. Specifically, all TANF participants in the Illinois sample were using the TANF program for employment reasons, but in the New York sample, many of the TANF participants were enrolled in job training or other work-readiness programs that were short-term or temporary placements. Had we sampled Illinois TANF recipients who used the subsidy program for reasons other than employment, we might have found higher risks of exit relative to their non-TANF counterparts such as we observed in New York.

As expected, unemployment contributed to a heightened risk of exiting the subsidy program, as did employment in a job with unexpected hours and limited schedule control. However, variable and unpredictable work and nonstandard-hour work were not associated with a heightened risk of subsidy exit. This finding is somewhat unexpected, especially given qualitative interview findings that indicate participants with nonstandard, variable, and unpredictable schedules have difficulties finding child care to match their work schedules and have difficulties meeting subsidy rules and maintaining their subsidies. The disconnect between some of the survey and qualitative finding requires further study. It is possible that the jobs subsidy recipients find are challenging in a variety of ways for maintaining stable subsidy access, and that some of the work schedule items we include in the survey do not pose challenges beyond the other job characteristics. In survey analyses not reported here, we find that the work schedule items are significantly related to challenging subsidy application experiences in the ways we would expect; however, we find no evidence that this relationship mediates the relationship between work schedules and subsidy exits.

We find that working fewer hours is related to a greater risk of subsidy exit. This finding suggests that participants in low-hour jobs may not find the reduced value of the subsidy program sufficient to justify the difficulties of maintaining enrollment, or perhaps low-hour jobs are unique in other ways (unaccounted for in our multivariate models) that complicate continued program enrollment. In the case of the two New York counties that have a 20-hour minimum work requirement, participants who reported fewer work hours may disproportionately dip below the hour minimum during their subsidy spells and face exits due to program ineligibility. Importantly, there is no evidence that participants working a greater number of hours are disproportionately subject to an earnings cliff, net of other correlated factors accounted for in the multivariate models.

We expected certain child care variables, especially the provider flexibility index and the availability of nonstandard care hours, to be associated with a lower risk of exiting the subsidy program; however, we did not find this to be the case. However, the respondent's perceived safety of the provider—a proxy for perceived provider quality—is related to a lower risk of subsidy exit, suggesting that parents' satisfaction with their provider may facilitate subsidy stability. It is possible that the null results are due to some multicollinearity among individual child care variables and with the job schedule variables. When we adjust only for demographic variables in the multivariate model (analyses not shown), we find slightly stronger associations between the individual child care variables and the outcome. Specifically, having greater provider flexibility is marginally associated with a lower risk of a subsidy exit ($p < .10$). Thus, we would not interpret the absence of an association for child care provider flexibility, for example, to mean that provider flexibility is unimportant to maintaining a subsidy, but rather that it may be confounded with other key variables in our multivariate model.

Finally, our findings suggest that families who have challenges with the subsidy program have an elevated risk of leaving the program. This result is a cause for concern because we know from our descriptive survey results (see chapter 3) that a significant percentage of respondents experience challenges or delays with their subsidy application. Our qualitative findings also suggest that in addition to application difficulties, challenges with recertification contributed to premature subsidy exits for many respondents. However, we were unable to include items about recertification in our survey analyses given that not all survey respondents stayed in the program long enough to engage in the recertification process. Lastly, we find that when the subsidy does not cover all the hours the family needs, families are at a higher risk of leaving the program. Qualitative evidence points to cases in which clients are approved for a fixed work schedule or a total number of hours but are occasionally required to work beyond those hours and must then pay out of pocket for care unless their provider

does not request payment. In such cases, the subsidy may have less value to the client and may not be worth the effort to maintain.

Chapter 6. Stability of Child Care Providers during Subsidy Spells and Exits

The stability of child care providers is vital to both stable employment and the quality of care children receive. We know children may change child care providers for a number of reasons, and not all changes reflect a form of instability that is harmful for children. But the sudden ending of a relationship with a provider that is unplanned, undesirable, or occurs in the context of a stressful situation (e.g., job loss; loss of child care assistance; a provider who quits, refuses to provide, or stops accepting a subsidy) can have negative consequences for children and their families [see Sandstrom and Huerta (2013) for a review of literature].

Although child care subsidies have the potential to support families in securing higher-quality providers than they otherwise would be able to afford, previous research indicates that subsidy instability is positively associated with instability in care providers (see chapter 1). Children who cycle off and on the subsidy program often return with a different provider, and the more child care subsidy spells a family has, the more subsidized providers they use (Claessens et al. 2012; Ha et al. 2012).

Our study builds on existing research by further exploring child care continuity among subsidy recipients and, in particular, exploring families' child care experiences during subsidy gaps. As described in chapter 4, the majority of new subsidy entrants (69 percent in New York; 72 percent in Illinois) experience an exit from the subsidy program within 18 months after initiating subsidized care. Many of those who exit reenter the program quickly. Looking only at families who have a first subsidy spell of 12 or fewer months and whom we can observe for a 6-month window after their subsidy exit, 41 percent in New York and 40 percent in Illinois reenter the subsidy program within those 6 months. In this chapter, we use child care administrative data and telephone survey data to address the question: How stable are child care providers for subsidy-receiving families both during a subsidy spell and between subsidy spells? Based on previous work and our stated hypotheses, we expect to see a positive association between subsidy stability and provider stability.

To examine the stability of child care providers within and between subsidy spells (within the 18-month observation period), we first determine the percentage of focal children who change providers while continuously receiving a subsidy, and then the share who return to the same or a different

provider when returning to the subsidy program after an exit. Among those who change providers, we also examine whether they change to a provider of the same type (i.e., center, family child care, informal care) or change to a different type of care. We then use multivariate analyses to determine the child and family characteristics that predict changing versus maintaining providers within (or between) subsidy spells. These analyses are conducted separately by state.

Administrative data only reveal information about providers receiving subsidy payments and do not capture child care use during periods when families are not using the subsidy program. We also use data from our telephone survey to examine what happens after a family exits the subsidy program—whether they continue to use the same provider in the absence of a subsidy, change providers, or use no child care. As we cannot assume causality based on these analyses alone, we also explore participants' reported reasons for changing child care providers—whether a change is due to the loss of the subsidy and the cost of unsubsidized care, or whether an additional underlying reason prompted both the provider change and the subsidy program exit. The linked administrative and survey data offer a unique opportunity to descriptively explore the continuity of child care providers, the types of providers families change to, and the reported reasons for changes. Given the federal Office of Child Care's interest in promoting child care continuity (Administration for Children and Families, Office of Child Care 2011), addressing this research gap has important policy implications.

Predicting the Number of Subsidized Providers

We first examine focal children's total number of subsidized providers used during the 18-month observation period. This measure of the total number of unique providers does not take into account the timing or overlap of these providers, and children who used two providers at the same time (during overlapping intervals) would be coded as having two unique providers. However, the prevalence of multiple concurrent providers was very low among focal children (at subsidy start, two children in New York and 13 in Illinois were using multiple providers), and this situation is unlikely to be driving these results.

Across the 18-month observation period, focal children in New York used an average of 1.3 unique subsidized providers (SD = 0.50), and families in Illinois used an average of 1.4 (SD = 0.70) (see table 6.1).[17] About 78 percent of focal children in New York and 69 percent of focal children in Illinois used only one subsidized provider during the observation period, suggesting that most children had a single,

stable subsidized care arrangement. Notably, about 7 percent of focal children in Illinois and 5 percent in New York used three or more subsidized providers within 18 months.

TABLE 6.1

Number of Unique Providers for Focal Children during 18-Month Period

	New York				Illinois			
	Total	Nassau	Westchester	Sig.	Total	Cook	Southwestern IL	Sig.
Mean	**1.3**	1.3	1.3		**1.4**	1.4	1.4	
SD (mean)	0.5	0.5	0.5		0.7	0.7	0.6	
Number of unique providers								
1	**78%**	77%	79%		**69%**	68%	72%	^
2	**18%**	19%	18%		**25%**	25%	22%	
3	**4%**	4%	3%		**6%**	5%	5%	
4 or more	1%	1%	1%		1%	1%	1%	
N	1,819	1,002	817		5,094	4,461	633	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant for differences between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. No differences are statistically significantly different between counties in New York. Boldface values indicate significant differences ($p < .05$) between New York and Illinois.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

To explore the relationships between child and family characteristics and provider stability in more depth, we estimate multivariate Poisson regression models to predict the total number of unique subsidized providers used by focal children throughout the 18-month observation window. We use Poisson regression because the number of providers used is a count variable (ranging from 1 to 4 in New York and 1 to 5 in Illinois) that is highly skewed toward one provider. We use study site, focal child characteristics, subsidy characteristics at entry into the program, month of entry, number of months of subsidy receipt, and number of subsidy spells during the 18-month window to predict the total number of unique providers. Due to very few children experiencing multiple subsidized providers at entry into the program ($n = 2$ in New York; $n = 13$ in Illinois), we exclude these children from these analyses and subsequent analyses in this chapter.

In table 6.2, we present incidence rate ratios, which are calculated by exponentiating the coefficients of the Poisson model (which models the log of the expected count). After subtracting one, the incidence rate ratios in our models can be interpreted as the percentage change in the expected number of providers associated with a one-unit increase in the explanatory variable or, in the case of

categorical variables, as the percentage change in the expected number of providers in relation to the reference category.

In the two sites in New York, study site and child demographic characteristics are not associated with significant differences in the number of unique providers, but in the two sites in Illinois, black children and Asian or other children have 6 percent more providers than white children. In Illinois, older children have slightly fewer providers than children younger than age 1. Using family child care or informal care relative to center-based care as the first subsidized provider is associated with a significantly higher number of providers in both states; this finding is particularly true for children with family child care in New York, who have 14 percent more providers over time than children with center-based care at subsidy start. In Illinois, Temporary Assistance for Needy Families (TANF) recipients have 6 percent more providers than non-TANF cases. In contrast, TANF recipients in New York have 8 percent more providers than those with a non-TANF low-income case, suggesting that families receiving TANF (who are generally more economically disadvantaged than other child care subsidy recipients) have greater instability in providers over time. Yet in New York, having Title XX funding (indicating higher family income) compared to low-income Child Care and Development Fund funding is not associated with the number of providers, so income appears to only matter to a certain point.

Finally, having more months of subsidy receipt and having a greater number of subsidy spells are both associated with having more providers in both states. Having two subsidy spells rather than one is associated with 23 percent more providers in New York and 31 percent more in Illinois, and having three or more subsidy spells is even more strongly associated with having a greater number of providers (49 percent more in New York; 45 percent more in Illinois). Additionally, having three or more spells relative to two spells was associated with experiencing 21 percent more and 11 percent more providers in New York and Illinois, respectively. These findings suggest that families who experience more churning in and out of the subsidy program are also more likely to experience greater instability in child care providers.

TABLE 6.2

Predicting Focal Child's Total Number of Providers within 18 months (Poisson Regression)

	New York			Illinois		
	IRR	**Robust SE**		**IRR**	**Robust SE**	
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	1.01	0.02		—	—	
Cook	—	—		1.01	0.02	
Southwestern IL (ref.)	—	—		—	—	
Gender of focal child						
Male (ref.)	—	—		—	—	
Female	0.98	0.02		1.00	0.01	
Race/ethnicity of focal child						
White (ref.)	—	—		—	—	
Black	1.06	0.04		1.06	0.02	**
Latino	1.03	0.03		1.02	0.02	
Asian/other	1.11	0.11		1.06	0.03	*
Age of focal child at subsidy start						
< 1 (ref.)	—	—		—	—	
Age 1	1.00	0.03		0.96	0.02	*
Age 2	1.00	0.03		0.97	0.02	
Age 3	0.99	0.03		0.92	0.02	***
Age 4	0.98	0.03		0.93	0.02	***
Family copay at subsidy start ($10)	1.00	0.00		1.00	0.00	^
Type of child care at subsidy start						
Center (ref.)	—	—		—	—	
Family child care	1.14	0.02	***	1.05	0.02	**
Informal	1.09	0.04	*	1.06	0.02	**
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	1.08	0.03	**	1.06	0.02	*
Title XX	1.01	0.03		—	—	
Number of subsidy spells in 18 months						
1 (ref.)	—	—		—	—	
2	1.23	0.03	***	1.31	0.02	***
3 or more	1.49	0.07	***	1.45	0.04	***
Total months of subsidy receipt	1.01	0.00	***	1.02	0.00	***
Constant	0.87	0.04	**	0.98	0.03	
N	1,817			5,079		

Notes: The 13 children in Illinois and 2 children in New York who were using multiple providers at entry into the subsidy program were dropped. All models control for month of entry into the subsidy program. IRR = incidence rate ratio; SE = standard error; ref. = reference group. — = not applicable.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

How Stable Are Child Care Providers during Subsidy Spells?

Descriptive Analyses

We next examine the stability of child care providers during periods of continuous subsidy receipt (i.e., subsidy spells). We refer to changes in providers that occur during a continuous subsidy spell as within-spell provider changes. Across the full administrative data sample in Illinois, 21 percent of focal children experience at least one change in subsidized providers during any subsidy spell, and 79 percent maintain the same provider while continuously receiving a subsidy (see table 6.3). In New York, the percentage of within-spell changes is lower (14 percent). About 4 percent of focal children in Illinois and 2 percent in New York have two or more within-spell provider changes.

A few differences are observed by study site and initial type of care (not shown in table 6.3). Significantly more children in Nassau County relative to Westchester County experience a within-spell provider change (16 and 12 percent, respectively), and a similar share of children in the two districts in Illinois have a within-spell provider change (21 percent in Cook County and 20 percent in Southwestern Illinois) (see table 6.3). In both states, significantly more children who start the subsidy using family child care compared to center-based care change providers while receiving a subsidy (20 compared to 9 percent, respectively, in New York; 23 compared to 19 percent, respectively, in Illinois). In Illinois only, children who start the subsidy with an informal care provider are also more likely to change providers within a subsidy spell compared to children who start in center-based care (23 compared to 19 percent).[18]

TABLE 6.3

Frequency of Within-Spell Provider Changes and Type of Change

	New York				Illinois			
	Total	Nassau	Westchester	Sig.	Total	Cook	Southwestern IL	Sig.
Within-spell provider changes								
0	**86%**	84%	88%	*	**79%**	79%	80%	
1	**12%**	13%	10%	^	**17%**	17%	17%	
2	**2%**	2%	2%		**3%**	3%	2%	
3 or more	0%	1%	0%	*	1%	1%	1%	
N	1,819	1,002	817		5,094	4,461	633	
Type of change in first within-spell provider change[a]								
Center to center	**22%**	27%	12%	**	**42%**	44%	29%	**
Noncenter within-sector change[b]	**47%**	52%	38%	*	**23%**	23%	25%	
Family child care to informal or vice versa	4%	0%	9%	***	7%	7%	11%	^
Center to less formal care[c]	8%	5%	11%	^	8%	8%	9%	
Less formal to center	19%	14%	27%	*	16%	16%	17%	
Any type to multiple	2%	1%	2%		3%	2%	7%	**
Multiple to any type	0%	1%	0%		1%	1%	2%	
N	254	157	97		1,061	935	126	

Notes: The significance (Sig.) column indicates whether differences in each characteristic are statistically significant for differences between Nassau and Westchester Counties in New York and between Cook County and Southwestern Illinois. Boldface values indicate a significant difference ($p < .05$) between New York and Illinois.

[a] Among those who have a within-spell change.

[b] Noncenter within-sector change includes changes from one licensed family child care provider to another or from one informal, license-exempt provider to another.

[c] Less formal providers include licensed family child care providers and informal, license-exempt providers.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Table 6.3 also presents the distribution of within-spell provider changes by care type. This analysis is limited to children with at least one within-spell change, and to the first within-spell change if the child had more than one within-spell change. Specifically, we examine, among children who change providers within a subsidy spell, the percentage that change to a different type of care (e.g., family child care to informal care) and the percentage that change to the same type of care (e.g., center to center). Most children (69 percent in New York; 65 percent in Illinois) who change providers during a subsidy spell change to a provider of the same care type (i.e., the "center to center" and "noncenter within-sector change" categories in table 6.3). Sixteen percent in Illinois and 19 percent in New York move

from a family child care provider or an informal provider to a center (i.e., the "less formal to center" category). In New York, this type of change is more common in Westchester than in Nassau. In both states, moving from a less formal provider to a center is most common among infants and toddlers (ages birth to 2) compared to older preschool-aged children (ages 3 to 4), who typically change to a provider of the same care type (not shown in table 6.3).[19] Fewer children move from a center to either a family child care provider or informal care provider during a subsidy spell (approximately 8 percent in both states).

Predicting the First Within-Spell Provider Change

To identify the factors associated with changes in providers during subsidy spells, we estimate a multivariate Cox proportional hazards model predicting the first within-spell change in providers during the 18-month window. We observe children from the first month they begin using the subsidy program and consider a within-spell change to occur when a child begins using a different provider during a spell of continuous subsidy receipt. (We code the change as occurring in the last month with the first provider.) Although we are predicting the first within-spell change in providers, the change could occur during the first subsidy spell or during a later subsidy spell. We include the following explanatory variables in our models: study site, focal child characteristics, subsidy characteristics at entry into the program (i.e., case type, type of care, family copayment), month of entry, and the cumulative number of months of subsidy receipt and cumulative number of subsidy spells at each observation month.

Table 6.4 shows the hazard ratios for predictors of a within-spell change. Subtracting one from the hazard ratios shows the percentage change in the hazard of having a within-spell change associated with each independent variable.

Demographic characteristics are associated with having a within-spell change in both states, but in different ways. In New York only, girls have a 28 percent lower hazard of having a within-spell change than boys. In Illinois only, black children have a 42 percent higher hazard than white children and Latino children have a 29 percent higher hazard than white children of having a within-spell change. In Illinois, 4-year-olds have a 33 percent lower hazard of experiencing a within-spell provider change than children younger than 12 months, but there are no significant differences by age in New York.

In New York, the type of child care used at subsidy start is associated with large differences in the hazard of experiencing a within-spell provider change. Children in New York who start the subsidy with less formal types of providers—licensed family child care or informal, license-exempt providers—have

double the hazard of having a within-spell change compared to children who start with center-based care. In Illinois, the type of care is not associated with a greater or lower hazard of having a within-spell change. In both states, TANF recipients had a higher hazard of a within-spell change than non-TANF families.

The cumulative number of months of subsidy receipt children experience is strongly associated with a greater likelihood of having a within-spell change in both states, which suggests that the longer families use the subsidy program the more likely they are to change providers during a subsidy spell. Additionally, having more subsidy spells is strongly related to experiencing a within-spell provider change in both states. In fact, children with two spells have more than double the hazard of having a within-spell change compared to those with only one spell, and those with three or more spells have an even higher likelihood of having a within-spell change.

TABLE 6.4

Predictors of Experiencing a Within-Spell Provider Change (Cox Hazard Model)

	New York			Illinois		
	HR	**SE**		**HR**	**SE**	
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	1.23	0.19		—	—	
Cook (ref.)	—	—		—	—	
Southwestern IL	—	—		1.19	0.13	^
Gender of focal child						
Male (ref.)	—	—		—	—	
Female	0.72	0.09	*	1.06	0.07	
Race/ethnicity of focal child						
White (ref.)	—	—		—	—	
Black	1.20	0.30		1.42	0.16	**
Latino	1.19	0.28		1.29	0.16	*
Asian/other	0.57	0.42		1.33	0.21	^
Age of focal child at subsidy start						
< 1 (ref.)	—	—		—	—	
Age 1	1.01	0.17		0.92	0.08	
Age 2	1.14	0.20		0.97	0.09	
Age 3	1.02	0.21		0.85	0.09	
Age 4	0.56	0.21		0.67	0.08	**
Family copay at subsidy start ($10)	1.02	0.02		1.00	0.01	
Type of child care at subsidy start						
Center (ref.)	—	—		—	—	
Family child care	2.22	0.33	***	1.11	0.09	
Informal	1.96	0.51	**	1.12	0.09	
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	1.31	0.22		1.23	0.12	*
Title XX	0.99	0.22		—	—	
Time varying cumulative months of subsidy receipt	2.00	0.23	***	1.56	0.05	***
Time varying cumulative number of subsidy spells						
1 (ref.)	—	—		—	—	
2	2.92	0.80	***	2.67	0.27	***
3 or more	8.31	5.51	**	3.44	0.99	***
N	1,817			5,079		

Notes: The 13 children in Illinois and 2 children in New York who were using multiple providers at entry into the subsidy program were dropped. All models control for month of entry into the subsidy program. HR = hazard ratio; SE = standard error; ref. = reference group. — = not applicable.

^$p < .10$ *$p < .05$ **p < .01 ***$p < .001$.

How Stable Are Child Care Providers between Subsidy Spells?

Descriptive Analyses

As discussed in chapter 4, about one-third of all families (33 percent in Illinois; 27 percent in New York) exit and return to the subsidy program within 18 months of starting the program, and of those families for whom we observe an exit within 12 months of starting the subsidy program, about 40 percent return within 6 months of exiting. Given the substantial amount of churning in and out of the subsidy program, we were interested in examining the stability of children's subsidized providers between the end of one spell and the beginning of the next spell, which we refer to as between-spell provider changes. In particular, we were interested in provider changes that occur across the first subsidy gap, which is defined as a period of one or more months of no subsidy receipt following the first subsidy spell. We consider a between-spell change to have occurred if the provider used in the last month of the first subsidy spell is different from the provider used in the first month of the second subsidy spell; however, we cannot observe in the administrative data any nonsubsidized providers the child may have had during this gap in subsidy receipt.

We find that of those focal children who exit and return to the program (n = 1,693 in Illinois; n = 505 in New York), about one-third (36 percent in Illinois; 30 percent in New York) return with a different subsidized provider after their first subsidy gap; the remaining two-thirds maintain the same provider (see table 6.5). Across the full administrative sample, about 13 percent of all focal children in Illinois and almost 10 percent of all focal children in New York experience at least one between-spell provider change; that is, they exited the program and returned with a different provider at some point during the 18-month observation period.

Table 6.5 also shows the distribution of between-spell provider changes across the first subsidy gap by care type. Among children who change providers between subsidy spells, a little more than half (55 percent in Illinois; 53 percent in New York) change to the same care type (e.g., center to center or noncenter within-sector change), but others change to a different care type. In New York, children who change care types are about equally likely to change from a center to a less formal provider (i.e., family child care or informal care) as to change from a less formal provider to center-based care. Children in Westchester are more likely than those in Nassau to change from a less formal provider to center-based care. In Illinois, however, most children who change care types change from a less formal provider to a

center. Less than 10 percent of focal children in either state who experience a between-spell change in providers change between family child care and informal care. These percentages are somewhat different from those observed for within-spell provider changes, in which a larger percentage of children switched to providers of the same care type (69 percent in New York and 65 percent in Illinois changed to the same care type during the first within-spell provider change).

TABLE 6.5

Share with a Between-Spell Provider Change and Type of Change for Focal Children

	New York				Illinois			
	Total	Nassau	Westchester	Sig.	Total	Cook	Southwestern IL	Sig.
Share who have a provider change across first subsidy gap[a]	30%	31%	29%		36%	36%	36%	
n	505	239	266		1,693	1,499	194	
Type of change across first gap[b]								
Center to center	**20%**	25%	15%		**35%**	36%	31%	
Noncenter within-sector change[c]	**33%**	38%	28%		**20%**	19%	27%	^
Family child care to informal or vice versa	7%	0%	14%	**	9%	9%	13%	
Center to less formal care[d]	**20%**	25%	15%		**10%**	10%	11%	
Less formal to center	19%	12%	26%	*	25%	27%	17%	^
Any type to multiple	1%	0%	1%		1%	1%	0%	
Multiple to any type	0%	0%	0%		0%	0%	0%	
n	151	73	78		605	535	70	

Note: Boldface values indicate a significant difference ($p < .05$) between New York and Illinois.

[a] Among those with two or more subsidy spells.

[b] Among those who have a provider change over the first subsidy gap.

[c] Noncenter within-sector change includes changes from one licensed family child care provider to another or from one informal, license-exempt provider to another.

[d] Less formal providers include licensed family child care providers and informal, license-exempt providers.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Looking descriptively at the characteristics of children who experience a between-spell provider change across the first subsidy gap, some significant differences are observed by focal child race/ethnicity, age, child care type, and case type.[20] More black children than white or Latino children change providers between subsidy spells (35 percent compared to 21 and 26 percent, respectively, in New York; 39 percent compared to 28 and 31 percent, respectively, in Illinois). In Illinois, children ages birth to 2 years are more likely to change providers across the first subsidy gap compared to preschool-

aged children (ages 3 to 4). In New York, 1-year-olds have the highest incidence of between-spell provider change—significantly higher than 2- and 3-year-olds (but not 4-year-olds, given the small number of 4-year-olds in the sample).

In both states, a higher percentage of children who enter the subsidy program using informal child care change providers between subsidy spells than children who enter using center-based care. In Illinois, 19 percent who enter in informal care experience one or more between-spell changes compared to 10 percent in center-based care, and in New York, 16 percent of children in informal care experience a between-spell change compared to 8 percent in center-based care (results not shown in table 6.5). Additionally, in Illinois, more children who enter with a licensed family child care provider change providers between spells (14 percent) compared to children who enter using center-based care.

In New York, only 9 percent of children funded by Title XX change providers across the first subsidy gap, but 36 percent of low-income cases and 42 percent of TANF child care cases who experience a subsidy gap return with a different provider; all three funding groups are significantly different from each other. Similarly, in Illinois, TANF recipients are more likely to change providers across the first subsidy gap (47 percent change providers) compared to non-TANF recipients (34 percent).

In sum, about one-third of focal children who exit and return to the subsidy program return with a different provider. Descriptive findings suggest that black children, infants, children using informal care providers versus centers, and TANF recipients are more likely than their counterparts to experience provider instability as measured by a change in providers across a gap in child care assistance.

Predicting the First Between-Spell Provider Change

To better understand how child and family characteristics are associated with changing providers across a subsidy gap, we use a multivariate logistic regression model predicting whether focal children (among the subsample of children who exited and returned to the subsidy program) experience a change in providers during their first gap in the subsidy program. We include the following explanatory variables in the analytic models: study site, focal child characteristics, subsidy characteristics at entry into the program (i.e., case type, family copayment), month of entry, type of care during the last month of the first spell, the length of the first subsidy spell, and the length of the first subsidy gap. We use the type of care used in the last month of the first spell instead of type of care at entry into the subsidy program because we expect the type of care the child uses just before exiting will be more predictive of whether the child returns with the same or a different provider.

Table 6.6 shows the model results in the form of odds ratios. After subtracting one, these odds ratios can be interpreted as the percentage change in the odds of having a between-spell provider change associated with a one-unit change in the independent variable. The results show that older children have lower odds of changing providers between spells than younger children in Illinois. For example, 4-year-old children have 36 percent lower odds of changing providers across spells compared to children younger than age 1. We observe a similar pattern in New York for 2- and 3-year-olds, but these associations are not significant.

The type of child care used just before a subsidy gap is also associated with the likelihood of having a between-spell provider change. In the Illinois sample, children who use licensed family child care or informal care compared with center-based care have 75 and 84 percent higher odds, respectively, of changing providers. In the New York sample, children in licensed family child care also have higher odds of changing providers compared to children in center-based care (this relationships is significant at $p <$ .10 only), but there is no difference between children in informal care and center-based care.

Finally, children who have a longer subsidy gap have higher odds of returning to the subsidy with a different provider. In both states each additional month in the length of the gap is associated with about a 23 to 29 percent higher odds of having a provider change. The length of the first subsidy spell is not significantly associated with the odds of having a provider change across the first gap.

TABLE 6.6

Logistic Regression Model Predicting a Between-Spell Provider Change during the First Subsidy Gap among Focal Children with Two or More Subsidy Spells

	New York			Illinois		
	OR	**SE**		**OR**	**SE**	
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	0.83	0.21		—	—	
Cook (ref.)	—	—		—	—	
Southwestern IL	—	—		1.00	0.19	
Gender of focal child						
Male (ref.)	—	—		—	—	
Female	1.07	0.23		0.95	0.11	
Race/ethnicity of focal child						
White (ref.)	—	—		—	—	
Black	1.89	0.84		1.02	0.20	
Latino	1.31	0.57		1.00	0.22	
Asian/other	4.48	4.13		1.48	0.40	
Age of focal child at subsidy start						
< 1 (ref.)	—	—		—	—	
Age 1	1.09	0.30		0.93	0.13	
Age 2	0.71	0.22		0.72	0.12	*
Age 3	0.52	0.19	^	0.45	0.09	***
Age 4	1.30	0.60		0.64	0.14	*
Family copay at subsidy start ($10)	1.01	0.05		0.99	0.01	
Type of child care in last month of first spell						
Center (ref.)	—	—		—	—	
Family child care	1.50	0.36	^	1.75	0.26	***
Informal	1.12	0.39		1.84	0.25	***
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	1.49	0.37		1.28	0.23	
Title XX	2.76	1.10	*	—	—	
Length of first subsidy spell (months)	1.02	0.03		1.01	0.02	
Length of first subsidy gap (months)	1.23	0.05	***	1.29	0.03	***
Constant	0.09	0.06	***	0.22	0.06	***
N	505			1,690		

Notes: The 13 children in Illinois and 2 children in New York who were using multiple providers at entry into the subsidy program were dropped. All models control for month of entry into the subsidy program. OR = odds ratio; SE = standard error; ref. = reference group. — = not applicable.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

How Do Findings Change if a Subsidy Gap Is Redefined As Two Months without a Subsidy?

To ensure that estimates of within- and between-spell provider changes are not driven entirely by our choice to define a subsidy gap as a one-month period without subsidy receipt, we rerun our descriptive statistics and regression models using a two-month definition of a subsidy gap.

With this different definition, the results are quite similar (see table 6.7). Using a two-month gap, 16 percent of children in New York and 23 percent of children in Illinois experience a within-spell provider change compared to 13 and 21 percent, respectively, under the one-month gap definition. A larger share experience a provider change during the first gap in subsidy receipt with the two-month gap definition than with the one-month definition: 38 versus 30 percent in New York and 47 versus 36 percent in Illinois. This outcome is not surprising given that we observe a positive association between the length of the first gap and the odds of having a provider change during that gap. With regard to the three regression models presented in tables 6.2, 6.4, and 6.6, the results using the two-month gap definition are also substantively similar to those found with a one-month gap definition (results not shown).

TABLE 6.7

Descriptive Statistics Using a Two-Month Definition of a Gap in Subsidy Receipt

	New York				Illinois			
	Total	Nassau	Westchester	Sig.	Total	Cook	Southwestern IL	Sig.
Within-spell provider changes								
0	**84%**	83%	86%	*	**77%**	77%	78%	
1	**13%**	14%	11%	^	**18%**	18%	18%	
2	**3%**	3%	2%		**4%**	4%	3%	
3 or more	0%	1%	0%		1%	1%	1%	
n	1,819	1,002	817		5,094	4,461	633	
Share who have a provider change during first subsidy gap[a]	**38%**	38%	37%		**47%**	48%	45%	
n	329	156	173		1,015	894	121	

Notes: No significant (Sig.) differences were found between the two sites in Illinois. Boldface values indicate a significant difference ($p < .05$) between New York and Illinois.

[a] Among those with at least two subsidy spells.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

What Are Families Doing for Child Care after Exiting the Subsidy Program?

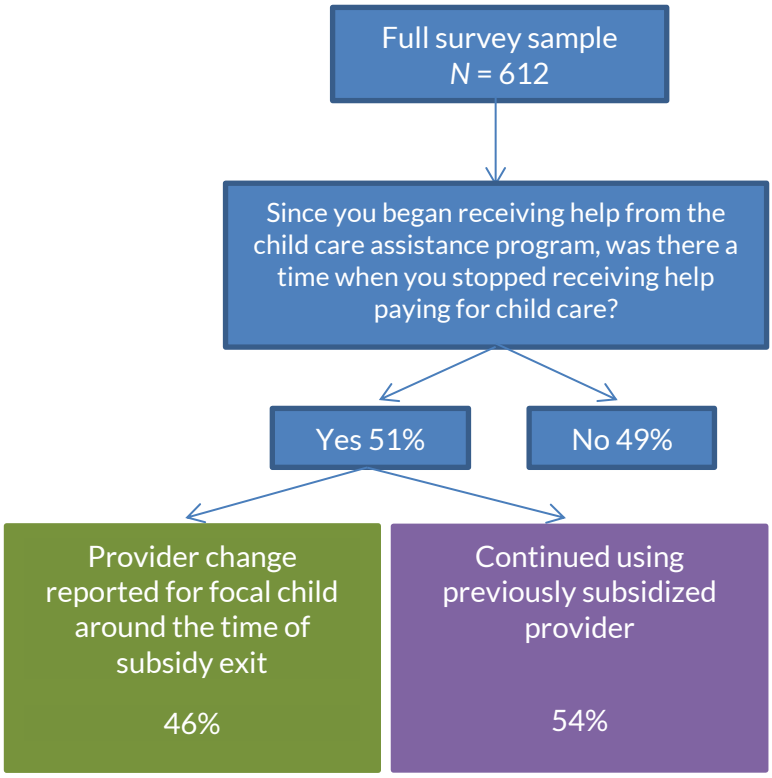
Subsidy payment records are useful when modeling the continuity of subsidized providers during periods when children are receiving subsidized care. However, we are particularly interested in understanding how losing a subsidy affects families' child care arrangements and whether there is continuity of care after families exit the subsidy program. To address this question, we turn to our telephone survey data, which contain detailed information on the focal child's primary child care providers during periods on and off the subsidy.

According to the survey (*N* = 612), about half the families responded affirmatively to this question: "Since you began receiving help from the child care assistance program, was there a time when you stopped receiving help paying for child care?" Follow-up questions identified the month when participants stopped receiving help (according to their own self-report and not administrative records) and the reason for exiting the subsidy program (see table 6.8). In chapter 5 we describe the reasons respondents report for leaving the subsidy program. In this chapter, we consider whether and how respondents' child care providers differ before and after a subsidy exit.[21]

The telephone survey collected data on the primary care providers of the focal child during every month from the start of the subsidy through the date of the survey. The "primary provider" is identified as the provider who cared for the child for the most hours per week. These data form a child care calendar that can be used to identify the timing of changes in providers and the characteristics of those primary providers. (Data were not collected on the characteristics of secondary providers, only whether a secondary provider was used.) We narrow the survey sample to those respondents who report experiencing a subsidy exit and, according to their child care calendar, stopped using a primary child care provider in the same month or the month before the subsidy exit.[22] Forty-six percent of the cases fit these criteria (see figure 6.1).[23] These cases represent focal children who experience concurrent subsidy instability and child care discontinuity.

FIGURE 6.1

Survey Items Related to Subsidy and Child Care Instability



Source: Telephone survey data collected by authors.

We conduct descriptive analyses on the 46 percent of respondents who leave the subsidy program and change providers to compare focal children's primary care providers before and after their break in child care assistance (see table 6.8). We find several significant differences. Most of these respondents (63 percent) report using an organization (i.e., center-based care) as their primary provider when receiving a subsidy, but only 7 percent report using an organization after a subsidy exit. The use of licensed family child care as primary care providers also significantly decreases after a subsidy exit, from 18 to 3 percent. By contrast, there is a large increase in the use of informal care from 19 percent before a subsidy exit to 52 percent after an exit; the use of no primary provider—meaning the respondent cared for the child herself—also increases from 0 to 38 percent. Additionally, a much higher percentage of respondents (88 percent) report knowing the provider they used for child care after the subsidy exit versus before the subsidy exit (34 percent). These findings suggest that when families stop receiving a subsidy and change primary providers, they generally switch to less formal care with individuals they know or stop using child care altogether.

Children spend about the same number of hours per week in the care of their primary provider before and after a subsidy exit (approximately 35 hours before the subsidy exit and 39 hours after), but their schedules shift; the use of care in the evenings, weekends, and overnight increases substantially after leaving the subsidy program, from 65 to 81 percent. This change could be a reflection of parental need, or that the informal providers that are more commonly used after a subsidy exit are more flexible in terms of providing care during nonstandard hours. On a positive note, a large percentage of participants—nearly all—report that their child always felt safe and secure with the provider both before and after a subsidy exit, with higher ratings after the subsidy exit, and there is no difference in parents' reports of provider flexibility after the subsidy exit.

TABLE 6.8

Child Care Characteristics before and after Subsidy Exit for Subsidy Leavers Who Change Providers

	Before Subsidy Exit (%)	After Subsidy Exit (%)	Sig.
Type of care			
Center	63%	7%	***
Family child care	18%	3%	***
Informal care	19%	52%	***
No primary provider[a]	0	38%	***
Participant knew provider before using	34%	88%	***
Any nonstandard care hours (weekend, overnight, before 8 a.m., after 6 p.m.)	65%	81%	*
Flexibility of provider (mean of three flexible indicators)	3.5	3.6	
Feels safe and secure at provider (frequently/always)	85%	95%	*

Notes: T-tests were conducted to examine the difference of distribution between the two groups. Table statistics are based on the sample of those who report their last month using a child care provider as the same month or the month before their self-reported subsidy end date. Sig. = significance.

[a] Cases that move to "no primary provider" are not questioned further about the characteristics of their care provider and, thus, are not in the sample for remaining survey items. Two cases report a one-month spell of "no primary" care provider during the month of subsidy exit. For these cases, we compare the care provider before the month of subsidy exit to the care provider the month after the exit.

^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Summary and Conclusions

Our analysis of both administrative data and original telephone survey data provide a uniquely comprehensive glimpse into the stability of children's child care providers during, between, and after child care subsidy spells.

From administrative data we find that, on average, children experience an average of a little over one child care provider during the 18 months following their entry into the subsidy program, suggesting relatively high stability in providers during their child care subsidy experience. Only a minority of children experience a change in providers during a continuous period of subsidy coverage: 14 percent in the two-site New York sample and 21 percent in the two-site Illinois sample. Most of these changes involved switching from one provider to another within the same type of care, whether center-based, licensed family child care, or license-exempt informal care.

The type of child care families use is related to the stability in child care providers: children who start the subsidy with informal or family child care experience a slightly greater number of providers over the 18-month period compared to children who start with center-based care, and in New York, these children are also more likely to experience a change in providers during a continuous subsidy spell. Children with more months of subsidy receipt and a greater number of subsidy spells also experience more providers and are more likely to experience a within-spell provider change than children with fewer months or spells of subsidy receipt. This finding suggests that instability in subsidy receipt and instability in providers are closely linked, a point we return to in chapter 7.

We also examine data pertaining to only the subset of children who exit and reenter the subsidy program within 18 months to assess whether they switch providers during the subsidy gap. (Using administrative data, we cannot observe which provider was used during a subsidy gap.) Roughly one-third of children who exit and reenter the program use different providers before and after their first subsidy gap. Having a longer subsidy gap is associated with higher odds of switching providers during the gap, which is consistent with the notion that maintaining care arrangements may become more difficult and unaffordable for families the longer they go without a subsidy. In Illinois, starting the subsidy program with licensed family child care or informal care versus center-based care is associated with higher odds of a between-spell provider change. Descriptively, we see that about one-quarter of children in Illinois who change providers between subsidy spells change from family child care or informal care to a center, suggesting that some of these children are perhaps moving to a more expensive, higher-quality provider. Nevertheless, a slight majority of children in both states who change providers between spells change to a provider of the same type of care.

Our survey data provide us with a unique glimpse at child care providers used during gaps in child care subsidy receipt, providing new information not available through studies that rely solely on administrative data. Analyses of these data show that about half the families who leave the subsidy program report also leaving their subsidized primary provider. Of those families who report both leaving the subsidy program and changing providers after the exit, we observe large decreases in the use of formal care (i.e., organizations and family child care), large increases in the use of informal care, and two-fifths reporting having no primary child care provider at all after the subsidy exit (meaning they cared for their children themselves, or in some cases, their children were home alone, perhaps with older siblings). These families might also have used "last minute" caregivers who were not regular providers. Thus, although about half the families are able to hold onto a child care provider immediately following a subsidy exit, those who leave their provider either go without child care or rely on family and other informal caregivers. Only a minority of families use center-based care or licensed family child care following an exit. Our qualitative report investigates the patterns of care during a subsidy break in greater detail, exploring both the reasons behind child care exits and changes after a subsidy exit and the circumstances of families who are able to maintain their subsidized provider without the benefit of the program.

Chapter 7. Determinants of Child Care Continuity

According to the analysis of administrative data as described in chapter 6, most children use only one subsidized provider during the first 18 months on the subsidy program: children in New York use an average of 1.3 unique subsidized providers, and children in Illinois use an average of 1.4. As expected, we find a positive relationship between subsidy stability and provider stability: children with more subsidy spells have more unique subsidized providers over time. Families who switch providers, whether within or between subsidy spells, usually switch only once and to a provider of the same care type. In fact, among those who exit and return to the subsidy program, we find the majority return with the same subsidized provider, although about one-third change to a new subsidized provider.

These administrative findings suggest that some subsidized families (those who continuously use the same subsidized provider or exit the program and return with the same subsidized provider) experience child care continuity during the first 18 months in the subsidy program; however, these administrative data provide a limited view of child care experiences and cannot tell us how families are caring for their children during periods without the subsidy. In fact, the patterns observed in the administrative data mask a greater instability in child care providers revealed in our survey findings. In particular, we find that during gaps in subsidy receipt or after leaving the subsidy program, about half of families switch providers and are much more likely to use an informal (less expensive) provider—often relatives and friends—or go without a regular provider altogether (see chapter 6).

The qualitative interview component of this project highlights a similar pattern. The report summarizing those findings describes that financial factors motivate families to leave their providers and change to less expensive providers after a subsidy loss (Henly et al. 2015). The qualitative report also discusses how families who maintain their subsidized provider after leaving the subsidy program frequently report that doing so has caused financial hardship or dependence on a partner or relative to help pay for the provider, particularly in cases of center-based care. These survey and qualitative findings point to the value of learning more about the range of factors that contribute to child care provider stability (and instability) during periods on and off the subsidy program. Such is the goal of the current chapter.

We hypothesize that multiple factors contribute to child care exits, not only the loss of a subsidy. Thus, in this chapter we examine exits from a child care provider for all survey respondents, regardless

of whether an exit is the result of leaving the subsidy program. We use two empirical strategies to approach this question. First, about half the survey sample report leaving a primary provider at some point after entering the subsidy program, whether or not they experience a subsidy exit. This provider was usually subsidized, but in some cases was an unsubsidized primary provider. We explore the reported reasons for leaving that provider for two groups of respondents: those who report leaving a primary subsidized provider and those who report leaving a primary unsubsidized provider.

Second, moving away from the self-reported reasons for leaving a primary provider, using a multivariate framework we estimate whether demographic, employment, subsidy, and child care-related factors are associated with a provider exit. We use Cox proportional hazards models similar to those described in chapter 5 to conduct these analyses. We limit our analytic sample to the subset of respondents who report using their subsidized child care provider as their primary provider (i.e., the provider that cared for the focal child for the most hours in a week) at the point of entry into the subsidy program. (Thus, unlike the first set of analyses presented in this chapter, these analyses do not consider exits from a primary child care provider that was not initially subsidized.) We then follow the respondent's use of that provider over the course of our 18-month survey observation window, irrespective of continued subsidy receipt.

Reasons for Leaving First Primary Providers

Analytic Approach

In this section, we discuss parents' self-reported reasons for leaving their child's first primary provider, focusing on the focal child (i.e., the youngest subsidized child) in the family. The first primary provider on record is the provider who cared for the focal child for the most number of hours each week during the month the family first began receiving a subsidy. For this analysis the first primary provider is not necessarily the recipient of the subsidy, although in 89 percent of the cases (n = 530), it is. However, 11 percent of families (n = 68) applied their subsidy to a secondary provider that was used for fewer hours per week than the primary provider. In these cases, it is the primary unsubsidized provider that is the focus of this analysis.

This analysis is limited to focal children whose parent or guardian reported on the survey that they stopped using the first primary provider on record as their main provider at some point before the

survey. The child care calendar portion of the survey recorded the start and end dates of each of the focal child's primary providers, and only those who reported ending an arrangement with a primary provider were asked about their reasons for leaving. The survey item asked respondents this question: *"Why did you stop using [PROVIDER NAME] as the main provider for [FOCAL CHILD]?"* The child could have continued using the provider as a secondary provider or a backup provider, but the survey only assessed the start and end dates of the focal child's primary provider. Therefore, we use the term "leaving" a provider loosely as some children may not have actually left the provider or ended the relationship completely, but according to the survey, the provider stopped caring for the child as frequently as he or she had done initially.

Among the 584 participants in the survey sample who completed the child care calendar portion of the survey, 307 (53 percent) reported leaving their first primary provider at some point during the survey observation window. Removing cases with missing data,[24] we identify the key reported reasons for leaving the provider for 262 cases. In 86 percent of cases (n = 225), the primary provider had been subsidized; in 14 percent of cases (n = 37), the primary provider had not been subsidized.

To identify parents' reasons for leaving their first primary provider, the survey item listed above provided 11 possible response categories plus an "other, specify" option. Each option was read aloud and the participant could select multiple response categories. Of the overall sample, 74 percent of cases provided only one reason, 24 percent provided two reasons, and 4 percent provided three reasons for ending their first primary care provider. In 142 cases, the participant provided an "other" response; interviewers probed the reasons and entered all open-ended responses. Data analysts on the research team reviewed and coded the open-ended responses to either an existing response category or to a new response category. In 10 cases, an insufficient amount of information was provided to determine the reason and the responses remained coded as "other." New categories were reviewed for content validity and overlap with other categories that could be merged. Ten new categories were created and a few existing categories were expanded for a total of 22 reasons for leaving the first primary provider.

Results

Table 7.1 lists the reasons survey respondents gave for leaving the first primary provider, whether it was a subsidized or unsubsidized provider. This list reflects the recoding of "other" responses undertaken by the research team. Reasons reflect both voluntary and involuntary exits from the primary child care provider. We group the reasons into four main categories: subsidy-related, employment-related, provider-related, and other. As a whole, provider-related reasons are most

common, given by over half of respondents who report exiting either a subsidized or unsubsidized primary provider. Among those leaving a primary provider that was initially subsidized, approximately 22 percent reported exiting for subsidy-related reasons, 26 percent reported employment-related reasons, 68 percent reported provider-related reasons, and 17 percent reported some other reason. Among those leaving a primary provider that was not initially subsidized, about 13 percent reported a subsidy-related reason for exiting (specifically losing the subsidy or not being able to afford the provider even with the subsidy), suggesting that this unsubsidized provider was ultimately affected by changes related to the family's subsidized provider. Almost 22 percent of respondents reported leaving an unsubsidized primary provider for employment reasons, 70 percent reported provider-related reasons, and another 10 percent left the provider for some other reason, often due to a residential move. In several cases, respondents reported multiple reasons for leaving their provider across the same general category or different categories.

REASONS FOR LEAVING A SUBSIDIZED PRIMARY PROVIDER

The most common reason for leaving a subsidized provider, reported by 19 percent of participants, was the parent's desire for a higher-quality setting or concern about care quality and safety. Job loss was the second-most common reason for leaving a subsidized provider, reported by 16 percent of respondents. Scheduling issues were also often reported, including changes to providers' schedules that could no longer accommodate the family (13 percent) and changes to work schedules (8 percent). About 12 percent of respondents moved residences, resulting in their need to end an arrangement.

Thirteen percent (n = 29) could no longer afford the subsidized provider, which could have been due to a high copayment amount or the loss of the subsidy, but the original response category did not distinguish these alternative reasons. As respondents could provide more than one reason code, we examine overlapping reasons to better understand these cases. Five respondents (2 percent) who reported they could no longer afford the provider also reported a job loss and 10 respondents (4 percent) reported both reasons: no longer able to afford the provider and losing their subsidy.

TABLE 7.1

Reasons for Leaving the Primary Child Care Provider Used at Subsidy Start

	Primary Provider Subsidized (*n* = 225)		Primary Provider Unsubsidized (*n* = 37)	
	n	**%**	***n***	**%**
Subsidy-related reasons				
Could no longer afford provider	29	13	2	5
Lost subsidy[a]	14	6	3	8
Other subsidy-related issue[a]	7	3	0	0
Employment-related reasons				
Job loss	35	16	4	11
Work schedule change	19	8	4	11
Job change[a]	5	2	0	0
Provider-related reasons				
Wanted higher-quality setting/ concerned about quality or safety	42	19	3	8
Provider schedule changed, did not accommodate, or was unreliable	30	13	6	16
Wanted different child care type	19	8	6	16
Child started school/no longer eligible or too old for provider	17	8	4	11
Provider quit, closed, no longer available	14	6	4	11
Provider location/distance[a]	10	4	1	2
Bad provider fit (relational issues with provider)[a]	9	4	0	0
Provider would not take child due to behavior/special needs	5	2	1	3
Provider closed for the summer/only provided care during summer	5	2	0	0
No space at provider/waiting list[a]	3	1	1	3
Provider stopped accepting subsidy	1	0.5	0	0
Other				
Moved[a]	26	12	2	5
Child care no longer needed[a]	4	2	0	0
Wanted to keep siblings together[a]	2	1	0	0
Father able to provide care[a]	2	1	0	0
Other, uncategorized	1	0.5	2	5

Notes: Because more than one reason code may apply to a provider change, the column totals add to more than total sample size. All percentages are rounded to the nearest whole value. We did not impute reasons for leaving a child care provider.

[a] Indicates new reason code not included in original survey response categories.

Eight percent of respondents (*n* = 17) reported they stopped using their subsidized provider because their child was starting school or was too old or not eligible to use the provider (such as a center-based program that did not offer afterschool care for school-age children). Eight percent of participants (*n* = 19) wanted a different care type. In some cases, these respondents were transitioning children to center-based programs that had a more "school-like" environment or were using relative care when a grandmother, for example, had become available to provide care. Nine respondents (4 percent) reported wanting a different care type in addition to a higher-quality setting.

A smaller number of respondents (*n* = 41) reported other provider-related reasons, such as the provider quitting or no longer being available, the location of the provider not being convenient, a bad fit with the provider, the provider refusing to care for the child (particularly due to the child's behavior or special needs), or space constraints or waiting lists. Only in one case did the provider stop accepting a subsidy, causing the family to end the arrangement.

REASONS FOR LEAVING AN UNSUBSIDIZED PRIMARY PROVIDER

Similar patterns are observed across the 37 participants whose first primary provider for the focal child was not subsidized. Job loss and job changes, providers' quitting or not accommodating participants' schedules, as well as parents wanting a higher-quality provider or a different care type were most commonly reported. For several cases, not being able to afford care or losing a subsidy actually had an effect on the unsubsidized provider, suggesting that these families changed their package of providers (their primary and secondary) as a result of either no longer receiving child care assistance or experiencing a higher copayment for a secondary (subsidized) provider.

In sum, families stop using child care providers for a variety of reasons, some intentional and driven by parental choice, such as wanting a higher-quality setting or a different type of care. Other reasons are in response to instability or changes in another domain of the family's life, such as losing or changing a job, moving, or losing a subsidy. A mismatch between job and provider schedules, a poor fit or relationship with the provider, and other provider issues also cause families to leave their primary child care providers, both subsidized and unsubsidized.

Risks of Leaving a Primary Subsidized Child Care Provider

Analytic Approach

To further explore the predictors of child care continuity, even during periods off the subsidy program, we take advantage of the historical child care data collected through our telephone survey. For these analyses, our target sample is limited to the 516 cases who use the subsidy to help pay for a primary child care provider for the focal child. We exclude cases in which the subsidy is used to pay for a secondary provider, because the survey did not collect calendar data on secondary providers.

Using Cox proportional hazards models similar to those identified in chapter 5, we estimate the hazard of leaving the first subsidized child care provider within 18 months following entry into the subsidy program. Specifically, we observe whether demographic, employment, child care, and subsidy experiences are related to the risk of leaving the provider during this observation period. The results are reported in table 7.2.

Dependent Variable

We measure child care continuity as the number of months the focal child was cared for by his or her first primary subsidized provider, regardless of whether the provider received a subsidized payment continuously. Using the child care calendar data from the survey, we observe the primary subsidized child care provider of the focal child from the first month on the subsidy program through each month of the observation window and consider the arrangement to end when a child is reported to no longer be using that provider as his or her primary provider. (The child could still be using the provider but for fewer hours than another provider who is designated as "primary.") Note that for the subset of respondents who used their first subsidized child care provider before receiving the subsidy, the 18-month observation window is left-side censored, meaning that it does not include these earlier months of continuous (unsubsidized) care with the same provider. Also, as the variable of provider spell lengths comes from the survey data and respondents had a varying observation window, 24 percent of respondents are right-side censored earlier than the 18-month window (the shortest window was 11 months). However, a shorter observation window for those cases does not affect the survival estimate

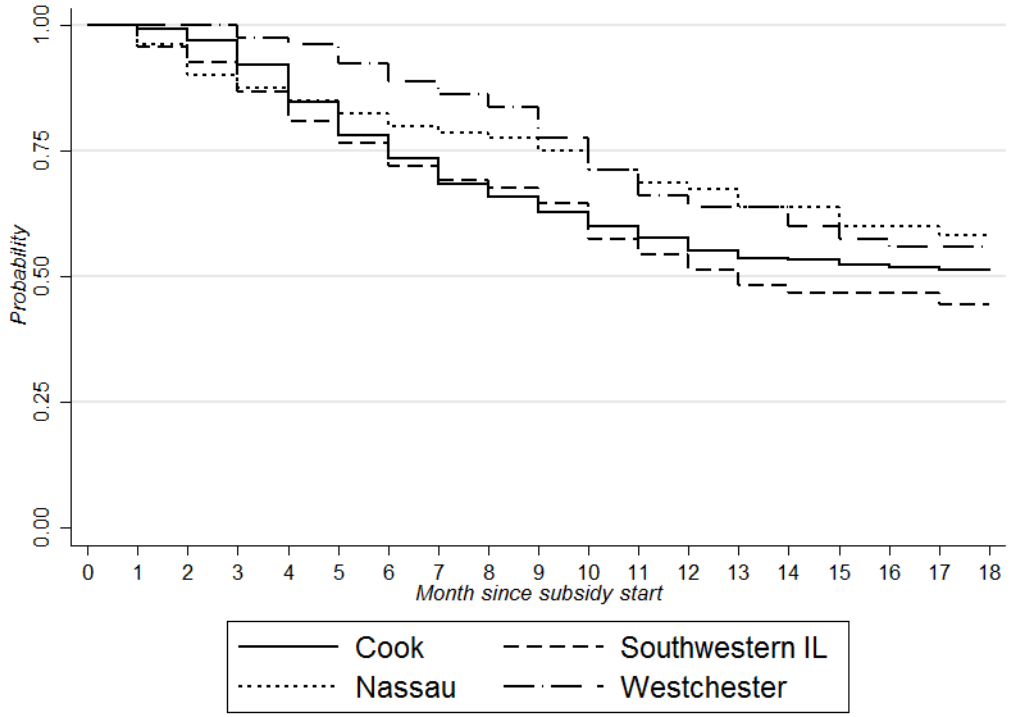
because the Cox survival model does not use right-censored cases in the model calculation after their censored time point.

Figure 7.1 illustrates the survival curves for provider spell lengths over the 18-month period for each of the four study sites. Overall, children in the two New York sites have longer provider spells than children in the Illinois sites. We find that probability of leaving the primary provider during the 18-month observation period varies substantially across sites: 44.4 percent in Westchester County, 42.3 percent in Nassau County, 48.8 percent in Cook County, and 55.8 percent in Southwestern Illinois. This finding is similar to the pattern of results observed for subsidy spell lengths, as presented in chapters 4 and 5.

These results show that the median spell length is 13 months in Southwestern Illinois and greater than 18 months in the other three sites. Because fewer than 50 percent of families leave the primary provider during the 18-month observation period in all sites except Southwestern Illinois, it is not possible to compare median spell lengths across sites (as the median spell length is estimated as the month in which at least 50 percent of families have left their provider). However, we can infer that in all sites, on average, the length of the first primary provider spell is longer than the length of first subsidy spell[25] and is considerably longer than the eligibility period in each site.

FIGURE 7.1

Kaplan-Meier Survival Curve of Primary Child Care Provider Spell by Site



Source: Telephone survey data collected by authors.

Independent Variables

We include the same explanatory variables in this model as we used in the analyses of subsidy exits (see chapter 5) with three exceptions. First, the early job loss variable is reconstructed to indicate whether a job loss (or job change) occurred before or simultaneous to the child care provider exit for all provider exits occurring within 6 months. For respondents who did not exit their provider during this time, early job loss is coded as any job loss (or job change) at some point during the first 6 months. (In chapter 5, early job loss was calculated based on whether a job change or job loss occurred before leaving the subsidy program rather than before leaving a provider, as it is defined here.) We hypothesize that respondents who report an early job loss during this time will face a greater risk of leaving their provider during the 18-month observation period.

We include an early subsidy loss variable that is constructed similarly to the early job loss indicator, but indicates whether the respondent exited the subsidy program before or simultaneous to the

provider exit during the first 6 months (or at some point during the first 6 months for respondents who did not exit their provider during this time).

We also include a variable indicating how much the respondent agreed (1 = strongly disagree to 4 = strongly agree) with a survey item indicating they had backup child care providers available, reasoning that a lack of backup care may contribute to child care instability.

As with the multivariate analyses in chapter 5, we include the 15 cases that were unemployed at the start of the subsidy program, setting their employment characteristics to 0. Sensitivity analyses excluding these 15 cases from these models showed no substantive differences.

Table B.7.1 in appendix B provides bivariate descriptive statistics for each of the independent variables by whether the family exited the first primary subsidized provider during the 18-month window. These descriptive statistics do not adjust for right-side censoring as is done in the multivariate hazards model reported below.

Multivariate Results

In this section, we present results from multivariate Cox proportional hazards models. The hazard ratios presented in table 7.2 can be interpreted as the relative risk of leaving the provider relative to the baseline (or reference) group. A hazard ratio greater than 1 indicates a higher risk relative to the reference group, and a hazard ratio less than 1 indicates lower risk.

SITE DIFFERENCES

Taking into account the full set of covariates, we find important site differences in the risk of leaving the subsidized provider during the 18-month window. Specifically, families in Cook County and Southwestern Illinois, respectively, have a 46 and 67 percent greater risk of leaving their providers than families in Westchester County. Families in Nassau County do not show an elevated risk of leaving their subsidized providers relative to Westchester County families.

DEMOGRAPHIC AND EMPLOYMENT CHARACTERISTICS

The risk of exiting the first subsidized child care provider during the 18-month period is marginally greater for nonwhite families and for families whose subsidized child is older at the start of the subsidy. Immigrant families have a marginally lower hazard of leaving their child care provider during the 18-month observation period. Families living in an extended household structure without a partner (as

compared to families living alone with their children) and families with higher subsidy copayments—a proxy for higher family income—both show a significantly lower hazard of leaving their child care providers during the 18-month window.

TABLE 7.2

Cox Proportional Hazard Models of the Likelihood of Exit from Child Care Provider Used at Start of Subsidy within 18 Months of Entry (*N* = 516)

Independent variables	HR	SE
Study site		
Westchester (ref.)	—	—
Cook	1.46*	(0.25)
Southwestern IL	1.67*	(0.36)
Nassau	1.03	(0.13)
Demographic Variables		
Parent's age	1.01	(0.0052)
Parent's race		
White (ref.)	—	—
Nonwhite	1.32^	(0.22)
Education		
High school diploma or less (ref.)	—	—
Some college/associate's degree	1.05	(0.18)
Bachelor's degree or higher	1.00	(0.14)
Immigrant status	0.67^	(0.14)
Household structure		
Single, no adults (ref.)	—	—
Single, living with adults	0.80*	(0.080)
Living with partner	1.22	(0.21)
Age of focal child at subsidy start	1.06^	(0.037)
Number of subsidized children at subsidy start	0.97	(0.029)
Family receives TANF	0.90	(0.20)
Amount of family child care copayment ($10)	0.97***	(0.010)
Employment Variables		
Early job loss	1.51**	(0.22)
Number of hours worked per week	1.01^	(0.0030)
Number of nonstandard shifts	0.99	(0.039)
Work hours vary a lot/sometimes	0.87	(0.083)
Unexpected work very often/sometimes	0.96	(0.066)
Limited advance notice of work hours	1.22	(0.18)
No input into work schedule	1.01	(0.082)
Very difficult to take off working during the day to attend to family matters	1.31	(0.23)

Independent variables	HR	SE
Had a job before the subsidy	1.07	(0.17)
Child Care Variables		
Used the same provider before subsidy start	0.75***	(0.023)
Type of subsidized provider at start		
Center (ref.)	—	—
Licensed family home	1.49***	(0.14)
Informal/unlicensed care	1.14	(0.13)
Provider flexibility index	0.91	(0.081)
Backup care available	1.12**	(0.042)
Feels child is safe and secure with provider (frequently/always)	0.47***	(0.091)
Provider offers any nonstandard hours of care	0.78***	(0.046)
Subsidy Experience Variables		
Early exit from the subsidy program	1.69***	(0.12)
Difficulty finding a provider	1.10	(0.23)
Difficulty with application process	1.11*	(0.051)
Took a long time for application to be approved	0.91	(0.12)
Ever had a problem receiving a payment from the subsidy program	1.26^	(0.15)
Work hours covered by subsidy	1.04	(0.13)

Notes: Sample is restricted to respondents who use the child care subsidy for primary child care provider. Model includes controls for the season of entry into the subsidy program (coefficients not shown). HR = hazard ratio; SE = standard error; TANF = Temporary Assistance for Needy Families; ref. = reference group. — = not applicable.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

Respondents who lost their job during the first 6 months of the subsidized primary child care provider have a 51 percent greater risk of exiting the provider at some point during the 18-month observation window. None of the work schedule variables are statistically significant.

CHILD CARE AND SUBSIDY EXPERIENCE VARIABLES

Compared to center-based care users, respondents who used a licensed family child care provider face a higher risk of leaving their child care provider (the hazard ratio for informal care is above 1 but not statistically significant). In addition, respondents who reported greater availability of backup providers have a higher risk of leaving their child care provider. Respondents who obtained the subsidy to help pay for a provider they were already using before entering the subsidy program have a reduced risk of leaving that provider during the 18-month observation period. Moreover, respondents who reported their child always or frequently feels safe and secure with his or her provider (compared to rarely,

sometimes, or usually) and whose provider covers care during nonstandard hours also have a significantly lower risk of leaving the first subsidized provider.

Finally, although the descriptive statistics suggest that first provider spells are longer on average than first subsidy spells, it is nevertheless the case that exiting the subsidy program puts families at risk for leaving their providers. In particular, respondents who left the child care subsidy program within 6 months of entering show a 69 percent greater risk of leaving the first subsidized provider during the 18-month observation window. In addition, respondents who reported greater difficulty with the subsidy application and who reported problems with subsidy payments have a higher risk of leaving the provider during the observation window, although none of the other subsidy characteristics prove important to explaining provider exits.

Summary and Conclusion

The results presented in this chapter suggest that several factors contribute to families leaving a primary child care provider (or shifting to using it as a secondary care arrangement). When asked directly why they stopped using their provider, respondents reported a range of reasons related to the subsidy program itself, as well as to their job, child care provider, and other factors. Respondents often reported more than one reason for leaving a provider, suggesting the importance of designing surveys in a manner that captures this complexity of families' experiences with maintaining care.

In our efforts to further explore the factors contributing to child care exits, we conducted multivariate analyses to assess the extent to which demographic, employment, child care, and subsidy-related factors pose a statistically significant risk for leaving the first primary subsidized child care provider. Although descriptive statistics are available on respondents' self-reported reasons for leaving either a subsidized or unsubsidized primary provider, the multivariate analyses are limited to the subset of respondents who use a subsidized primary provider only. These multivariate analyses are useful for assessing the relative risk that distinct factors pose; however, they do not tell us whether the subsidized provider exit we are observing is voluntary, nor do they indicate whether the child moved to another provider (or if such a move was of better or worse quality than the prior one) or went without care altogether after a child care exit. Our findings in chapter 6 shed some light on this latter question by exploring arrangements before and after a subsidy exit for a subsample of survey respondents (see table 6.8).

The multivariate results presented in this chapter offer important new knowledge about child care (dis)continuity during periods on and off the subsidy that is not available through analyses of

administrative data alone. Similar to the results reported in chapter 5 on determinants of exiting the subsidy program, we find longer child care spells in the two New York counties than in the Illinois sites; in particular, Illinois respondents in Cook County and Southwestern Illinois compared to respondents in Westchester County face a heightened risk of leaving their subsidized provider during the 18-month window. Moreover, short subsidy spells (regardless of geographic site) put families at a significantly heightened risk for child care discontinuity, although many families remain with their provider after exiting the subsidy program. Together, these findings suggest that policy parameters such as longer eligibility periods and simpler recertification processes may not only contribute to longer subsidy duration but also promote child care stability.

The results reported in this chapter also demonstrate that risks of child care exit, as with risks of subsidy exit, are greater for older children and nonwhite respondents but lower for immigrant respondents. Respondents who reside with nonpartner adults face a lower risk of leaving their child care provider than respondents living alone with their children, perhaps because these household members can offer financial or instrumental support to help maintain the arrangement. Importantly, respondents living with a partner do not experience this same lessened risk of leaving a child care provider relative to single respondents. We saw in chapter 5 that partnered respondents were at heightened risk of losing a subsidy relative to single respondents. Perhaps any additional spousal income or tangible instrumental support available to facilitate provider maintenance, especially in the face of subsidy loss, proves insufficient to hold onto a child care arrangement.

Not surprisingly, the multivariate results reported in this chapter also reveal that job loss increases the risk of child care discontinuity, similar to its risk for subsidy instability, as discussed in chapter 5. Once job loss is taken into account, however, the other job characteristics do not put respondents at a heightened risk of exiting their child care arrangement. In results not reported here, we find that job characteristics themselves (specifically, nonstandard shifts, limited advance notice, limited input into schedule, and flexibility to take time off for family matters) are related to early job loss, which might help explain the null relationship between job characteristics and exiting the child care program once job loss is included in the model.

Respondents who used a licensed family child care provider as compared to a center face a lower risk of exiting the subsidy program, as reported in chapter 5, but they have an increased risk of leaving that provider during the observation period. Somewhat unexpectedly, greater availability of backup providers is associated with an increased risk of provider discontinuity, suggesting that perhaps the availability of backup care is a proxy for greater child care availability, which may make it easier for families to switch providers when an arrangement is not working well. There is good indication from our

results that families stay with providers with whom they are comfortable and satisfied. That is, findings reveal that having used a provider before enrolling in the subsidy program, using a provider for nonstandard care hours when necessary, and feeling the provider keeps one's child safe and secure all contribute to a lower risk of exiting the subsidized child care arrangement.

Chapter 8. Implications for Child Care Subsidy Policy

The Illinois–New York Child Care Research Partnership Study (IL–NY CCRP) aimed to address the growing concern that low-income families with young children have difficulty accessing and maintaining child care assistance, without which parents cannot secure child care and stable employment. The study confirms findings from previous research on the dynamic nature of subsidy program participation and offers new insights into the factors that may lead families (many of whom are still eligible) to leave the subsidy program and their child care providers.

Summary of Key Findings

Subsidy Dynamics

As a starting point to understanding child care subsidy instability, we analyzed administrative data obtained from our state partners in Illinois and New York. We focused on a cohort of families newly enrolled in the subsidy program for a non-school-aged child and estimated the length of time subsidized families stayed continuously enrolled in the program (as measured by receipt of payment), the rate at which families exited the program, the proportion of families that returned after exiting, and other subsidy dynamics. Similar to research in other states (Ha and Meyer 2010; Meyers et al. 2002), we find that subsidy spells are relatively short across the four diverse study sites. Even though the examination period is limited to 18-months, the majority of families (about three-quarters in Illinois and two-thirds in New York) exit the subsidy program during this time. In fact, about one in six families in each site exit within only 3 months. Most families in Illinois stay in the program for 9 months and in New York 11 months, corresponding to the shorter 6-month eligibility period in Illinois relative to the 12-month eligibility period in New York.

Further supporting the conclusion that subsidy spell duration closely tracks the length of the eligibility period, we find that Temporary Assistance for Needy Families (TANF) cases in New York, which has a 6-month recertification period, have significantly shorter subsidy spells (median spell is 6 months) than non-TANF cases in New York (median spell is 13 months). In both states, TANF-approved

cases have fewer total months of subsidy receipt compared to non-TANF income-eligible cases. The greater likelihood of TANF cases exiting the program and exiting sooner than other families (particularly in New York), and their higher rates of churning in and out of the program is especially concerning given that TANF families are the most economically disadvantaged in the sample.

Churning is common among other families in the study as well. Among all families who exited the subsidy program within 12 months, about one-third returned within 3 months, and about 40 percent returned within 6 months. This pattern suggests many families exit the program only temporarily and not due to more permanent circumstances that make them ineligible in the long term.

Determinants of Subsidy Stability and Child Care Continuity

The key goal of our study was to examine the determinants of instability in subsidy use and how it affects the continuity of child care. Accounting for a rich set of covariates, we find several significant factors related to families' subsidy experiences, parental employment, and child care providers. We highlight here the most meaningful research findings.

LENGTH OF ELIGIBILITY PERIOD

Most notably, we find differences in our measured outcomes by study site: families in Illinois, who face a 6-month eligibility period, have an increased risk of exiting the subsidy program as well as leaving their first subsidized provider compared to families in Westchester and Nassau Counties, who have a 12-month eligibility period. The two New York sites varied as well, with Nassau County families having a lower risk of exiting the program. The difference in New York could be attributed to variations in local subsidy administration or the populations served in the counties (with the Westchester sample more disadvantaged, with a larger number of TANF cases, and Nassau more advantaged, with some higher-income Title XX cases).

SUBSIDY PROGRAM EXPERIENCES: EASE OF APPLYING, LOCATING PROVIDER, AND RECEIVING TIMELY PAYMENTS

Early subsidy program experiences also predict whether families stay in the subsidy program and whether they continuously use the same provider (with or without the subsidy). Families who reported difficulty finding a child care provider, who reported that the application process was difficult, or that it took a long time for the application to be approved were at greater risk of leaving the subsidy program during the study's observation period of 18 months. Similarly, families who reported having greater

difficulty with the subsidy application and experienced delayed provider payments were at greater risk of leaving their primary subsidized provider during the study period. Our survey results indicate that most clients agreed that it took a long time for their application to be approved and, while receiving a subsidy, many of them reported having a problem receiving a payment. We know from the qualitative component of this study that communication barriers and paperwork issues posed barriers to clients, ultimately leading some eligible families to unexpectedly lose their assistance and others to willingly leave the subsidy program out of frustration. In some cases, parents chose to stop using their provider because they were concerned about the timeliness and accuracy of payments and about having to pay the full cost of care. Although we do not examine recertification experiences in this report, analyses of survey and interview data show that families who had difficulty with the application often had difficulty with recertification and other paperwork as well, indicating that some parents lacked the support they needed to complete the necessary steps to maintain their assistance.

EMPLOYMENT STABILITY AND PREDICTABILITY

We also find strong associations between employment instability, subsidy stability, and child care continuity. Job loss or job change was a key predictor of both leaving the subsidy program and leaving a subsidized provider. Because employment (or enrollment in another approved job training or educational activity) is a program eligibility requirement, the stability of subsidy receipt is frequently disrupted when parents stop working, even if temporarily. Job search allowances can help families avoid program termination after a job loss, but interviews with families suggested few were aware of eligibility rules around job search. Moreover, subsidy approval is dependent on employment verification, so any job change could disrupt subsidy payments if parents fail to submit appropriate documentation on time or if the subsidy program office fails to process the change in a timely manner. Working unexpected hours and schedules for which parents had limited control also increased the risk of exiting the subsidy program, as did working hours beyond what the subsidy covered. Workers with nonstandard hours did not exit the subsidy program at a faster rate, which suggests that subsidy receipt is not affected as much by the days and times parents work and need care as it is by the inconsistency in their job hours and schedules, which can lead to fluctuations in reported income and a mismatch between approved work and child care schedules.

REPORTED INCOME AND HOUSEHOLD STRUCTURE

Having a college degree (versus no more than a high school diploma) or living with a spouse or partner (versus with no other adults) also increased families' risk of leaving the subsidy program. Likely, these families' earnings were too high for continued eligibility, as neither Illinois nor New York implement

continuing eligibility thresholds, which would allow subsidized families to work toward increasing their income without losing their child care benefits when the eligibility income threshold is surpassed.

PROVIDER RELATIONSHIPS

Families that appeared satisfied with their choice of provider and felt their child was safe and secure with the provider managed to stay in the subsidy program longer and maintained that provider for a longer duration. Having a provider whom the parent knew before applying for the subsidy and who was willing to provide care during nonstandard hours was also associated with a lower risk of leaving that provider. The relationship between these provider characteristics and subsidy stability could reflect parents' willingness to complete the necessary steps to stay enrolled in the subsidy program if it meant keeping their child with a provider that met their care needs. Not having a provider with whom the parent felt comfortable could have discouraged families from investing in the activities necessary to maintain their subsidy eligibility, or in using the subsidized care providers they found, or even from using nonparental care at all, as we observed in several of our qualitative interviews with subsidy clients.

TYPE OF CARE

Subsidy stability and child care continuity are not simply a function of care type. Some evidence suggests that whether families use centers, licensed family homes, or unlicensed home-based arrangements (informal care) plays a role in subsidy stability and child care continuity, but the study findings are mixed and dependent on region and timing of the observation. When examining each state separately using administrative records only, New York families using informal care (compared to a center) stayed in the subsidy program for a shorter period of time, but in Illinois, families in a center had shorter spells than families in family child care, with no differences between families in center-based care and those in informal care. Overall, among the sample of survey respondents from both states, the risk of leaving the subsidy program was lower for families who used a licensed family child care provider (compared to a center). But over time, those same families faced a higher risk of leaving their family child care providers compared to center-based care users, suggesting that although families choosing family child care are able to maintain their subsidy for longer periods, those families are more likely to end up changing providers as their children age. These findings underscore the complex relationship between care type and subsidy and child care dynamics, leading us to caution against concluding that any one subsidized care type is inherently more stable than another.

Link between Subsidy Stability and Child Care Continuity

Overall, we find a strong association between subsidy instability and child care continuity. Families who left the subsidy program within six months of entering had a higher risk of leaving their primary provider than families who maintained their subsidy longer. When examining changes in subsidized providers by using administrative records, we find that children who experienced a greater number of subsidy spells used a greater number of subsidized providers over time and had a higher risk of changing providers during a continuous subsidy spell, suggesting that instability in subsidy use is closely related to instability in subsidized providers. We also find that among families who exit and return to the subsidy program during the 18-month observation window, about one-third return with a new provider, and the longer families go without the subsidy, the more likely they are to return to the program with a new provider.

In comparing the providers used by families before and after a subsidy exit, we find a significant shift in type of care, with a large decrease in the use of licensed care providers and a large increase in the use of informal care (and more than one third of families go without any regular provider after a subsidy exit). After a subsidy exit, families were more likely to report already knowing their provider and that they felt their children were safe with their provider as compared to before the subsidy exit. This finding likely reflects the increased use of informal care. We do not know from our data whether the loss of a subsidy led to a decrease in child care quality, but the absence of a subsidy limited parental choice of a licensed provider.

Certain factors appear to support continuity of care. Not surprisingly, having a higher income (indicated by a higher subsidy copayment) and living in an extended household with adults other than partners (such as the focal child's grandparents) led to more stable child care arrangements over time. Based on evidence from the qualitative component of this study, higher earnings and financial and instrumental support from family members allowed parents to better access and maintain providers, even during periods without a subsidy.

Parents' Self-Reported Reasons for Subsidy Program and Provider Exits

The findings reported above are correlational and not causal, meaning we cannot say for certain whether the identified factors had a true impact on instability. To further explore factors contributing to instability, we examined parents' self-reported reasons for leaving the subsidy program (and leaving their first subsidized providers). While itself not causal information, parental perception of cause

provides another lens through which to understand subsidy and child care dynamics. As expected, eligibility issues were the most commonly identified reasons for exiting the subsidy program; in particular, about one-third of survey respondents who had their child care assistance stop at some point described not being in an approved activity, particularly after a job loss. Respondents also reported losing their eligibility because they returned to school (and no longer remained eligible for the program) or their schooling or training ended (and the subsidy only covered their time in these activities). A smaller share of families earned their way off the program and reported being no longer eligible due to changes in income. Another group of parents chose to leave the program because they either no longer needed child care or no longer needed or wanted help to pay for child care. These reasons align well with the findings from our multivariate models.

Most central to our research questions, however, were those families affected by problems with subsidy administration that resulted in leaving the subsidy program and in some cases the provider. About one-quarter of families that experienced subsidy instability cited paperwork problems as a main reason. Qualitative evidence further explains how some parents willingly chose not to recertify for continued assistance because of the difficulties they had experienced completing forms satisfactorily, contacting the subsidy office to receive necessary help, processing delays, and other issues related to subsidy administration.

Based on parents' reports, we also find that changing providers was a key reason for subsidy instability. Qualitative interviews with some of these survey respondents uncovered the complexities involved in reporting provider changes to the subsidy program, and when the involved parties (the client, the subsidy worker, the old provider, and the new provider) did not promptly or successfully complete their respective steps in the process, new providers were not approved and paid in time for a seamless transition. A small number of families reported that their providers stopped accepting a subsidy, so to maintain those providers they had to go without the subsidy.

Finally, many parents reported leaving the subsidy program and their subsidized provider for reasons related to losing or changing jobs and losing the subsidy (which could be due to the job loss). Most other reasons reflect voluntary action on the part of the parent, such as seeking higher-quality or better-fit providers given their child's age and needs and their own work schedules rather than abrupt and unplanned changes. But, interestingly, a number of parents mentioned concerns about provider safety, quality, and reliability as a reason for leaving their primary provider, which raises concerns about the quality of the settings children are in. These findings also challenge the definition of child care instability—and raise the question of the extent to which changes in providers are positive for children,

given the alternative—and suggest the importance of considering parents' reasons for leaving or changing providers when studying child care (in)stability.

Conclusion

This partnership study contributes knowledge about the determinants of child care subsidy instability and demonstrates that a family's ability to maintain child care assistance is related to their ability to maintain their child care. Changes in employment circumstances and in child care providers, on top of the complexities of subsidy eligibility rules and practices, can disrupt the stability of subsidy receipt. Some families are more vulnerable to instability, such as TANF recipients, those with unpredictable job schedules, and those who have difficulties navigating the subsidy system.

Our findings build on previous research documenting low-income families' difficulties with navigating the subsidy system (Adams et al. 2002) and highlight that many families—at least in the partnering sites—still face difficulties accessing and maintaining their assistance, even with advances in the field to streamline processes (Adams and Matthews 2013) and the federal Office of Child Care's past guidance on family-friendly policies (Administration for Children and Families, Office of Child Care 2011). This study was conducted before the 2014 reauthorization of the Child Care and Development Block Grant Act; however, in the next section, we discuss the implications of this research for child care subsidy administration within the context of new federal regulations.

Policy Implications

On November 19, 2014, President Obama signed the Child Care and Development Block Grant Act of 2014 into law. The bipartisan bill reauthorizes the Child Care and Development Fund program for the first time since it was enacted as part of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (Public Law 104-193). The new law reaffirms the program's dual aims of reducing child care costs and improving child care quality with the purpose of advancing family economic well-being and children's healthy development. It includes several statutory changes and defines requirements related to the health and safety of child care settings, improved transparency of information for consumers and providers, new family-friendly eligibility parameters, and quality improvement efforts, as well as several miscellaneous provisions related to child care supply, provider payments, technical assistance, research and evaluation, and state reporting and compliance waivers.

States continue to have broad latitude to design their child care subsidy programs to conform to the federal guidelines (Administration for Children and Families, Office of Child Care 2014b).

The research reported in this final report of phase 1 of the IL–NY CCRP, together with findings reported in a companion report describing results from the phase 1 qualitative substudy of the IL–NY CCRP, was conducted before the passage of the new federal child care law. Nevertheless, the findings are instructive and may provide fruitful direction to federal, state, and local policy makers as they interpret the new law and reform state and local programs in accordance with it. Given the IL–NY CCRP's focus on parental employment and subsidy program experiences as determinants of subsidy (in)stability and child care (dis)continuity, the policy implications of the study may be particularly relevant for informing efforts at improved transparency and family-friendly program eligibility parameters that reflect the circumstances of low-income working families' lives. We highlight some of these implications below.

First, our findings lend support to efforts designed to make compliance with eligibility requirements easier for families and to lengthen their time on the child care assistance program. Findings from the qualitative substudy underscored that the program is an important component of low-income families' economic strategies and a much-appreciated and beneficial work support. Yet the results of our analysis of subsidy program dynamics, based on child care payment records over an 18-month period, demonstrate that in both of our two-site state samples the majority of families exit the subsidy program, and among those who leave, sizable shares return quickly. This cycling, observed even within the short 18-month observation window, may indicate unwanted instability in program participation. Many families who leave the subsidy program may be experiencing difficulties maintaining access to the program although they remain in need of assistance. Some lose assistance even when still eligible, and those identified as ineligible may be experiencing short-term conditions, such as temporary unemployment or maternity leave, after which they return to the subsidy program.

Our multivariate analyses of linked survey and administrative data, together with the qualitative substudy findings, provide substantial evidence that administrative factors complicate the application and recertification process, increase the risk that families exit the subsidy program, and contribute to instability in child care arrangements. Moreover, subsidized families who resided in sites with 12-month as opposed to 6-month eligibility periods experienced longer first subsidy spells and stayed with their child care providers longer as well. Our qualitative substudy findings suggest, however, that the eligibility length defined by state or county policy is implemented unevenly across families. Subsidy office staff has discretion in setting shorter eligibility periods for particular circumstances, such as when

jobs have irregular hours or when a participant is self-employed, and many families experience eligibility periods shorter than those defined by state or county policy.

Consistent with the new federal guidelines, our findings suggest that to increase the stability of subsidy receipt and lengthen child care arrangement duration, reforms should

- Simplify and make more transparent application and recertification requirements,
- Improve timeliness of child care payments to providers, and
- Adopt a 12-month continuous child care assistance eligibility period that does not require verification of continued eligibility throughout the 12-month period.

Second, our findings suggest that TANF families may face particular challenges maintaining stable child care assistance. Particularly in New York, we find that TANF-eligible cases are more likely to exit the program and to experience churning (more spells) and fewer total months of subsidy receipt relative to non-TANF income-eligible cases. TANF families in New York were given 6-month rather than 12-month eligibility periods, likely contributing to their shorter spells. Our qualitative findings also reveal that some TANF families experience unique challenges using the subsidy program due to their need to navigate the child care subsidy and the TANF systems and because they faced separate program eligibility criteria for TANF and Child Care Assistance, which were not always transparent to participants or their caseworkers across the two systems. Moreover, when the child care subsidy was used for work activities such as job training and placement rather than to support employment, as it was for the New York TANF families in our study, the duration of the subsidy may have paralleled the duration of these TANF work activities rather than following families as they transitioned into the labor market. Thus, our findings suggest that to increase the stability of subsidy receipt and lengthen child care arrangement duration for TANF families, reforms should

- Simplify and make more transparent eligibility and recertification requirements for TANF families, TANF caseworkers, and Child Care Assistance caseworkers;
- Adopt at least a 12-month eligibility period for TANF families; and
- Allow TANF families to maintain a subsidy after TANF work activities have been completed and provide additional caseworker support to transitional TANF cases.

Third, our survey findings demonstrate that job instability heightens the risk of subsidy instability and child care provider discontinuity. Our qualitative substudy vividly illustrates how irregular employment circumstances, nonstandard job characteristics, and limited control over work schedules

can complicate child care arrangements, create temporary ineligibility for assistance, and even lead to premature job loss. The qualitative substudy findings also suggest that recipient knowledge about job allowance rules was poor (in sites that permitted job search as an approved activity), resulting in families leaving the subsidy program after a job loss even when they may have been eligible. Thus, consistent with the new federal emphasis on loosening the tight link between employment and subsidy eligibility, our findings suggest that to increase the stability of subsidy receipt and lengthen child care arrangement duration, reforms should

- Adopt job search allowances of at least three months to support subsidy continuity in the face of job loss;
- Make eligibility requirements and income caps more flexible to accommodate variable, fluctuating, and unpredictable work hours and schedules that affect the timing of care needs and family earnings;
- Adopt graduated income caps to allow subsidized families to work toward increasing their earned income without immediately become ineligible; and
- Raise awareness among subsidized families about rules regarding subsidy eligibility during periods of unemployment or employment changes.

Fourth, our findings suggest complicated relationships between child care type, subsidy dynamics, and child care duration. In the 18-month observation period, about one-third of families who cycle in and out of the subsidy program change providers during the gap in assistance; about half change to a different provider of the same care type if they do change providers. The administrative data indicate that cycling back to the program is common and that gaps in subsidy coverage are often only a few months long. Our qualitative substudy reveals that many families experience short gaps in both subsidy and child care coverage during the recertification period due to problems with recertification paperwork, processing delays, and other administrative challenges. Some short gaps in subsidy coverage are not necessarily revealed in the administrative data because providers may receive backpayment from the program and the child care assistance payment records are then adjusted accordingly. However, recertification delays can nevertheless create ambiguity about program status and stress for parents (and likely providers), and in some cases lead parents to remove their children from care until their eligibility has been successfully redetermined. Survey and qualitative findings suggest that gaps in subsidy receipt for families who leave their subsidized provider are disproportionately filled by an informal provider or that these families go without care altogether.

Our findings suggest important differences by site in the interaction of child care type and the subsidy program. Specifically, in our two Illinois sites, families who use centers and informal care have more churning in and out of the program, and in our two New York sites, families that use informal care also experienced more churning in and out of the subsidy program. In the two New York counties, families who started the subsidy in family child care or informal care arrangements were also at a higher risk of changing providers during a subsidy spell as compared to those who started in center-based care. Qualitative study findings show that families using informal care in particular may experience more difficulties recertifying and maintaining assistance, because center-based and family child care providers often assisted with required paperwork and communicated with the local subsidy officer on the parent's behalf to ensure their receipt of payment.

These results regarding subsidy program and child care arrangement interactions suggest that reforms aimed at encouraging child care stability should

- Reduce brief gaps in program receipt that reflect administrative churning rather than intentional exits;
- Identify strategies to keep children in care during brief gaps in subsidy coverage; and
- Recognize site-specific factors that may heighten the risk of instability in particular modes of care and craft responses appropriate to each type of care.

Fifth, our findings suggest there may be merit in devoting policy attention to the unique child care challenges of two-parent families. Two-parent families who participated in our survey had a greater risk of leaving the subsidy program during the 18-month window than single-parent families. Our qualitative substudy suggests two confounding challenges to maintaining a subsidy for two-parent families. On the one hand, these families reach income eligibility ceilings more easily when both parents work for pay, disqualifying them for assistance. On the other hand, in the face of job loss for one parent, subsidy rules treat the unemployed parent as a viable caregiver, thereby disqualifying these single-earner two-parent families from assistance. Our findings suggest that to increase the stability of subsidy receipt for two-parent families, reforms should

- Increase job search allowances (for all families) to permit an unemployed parent to search for work without risk of losing child care assistance, and
- Reevaluate the structure and level of income thresholds to assess their appropriateness for all families, including two-parent working families.

The Child Care and Development Block Grant Act of 2014 provides an opportunity for states to develop policies that are reflective of parental work demands and the complexity of families' lives. We have presented several areas for reform that our findings suggest would have the potential to increase subsidy program stability and child care continuity. Of course, the specific program reforms that states undertake will necessarily reflect the opportunities, resources, and constraints at play in particular local contexts. Reauthorization provisions will likely require additional resources for states to implement during a time of serious fiscal constraint at federal, state, and local levels. As a result, although left unaddressed in this study, a serious challenge to successful subsidy program reforms designed to facilitate program stability and care continuity concerns the financial price tag of different policy alternatives. State reform decisions will involve policy tradeoffs that require rigorous analysis and careful reflection given their considerable consequence for the low-income families for whom the program aims to serve.

Notes

1. *Characteristics of Families Served by Child Care and Development Fund (CCDF) Based on Preliminary FY 2013 Data.* 2014. http://www.acf.hhs.gov/programs/occ/resource/characteristics-of-families-served-by-child-care-and-development-fund-ccdf.
2. ibid.
3. In fall 2013, Phase 2 of CCRP was funded to examine determinants of subsidy instability from the perspective of child care providers and local subsidy program administrators and staff, as well as the intersection between the subsidy program and state and local initiatives to improve child care quality.
4. The age cutoff for fall enrollment in kindergarten is age 5 by September 1 in Illinois and age 5 by December 1 in New York. To be selected, focal children had to be born after September 1, 2006, in Illinois and after December 1, 2006, in New York.
5. During the analyses, we discovered nine families who were originally included in the Illinois sampling frame who did not qualify as new entrants between August 2011 and February 2012. These nine families were dropped from the analyses, yielding an analytic sample of $N = 5{,}893$.
6. Melinda Denham, e-mail message to author, October 7, 2014.
7. Marcia Stoll, e-mail message to author, October 14, 2014.
8. In Illinois, it is the universe of "low-income employment" cases; in New York, it is the universe of "low-income employment" and "TANF child care" cases, excluding preventive and protective cases (i.e., foster care cases).
9. TANF families differ slightly between the two sites because of the different sampling strategies used. All TANF cases selected into the sampling frame were drawn from the population of "low-income employment" cases in Illinois, but in New York, the sampling frame included both low-income employment and "TANF child care" cases, the latter of which may not have had family members who were employed while on the subsidy.
10. Informal care includes all legally exempt, also known as license-exempt, providers caring for children in a home setting. These providers include relatives of the child who provide care in the child's home or their own home, unrelated individuals who provide care in the child's home, and unrelated individuals who provide care in their own home for a small number of children (license-exempt family child care).
11. See appendix A, section III.B.3 for our definition of "multiple, stable providers."
12. Copayment was determined based on the second month of subsidy receipt. See appendix A, section III, B: Administrative Data Analysis Technical Issues, for more details.
13. Ibid.
14. We constructed the early job loss variable in this way for two reasons. First, we wanted to be sure the job loss indicator was based on an observation period consistent in length across the full sample. Had we used a longer period, for a subset of respondents we would not have been able to determine if job loss occurred before leaving the subsidy program. In addition, we wanted to include an indicator that would serve as a proxy for early job difficulties as we reasoned that this variable would differentiate respondents who had more or less difficulty staying in the subsidy program over time.
15. Censoring refers to the fact that the duration of the first subsidy spell is only partially known because the available data only include 18 months of child-care payment records. The data allow us to assess subsidy spells of at least 18 months (but may be more). It is considered "right-side censored" because the data values do not extend beyond 18 months.
16. Center-based child care is considered more formal than family child care, which is considered more formal than informal care.

17. Note that in the administrative data, we count the number of providers based on unique provider identification numbers (IDs). Provider IDs may be assigned to organizations rather than individual child care providers, and some providers may operate more than one child care center or family child care network. Therefore, it is likely that some children experience care with more than one individual provider, even if their subsidy is always paid to the same organization.

18. All reported differences are significant at $p < .05$. No other tested group differences are significant.

19. The difference in the percentage of children moving from family child care or informal care to a center by child age was statistically significant in Illinois but not in New York, likely due to the relatively small number of children who changed providers within a spell in New York ($n = 254$ in New York; $n = 1{,}061$ in Illinois).

20. Not shown in table. Differences are all statistically significant at $p < .05$, except the difference between black and white children in New York, which was significant at $p < .10$.

21. We use a self-reported subsidy exit date for this analysis and not the exit dates determined by administrative data as described in other sections of the report. We do this for two reasons. First, we have only 18 months of administrative data, and a large number of respondents were surveyed more than 18 months from their subsidy start date, so any exits occurring after 18 months are reported in the survey and not the administrative data. Second, to create the child care calendar, we rely on respondents' retrospective report of the months they used each primary provider; we can more reliably identify the primary provider used during the subsidy gap if we use respondents' self-reported subsidy exit date.

22. Based on evidence from qualitative interviews, we know that parents report their "subsidy end date" in different ways. Some respondents report their subsidy end date as the first month they were without the subsidy and without their subsidized care arrangement. For these cases, we expect to observe their last month of subsidized provider use as the month before their reported subsidy end date. Other respondents report their subsidy end date as coinciding with the last month of a care arrangement. For these cases, we expect the last month of provider use and the month of their subsidy end date to match.

23. Seven percent of cases reported provider changes one or two months after their subsidy end date, but we limited our analysis to changes that occurred closer in time to the reported subsidy loss as there may be some unobservable differences in cases that immediately switched providers and those that switched a month or more after the exit.

24. We did not impute reasons for leaving the child care provider; thus, these analyses reflect a descriptive account of answers provided by respondents to the survey question.

25. As reported in chapter 4, median spell lengths (in months) in each site estimated using survival methods are as follows: Nassau County = 12; Westchester County = 10; Cook County = 9; Southwestern Illinois = 6.

26. To stratify by child care burden, cases were grouped by the 25th, 50th, and 75th percentiles. Accordingly, the sample included cases with a range of child care burden—some families paying a relatively large proportion of their income toward child care, and other families paying nothing. In Cook County, the 25th percentile averaged 2 percent, the 50th percentile averaged 4 percent, and the 75th percentile averaged 6 percent. The child care burden in Southwestern IL was similar: the 25th percentile averaged 3 percent, the 50th percentile averaged 5 percent, and the 75th percentile averaged 7 percent.

27. Social service districts in New York State have the option of electing to use Title XX funding to provide child care subsidies to families not eligible for subsidies through the Child Care and Development Fund program.

28. If the youngest children in the household were twins, one twin was randomly selected to serve as the focal child.

29. In 11 cases, the date of birth (DOB) of the focal child in the family-level dataset did not match the DOB of any child in the family in the child-level dataset. This lack of matching appeared to be due to a data-entry error. In these cases, we replaced the DOB in the child-level data with the DOB in the family-level data.

30. If the youngest children in the household were twins, one twin was randomly selected to serve as the focal child.

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Appendix A. Technical Report

The Illinois–New York Child Care Research Partnership included three empirical components: (1) a cross-sectional telephone survey with new subsidy entrants in four regions in two states (*N* = 616), (2) in-person qualitative interviews with a purposive subsample of survey respondents (*N* = 85), and (3) longitudinal administrative data from child care subsidy payments records. Each component is described in detail in this technical appendix.

I. Telephone Survey Component

A. Sampling Approach

The sampling procedures were conducted separately for each state. The goal in both states was to identify a random sample of new entrants into the subsidy program and to interview them at least one month after their expected recertification date so the survey could cover experiences with employment, child care, and the subsidy program through one complete eligibility period and including subsequent recertification efforts. The sampling procedures described below yielded a sampling frame of *N* = 5,902 in Illinois and *N* = 1,819 in New York.

1. ILLINOIS SAMPLING PROCEDURES

In Illinois, project partners at Illinois Action for Children created the survey sampling frame following a specified protocol. First, the subsidy caseload was narrowed to cases that received a subsidy payment for services rendered between August 2011 and February 2012 and who had not received a subsidy within the previous two years. These individuals fit our working definition of "new subsidy entrant." These dates were used because the research team planned to begin survey administration in fall 2012 and wanted at least eight months to pass since entry into the subsidy program. (For example, a participant starting subsidized care in August 2011 would be expected to recertify after six months, in February 2012. The earliest the survey would be administered was in April 2012.) Based on subsidy enrollment numbers in the two participating areas, a minimum number of service months was needed to produce a sufficient sample size.

Our goal was to obtain a survey sample of families who had at least one child who was not eligible for kindergarten at entry into the subsidy program. The subsidized child's date of birth was used to remove all cases that did not have at least one subsidy-receiving child born after September 1, 2006. (The age requirement for kindergarten entry in Illinois is 5 years by September 1.) The youngest subsidized child on the case was selected as the focal child for the survey. Subsidy reason codes were used to select cases initially eligible for a subsidy due to parental employment [including employed Temporary Assistance for Needy Families (TANF) recipients] or work and education/training. Any cases approved for a subsidy because the applicant was in school or training (and not working) or was receiving TANF and not employed were removed. Overall, approximately 8 percent of families in the survey sampling frame were receiving TANF at the time they started using the child care subsidy program.

Stratified random samples were then drawn separately for each service delivery area (SDA). In SDA 6 (Cook County), the larger of the two SDAs, cases were stratified by three variables: whether they identified as Hispanic; month of subsidy entry; and child care burden. By separating Hispanic cases from non-Hispanic and sampling within those groups, we essentially oversampled Hispanic cases in Cook County (which was predominantly African American) to produce a sufficient subgroup size for comparative analyses by race and ethnicity. Because a seasonal pattern exists to subsidy start dates (with more families beginning services in the early fall at the start of the academic year), we stratified by entry month to increase sample variance and to give equal weight to families beginning services at different times during the calendar year. Finally, we stratified by child care burden (the percentage of family monthly income spent on child care subsidy copayments)[26] to ensure sufficient variance on the value of the subsidy, because families who spend a great share of their income on child care copayments may be less motivated to remain in the program relative to families who pay less, as well as to ensure variance in our sample in terms of family economic disadvantage. In SDA 14 (Southwestern Illinois), stratification variables included only the month of subsidy entry and child care burden. Hispanics were not oversampled.

2. NEW YORK SAMPLING PROCEDURES

In New York State, project partners at the Office of Children and Family Services (OCFS) accessed subsidy payment files to create the survey sampling frame for the purposes of this study. Several steps were taken to produce the list of clients eligible for the survey. First, OCFS staff identified all cases in Westchester and Nassau Counties that received a subsidy payment for services rendered between March and December 2011 and who had not received a subsidy within the previous two years. These dates were different from the Illinois sampling frame because the research team wanted at least a 14-

month lapse between entry into the subsidy program and before beginning survey administration in fall 2012. (For example, a participant starting subsidized care in March 2011 would be expected to recertify after 12 months, in March 2012. The earliest the survey would be administered was in May 2012.) Subsidy enrollment numbers in the two participating counties were smaller than the caseloads in Illinois, so 10 (versus 7) months of new entrants were needed to produce a sufficient sample size.

Similar to the sampling procedures for Illinois, the date of birth of subsidized children was used to narrow the sampling frame to cases with at least one subsidy-receiving child who was not age-eligible for kindergarten in 2011 when they entered the subsidy program. The age cutoff for kindergarten entry in New York is 5 years old by December 1; therefore, the sample was narrowed to families with children born after December 1, 2006.

Subsidy reason codes were used to further limit the sampling frame. In contrast to Illinois, in New York we did not restrict the sample based on TANF status due to the large TANF child care program in New York and state partners' strong interest in the experiences of TANF child care recipients in New York. Only preventive and protective cases (i.e., foster care) were dropped, which accounted for an estimated 7 percent of all cases. Otherwise the sampling frame included all other reason codes. About 90 percent of all cases (including TANF cases) were employed, 6 percent were in education/training programs, and 3 percent were TANF transitional cases. Less than 1 percent of cases were approved for other reasons, such as employed TANF clients who were receiving a child care subsidy in lieu of TANF cash assistance and cases of parental illness or incapacity. About 23 percent of cases in the sampling frame were receiving TANF; 65 percent were low-income cases (under 200 percent of the federal poverty level); and 12 percent were Title XX cases (200 to 275 percent of the federal poverty level), funded by New York's federal block grant to states for social services (under Title XX of the federal Social Security Act).[27] The latter group was concentrated in Nassau County because Westchester County had placed a freeze on the use of Title XX funds for new subsidy cases in 2011 through 2013.

B. Recruitment

Once the sampling frames were created for each site, Illinois and New York state project partners sent contact information for potential study participants to the University of Chicago Survey Lab (UCSL) for recruitment. UCSL was contracted by the research team at the University of Chicago to field the survey in both states. Recruitment procedures varied by state because New York State required UCSL to obtain signed consent (by mail) from each participant, but Illinois required only verbal consent before

survey administration (and an advance option of opting out of the study by mail). We next describe the procedures used in each site.

1. NEW YORK RECRUITMENT PROCESS

All cases in the sampling frame in New York (*N* = 1,819) were fielded. UCSL sent an invitational letter to all potential respondents (*n* = 1,002 in Nassau County; *n* = 817 in Westchester County). Letters were sent in batches according to the subsidy start date so clients did not receive a letter until 14 months postentry into the subsidy program. All mailings contained a letter describing the purpose of the study, the requirements for participation, and the incentive amount ($25 check). The mailings also included a response card (for the respondent to mail back to UCSL), a stamped return envelope addressed to UCSL, and a $2 bill as a token of appreciation.

The response card listed three options for respondents to select: (1) consent to participate in the study and be contacted by UCSL to complete the survey; (2) unsure and want UCSL to call to provide more information about the study; and (3) refusal to participate in the study. The response card provided a signature line for respondents to sign and date and a space for the respondents to fill in updated contact information and list the days and times they preferred to be contacted. A signed response card indicating option 1 (consent) was required before proceeding with survey administration in New York.

After two to three weeks, UCSL sent a second mailing to all New York clients who had not yet returned a consent form (i.e., a signed response card; *n* = 1,564). The second mailing was identical to the first but did not include the $2 incentive. UCSL sent additional follow-up mailings to individual cases when the client requested more information or a new copy because the previous one was lost or not received, or when the post office returned the mail with a new address (*n* = 264).

After the two mass mailings, UCSL followed up with two groups by telephone. The first group comprised clients who checked option 2 (i.e., wanted more information about the study) to answer questions and encourage participants to send in their completed consent forms. The second group was clients who had not returned a response card to recruit them into the study. An average of 2.7 recruitment calls were made per case. The recruitment phase in New York lasted four months, from June 2012 through September 2012. Table A.1 shows the final recruitment status of New York cases.

TABLE A.1

Final Status of Mail Recruitment Efforts in New York

Recruitment status	*n*
Returned written consent	251
Mail unsure; no consent provided	13
Mail refusal	48
Bad address	117
No mail returned	1,392
Duplicate records	2
Total	1,819

Source: Data collected by authors.

2. ILLINOIS RECRUITMENT PROCESS

In Illinois, UCSL identified 1,000 representative cases (i.e., replicates) to be fielded from the 5,902 cases in the full sampling frame to ensure an adequate response rate. Of these 1,000 replicates, 997 were eventually fielded; 3 cases were identified as parents under the age of 18 years and were removed from the sampling frame.

UCSL sent an invitational letter to all potential respondents (n = 698 in Cook County; n = 299 in Southwestern Illinois). Letters were sent in batches according to the subsidy start date so clients did not receive a letter until eight months postentry into the subsidy program. Similar to New York, in Illinois all mailings contained a letter describing the purpose of the study, the requirements for participation, and the incentive amount ($25 check). The mailings also included a response card, a stamped return envelope addressed to UCSL, and a $2 bill as a token of appreciation.

The response card sent to Illinois clients listed three options: (1) consent to be contacted to hear more about the study, (2) unsure and want UCSL to call to provide more information about the study, and (3) refusal to participate in the study. Because signed consent was not required in Illinois, no signature line was provided on the card, but there was space where respondents could provide updated contact information and preferred times to be contacted. The Illinois response card indicated that an interviewer at UCSL would be calling to answer any questions about the study and to invite the client to participate (even if they did not return the card). If the client did not want to receive a phone call or additional letters, they were required to return the card with the "No" box marked.

Approximately one week after clients were expected to receive the letters, UCSL made phone calls to anyone who did not opt out of the survey. Because written consent was not required, surveys could be scheduled or conducted immediately after reaching a consenting participant. Table A.2 shows the overall recruitment status for Illinois cases before phone calls began.

TABLE A.2

Final Status of Mail Recruitment Efforts in Illinois

Recruitment status	*n*
Returned written consent	75
Mail refusal	15
No mail returned	907
Under age 18 (removed from sample)	3
Total	1,000

Source: Data collected by authors.

C. Survey Data Collection

After the recruitment mailing phase, we were left with a sample size of 251 consenting cases in New York State and 982 cases in Illinois, which was the initial sample minus mail refusals and those under 18. Data collection via phone began in October 2012 and ended in October 2013. UCSL called mainly on evenings and weekends—Monday through Thursday from 4 to 8 p.m. and Saturday and Sunday from 10 a.m. to 2 p.m.—to reach respondents at home. They maintained a team of interviewers during daytime hours to handle inbound interview requests.

The UCSL calling team consisted of interviewers and project coordinators, including university students and community members from the South Side of Chicago. Six were female and five were male. All interviewers were able to conduct surveys in either English or Spanish. A UCSL operations manager supervised this work.

Interviewers received extensive training before the start of the project. Training sessions covered standardized survey interviewing techniques, study background, and a thorough question-by-question review of the survey instrument. Each interviewer administered no fewer than four practice interviews with one another and with experienced UCSL interviewers before entering the field. A UCSL staff member conducted the final run-through with each interviewer to ensure everyone was prepared for data collection. Throughout the course of the project, the survey team hosted regular check-in meetings to answer any questions that may have arisen, to talk about recruitment strategies, and to review interviewing protocols.

Surveys lasted 40 minutes on average. Some cases were completed on the first call. However, due to invalid phone numbers and the length of the survey, most required multiple calls to establish contact, schedule, and complete the interview. The majority of completed cases (70 percent) were completed within the first 10 attempts, though the range for completes was fairly long, from a minimum of 1 to a

maximum of 47 attempts to completion. We averaged 9 attempts per completed case and 11 attempts per case overall.

Many of the phone numbers received from Illinois and New York State offices were disconnected or changed by the time UCSL called. We refreshed the contact information twice during the fielding period to improve our chances at contact. UCSL sent a list of 36 clients with invalid contact information to OCFS in February 2013. They received updated information for 5 cases, 2 of which eventually completed the survey. In May 2013, UCSL sent a list of 725 incomplete Illinois cases to Accurint (LexusNexus) for look-up and received updated information for 638 (88 percent). Of these, 161 (22 percent) respondents completed the survey.

Upon completion of the survey, UCSL mailed a $25 check to the participant. To increase the response rate after fielding the survey for several months, the incentive amount was increased to $40. Additionally, because disconnected phone numbers posed a significant barrier to contacting potential respondents, in the final months of fielding the survey, UCSL conducted in-person field recruitment efforts in Cook County, which had the largest number of potential participants and was local to UCSL. The field interviewing team consisted of seven interviewers—four females and three males—and a UCSL operations manager who acted as the project supervisor. The calling team included students, community members, and project coordinators. Field interviews were conducted in English only. Spanish-speaking respondents were given Spanish-language recruitment materials and asked to call the UCSL call center to speak with a bilingual member of the calling team. An additional 41 respondents participated in the survey as a result of the in-person recruitment efforts. Twenty-two respondents completed the survey within their home, and 19 followed up to complete by telephone.

Members of the research team working at both sites in New York State and in Southwestern Illinois also attempted to locate sample members who had not yet completed a survey. The purpose of these door-to-door visits was not to complete a field interview, but rather to answer any questions the respondent might have about the study, to obtain updated contact information for each person, and to encourage them to call in and complete an interview. UCSL sent the research team a list of 63 hard-to-reach New York cases (33 in Nassau County and 30 in Westchester County). A team of two researchers visited the home of 13 cases—all in Nassau County—and successfully saw 6 cases. Four of these clients eventually completed a full or partial phone interview. Ten more of the 63 eventually completed the survey after additional call attempts. UCSL provided a list of 180 outstanding cases from Southwestern Illinois. During visits to Southwestern Illinois to conduct interviews for the qualitative substudy, researchers attempted to contact about 40 of these cases, and 8 additional clients ultimately completed the survey.

After putting effort into all cases, including basic phone recruitment efforts, pursuing updated contact information, increasing incentive levels, and in-person recruitment, UCSL completed 616 telephone interviews. This includes 14 partial cases. Table A.3 provides the completion rates by site.

TABLE A.3

Survey Completion Rates by Study Site

	New York			Illinois			
	Total	Nassau	Westchester	Total	Cook	Southwestern IL	Total
Starting sample	1,819	1,002	817	997	698	299	2,816
Consented/ eligible for phone survey[a]	251	122	129	982	687	295	1,233
Telephone-only completes	192	93	99	383	304	79	575
Field effort: in-person completes	—	—	—	22	22	n/a	22
Field effort: telephone completes	—	—	—	19	19	n/a	19
Total completes	192	93	99	424	345	79	616

Note: — = not applicable; field effort only conducted in Cook County.

[a] New York cases must have provided signed consent to complete the telephone survey. In Illinois, only cases that mailed back a response card and opted out of the study were removed from the list of cases eligible for contact.

Because child care and employment characteristics are central to our analyses, for analytic purposes we excluded one case from Cook County, two from Nassau County, and one from Westchester County with missing data on child care and employment histories from our final survey sample (*N* = 612).

D. Response Rates

Response rates varied widely across the four study sites (see table A.4). Given that invalid contact information was a major barrier to contacting potential respondents, we calculated the response rate in two ways: (1) as the number of completed surveys divided by the number of all cases fielded by UCSL and (2) as the number of completed surveys divided by the number of cases for which UCSL obtained valid contact information. The overall response rate for the entire sample was 21.9 percent of all fielded cases and 64.8 percent of fielded cases with valid contact information.

The response rate of all fielded cases for Cook County was the highest across the four sites at 50.4 percent. The Southwestern Illinois site achieved a 26.4 percent response rate. The two New York counties—which required obtaining written consent from participants before survey participation—had much lower response rates: Westchester County achieved 12.1 percent and Nassau County reached 9.3 percent. Response rates for cases with valid contact information were much higher, ranging from 55.2 percent in Southwestern Illinois to 78.6 percent in Westchester County.

TABLE A.4

Response Rates by Site

Study site	Cases fielded (*N*)	Cases with valid contact information (*N*)	Cases completed survey (*N*)	Completed from fielded[a] (%)	Completed with valid contact information[b] (%)
Cook	698	533	345	50.4	64.7
Southwestern IL	299	143	79	26.4	55.2
Westchester	817	126	99	12.1	78.6
Nassau	1,002	149	93	9.3	62.4
Total	2,816	951	616	21.9	64.8

[a] Completed from Fielded (%) = Completed (*N*)/Cases Fielded (*N*)
[b] Completed with Valid Contact Information (%) = Completed (*N*)/Valid Contact Information (*N*).

E. Survey Content

The survey consisted primarily of close-ended items and covered a range of topics. See table A.5 for a list of all topics and information collected. The survey was programmed to capture historical data on subsidy use, employment, and child care providers by using a calendar method. The calendar included all months from the date when subsidized care first started (according to administrative records) up to the survey date. The calendar identified the participant's primary job and the focal child's primary child care provider for every month in the calendar and the corresponding characteristics of those jobs and providers.

TABLE A.5

Survey Content

Topic	Information collected	Item sources (when applicable)
Current subsidy use[a]	Whether each child in household was currently using a subsidy.	
Employment history of respondent	Characteristics of all primary[b] jobs held since entry to subsidy program to the present: start and end dates; hours worked per week; job status (i.e., full-time versus part-time; salaried versus paid hourly); type of schedule; schedule predictability, stability, and control; paid time off; reason(s) for leaving job (if left job).	Items on type of schedule and schedule predictability, stability, and control were adapted from the University of Chicago Work Scheduling Study (Henly and Lambert 2014) and the General Social Survey (Smith et al. 2013).
Current child care providers[a]	Total number of current providers used for all children in the household; characteristics of current child care providers: type of care; hours per week used; length of time provider has provided care to child; stability of provider over time; use of nonstandard hours (weekends, overnights, before 8 a.m., after 6 p.m.); child care schedule variability; provider flexibility (see work-care fit); perceived safety of provider; copayment amount (if subsidized); total cost of care.	Items on current child care providers were adapted from the National Survey of Early Care and Education (NORC at the University of Chicago 2011). One item measuring perceived safety of the provider was adapted from the Emlen Scales for measuring quality of child care (Emlen, Koren, and Schultze 2000).
Child care history of focal child	Number of all primary[b] providers used for focal child since entry into subsidy program to present; start and end dates; provider type; hours per week in care; use of nonstandard hours (weekends, overnights, before 8 a.m., after 6 p.m.); whether provider was subsidized; continuity of care; whether child used a secondary provider; flexibility of provider; perceived safety of provider; reason(s) for leaving provider (if left).	
Work-care fit	Work flexibility with child care needs; child care provider flexibility with work needs; and availability of backup providers.	Items measuring work-care fit were adapted from the Emlen Scales for Work, Family, and Caregiver Flexibility (Emlen et al. 2000). Work flexibility and provider flexibility were each measured with three items. One additional item assessed whether the parent had backup providers. Two additional items measured the difficulty coordinating work schedule with child care schedule and the difficulty coordinating child care schedule with work schedule.
Experiences with subsidy program	How the respondent learned of the subsidy program; whether anyone helped them with application or redetermination processes; ease/difficulty with application and redetermination processes; whether the respondent completed the redetermination process; whether they	Items measuring parents' experiences with subsidy payments and copayments and additional fees charged by subsidized providers were adapted from the Parent Survey of the Oregon Subsidy Policy Impact Research Project (Weber and Grobe 2011).

	experienced a temporary loss of the subsidy or child care provider during redetermination; to what extent the subsidy covered all their work hours; experiences with subsidy payments and copayments and additional fees charged by subsidized providers.	
Subsidy program trajectory	Whether and when the respondent stopped using the subsidy program. If the respondent reported exiting the program: month of exit; reason(s) for leaving the program; whether they changed jobs or continued working in the same job(s) after the subsidy exit; whether they changed providers or continued using the same provider (or providers) that was receiving the subsidy after the subsidy exit; whether they ever reapplied for the subsidy program; and whether and when they began receiving assistance again.	
Sources of income support	Assistance received by the respondent (and their spouse) from the following sources within the past 12 months: Supplemental Nutrition Assistance Program; Supplemental Security Income/Social Security Disability Insurance; unemployment insurance; Special Supplemental Nutrition Program for Women, Infants, and Children; TANF; child support; health insurance; cash from relatives or friends.	
Family well-being	Parents' perceived social support; parenting stress; material hardship; economic instability and strain; access to vehicle; access to Internet; number of residential moves in past year.	Perceived social support was measured with five items adapted from the Perceived Availability of Support Subscale of the Social Relationships Scale (O'Brien et al. 1993). Parenting stress was measured with four items from the Fragile Families and Child Well-being Study (FFCWS; Fragile Families 2006) that were originally adapted from the Parent Stress Inventory (Abidin 1995). Material hardship included five items from the Survey of Income and Program Participation (SIPP 1998) and FFCWS (Fragile Families 2006) measuring economic and housing hardship and instability.
Child behavior	Focal child's behavior problems and prosocial or positive behaviors. These items were only asked if focal child was age 2 years or older.	Ten items measuring children's behavior problems were adapted from the externalizing subscale of the Behavior Problems Index used in the Panel Study of Income Dynamics—Child Development Supplement (Hofferth et al. 1997) and originally developed by Peterson and Zill (1986). Five items measuring prosocial and positive behaviors were adapted from the Strengths and Difficulties Questionnaire (SDQ) for 2- to 4-year-old children (SDQ

	2005).
Household composition	Number, ages, and relationship to respondent of adults and children in the household
Demographic and respondent characteristics	Respondent's marital status; level of education and current school enrollment, race/ethnicity, country of origin and year of immigration, non-English home language, limited English proficiency.

[a] Current refers to the date the respondent completed the survey.

[b] Primary job/provider refers to the job at which the respondent worked the most hours per week (if he or she held more than one job), and primary provider refers to the provider used for the most hours per week for the focal child (if child had more than one concurrent provider).

F. Obtaining Consent for Other Study Components

At the end of the survey, interviewers asked respondents for consent to participate in two other parts of the study. Specifically, respondents were asked if they would be interested in participating in a 90-minute, in-person interview conducted in their home or other convenient location. UCSL requested respondents' permission to share their name and contact information with the research team conducting the in-person interviews. Responses were recorded, and UCSL shared with the project researchers a list of respondents who agreed to be contacted. Approximately 88 percent of respondents who completed the survey and were asked this question agreed to be contacted for an in-person interview (n = 529). Respondents were also asked for their consent to link their state administrative records (from child care assistance, TANF, and the Supplemental Nutrition Assistance Program) to their survey responses. Approximately 87 percent consented to have their data linked (n = 525).

II. Qualitative Component

A. Qualitative Sample Selection

At the end of each survey, participants were asked if they would be interested in participating in the qualitative component of the study. For those who consented, UCSL shared their name and contact information with the researchers. Approximately 88 percent of participants who completed the survey and were asked this question agreed to be contacted for an in-person interview (n = 529). There were

several significant demographic differences between participants who consented and did not consent. On average, participants who did not consent were more educated, more likely to live with a partner (but no other adults), and more likely to be an immigrant and speak a language other than English in their home.

The research team used this sample to purposively target subpopulations of subsidy users whose circumstances presented unique obstacles to achieving stability. Specifically, we purposively sampled participants to achieve diversity on five key variables:

1. **Work schedules**, including participants with nonstandard work schedules (i.e., before 8 a.m., after 6 p.m., overnight, and weekends) and participants with standard hours;
2. **Number of jobs since entry into the subsidy program**, including participants with one or more job changes and participants with only one stable job in history;
3. **Immigration status and limited English proficiency**, including immigrant and nonimmigrant participants, with most immigrants requiring a survey in Spanish;
4. **Number of subsidized children at start of subsidy**, including participants with multiple subsidized children, including school-aged children, and participants with one subsidized child; and
5. **Subsidy case type** (in New York only), including participants with TANF child care cases and participants identified as low-income or Title XX cases. Although we did not purposively target TANF recipients in Illinois, a small number of qualitative interview respondents in Illinois were receiving TANF when they began using the subsidy program.

Table A.6 shows the distribution within each of the four study sites of these five characteristics. For analytic purposes, efforts were made to have a sufficient number of participants in each subgroup within each site with one exception. As there were too few Spanish-speaking or immigrant families in Southwestern Illinois to draw a sample for this subgroup, we decided not to interview any Spanish-speaking or immigrant families from this site.

Additionally, telephone survey data were used to identify participants' subsidy trajectories, specifically *short-term users* who left the program before recertifying and never returned, *longer-term users* who maintained their subsidy since they first began to receive it, and *cyclers* who experienced a break in their subsidy receipt before or during the recertification process. Participants were purposively selected to achieve representation across these three trajectory groups.

There were no significant differences between the 85 interview participants and the full survey sample in terms of race/ethnicity, primary home language, country of origin (United States or other),

education level, marital status, and whether they resided with a partner and/or other adults. The only observed difference was the age of the youngest subsidized child in the family; qualitative interview participants had slightly younger children on average (3.1 versus 3.5 years).

TABLE A.6

Participants by Subgroups in Qualitative Sample

	New York		Illinois		
Subgroup	**Westchester**	**Nassau**	**Cook**	**Southwestern IL**	**Total**
Nonstandard work schedule	15	11	23	7	56
Unstable employment	15	9	20	7	51
Immigrant parent	6	6	11	0	23
Interview conducted in Spanish	6	3	7	0	16
Multiple subsidized children	11	8	12	3	34
TANF case	8	4	3	0	15
Total N	21	18	35	11	85

Note: Subgroups are not mutually exclusive; columns do not sum to total.

B. Qualitative Study Procedures

1. SAMPLE RECRUITMENT

Research assistants contacted selected participants by telephone to formally recruit them for a qualitative interview, answer any questions they had about the study, and schedule the date and location of the interview. Reminder phone calls were made one to two days before a scheduled interview. E-mail was also used to contact participants who were hard to reach by phone but provided an e-mail address to UCSL. Text messages were also used for reminder calls if participants were hard to reach by phone and had given permission to be contacted via text message. Some participants preferred this form of communication because they screened their calls and it was easier for them to reply to a text message than a phone call.

2. QUALITATIVE DATA COLLECTION

Interviews were conducted an average of 22 months after participants' first month of subsidy receipt (range, 14 to 37 months). In all four sites, a team of two (one lead researcher and one research assistant) conducted the interviews. The team met with participants in their homes or other convenient location

preferred by the participant, often a fast-food restaurant or library. Interviewers had extensive experience conducting fieldwork and all received protocol training before data collection. The interviews ranged from 60 to 120 minutes in length, depending on the level of detail provided, but lasted approximately 90 minutes on average. In total, 85 interviews were conducted, 16 of which were done in Spanish. The interviews were audio recorded to later produce full transcriptions. Only one participant in Chicago declined being recorded, and in that case, the research assistants took detailed handwritten notes and subsequently wrote a memo containing a full account of the interview, which was used in the analysis.

Before the start of each interview, the researchers obtained written informed consent from respondents and assured the respondents that the information provided would be kept private to the extent permitted by law. As a token of appreciation, each participant was offered a gift of $40 cash and a children's book at the end of the interview. Following each interview, the team debriefed on the recorder to discuss the key points learned from the interview and wrote a memo detailing the participant's circumstances and challenges with subsidy and child care stability. Thank you cards were sent to each respondent by mail to show appreciation for their participation.

3. QUALITATIVE DATA ANALYSIS

All interviews were audio recorded and later fully transcribed into word processing documents. The research team developed a coding scheme based on the key research questions and coded and analyzed emerging themes across interviews using NVivo qualitative analysis software. Specifically, researchers coded segments of text in which respondents discussed a particular topic such as their perspectives toward the subsidy program. An analysis of the coded text revealed similarities and differences across respondents.

Analysts completed intensive training on the coding scheme, and reliability checks were conducted on the first two interviews coded by each interviewer before proceeding with additional interviews. Every fifth interview an analyst subsequently coded was double-coded by a designated "gold standard" coder, and the analyst and the double coder discussed and resolved any discrepancies in coding revealed in the reliability checks. Reliability among coders was high (over 93% on average).

C. Qualitative Interview Content

Interviewers used a field conversation guide, which was translated into Spanish, to collect information from individual respondents. The conversation guide probed on a number of topics, including

1. Experiences with applying and recertifying for a subsidy;
2. Interactions with the local subsidy office and overall experiences with the subsidy program, including benefits and challenges;
3. The history of child care providers while receiving subsidies as well as for any periods without subsidies;
4. Employment history since first applying for a subsidy;
5. The child care search process and work-care fit;
6. Family, work, subsidy program, and other factors parents describe as influencing their subsidy receipt; and
7. Parental recommendations for subsidy program improvement.

This guide was formulated to delve deeper on the topics covered in the telephone survey and to probe specifically on predictors and consequences of subsidy instability and reasons for changes in child care providers and jobs. To understand the particular challenges facing families in specific subpopulations, unique questions and probes were explicitly designed to learn whether and how the subsidy and child care experiences of the respondent were shaped by her or his particular circumstances or status (e.g., TANF, nonstandard employment, immigrant family or limited English proficiency, having multiple children in subsidized care).

In addition to the field conversation guide, interviewers also used a calendar to create a history of subsidy receipt, employment, and child care providers from approximately the first month of subsidy receipt until the date of the interview. The calendar was used to aid in recall of dates and to probe on any overlaps or inconsistencies in subsidy receipts, employment, and child care histories. With the respondent's help, interviewers recorded start and end dates (in months) of subsidy receipt; respondent's jobs; respondent's partner's jobs; and child care providers for all children in the household. Interviewers also noted changes in job and child care schedules and dates of residential moves.

III. Administrative Data Component and Linking of Survey and Administrative Data

Deidentified child care assistance program administrative records were obtained for the full sampling frame in each state (N = 5,902 in Illinois; N = 1,821 in New York). In both states, we linked data from the administrative records to the telephone survey data for survey respondents who consented to the data

linking. In this section, we describe the criteria followed to draw the study sample from the administrative data and the ways in which these data were analyzed.

A. Drawing the Study Sample from Administrative Records

1. ILLINOIS ADMINISTRATIVE DATA

In Illinois, Chapin Hall conducted the survey-administrative data linking, with separate family-level and child-level records, as explained below. Administrative records from the Illinois Child Care Assistance Program contain the following information: demographic characteristics of subsidy recipients (gender, race/ethnicity, date of birth), dates (month/year) of subsidy payments, dates (month/year) subsidized child care services were rendered, provider identification number (ID), and type of provider.

The database Chapin Hall used to match child care subsidy records to families in the survey sampling frame contains a reliable unique identifier at the family level only (family case ID) for linking records from the member files (e.g., demographic information of household members) to the payment files (e.g., dates of subsidy receipt). The only unique identifier available at the child level to link individual children to subsidy receipt was Social Security numbers, which were missing or invalid for approximately 26 percent of focal children. Due to these data limitations, Chapin Hall provided the Illinois researchers with two datasets: (1) a family-level dataset linking families to subsidy receipt for the family and (2) a child-level dataset linking each child within the family to subsidy receipt for that child (using the child's Social Security number). Payment records at the family level contained records from June 2005 through November 2013, and payment records at the child level contained records from June 2005 through March 2014. To minimize missing data in the child-level dataset, we used family-level records in place of child-level records in cases for which the focal child was missing child-level records and was the only child under age 13 in the family (so we could assume that all subsidy payments were for that child). This process reduced missing data from 26 percent to 14 percent in the child-level dataset.

Because Chapin Hall provided family- and child-level data for all children in the household, we had to identify the focal child (youngest child under age 5 at program entry) in the family by using the date of birth of family members in the family-level data. For families who participated in the survey, we had already identified the focal child for survey administration purposes, and we therefore used the date of birth of the focal child available in the survey data to identify the focal child in the family-level administrative records. For families who did not participate in the survey, we used the date of birth of

household members to select the youngest child in the family who was born by or on the family's subsidy start date as the focal child.[28] We then used the focal child's date of birth identified in the family-level data to identify the same focal child in the child-level data.[29] This process allowed us to use the family-level dataset with no missing data in analyses in which our outcome of interest was at the family level (e.g., length of subsidy receipt) and to use the child-level dataset with 14 percent missing data when the outcome of interest was at the child level (e.g., provider changes). See section III.A.3 for a comparison of the Illinois family- and child-level samples.

During data analysis, we identified nine families in Illinois who did not meet the sampling criteria for being a new entrant to the subsidy program (defined as not using a subsidy for at least two years before entering between August 2011 and February 2012). Eight of these families were new entrants in January through July 2011, and we identified one additional family who did not experience a full two-year period of no subsidy receipt prior to reentering in August 2011. These cases were likely included in our original sampling frame because these subsidy payments were added to the child care assistance program database after the sample was drawn. We dropped these nine families from the analytic sample (*N* = 5,893).

2. NEW YORK ADMINISTRATIVE DATA

In New York, OCFS conducted the data linking. Administrative records from the child care subsidy program include demographic characteristics of subsidy recipients (gender, race/ethnicity, date of birth), household income at the time of enrollment, dates (month/year) of subsidy payments, dates subsidized child care services were rendered, provider identification number, type of provider, whether care was provided full-time or part-time, the subsidy payment and family copay amounts, and the type of case for each payment (TANF, low income, or Title XX). A unique child identifier, provided by OCFS, was used to link the application data—child gender, race/ethnicity, date of birth, and family income—to the child-level payment files. This unique identifier also made it possible to identify the payment files of the focal child, who is always the youngest child in the household.[30]

3. COMPARING THE ILLINOIS FAMILY-LEVEL AND CHILD-LEVEL SAMPLES

Table A.7 shows sample characteristics for the Illinois family-level and child-level samples. We tested for significant differences in these characteristics between cases that had valid data for the child-level sample and cases that were excluded from the child-level sample. The significance column indicates which characteristics differed significantly across these two groups.

Focal children excluded from the child-level sample differ significantly on several demographic characteristics. They were more likely to be Latino and less likely to be black. They were also less likely to be younger than 12 months and more likely to be older (ages 2, 3, or 4) compared to children who were in the child-level sample. Children who were excluded from the child-level sample were more likely to be in more economically advantaged families with higher incomes and higher copayments and less likely to be TANF-eligible at program entry. There were also a few differences regarding the type of care children were using when they entered the program. Children who were excluded from the child-level sample were slightly more likely to be using a family child care provider and less likely to be using informal care. Despite these differences in sample characteristics, we did not find significant differences in terms of subsidy dynamics across the two samples, as described in chapter 4.

TABLE A.7

Comparing Family-Level and Child-Level Samples in Illinois

	Family-Level Sample	Child-Level Sample	
	% or Mean(SD)	% or Mean(SD)	Sig.
Study site			
Cook	87.61	87.57	
Southwestern IL	12.39	12.43	
Focal Child Characteristics			
Gender of focal child			
Male	50.76	50.80	
Female	49.24	49.20	
Race/ethnicity of focal child			
Black	49.41	50.33	*
White	14.02	14.35	
Latino	28.10	27.33	***
Other	7.81	7.95	
Missing	0.66	0.04	
Age of focal child in first month of subsidy receipt			
Age 0	32.51	28.62	***
Age 1	23.96	23.79	
Age 2	18.63	20.30	***
Age 3	13.83	15.04	***
Age 4	11.06	12.25	***
Family/Household Characteristics			
Household income at entry (annual, $)	$18,863.79 (8,589)	$18,396.06 (8308)	***
Family copayment at entry (monthly, $)	$66.61 (59)	$64.52 (57)	
Subsidy Characteristics at Program Entry			
Type of case in first spell			
Low income	91.80	91.21	***
TANF	8.20	8.79	***
Type of provider at entry			
Center	55.63	56.09	
Family child care	21.33	21.14	*
Informal	21.77	22.52	**
Multiple providers	1.27	0.26	
Month of entry			
January	13.08	12.86	
February	10.23	10.58	
August	17.58	17.24	
September	19.07	18.79	
October	15.65	15.76	
November	13.15	13.45	
December	11.23	11.33	
N	5,893	5,094	

Notes: The significance (Sig.) column shows results from significance tests for each sample characteristic between children who were included in the child-level sample and those who were excluded (due to no valid data). SD = standard deviation.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

B. Administrative Data Analysis Technical Issues

We describe our basic administrative data analysis methods in chapters 4 and 6. Given the nature of administrative data, before completing these analyses, we first dealt with a number of technical data issues as we cleaned and recoded the data to prepare for data analysis. In this section, we detail anomalies discovered in the data and our data-cleaning and recoding procedures.

1. RECODING NEW YORK DATA TO DESCRIBE MONTH-LONG EXPERIENCES

The Illinois and New York administrative data records recorded payments in slightly different ways. In Illinois, each service period for each payment was assigned a single month and year. In New York, service periods had an exact start and end date. Most commonly, these dates described a two-week period (the first half or second half of a month), but this was not always the case. To make the New York data consistent with the Illinois data, we converted the New York data to be month-level data, assigning service periods into all the months covered by the service period, dividing payments and copayments covering multiple months evenly into each month in the period, and summing across all the payments in each month. For example, if a service period began on November 16 and ended on December 5, with provider ID #112233, center-based care, a TANF case, a payment amount $200, and a family copay of $50, we indicated that the child had a child care subsidy in November and December, received center-based care from provider #112233 in both months, and had a TANF case in both months. We divided payment and copay amounts evenly across all the months they covered. In this example, we would assign $100 of this payment to November and $100 to December, and assign $25 of the copay to each month. If the child also had a payment for service period dates December 15 through 31, with a payment of $200 and a copay of $50, we would consider the total payment amount for December to be $300, and the total copay for December to be $75.

2. RECODING TYPE OF CHILD CARE AT SUBSIDY START

We recoded the type of care measures into three categories: center-based care, family child care, and informal care. The center-based category includes both licensed and license-exempt (e.g., centers operated in public schools) center-based care, as well as school-age care in New York. The family child care category includes all licensed family child care homes and group homes. Informal care includes legally license-exempt care provided by relatives or nonrelatives either in a child's home or in a provider's home. We also created a type of care category for using multiple providers at the same time, described below.

In New York, there is substantial inconsistency in the type of care said to be provided by a particular provider. Of the 914 unique provider IDs that showed up in the New York administrative data, 5.7 percent were associated with different types of care, either different types of child care over time for the same child or different types of care between different children using the same provider (or both). Such inconsistency could potentially reflect the fact that provider IDs are assigned to organizations or centers rather than individuals. Some organizations might offer child care in different types of settings (e.g., both center-based and family day care). It could also be that the inconsistencies we observe in type of care within a single provider reflect data entry error. Because we cannot tell the source of the inconsistency from the data at hand, we assigned each provider a single type of child care by using the modal type of care offered by each provider. In Illinois, there were very few cases (less than 1 percent) in which a provider with a unique provider ID was coded with multiple types of care. In these cases, we also recoded by using the modal type.

3. HANDLING INSTANCES OF MULTIPLE PROVIDERS IN A MONTH

A recurring issue in researching subsidy stability is the use of multiple subsidized providers in a given time period. Prior work using child care subsidy program administrative data records considered children who have multiple providers for at least three consecutive months to have a single, stable provider (Ha et al. 2012). Based on this work, we created a definition of "stable, multiple providers," which we define as using two or more concurrent subsidized providers for three or more months. In looking at the payment files, we determined that instances of multiple providers in a single month were most often caused by two scenarios: (1) children had a brief period of overlap in providers during a transition from a single, stable provider to another single, stable provider; or (2) children had a single stable provider, and then a brief, temporary addition of a second provider. Because we do not have exact start and end dates of each provider (dates are at the monthly level in Illinois and generally at the biweekly level in New York), we assume that one- or two-month periods of overlapping providers in these instances represent a transition from one provider to another, and we recoded one- or two-month periods of overlapping providers to a single provider. We also assume that an overlap of three months or longer is unlikely to represent a transition and is more likely to indicate experiencing multiple providers at the same time. Thus, we coded children and families who experienced overlapping providers for three months or longer as having stable, multiple providers during those months. We also marked months as "stable multiple" under one other circumstance: when children and families had a subsidy spell that only lasted one or two months, and the child or family used two providers for all months of that short spell, we coded those months as "stable, multiple providers."

Note that for family-level analyses, "stable, multiple providers" may indicate that two children in the family are using two different providers over an extended period. This situation may indicate strain on the family as they juggle multiple providers. For child-level analyses, "stable, multiple providers" indicates that the focal child used more than one provider for an extended period.

For all other instances in which the family or child had multiple subsidized providers in a single month or in two consecutive months, we assigned a single provider ID and a single type of care to those months according to the following rules. If the use of two or more providers occurred in the middle of a subsidy spell and lasted one month, we coded the provider ID and type of care during the month of overlapping providers to match the month before the overlap began. If there was a two-month stretch of multiple providers in the middle of a subsidy spell, we coded the provider ID and care type of the first month of the overlap to match the month before the overlap began, and we coded the provider ID and care type of the second month of overlap to match the month after the overlap. If we observed a one- or two-month stretch of multiple providers at the beginning of a subsidy spell, we coded the provider ID and care type to match the provider ID and care type in the month following the one or two months of overlap (the provider ID and care type of the second or third month of that subsidy spell). If we observed a one- or two-month period of multiple providers at the end of a subsidy spell, we coded the provider ID and care type to match the provider ID and care type in the month preceding the one or two months of overlap.

We also applied the decision rules described above to code the type of care, coding the type of child care during all "stable, multiple provider" months as "multiple providers." We did this even if the two providers used by a child or family in a "stable multiple" month provided the same type of care.

4. CODING FAMILY COPAYMENT AT SUBSIDY START

In many analyses, we considered the amount families were required to contribute toward the cost of their children's care at the time the family entered the subsidy program. We created a variable indicating the family's copayment amount at entry into the subsidy program by using the copayment amount from the second month of subsidy receipt in the administrative data records. We chose to use copayment amounts from the second month of subsidy receipt, rather than the first month, based on advice that copayments in the first month of a spell are often prorated due to families receiving less than a full month of care. If a family's first subsidy spell was only one month in length, we used the copayment amount from this month to code the copayment amount at program entry. In the Illinois administrative records, 79 families had multiple copayment amounts in their second month of subsidy

receipt. In these cases, we used the higher copayment amount (the lower amount was usually $0) to code copayment amount at program entry.

5. CODING EXPERIENCES AT PROGRAM ENTRY FOR LINKED ADMINISTRATIVE AND SURVEY DATA ANALYSES

For linking administrative data to the survey data for analyses based primarily on the survey data, we coded the type of child care at program entry slightly differently than we coded it for the administrative data-only analyses. Given the small number of survey respondent families who entered the subsidy program using "stable, multiple" providers (under our definition), we were unable to analyze this group separately in the survey analyses and, therefore, we recoded families using stable, multiple providers into one of three types of care: center-based, family child care, or informal care. If a family had stable, multiple providers of the same type of care, we recoded these families into that type of care category. If a family had stable, multiple providers with different types of care, we recoded these families into the most formal type of care they were using. We consider center-based care the most formal, followed by family child care, followed by informal care.

For the survey analyses, we also created a variable for parent's age at program entry. In Illinois, if there was only one adult in the household, we used this person's date of birth to calculate parent age (in six of these cases, the adult was male; all other respondents were female). If there were two adults in the household but only one was female, we used the female's age. In a small set of other cases (41 cases) with multiple female adults in the household, we used our best judgment and the available information on the age and gender of adults and children in the household to determine which birth date seemed most likely to correspond to the child's mother. In New York, administrative data records provided information on which individual in the household had applied for the child care subsidy and which individuals were the children of the applicant. We selected female, adult subsidy applicants as mothers and used their dates of birth. Three households had more than one female adult applicant. In two of these cases, it seemed the same applicant had duplicate records, so we used her birthday. In one case, the two adult women in the same household were both marked as subsidy applicants. We used our best judgment to determine which date of birth to use, given the average age of other applicants.

C. Using Administrative Data to Conduct a Survey Nonresponse Bias Analysis

We conducted a nonresponse bias analysis comparing demographic characteristics and subsidy-provider dynamics of the full sampling frame in each state to those of the survey respondents. We tested for statistically significant differences between families who participated in the survey (N = 612)

and those who did not. (We excluded four families who participated in the survey but only partially completed the survey and had substantial missing data from the sample of survey respondents.) Tables A.8 and A.9 show these results for New York and Illinois, respectively.

1. NEW YORK SAMPLE NONRESPONSE BIAS ANALYSIS

In New York, survey respondents are more likely than nonrespondents to be from Westchester than Nassau County. At program entry, survey respondents are more likely to be eligible as a low-income case relative to nonrespondents. Survey respondents are more likely to have longer first subsidy spells and are less likely to exit the subsidy program at the time points we examined (3, 6, 12, and 18 months postentry). Among those who exit, survey respondents are more likely to have a 2-month-long first gap.

TABLE A.8

Nonresponse Bias Analysis for the New York Survey Sample

	Full Sampling Frame (*N* = 1,819)	Survey Respondents (*N* = 189)
	% or Mean	% or Mean
Study site		
Nassau	55%	**48%**
Westchester	45%	**52%**
Demographics		
Gender of focal child		
Male	52%	50%
Female	48%	50%
Race/ethnicity of focal child		
Black	36%	41%
White	9%	10%
Latino	54%	49%
Asian or other	1%	1%
Age of focal child at subsidy start		
Age < 1	25%	28%
Age 1	26%	26%
Age 2	24%	27%
Age 3	17%	13%
Age 4	8%	6%
Family income (median, $)	$18,719	$18,315
Subsidy Dynamics		
Family copay at subsidy start (median, $)	*$0*	*$0*
Type of case at subsidy start		
Low income	65%	**70%**
TANF	23%	21%
Title XX	12%	9%
Length of first spell (median)	11	**14**
Exited within 3 months	16%	**10%**
Exited within 6 months	32%	**20%**
Exited within 12 months	56%	**45%**
Exited within 18 months	67%	**55%**
Exited and reentered within 18 months	27%	29%
Share with one-month-long first gap among exiters[a]	15%	20%
Share with two-month-long first gap among exiters[a]	9%	**16%**
Share with one-month-long first gap among cyclers[b]	38%	37%
Share with two-month-long first gap among cyclers[b]	21%	30%
Provider Characteristics		
Provider type at subsidy start		
Center-based	46%	44%
Family child care (licensed)	43%	41%
Informal (all unlicensed)	9%	13%
Multiple providers	2%	3%
Number of unique providers (mean)	1.31	1.43

Note: Boldface values are significantly different ($p < .05$) than those for the survey nonrespondents.

[a] Among those who exited their first subsidy spell within the 18-month observation period.

[b] Among those who exited their first subsidy spell and started a second subsidy spell within the 18-month observation period.

2. ILLINOIS SAMPLE NONRESPONSE BIAS ANALYSIS

In Illinois, the nonresponse bias analyses consisted of two comparisons using the administrative data analytic sample. First, we tested for significant differences in the sample characteristics between survey respondents and nonrespondents within the full sampling frame to examine how the survey respondents compare to the population from which we drew our sample. Because we expected a lower response rate in Southwestern Illinois than in Cook County, the UCSL fielded a disproportionately higher percentage of cases from Southwestern Illinois relative to the full sampling frame. In the full sampling frame, 88 percent of the sample was from Cook County, but only 70 percent of the fielded cases were selected from Cook County. To examine how survey respondents compare to nonrespondents among cases that were recruited to participate in the survey, we tested for significant differences between respondents and nonrespondents within the fielded sample (N = 999 fielded replicates). The first comparison (between survey respondents and nonrespondents within the full sampling frame) shows how the survey respondents compare to the larger population of subsidy users, and the second comparison (between survey respondents and nonrespondents within fielded cases) provides a better estimate of nonresponse bias.

Within the full sampling frame, survey respondents are more likely to be black and less likely to be Latino compared to nonrespondents. Given that a disproportionately higher percentage of cases from Southwestern Illinois were fielded, it is not surprising that survey respondents are more likely to be from Southwestern Illinois than from Cook County. The only other significant difference between survey respondents and nonrespondents is that among families who exit and return to the program within the observation period, a larger share of respondents has a two-month-long first gap.

Among the sample of fielded cases, survey respondents are more likely to be black and less likely to be white compared to nonrespondents. As expected, given the additional fielding efforts in Cook County, survey respondents are more likely than nonrespondents to be from Cook County than Southwestern Illinois. Survey respondents are also more likely to have a two-month-long first gap.

TABLE A.9

Nonresponse Bias Analysis for the Illinois Survey Sample

	Comparison 1		Comparison 2	
	Full Sampling Frame (*N* = 5,893)	Survey Respondents (*N* = 423)	Fielded Replicates (*N* = 999)	Survey Respondents (*N* = 423)
	% or Mean	% or Mean	% or Mean	% or Mean
Study site				
Cook	88%	**81%**	70%	**81%**
Southwestern IL	12%	**19%**	30%	**19%**
Demographics				
Gender of focal child				
Male	51%	52%	51%	52%
Female	49%	48%	49%	48%
Race/ethnicity of focal child				
Black	50%	**59%**	51%	**59%**
White	14%	16%	22%	**16%**
Latino	28%	**20%**	21%	20%
Asian or other	8%	6%	7%	6%
Age of focal child at subsidy start				
Age 0	33%	32%	34%	32%
Age 1	24%	27%	24%	27%
Age 2	19%	18%	18%	18%
Age 3	14%	12%	14%	12%
Age 4	11%	11%	11%	11%
Family income (median, $)	$17,568	$18,540	$18,000	$18,540
Subsidy Dynamics				
Family copay at subsidy start (median, $)	$47	$55	$54	$55
Type of case at subsidy start				
Low income	92%	91%	92%	91%
TANF	8%	9%	8%	9%
Length of first spell (median)	9	8	7	8
Exited within 3 months	16%	16%	16%	16%
Exited within 6 months	45%	46%	49%	46%
Exited within 12 months	67%	68%	70%	68%
Exited within 18 months	72%	71%	74%	71%
Exited and reentered within 18 months	33%	36%	33%	36%
Share with one-month-long first gap among exiters[a]	20%	21%	20%	21%
Share with two-month-long first gap among exiters[a]	8%	**12%**	9%	**12%**
Share with one-month-long first gap among cyclers[b]	44%	41%	45%	41%
Share with two-month-long first gap among cyclers[b]	18%	23%	19%	23%

Provider Characteristics				
Provider type at subsidy start				
Center based	56%	57%	56%	57%
Family child care (licensed)	21%	23%	22%	23%
Informal (all unlicensed)	22%	19%	22%	19%
Multiple providers	1%	1%	1%	1%
Number of unique providers (mean)	1.43	1.46	1.43	1.46

Note: Boldface values are significantly different ($p < .05$) than those for the survey nonrespondents.

[a] Among those who exited their first subsidy spell within the 18-month observation period.

[b] Among those who exited their first subsidy spell and started a second subsidy spell within the 18-month observation period.

Appendix B. Tables of Supplementary Descriptive Statistics

The first number in each table designation refers to the table's pertinent chapter. For example, table B.3.1 contains data discussed in chapter 3.

TABLE B.3.1

Type of Child Care Received by Focal Children in Administrative Data at Subsidy Start

	New York					Illinois				
	Center-based	Family daycare	Informal care	Multiple providers	*N*	Center-based	Family daycare	Informal care	Multiple providers	*N*
Total	**47%**	**43%**	**10%**	0%	1,819	**56%**	**21%**	**23%**	0%	5,094
Study site										
Nassau	45%	54%	1%	0%	1,002	—	—	—	—	—
Westchester	49%	30%	21%	0%	817	—	—	—	—	—
Cook	—	—	—	—	—	56%	22%	22%	0%	4,461
Southwestern IL	—	—	—	—	—	54%	17%	28%	1%	633
Gender										
Male	46%	45%	9%	0%	950	57%	21%	22%	0%	2,588
Female	48%	41%	11%	0%	869	55%	21%	23%	0%	2,506
Race/ethnicity										
Black	46%	37%	18%	0%	646	45%	24%	31%	0%	2,562
White	47%	47%	6%	1%	172	73%	12%	15%	1%	731
Latino	47%	47%	6%	0%	976	65%	22%	13%	0%	1,392
Other race	52%	44%	4%	0%	25	68%	15%	17%	0%	405
Age at entry										
Age 0	34%	52%	15%	0%	453	35%	30%	35%	0%	1,458
Age 1	38%	49%	13%	0%	467	55%	23%	22%	0%	1,212
Age 2	49%	44%	7%	0%	442	65%	19%	17%	0%	1,034
Age 3	65%	30%	5%	0%	317	74%	13%	12%	0%	766
Age 4	71%	23%	5%	1%	140	71%	13%	16%	0%	624
Type of case										
Low income	46%	45%	8%	0%	1,186	58%	21%	21%	22%	4,646
TANF	47%	33%	20%	0%	421	36%	27%	36%	1%	448
Title XX	49%	51%	1%	0%	212	—	—	—	—	—

	New York					Illinois				
	Center-based	**Family daycare**	**Informal care**	**Multiple providers**	***N***	**Center-based**	**Family daycare**	**Informal care**	**Multiple providers**	***N***
Entry month										
January	—	—	—	—	—	57%	21%	22%	0%	655
February	—	—	—	—	—	57%	24%	19%	0%	539
March	39%	50%	12%	0%	200	—	—	—	—	—
April	44%	45%	11%	0%	183	—	—	—	—	—
May	44%	47%	9%	0%	171	—	—	—	—	—
June	41%	49%	9%	0%	138	—	—	—	—	—
July	48%	41%	11%	1%	212	—	—	—	—	—
August	37%	55%	8%	0%	165	60%	19%	21%	0%	878
September	58%	34%	9%	0%	275	55%	21%	24%	0%	957
October	54%	37%	8%	1%	197	54%	20%	25%	0%	803
November	48%	41%	12%	0%	155	58%	21%	20%	0%	685
December	50%	40%	11%	0%	123	49%	23%	27%	0%	577

Notes: Boldface values indicate significant difference ($p < .05$) between New York and Illinois. Tests of significance of differences in type of care at subsidy start by age, gender, month of start, and so forth, are available upon request. — = not applicable.

TABLE B.4.1

Piecewise Exponential Survival Model Predicting First Subsidy Exit

	New York			Illinois		
	HR	**SE**	**Sig.**	**HR**	**SE**	**Sig.**
Months since subsidy start						
Month 1–3 of subsidy receipt (ref.)	—	—		—	—	
Month 4–6 of subsidy receipt	1.84	0.45	*	1.87	0.17	***
Month 7–12 of subsidy receipt	2.10	0.47	**	1.19	0.12	^
Month 13–18 of subsidy receipt	1.02	0.28		0.52	0.07	***
Study site						
Westchester (ref.)	—	—		—	—	
Nassau	1.35	0.19	*	—	—	
Cook (ref.)	—	—		—	—	
Southwestern IL	—	—		1.34	0.12	**
Gender						
Male (ref.)	—	—		—	—	
Female	1.07	0.06		1.04	0.03	
Race/ethnicity						
White (ref.)	—	—		—	—	
Black	1.22	0.14	^	1.01	0.05	
Latino	1.13	0.12		0.90	0.05	^
Asian/other	0.92	0.26		1.01	0.07	
Age at subsidy start						
Age < 1 (ref.)	—	—		—	—	
Age 1	0.96	0.16		1.14	0.10	
Age 2	0.95	0.17		1.02	0.10	
Age 3	1.03	0.20		0.93	0.10	
Age 4	1.47	0.34	^	0.99	0.11	
Family copay at subsidy start ($10)	0.99	0.01		1.00	0.00	

Type of child care at subsidy start						
Center (ref.)	—	—		—	—	
Family child care	0.89	0.12		0.70	0.06	***
Informal	1.43	0.29	^	0.76	0.07	**
Multiple	0.95	0.22		0.62	0.09	**
Type of case at subsidy start						
Low income (ref.)	—	—		—	—	
TANF	3.13	0.41	***	1.22	0.14	^
Title XX	1.50	0.31	*	—	—	
Proportional Hazards (interaction of covariates and duration)						
Study site interactions						
Nassau*months 4–6	0.61	0.12	*	—	—	
Nassau*months 7–12	0.54	0.10	**	—	—	
Nassau*months 13–18	0.79	0.18		—	—	
Southwestern IL*months 4–6	—	—		0.87	0.10	
Southwestern IL*months 7–12	—	—		0.88	0.11	
Southwestern IL*months 13–18	—	—		0.96	0.18	
Age at subsidy start interactions						
Age 1*months 4–6	1.11	0.26		1.01	0.11	
Age 1*months 7–12	0.94	0.21		0.95	0.11	
Age 1*months 13–18	1.03	0.27		0.83	0.15	
Age 2*months 4–6	1.04	0.26		1.04	0.13	
Age 2*months 7–12	1.26	0.28		1.08	0.14	
Age 2*months 13–18	1.04	0.29		0.90	0.17	
Age 3*months 4–6	1.17	0.31		1.15	0.16	
Age 3*months 7–12	1.30	0.32		1.19	0.17	
Age 3*months 13–18	1.48	0.44		1.38	0.28	
Age 4*months 4–6	0.70	0.25		1.36	0.19	*
Age 4*months 7–12	1.74	0.50	^	1.72	0.25	***
Age 4*months 13–18	2.74	0.99	**	1.27	0.31	

Type of child care at subsidy start interactions						
Family child care*months 4–6	1.01	0.19		1.24	0.14	^
Family child care*months 7–12	1.15	0.20		1.04	0.12	
Family child care*months 13–18	1.05	0.22		1.03	0.17	
Informal*months 4–6	0.81	0.23		1.57	0.16	***
Informal*months 7–12	0.82	0.22		1.33	0.15	*
Informal*months 13–18	1.33	0.46		1.22	0.21	
Type of case at subsidy start interactions						
TANF*months 4–6	0.80	0.15		0.85	0.12	
TANF*months 7–12	0.49	0.09	***	1.03	0.15	
TANF*months 13–18	0.70	0.16		1.14	0.26	
Title XX*months 4–6	0.92	0.27		—	—	
Title XX*months 7–12	0.62	0.17	^	—	—	
Title XX*months 13–18	1.16	0.34		—	—	
Constant	0.02	0.00	***	0.06	0.01	***
N	1,819			5,854		

Notes: All models control for month of entry into the subsidy program. HR = hazard ratio; SE = standard error; Sig. = significance; ref. = reference group; TANF = Temporary Assistance for Needy Families. — = not applicable.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

TABLE B.4.2

Description of Subsidy Experiences among Families in Two New York Sites within an 18-Month Observation Period

		Study Site		Focal Child's Gender		Focal Child's Race/Ethnicity				Focal Child's Age in Months (at program entry)				
	All	Nassau	Westchester	Male	Female	Black	White	Latino	Other race	0–11	12–23	24–35	36–47	48–60
Median survival time	11	12	10	12	11	10	13	12	12	12	11	12	11	9
Share with first spell 1–3 months	16%	16%	16%	15%	17%	18%	9%	16%	8%	15%	17%	14%	15%	21%
Share with first spell 1–6 months	32%	29%	35%	31%	33%	37%	23%	30%	20%	31%	34%	29%	33%	34%
Share with first spell 1–12 months	56%	50%	63%	54%	58%	62%	48%	53%	52%	52%	54%	53%	59%	75%
Total number of spells														
1	73%	76%	69%	74%	72%	67%	75%	76%	72%	68%	70%	77%	76%	79%
2	22%	19%	26%	21%	23%	27%	22%	19%	28%	26%	25%	19%	21%	16%
3	5%	5%	5%	5%	5%	6%	4%	4%	0%	6%	5%	5%	4%	5%
4	1%	0%	1%	1%	1%	1%	0%	1%	0%	1%	1%	0%	0%	1%
Total months of subsidy receipt														
Mean	12.8	13.1	12.4	12.9	12.6	12.2	13.6	12.9	14.4	13.5	12.9	12.9	12.3	10.2
SD	5.4	5.5	5.3	5.3	5.6	5.4	5.0	5.5	4.0	5.3	5.4	5.4	5.4	5.2
Minimum	1	1	1	1	1	1	1	1	6	1	1	1	1	1
Median	14	15	13	14	14	13	16	15	16	16	15	15	13	11
Maximum	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Share of full sample who exit	67%	62%	72%	66%	67%	72%	62%	64%	56%	62%	64%	63%	71%	89%
Share of full sample who exit and return to subsidy	27%	24%	31%	26%	28%	33%	25%	24%	28%	33%	30%	23%	24%	21%

Share with one-month-long first gap among exiters[a]	15%	15%	16%	15%	16%	15%	17%	16%	14%	18%	16%	15%	14%	11%
Share with two-month-long first gap among exiters[a]	9%	8%	9%	7%	10%	9%	9%	8%	14%	12%	7%	9%	10%	2%
Share with one-month-long first gap among cyclers[b]	38%	38%	37%	37%	38%	32%	42%	42%	29%	35%	34%	41%	40%	47%
Share with two-month-long first gap among cyclers[b]	21%	20%	21%	18%	23%	20%	23%	21%	29%	22%	15%	24%	29%	10%
Among subsample of families with 12-month or shorter first spell:														
Return within 1–3 months	32%	30%	33%	30%	33%	33%	29%	31%	31%	39%	32%	31%	28%	19%
Return within 4–6 months	9%	8%	10%	10%	8%	11%	12%	7%	15%	11%	10%	9%	7%	5%
Return in 6+ months or never return	59%	62%	57%	60%	58%	56%	59%	62%	54%	50%	57%	60%	65%	76%
N	1,819	1,002	817	950	869	646	172	976	25	455	468	440	316	140

[a] Among those who exit their first subsidy spell within the 18-month observation period.

[b] Among those who exit their first subsidy spell and start a second subsidy spell within the 18-month observation period.

TABLE B.4.3

Description of Subsidy Experiences among Families in Two New York Sites within An 18-Month Observation Period

	Care Type at Entry				Case Type at Entry		
	Center-based	Family child care	Informal care	Multiple	Low income	TANF	Title XX
Median survival time	12	11	7	12	13	6	13
Share with first spell 1–3 months	16%	14%	24%	13%	10%	32%	16%
Share with first spell 1–6 months	33%	28%	47%	23%	23%	57%	30%
Share with first spell 1–12 months	57%	51%	72%	52%	50%	77%	49%
Total number of spells							
1	73%	75%	61%	71%	78%	56%	78%
2	22%	20%	31%	29%	19%	34%	18%
3	5%	5%	7%	0%	3%	10%	4%
4	1%	0%	1%	0%	0%	1%	0%
Total months of subsidy receipt							
Mean	12.6	13.3	11.1	13.5	13.6	10.3	12.9
Standard deviation	5.4	5.3	5.6	5.6	5.1	5.4	5.6
Minimum	1	1	1	1	1	1	1
Median	14	16	12	16	16	11	16
Maximum	18	18	18	18	18	18	18
Share of full sample who exit	68%	62%	83%	65%	60%	87%	65%
Share of full sample who exit and return to subsidy	27%	25%	39%	29%	22%	44%	22%
Share with one-month long first gap among exiters[a]	15%	15%	17%	20%	15%	17%	12%
Share with two-month long first gap among exiters[a]	9%	8%	8%	5%	9%	9%	4%
Share with one-month long first gap among cyclers[b]	38%	37%	36%	44%	41%	34%	34%
Share with two-month long first gap among cyclers[b]	23%	19%	18%	11%	25%	18%	13%
Among subsample of families with 12-month or shorter first spell:							
Return within 1–3 months	32%	31%	32%	44%	31%	34%	28%
Return within 4–6 months	8%	9%	12%	6%	7%	13%	10%
Return in 6+ months or never return	60%	61%	56%	50%	62%	53%	63%
N	842	774	172	31	1,186	421	212

[a] Among those who exit their first subsidy spell within the 18-month observation period.
[b] Among those who exit their first subsidy spell and start a second subsidy spell within the 18-month observation period.

TABLE B.4.4

Description of Subsidy Experiences among Families in Two Illinois Sites within an 18-Month Observation Period

		Study Site		Focal Child's Gender		Focal Child's Race/Ethnicity				Focal Child's Age in Months (at program entry)				
	All	Cook County	Southwestern IL	Male	Female	Black	White	Latino	Other race	0–11	12–23	24–35	36–47	48–60
Median survival time	9	9	6	9	8	8	8	10	8	9	8	9	9	6
Share with first spell 1–3 months	16%	16%	21%	17%	16%	15%	19%	16%	17%	15%	18%	16%	15%	16%
Share with first spell 1–6 months	45%	44%	51%	44%	46%	47%	46%	42%	46%	43%	47%	44%	44%	51%
Share with first spell 1–12 months	67%	66%	73%	67%	67%	69%	69%	62%	68%	63%	68%	66%	66%	79%
Total number of spells														
1	67%	67%	70%	69%	66%	64%	70%	70%	73%	64%	64%	70%	72%	73%
2	27%	28%	24%	26%	28%	30%	25%	25%	23%	30%	30%	24%	23%	22%
3	5%	5%	5%	5%	5%	6%	4%	4%	4%	5%	6%	5%	4%	4%
4	0.5%	0.5%	1%	1%	0.4%	1%	0.5%	0.4%	0%	0%	0%	0%	1%	1%
Total months of subsidy receipt														
Mean	12.1	12.3	10.6	12.1	12.1	12.1	11.3	12.5	11.5	12.7	12.2	12.0	11.8	10.3
Standard deviation	5.5	5.4	5.8	5.5	5.4	5.3	5.7	5.6	5.7	5.3	5.5	5.6	5.6	5.3
Minimum	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Median	13	13	11	13	13	12	12	14	12	14	13	12.5	12	10
Maximum	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Share of full sample who exit	72%	72%	78%	72%	73%	74%	77%	68%	74%	69%	73%	71%	73%	83%
Share of full sample who exit and return to subsidy	33%	33%	30%	31%	34%	36%	30%	30%	27%	36%	36%	30%	28%	27%
Share with one-month-long first gap among exiters[a]	20%	21%	15%	20%	20%	21%	19%	22%	14%	23%	21%	18%	19%	15%
Share with two-month-long first gap among exiters[a]	8%	8%	7%	8%	8%	8%	8%	8%	8%	8%	9%	9%	7%	7%
Share with one-month-long first gap among cyclers[b]	44%	45%	40%	45%	43%	42%	48%	49%	38%	44%	42%	43%	48%	45%
Share with two-month-long first gap among cyclers[b]	18%	18%	18%	18%	17%	17%	20%	18%	21%	15%	17%	21%	18%	21%

Among subsample of families with 12-month or shorter first spell:														
Return within 1–3 months	32%	33%	26%	31%	33%	34%	29%	34%	24%	35%	35%	30%	30%	24%
Return within 4–6 months	8%	8%	7%	7%	9%	10%	6%	6%	8%	9%	10%	8%	5%	5%
Return in 6+ months or never return	60%	59%	66%	61%	58%	57%	65%	60%	68%	56%	55%	62%	65%	71%
N	5,893	5,163	730	2,991	2,902	2,912	826	1,656	460	1,916	1,412	1,098	815	652

[a] Among those who exit their first subsidy spell within the 18-month observation period.

[b] Among those who exit their first subsidy spell and start a second subsidy spell within the 18-month observation period.

TABLE B.4.5

Description of Subsidy Experiences among Families in Two Illinois Sites within an 18-Month Observation Period

	Care Type at Entry				Case Type at Entry	
	Center	Family child care	Informal	Multiple	Low income	TANF
Median survival time	8	11	7	13	9	7
Share with first spell 1–3 months	18%	13%	15%	7%	16%	19%
Share with first spell 1–6 months	46%	39%	49%	25%	45%	49%
Share with first spell 1–12 months	69%	59%	71%	47%	66%	73%
Total number of spells						
1	66%	73%	63%	77%	68%	58%
2	27%	24%	30%	21%	26%	35%
3	6%	3%	6%	1%	5%	7%
4	1%	0%	1%	0%	1%	0%
Total months of subsidy receipt						
Mean	11.8	12.8	11.9	14.0	12.1	11.8
Standard deviation	5.6	5.4	5.3	4.8	5.5	5.4
Minimum	1	1	1	3	1	1
Median	12	15	12	17	13	12
Maximum	18	18	18	18	18	18
Share of full sample who exit	74%	64%	76%	60%	72%	78%
Share of full sample who exit and return to subsidy	34%	27%	37%	23%	32%	42%
Share with one-month-long first gap among exiters[a]	21%	16%	20%	24%	20%	23%
Share with two-month-long first gap among exiters[a]	9%	7%	8%	2%	8%	9%
Share with one-month-long first gap among cyclers[b]	48%	37%	41%	65%	44%	42%
Share with two-month-long first gap among cyclers[b]	19%	16%	16%	6%	18%	16%
Among subsample of families with 12-month or shorter first spell:						
Return within 1–3 months	33%	27%	33%	31%	32%	36%
Return within 4–6 months	7%	9%	9%	3%	8%	9%
Return in 6+ months or never return	59%	64%	58%	66%	60%	55%
N	3,278	1,257	1,283	75	5,410	483

[a] Among those who exit their first subsidy spell within the 18-month observation period.

[b] Among those who exit their first subsidy spell and start a second subsidy spell within the 18-month observation period.

TABLE B.5.1

Bivariate Descriptive Statistics by Subsidy Exit Using 18-Month Window (*N* = 558)

	Any Exit (*n* = 355 [68%])	No Exit (*n* = 169 [32%])	Sig.
Demographic Variables			
Study site			
Cook	72%	28%	
Southwestern IL	78%	22%	
Nassau	52%	48%	
Westchester (ref.)	61%	39%	
Parent race			
White	17%	16%	
Nonwhite	83%	84%	
Parent's highest level of education			
High school/less than high school (ref.)	35%	34%	
College (including associate's degree)	48%	50%	
Bachelor's degree or higher	17%	16%	
Household structure			*
No partner, no adults (ref.)	55%	62%	
No partner with adults	24%	27%	
With partner	21%	11%	
Immigrant (born in other countries)	21%	27%	
TANF child care	14%	12%	
Number of subsidized children (mean)	1.4	1.5	
Parent's age (mean)	28.9	29.6	
Copay amount for the second month of subsidy (mean, $)	$58	$46	
Focal child age at subsidy start (mean)	2	1.8	*
Employment Variables			
Early job loss (left in first 6 months)	18%	10%	*
Hours work per week (mean)	32.5	34.1	
Had a job before the subsidy	81%	79%	
Number of nonstandard shifts (0–3)	1.2	1.2	
Variation of work schedule (hours)			
Hours vary sometimes/a lot	32%	37%	
How far in advance know days/hours to work			
One week or less	37%	41%	
How often have to go into work unexpectedly or stay more			
Sometimes/very often	33%	29%	
Input in work schedule			
No input in work schedule	35%	27%	^
Take off during working hours for family matters			
Very difficult	25%	19%	

Subsidy Variables			
Difficulty finding a subsidy provider (mean of four items, range 1–4)	1.8	1.7	
Difficulty in application process (mean of two items, range 1–4)	1.8	1.6	*
Took a long time for my application to be approved (range 1–4: strongly disagree to strongly agree)	2.8	2.5	*
Ever have a problem receiving a payment for the program	32%	26%	
Work hours covered by the subsidy program (scale range 1–4)	3.6	3.6	
Child Care Variables			
Type of care			
Informal (unlicensed)	17%	18%	
Family home (licensed)	25%	32%	
Center	58%	51%	
Used the same provider before the subsidy start	48%	41%	
Subsidy used for primary provider at start	86%	94%	**
Provider flexibility index (mean of three items, range 1–4)	3.5	3.6	
Provider offers any nonstandard hours of care (morning, evening, night, and weekend)	66%	67%	
Feel safe and secure about provider (frequently/always)	87%	92%	*

Note: Sig. = significance; Type of care variable comes from administrative data.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

TABLE B.7.1

Bivariate Descriptive Statistics by Provider Exit Using 18-Month Window (*N* = 516)

	Any Exit (*n* = 243 [47%])	No Exit (*n* = 273 [53%])	Sig.
Demographic Variables			
Study site			
Cook	48%	52%	
Southwestern IL	54%	46%	
Nassau	41%	59%	
Westchester (ref.)	44%	56%	
Parent race			
White	16%	17%	
Nonwhite	84%	83%	
Parent's highest level of education			
High school/less than high school (ref.)	34%	34%	
College (including associate's degree)	49%	48%	
Bachelor's degree or higher	17%	18%	
Household structure			*
No partner, no adults (ref.)	60%	61%	
No partner with adults	20%	25%	
With partner	20%	14%	
Immigrant (born in other countries)	18%	28%	**
TANF child care	12%	12%	
Number of subsidized children (mean)	1.4	1.4	
Parent's age (mean)	29.1	29.6	
Copay amount for the second month of subsidy (mean, $)	$51	$61	
Focal child age at subsidy start (mean)	1.9	1.9	
Employment Variables			
Early job loss (left in first 6 months)	18%	12%	*
Hours work per week (mean)	33.3	33.2	
Had a job before the subsidy	80%	82%	
Number of nonstandard shifts (0–3)	1.2	1.1	
Variation of work schedule (hours)			
Hours vary sometimes/a lot	31%	32%	
How far in advance know days/hours to work			
One week or less	40%	33%	^
How often have to go into work unexpectedly or stay more			
Sometimes/very often	34%	31%	
Input in work schedule			
No input in work schedule	34%	30%	
Take off during working hours for family matters			
Very difficult	27%	20%	

Subsidy Variables			
Subsidy early exit	39%	23%	***
Difficulty finding a subsidy provider (mean of four items, range 1–4)	1.8	1.6	
Difficulty in application process (mean of two items, range 1–4)	1.8	1.7	
Took a long time for my application to be approved (range 1–4: strongly disagree to strongly agree)	2.7	2.8	
Ever have a problem receiving a payment for the program	33%	29%	
Work hours covered by the subsidy program (scale range 1–4)	3.6	3.6	
Child Care Variables			
Type of care			
Informal (unlicensed)	13%	19%	
Family home (licensed)	32%	25%	
Center	55%	55%	
Used the same provider before the subsidy start	37%	47%	*
Provider flexibility index (mean of three items, alpha = .68)	3.4	3.6	
Provider offers any nonstandard hours of care (morning, evening, night, and weekend)	61%	67%	
Backup provider (mean of 1–4: strongly disagree to strongly agree)	3.1	3.0	
Feel safe and secure about provider (frequently/always)	82%	93%	***

Note: Sig. = significance; Type of care variable comes from administrative data.
^$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$.

About the Authors

Julia R. Henly is an associate professor in the School of Social Service Administration at the University of Chicago. She studies the intersection of family poverty, low-wage employment, and public policy, especially child care and family policy, using quantitative and qualitative methods. She is interested in families' economic and caregiving strategies, with particular attention to how work conditions, public policies, and social networks operate to support and complicate parenting, poverty management and economic mobility.

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