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Contracts, Vouchers, and Child Care Subsidy Stability: A Preliminary Look at Associations between Subsidy Payment Mechanism and Stability of Subsidy Receipt

Aleksandra Holod · Anna D. Johnson · Anne Martin · Margo Gardner · Jeanne Brooks-Gunn

Abstract
Background The federal child care subsidy program, funded through the Child Care and Development Fund (CCDF), is the nation's largest public investment in early child care. However, little is known about whether and how subsidy payment mechanisms relate to the stability of subsidy receipt or the stability of children's care arrangements.
Objective This study is the first to explore whether subsidized care administered through contracts paid directly to providers is associated with greater stability of subsidy receipt than subsidized care administered through vouchers. Hypotheses predicted that contracts would confer stability in subsidy receipt, especially among families whose children received care in family child care homes.
Methods Data were drawn from administrative files on subsidy recipients in New York City and merged with data from a phone survey of a small subsample. The analytic sample consisted of subsidy recipients who had a history of participating in the TANF cash assistance program (weighted $n = 9{,}087$; unweighted $n = 311$).
Results Results indicate that subsidy payment mechanism was not associated with the number of interruptions in subsidy receipt. This finding held true of children in both family- and center-based care arrangements.

A. Holod (✉) · A. Martin · M. Gardner · J. Brooks-Gunn
National Center for Children and Families, Teachers College, Columbia University,
525 West 120th Street, Box 39, New York, NY 10023, USA
e-mail: ah2574@columbia.edu

A. Martin
e-mail: arm53@columbia.edu

M. Gardner
e-mail: gardner@tc.edu

J. Brooks-Gunn
e-mail: brooks-gunn@columbia.edu

A. D. Johnson
Department of Psychology, Georgetown University, 37th and O Streets,
NW, Washington, DC 20057, USA
e-mail: annadjohnson@gmail.com

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Conclusions This preliminary study finds no evidence that contracted care and care purchased with a voucher are differentially associated with subsidy stability. Replication of this test with larger samples and stronger guards against selection into type of payment mechanism is needed.

Keywords Child care subsidies · Policy · Stability

Introduction

Child care subsidies funded through the federal Child Care and Development Fund (CCDF) represent one of the nation's largest public investments in young children. In 2007, CCDF served 1.7 million children per month at a total cost of $9.2 billion (US Department of Health and Human Services [USDHHS] 2009a, b). Enacted as part of the welfare reform legislation of 1996, the primary goal of the CCDF subsidy program is to support parental employment and prevent welfare dependency.

CCDF is federally funded but it is administered by states. All states are mandated to serve families receiving public assistance. They may also use CCDF to fund care for children in low-income families at risk of needing public assistance or transitioning off public assistance. All states are also required to offer vouchers to subsidy-eligible parents. Although states have the option of funding contracts directly with child care providers, the majority of states serve children exclusively through vouchers. Fewer than 20 states offered subsidized care through a combination of vouchers and contracts in 2008, and even those states served the majority of children through vouchers. In all, 87% of children served by CCDF received their child care through a voucher mechanism (USDHHS 2010a).

States may favor vouchers because they give parents greater flexibility to select child care arrangements that are conveniently located and accommodate their work schedules, especially if they work nights and weekends. However, vouchers may limit states' ability to ensure that children receive quality care, because vouchers may be used to pay for unregulated care provided by family, friends, or neighbors in a home setting. In large, multi-state studies, such child care arrangements receive lower ratings on environmental quality than child care centers (Coley et al. 2006; Rigby et al. 2007). Attendance at child care centers has also been linked to stronger pre-academic skills, such as early numeracy, literacy, and language skills. However, children who spend more hours in center-based care are also more likely to exhibit behavior problems (NICHD 2002, 2006).

Some authors have argued that the subsidy system should place a higher priority on supporting child development in low-income families, rather than focusing narrowly on supporting parental employment (Adams and Rohacek 2002; Chaudry 2004). One way the subsidy system could support the development of low-income children is by instituting policies that foster stability in child care arrangements. Children who experience stable, secure relationships with child care teachers exhibit better social skills with peers (Howes and Hamilton 1993; Howes et al. 1994) and stronger cognitive skills (Loeb et al. 2004) during early childhood. They also have more optimal learning-related behavior in elementary school (Howes 1988). To the extent that subsidy policies can promote stability in child care arrangements by increasing the stability of subsidy receipt, they may offer a new avenue for supporting child development.

The majority of subsidy research to date has focused on associations between subsidy receipt and parental employment (Berger and Black 1992; Blau and Tekin 2007; Danziger et al. 2006; Meyers et al. 2002; Tekin 2005). These studies suggest that subsidies increase maternal employment by 12–33% (Berger and Black 1992; Blau and Tekin 2007; Tekin 2005). Researchers have also begun to explore the dynamics of subsidy use, finding that spells of subsidy receipt are typically short, and that many families experience frequent interruptions in subsidy use (Grobe et al. 2008; Meyers et al. 2006). Using data from five states, Meyers et al. (2006) find that the median length of a subsidy receipt spell is 3–7 months, and that 35–58% of children reenter the subsidy system within a year after a spell ends. The most important factor hastening the end of a subsidy spell is the eligibility recertification process in which families must demonstrate that they still meet program participation criteria (Grobe et al. 2008). Ha and Meyer (2010) find that few families who leave the child care subsidy system do so because they have found high-paying jobs that disqualify them for subsidies. Instead, the majority of families who end their participation have either lost their jobs or failed to recertify their eligibility even though they are still eligible.

These previous studies of child care subsidy dynamics provide valuable insights to inform policy and program administration. However, they have all either focused exclusively on families who utilize vouchers, or have not attempted to (or have been unable to) distinguish between subsidized care funded through vouchers versus contracts. To date, largely due to the limitations of available data, no studies have examined whether the mechanisms states use to distribute subsidies—contracts and vouchers—are differentially associated with the stability of subsidy participation. Many of the states that use both mechanisms maintain separate administrative record-keeping systems, making it difficult for researchers to merge families who use contracts and families who use vouchers into a single data set. Additionally, most administrative data do not contain rich information on family background characteristics, but such information is necessary to control for factors that may be associated with type of payment mechanism and subsidy stability. Thus, it remains unknown whether contracts and vouchers are differentially associated with subsidy stability in a context in which both options are available. The current study combines administrative data from New York City with original survey data to address this question.

New York City administers one of the nation's largest publicly funded early care and education system, serving approximately 105,000 children and families through a mix of contracts and vouchers (S. Vecchiotti, personal communication, 19 November 2010). Families on public assistance are eligible for child care subsidies, as are low-income parents who meet income[1] and work requirements, and parents involved in the foster care or child protection systems. Subsidized care is overseen by the Administration for Children's Services (ACS) and is administered in coordination with the Human Resources Administration (HRA), which administers the city's cash assistance program. The majority of low-income working families and families involved in foster care enter the subsidy system via ACS, while the majority of families receiving public assistance enter through HRA. ACS and HRA strive to maintain uniform application and enrollment processes for all child care subsidy recipients across the two agencies. With few exceptions, families are required to recertify their eligibility for child care subsidies once every 12 months, regardless of the type of subsidy they receive (contract or voucher).

[1] In 2010, a family of three with an annual income of less than approximately $44,850 was eligible for subsidies in New York City.

New York City's subsidy system provides a rare opportunity to examine subsidy stability by payment mechanism (contract vs. voucher) because ACS maintains administrative records for both mechanisms in a single data base. Further, our study is the first (to our knowledge) to combine administrative data on subsidy recipients with survey data. An advantage of survey data over administrative data is that is allows for the more timely measurement of family demographic characteristics, as that information is often not updated in administrative records after the family enters the system. Thus, ours is a novel first attempt to investigate whether subsidy payment mechanism is associated with stability of subsidy receipt. This is an important question because continuous subsidy receipt may contribute to stability in children's care arrangements. Stability of child care has been identified as an important feature of care quality (Vandell and Wolfe 2000) and has been linked to children's cognitive skills, peer relationships, and school behaviors (Howes 1988; Howes and Hamilton 1993; Howes et al. 1994; Loeb et al. 2004). If one subsidy payment mechanism confers greater stability than the other, it might be favored by CCDF to better serve child development goals by encouraging continuity in child care.

It may be expected that contracts confer greater stability of subsidy receipt than vouchers for both supply- and demand-side reasons. Contracts may foster stability on the supply side by assuring child care providers of future funding and by supporting their infrastructure. For example, providers who have a contract may find it easier to obtain a bank loan. Contracts may foster stability on the demand side because families with contracted arrangements may find it more difficult to change care arrangements. Dissatisfied parents using contracts must search for another provider who is contracted to provide subsidized care and has space available for an additional child. In contrast, vouchers are portable and can typically be used with a provider of the parent's choosing.

In addition, contracts stipulate that providers meet certain levels of quality. Indeed, some researchers have suggested that the use of contracts may be one strategy for raising the quality of early child care (Adams and Rohacek 2002; Matthews and Schumacher 2008). If parents are more satisfied with higher- versus lower-quality care, they may be more motivated to maintain eligibility or get recertified for their subsidy so that they can maintain their current child care arrangement.

This study also investigates whether an association between child care subsidy payment mechanism and stability is evident in both child care centers and family child care homes. We hypothesized that this association would appear only among families whose children were in family child care homes. Previous research suggests centers provide more stable care than family child care homes (Kimmel and Powell 2006). Family child care providers typically have less organizational and administrative capacity than child care centers and may experience greater instability in enrollment. Thus there is reason to think that family child care providers stand to gain more than centers do from the stability contracts may afford.

This phenomenon may be particularly pronounced in New York City because all family child care providers who are funded by contracts belong to networks. It is the networks that are contracted by the City and that arrange with individual family child care homes to provide care. The administrative support offered by networks may lend stability to individual family child care homes. For example, when children withdraw mid-year from a family child care provider who is in a network, the network recruits new children to fill the empty spaces. As a result, network family child care providers may be less likely to go out of business, which could result in the interruption of a family's subsidy spell if substitute arrangements are not immediately available. Family child care networks in New York City also explicitly assist families with the recertification process by tracking their

recertification deadlines and helping them with paperwork (N. Rivera, personal communication, 29 September 2011).

Furthermore, previous research finds that family child care homes affiliated with networks that are coordinated by paid staff earn higher quality ratings than unaffiliated homes, especially when networks provide support to providers via site visits and training (Bromer et al. 2009). If parents are motivated to maintain high-quality care arrangements, and if contracted family child care providers are indeed higher in quality than their voucher-receiving counterparts, then parents receiving contracts with family child care providers may be especially motivated to maintain subsidy receipt so that their arrangement can continue uninterrupted. In sum, if contracts are indeed associated with greater stability in subsidy use than vouchers, this association may be driven by family child care homes, which have fewer administrative resources than centers. Therefore, we test whether the association between subsidy payment mechanism and stability of receipt depends on the child's type of care arrangement (center vs. family child care).

Method

Participants

Survey Sample

A sample of all child care subsidy recipients in New York City was selected to participate in a telephone survey. First, a roster of subsidy recipients was obtained from administrative data provided by the New York City ACS, which oversees the subsidy system. The sampling frame began with all children in the administrative file under age 6 who received a child care subsidy in New York City in February 2008 ($n = 63{,}872$). Cases were eliminated from eligibility for the survey sample due to missing contact information ($n = 10{,}091$) or because they appeared to be duplicates ($n = 6{,}469$). Therefore, the final population of interest consisted of 47,312 children.

A stratified random sample was drawn in two waves, each consisting of 2,805 cases. One stratum classified children by age (birth to age 2, age 3, and ages 4 and 5), and another stratum classified children by subsidy payment mechanism and public assistance status (low-income families who used a contract, public assistance families who used a contract, and public assistance families and low-income families who used a voucher). Public assistance families who used a contract were placed in a separate stratum from low-income families who used a contract because they composed a small group of particular interest to City administrators.

Analytic Sample

Eligibility for the analytic sample was limited to families on cash assistance (Temporary Assistance to Needy Families) whose child received care from a licensed provider. It was necessary to restrict the sample to families using licensed child care providers because vouchers alone—and not contracts—are offered to unlicensed providers, rendering a comparison by payment mechanism impossible. Although the exclusion of low-income working families on subsidies drastically reduced our sample, it was necessary in order to avoid confounding type of payment mechanism with unmeasured family characteristics and differences in administrative practices between ACS and HRA. It is also possible that

the predictors of stable subsidy use differ for the low-income and cash assistance populations due to differences in their reasons for subsidy use. Specifically, families on cash assistance receive subsidies to support job training and job search activities, which are short-term in nature, while low-income working families use subsidies to support employment. Thus, families on cash assistance have less stable subsidy participation than low-income working families (Meyers et al. 2006; Schexnayder and Schroeder 2008; Witte and Queralt 2005), and what may appear to be unintentionally interrupted spells might be temporary spells by design. Additionally, families receiving cash assistance are more likely to be generalizable to subsidy recipients in other states, given that some states enroll only welfare recipients in subsidies due to limited funds.

Survey respondents were classified by type of child care arrangement listed in the administrative data: child care center, family child care home, or informal home. Home settings were classified as family child care homes if the provider was licensed to care for children. Care provided by family, friends, or neighbors in a home setting was classified as informal home care. Children receiving care in an informal home setting were then excluded, leaving a total of 311 children.

Procedure

A telephone survey was conducted by the National Center for Children and Families at Teachers College, Columbia University with the sample drawn from the administrative data. The first wave of data collection occurred between June 2008 and January 2009. The second occurred between February 2009 and July 2009. We utilized the most recent contact information available from the NYC administrative data for both waves of data collection. Data collectors were graduate research assistants who were trained in survey administration and confidentiality issues. The study design, data collection procedures, and consent forms used with participants were approved by the Institutional Review Board at Teachers College, Columbia University.

Mothers were sent a letter announcing the study, detailing the incentives for study participation, and alerting the mother that she would be called shortly. Research assistants made phone calls 7 days a week during both day and evening hours to accommodate mothers' schedules. The survey took approximately 30 min to complete and was administered in English, Spanish, or Mandarin Chinese, depending on the mother's preference.

Mothers provided informed consent before the survey began and were assured that non-participation would have no effect on their subsidy benefits. They were instructed to answer all questions specifically about the study child, even if they had other children who received subsidies. Survey questions covered the mother's child care preferences, job schedule, subsidy recertification experience (where relevant), and demographic information. At the end of the interview, mothers were given a choice between a check for $25 or a cash card of that value at a local drug store chain. In addition, in each wave all respondents were entered in a raffle with a $200 prize.

The response rate was 36%. This is a low but expectable response rate for two reasons. First, this is a socioeconomically disadvantaged urban population, which is notoriously hard-to-reach, particularly in the age of calling cards and temporary cell phones. Second, the contact information from the administrative data was in many cases out-of-date. For example, the listed phone number was disconnected for approximately 40% of cases in our first data collection wave. When these cases were excluded, the response rate rose to 63%.

Measures

Subsidy Payment Mechanism and Child Care Type

The subsidy payment mechanism families were using in February 2008 was classified as a contract or a voucher. Child care type was classified as child care center or a family child care home. Subsidy payment mechanism and child care type were both drawn from the administrative data. Once weights were applied, 57% of our sample was enrolled in a center and 43% was enrolled in a family child care home. Eighty-one percent used vouchers and 19% used contracts.

Instability of Subsidy Receipt

Instability of subsidy receipt was measured over the 36 month period from January, 2006 to December, 2008. Administrative data provided a month-by-month account of subsidy receipt for each family. We constructed a measure of the number of subsidy spells each child experienced. Spells were defined as periods of subsidy receipt lasting one month or longer. The average number of spells was 1.7, and the average spell length was 14.5 months. We then created a variable indicating whether the family lost their child care subsidy and re-entered the subsidy system at a later point in time, i.e., whether the child experienced one or more interruptions between subsidy spells. Fifty-one percent of the sample did not experience an interruption in subsidy receipt. Thirty-three percent had one interruption, 12% had two interruptions, and 4% had three or more interruptions. Because the majority of families with interruptions in subsidy receipt experienced only one interruption, we used an indicator variable as our measure of interruption in subsidy receipt ($0 = \textit{no interruptions}$, $1 = \textit{one or more interruptions}$). A measure of subsidy interruption was preferable to a measure of subsidy length because we were interested not in a spell's length per se but, rather, in whether it was followed by at least one more spell (which would indicate instability within the subsidy system) or not (which would indicate exit from the subsidy system).

Child and Family Background

We control for characteristics of children and families that may be expected to covary with subsidy type and instability of subsidy use. There is evidence that a number of family background characteristics are associated with subsidy receipt in general (Blau and Tekin 2007; Herbst 2008; Schaefer et al. 2005). We reason that these same demographic characteristics could be related to self-selection into subsidy payment mechanism, and therefore should be accounted for in multivariate models. All characteristics were time-invariant to rule out the possibility of reverse causation. Characteristics that might have been affected by subsidy use, such as maternal employment status, were excluded from consideration.

Maternal race/ethnicity, maternal immigrant status, and primary language spoken in the home were drawn from the survey. Maternal race/ethnicity was coded as Black, Hispanic or other racial/ethnic group. Immigrant status indicated whether the mother was born outside of the US. Primary language spoken in the home was coded as English, Spanish, or another language. Measures of child age and sex were drawn from the administrative data. Child age was measured with an indicator variable denoting whether the child was 3 years of age or older at the time the survey was administered, and child sex was represented by a

dummy variable for male. We also controlled for possible cohort effects with an indicator variable for the first versus second wave of data collection.

Results

We conducted Chi-square tests to test bivariate associations between subsidy payment mechanism and background characteristics, type of child care arrangement, and instability of subsidy receipt. Logistic regression was then used to test whether subsidy payment mechanism was associated with instability (1+ vs. 0 interruptions), controlling for demographic characteristics. We then repeated this analysis for subgroups defined by child care type (center-based vs. family child care home) to test whether associations between subsidy type and instability would be obtained in both types of care arrangements.

Post-stratification weights were used for all analyses to adjust for: (1) disproportionate sampling from the underlying population by subsidy type, public assistance status, and age group, (2) differential survey response rates across the sampling strata, and (3) the sampling of siblings within families. Applying these sample weights to our data allowed us to generalize our findings to all families on cash assistance with a child age 0–5 who received a subsidy in New York City in February 2008, used a licensed family child care home or center, and could be reached by telephone (weighted $n = 9{,}087$).

As shown in the descriptive statistics in Table 1, nearly 48% of families using vouchers experienced at least one interruption, while 56% of families using contracted care experienced one or more interruptions ($p > 0.05$). However, the association between subsidy payment mechanism and interrupted subsidy receipt was not statistically significant. Subsidy payment mechanism was, however, associated with the type of child care families used. Fully 83% of families receiving their subsidy via contracted care enrolled their children in a child care center as opposed to a family child care home, while only about half of voucher recipients (50.6%) used centers ($p < 0.001$). Few demographic characteristics distinguished contract from voucher recipients. Mothers' race/ethnicity, primary home language, child gender, and data collection wave were not significantly related to the type of subsidy families used. Children who were age 3 or older were more likely to receive their subsidy in the form of a contract.

Table 2 presents the logistic regression results examining the association between subsidy payment mechanism and instability of subsidy receipt, controlling for family background characteristics. Results indicated that the odds of a subsidy interruption were not significantly different for families who used a contract rather than a voucher (OR = 1.13, $p > 0.05$). Children age 3 or older were more likely to experience a subsidy interruption than children age 2 and below. No other characteristics predicted subsidy interruption.

Our second set of models, presented in Table 3, examined the association between subsidy payment mechanism and instability separately for children in center-based and family child care homes. We expected to find that contracts were associated with greater stability among family child care homes but not among centers. Instead, we found that contract recipients and voucher recipients did not differ significantly on subsidy interruptions in child care centers (OR = 1.38, $p > 0.05$) or in family child care homes (OR = 0.77, $p > 0.05$). Among children in family child care homes, those who were age 3 and over were more likely to experience an interruption.

In supplemental analyses, we tested the robustness of our findings in two ways. First, we added controls for the following time-varying characteristics: marital status, maternal

Table 1 Sample descriptives ($n = 9{,}087$)

	Voucher subsidy ($n = 7{,}369$)	Contract subsidy ($n = 1{,}718$)
Features of care		
Type of care***		
Center	50.6	83.0
Family child care home	49.4	17.0
Number of interruptions in subsidy receipt		
No interruptions	52.4	44.2
One or more interruptions	47.6	55.8
Family characteristics		
Maternal race		
Hispanic	33.2	40.2
Black	54.7	55.3
White/Asian/other race	12.1	4.5
Mother is foreign born	35.9	27.4
Primary home language		
English	80.3	80.5
Spanish	12.8	13.1
Other	6.9	6.5
Child is age 3 or older***	55.2	82.3
Child is male	54.7	52.6
Study wave 1	47.2	50.5

Table presents percentages based on analyses of weighted data

*** $p < 0.001$

education, work schedule, and number of children in the household. These variables were not originally included in regression models because of their potential to change over the 3 year observation window as a function of subsidy receipt. For example, subsidy receipt may have enabled a mother to obtain further education, which in turn may have resulted in a job with enough income to render her ineligible for future subsidy receipt. Results did not substantively change when these time-varying characteristics, as measured by the survey, were added as controls (available from the first author upon request). Second, we substituted a family's average subsidy spell length for our dichotomous measure of interrupted subsidy receipt. Again, results did not substantively change.

Discussion

Our findings provided no support for our hypothesis that care subsidized through contracts paid directly to providers would be linked to greater stability in subsidy receipt than care subsidized through vouchers. Compared to families using vouchers, those using contracts had the same odds of experiencing an interruption in subsidy receipt between January, 2006 and December, 2008. Further, although we had hypothesized that associations between contracts and stability would emerge in family child care homes but not child care centers, we found no support for this hypothesis either. Supplemental analyses including a

Table 2 Logistic regression estimates of association between subsidy payment mechanism and any interruptions ($n = 8{,}940$)

	OR	SE
Contract subsidy[a]	1.133	(0.333)
Mother is Hispanic[b]	1.232	(0.612)
Mother is black[b]	1.728	(0.780)
Mother is foreign born[c]	0.789	(0.232)
Primary home language is Spanish[d]	0.741	(0.356)
Primary home language is other non-English language[d]	0.621	(0.329)
Child is age three or older[e]	1.724**	(0.449)
Child is male[f]	1.337	(0.336)
Study wave 1 [g]	0.801	(0.200)

[a] Families receiving a voucher subsidy are the reference category

[b] Mothers of other races serve as the reference category. The "other race" category includes whites, Asians, and "others"

[c] Mothers born in the US serve as the reference category

[d] Families primarily speaking English at home serve as the reference category

[e] Infants and toddlers through the age of 2 are the reference category

[f] Female children are the reference category

[g] Cases from the second wave of data collection serve as the reference category

** $p < 0.01$

Table 3 Logistic regression estimates of association between subsidy payment mechanism and any interruptions: center-based care and family child care separately

	Center-based ($n = 5{,}051$)		Family child care ($n = 3{,}890$)	
	OR	SE	OR	SE
Contract subsidy[a]	1.380	(0.500)	0.768	(0.474)
Mother is Hispanic[b]	0.987	(0.606)	1.639	(1.580)
Mother is black[b]	1.873	(1.004)	1.618	(1.463)
Mother is foreign born[c]	0.911	(0.355)	0.664	(0.313)
Primary home language is Spanish[d]	1.232	(1.007)	0.555	(0.351)
Primary home language is other non-English language[d]	0.731	(0.443)	0.332	(0.386)
Child is age three or older[e]	1.517	(0.625)	2.094*	(0.809)
Child is male[f]	1.186	(0.390)	1.567	(0.637)
Study wave 1[g]	0.684	(0.225)	0.924	(0.367)

[a] Families receiving a voucher subsidy are the reference category

[b] Mothers of other races serve as the reference category. The "other race" category includes whites, Asians, and "others"

[c] Mothers born in the US serve as the reference category

[d] Families primarily speaking English at home serve as the reference category

[e] Infants and toddlers through the age of 2 are the reference category

[f] Female children are the reference category

[g] Cases from the second wave of data collection serve as the reference category

* $p < 0.05$

greater number of covariates and using an alternative measure of subsidy stability did not alter our conclusion. Thus we are confident that the lack of an association between payment mechanism and subsidy interruption in our sample is not a measurement artifact.

We had expected contracts to be associated with uninterrupted spells of subsidy receipt because they would afford providers greater administrative support (Sandfort et al. 2008) by assuring them of a fixed period of funding and allowing them to plan ahead with regard to staffing and recruitment. Additionally, if contracts elevate quality by requiring providers to meet higher quality standards, and if parents are more satisfied with higher-quality arrangements, they may be more motivated to maintain subsidy eligibility so that they can keep their current child care arrangement. Since we did not measure these intervening factors, we have no way of knowing the reason for our null findings. It is possible, in fact, that contracts are a stabilizing force for child care providers in comparison to vouchers, but that these effects do not trickle down to families receiving care. Alternatively, it may be that child care providers with greater administrative capacity are associated with fewer interruptions in children's care arrangements per se, but that their spells of subsidy receipt are unaffected.

Future research should explore in greater detail the association between interruptions in subsidy receipt and interruptions in child care arrangement. Past research indicates that interruptions in subsidy receipt are likely to increase the number of transitions in child care provider children experience (Adams et al. 2007; Chaudry 2004, Meyers et al. 2006). Descriptive analyses of the data used for this study also support this assumption: 46% of children who experienced an interruption in subsidy receipt also switched between two types of child care, e.g., from a family child care home to a center, compared to 22% of children who did not experience an interruption in subsidy receipt ($p < 0.001$). These figures likely underestimate the proportion of children who experience instability in their care arrangements, because other children are likely to have changed providers but not care type, e.g., from one family child care home to another. Additional research is also needed to understand whether and how individual providers contribute to families' interruptions in subsidy receipt. Specifically, it may be the case that families experience interruptions primarily due to complications during recertification that have little or nothing to do with the providers supplying their children's care. Finally, gathering information about the process by which parents choose their care provider and the effects of changes in families' employment over time would also be valuable additions to the literature.

This study is the first of its kind to combine survey data with administrative data to study associations between subsidy payment mechanisms and the stability of subsidy receipt. Furthermore, we examine subsidy recipients in New York City, one of the largest subsidy populations in the country. To our knowledge, New York City administrative data represent the best data source available to date for this inquiry because records for both contract and voucher recipients are maintained in a single file. However, the data used for this study are observational and the size of the analytic sample prior to the application of sample weights is small. Furthermore, these results may not generalize to other states and locales that contract directly with individual family child care homes, because New York City offers contracts only to family child care providers who are part of networks. In fact, contracting with networks that employ paid staff may increase the per-child subsidy cost, thereby reducing the number of children who can be served by the subsidy system. Given these limitations, this study serves as a preliminary examination of the relation between subsidy type and stability.

The primary goal of the CCDF program is to promote maternal employment. It has been suggested that child care subsidies also have the potential to enhance the child care

experiences of low-income children, and researchers have called for an increase in the availability of contracted care to meet this aim (Adams and Rohacek 2002; Matthews and Schumacher 2008). Meanwhile, states are increasingly likely to provide subsidized child care through vouchers rather than contracts. Between federal fiscal years 1999 and 2009, the number of states contracting with child care providers declined from 20 to 13, and the proportion of children receiving subsidized care in contracted care arrangements declined by half, from 12 to 6% (USDHHS 2006, 2010b).

Subsidy recipients may prefer vouchers because they are more flexible. Vouchers allow parents to find care in their neighborhood even if the supply of contracted providers is low; seek out providers who are a better language or cultural match for their family; and find child care arrangements that accommodate irregular work schedules, such as night shift or split shift schedules. In addition, vouchers may be less burdensome for subsidy administrators; unlike contracts, they do not require the screening, selection, and monitoring of providers. However, vouchers may limit administrators' ability to ensure that children's receive quality care, because parents may use vouchers to pay unregulated care providers. Ultimately, further research is needed to assess the effect of states' shift toward vouchers on children, families, and subsidy administrators. Meanwhile, policymakers wishing to promote child care stability may consider altering their administrative practices. For example, less frequent recertification of eligibility, or the implementation of grace periods after an income or work change renders families ineligible, could also increase stability for families participating in the child care subsidy system (Adams et al. 2007; Grobe et al. 2008).

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