THE EFFECTS OF CHILD CARE SUBSIDIES FOR MODERATE-INCOME FAMILIES IN COOK COUNTY, ILLINOIS

Final Report

OPRE 2011-3

SEPTEMBER 2010

Office of Planning, Research and Evaluation
(OPRE)
Administration for Children and Families
U.S. Department of Health and Human Services

THE EFFECTS OF CHILD CARE SUBSIDIES FOR MODERATE-INCOME FAMILIES IN COOK COUNTY, ILLINOIS

Final Report
OPRE 2011-3
September 2010

Submitted to:
Ivelisse Martinez-Beck, Project Officer
Office of Planning, Research and Evaluation
Administration for Children and Families
U.S. Department of Health and Human Services

Submitted by:
Charles Michalopoulos, Erika Lundquist, and Nina Castells, MDRC

Contract Number: HHS 233-01-0015

Project Director: Ann Collins

Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

Abt Associates Inc.

The Evaluation of Child Care Subsidy Strategies is being funded by the Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS) under a competitive award, Contract No. HHS-223-01-0015. Abt Associates Inc. is the prime contractor on this project, and MDRC is a subcontractor.

The findings and conclusions presented herein do not necessarily represent the official position or policies of HHS.

Dissemination of MDRC publications is supported by the following funders that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Ambrose Monell Foundation, The Annie E. Casey Foundation, Carnegie Corporation of New York, The Kresge Foundation, Sandler Foundation, and The Starr Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

Overview

Federal funding for child care subsidies has increased substantially since 1996. Although many more low-income families receive help paying for child care, there is little rigorous evidence to guide states' decisions on structuring subsidy programs. This is the final report of a random assignment study in Cook County, Illinois, that seeks to answer two policy questions: whether providing subsidies to families whose incomes are just over the state's eligibility limit affects their child care and employment outcomes, and whether extending the length of time before families must reapply for subsidies affects the receipt of subsidies and related outcomes.

This study included 1,884 families who applied for child care subsidies in Cook County, Illinois, between March 2005 and May 2006, and whose incomes exceeded the state's eligibility limits. Families were randomly assigned to a program group, which was approved to receive subsidies even though family income was above the usual eligibility limit, or to a control group, which remained ineligible for subsidies as long as family income was above the state guidelines. In addition, a random half of the program group was asked to confirm its eligibility for subsidies every six months (the state standard) while the other half was asked to reconfirm eligibility annually. Because families were assigned at random to the program and the control groups, any systematic differences that emerged after random assignment can reliably be attributed to the policy changes being studied.

The results suggest the following:

- **Approving families to receive subsidies did not lead to increased employment or earnings**. In large part this is because most study participants were steadily employed. Over the two-year follow-up period, program group families received subsidies for eight months longer than control group families. However, both the program group and the control group earned about $26,500 each year on average, and more than 85 percent of parents in each group worked in any quarter. Thus, there was little room for the program to have an effect on employment for families who were eligible for the study.

- **Child care subsidies affect a range of child care outcomes.** Compared with the control group, families in the program group reported greater use of center-based care, more stable child care, increased satisfaction with care, and fewer job-related problems due to child care.

- **Extending the eligibility period increased the use of subsidies but had few other effects.** Over the two years of the study, families who had to confirm their eligibility once a year received subsidies for 2.5 months longer than those who had to do it every six months. However, the longer redetermination period had few effects on other child care and employment outcomes.

The results suggest that child care subsidies might not be needed to support parental employment for the nonpoor families included in this study, but they do have a range of effects on child care outcomes that could lead to other, unmeasured effects, such as reduced parental stress and increased family well-being.

Contents

List of Tables, Figures, and Boxes

Table

Table

Table

Figure

Figure

Box

Acknowledgments

This report resulted from the collaboration of many people and organizations.

Illinois was chosen as a site in the evaluation after a rigorous national search for interesting and policy-relevant interventions in the child care subsidy system. A number of people contributed greatly to this search, including Jean Layzer, Ann Collins, Fred Glanz, and Allen Werner at Abt Associates Inc; John Wallace and Rob Ivry at MDRC; and Lee Kreader at Columbia University's National Center for Children in Poverty.

The study could not have been conducted without the support of a number of individuals in Illinois. Linda Saterfield helped conceive of the study in her role as Chief of the Bureau of Child Care and Development at the Illinois Department of Human Services (IDHS). Loretta Davis and Colette Ellenberg at IDHS made it possible for us to estimate the effect of the program by providing us with data from various state administrative records systems. At Illinois Action for Children, which administers child care subsidies in Cook County, executive director Maria Whelan lent her wholehearted support to the study. Chris Tokarski and Kim Kerbrat led "Team Y," which was responsible for reviewing and processing subsidy applications and obtaining consent for families eligible for the study. Other members of Team Y were Iwona Orlowska-Bolinsica and Sonia Suarez. David Alexander and Marcia Stoll reviewed and commented on the project from a research perspective.

The report was immeasurably strengthened by the excellent comments given by many reviewers. At MDRC, Fred Doolittle and Ginger Knox closely reviewed drafts of the report and had a strong influence on its focus, as did Howard Rolston, Ann Collins, and Steve Bell at Abt Associates Inc.

Finally, the report could not have been produced without the invaluable support of many others at MDRC. David Navarro helped set up the experiment and explain random assignment procedures to Action for Children staff; Robin Phinney helped process and analyze survey data and took the lead on creating a public use file; Noemi Altman helped process administrative records; and Richard Kwong assisted with statistical programming, coordinated document production, created tables and figures, and checked the accuracy of the exhibits and text. Finally, Susan Blank edited the report and Stephanie Cowell prepared it for publication.

The Author

Executive Summary

In order to support the employment and child care choices of low-income families, federal funding for child care subsidies has increased substantially since 1996. Although many more low-income families are consequently receiving help paying for child care, there is little rigorous evidence to guide states' decisions on how to best structure their subsidy programs to meet the twin goals of supporting parental employment and helping families afford their preferred form of child care. This is the final report of a random assignment study in Cook County, Illinois, that seeks to answer two policy questions: whether providing subsidies to families whose income exceeds the state's usual income eligibility limit affects their child care and employment outcomes, and whether extending the time before families have to reapply — the redetermination period — affects their receipt of subsidies and related outcomes.

The results suggest the following:

- Providing child care subsidies to families who otherwise would have too much income to be eligible has a range of effects on child-care-related outcomes, including changing the types of care families use, increasing the stability of the care, improving parental satisfaction with care, reducing job-related problems due to child care, and changing the out-of-pocket costs of care.

- Lengthening the redetermination period from six months to a year increases the length of time families receive child care subsidies but has effects on few other outcomes.

- Neither approving families to receive subsidies nor lengthening the redetermination period has a notable effect on employment or earnings. In large part, this is because most parents in the study maintained steady, full-time employment, making it difficult for either intervention that was used in the study to affect employment or related outcomes.

Policy Context

The federal Child Care and Development Fund imposes a number of requirements on states' child care subsidy policies, but it also provides flexibility to let states set policies that fit local needs. Among other factors, states are allowed to determine the maximum income for families to be eligible for subsidies and the length of time that families can receive subsidies before they have to be recertified.

With regard to income eligibility limits, federal regulations allow states to provide subsidies to families whose incomes are 85 percent of state median income (SMI) or less. In Illinois, the income limit until September 2007 was 50 percent of SMI, or about $2,000 per month for a single parent with one child. In comparison with many other states, this income limit is low: 29 states set their subsidy eligibility ceiling above 55 percent of SMI, and only six set it below 45 percent of SMI.[1] However, Illinois is committed to providing subsidies to all eligible families who apply, while 14 other states maintain a waiting list.

Regarding eligibility periods, in 2006, a majority of states required that families be recertified every six months but 18 states had one-year redetermination periods, and two required redetermination more than twice a year. In Illinois, most families are required to reapply every six months.[2]

Description of the Evaluation

Between March 2005 and May 2006, all families who applied for child care subsidies in Cook County, Illinois, whose incomes were between 50 and 65 percent of SMI were invited to participate in the study. Half of those who agreed to be in the study were randomly selected to be approved to receive subsidies even though they had too much income under usual state rules. People in this group could receive subsidies for the next two years as long as their incomes remained below 65 percent of SMI and they met other state eligibility requirements. The other half of families in the study formed a control group that could receive subsidies only if their incomes fell below 50 percent of SMI. Among those selected to be approved to receive subsidies, half were randomly assigned a one-year redetermination period (that is, they would not have to reapply for subsidies for a full year), while the other half had to follow the usual state rules and reapply for subsidies every six months. In all, 1,884 families were successfully recruited for the study: 470 of these families were assigned to the six-month redetermination program group, 470 were assigned to the 12-month redetermination program group, and 944 were assigned to the control group.

Because families were assigned at random to the three groups, any systematic differences that emerged after random assignment can reliably be attributed to the policy changes being studied. In particular, differences between those in the program group who were approved to receive subsidies with a six-month redetermination period and members of the control group indicate the effect of providing subsidies to families who otherwise had too much income to be

[1]Administration for Children and Families, *Child Care and Development Fund: Report to Congress* (Washington, DC: Administration for Children and Families, 2006).

[2]Administration for Children and Families, *Child Care and Development Fund: Report to Congress* (Washington, DC: Administration for Children and Families, 2006).

eligible. Differences between the members of the two program groups, who were approved to receive subsidies with different redetermination periods (12 months or six months), indicate the effect of increasing the redetermination period among families who were approved to receive subsidies.

Because program group families were able to receive subsidies with more income than under the usual state eligibility rules, the state had to devise new amounts for copayments (the payment that families are expected to contribute toward the cost of care). Under the extension of the existing copayment schedule, families receiving subsidies for one child with income between 50 and 65 percent of SMI were asked to make weekly copayments ranging from $49 to $61. In comparison, providers receiving subsidies to care for children in these families received a total amount ranging from $47 for unlicensed home care (such as care provided by a relative or neighbor) to $169 for center care for a child younger than 2.5 years old. Thus, a family receiving subsidies paid the entire cost of care if that family used unlicensed care, but the state contributed most of the cost of center care. For families receiving subsidies for two children, the weekly copayment ranged from $84 to $104, while reimbursement to providers ranged from $95 for unlicensed care to $338 for center care for children under 2.5 years old.

To examine the effects of the program, data were collected from both administrative records systems and surveys of study participants. Data from administrative records systems include information from an application form completed shortly before random assignment, monthly data from the child care subsidy system, unemployment insurance records on employment and earnings, and records from the food stamp and Temporary Assistance to Needy Families (TANF) programs. One follow-up survey collected a range of information not available through administrative records, including a detailed history of each child care provider the family used, and information on the respondents' levels of satisfaction with the child care situation and on the reliability of the care, job problems related to child care, and out-of-pocket costs of child care.

Key Findings

- **Enhanced subsidies temporarily increased the use and stability of subsidy receipt but did not increase families' employment or earnings, in large part because most study participants were steadily employed.**

Table ES-1 shows the effects of approving families to receive subsidies on months of subsidy receipt, employment, earnings, and months of receipt of TANF and food stamps over the two years of the program. Not surprisingly, the program led to greater subsidy receipt. Over the two-year follow-up period, program group families received subsidies for eight months

The Evaluation of Child Care Subsidy Strategies: Illinois

Table ES-1

Estimated Impacts on Outcomes from Administrative Records

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Year 1				
Months of subsidy receipt	7.7	2.1	5.6 ***	0.2
Quarters of employment	3.6	3.6	0.0	0.0
Earnings ($)	26,438	26,727	-289	441
Months of TANF or food stamp receipt	1.8	1.8	-0.1	0.1
Total measured income ($)	27,007	27,316	-309	429
Year 2				
Months of subsidy receipt	4.5	2.1	2.4 ***	0.2
Quarters of employment	3.4	3.4	0.0	0.0
Earnings ($)	26,367	26,790	-423	589
Months of TANF or food stamp receipt	2.1	2.2	-0.1	0.2
Total measured income ($)	27,076	27,549	-473	574
Total				
Months of subsidy receipt	12.2	4.2	8.0 ***	0.3
Received subsidies for 7 consecutive months (%)	64.2	21.6	42.6 ***	2.0
Received subsidies for 13 consecutive months (%)	36.1	11.4	24.7 ***	1.8
Quarters of employment	7.0	7.0	0.0	0.1
Earnings ($)	52,805	53,516	-711	926
Months of TANF or food stamp receipt	3.8	4.0	-0.2	0.3
Total measured income ($)	54,072	54,854	-782	902
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

longer than control group families. In addition, the program increased the stability of subsidy receipt, tripling the number of families receiving subsidies for a year or more.

Over time, however, the effect on subsidy receipt greatly diminished. Although on average program group families received subsidies for 5.6 months more than control group families in the first year, the difference was only 2.4 months in the second year. By the end of the two years, the difference in the extent of subsidy receipt was close to zero, with about 20 percent of each group receiving subsidies at that time (not shown in the table). Thus, most families approved to receive subsidies at the beginning of the study had stopped receiving them two years later. Such reductions in subsidy receipt have been found in other studies and could have occurred for many reasons, which include children entering school and therefore requiring fewer hours of child care, parents earning too much to continue to receive subsidies, or parents

deciding that copayments were too high to warrant continuing to receive subsidies. The last reason may have been especially true for parents using unlicensed care, for which parents receiving subsidies paid most of the cost of care. For those parents the cost of paperwork involved in applying and reapplying for the help might have been greater than the benefits they received.

Making program group families eligible for subsidies did not lead to any changes in their employment, earnings, the extent of public assistance receipt, or their incomes compared with the control group. It is important to note that compared with typical subsidy recipients, families in the study had more income, quite stable employment, and low rates of receipt of public assistance. For example, control group parents worked for an average of seven of eight quarters in the two years after they entered the study and had earnings that were consistent with full-time work over this period. On average, they received food stamps in only four months in the two-year follow-up period.

- **Enhanced subsidies had a range of effects on child care outcomes, including changing the type of child care families used, increasing the stability of child care and parents' satisfaction with child care, and changing the distribution of the out-of-pocket costs of care.**

As Table ES-2 shows, approving families to receive subsidies had a number of effects on outcomes related to use of child care. To start, more program group families than control group families used center care following random assignment, while fewer used home-based care provided by either relatives or nonrelatives. The finding that program group families opted for more expensive center care is consistent with the subsidy system's goal of helping families afford their preferred form of care.

Perhaps because the program helped families afford their preferred care, the program also increased the stability of care: 92 percent of program group children versus 89 percent of control group children never experienced an interruption in their primary care arrangements. In addition, the intervention decreased by over 3 percentage points the percentage of program group children who were ever cared for by more than one care provider in a given month.

Table ES-3 shows that approving families to receive subsidies increased their satisfaction with child care and reduced job problems due to child care. In particular, access to subsidies increased a rating of parental satisfaction with child care by more than 7 points (on a scale of 100 points).This outcome was calculated by comparing the average proportion of "agree" answers to a composite of 10 child care-related statements that were made by program group members with answers made by control group members.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table ES-2

Estimated Impacts on Type and Stability of Child Care Arrangements, in Year after Random Assignment, for Children under Age 6 at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Ever used as primary provider (%)				
Any nonparental care	62.3	63.0	-0.7	3.0
Center care	44.8	38.2	6.6 **	3.1
Home care, relative	14.4	18.5	-4.1 *	2.4
Home care, nonrelative	5.5	9.8	-4.3 ***	1.6
Average number of months as primary care provider				
Center care	4.4	3.6	0.8 **	0.3
Home care, relative	1.5	1.6	-0.1	0.2
Home care, nonrelative	0.5	1.0	-0.5 ***	0.2
Sample size (total = 1,237)	664	573		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families. Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences (p-value < 0.001).

Approving families to receive subsidies also reduced the proportion of program group members who experienced job problems by about one-quarter, from 51 percent of the control group to 38 percent of the program group (although, as noted earlier, this reduction in job problems did not result in a reduction of job losses for the program group).

Finally, having access to subsidies decreased the variation in families' out-of-pocket child care expenses at the time of the survey. Compared with control group families, program group families were both less likely to pay under $50 per week and less likely to pay over $100 per week but were more likely to pay between $50 and $100 per week. This finding is consistent with copayment amounts, which were between $49 and $61 for a program group family receiving subsidies for one child and between $84 and $104 for a family receiving subsidies for two children. The fact that more control group families than program group families were paying under $50 per week for child care suggests that more control group families were using

The Evaluation of Child Care Subsidy Strategies: Illinois

Table ES-3

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Child care satisfaction and job-related problems since random assignment					
Satisfaction with primary care provider (scale of 0 to100)	78.3	71.0	7.3	***	1.2
Ever had job problems due to child care arrangement (%)	37.7	51.4	-13.7	***	2.7
Child care costs at time of survey (%)					
Average weekly out-of-pocket costs for child care				***	
Under $50	28.1	30.4	-2.3		
$50 to $100	32.1	28.3	3.8		
Over $100	33.3	37.7	-4.4		
Don't know/refused	6.6	3.7	2.9		
Sample size (total = 1,330)	699	631			

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

less expensive forms of care, such as relative care, at the time of the survey interview. The fact that control group families were more likely than program group families to be paying over $100 per week for child care suggests that some control group families who were not receiving subsidies were using types of care whose costs were more expensive than they would have been if the family had been eligible for child care subsidies.

- **Lengthening the redetermination period increased subsidy receipt but had a smaller effect than approving families to receive subsidies.**

Randomly assigning families to 12-month and six-month redetermination periods allows the study to isolate two separate effects: (1) the effect of providing subsidies with a standard redetermination period (comparing the six-month redetermination group with the control group) and (2) the effect of a longer redetermination period among families who were approved to receive subsidies (comparing the 12-month redetermination group with the six-month group).

These comparisons indicated that lengthening the redetermination period did increase the use of subsidies and the stability of subsidy receipt. Over the two-year follow-up period, families in the 12-month redetermination group received subsidies for 2.5 months longer on

average than those in the six-month redetermination group. In addition, extending the redetermination period increased the proportion of families who received subsidies for seven consecutive months by 18 percentage points.

Extending the redetermination period had less of an effect than making families eligible for subsidies in the first place. For example, families approved to receive subsidies with a six-month redetermination received subsidies 6.8 months longer over two years than control group families, while families approved to receive subsidies with a 12-month redetermination period received subsidies for 2.5 months longer than families who were approved with a six-month redetermination period.

The longer redetermination period generally did not affect other outcomes, including employment, child care arrangements, job-related problems, or out-of-pocket expenses. However, it did appear to increase satisfaction with child care.

- **The program's effects were generally similar across several subgroups that were examined, although there were some differences.**

Findings for the full sample can mask differences across groups of families. To investigate this possibility, the effects of the program were estimated for three sets of subgroups: (1) those who were reapplying for benefits at redetermination when they entered the study versus those who applied for the first time or after a break in subsidy receipt (new applicants), (2) those receiving subsidies for one child at the beginning of the study versus those receiving subsidies for two or more children, and (3) those who were applying for unlicensed care, licensed home care, or center care when the study began.

There might have been differences in impacts for these different subgroups of families for a number of reasons.

- Families coming into the study at redetermination lost their eligibility for subsidies if they were in the control group because their incomes exceeded the usual ceiling. By contrast, new applicant program group families were approved to receive subsidies for the first time (or after a break in subsidy receipt). Thus, comparing new applicants with redetermination applicants contrasts the effects of losing subsidies with the effects of gaining them. In addition, families who came into the study at redetermination were presumably more familiar with the program's rules and probably had an ongoing relationship with a child care provider.

- The value of the subsidy should have been higher for families with more subsidized children because the unsubsidized cost of care is greater for these

families. This suggests that effects would be greater for families with more subsidized children.

- Finally, program group families applying for unlicensed care would find that their copayments covered most or all of the cost of care. This might encourage them to change to a more expensive form of care or discourage them from receiving subsidies because they would decide that the size of the benefit they would receive to apply to unlicensed care was not worth the effort involved to apply for and maintain it. By contrast, families applying for subsidies for licensed care might see larger reductions in their out-of-pocket costs.

In many respects, the results were consistent with these hypotheses. For example, the program increased child care stability more for families at redetermination than for new applicants, supporting the hypothesis that losing subsidies at redetermination can be disruptive for children's care arrangements. In addition, the program increased subsidy receipt least for families applying for unlicensed care, which is consistent with the hypothesis that these families might decide that it was not worthwhile to apply for subsidies since their copayments would cover so much of the cost of care. However, there were few other differences in impacts across the subgroups.

Discussion of Results

A primary goal of the child care subsidy system is to support employment. By allowing families to use subsidies for a wide range of care, the system also helps parents to afford the type of care that they prefer for their children. For the families included in this study, the results suggest that subsidies are achieving the second goal but are not needed for the first one. In particular, approving families to receive subsidies affected a range of child care outcomes. In addition to increasing use of subsidies, it encouraged the use of center care, which was presumably unaffordable for many families unless they received subsidies. By helping families afford their preferred care, subsidies also led to greater satisfaction with care, more stable care, and fewer problems at work related to child care. Finally, subsidies reduced the out-of-pocket costs of care for some families.

At the same time, enhanced eligibility for child care subsidies did not affect employment, earnings, public assistance receipt, or income. This reflects the fact that most parents in the study were steadily employed both before and after they entered the study, regardless of whether they were approved to receive subsidies. It is important to remember that study participants had too much income to be eligible for subsidies under the usual state rules, and that subsidies might still be an important employment support for lower-income families.

The study also found that lengthening the redetermination period from six months to a year increased the use of subsidies and the stability of their receipt. However, these effects were rather small and did not generally translate into the other benefits that came from approving families to receive subsidies in the first place.

Finally, it should be noted that the measured effects of the program might have led to other, unmeasured effects. For example, increased satisfaction with care, reduced job-related problems, and reduced out-of-pocket costs may all have reduced parental stress and increased family well-being. And on the assumption that parents are the best judges of what is best for their children, allowing parents to choose their preferred form of care might have benefited their children.

Introduction

Public investment in child care has increased substantially over the past 15 years. Direct federal funding for child care subsidies for low-income families increased from $3.2 billion in 1996 to $11.96 billion in 2005.[1] Illinois experienced a similar magnitude of growth; Illinois state and federal spending on child care subsidies through the Child Care and Development Fund (CCDF) increased from $221 million in fiscal year 1997 to $568 million in fiscal year 2006.[2] As a result of this increased funding, many more low-income families with working parents are able to receive help in paying for child care. However, there is little rigorous evidence to guide states' decisions about how to optimize spending on the child care subsidy program, including little information to further an understanding of the impact of subsidies on employment or child care outcomes for those families who receive them.

This is the final report of a random assignment evaluation — a study that compares outcomes for a group exposed to an intervention to results for a randomly selected control group — that was carried out in Cook County, Illinois. The evaluation is designed to help Illinois answer two key policy-related questions: The first one is whether providing subsidies to families whose incomes are above current eligibility standards affects their child care and employment outcomes. The second question is whether extending the redetermination period affects similar outcomes, particularly the stability of child care arrangements and employment.

Here is a summary of the main findings:

- Expanding subsidy eligibility above the current income eligibility ceiling had a range of effects on child care outcomes. It increased subsidy use, increased use of center care, reduced use of informal care, increased parental satisfaction with care, and decreased reports of job problems due to child care arrangements. Enhanced eligibility for subsidies also changed how much people paid for care, reducing the percentage of people paying under $50 or over $100 per week in out-of-pocket child care costs. Finally, giving people access to child care subsidies increased the stability of care provided to their children.

[1] See Administration for Children and Families (2003, 2007). These amounts include federal and state funds from the Child Care and Development Fund (CCDF). In addition, the federal government increased spending on Head Start programs from $3.57 billion in 1996 to $6.84 billion in 2005. See U.S. Department of Commerce, Bureau of the Census (2008). Another $3 billion or so each year is implicitly spent through the Child and Dependent Care Tax Credit. See Burman, Maag, and Rohaly (2005).

[2] Administration for Children and Families (2006); Collins, Layzer, and Kreader (2007).

- Enhanced access to subsidies did not significantly affect employment, earnings, the use of public assistance, or income for the moderate-income group of families who participated in the study. The program had little opportunity to affect these outcomes, however, because most parents in the study, even those who were not approved to receive child care subsidies, worked steadily and received few public assistance benefits throughout the follow-up period.

- Lengthening the redetermination period from six months to a year increased the stability of subsidy receipt but had few other effects. Moreover, simply making families eligible for subsidies had much greater effects on how many months families received subsidies than lengthening the redetermination period.

The study described in this report is part of the four-site Evaluation of Child Care Subsidy Strategies, funded by the Administration for Children and Families in the U.S. Department of Health and Human Services. In addition to Illinois, the other three sites include Miami-Dade County, Florida; Massachusetts; and Washington State. The study in Miami-Dade County compared three curricula designed to improve the literacy of children in child care centers before they attend elementary school.[3] The study in Massachusetts is testing a method of improving children's language skills by training providers in day care homes to provide a language-rich environment and to interact one-on-one with children in a nurturing and responsive way.[4] The study in Washington tested the effects of an alternative schedule for copayments (contributions families make toward the cost of care) that reduces the cost of receiving subsidies for child care for many families.[5]

National Policy Context

CCDF imposes a number of requirements on states about how to structure their child care policies, but also provides a great amount of flexibility to allow states to set policies that best fit local needs. Among other factors, states are allowed to determine the maximum income for families to be eligible for subsidies, whether to prioritize certain groups of families (such as welfare recipients) in determining who is eligible or who has priority for subsidies, how much providers will be reimbursed, how long families can receive subsidies before they have to be recertified (the redetermination period), and how much families receiving subsidies have to contribute to the cost of child care (copayments). The experiment in Cook County, Illinois, is

[3]Final results from the Miami-Dade program are described in Layzer, Layzer, Goodson, and Price (2009).
[4]Descriptions of the Massachusetts study are available at Abt Associates Inc. (2009) and MDRC (2009).
[5]Final results from the Washington study are described in Michalopoulos (2010).

examining the effects of changes in two of these policies: the income eligibility limit and the redetermination period.

With regard to income eligibility limits, federal regulations allow states to provide subsidies to families with income up to 85 percent of state median income (SMI). Few states set their income limits that high, and most that do ration subsidy receipt by providing subsidies only to some eligible families.[6] In fiscal year 2006-2007, for example, only Hawaii, Maine, Mississippi, and Texas set their income eligibility limits at 85 percent of SMI, but of these states, only Hawaii served all eligible families who applied.

In addition to determining which families are eligible to receive child care subsidies, states also determine how often families have to provide information that verifies their continued eligibility for subsidies. As is the case for other policy levers, the length of redetermination periods varies considerably across states. In 2006, the majority of states required families to be recertified every six months, but 18 states had one-year redetermination periods, and two required redetermination more than twice a year.[7]

The Illinois Child Care Assistance Program

In Illinois, four groups of parents can receive child care subsidies. These include working parents with family income below 50 percent of SMI, recipients of TANF (public assistance provided by the Temporary Assistance for Needy Families program) engaged in approved job search or other work-related activities, teen parents who are in high school or preparing to obtain a General Educational Development (GED) credential, and families who are not receiving TANF but who are pursuing additional education to improve their job opportunities. As will be discussed later, this study focuses on the first group of working parents who are not receiving TANF.

Until September 2007, which includes most of the period of this study, families had to have incomes below 50 percent of SMI for their family size to qualify for child care subsidies. In 2005, when the study began, SMI in Illinois was $3,920 per month for a family of two (that is, a single parent with one child), $4,842 for a family of three, and $5,764 for a family of four. Thus, a single parent with one child would have been eligible for subsidies with monthly income below $1,960, while a family of three would have been eligible with income below $2,421, and a family of four would have been eligible with income below $2,882.

[6] Administration for Children and Families (2006).
[7] Administration for Children and Families (2006).

In comparison with the income limits in many other states, the Illinois limit of 50 percent of SMI is low; 29 states set their subsidy eligibility ceilings above 55 percent of SMI and only six set it below 45 percent of SMI.[8] Perhaps for that reason, in September 2007, near the end of the study, the state income eligibility limit was changed to 185 percent of the federal poverty threshold. For a single parent with one child, this did not substantially increase the income eligibility ceiling. For a family of three, the monthly income eligibility limit increased from $2,533 in 2006 to $2,647 in 2007. For a family of four, the monthly income eligibility limit increased from $3,016 to $3,184. The change in the income eligibility limit was larger for larger families.

Because families cannot receive subsidies if their incomes are too high, applicants must verify their incomes.[9] In particular, parents applying for subsidies because they work outside the home, a category that includes most parents in this study, are required to verify their employment and earnings by providing two pay stubs or a statement from their employers showing when they were hired and how much they are paid.

In Illinois, most families are required to reapply for subsidies every six months, although some parents, such as those who are self-employed or are paid in cash, are required to reapply every three months. A study of the dynamics of child care subsidy receipt conducted in Illinois and four other states found that the median length of the first spell of subsidy receipt in Illinois was six months.[10] Because most families in Illinois are currently certified to receive subsidies for six months, there is interest in knowing whether a longer redetermination period would increase the use of subsidies and the stability of care, as well as make the administration of subsidies more efficient. The effects of lengthening the redetermination period should also be of interest to other states, since a majority of them also use a six-month redetermination period.

In Illinois, subsidies can be used for licensed child care centers, licensed family child care homes, any relatives who provide care in their own homes, any adults who come to the family's home to provide care, and license-exempt centers and home providers. To verify that the families will be using subsidies for one of these types of providers, subsidy applicants must list the providers they will use if they are approved to receive subsidies, and the providers must sign a document certifying that they meet standards such as compliance with health and safety regulations, and the use of developmentally appropriate activities. License-exempt providers must also provide a completed Child Abuse and Neglect Tracking System form for all employees or for all residents ages 13 or older for license-exempt home care. If a license-exempt

[8]Administration for Children and Families (2006).

[9]According to a 2006 Administration for Children and Families report, child support payments paid or received by the applicant are excluded when determining eligibility and copayment amounts. See Administration for Children and Families (2006).

[10]Meyers et al. (2002).

home is going to provide the care, the application must include the provider's picture, a copy of the provider's Social Security card, current address, and a form allowing the state to perform a background check.

To help parents use their preferred form of care, the state provides more reimbursement for more expensive types of providers such as licensed centers. Nonetheless, parents might be constrained in their choice of the kind of care they use if certain types of care are unavailable in their communities. However, during the course of the study, vacancy rates for center care in Cook County ranged from 12 to 13 percent, suggesting that center care was an option for parents in the study.

Prior Research on the Two Subsidy Strategies

Although there has been no prior random assignment research on the effects of receiving child care subsidies, prior nonexperimental research — studies that do not compare outcomes for randomly assigned program and control groups — suggests that subsidies support parental employment. For example, Blau and Tekin's review (2001) covering nonexperimental studies on the effects of child care costs on maternal employment — including three studies that used information from real subsidy programs — cited 13 studies that estimated that a 10 percent reduction in child care costs would increase the number of low-income working mothers by 4 percent. However, few of the studies that were reviewed focused on low-income families, and Blau and Tekin point out that those studies indicated that low-income families are even more responsive than other families to changes in the price of care.

Investigating two Kentucky programs that subsidized some families for using center care, Berger and Black (1992) found much higher rates of employment for families who received subsidies than for those who were placed on the waiting list. However, it was not clear whether subsidy administrators provided subsidies to parents who were more likely to work. Using data from four California counties, Meyers, Heintze, and Wolf (2000) found that the use of subsidies was highly correlated with whether a low-income parent would work. Finally, in what is often considered the most rigorous study to date of the effects of reducing the cost of care, Gelbach (December, 1999) found that parents of children who were just old enough to be in kindergarten were 5 percentage points more likely to work than parents of children who were just young enough to be ineligible for kindergarten.

A summary of more recent research by Zaslow et al. (2006) likewise suggests that subsidies improve employment outcomes. Subsidy use is associated with both greater movement from welfare to work and sustained employment. The proportion of current and former welfare recipients who worked 20 or more hours per week tripled after income eligibility was expanded

in Rhode Island.[11] And in Philadelphia, mothers receiving subsidies were 21 percent less likely to report problems going to work.[12]

With regard to longer redetermination periods — the second policy change examined in this study — recent research indirectly suggests that a longer redetermination period is likely to lengthen subsidy spells, helping families achieve more stable employment and children have more stable child care arrangements. A number of studies have cited bureaucratic hurdles as a reason why eligible families do not use child care subsidies.[13] One study found that 37 percent of families in Philadelphia who were eligible for child care subsidies but not receiving them cited administrative hassles as a reason for not receiving subsidies.[14] Others have found that frequent redetermination periods are especially problematic.[15] A five-state study, which included Illinois, showed that breaks in subsidy use occurred earlier and more frequently in states that had shorter redetermination periods.[16] As noted, in Illinois, the study found that the median length of subsidy receipt was six months.

[11] Witte and Queralt (2003).
[12] Press, Fagan, and Laughlin (2006).
[13] Adams et al. (2004); Shlay (2002); Shlay, Weinraub, Harmon, and Tran (2004).
[14] Shlay, Weinraub, Harmon, and Tran (2004).
[15] Adams et al. (2004); Snyder, Bernstein, and Koralek (2004).
[16] Meyers et al. (2002).

Description of the Evaluation

This study used a random assignment design to study the effects of approving moderate-income families to receive child care subsidies and extending the redetermination period for child care subsidies in Illinois. Families who met all eligibility criteria for receiving subsidies except that their incomes were too high were randomly assigned to one of three groups:

- A program group that could receive subsidies, even though the incomes of the members were above the usual income eligibility ceiling, and that had to reapply for subsidies every six months (the six-month redetermination group);
- A program group that could receive subsidies with incomes above the usual income eligibility ceiling but that had to reapply for subsidies only once a year (the 12-month redetermination group); and
- A control group whose members were subject to the usual income eligibility ceiling and a six-month redetermination period.

Because families were assigned at random to one of the three groups, any systematic differences that emerged after random assignment can reliably be attributed to the policy changes being studied. In particular, differences between the six-month redetermination group and the control group indicate the effect of providing subsidies to families who otherwise had too much income to be eligible, while differences between the 12-month and six-month redetermination groups indicate the effect of increasing the redetermination period among families who were approved to receive subsidies.

Recruitment, Random Assignment, and Study Sample Characteristics

Between March 2005 and May 2006, Illinois Action for Children — the organization that administers child care subsidies in Cook County — identified all families applying for subsidies who met the following conditions: They had incomes between 50 and 65 percent of SMI, they would have been eligible to receive subsidies except for their incomes, they lived in Cook County, they provided a valid Social Security number to allow the study to link to their unemployment insurance records, they did not work for any agency responsible for administering subsidies, and they were eligible to receive subsidies with a six-month redetermination period. The last group excluded parents who were self-employed, who were paid in cash, or who were receiving child care subsidies for less than six months because they were attending school, teaching, or were working for a temporary employment agency. Finally, families had to

be applying for subsidy vouchers rather than applying for special slots in centers that contracted with the city of Chicago to care for children in subsidy-eligible families.

Illinois Action for Children sent these families a letter informing them they were ineligible for subsidies under the usual state rules, but that they had a 50 percent chance of receiving subsidies if they took part in a special study. Included with the letter was an informed consent form that explained the purpose of the study, noted that parents might benefit from participating in the study because they might be approved to receive subsidies, and indicated that parents who participated were required to provide a Social Security number and allow the state to provide the research team with information from administrative records. Those who signed and returned the consent form were randomly assigned to one of the two program groups or the control group.

When random assignment began, the study team hoped to enroll about 5,000 families into the study in about one year, or about 400 each month. This was consistent with the number of families applying for subsidies with too much income each month, so at the outset of the study, little effort was made to increase the number of eligible families applying for subsidies. The one exception was that Illinois Action for Children staff who received questions about subsidy eligibility from families with too much income encouraged them to apply. Before the study, the staff would more likely have told the families that they were ineligible for subsidies.

It quickly became apparent that the recruitment goal would not be met without more intensive outreach efforts. In the first several months of recruitment, for example, Illinois Action for Children reported receiving 10-25 eligible applications each day — enough to reach the recruitment goal — but only about 20 percent of these families signed and returned informed consent forms.

Several steps were then taken to intensify recruitment. To boost the number of families returning consent forms, providers caring for children of parents who had not returned a consent form were called to let them know that family could be eligible for subsidies. In addition, letters sent out with consent forms were made simpler and more attractive to encourage parents to read them. To further increase the number of over-income families applying for subsidies, providers were sent a brochure designed to help them understand the study and to prompt them to encourage parents to apply. Providers were also sent consent forms that they could send to parents. In addition, Illinois Action for Children placed information that described the study on its Web site.

These recruitment efforts helped to some extent. In April and May 2005, which were the first full two months of recruitment, slightly more than 200 families entered the study. In contrast, between October 3 and December 10, 439 families entered the study. Nevertheless, recruitment never reached the target of 400 per month. Rather than the hoped-for 5,000 fami-

lies, 1,884 families were successfully recruited into the study. Of these families, 470 were assigned to the six-month redetermination group, 470 were assigned to the 12-month redetermination group, and 944 were assigned to the control group.[17]

Despite these recruitment efforts, it is likely that many families who would have been eligible for the study did not apply because they thought they could not receive subsidies. Thus, while the results of the study provide insights into the effects of subsidies for families who did apply, the results might not reflect the effects of subsidies for the larger group of families. In addition, the study does not investigate the extent to which a higher income eligibility limit would increase the number of families applying for subsidies.

Table 1 shows some characteristics of the three research groups at the time they entered the study. Characteristics were derived both from parents' subsidy applications just before random assignment and from administrative records from the year before random assignment. Parents applying for subsidies were overwhelmingly female. In fact, few of the families listed information for a second parent on their applications (not shown in the table). Applicants were 31 years old on average, with an average family size of three, and on average had 1.5 children in care situations where subsidies were applied. Few children were white, and a majority of the children were black.

Reflecting the income requirements for the study, working parents were earning between $12 and $13 per hour on average and generally working full time, while the average total monthly household income was about $2,700. In the year prior to entering the study, sample members were fairly steadily employed and on average were making over $23,000 a year. While almost a third of sample member had received food stamps at some point in the year before entering the study, only 5 percent or less had received any TANF payments.

The sample was split almost equally between parents who were being recertified to receive subsidies and those who were new applicants or applicants with a break in their periods of subsidy receipt (not shown in table). As a result, about two-thirds of the sample had received child care subsidies at some point in the year prior to entering the study.

Program group families had enhanced access to subsidies for two years. Thus, the program ran from March 2005, when the first family entered the study, to August 2008, when the last family who entered the study reached its two-year anniversary. During that time, the unemployment rate in Cook County dropped from 6.6 percent in March 2005 to a low of 3.9 percent in October 2006. It increased more or less steadily after that point, reaching 7.2 percent in July 2008. Thus, the economic environment in Cook County was quite strong during the first

[17] An additional six families were randomly assigned but later asked to be removed from the study.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 1

Selected Characteristics from Child Care Subsidy Application and Administrative Records, by Research Group

Variable and Category	6-Month Program Group	12-Month Program Group	Control Group	
Baseline application				
Personal characteristics				
Female (%)	96.2	96.8	96.7	
Male (%)	3.8	3.2	3.3	
Average age	30.8	30.8	30.9	
Recruited at redetermination (%)	45.5	45.5	45.6	
Applicant parent employment				
Hourly wage ($)	12.4	12.5	12.7	
Hours worked per week	36.0	36.0	36.1	
Household income figures ($)				
Monthly gross employment income	2,539	2,578	2,556	
Other monthly income[a]	160	171	173	
Family characteristics				
Average family size	2.8	2.9	2.9	
Average number of children for whom subsidies were applied	1.4	1.5	1.5	
Age of youngest subsidized child	3.7	3.5	3.7	
Has child who is white (%)[b]	9.1	5.4	7.8	
Has child who is black (%)[b]	71.7	75.0	72.1	
Has child who is Hispanic (%)[b]	15.0	16.3	16.8	
Administrative records data				
Employment and earnings in prior year				
Number of quarters employed	3.5	3.6	3.6	
Total earnings ($)	23,330	23,331	23,312	
Public assistance receipt in prior year				
Ever received TANF (%)	3.2	3.2	5.0	
Ever received food stamps (%)	29.8	34.9	29.2	*
Ever received child care subsidies (%)	67.5	66.4	63.0	
Sample size (total = 1,884)	470	470	944	

(continued)

Table 1 (continued)

SOURCE: MDRC calculations from baseline application form and from State of Illinois administrative records.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for continuous variables.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

[a]Other income is the calculated sum of self-employment income, child support received, Temporary Assistance to Needy Families (TANF) payments, other federal cash assistance, housing cash assistance, and other monthly income.

[b]Child race and ethnicity are being shown because this information is not available for parents.

half of the program period but gradually weakened after that. It is not clear whether these trends would have influenced the effects of the program since economic conditions would have affected both program and control group members. In addition, evidence to date suggests only a weak link between economic conditions and the impacts of employment-related interventions.[18]

Copayments and Provider Reimbursement Rates

Parents who receive child care subsidies in Illinois are required to pay for part of the cost of care through a copayment, while the state pays the rest. Subsidies are more valuable to a family the smaller its copayment relative to the total cost of care. This section provides some background information that is intended to help assess the value of subsidies by discussing how much families receiving subsidies pay and how much providers are reimbursed when families receive subsidies. The bottom line is that higher-income families pay nearly the entire cost of care if they receive subsidies and use unlicensed care, but pay much less than the cost of care if they receive subsidies and use licensed home care or center care. In addition, subsidies are more valuable to larger families because copayments increase less than the cost of care when more children are subsidized.

The top panel of Table 2 shows the weekly 2005 copayment amounts for subsidy recipients with one or two children in care — a group that includes 91 percent of families who entered the study. Because income levels for program group families were initially higher than the norm in Illinois, the state had to create a new extended copayment schedule, which had new copayment amounts that were consistent with the amounts in the existing schedule. For example, copayments for families with one child in care increased by $6 increments as families moved up the income scale beginning at 33.4 percent of SMI. The extended copayment schedule meant families receiving subsidies for one child paid as much as $61 each week for that

[18]Bloom, Hill, and Riccio (2001); Greenberg, Michalopoulos, and Robins (Winter, 2004).

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 2

Weekly Copayments and Reimbursement Rates in Illinois, 2005

Copayment and Provider Reimbursement	1 Child in Care	2 Children in Care
Copayment amounts ($)		
Income as a percentage of state median income		
Standard income eligibility levels		
0 to 8.3	1	2
8.4 to 12.5	3	4
12.6 to 16.7	5	7
16.8 to 20.9	8	12
21.0 to 25.0	11	16
25.1 to 29.2	15	22
29.3 to 33.4	20	34
33.5 to 37.6	25	44
37.7 to 41.7	31	54
41.8 to 45.9	37	64
46.0 to 50.0	43	74
Expanded income eligibility levels for current study		
50.1 to 55.0	49	84
55.1 to 60.0	55	94
60.1 to 65.0	61	104
Reimbursement rates ($)		
Center care		
Child under 2.5 years old	169	338
Child over 2.5 years old	122	243
Licensed home care		
Child under 2.5 years old	108	215
Child over 2.5 years old	103	205
Unlicensed home care	47	95

SOURCE: MDRC calculations from State of Illinois Department of Human Services.

care when their incomes were between 60 and 65 percent of SMI. Likewise, copayments increased in $10 increments for families receiving subsidies for two children to a weekly maximum of $104.

In addition to determining families' contributions to care, the state determines how much providers of care are paid overall when families receive child care subsidies, with the overall maximum amounts including both the state's contribution and the family's copayment. The bottom panel of Table 2 shows these maximum amounts for 2005. As the table shows, reimbursement rates were higher for center care than for licensed home care and lowest for

unlicensed home care; they were higher for children under 2.5 years old than for older children; and they increased with the number of children in care. For a family with one child under 2.5 years old, for example, the maximum weekly reimbursement was $169 for center care but only $47 for unlicensed home care.

As the table suggests, subsidies had substantial value for program group families using center care, somewhat less value for those using licensed homes, and little or no value for families using unlicensed home care. For example, a parent in the program group with income at 55 percent of SMI receiving subsidies for two children in unlicensed home care would pay $94 each week, while the provider's weekly total reimbursement would be only $95. Thus, the state's contribution would be only $1 each week. By contrast, a similar family with two children under 2.5 years old in center care would still pay $95, but the state's weekly contribution would be $244 ($338 in total reimbursement minus the family's copayment of $94).

Hypothesized Effects

The enhanced eligibility scale for subsidies that was used in this study has the potential to affect child care arrangements, the stability of the child care used, and even employment outcomes, with the nature and directions of the effects influenced by the copayment level and the size of the state's contribution to child care payments. To see how these effects might emerge, consider the following hypothetical examples.

- Ms. Tinker applied for subsidies to pay a relative to care for her 2-year-old-child, but she would have preferred a licensed day care home. When she was assigned to the program group, she discovered she was paying the full cost of care to the relative — that the copayment was more than the reimbursement rate for unlicensed care for one child. She therefore decided to apply the same copayment to a licensed home — her preferred provider — which would have been too expensive without the subsidies. For families like the Tinkers, therefore, enhanced access to subsidies might increase the use of both subsidies and licensed care over what the family would have used if it had been in the control group. The help that the enhanced scale could give the family to use its preferred form of care might in turn increase its level of satisfaction with care and make its child care arrangements more stable. In addition, receiving subsidies might help family members stay employed, which could keep them from having to receive TANF or other forms of public assistance. However, under the expanded eligibility program, the family's out-of-pocket costs could have increased or decreased, depending on how much the family would have paid the relative if the parent had been assigned to the control group and not been approved to receive subsidies.

- The Evers family also applied for subsidies for a relative caring for their 2-year-old-child, but in their case, relative care was their top choice. When they were assigned to the program group and found out that their copayment covered the entire cost of care, they stopped receiving subsidies because it was not worth the time to complete the paperwork. For families like the Evers, therefore, enhanced access to subsidies would have no effect.

- The Chance family placed its 3- and 4-year-old children in a center and applied for subsidies for that care. The family was randomized to the control group and decided that they could not afford the cost of center care if they did not receive subsidies. The mother therefore reduced her hours of work enough to allow the family to qualify for subsidies under the usual rules. If the Chance family had been in the program group, they could have had higher earnings and income than control group members but could have still received child care subsidies. They also would have used center care regardless of which group they had been randomized to.

- Like the Chance family, the Guillen family planned to use center care for their two children and was placed in the control group. Unlike the Chances, the Guillens decided that if they did not receive subsidies, they could afford to pay the full cost of center care. For families like this, enhanced access to subsidies — in other words, being in the program group — would initially result in substantially lower out-of-pocket costs, which might in turn result in greater satisfaction with care. In the case of the Guillens, the high cost of care that came with being in the control group might later convince them to reduce their income to qualify for subsidies or to switch to less expensive care, reducing the longer-term effect of the program for this group of families.

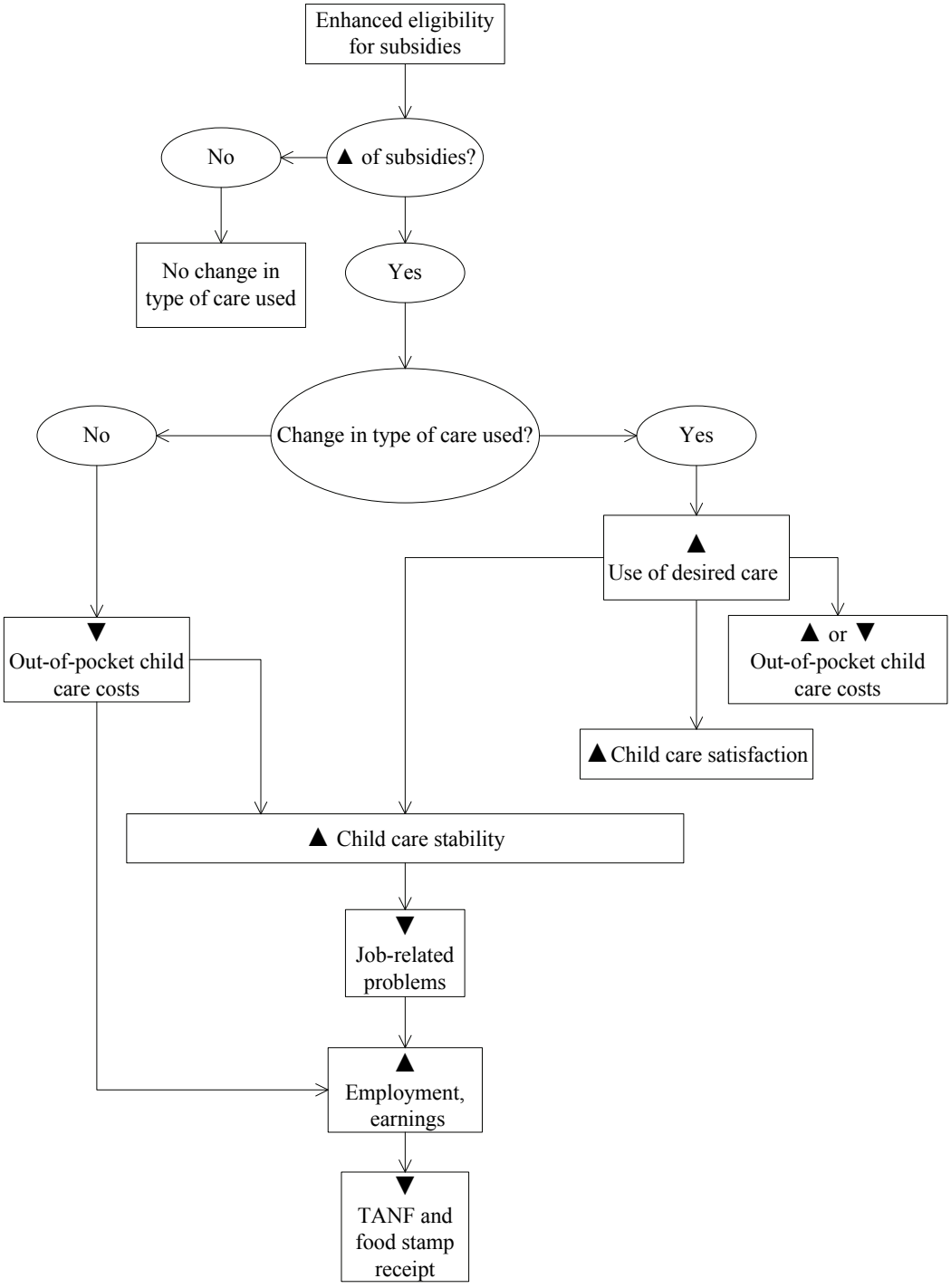
These examples suggest the following hypotheses about the effects of enhanced eligibility for child care subsidies (see Figure 1):

- **Increased use of child care subsidies.** Approving only program group families to receive subsidies will initially result in greater subsidy use for the program group than the control group. A key question, however, is whether this effect continues throughout the two years of enhanced eligibility. As noted in the examples above, families who are planning to use subsidies to pay for informal care might decide to stop receiving subsidies because they are paying the entire cost of care. Being denied subsidies might encourage control group families to lower their earnings and incomes to become eligible for subsidies during the two-year program period. In addition, the primary hypothesis un-

The Evaluation of Child Care Subsidy Strategies: Illinois

Figure 1

Primary Hypothesized Effects of Enhanced Eligibility for Child Care Subsidies



derlying the longer redetermination period is that it will extend family's time in the subsidy system.

- **Increased use of licensed care and decreased use of unlicensed care.** As discussed, control group families who plan to apply subsidies to center care might switch to less expensive forms of care when their applications are denied at baseline. Likewise, when program group families who are approved to receive subsidies for informal care realize their copayments will not change if they use a different type of care, they might switch to more expensive forms of licensed care if they prefer that kind of care.

- **Increased stability of care.** One goal of the subsidy system is to help stabilize families' child care arrangements. The intervention could lead to that outcome directly by helping the family continue to pay for care over time, or it could have an indirect effect by allowing families to use their preferred form of care, which they would be more apt to maintain.

- **Increased satisfaction with child care and reduced work problems related to child care.** By making it easier for families to choose the type of care they want, enhanced eligibility for subsidies should increase parents' satisfaction with care. If they choose more stable forms of care, that might also reduce problems with job attendance related to child care.

- **Changes in earnings and income.** Because subsidy recipients must be working or participating in approved education and training activities, most parents were working when they entered the study. But for several reasons, approving some families to receive subsidies could have resulted in greater earnings and employment for program group families than for control group families. One reason is that a higher income ceiling for program group families might encourage parents to take better jobs or work more hours or stay employed. Likewise, as noted, control group families might cut back their earnings when they learn that they earn too much to receive subsidies in order to become eligible for them. Helping families gain access to more desirable or stable care might also allow parents to work more steadily. In addition, it is plausible that receiving subsidies reduces out-of-pocket costs and thereby increases disposable income but does not change earnings. While many of these paths lead to increased employment or income, it is also possible that subsidies could reduce earnings by allowing some parents to work less and still make ends meet.

- **Reduced use of public assistance programs.** If enhanced access to subsidies results in more stable employment and income, it might also reduce the need to rely on cash assistance and other public benefits.

Data Sources

Data for this study come from a baseline application form; administrative records from the child care subsidy system , and the unemployment insurance, TANF, and food stamp systems; and from a survey that was administered to sample members between one and three years after study entry. In particular, the following data were available:

- **Baseline data:** Baseline data, collected from subsidy applications, include the following information: household size, age of parent, weekly hours of work, hourly wage, monthly income, age and number of children for whom parents applied for subsidies, children's race and ethnicity, and the type of care for which parents applied. These data were used to describe the study samples and to create subgroups, and they were used as covariates to refine impact estimates.

- **Monthly child care subsidy data:** The subsidy data include information on type of child care, total reimbursement amount, copayment amount, and number of children in care for each child care arrangement for which the family used subsidies. These data were used to measure families' use and stability of use of child care subsidies.

- **Quarterly Unemployment Insurance (UI) data:** For each employer in each quarter in which a sample member was employed, the UI data contain information on earnings amounts. These data are used to measure sample members' employment and earnings. UI data were not available for household members other than the sample members, such as spouses or older children, because the study team obtained consent to collect administrative records only from the sample member.

- **Monthly public assistance data:** For each month in which a sample member received public assistance in the form of TANF payments or food stamps, administrative records show the amount of the payments to the household. These data were used to measure the levels of TANF and food stamp benefits received by sample members. In addition, UI earnings and TANF and food stamp amounts were combined to create a measure of income.

Data were used for the year prior to random assignment through two years following random assignment, that is, from March 2004 through September 2008. A key feature of data from the unemployment insurance, TANF, and food stamp systems is that they are available for

all families at all times, even if the families stop receiving child care subsidies. As a result, they can be used to compare employment, earnings, and levels of public assistance receipt for all program group and all control group families.

Likewise, data from the child care subsidy system can be used to determine the effects of being approved to receive subsidies and of a longer redetermination period on how long families receive subsidies. However, subsidy data cannot be used to determine whether the program changed the types of child care arrangements that families used, because they do not indicate the types of care families used when they did not receive subsidies. To learn about outcomes such as child care arrangements for all families, the survey (mentioned earlier) was fielded with all study participants some time after they entered the study. The survey is described in the next section.

Follow-Up Survey

The survey content is described briefly in this section, with more details provided in Appendix A.[19] This section also describes some issues that arose in administering and analyzing the survey.

Survey Contents

Child Care Arrangements

Respondents were asked a series of questions about any child care arrangements used in the period following random assignment for more than eight hours per week for each child. For each of these arrangements, the module asked:

- Who cared for the child? Possible answers were: stepparent of the child or parent's spouse/partner; grandparent of the child; sibling of the child; other related adult; other unrelated adult; center-based care, including center care, daycare, nursery school, Head Start, preschool, or a special education program; an after-school or before-school program; a summer school or summer camp program; other (with the respondent asked to specify what the "other kind of care" consisted of).

[19]The survey contained one set of questions that was not used in the report. These questions were designed to test the respondent's understanding of child care subsidy rules, such as how much the respondent's copayment would increase if that person's income went up $100 per month. Because the questions were limited to parents who said they ever received subsidies, the responses could not be used to compare all program group and control group families and were therefore not used in the analysis of impacts.

- When was the care used?
- How many hours per week for each provider?
- How much was paid for each child to each provider?
- Was assistance paying for child care (including subsidies) used?
- Were there interruptions in care?

These data were used to construct child-level measures of type and stability of the primary care arrangement.[20] In most cases, the measures were focused on care provided by the children's primary providers (defined each month as the nonparental provider who cared for the child for the most hours in that month).

Child Care Reliability and Flexibility, Satisfaction with the Care, and Costs

In addition to types of child care arrangements, respondents were asked about a number of other issues related to child care. First, they were asked whether they had missed work, had to quit work or school, or had been unable to start work or school because of child care problems. These questions were used to create a summary measure of whether the respondent experienced any job-related problems due to child care arrangements. This section of the survey also contained a set of statements about the convenience of and satisfaction with child care at the time of the interview, which the respondent could say were "true," "somewhat true," or "not true."[21] These statements were used to create a composite measure calculated as the proportion of 10 statements with which the parent expressed agreement or satisfaction.[22] Even though the statements touched on a broader range of concepts than satisfaction, for simplicity's sake, the measure is referred to as a "measure of satisfaction" throughout the report. Estimated impacts on agreement with the individual statements made in this module are shown in Appendix Table B.1. Finally, respondents were asked the total weekly amount they paid for all care at the time of the interview. This measure of out-of-pocket expenses was used rather than the provider-

[20]The analysis includes 68 children who entered the household after random assignment. Of these 68 children, 32 were in the program group and 36 were in the control group.

[21]The questions included whether the respondent had difficulty finding desired care, whether there were good child care choices where the respondent lived, whether the provider shared the respondent's child-rearing values, whether the respondent had more than one child care option, whether the respondent thought she had only one child care option, whether the respondent had transportation problems getting to and from the provider, whether the child care was located too far from home, whether the respondent relied on the provider for flexible hours, whether the respondent had had to change her work schedule to keep the provider, whether balancing work and family was difficult for the respondent, and whether the respondent had to settle for the provider because of cost. The respondent was asked whether each item was true, somewhat true, or not true. All responses were used for the scales except for the question asked about flexible hours.

[22]Cronbach's alpha = 0.73.

specific cost question from the section on child care arrangements because it was thought that parents would more reliably report their overall expenditures than their expenditures for each provider for each child.

Employment

Respondents were asked to provide a number of pieces of information about all jobs worked since random assignment. These included start and end dates of the jobs, hours worked, earnings, dates of interruptions of job spells, and information on fringe benefits associated with the jobs. Information on jobs held at the time of the survey interview was used to create measures of employment, hours worked, and job characteristics for that job. Information on all jobs held in the year after random assignment was used to create measures of employment stability. Because the results from administrative records after one year of follow-up showed little evidence that the program increased employment and because more reliable information on employment and earnings were available for the full follow-up period from unemployment insurance records, survey-based employment outcomes were considered secondary and are presented only in appendix tables.

Major Life Events

Respondents were asked about the occurrence of nine major types of events or other problems since the time of random assignment. Specifically, the survey asked whether the respondent had moved; worried about her housing situation; experienced transportation difficulties; worried about the safety of her children; had experienced serious health problems; had given birth, adopted or begun fostering a child; had had a child who experienced serious health problems: had had a family member who experienced serious health problems; or had had other major changes or events in her life. Because there were no strong hypotheses about how the intervention would affect these major life events, these outcomes were considered secondary and are shown only in the appendix.

Income

Respondents were asked about total household income and sources of income in the month prior to the survey. While the measure of income from the survey should be more complete than a measure of income from earnings and public assistance created from administrative records, the income captured is from a relatively brief period — from the month before the survey. For this reason, the measure of income derived from administrative records is included in tables in the main body of the report, and the survey measures of income can be found in Appendix Table B.2.

Survey Quality

Although the survey provides a rich source of information, problems in administering it presented several analytical challenges. When the effort began, two survey waves were planned with all study participants, one at a year after random assignment and the second at the end of the second year. To preserve resources, both waves were to be conducted by telephone.

To conduct the first survey wave, information on sample members was released to the survey firm shortly before the first-year anniversary of their entry into the study, and the initial surveys were conducted about a year after random assignment. Soon after the survey effort began, it became clear that too few participants would answer the survey by phone, either because phone numbers available through administrative records were inaccurate, out of date, or no longer active, or because individuals were not answering the phone. For example, in June 2007, in the middle of administering what was supposed to be the first survey wave, the survey firm reported that 32 percent of the phone numbers were not in service and another 11 percent connected the callers to someone who was not associated with the study. At that point, only about 29 percent of participants who had passed their one-year anniversaries had completed the interview.

To increase the response rate, the survey firm tried to talk to participants in person rather than only by phone. The additional resources provided for conducting in-person interviews meant that only one survey wave could be conducted. The change to in-person interviewing was successful, insofar as 71 percent of the sample responded to the survey — a proportion that was reasonably close to the planned 80 percent response rate. However, delays in obtaining responses from many sample members resulted in two potential problems described next.

Varying Follow-Up Lengths for the Survey

While the survey firm was eventually able to find and interview most people in the study, the process often took a long time. As a result, individuals were interviewed anywhere from one to three years after random assignment. For example, slightly more than one-third of respondents completed the survey within 1.5 years after random assignment, which is when the intervention had its largest effect (as will be described later in the report). Another 30 percent did not complete the survey until more than two years after random assignment, by which time the program was no longer being operated and the program group was subject to the standard income eligibility ceiling.

Because contact information initially came from child care subsidy data, the initial contact information was generally better for program group families than for control families. Program group members were consequently more likely to respond earlier in the follow-up period. Specifically, about 60 percent of those who responded between 1 and 1.5 years after

entering the study were program group members (see Table 3). Put in other terms, about 40 percent of program group respondents completed the interview within 1.5 years of random assignment, compared with about 31 percent of control group members. Conversely, about 33 percent of control group respondents completed the interview after the second year, compared with about 28 percent of program group respondents.

Recall Bias and Misreporting

Because some respondents completed the survey long after random assignment, there is some concern about whether they provided accurate information about events that happened soon after random assignment. In addition, survey responses often contain some amount of misreporting. To examine the extent of recall bias and misreporting, the researchers examined survey-reported use of nonparental care for subsidy recipients. Since subsidies can only be used to pay for nonparental care, all respondents who were receiving subsidies in a given month should have reported using nonparental care in that month in their responses to the survey.

Results suggest that there were substantial problems with both recall and misreporting. Among respondents receiving subsidies in the month prior to the survey interview, only 84 percent reported using nonparental child care in that month. This suggests that 16 percent of families who were known to be using nonparental care simply misreported this fact.

Recall bias was even more pronounced when respondents were asked to report care used further back in time. For example, only 70 percent of respondents receiving subsidies one year after random assignment reported using nonparental child care during the year after random assignment. Only 52 percent of those using child care subsidies in the month of random assignment reported using nonparental child care at that time. This suggests that the true levels of child care use were higher than the levels reported on the survey.

One consequence of recall bias is that data on nonparental care used right after study entry are less accurate for respondents who were interviewed later than for those who were interviewed earlier. Of the respondents receiving subsidies in the month of random assignment, 61 percent of those who responded less than 1.5 years after random assignment reported any child care use during that month, 50 percent of those who responded 1.5 to 2 years after random assignment reported any child care use during that month, and 42 percent of those who responded more than 2 years after random assignment reported any child care use during that month.

Survey Analysis Decisions

Widespread underreporting of child care arrangements due to recall bias and other misreporting suggests that the survey results understate estimated effects on child care outcomes.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 3

Number of Respondents by Research Group and Follow-Up Period

Outcome	Proportion of Respondents in Program Group for Each Follow-Up Period	Proportion of Respondents in Control Group for Each Follow-Up Period
Follow-up period		
Less than 1.5 years	59.5	40.5
At least 1.5 years but less than 2 years	48.2	51.8
2 or more years	49.1	50.9

SOURCE: MDRC calculations from follow-up survey.

Variation in when families responded further complicates the analysis. For example, consider the complexities that could arise in measuring the stability of child care arrangements by the number of months an arrangement is used. Because program group members responded to the survey earlier in the follow-up period, control group members had more opportunity to use child care arrangements for a longer period. If both groups used child care steadily, control group members would appear to have been using one provider for a longer period of time because they would have been providing information that covered a longer period of time. Likewise, if program group and control group families changed child care providers with equal frequency, control group families would appear to have been using more providers because they reported care arrangements over a longer time period.

Here is another example of why program group members responding earlier might cause an analytical problem: people who responded earlier had less recall bias about events that happened near the time of random assignment. Since program group members were more likely than control group members to respond early in the follow-up period, they would have provided more accurate information than control group families about events that took place near random assignment, potentially resulting in incorrect estimates of the effect of the program at that time.

Two approaches were used to adjust for these types of problems:

Limiting the Follow-Up Period

For child care and employment outcomes with a time component (such as number of months of care), the follow-up period was limited to the year after random assignment. This follow-up period was chosen because information is available for everyone for this time period. In addition, as will be described later in the report, the first year was when the program had its

largest effects on subsidy use and therefore was likely to have its largest effects on child care arrangements and other outcomes measured through the survey.

However, one problem with this follow-up period is that it exacerbates problems with recall bias.[23] To determine whether recall bias substantially affected the results, the effects of the intervention on child care arrangements and on related survey outcomes were also estimated using only people who responded within two years of random assignment. Estimated effects using this limited sample were quite similar to results using the full survey sample and are discussed further below.[24] See Appendix Tables E.1 and E.2.

Response Bias

A response bias analysis was performed to check whether (1) respondents in the control group were similar to respondents in the program group, and (2) survey respondents were similar to survey nonrespondents. While the evidence suggests that program group respondents were similar at baseline to control group respondents, there is some evidence that survey respondents were different from nonrespondents. In particular, program impacts on subsidy receipt were significantly larger among respondents. This finding reflects both more subsidy use among program group member respondents and less subsidy use among control group member respondents in comparison with outcomes for members of the corresponding groups who did not respond to the survey.

Weighting

To correct for the fact that on average program group members responded to the survey earlier than control group members and that estimated effects on subsidy receipt were larger for

[23] An alternative would have been to limit the follow-up period to the year prior to the interview. This would have reduced the problems with recall bias but would have been problematic because many respondents were interviewed more than two years following random assignment and therefore no longer had enhanced eligibility for subsidies.

[24] An additional sensitivity test was done by examining estimated effects based on when people entered the study. The rationale for this test is that people who were randomly assigned early in the evaluation had more time to respond to the survey and therefore on average responded later. For example, only 7 percent of survey respondents who entered the study in the first few months were interviewed within 1.5 years of entering the study, while 50 percent were interviewed more than two years after entering the study. By contrast, 50 percent of survey respondents who entered the study in the last few months of random assignment were interviewed within 1.5 years of entering the study, while only 9 percent were interviewed more than two years after entering the study. Because the effects of the intervention were expected to be largest early in the follow-up period and because recall bias was worse for people who were interviewed longer after random assignment, the estimated effects of the intervention were compared for people who entered the study at different points in time. For the most part, results did not vary with when families entered the study. One exception is that the intervention led to a greater decrease in the use of relative home care for families who entered the study later.

respondents than nonrespondents, weights were developed and applied to all survey results. Appendix C contains a detailed description of the weighting method.

A successful weighting strategy should have resulted in two accomplishments. First, it should have resulted in estimated impacts among survey respondents that matched estimated impacts for the full sample. Second, if it looked like program group members used more nonparental care than control group members because program group members had responded earlier to the survey than control group members, the weighting strategy should have decreased this differential in reported care. The results presented in Appendix C confirm that both of these intended results did indeed occur.

Conclusion

It appears that limiting the follow-up period for survey outcomes and weighting the survey data corrected to some extent for the problems that have been discussed, but biases likely still remain. In particular, misreporting and recall bias led to reported levels of nonparental care that were too low. Thus, estimated effects on child care outcomes from the survey are likely to understate the true effects of the program.

Statistical Issues

Because of random assignment, the effects of the intervention can be estimated by comparing the outcome levels for the program and control groups after random assignment, a difference known as an "impact estimate."[25] See Box 1 for information on how to read a table of impact estimates in this report.

To assess whether the program made a difference, statistical significance is used. Briefly, statistically significant impacts are ones that are large enough that they are unlikely to have resulted from a program with no true effect. Using statistical significance reduces the chance of incorrectly concluding that the program had an effect, but it does not eliminate it. For any given outcome, there is a 10 percent chance that a program with no true effect could result in a statistically significant impact estimate on that outcome. However, the chance of incorrectly concluding the program had an effect increases with the number of impact estimates that are examined. With 10 estimates for example, it is very likely that one will be statistically significant even if the program had no true effect. With hundreds of impact estimates — as are presented in this report — a program with no true effect would generate a number of statistically significant results.

To limit the possibility of chance findings, the research team focused on a relatively small number of outcomes that were deemed to be most likely to be affected by the intervention. In addition, results were examined for a relatively small number of subgroups that were identified before the analysis began as being likely to show differential impacts. Where it made sense, several related outcomes were combined into one measure, such as the measure of child care satisfaction that combines answers to 10 separate survey questions. In each case, more detailed results are presented in an appendix, but those results should be interpreted more cautiously than the main results because they do not reflect core hypotheses of the study or they are less precise than the composite measure presented in the body of the report.

A second method of reducing the possibility of falsely concluding that the study was effective was to compare results with the hypotheses described earlier. Statistically significant results that are not consistent with the logic underlying those hypotheses are more likely to be chance findings and therefore should be discounted somewhat in drawing conclusions about the

[25] Although mean outcomes could be compared, the precision of the estimates presented in this report was increased by adjusting results for the sample members' baseline characteristics. These characteristics included employment and earnings for each of the four quarters prior to random assignment and subsidy, TANF, and food stamp receipt for the second, third, and fourth quarters prior to random assignment; number of subsidized children; age of youngest subsidized child; race and ethnicity; presence of the other parent in the household; family size; and age of the parent who applied for subsidies.

Box 1

How Impacts Are Measured

Because families were randomly assigned to be approved to receive subsidies or not (and if approved, were randomly assigned to a six-month or twelve-month redetermination period), the effects of that approval can be estimated by the difference in outcomes between the two groups. This is illustrated in the short table below, which shows the estimated effect on months of subsidy receipt.

The table shows results for three outcomes – months of subsidy receipt in the year after random assignment, months of subsidy receipt in the second year, and months of subsidy receipt in the two years combined. The left column of numbers shows subsidy receipt for the program group, while the next column shows subsidy receipt for the control group. The estimated effect of the program is the difference between the two outcome levels and is shown in the third column. In this case, the program was estimated to have increased subsidy receipt by 5.6 months in Year 1, 2.4 months in Year 2, and 8.0 months overall.

Example of Estimated Impacts on Subsidy Receipt

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Months of subsidy receipt, Year 1	7.7	2.1	5.6 ***	0.2
Months of subsidy receipt, Year 2	4.5	2.1	2.4 ***	0.2
Months of subsidy receipt, total	12.2	4.2	8.0 ***	0.3
Sample size	940	944		

Next to the estimated impact is an indication of whether the estimate was *statistically significant*. Statistically significant impacts are ones that are large enough that they are unlikely to have resulted from a program with no true effect. Statistically significant estimates will be indicated by stars. In this case, each impact estimate is accompanied by three stars, which means there is less than a 1 percent chance a program with no effect would have generated such a large difference.

The final column shows another statistical concept called the *standard error*. The standard error is a measure of how precise the estimated impact is. It is akin to the margin of error that is reported in political polling, like the polling conducted during Presidential campaigns. In rough terms, there is a 95 percent chance that the true impact estimate is within two standard errors of the estimated impact. For Year 1, for example, there is a 95 percent chance the true impact estimate is between 5.2 months (5.6 – 2*0.2) and 6.0 months (5.6 + 2*0.2).

study. For example, a finding that the program reduced subsidy receipt would be viewed with great skepticism because it is difficult to think of how a program that approves more families to receive subsidies would have reduced their subsidy receipt. Likewise, a finding that the program did not increase subsidy use but did reduce the cost of care would be viewed with some skepticism because the primary method by which costs would be reduced would be through increased use of subsidies.

Estimated Effects for the Full Sample

Did raising the income eligibility ceiling have an effect on subsidy use, child care outcomes, and employment? Did extending the redetermination period increase those effects? This section of the report explores these questions by presenting the estimated impact of the two parts of the program.

Specific questions that this section considers are:

- **What are the effects of being approved to receive subsidies?** To measure the effects of being approved to receive subsidies, the average outcomes for all program group members — whether they were assigned to the six-month or 12-month redetermination group — were compared with average outcomes for the control group. Although there might be some added benefit of the longer redetermination period, combining the two programs in this way produces the most precise estimates of enhanced access to subsidies. Moreover, the longer redetermination period was not expected to have an effect until after six months, when families in the six-month redetermination group would have had to reapply for subsidies for the first time. For these reasons, to determine the effects of the enhanced subsidy, this report focuses primarily on the comparison between the combined program group and the control group.

- **What are the effects of receiving subsidies with and without a longer redetermination period?** To isolate the effects of being approved to receive subsidies without extending the redetermination period, outcomes for the six-month redetermination group were compared with outcomes for the control group. To isolate the effects of the longer redetermination period, outcomes were compared for the six-month and 12-month redetermination groups.

Here are the key findings for the full sample:

- **Giving people access to child care subsidies had a range of effects on child care outcomes**. Compared to control group members, members of the program group had higher subsidy use, more use of center care, reduced use of informal care, increased parental satisfaction with care, and decreased reports of job problems due to child care arrangements. Enhanced eligibility for subsidies also changed how much people paid for care, reducing the percentage of people paying under $50 or over $100 per week in out-of-pocket child care costs. Finally, giving people access to child care subsidies resulted

in greater stability of care for program group children than for control group children.

- **Enhanced access to subsidies did not significantly affect employment, earnings, amount of receipt of public assistance, or income.** This finding reflects the fact that many study participants were steadily employed in what appears to have been full-time work even without being approved to receive subsidies.

- **Lengthening the redetermination period increased the stability of subsidy receipt but had few other effects**. Moreover, simply making families eligible for subsidies had much greater effects on the amount of subsidy receipt than lengthening the redetermination period.

Estimated Effects of Being Eligible to Receive Subsidies

As has been shown in Figure 1, approving program group families to receive subsidies could have a range of effects, such as changing the type and stability of child care arrangements; increasing employment, earnings, and income; improving satisfaction with child care; reducing job problems related to child care; and reducing out-of-pocket costs for child care. This section estimates these effects by comparing outcomes for the entire program group to outcomes for the control group.

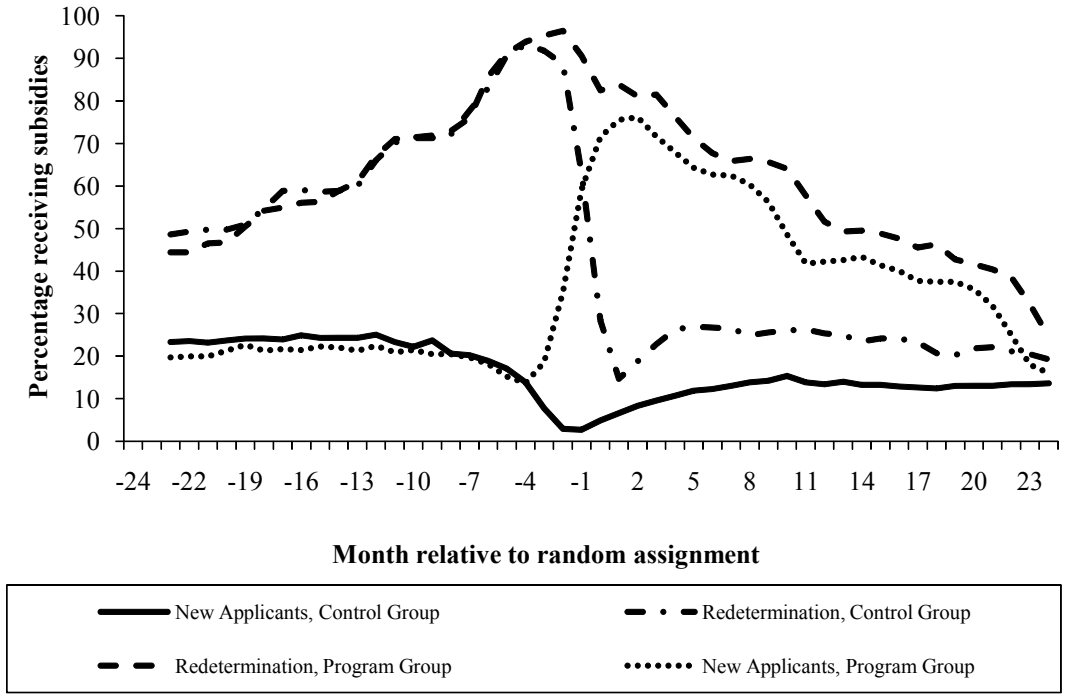
Estimated Impacts on Outcomes from Administrative Records Data

The first questions are how large the program's effect on subsidy use was initially and how long this effect persisted. Persistent differences in subsidy use might have larger effects on other outcomes than short-lived differences in subsidy use. Of course, the program should have had an immediate and large effect on subsidy receipt, since program group members were approved to receive subsidies while control group members were not. However, this effect could have been short-lived for several reasons. First, control group members might have become eligible for subsidies under the standard eligibility rules if their earnings or incomes were reduced or if they reported an additional family member shortly after random assignment. Second, program group members might have stopped receiving subsidies over time as their children entered school or if they stopped working.

Figure 2 shows the percentage of families receiving subsidies by month for the two years before random assignment and over the two-year period during which program group

Figure 2

Percentage of Families Receiving Subsidies, by Month Relative to Random Assignment



SOURCE: MDRC calculations from State of Illinois administrative records.

members were eligible for subsidies through the study.[26] The figure shows the percentages separately for families in the program and control groups, and for families being recertified to receive subsidies (redetermination families) and those who were new applicants or applicants with a break in their periods of subsidy receipt. Looking separately at new applicants and those at redetermination is interesting as it disentangles the effects of losing subsidies versus not being approved for subsidies. This distinction is discussed in more detail later in the report.

About 20 percent of new applicants in both the program and control groups had received subsidies during much of the period prior to random assignment. When these families applied for subsidies at random assignment, however, applications for control group families were rejected — because at that point control group families by definition had incomes that were too high to qualify them for subsidies — while applications for program group families

[26]Outcome levels and estimated impacts on monthly subsidy receipt are presented in Appendix Table D.1.

were approved. As a result, the rate of subsidy receipt declined to nearly zero for new applicants in the control group but rose to more than 75 percent for new applicants in the program group.[27] In fact, the gap in subsidy receipt rates between the program and control groups emerged several months prior to random assignment. This is because families received subsidies based on when they began the application process rather than when it was completed. Random assignment did not occur until after the application was complete and the applicant had provided consent to be in the research study. Consider, for example, a parent who filed the initial paperwork in October but did not provide proof of income and sign an informed consent form for the study until December. That parent would have received subsidies for child care retrospectively back to October, two months prior to random assignment.

For families entering the study at the time of redetermination — as opposed to the time of application — subsidy receipt rates for both program group and control group families increased from about 50 percent two years prior to random assignment to nearly 100 percent at the time of random assignment. Control group families who reapplied at the time of random assignment were denied, however, and their subsidy receipt rate dropped to about 15 percent. Presumably, this 15-percent group consisted of families who were able to become eligible soon after their applications were rejected because their incomes decreased or they reported additional family members.

Although the gap in subsidy receipt was substantial soon after random assignment, the program group decreased its average rate of subsidy use considerably over the two-year follow-up period. As a result, the difference in subsidy receipt was close to zero by the end of the two-year program period, with only about 20 percent of each group receiving subsidies at that time. While the decline in the percentage of program group members receiving subsidies may seem steep, this pattern of subsidy usage is common: the pattern may occur because among other reasons, parents may stop reapplying for subsidies if their incomes increase, putting them above the income eligibility guidelines, or as their children get older, and school and other activities take the place of child care arrangements. In addition, parents may stop receiving subsidies when they are no longer employed (though this does not appear to be a major reason for ending subsidy receipt in the sample for this study). As mentioned, a study of subsidy use in Illinois found that half of families stopped receiving subsidies during the first six months after they began receiving them.[28]

As noted, the state income eligibility ceiling increased in September 2007 from 50 percent of state median income to 185 percent of the federal poverty threshold. For families who entered the study after July 2005, this statewide policy change reduced the difference in income

[27]The other 25 percent of applicants who were approved to receive subsidies did not use subsidies when they entered the study even though they had been approved to do so.

[28]Meyers et al. (2002).

eligibility ceiling between program and control group families. Although this change could have reduced the effect of the program on subsidy receipt, the evidence suggests it did not. In particular, the pattern of subsidy receipt for families randomly assigned before September 2005 — and thus no longer in the study when the state income eligibility ceiling changed — was virtually the same as for families randomly assigned after February 2006.

To explore the effects of the program on employment, Figure 3 shows quarterly employment rates for the program and control groups in the two years after random assignment.[29] Both groups maintained an employment rate close to 90 percent throughout the follow-up period and the program therefore did not increase employment. This suggests that child care subsidies were not needed to support employment among parents in the study, most of whom had incomes of about $25,000 to $40,000 per year when they entered the study.

Table 4 provides some more details on these estimates by showing outcome levels and estimated impacts on earnings, months of public assistance receipt, and total measured income as well as on months of and continuity of subsidy receipt and employment for the first year after random assignment, the second year after random assignment, and the full two-year follow-up period. The table confirms what was evident from the figures: making program group members eligible for subsidies led to increased months of subsidy receipt and stability of subsidy receipt in both years following random assignment. Over the two-year follow-up period, families in the program group received subsidies for on average eight months more than families in the control group, and were three times as likely to receive subsidies for 13 consecutive months.

Analyses of administrative records sources indicate that making program group families eligible for subsidies did not lead to any changes in employment, earnings, public assistance receipt, or income.[30] However, control group families were employed for an average of seven of eight quarters, had earnings consistent with full-time work,[31] and were not receiving much public assistance during the two-year follow-up period. The intervention had little room to increase employment rates or their work efforts while they were in jobs. Although it might have provided incentives and assistance for those who lost jobs to return to work quickly, allowed some parents to reduce the amount of time that they worked, or allowed parents to take better

[29]Results by month for child care subsidies, TANF, and food stamps and by quarter for employment and earnings are reported in Appendix Tables D.1-D.4.

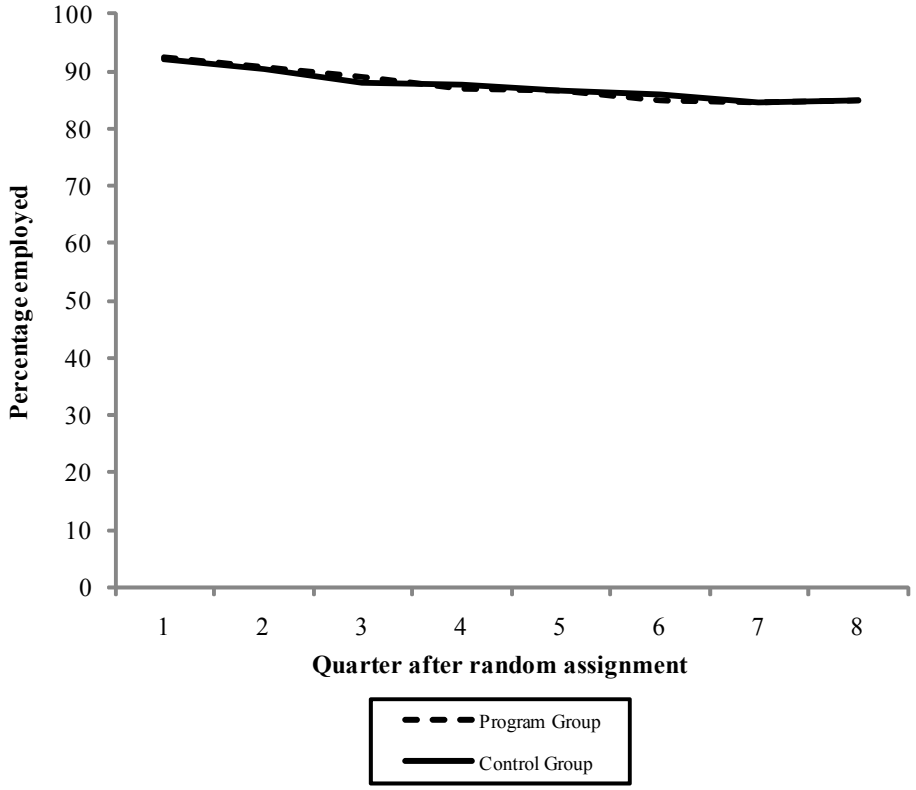
[30]Monthly impacts on the percentage receiving TANF and food stamps as well as TANF and food stamp amounts are shown in Appendix Tables D.3 and D.4.

[31]Average annual control group earnings over the two-year follow-up period were $26,758. This amount is consistent with a person working full-time for the full year and making $13 per hour. This is also consistent with the baseline data, which show control group members working 36 hours per week and earning $12.70 per hour at the time they applied for subsidies. On average control group members earned $23,504 per year in the year before entering the study.

The Evaluation of Child Care Subsidy Strategies: Illinois

Figure 3

Estimated Impacts on Quarterly Employment Rates



SOURCE: MDRC calculations from State of Illinois administrative records.

jobs that paid higher wages, there is no evidence that this happened.[32] Since the intervention did not affect earnings, it is not surprising that it did not affect public assistance receipt or income.

Estimated Effects on Outcomes from Survey Data

Child Care Arrangements

As described earlier, approving families to receive subsidies might affect the type of care they choose and how stable that care is. Using data from the follow-up survey, Table 5

[32]Consistent with the findings from the administrative records, eligibility for subsidies did not lead to any benefits for the main survey-based employment outcomes for program group members, as compared with control group members (see Appendix Table B.2).

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 4

Estimated Impacts on Outcomes from Administrative Records

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Year 1				
Months of subsidy receipt	7.7	2.1	5.6 ***	0.2
Quarters of employment	3.6	3.6	0.0	0.0
Earnings ($)	26,438	26,727	-289	441
Months of TANF or food stamp receipt	1.8	1.8	-0.1	0.1
Total measured income ($)	27,007	27,316	-309	429
Year 2				
Months of subsidy receipt	4.5	2.1	2.4 ***	0.2
Quarters of employment	3.4	3.4	0.0	0.0
Earnings ($)	26,367	26,790	-423	589
Months of TANF or food stamp receipt	2.1	2.2	-0.1	0.2
Total measured income ($)	27,076	27,549	-473	574
Total				
Months of subsidy receipt	12.2	4.2	8.0 ***	0.3
Received subsidies for 7 consecutive months (%)	64.2	21.6	42.6 ***	2.0
Received subsidies for 13 consecutive months (%)	36.1	11.4	24.7 ***	1.8
Quarters of employment	7.0	7.0	0.0	0.1
Earnings ($)	52,805	53,516	-711	926
Months of TANF or food stamp receipt	3.8	4.0	-0.2	0.3
Total measured income ($)	54,072	54,854	-782	902
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

examines these effects for children who were less than 6 years old at the time their families entered the study.[33]

One finding of note in Table 5 is that only 62 percent of children under age 6 in the program group were reported to be in nonparental care in the year after entering the study. This percentage is low in light of the fact that 88 percent of program group families received subsidies during this time (not shown). The discrepancy is a bit smaller when looking at the care situation from the perspective of the family rather than the perspective of the child: 67 percent

[33]Child care type and stability were examined only for children under age 6 because the research team thought subsidies were most likely to affect the type of care used for children who were not yet in school and because stability of care is thought to be particularly important for young children.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 5

Estimated Impacts on Type and Stability of Child Care Arrangements, in Year after Random Assignment, for Children under Age 6 at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Ever used as primary provider (%)					
Any nonparental care	62.3	63.0	-0.7		3.0
Center care	44.8	38.2	6.6	**	3.1
Home care, relative	14.4	18.5	-4.1	*	2.4
Home care, nonrelative	5.5	9.8	-4.3	***	1.6
Average number of months as primary care provider					
Center care	4.4	3.6	0.8	**	0.3
Home care, relative	1.5	1.6	-0.1		0.2
Home care, nonrelative	0.5	1.0	-0.5	***	0.2
Child care stability					
Average length of longest spell with a primary care provider (months)	6.2	5.9	0.3		0.3
Number of interruptions in primary care (%)				**	
No interruptions	92.0	88.5	3.5		
One	3.2	5.0	-1.7		
Two	2.1	1.9	0.2		
Three or more	1.8	4.0	-2.2		
Used two or more care providers in a month (%)	5.8	9.1	-3.4	*	1.7
Sample size (total = 1,237)	664	573			

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families. Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences (p-value < 0.001).

of families who received subsidies reported having at least one child in nonparental care (also not shown). However, the discrepancy is consistent with the evidence presented earlier that families underreported use of nonparental care on the survey by a greater amount near the point of random assignment, suggesting that they could not adequately recall all the child care they had used over the two or three years between the time of random assignment and when they were interviewed. This also suggests that the study might understate the effects of the program

on the types of child care arrangements that were used and perhaps the effects of the intervention on the stability of child care.

As hypothesized, program group families were more likely than control group families to use center care as the primary type of care for their children and less likely to use home care (nonparental care that is provided either by relatives or unrelated adults). While center care was used as the primary mode of care for 38 percent of control group children, it was used for 45 percent of program group children. Likewise, the program increased the average number of months during which children used centers as their primary providers from 3.6 months for control group children to 4.4 months for program group children.[34]

Making families eligible for child care subsidies appears to have increased the stability of the care. In particular, 92 percent of program group children never experienced an interruption in their primary care arrangements compared with 88.5 percent of control group children. The intervention also decreased the percentage of program group children who were ever cared for by more than one care provider in a given month by over 3 percentage points.[35] The intervention did not increase the average length of the longest spells children had with a primary care provider. However, program group families did have care spells that lasted 0.3 months longer, on average, than control group families, suggesting that the estimated decrease in interruptions in child care is probably slightly understated since children in program group families had a longer time, on average, during which to experience interruptions in care.

Child Care Satisfaction, Job-Related Problems, and Costs

Table 6 shows the estimated effects of approving families to receive subsidies on satisfaction with child care, job problems due to child care, and out-of pocket child care costs following random assignment.[36] Because these questions were asked only once rather than being asked about each care arrangement, the outcomes in Table 6 were calculated for each family instead of for each child, as was the case in Table 5. In addition, the outcomes reflect child care used since random assignment and are not limited to the care used in the year after random assignment, which is the focus of Table 5.

---

[34]To reduce the amount of recall bias, the effects on child care arrangements were also estimated for families who responded to the survey within two years of entering the study. These families were more likely to report having used nonparental care in the year after random assignment, and estimated impacts were somewhat larger for them (an 11 percentage point and 1.3 month increase in use of center care). See Appendix Table E.1.

[35]For the group that responded to the survey within two years of entering the study, the intervention decreased both of these measures of child care instability by about 4 to 5 percentage points.

[36]See Appendix Table E.2 for estimated impacts on these outcomes for the families who were interviewed for the survey within two years after entering the study.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 6

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Child care satisfaction and job-related problems since random assignment					
Satisfaction with primary care provider (scale of 0 to100)	78.3	71.0	7.3	***	1.2
Ever had job problems due to child care arrangement (%)	37.7	51.4	-13.7	***	2.7
Child care costs at time of survey (%)					
Average weekly out-of-pocket costs for child care				***	
Under $50	28.1	30.4	-2.3		
$50 to $100	32.1	28.3	3.8		
Over $100	33.3	37.7	-4.4		
Don't know/refused	6.6	3.7	2.9		
Sample size (total = 1,330)	699	631			

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

The table shows that enhanced eligibility for subsidies led to a more than 7 percentage point increase in the proportion of program group members over control group members who were satisfied with their primary care providers. This outcome was calculated by comparing the average proportion of "agree" answers to a composite of 10 child care-related statements for program group members (78.3 percent) and for control group members (71 percent).

Impacts on the individual questions that contributed to this composite measure can be found in Appendix Table B.1 and indicate that the program had especially large effects on the proportion of parents who reported not having difficulty finding desired child care and the proportion who said they had to settle for a provider due to cost.

Table 6 also shows that enhanced eligibility for subsidies reduced the proportion of program group members who experienced job problems by about one-quarter, from 51 percent of the control group to 38 percent of the program group. As indicated in Appendix Table B.1, the program appeared to reduce the whole range of problems that were asked about: having to miss days of work, going to work late or leaving early due to child care problems, being unable to start a job, or having to quit a job or school.

Finally, having access to subsidies decreased the variation in families' out-of-pocket child care expenses at the time of the survey. Compared with control group families, program group families were less likely to pay both under $50 per week and over $100 per week, but were more likely to pay between $50 and $100 per week.[37] The finding that program group families were more likely than control group families to pay $50 to $100 per week makes sense because copayments were between $49 and $61 for a family receiving child care subsidies for one child and between $84 and $104 for a family receiving subsidies for two children (see Table 2).[38] The fact that more control group families than program group families were paying under $50 per week for child care at the time of the survey interview reflects the fact that more control group families were using less expensive forms of care such as relative care. The fact that control group families were more likely than program group families to be paying over $100 per week for child care at the time of the survey interview reflects the fact that control group families were more likely than program group families to be using center care while not receiving subsidies.

Other Outcomes

Appendix B presents estimated impacts on several additional survey outcomes. As discussed, survey-based impact estimates related to employment are shown in the appendix, not in the body of the report, because results from unemployment insurance data suggested that the program did not affect employment. Impacts on major life events from the survey are shown in the appendix because the program was not expected to affect these outcomes, and they are consequently not considered core results for the study. Finally, to give a more complete picture of the outcomes described in Tables 5 and 6, the appendix shows impacts on the type of primary care used over time, and on the type and stability of care for all providers.

Estimated Effects of Enhanced Subsidy Eligibility With and Without the Longer Redetermination Period

As described earlier, extending the redetermination period could reduce the burden associated with receiving subsidies and make it easier for people to continue receiving subsidies if they lost jobs. Therefore the primary expected result from extending the redetermination period was that there would be an increase of the stability of subsidy receipt. To isolate the effects of

[37]Thirty-four percent of program group members reported paying over $100 in weekly out-of-pocket costs for child care at the time of the survey. Most of these people did not receive subsidies in the month prior to their survey interviews.

[38]Although in theory program group families receiving subsidies were paying less than $50 or more than $100 per week for care, only a handful of survey respondents reported paying $49 per week or $101 to $104 per week for care.

providing subsidies to program group families and to estimate the effects of the longer redetermination period, Table 7 shows outcome levels separately for the six-month and 12-month redetermination groups and compares them with outcomes for the control group. Three sets of estimated impacts are shown in the table. Following are reasons for the comparisons:

- Comparing outcomes for the six-month redetermination group and the control group isolates the effect of providing subsidies to the higher-income families in this study without extending the redetermination period.
- Comparing outcomes for the 12-month redetermination group and the control group provides an estimate of the combined effect of providing subsidies to higher-income families and extending the redetermination period to a year.
- Comparing outcomes for the 12-month and six-month redetermination groups isolates the effect of extending the redetermination period from six months to a year for higher-income families.

Table 7 shows the estimated effects of the intervention on subsidy receipt following random assignment for the three research groups included in the study.[39] Outcome levels and estimated impacts are shown for the first year following random assignment, the second year following random assignment, and for the full two-year follow-up period. Note that Table 7 does not examine the effects of the intervention on employment, earnings, public assistance receipt or income, but these impacts are shown in Appendix Table E.3. These measures were excluded from Table 7 because there were no statistically significant impacts on these measures for the program group as a whole, compared with impacts for the control group (see Table 4). Therefore there was no compelling reason to believe that there would be improvements in these measures for either the six- or 12-month redetermination groups.

The results indicate that receiving subsidies under the enhanced plan *without* a longer redetermination period increased the use of subsidies and the stability of subsidy receipt. Over the two-year follow-up period, families in the six-month redetermination group received subsidies for an average of seven more months than families in the control group; in addition, the enhanced subsidy eligibility option increased the proportion of families in the six-month redetermination group who received subsidies for seven consecutive months by 34 percentage points, and the percentage who received subsidies for 13 consecutive months by 21 percentage points.

[39]Outcome levels and estimated impacts on monthly rates of subsidy receipt for the three research groups are presented in Appendix Table D.5.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 7

Estimated Impacts on Months and Stability of Child Care Subsidy Receipt, by Detailed Research Group

	Average Outcome Levels			6-Month vs. Control		12-Month vs. 6-Month		12-Month vs. Control	
Outcome	6-month group	12-month group	Control group	Difference (Impact)	Standard Error	Difference (Impact)	Standard Error	Difference (Impact)	Standard Error
Subsidy receipt									
Months of subsidy receipt in Year 1	7.2	8.2	2.1	5.1 ***	0.2	1.0 ***	0.3	6.1 ***	0.2
Months of subsidy receipt in Year 2	3.8	5.3	2.1	1.7 ***	0.2	1.5 ***	0.3	3.2 ***	0.2
Total months of subsidy receipt	11.0	13.5	4.2	6.8 ***	0.4	2.5 ***	0.5	9.2 ***	0.4
Received subsidies for 7 consecutive months (%)	55.1	73.2	21.6	33.5 ***	2.4	18.1 ***	2.8	51.6 ***	2.4
Received subsidies for 13 consecutive months (%)	32.4	39.7	11.4	21.0 ***	2.3	7.3 ***	2.6	28.3 ***	2.3
Sample size (total = 1,884)	470	470	944						

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Lengthening the redetermination period led to further increases in the use of subsidies and the stability of subsidy receipt. Over the two-year follow-up period, families in the 12-month redetermination group received subsidies for 2.5 more months on average than those in the six-month redetermination group. In addition, extending the redetermination period increased the proportion of families who received subsidies for seven consecutive months by 18 percentage points. Not surprisingly, extending the redetermination period had less of an effect on the stability of subsidy receipt than on making families eligible for subsidies. For example, approving families to receive subsidies with a six-month redetermination period increased the proportion of families receiving subsidies for 13 consecutive months by 21 percentage points over the two-year follow-up period, while extending the redetermination period to a year only increased the proportion by an additional 7 percentage points.

As noted earlier, Meyers et al. (2002) found that the median spell of subsidies was six months in Illinois. In this study, 57 percent of those in the six-month redetermination group were still receiving subsidies in the sixth month after having entered the study — results that are roughly consistent with findings from the Meyers et al. study. By contrast, 77 percent of members of the 12-month redetermination group were still receiving subsidies at the six-month point. This is another indication that extending the redetermination period helped families receive subsidies for longer time periods.

Because providing access to subsidies *without* a longer redetermination period was responsible for the bulk of the intervention's effects on subsidy receipt, the effects of lengthening the redetermination period on child care arrangements, child care satisfaction, job-related problems, and costs are not examined in the main body of the report. However, these results are presented in Appendix Tables E.4 and E.5.

Results for Subgroups

Thus far this report has examined outcomes and estimated impacts for the full research sample. However, it is possible that the effects of making families eligible for subsidies were different for different groups of people. To explore this possibility, this section presents results for three key subgroups of study participants: (1) new applicants versus those at redetermination, (2) people with one child in care versus those with two or more children in care, and (3) people applying for different types of child care at random assignment.

All subgroups were defined using characteristics of sample members when they entered the study. Because these characteristics are not affected by whether a family was assigned to the program or control group, any differences that emerged between program and control group families in a subgroup can reliably attributed to the program.

To reduce the likelihood that a result would be statistically significant by chance, the analysis was limited to three sets of subgroups that were chosen in advance by the research team and for which there were good reasons to expect impacts to differ. For the same reason, fewer outcomes are presented for each subgroup than were presented for the full sample. The outcomes that were excluded from the subgroup tables in this section are shown in Appendix F.

Application versus Redetermination

The first set of subgroups is based on the family's history of child care subsidy receipt. In particular, families were divided into two groups: (1) those who applied for child care subsidies at the time of redetermination, when their eligibility for subsidies was reevaluated; and (2) those who applied for subsidies for the first time or after a period without receiving subsidies. Families coming into the study at redetermination lost their eligibility for subsidies if they were in the control group. By contrast, new applicant program group families were approved to receive subsidies for the first time (or after a break in subsidy receipt). Thus, comparing new applicants with redetermination applicants contrasts the effects of losing and gaining subsidies. In addition, because many states have a lower income ceiling for new subsidy applicants than for continuing recipients, comparing the two subgroups might shed some light on whether such policies are an effective means of allocating resources. If the positive effects of enhanced subsidy eligibility are larger for families at redetermination than for new applicant families, this finding would suggest that the policy may be an effective way to allocate resources.

Figure 1 suggests several ways in which the two subgroups might differ. Because individuals who applied for subsidies at redetermination had been receiving subsidies under the usual income guidelines, they were probably more familiar with the subsidy system than new

applicants. Control group families coming in at redetermination consequently might have been more likely to realize that they could qualify for subsidies again by reducing their incomes below the levels called for by the normal guidelines. Thus, for families who applied for subsidies at redetermination, the intervention might have had smaller effects on subsidy receipt (if some control group families at redetermination continued to receive subsidies by reducing their incomes) but might have resulted in increased earnings and income for the program group in comparison to income and earnings for the control group (if control group families reduced their earnings but program group families did not).

It is unclear how impacts on child care arrangements would differ between the two groups of families. On the one hand, program group families at redetermination might have been using the same providers for some time and continuing to receive subsidies would be unlikely to lead them to change their providers. By contrast, new applicant families in the program group might consider changing their providers when new options become more affordable because they had become eligible for subsidies. On the other hand, control group families at redetermination had been relying on subsidies before they were randomly assigned. (In other words, by virtue of being enrolled in the study sample these families had incomes that were too high to qualify them for subsidies under normal eligibility scales. But at the same time, the fact that that they were entering the study at the point of redetermination meant that they had been receiving subsidies and that something about their circumstances had changed to make them no longer income-eligible for the assistance.) Losing subsidies could make the care arrangements that these families were using unaffordable and thus disrupt those arrangements.

Finally, it is important to note that the distinction between the applicant and redetermination subgroups is not as clear as it might seem. In particular, 41 percent of new applicant families had received subsidies in the year prior to random assignment and almost a fifth had received subsidies for at least six months during the year prior to random assignment.[40] However, estimated impacts for families who did not receive subsidies in the year prior to random assignment looked very similar to program impacts for the full group of new applicants presented below.

Here are the key findings for this subgroup comparison:

- Control group families at redetermination were more likely to receive subsidies than control group new applicants. Since control group families could receive subsidies only if their incomes fell below 50 percent of SMI (or they added family members), this suggests that control group members at re-

[40]This percentage excludes any subsidy receipt in the two months prior to random assignment, since subsidies were applied retrospectively to the date the person applied for subsidies, often occurring in the month prior to random assignment.

determination were more likely to reduce their incomes to become eligible for subsidies, perhaps because, compared with applicants, they had a better understanding of the link between income and subsidy eligibility.

- The program increased child care stability more for families at redetermination than for new applicants, supporting the hypothesis that losing subsidies at redetermination can be disruptive to children's care arrangements.

Estimated Impacts on Outcomes from Administrative Records

Table 8 shows that access to subsidies had similar effects on subsidy receipt, employment, earnings, and TANF and food stamp receipt for new applicants and those who entered the study at redetermination.[41] The only program impact that differed significantly between the two groups was the effect on the percentage of families who received subsidies for at least seven consecutive months. (Significance is indicated by the presence or lack of a dagger in the last column of the table.) Subsidy receipt levels are somewhat higher for control group members who entered the study at redetermination compared with control group members who were new applicants, suggesting that compared with new control group applicants, control group members at redetermination might have been more likely to reduce their incomes or to report additional family members to become eligible for subsidies. However, since families at redetermination had lower earnings at baseline than new applicant families, it is also possible that compared with the applicant families, more of the families in the redetermination group naturally fell below the standard eligibility limit, since their incomes needed to fall a relatively small amount to allow them to become eligible under the normal eligibility requirements.

Estimated Impacts on Outcomes from Survey Data

Child Care Arrangements

Table 9 examines whether the effects of subsidy eligibility on type and stability of care differed for new applicant families versus those at redetermination.[42] There were no statistically significant differences in estimated impacts on the type of care used during the year after random assignment for new applicants as compared with those at redetermination.

However, Table 9 shows that there were differences in the effects on the percentage of children who experienced any interruptions in care by primary providers during the year after

[41]See Appendix Table F.1 for estimated impacts on outcomes from administrative records that are shown separately for Years 1 and 2.

[42]Estimated impacts on additional outcomes related to the type and stability of care are shown in Appendix Table F.2.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 8

Estimated Impacts on Outcomes from Administrative Records, by Applicant Type at Random Assignment

Outcome	New Applicants			Entered the Study at Redetermination			
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	
Years 1 - 2							
Months of subsidy receipt	3.0	8.3 ***	0.4	5.7	7.6 ***	0.5	
Received subsidies for 7 consecutive months (%)	16.3	46.4 ***	2.6	27.9	38.0 ***	3.1	††
Received subsidies for 13 consecutive months (%)	8.1	24.8 ***	2.4	15.3	24.7 ***	2.9	
Quarters of employment	7.0	0.0	0.1	7.0	0.0	0.1	
Earnings ($)	55,629	-1,037	1,292	51,013	-367	1,344	
Months of TANF or food stamp receipt	3.6	-0.1	0.4	4.5	-0.3	0.4	
Total measured income ($)	56,891	-1,155	1,267	52,450	-379	1,294	
Sample size (total = 1,884)	514	512		430	428		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.
[a]The sample size in the last row of this column represents the number of program group members in the new applicant subgroup.
[b]The sample size in the last row of this column represents the number of program group members in the redetermination applicant subgroup.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 9

Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Applicant Type, for Children under Age 6 at Random Assignment

Outcome	New Applicants			Entered the Study at Redetermination			
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	
Ever used as a primary provider (%)							
Any nonparental care	65.0	-3.5	3.9	61.5	1.1	4.5	
Center care	39.7	3.7	4.1	37.8	7.2	4.7	
Home care, relative	19.3	-3.8	3.1	17.2	-3.5	3.7	
Home care, nonrelative	10.2	-5.4 ***	2.1	9.6	-3.1	2.5	
Child care stability							
Had any interruption in primary care (%)	8.0	0.4	2.2	15.1	-9.8 ***	3.0	†††
Sample size (child level; total = 1,237)	326	371		247	293		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. There were no statistically significant differences for new applicants. For those entering the study at redetermination, the test found statistically significant differences (p-value < 0.001).

[a]The sample size in the last row of this column represents the number of program group members in the new applicant subgroup.

[b]The sample size in the last row of this column represents the number of program group members in the redetermination applicant subgroup.

random assignment. For new applicants, making program group families eligible for subsidies did not have an effect on the percentage of children experiencing an interruption in their primary care arrangements. For those at redetermination, however, subsidy eligibility decreased the proportion of children who experienced at least one interruption in primary provider care by 10 percentage points: 5 percent of the program group experienced at least one interruption in child care during this year versus 15 percent of the control group. The difference in impacts between new applicants and those at redetermination is statistically significant. The fact that eligibility for subsidies has a greater effect on stability of care for families at redetermination than it does for new applicant families suggests that losing access to child care subsidies can have negative effects on the stability of child care.

Child Care Satisfaction, Job-Related Problems, and Costs

Table 10 compares the effects of the intervention on satisfaction with the child care situation, job-related problems, and costs for new applicants versus those at redetermination. The table shows that the large overall reductions in job-related problems due to child care and the large increases in child care satisfaction for the program group relative to the control group are very similar in magnitude among new applicants and those at redetermination. Estimated impacts on out-of-pocket child care costs were also not significantly different for the two subgroups.

Number of Subsidized Children

The next set of subgroups is based on the number of children for which families received subsidies when they entered the study. At the time of random assignment, 65 percent of study participants received subsidies for one child and only about 9 percent received subsidies for more than two children. Because so few families received subsidies for more than two children, two subgroups were compared: (1) families receiving subsidies for one child at random assignment, and (2) families receiving subsidies for two or more children at random assignment.

There are several reasons to expect differences in impacts for larger and smaller families. First, subsidies have a higher value for families receiving subsidies for more children because the difference between the state's reimbursements to child care providers and the families' copayments is greater for those families. As Table 2 shows, a family with two children over 2.5 years old in center care and income between 50 and 55 percent of SMI pays only $84 per week for child care that costs $243. Thus, the family receives care worth $159 more than its out-of-pocket expenses. By contrast, a family with only one child over 2.5 years old in center care pays $49 to receive child care that costs $122. That family therefore receives care worth $73 more than its out-of-pocket spending.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 10

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs, by Applicant Type at Random Assignment

Outcome	New Applicants			Entered the Study at Redetermination		
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error
Child care satisfaction and job-related problems since random assignment						
Satisfaction with primary care provider (scale of 0 to100)	69.4	8.1 ***	1.7	73.5	5.5 ***	1.8
Ever had job problems due to child care arrangement (%)	52.5	-11.0 ***	3.7	49.6	-16.3 ***	4.0
Child care costs at time of survey (%)						
Average weekly out-of-pocket costs for child care		**			**	
Under $50	26.3	1.4		35.3	-6.8	
$50 to $100	28.3	1.4		28.2	6.7	
Over $100	42.7	-6.3		31.6	-2.1	
Don't know/refused	2.7	3.4		4.9	2.2	
Sample size (household level; total = 1,330)	355	381		276	318	

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

To assess differences in estimated impacts across subgroups for categorical outcomes, a multinomial logit was run and a test was run of the null hypothesis that all differences in impacts between subgroups are zero. To assess differences across subgroups for other outcomes, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

[a]The sample size in the last row of this column represents the number of program group members in the new applicant subgroup.

[b]The sample size in the last row of this column represents the number of program group members in the redetermination applicant subgroup.

For this reason, subsidies give program group families with two or more children in care a larger increase in their purchasing power than families with only one child in care. It is therefore expected that the program will lead to larger reductions in use of less expensive informal care and larger increases in use of more expensive licensed care for larger families.

Since subsidies have more value to larger families, these families will also have more incentive to continue to receive subsidies, suggesting the effects on subsidy use will be larger for families receiving subsidies for two or more children. This might lead to steadier use of child care subsidies for families with more children in care, which might in turn lead to larger effects on employment, earnings, and public assistance benefits.

The key findings for this subgroup can be summarized as follows:

- There were very few differences in the estimated impacts between families with one child in care and families with two or more children in care.
- The main difference was in the type of care families chose. The program increased the use of center care for both subgroups, but families receiving subsidies for two or more children reduced their use of relative care significantly more than families receiving subsidies for only one child.

Estimated Impacts on Outcomes from Administrative Records

Table 11 shows that there were no statistically significant differences in impacts on employment rates, earnings, and months of public assistance receipt between families receiving subsidies for one child and those receiving subsidies for two or more children for the full two-year follow-up period.[43]

Estimated Impacts from Survey Data

Child Care Arrangements

Table 12 shows the effects of access to subsidies on the type and stability of child care

[43] Appendix Table F.3 — which presents the estimated impacts separately for Years 1 and 2 — shows that the program had a significantly more negative effect on income in Year 2 for families with two or more children in subsidized care and than for families with only one child in subsidized care. This difference is likely due to chance since there are few theoretical reasons to expect such a difference only in the second year and because this subgroup difference did not appear in the Washington State CCSE experiment, which would have been expected to have similar effects for the different subgroups.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 11

Estimated Impacts on Outcomes from Administrative Records, by Number of Subsidized Children in Care at Random Assignment

Outcome	One Subsidized Child in Care			Two or More Subsidized Children in Care		
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error
Years 1 - 2						
Months of subsidy receipt	3.8	8.4 ***	0.4	5.1	7.3 ***	0.6
Received subsidies for 7 consecutive months (%)	19.2	44.2 ***	2.5	26.4	38.6 ***	3.6
Received subsidies for 13 consecutive months (%)	8.6	26.4 ***	2.2	17.1	20.3 ***	3.3
Quarters of employment	7.1	0.0	0.1	6.9	0.0	0.1
Earnings ($)	50,607	159	1,125	58,705	-2,004	1,613
Months of TANF or food stamp receipt	3.7	0.1	0.3	4.5	-0.7	0.5
Total measured income ($)	51,769	232	1,093	60,366	-2,309	1,575
Sample size (total = 1,884)	602	621		342	319	

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families with one subsidized child in care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families with two or more subsidized children in care.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 12

Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Number of Subsidized Children in Care, for Children under Age 6 at Random Assignment

Outcome	One Subsidized Child in Care: Control Group	Difference[a] (Impact)	Standard Error	Two or More Subsidized Children in Care: Control Group	Difference[b] (Impact)	Standard Error	
Ever used as a primary provider (%)							
Any nonparental care	67.2	1.1	3.6	57.1	-2.0	4.9	
Center care	43.8	6.2	3.9	30.8	7.3	4.8	
Home care, relative	15.1	1.2	2.9	22.2	-9.2 **	4.1	††
Home care, nonrelative	10.9	-5.6 **	2.2	8.5	-2.9	2.4	
Child care stability							
Had any interruption in primary care (%)	13.9	-4.9 *	2.6	6.4	-1.5	2.0	
Sample size (child level; total = 1,237)	323	365		250	299		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences for both respondents with one subsidized child in care (p-value = 0.001), and for those with two or more subsidized children in care (p-value < 0.001).

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families with one subsidized child in care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of familes with two or more subsidized children in care.

arrangements separately for families with different numbers of children in care at baseline.[44] Making program group members eligible for subsidies had differential effects on the type of care families used. In particular, the program reduced the use of relative care more for families with two or more subsidized children. This finding is consistent with the expectation that the reduction in the use of less expensive relative care would be larger among families with two or more children in care, for whom the differences between the costs of care with and without subsidies are greater than the differences for families with one child in care. However, the program did not lead to significantly different effects on child care stability outcomes for the two subgroups.

Child Care Satisfaction, Job-Related Problems, and Costs

Table 13 shows the effects of subsidy eligibility on satisfaction with child care, job-related problems, and costs of child care by subgroups based on the number of children whom families had in care at baseline. The program resulted in similar reductions in job-related problems due to child care for parents with one and two subsidized children. Even though subsidies presumably reduce child care costs more for larger families, there was no statistically significant difference in impacts on the distribution of out-of-pocket child care costs for the two subgroups.

Type of Child Care Provider at Random Assignment

The third set of subgroups is based on the type of care for which families applied at random assignment. Families were divided into three groups: (1) those planning to use center care when they applied for subsidies, (2) those applying for licensed home care but not center care, and (3) those applying only for unlicensed care. Although families in the first two categories may have applied for multiple types of care, this was rare. Of the 1,131 families who applied for center care for at least one child, 803 applied for subsidies for only one child and 304 of the remaining 328 families were using center care for all of their subsidized children. Of the 419 families who applied for subsidies to use licensed home care, 258 had one subsidized child at baseline and 156 of the remaining 161 families used licensed home care for all of their subsidized children.

[44]Estimated impacts on additional outcomes related to the type and stability of care are shown in Appendix Table F.4.

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 13

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs, by Number of Subsidized Children in Care at Random Assignment

Outcome	One Subsidized Child in Care			Two or More Subsidized Children in Care		
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error
Child care satisfaction and job-related problems since random assignment						
Satisfaction with primary care provider (scale of 0 to100)	71.7	7.4 ***	1.5	70.0	6.7 ***	2.2
Ever had job problems due to child care arrangement (%)	52.6	-13.8 ***	3.4	49.0	-14.1 ***	4.7
Child care costs at time of survey (%)						
Average weekly out-of-pocket costs for child care		***				
Under $50	32.2	-5.2		27.1	3.0	
$50 to $100	28.6	6.9		27.7	-2.1	
Over $100	35.2	-4.9		42.1	-3.1	
Don't know/refused	4.0	3.1		3.1	2.3	
Sample size (household level; total = 1,330)	404	453		227	246	

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

To assess differences in estimated impacts across subgroups for categorical outcomes, a multinomial logit was run and a test was run of the null hypothesis that all differences in impacts between subgroups are zero. To assess differences across subgroups for other outcomes, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families with one subsidized child in care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families with two or more subsidized children in care.

The type-of-care subgroup is of interest because the state's level of reimbursement to child care providers is greater for center care than for licensed home care and greater for licensed home care than for unlicensed care. In particular, as described earlier, program group families with incomes above 50 percent of the state median income receive little or no value from the subsidy if they use unlicensed home care because the copayment amount is as large or nearly as large as the total amount paid to the provider.

The differences in reimbursement rates lead to the following hypotheses: If families who are denied subsidies have an informal option available and do not want to pay the full cost of center care, more control group families than program group families will use unlicensed care, and more program group families than control group families will use center care. Since program group families had applied for subsidies to use center care, the enhanced subsidy is presumably helping them use the kind of care they prefer, and they might therefore express greater satisfaction with care. By contrast, if control group families applying for center care do not have an informal option available and continue to pay for center care, the enhanced subsidy will have no effect on the type of care used. Since those control group families will bear the entire cost of center care but corresponding program group families will be responsible for only the subsidy copayment, more control group families will pay over $100 in out-of-pocket child care costs.

For families applying for subsidies for informal care, by contrast, there might be smaller impacts on the use of subsidies compared with impacts for the other two subgroups if program group families stop receiving subsidies when they realize that their copayments cover the entire child care payment. Once they learn that they can afford licensed care with subsidies, some program group families may choose to switch to more expensive forms of care — for example, licensed nonrelative home care or center care. Because they would have used an inexpensive form of care if they did not receive subsidies, receiving subsidies should have had a small effect on their out-of-pocket expenditures.

It was hypothesized that there would be no differences in employment outcomes for the three subgroups.

The key findings for these subgroups are:

- Consistent with the hypothesis on how the program would affect subsidy receipt outcomes for these subgroups, it increased the outcomes least for families applying for unlicensed care.

- The program increased use of nonparental care most for families applying for unlicensed care and least for those applying for licensed homes. These results

are not consistent with the hypotheses laid out above and should be viewed with some skepticism.

- The program increased employment only for parents who applied for center care.

Estimated Impacts on Outcomes from Administrative Records

As discussed above, access to subsidies is expected to increase subsidy receipt outcomes least for parents who applied for unlicensed care. The results in Table 14 confirm this hypothesis. Estimated effects on subsidy receipt outcomes and stability of subsidy receipt were greater for families who applied for subsidies for center or licensed home care at baseline (8.8 and 9.4 additional months of subsidy receipt over the two-year follow-up period), compared with families who applied for subsidies for unlicensed care at baseline (an increase in subsidy receipt of 3.5 months).[45] Likewise, the program had much larger effects on the stability of subsidy receipt (7 consecutive months and 13 consecutive months) for families applying for center care and licensed care than for those applying for unlicensed care.

If subsidies are an employment support, gains in employment should be larger for groups with larger effects on subsidy receipt. The evidence in this regard is mixed. On the one hand, the estimated effect on employment was greatest for families who applied for center care and smallest for families who applied for unlicensed care. This corresponds to the fact that the program tripled subsidy receipt for the former group but only doubled it for the latter. On the other hand, program group members who applied for licensed home care did not follow this pattern: employment decreased for these families (a reduction of 0.3 quarters on average) even though their months of subsidy receipt tripled. Moreover, the negative estimated employment effects for parents who planned to use licensed home care or unlicensed care when they applied for subsidies are puzzling. While it is theoretically possible that providing subsidies could encourage families to work less by making it easier to make ends meet, it is unclear why this would differ with the type of care families were using at baseline.[46]

[45]See Appendix Table F.5 for estimated impacts on outcomes from administrative records that are shown separately for Years 1 and 2.

[46]Impacts on earnings and income followed the same pattern as employment impacts; these impacts were negative for families who had applied for subsidized licensed home care or unlicensed care. While differences in impacts on earnings and income across the subgroups were not statistically significant for the two-year follow-up period, estimated effects on income were significantly larger in the second year of follow-up for families who planned to use center care when they applied for subsidies (see Appendix Table F.5).

The Evaluation of Child Care Subsidy Strategies: Illinois

Table 14

Estimated Impacts on Outcomes from Administrative Records, by Type of Care Used at Random Assignment

Outcome	Center-based Care				Licensed Home Care				Unlicensed Care				
	Control Group	Difference[a] (Impact)		Standard Error	Control Group	Difference[b] (Impact)		Standard Error	Control Group	Difference[c] (Impact)		Standard Error	
Years 1 - 2													
Months of subsidy receipt	4.0	8.8	***	0.4	5.5	9.4	***	0.8	3.2	3.5	***	0.8	†††
Received subsidies for 7 consecutive months (%)	20.6	45.7	***	2.6	27.8	52.0	***	4.4	17.6	18.9	***	4.6	†††
Received subsidies for 13 consecutive months (%)	10.1	26.9	***	2.4	17.9	30.1	***	4.5	6.4	13.0	***	3.6	†††
Quarters of employment	6.9	0.2	**	0.1	7.2	-0.3	*	0.2	7.2	-0.4	**	0.2	†††
Earnings ($)	53,153	603		1,238	54,172	-1,456		1,995	53,727	-3,952	*	2,055	
Months of TANF or food stamp receipt	3.5	-0.3		0.3	3.4	0.3		0.6	6.4	-0.4		0.8	
Total measured income ($)	54,375	488		1,209	55,162	-1,299		1,938	55,888	-4,135	**	1,979	
Sample size (total = 1,884)	559	572			216	203			169	165			

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used center-based care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used licensed home care.

[c]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used unlicensed care.

Estimated Impacts on Outcomes from Survey Data

Child Care Arrangements

As discussed above, the program was hypothesized to increase the use of center care and reduce the use of informal care both for families applying for center care and for those applying for unlicensed care. The results in Table 15 indicate that differences in impacts on type of care across the subgroups were not statistically significant. Likewise, effects on stability of child care arrangements did not differ significantly by the type of child care families planned to apply the subsidies to at baseline.

Table 15 does have one surprising finding: The program had differential effects on the use of any nonparental care. However, this result was driven in large part by a significant reduction in use of any nonparental care by families who planned to use licensed home care when they applied for subsidies. Because this finding is contrary to the hypothesized effects of the program, it should be interpreted with great caution.

Child Care Satisfaction, Job-Related Problems, and Costs

Table 16 shows that the reductions in job-related problems due to child care and the increases in child care satisfaction for the program group relative to the control group were similar among families who applied for subsidies for different types of care at baseline. However, enhanced eligibility for subsidies had somewhat different effects on the distribution of out-of-pocket costs at the time of the survey. For families applying for center care, the program decreased both the proportion of families spending less than $50 and the proportion spending over $100 per week on child care, and increased the proportion of families spending $50 to $100 per week (the amount most families receiving subsidies would pay in copayments). This is consistent with the reduction in home care shown in Table 15 for this group — a pattern that can be attributed to the fact that some control group families likely switched to less expensive types of care like home care when they were denied eligibility for subsidies. The finding is also consistent with the fact that about two-thirds of these families had only one child in care, since control group families without subsidies were more likely to have been able to afford more expensive types of care like center care if they had to pay only for care for one child. The results were different for the subgroup of parents who applied for licensed home care: the program substantially reduced the proportion of these families who paid more than $100 per week while increasing the proportion who paid less than $100. Finally, for families who applied for subsidies for unlicensed care, the program increased the proportion who paid over $100 per week, perhaps reflecting the fact that a higher proportion of these families applied for subsidies for two or more children at baseline.

Table 15

Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Type of Care Used at Random Assignment, for Children under Age 6 at Random Assignment

Outcome	Center-based Care			Licensed Home Care			Unlicensed Care			
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	Control Group	Difference[c] (Impact)	Standard Error	
Ever used as a primary provider (%)										
Any nonparental care	59.9	0.9	3.8	73.6	-13.6 **	5.6	57.1	10.4	7.2	††
Center care	41.8	9.3 **	3.8	44.8	0.6	6.2	14.0	6.3	6.1	
Home care, relative	16.0	-6.7 **	2.8	12.8	-5.7	3.7	34.8	6.1	8.2	
Home care, nonrelative	4.9	-2.5 *	1.5	20.1	-8.7 *	4.9	13.2	-4.7	5.0	
Child care stability										
Had any interruption in primary care (%)	12.5	-5.0 **	2.4	9.4	-4.2	3.1	6.0	2.3	5.3	
Sample size (child level; total = 1,237)	331	408		150	139		92	117		

(continued)

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences for those using center care at baseline (p-value < 0.001), and for those using unlicensed care at baseline (p-value < 0.001). There were no statistically significant differences for those using licensed home care at baseline.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used center- based care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used licensed home care.

[c]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used unlicensed care.

Table 16

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs, by Type of Care Used at Random Assignment

Outcome	Center-based care			Licensed home care			Unlicensed care			
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	Control Group	Difference[c] (Impact)	Standard Error	
Child care satisfaction and job-related problems since random assignment										
Satisfaction with primary care provider (scale of 0 to100)	71.3	6.0 ***	1.6	73.2	10.5 ***	2.6	68.6	4.8	3.3	
Ever had job problems due to child care arrangement (%)	55.1	-18.2 ***	3.5	42.0	-4.6	5.9	51.1	-9.3	6.6	
Child care costs at time of survey (%)										
Average weekly out-of-pocket costs for child care		***								†
Under $50	33.5	-6.4		22.4	6.0		30.9	0.0		
$50 to $100	26.5	6.9		27.0	3.0		35.3	-5.1		
Over $100	36.4	-4.3		47.2	-10.8		29.5	4.0		
Don't know/refused	3.6	3.8		3.4	1.9		4.2	1.1		
Sample size (household level) (household level; total = 1,330)	357	419		152	153		122	127		

(continued)

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.
For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
To assess differences in estimated impacts across subgroups for categorical outcomes, a multinomial logit was run and a test was run of the null hypothesis that all differences in impacts between subgroups are zero. To assess differences across subgroups for other outcomes, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.
[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used center- based care.
[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used licensed home care.
[c]The sample size in the last row of this column represents the number of program group members in the subgroup of families who used unlicensed care.

Controlling for Other Characteristics

The subgroups described above differed at baseline in ways that might explain the observed differences in impacts. One example of differences at baseline is that new applicants earned about $2,500 more than redetermination families in the year prior to random assignment and received almost $300 less in food stamp assistance than families at redetermination. Another notable difference is that the youngest child in families of new applicants was, on average, younger than the youngest child in redetermination families. For 41 percent of the subgroup of new applicants, compared with 33 percent of the redetermination subgroup, the youngest child in the family at random assignment was less than 2 years old.

An examination of subgroups categorized by the number of children receiving subsidies shows that families receiving subsidies for one child had higher levels of employment and lower earnings in the year prior to random assignment than families receiving subsidies for two or more children. The fact that fewer families with two or more children were working before random assignment suggests that compared with families with one child, these families might have had a lower preference for employment relative to staying at home and may have been more likely to choose to cut back on hours if they had more income as a result of receiving child care assistance.

If subgroups categorized by type of care used at baseline are examined, it can be seen that those applying for center care had more preschool-aged children than the other groups and that among all the subgroups, applicants for center care had the fewest children in care. Families applying for licensed home care had the highest proportion of youngest children who were under 2 years old. The subgroup that used unlicensed care had the most children in care and the oldest children. This subgroup also had the highest levels of prior public assistance receipt; still people in the subgroup did not have lower levels of earnings than members of the other two subgroups and were in fact working more hours at baseline than these other subgroups.

To check whether these other characteristics reduced the differences in impacts across subgroups reported above, a conditional subgroup analysis was conducted. In this analysis, various baseline characteristics were included in an impact regression both by themselves and multiplied by an indicator of which research group the person was in. As a result, differences in impacts that stem from differences in child's age, number of children, income, or other baseline characteristics are removed when impacts are compared across the three type-of-care subgroups. Results of this conditional subgroup analysis confirmed the main results for subgroups presented above. In particular, statistically significant differences across the three subgroups defined by type of care at baseline did not disappear after controlling for the effects of other characteristics on estimated effects.

Discussion of Results

The primary goal of the child care subsidy system is to support employment for lower-income families. At the same time, by allowing parents to use subsidies for many different types of child care, the subsidy system helps parents use the type of care that they prefer for their children. For the moderate-income group in this study, the effects of receiving child care subsidies are somewhat mixed. The good news is that approving families to receive subsidies affected a range of outcomes related to child care. In addition to increasing subsidy use, it encouraged the use of center care and reduced the out-of-pocket costs of care for some families. By helping families afford their preferred care, subsidies also led to greater satisfaction with care, more stable care, and fewer problems at work related to child care.

However, enhanced eligibility for child care subsidies did not affect employment, earnings, public assistance receipt, or income. This might be because the study sample had relatively high earnings compared with many other families served by the subsidy system and were steadily employed both before and after they entered the study. It seems plausible that individuals with this level of earnings are quite well established in the workforce, and there is little room to affect their employment outcomes through child care subsidies.

It is possible that the measured effects of the program led to other unmeasured effects. For example, increased satisfaction with care, reduced job-related problems, and reduced out-of-pocket costs may all have reduced parental stress and increased feelings of well-being. And on the assumption that parents are the best judges of what is best for their children, allowing parents to choose their preferred form of care might also benefit children.

The study also found that lengthening the redetermination period from six months to a year increased the stability and use of subsidies. However, these effects were rather small and did not generally translate into the other benefits that came from approving families to receive subsidies in the first place.

There are some issues to consider when interpreting these results. First, problems administering the follow-up survey may have led to understated effects on child care and other survey-based outcomes, although the overall story is likely correct. Second, the results only apply to the relatively high-income group involved in the study. It is possible that subsidies would have a much greater effect on employment, earnings, and income of lower-income parents, such as TANF recipients.

Finally, there are some issues related to the generalizability of the results in this report. The study was conducted in just one county in one state. While the results provide credible evidence on the effects of subsidy receipt and lengthened redetermination periods for families

included in the study, they might not represent what would happen somewhere else or with a different sample.

In addition, the study sample might differ from the group of families who would apply for subsidies in Cook County if the state decided to adopt the intervention that was used for this study as standard policy. One possible difference between the study sample families and the wider group of families who might be eligible for subsidies if the system was standard could be their levels of knowledge about the subsidy system. There is reason to believe that many study sample members were not particularly familiar with the details of the subsidy system. Although the Illinois Department of Human Services and Illinois Action for Children took some steps to disseminate information about the intervention, it is likely that many families in the study incorrectly thought they were applying for subsidies under the normal subsidy system and thus may have been unaware that their incomes were too high to qualify them for subsidies unless they ended up in the program group — a misconception that suggests they were relatively unfamiliar with how the system works. At the same time, some members of the study sample likely applied for subsidies after having heard about the enhanced subsidies from Illinois Action for Children staff or their child care providers, which might mean that they had a particularly strong connection to the child care system. It is unclear whether differences such as these would lead to larger or smaller effects for the study sample than for families who would receive subsidies under an expanded policy, but it is important to recognize that such differences might occur.

Since the study generally targeted people who were already using subsidies or people with children in care, most people in the study were already working before entering the study. However, new policies for enhanced eligibility that would be standard throughout the state might encourage additional parents who might not work without the subsidies to apply for them. Despite these caveats, this study provides important evidence about the effects of offering child care subsidies to families with incomes of about $25,000 to $40,000 per year.

Appendix A

Survey Outcome Definitions

Outcomes Presented in the Body of the Report

Type and Stability of Child Care Arrangement

All measures of the type and stability of care that are presented in the main body of the report are examined at the child level, for children who were under age 6 at the time of random assignment. Except where noted below, the measures are focused on care provided by the children's primary providers (defined each month as the nonparental provider who cares for the child for the most hours in that month). In addition, most of these measures were derived from arrangements that occurred in the year after random assignment.

Following are the definitions used for the outcomes presented in the body of the report:

Ever used as a primary provider

- *Any nonparental care:* Any nonparental care was reported for the child.
- *Center care:* Any primary care provider for the child fell into one of the following categories:
  - center-based care: Includes a child care center, daycare, nursery school, Head Start, preschool, or special education program
  - an after-school or before-school program
  - a summer school or summer camp program
- *Home care, relative:* Any primary care provider for the child fell into one of the following categories:
  - stepparent of child or parent's spouse/partner
  - grandparent of child
  - sibling of child
  - other related adult
- *Home care, nonrelative:* Any primary care provider for the child fell into one of the following categories:
  - home-based daycare/babysitter
  - other unrelated adult

Average number of months as primary care provider

- *Center care:* average number of months that the center care provider was the primary provider (see definition of "center care" above)
- *Home care, relative:* average number of months that the home care, relative provider was the primary provider (see definition of "home care, relative" above)
- *Home care, nonrelative:* average number of months that the home care, nonrelative provider was primary provider (see definition of "home care, nonrelative" above)
- ***NOTES***:
  - Months could be consecutive or nonconsecutive.
  - No adjustments were made for reported interruptions in care.

Child care stability

- *Average length of longest spell with a primary care provider):* This outcome measures the number of consecutive months of care by the provider who was the primary provider for the most consecutive months for a child in the year after random assignment. No adjustments were made in this variable for interruptions in care that may have occurred in the middle of the spell. For example, if a family started using a provider in January, had a one-month break in June, and then continued through November, this outcome was recorded as an 11-month spell.
- *Number of interruptions in primary care:* This outcome counts the number of interruptions in care reported during the longest spell of care given by the primary provider. The outcome is based on the spell for the provider who was the primary provider for the most consecutive months for a child in the year after random assignment. However, the number of interruptions in care for this provider is the total number reported from the time of study entry to the time of the survey interview. Interruptions for children for whom there were no providers listed were given a value of zero for this outcome.
- *Used two or more care providers in a month:* This outcome signifies whether a child ever used two or more care providers in a given month in the year after random assignment. Unlike the other stability measures presented in the main body of the report, this outcome is not limited to primary providers.

Satisfaction with Child Care, Job-Related Problems, and Costs

Because the questions on satisfaction with child care, job-related problems, and out-of-pocket child care costs were asked only once rather than being asked about each arrangement or for each child, these outcomes were calculated for each family instead of for each child. For the satisfaction and job-related problems questions, the respondent was instructed that if she had used more than one provider, she should answer the questions thinking about the provider who had cared for the children for the most hours when the family received subsidies.

Satisfaction with child care and job-related problems

These two measures focus on the respondent's experience in the period following random assignment.

- *Satisfaction with primary care provider (scale of 0 to 100):* This outcome is a scale that is calculated as the proportion of 10 statements that the respondent affirmed as true. The statements were:
  - I've had difficulty finding the child care I want.
  - There are good choices for child care where I live.
  - I found a caregiver who shares my child rearing values.
  - When I chose this caregiver, I had more than one option.
  - When I chose this caregiver, I felt I that had to take whatever I could get.
  - I have a big problem with transportation getting to and from this caregiver.
  - My child care is too far from home.
  - I have had to change my work schedule in order to keep the care I have.
  - I find it difficult to balance work and family.
  - I would have preferred a different caregiver or program, but they would have cost too much so I had to settle for the child care that I have now because it cost less.

The respondent was asked whether each item was true, somewhat true, or not true. For the purposes of the scale, answers of "true" and "somewhat true" were combined.

Another statement that was included in this section of the survey is: "I rely on my caregiver to be flexible about hours." However, this statement was excluded from this scale because it reflected the flexibility of the caregiver rather than satisfaction with the care. Cronbach's alpha also suggested this item did not fit with the others as it showed that the scale had greater internal reliability without this item. (Cronbach's alpha = 0.73.)

- *Ever had job problems due to child care arrangement:* This outcome is a summary measure of four questions about job-related problems due to child care arrangements since the time of random assignment. The questions were: whether due to child care arrangements the respondent was: (1) ever unable to start a job, class, school, job search, or training activity; (2) ever had to quit a job, class, school, job search, or training activity; (3) ever missed days of work; or (4) ever went to work late or left early.

Child care costs at time of survey

- *Average weekly out-of-pocket costs for child care:* This outcome is based on the respondent's answer to the question: "How much in total do you currently pay per week for all child care arrangements?"

Outcomes Reported in the Appendixes

Satisfaction with Child Care and Job-Related Problems

Appendix Table B.1 shows the estimated impacts on the respondents' levels of agreement with the individual statements that contribute to the child care satisfaction scale and to the job problems summary measure. See above for details on those measures. This table also includes two additional measures:

Work-related problems due to child care arrangement problems

- *Average number of days of work missed:* average number of days of work missed since random assignment because of problems setting up or keeping a child care arrangement

- *Average number of times arrived to work late or left early:* average number of times respondent arrived to work late or left early since random assignment because of problems setting up or keeping a child care arrangement

Employment and Employment Stability

Appendix Table B.2 shows the estimated impacts on the survey measures of employment and employment stability for the respondent. Employment characteristics (current working status, hours worked per week, hourly wages, and benefits) were calculated for the primary job, which was defined as the current job for which the respondent worked the most hours, or,

in the event that the respondent worked two or more jobs for the same number of hours per week, the job that the respondent had held for the longest period of time. Respondents who were not working at the time of the survey were not included in the impact estimates on employment characteristics. All employment stability outcomes were measured for all respondents (regardless of employment status) in the year following random assignment. Income was measured in the month prior to the survey interview for all respondents.

Employment status

- *Currently employed:* employed at any job at the time of the survey interview
- *No longer employed:* not employed at any job at the time of the survey interview

Employment characteristics

- *Current working status: for respondent employed at time of survey, at her primary job:*
  - working part time: worked 0 to 35 hours per week
  - working full time: worked more than 35 hours per week
- *Hours worked per week:* for respondent employed at time of survey, at her primary job:
  - 20 hours or less
  - 21-35 hours
  - 36-40 hours
  - more than 40 hours
- *Hours varied by week:* Respondent employed at the time of the survey reported that the number of hours worked per week at the primary job varied by more than eight hours.
- *Hourly wages:* For respondents employed at time of survey, hourly wage outcomes at their primary jobs were calculated by dividing the weekly wage by the average number of hours worked per week. Respondents reported their wages hourly, daily, weekly, biweekly, monthly, or bimonthly. For respondents who reported hourly, biweekly, monthly, or bimonthly wages, weekly wages were calculated by multiplying daily wages by 5, biweekly wages by 1/2, monthly wages by 12/52, and bimonthly wages by 6/52. Respondents reported their weekly hours as 1-20, 21-35, 36-40, or more than 40

hours per week. The average number of hours worked per week was measured in the following way: 9.5 for 1-20 hours per week, 28 for 21-35 hours per week, and 40 for 36-40 or more than 40 hours per week.

- *Benefits offered by employer:* For a respondent employed at the time of the survey, the benefit situation was reported for the primary job, with the reporting covering whether that job offered:
  - sick days with full pay
  - paid holidays
  - a health plan or medical insurance
  - a retirement plan:
  - no benefits

Employment stability in year after random assignment

- *Average number of months employed:* This outcome measures the number of consecutive or nonconsecutive months of employment across all jobs in the year following random assignment.
- *Employed for six or more consecutive months:* employed for six or more consecutive months across all jobs in the year following random assignment
- *Employed for one employer for six or more consecutive months:* employed for six or more consecutive months at any one job in the year following random assignment
- *Employed for 12 consecutive months (%):* employed for 12 or more consecutive months across all jobs in the year following random assignment.
- *Employed by one employer for 12 consecutive months (%):* employed for 12 or more consecutive months at any one job in the year following random assignment

Income

- *Average household income in past month:* This outcome is based on the respondent's answer to the question: "What was your household's total income last month? Please include income contributed by all members of your household (including yourself) from all sources." For respondents who reported weekly or biweekly income (presumably because they were not employed for the whole month), monthly income was calculated by multiplying

weekly income by 4.4 (31/7) and biweekly income by 2.2 (31/14). Respondents who did not know or refused to report their incomes were asked if their incomes fell within a particular range, and then were assigned a value based on the midpoint of the income range, as follows: $400 if less than $800 per month, $1,000 if between $800 and $1,200 per month, $1,350 if between $1,200 and $1,500 per month, $1,750 if between $1,500 and $2,000 per month, $2,250 if between $2,000 and $2,500 per month, or $2,500 if $2,500 or more per month.

- *Average household income in past month:* This outcome is based on the measure of household income described above, and shows how many respondents had income in the following categories:
  - Less than $800
  - $800 to $1,199
  - $1,200 to $1,499
  - $1,500 to $1,999
  - $2,000 to $2,499
  - $2,500 or more

Major Life Events

Appendix Table B.3 shows the estimated impacts on major life events experienced since random assignment. Respondents were coded as experiencing an event if they answered affirmatively to the following question: "Please tell me whether or not each of these things has happened since [random assignment date]."

Respondent experienced any of the following

- moved
- worried a lot about a housing situation
- had difficulty with transportation and trouble getting around
- worried a lot about the safety of her children
- experienced serious health problems
- child experienced serious health problems
- family member experienced serious health problems
- gave birth to, adopted, or began fostering a child.
- experienced other major change or events in life

Type of Primary Care over Time

Estimated impacts on additional primary care outcomes are shown in Appendix Table B.4. As described above, the primary provider was defined, by month, as the nonparental provider who cared for the child for the most hours in that month. The outcomes in this table focus on the type and duration of primary care in the year following random assignment, and are measured at the child level for children who were under age six at random assignment.

Type of Primary Care Provider at One Point in Time

- *Seven months from random assignment:* This outcome identifies which type of care children were receiving from their primary care providers in the seventh month after random assignment:
  - center care: see definition of "center care" above
  - home care, relative: see definition of "home care, relative" above
  - home care, nonrelative: see definition of "home care, nonrelative" above
- *Thirteen months from random assignment:* This outcome identifies which type of care children were receiving from their primary care providers in the thirteenth month after random assignment:
  - center care
  - home care, relative
  - home care, nonrelative

Used Same Primary Care Provider

- *For fewer than six months:* Child used one primary care provider for fewer than six consecutive months in the year following random assignment. No adjustments were made in this variable for interruptions in care that occurred in the middle of the spell.
- *For 7 to 12 months:* Child used one primary care provider for 7 to 12 consecutive months in the year following random assignment. No adjustments were made in this variable for interruptions in care that occurred in the middle of the spell.
- *Number of primary care providers in year after random assignment:* This outcome measures the total number of primary care providers used by one child in the year following random assignment.

Type and Stability of Care for all Providers

Appendix Table B.5 shows the estimated impacts on the type and stability of care for all providers. All outcomes were measured for the year following random assignment, and were measured at the child level for all children under the age of six at random assignment.

Ever used as a provider for care

- *Any nonparental care:* any nonparental care reported for child
- *Center care:* any center care arrangement used in year following random assignment (see definition of "center care" above)
- *Home care, relative*: any relative home care arrangement used in year following random assignment (see definition of "home care, relative" above)
- *Home care, nonrelative*: any nonrelative home care arrangement used in year following random assignment (see definition of "home care, nonrelative" above)

Type of care providers used

- *Seven months from random assignment:* This outcome identifies which types of care children were receiving from their primary care providers in the seventh month after random assignment:
  - center care
  - home care, relative
  - home care, nonrelative
- *Thirteen months from random assignment:* This outcome identifies which types of care the child's care providers were in the seventh month after random assignment:
  - center care
  - home care, relative
  - home care, nonrelative

Length of providers' spells of care

- *Average number of months as care provider*
  - center care

- home care, relative
- home care, nonrelative

Child care stability

Number of interruptions in provider care: This outcome measures the total number of interruptions in care that were reported from the time of random assignment to the time of the survey interview, for all care providers who cared for child at some point in the year following random assignment.

Appendix B

Additional Survey Outcomes

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table B.1

Estimated Impacts on Child Care Satisfaction and Job-Related Problems

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Detailed perspectives on primary child care arrangements (%)				
Respondent had difficulty finding desired child care				
True	12.0	18.1	-6.1 ***	2.0
Somewhat true	10.1	16.1	-6.0 ***	1.9
Not true	77.9	65.8	12.1 ***	2.5
Were good choices for child care where respondent lived				
True	57.1	51.6	5.5 **	2.8
Somewhat true	25.2	23.0	2.2	2.4
Not true	17.7	25.4	-7.7 ***	2.3
Provider found who shared respondent's child-rearing values				
True	81.1	79.7	1.4	2.2
Somewhat true	10.7	12.5	-1.8	1.8
Not true	8.1	7.7	0.4	1.5
Respondent had more than one option when provider was chosen				
True	61.0	52.4	8.6 ***	2.7
Somewhat true	9.8	10.9	-1.2	1.7
Not true	29.2	36.6	-7.4 ***	2.6
Respondent felt that she had no other alternatives than chosen provider				
True	16.4	26.9	-10.5 ***	2.3
Somewhat true	10.5	8.4	2.1	1.6
Not true	73.0	64.7	8.3 ***	2.6
Respondent had transportation problems traveling to and from provider				
True	5.2	5.9	-0.8	1.3
Somewhat true	4.9	5.0	-0.1	1.2
Not true	89.9	89.1	0.9	1.7
Child care location is too far from home				
True	7.6	10.5	-2.9 *	1.6
Somewhat true	5.3	6.1	-0.9	1.3
Not true	87.1	83.4	3.8 *	2.0
Respondent relies on provider to be flexible about hours				
True	55.6	56.2	-0.6	2.8
Somewhat true	13.4	13.8	-0.4	1.9
Not true	31.0	30.1	1.0	2.6
Respondent had to change work schedule in order to keep provider				
True	17.0	21.3	-4.3 **	2.2
Somewhat true	4.0	7.8	-3.8 ***	1.3
Not true	79.0	70.9	8.1 ***	2.4

(continued)

Appendix Table B.1 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Balancing work and family was difficult for respondent				
True	15.2	23.2	-8.0 ***	2.2
Somewhat true	14.2	17.3	-3.1	2.0
Not true	70.6	59.5	11.1 ***	2.6
Respondent had to settle for provider due to cost				
True	29.3	43.9	-14.5 ***	2.6
Somewhat true	10.0	10.7	-0.6	1.7
Not true	60.6	45.5	15.2 ***	2.7
Due to child care arrangement problems (%)				
Unable to start a job, class, school, job search, or training activity	10.0	17.0	-7.0 ***	1.9
Had to quit a job, class, school, job search, or training activity	7.0	10.7	-3.7 **	1.6
Missed days of work	22.1	35.4	-13.3 ***	2.5
Went to work late or left early	29.7	41.7	-12.1 ***	2.6
Average number of days of work missed	1.4	2.1	-0.6 **	0.3
Average number of times arrived to work late or left early	3.3	4.2	-0.9	1.3
Sample size (total = 1,330)	699	631		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table B.2

Estimated Impacts on Employment, Employment Stability, and Income

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Employment status (%)				
Currently employed	81.5	83.2	-1.6	2.1
No longer employed	18.5	16.8	1.6	2.1
Employment characteristics (%)[a]				
Current working status				
Working part time	17.8	18.8	-1.1	2.4
Working full time	82.2	81.2	1.1	2.4
Hours worked per week				
20 hours or less	4.0	4.1	0.0	1.2
21-35 hours	13.8	14.8	-1.0	2.1
36-40 hours	66.7	68.1	-1.3	2.9
More than 40 hours	15.5	13.1	2.4	2.1
Hours varied by week	21.2	19.9	1.3	2.5
Hourly wages				
Less than $6	35.3	36.2	-1.0	3.1
$6-7.99	14.7	14.5	0.2	2.3
$8-9.99	10.0	10.0	0.0	1.9
$10 or more	40.1	39.3	0.8	3.2
Benefits offered by employer				
Sick days with full pay	64.9	68.2	-3.2	2.8
Paid holidays	77.6	73.4	4.2	2.6
A health plan or medical insurance	73.3	72.6	0.7	2.7
A retirement plan	58.0	59.9	-1.9	2.9
No benefits	12.8	13.5	-0.7	2.1
Employment stability in year after random assignment[b]				
Average number of months employed	9.5	9.8	-0.2	0.2
Employed for 6 or more consecutive months (%)	80.0	82.0	-2.0	2.1
Employed by one employer for 6 or more consecutive months (%)	80.0	82.0	-2.0	2.1
Employed for 12 consecutive months (%)	71.6	73.0	-1.4	2.4
Employed by one employer for 12 consecutive months (%)	69.1	69.5	-0.4	2.5

(continued)

Appendix Table B.2 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Income				
Average household income in past month ($)	2,100	2,110	-10	66
Average household income in past month (%)				
Less than $800	7.1	9.6	-2.5	1.5
$800 to $1,199	5.3	7.6	-2.3 *	1.4
$1,200 to $1,499	12.0	9.7	2.3	1.7
$1,500 to $1,999	23.4	19.8	3.6	2.3
$2,000 to $2,499	24.5	23.1	1.4	2.4
$2,500 or more	27.1	29.8	-2.7	2.4
Sample size (total = 1,330)	699	631		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes

[a]Characteristics shown are for the job for which respondent currently worked the most hours. The "Employment Characteristics" outcomes do not cover people who were not working at the time of the survey.

[b]Calculated across all jobs, regardless of whether the job is ongoing.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table B.3

Estimated Impacts on Major Life Events

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Respondent experienced any of the following (%)				
Moved	38.1	35.0	3.1	2.6
Worried a lot about her housing situation	31.9	39.4	-7.6 ***	2.6
Difficulty getting around because of transportation problems	16.5	16.9	-0.4	2.0
Worried a lot about the safety of the children	41.3	43.0	-1.7	2.7
Personally experienced serious health problems	11.1	11.7	-0.6	1.7
Any of the respondent's children experienced serious health problems	11.9	16.4	-4.5 **	1.9
Any member of the respondent's family experienced serious health problems	22.6	21.7	0.9	2.3
Respondent gave birth to, adopted, or began fostering another child	15.4	18.2	-2.8	2.1
Experienced some other major change or life event	12.9	17.8	-4.9 **	2.0
Sample size (total = 1,330)	699	631		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table B.4

Estimated Impacts on Type of Primary Care Provider over Time, for Children under Age 6 at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Type of primary care provider (%)				
Seven months from random assignment				
Center care	36.0	29.2	6.8 **	2.9
Home care, relative	12.7	13.8	-1.1	2.1
Home care, nonrelative	3.7	7.9	-4.2 ***	1.4
Thirteen months from random assignment				
Center care	41.0	34.8	6.2 **	3.0
Home care, relative	13.6	15.6	-2.0	2.3
Home care, nonrelative	4.6	8.4	-3.8 **	1.5
Used same primary care provider (%)[a]				
For fewer than 6 months	9.3	11.1	-1.8	1.9
For 7 to 12 months	51.3	49.7	1.6	3.0
Child care stability				
Number of primary care providers in year after random assignment	0.7	0.7	0.0	0.03
Sample size (total = 1,237)	664	573		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.
Standard errors are adjusted to correct for clustering (the correlation of errors among multiple children within the same family). Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.
[a]These outcomes are measured for the year after random assignment.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table B.5

Estimated Impacts on Type and Stability of Care for All Providers, for Children under Age 6 at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Ever used as a provider for care (%)[a]				
Any nonparental care	62.3	63.0	-0.7	3.0
Center care	45.2	39.5	5.7 *	3.1
Home care, relative	16.3	20.7	-4.4 *	2.6
Home care, nonrelative	6.0	10.4	-4.5 ***	1.7
Types of care providers used (%)				
Seven months from random assignment				
Center care	36.8	30.5	6.3 **	2.9
Home care, relative	14.4	16.1	-1.7	2.3
Home care, nonrelative	4.1	8.2	-4.1 ***	1.4
Thirteen months from random assignment				
Center care	41.7	36.2	5.5 *	3.0
Home care, relative	15.1	17.8	-2.7	2.5
Home care, nonrelative	4.9	9.1	-4.2 ***	1.6
Length of providers' spells of care[a]				
Average number of months as care provider				
Center care	4.5	3.7	0.8 **	0.3
Home care, relative	1.7	1.9	-0.2	0.3
Home care, nonrelative	0.5	1.1	-0.5 ***	0.2
Child care stability[a]				
Number of interruptions in provider care	0.1	0.2	-0.1 **	0.0
Sample size (total = 1,237)	664	573		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.
Standard errors are adjusted to correct for clustering (the correlation of errors among multiple children within the same family). Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.
In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences (p-value < 0.001).
[a]These outcomes are measured for the year after random assignment.

Appendix C

Survey Response Bias Analysis and Weighting Methodology

Survey Response Bias Analysis

Although administrative records data were available for all 1,884 sample members, survey outcomes were available only for 71 percent of the sample (1,331 people). To determine whether people who responded to the survey were representative of the full sample and whether program group respondents were similar to control group respondents, a response bias analysis was performed. The evidence suggests that program group respondents were similar at baseline to control group respondents but that survey respondents were different from survey nonrespondents.

If program and control group members who responded to the survey differed from one another at baseline, estimated program impacts might be confounded with these preexisting differences. Appendix Table C.1 investigates this possibility by comparing baseline characteristics of survey respondents in the two research groups. It shows that the two groups were similar at baseline in most respects. Although there are statistically significant differences on two characteristics, this could easily be due to chance because so many characteristics were compared. To see whether the overall pattern of differences suggests that program group and control group respondents differed systematically from one another, a logistic regression was run, using baseline characteristics as covariates and treatment status among respondents as the dependent variable. The analysis confirms that the control and program groups were similar at baseline (p-value = 0.51). This suggests that results from the survey provide valid impact estimates for this group of respondents.

To provide information on whether survey respondents were representative of the full sample, Appendix Table C.2 compares the baseline characteristics of survey respondents and nonrespondents. It shows that compared with nonrespondents, respondents entered the study earlier, were more likely to have black children, were less likely to have Hispanic or Asian children, were more likely to have worked and to have earned more in the year before random assignment, and were less likely to have received child care subsidies in the year before random assignment. A logistic regression that used baseline characteristics to predict survey response among the full research sample was also run. The hypothesis that baseline characteristics could not predict survey response was rejected (p-value = 0.001). Therefore, the differences shown in Appendix Table C.2 indicate that the survey respondents are not representative of the full sample.

The final analysis of response bias compared impacts based on analysis of administrative records for respondents and the full sample. Differences in impacts based on analysis of administrative records could suggest that results from the survey are understating or overstating results for the full survey sample. This comparison is made in the first two columns of Appendix Table C.3, which show estimated impacts from administrative records data for the full sample and for survey respondents. The results show that impacts on how many months someone

received a subsidy were significantly larger for survey respondents. This suggests that differences in impacts on survey-based outcomes such as child care arrangements might overstate the true effect of the program for the full sample.

Weighting Method

Weights were used to correct for two problems with survey responses: (1) that program group respondents tended to respond earlier to the survey than control group respondents, and (2) that survey respondents had characteristics and outcomes that differed from those of non-respondents. The detailed steps that were conducted follow:

Weight 1: Adjusting for differences in survey timing between program and control groups

The researchers:

1. Limited the sample to survey respondents
2. Created variables indicating whether someone responded to the survey within a given time period. The time periods were generally broken down into one-month increments. However, due to the small number of very early and very late respondents, one indicator, spanning several months, was created for very early respondents and another similar indicator was created for very late respondents.
3. Ran a logistic regression model predicting response for each of the time periods identified in step 2. The models contained a limited number of baseline characteristics and a dummy that was equal to 1 if a sample member was in the program group.
4. For control group members who responded in a given time period:
    a. Calculated their predicted probability of responding using results from the logistic regression.
    b. Calculated the predicted probability that a similar person in the program group would have responded within that time period.
    c. Calculated weight 1 as the predicted probability in 4a divided by the predicted probability in 4b.
5. Gave a weight equal to 1 to all program group members.

Weight 2: Adjusting for response bias

The following steps were performed separately for program and control group members.

The researchers:

1. Ran a logistic regression model predicting response as a function of baseline covariates and outcomes from administrative records.[1]

2. Divided the sample into quintiles based on the predicted probabilities from that model.

3. Calculated the response rate separately by quintile.

4. Created a separate weight for each quintile that equals the inverse of the response rate for the sample members in that quintile.

A final weight for the analysis was calculated by multiplying the two weights described above.

The resulting analysis gives more weight to the responses of people with characteristics that were relatively underrepresented among the respondents who answered the survey in a similar time frame. For example, survey responses for control group members who answered between 1 and 1.5 years after entering the study were underrepresented relative to responses for program group members who answered within this time frame, so the analysis gave more weight to the responses of these control group members. The results also give more weight to the responses of people with characteristics that were relatively underrepresented among the survey respondents, relative to the full sample.

The last column of numbers in Appendix Table C.3 shows that weighted impacts for survey respondents that were based on analyses of administrative records matched impacts for the full sample quite well. For example, the program was estimated to increase periods of subsidy receipt in Year 1 by 5.6 months when either the full sample or weighted data for survey respondents were used. By contract, the estimated effect was 5.8 months for survey respondents when no weights were applied. Likewise, over the two-year follow-up period, the estimated impact on subsidy receipt was 8.0 months using the full sample or the weighted sample of survey respondents, but 8.6 months when survey respondents were not weighted.

[1] Although it is somewhat unusual to include follow-up outcomes in such a weighting strategy, the method was based on a recent report by Puma, Olsen, Bell, and Price (2009).

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table C.1

Comparison of Selected Baseline Characteristics of Program and Control Group Survey Respondents

Variable	Program Group	Control Group	Difference (Impact)
Personal characteristics			
Average age	30.9	31.1	-0.2
Family characteristics			
Family size	2.8	2.9	0.0
Other parent living in the home (%)	3.0	2.5	0.5
Number of children in care (%)			
One	64.8	64.1	0.7
Two	26.8	26.4	0.3
Three or more	8.4	9.5	-1.1
Age of youngest child (%)			
0 to 2 years old	39.1	36.6	2.5
3 to 5 years old	41.1	40.8	0.2
6 to 13 years old	19.9	22.6	-2.7
Has at least one child who is white (%)	7.9	7.5	0.5
Has at least one child who is black (%)	75.7	75.4	0.3
Has at least one child who is Hispanic (%)	13.1	14.9	-1.8
Has at least one child who is Asian, Native American, Native Hawaiian, or Pacific Islander (%)	1.6	1.6	-0.1
Has at least one child who is multiracial or of other race (%)	2.5	2.9	-0.4
Has at least one child who is missing race information (%)	8.0	11.1	-3.1 *
Income and employment			
Total monthly income reported on baseline application for subsidy ($)	2,710	2,693	16
Earnings ($)			
In quarter 1 prior to random assignment	6,601	6,596	5
In quarter 2 prior to random assignment	6,196	6,082	114
In quarter 3 prior to random assignment	5,703	5,580	123
In quarter 4 prior to random assignment	5,460	5,244	216
Employed (%)			
In quarter 1 prior to random assignment	92.9	93.2	-0.4
In quarter 2 prior to random assignment	90.1	91.1	-1.0
In quarter 3 prior to random assignment	89.7	88.6	1.1
In quarter 4 prior to random assignment	88.1	85.8	2.3
Missing employment data (%)	2.4	2.1	0.4

(continued)

Appendix Table C.1 (continued)

Variable	Program Group	Control Group	Difference (Impact)
Public assistance receipt			
Received subsidies (%)			
In quarter 2 prior to random assignment	54.5	52.2	2.3
In quarter 3 prior to random assignment	49.2	49.2	0.0
In quarter 4 prior to random assignment	47.5	47.5	0.0
Total subsidy amount received ($)			
In quarter 2 prior to random assignment	661	637	23
In quarter 3 prior to random assignment	615	616	-1
In quarter 4 prior to random assignment	593	602	-8
Ever received TANF in year prior to random assignment (%)	3.0	5.2	-2.2 **
Ever received food stamps in year prior to random assignment (%)	29.9	31.2	-1.3
Sample size (total = 1,331)	699	632	

SOURCE: MDRC calculations from baseline application form and the State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table C.2

Comparison of Selected Baseline Characteristics of Survey Respondents and Nonrespondents

Variable	Respondents	Non-respondents	Difference (Impact)	
Personal characteristics				
Average age	31.0	30.5	0.5	
Family characteristics				
Family size	2.8	2.8	0.0	
Other parent living in the home (%)	2.8	3.6	-0.8	
Number of children in care (%)				
One	64.5	66.0	-1.5	
Two	26.6	24.8	1.8	
Three or more	8.9	9.2	-0.3	
Age of youngest child (%)				
0 to 2 years old	37.9	36.9	1.0	
3 to 5 years old	41.0	43.9	-3.0	
6 to 13 years old	21.2	19.2	2.0	
Has at least one child who is white (%)	7.7	7.1	0.6	
Has at least one child who is black (%)	75.6	65.7	9.9	***
Has at least one child who is Hispanic (%)	13.9	21.9	-8.0	***
Has at least one child who is Asian, Native American, Native Hawaiian, or Pacific Islander (%)	1.6	4.8	-3.3	***
Has at least one child who is multiracial or of other race (%)	2.7	1.8	0.8	
Has at least one child who is missing race information (%)	9.5	10.5	-1.0	
Income and employment				
Total monthly income from baseline application ($)	2,702	2,704	-2	
Earnings ($)				
In quarter 1 prior to random assignment	6,599	6,406	193	
In quarter 2 prior to random assignment	6,142	5,787	355	**
In quarter 3 prior to random assignment	5,645	5,351	294	*
In quarter 4 prior to random assignment	5,357	5,177	181	
Employed (%)				
In quarter 1 prior to random assignment	93.0	92.0	1.0	
In quarter 2 prior to random assignment	90.6	89.3	1.3	
In quarter 3 prior to random assignment	89.2	85.2	4.0	**
In quarter 4 prior to random assignment	87.0	83.5	3.5	*
Missing employment data (%)	2.3	2.4	-0.1	

(continued)

Appendix Table C.2 (continued)

Variable	Respondents	Non-respondents	Difference (Impact)
Public assistance receipt			
Received subsidies (%)			
In quarter 2 prior to random assignment	53.4	58.1	-4.6 *
In quarter 3 prior to random assignment	49.2	52.3	-3.1
In quarter 4 prior to random assignment	47.5	49.4	-1.9
Total subsidy amount received ($)			
In quarter 2 prior to random assignment	650	736	-86 *
In quarter 3 prior to random assignment	616	662	-46
In quarter 4 prior to random assignment	597	655	-57
Ever received TANF in year prior to random assignment (%)	4.1	4.2	-0.1
Ever received food stamps in year prior to random assignment (%)	30.5	31.5	-1.0
Sample size (total = 1,884)	1,331	553	

SOURCE: MDRC calculations from baseline application form and the State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table C.3

Comparison of Impacts from Administrative Records for the Full Sample, Unweighted Survey Respondents, and Weighted Survey Respondents

Outcome	Full-Sample Impacts	Respondent Impacts (Unweighted)	Respondent Impacts (Weighted)
Year 1			
Months of subsidy receipt	5.6 ***	5.8 *** †	5.6 ***
Quarters of employment	0.0	0.0	0.0
Earnings ($)	-289	492	180
Months of TANF or food stamp receipt	-0.1	-0.1	-0.2
Total measured income ($)	-309	423	99
Year 2			
Months of subsidy receipt	2.4 ***	2.8 *** †††	2.4 ***
Quarters of employment	0.0	0.1 ††	0.0
Earnings ($)	-423	430	340
Months of TANF or food stamp receipt	-0.1	-0.1	-0.2
Total measured income ($)	-473	405	259
Total			
Months of subsidy receipt	8.0 ***	8.6 *** †††	8.0 ***
Received subsidies for 7 consecutive months (%)	42.6 ***	44.7 *** †	41.7 ***
Received subsidies for 13 consecutive months (%)	24.7 ***	28.1 *** †††	25.0 ***
Quarters of employment	0.0	0.1	0.0
Earnings ($)	-711	921	520
Months of TANF or food stamp receipt	-0.2	-0.2	-0.4
Total measured income ($)	-782	838	370

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

While this table shows impact estimates for the full, unweighted, and weighted respondent samples, the H-statistic test was used to test for statistically significant differences in impact estimates between unweighted respondents and nonrespondents. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Appendix D

Estimated Effects by Month and Quarter

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table D.1

Estimated Impacts on Receipt of Child Care Subsidies by Month

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Received child care subsidies (%)				
Year 1				
Month 1	79.0	10.6	68.4 ***	1.6
Month 2	78.2	13.4	64.8 ***	1.7
Month 3	75.9	15.9	60.0 ***	1.8
Month 4	71.4	18.2	53.2 ***	1.9
Month 5	67.0	19.2	47.9 ***	1.9
Month 6	64.7	19.1	45.6 ***	2.0
Month 7	63.7	19.5	44.3 ***	2.0
Month 8	62.8	19.2	43.6 ***	2.0
Month 9	60.3	19.6	40.7 ***	2.0
Month 10	55.3	20.6	34.8 ***	2.0
Month 11	48.8	19.7	29.1 ***	2.0
Month 12	46.3	19.0	27.3 ***	2.0
Year 2				
Month 1	45.4	19.2	26.3 ***	2.0
Month 2	46.0	18.1	27.8 ***	2.0
Month 3	44.6	18.4	26.2 ***	2.0
Month 4	43.3	18.2	25.1 ***	2.0
Month 5	41.1	17.7	23.5 ***	2.0
Month 6	41.4	16.4	25.0 ***	2.0
Month 7	39.7	16.5	23.3 ***	2.0
Month 8	38.3	17.2	21.1 ***	2.0
Month 9	35.6	17.3	18.3 ***	1.9
Month 10	31.0	17.1	13.9 ***	1.9
Month 11	24.2	16.9	7.3 ***	1.8
Month 12	19.7	16.4	3.3 *	1.7
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table D.2

Estimated Impacts on Employment and Earnings by Quarter

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Employed (%)				
Year 1				
Quarter 1	92.3	92.0	0.3	1.0
Quarter 2	90.8	90.4	0.4	1.1
Quarter 3	88.9	88.0	0.9	1.3
Quarter 4	87.0	87.6	-0.7	1.4
Year 2				
Quarter 1	86.5	86.7	-0.2	1.4
Quarter 2	85.1	86.0	-0.9	1.5
Quarter 3	84.8	84.8	0.0	1.5
Quarter 4	84.9	85.0	-0.2	1.5
Earnings ($)				
Year 1				
Quarter 1	6,743	6,816	-73	118
Quarter 2	6,633	6,650	-18	126
Quarter 3	6,542	6,597	-55	139
Quarter 4	6,521	6,664	-142	144
Year 2				
Quarter 1	6,595	6,636	-41	156
Quarter 2	6,683	6,732	-49	164
Quarter 3	6,562	6,747	-185	171
Quarter 4	6,527	6,675	-148	174
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table D.3

Estimated Impacts on Rates of TANF Receipt and Benefit Amounts by Month

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Received TANF (%)				
Year 1				
Month 1	1.6	1.7	-0.1	0.5
Month 2	1.6	1.4	0.1	0.5
Month 3	1.6	1.3	0.2	0.5
Month 4	1.6	1.4	0.1	0.5
Month 5	1.7	1.3	0.4	0.5
Month 6	1.4	1.5	-0.1	0.5
Month 7	1.6	1.5	0.2	0.5
Month 8	1.8	1.4	0.5	0.5
Month 9	1.7	1.2	0.5	0.5
Month 10	2.0	1.5	0.5	0.6
Month 11	1.9	1.1	0.7	0.5
Month 12	2.0	1.1	0.9	0.5
Year 2				
Month 1	2.1	1.0	1.1 **	0.5
Month 2	2.1	1.0	1.1 **	0.5
Month 3	2.2	1.0	1.2 **	0.6
Month 4	2.0	1.1	0.8	0.5
Month 5	2.0	1.2	0.7	0.6
Month 6	2.0	1.3	0.6	0.6
Month 7	2.0	1.1	0.8	0.5
Month 8	2.0	1.2	0.7	0.6
Month 9	1.8	1.2	0.6	0.5
Month 10	1.8	1.1	0.8	0.5
Month 11	1.6	0.7	0.9 **	0.5
Month 12	1.8	0.8	1.0 *	0.5
TANF amount received ($)				
Year 1				
Month 1	3	4	-1	1
Month 2	3	3	1	1
Month 3	3	2	1	1
Month 4	3	2	1	1
Month 5	3	2	1	1
Month 6	3	3	0	1
Month 7	3	3	-1	1
Month 8	4	3	2	2
Month 9	3	2	1	1
Month 10	4	3	1	2
Month 11	3	2	1	1
Month 12	3	2	1	1

(continued)

Appendix Table D.3 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Year 2				
Month 1	5	2	4 *	2
Month 2	5	2	3 **	1
Month 3	4	2	2	1
Month 4	4	3	1	2
Month 5	4	3	1	1
Month 6	3	3	0	1
Month 7	4	2	2	1
Month 8	3	3	1	1
Month 9	4	3	1	1
Month 10	4	2	2	1
Month 11	3	1	2 **	1
Month 12	4	2	2 *	1
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table D.4

Estimated Impacts on Rates of Food Stamp Receipt and Benefit Amounts by Month

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Received food stamps (%)				
Year 1				
Month 1	11.8	14.3	-2.5 *	1.3
Month 2	12.4	13.8	-1.4	1.3
Month 3	12.6	14.3	-1.7	1.4
Month 4	12.6	14.9	-2.3	1.4
Month 5	13.2	15.7	-2.6 *	1.5
Month 6	13.6	14.5	-0.9	1.4
Month 7	14.3	15.7	-1.4	1.5
Month 8	14.7	14.2	0.5	1.5
Month 9	15.0	15.7	-0.8	1.5
Month 10	15.1	15.1	0.0	1.5
Month 11	15.8	15.2	0.6	1.5
Month 12	16.1	15.4	0.7	1.6
Year 2				
Month 1	15.2	15.0	0.2	1.6
Month 2	15.9	16.0	-0.1	1.6
Month 3	15.8	16.5	-0.7	1.6
Month 4	15.3	16.6	-1.4	1.6
Month 5	15.8	17.2	-1.3	1.6
Month 6	15.7	17.5	-1.8	1.6
Month 7	16.4	17.4	-1.0	1.6
Month 8	16.5	17.9	-1.5	1.6
Month 9	17.1	18.6	-1.4	1.7
Month 10	17.8	20.0	-2.1	1.7
Month 11	18.4	19.7	-1.2	1.7
Month 12	19.3	20.3	-1.0	1.8
Food stamp amount received ($)				
Year 1				
Month 1	35	43	-7	5
Month 2	37	42	-6	5
Month 3	40	44	-4	5
Month 4	37	46	-10 *	5
Month 5	40	48	-8	5
Month 6	43	43	0	5
Month 7	45	47	-2	5
Month 8	47	43	4	5
Month 9	47	49	-2	6
Month 10	47	47	-1	5
Month 11	50	48	2	6
Month 12	49	50	-1	6

(continued)

Appendix Table D.4 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Year 2				
Month 1	49	49	0	6
Month 2	50	51	-1	6
Month 3	50	57	-7	6
Month 4	48	55	-6	6
Month 5	49	57	-8	6
Month 6	50	57	-6	6
Month 7	54	57	-3	6
Month 8	52	58	-5	6
Month 9	55	59	-4	6
Month 10	56	66	-10	6
Month 11	60	66	-6	7
Month 12	64	66	-2	7
Sample size (total = 1,884)	940	944		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table D.5

Estimated Impacts of Extended Redetermination on Rates of Subsidy Receipt by Month

Outcome	Average Outcome Levels: 6-month group	12-month group	Control group	6-Month vs. Control: Difference (Impact)		Standard Error	12-Month vs. 6-Month: Difference (Impact)		Standard Error	12-Month vs. Control: Difference (Impact)		Standard Error
Received child care subsidies (%)												
Year 1												
Month 1	81.2	76.8	10.6	70.6	***	2.0	-4.4	*	2.3	66.2	***	2.0
Month 2	80.1	76.3	13.4	66.7	***	2.1	-3.8		2.4	62.9	***	2.1
Month 3	75.7	76.0	15.9	59.9	***	2.2	0.2		2.5	60.1	***	2.2
Month 4	68.2	74.6	18.2	50.0	***	2.3	6.4	**	2.7	56.4	***	2.3
Month 5	59.6	74.4	19.2	40.4	***	2.4	14.8	***	2.7	55.3	***	2.4
Month 6	57.9	71.6	19.1	38.8	***	2.4	13.7	***	2.8	52.4	***	2.4
Month 7	56.0	71.5	19.5	36.5	***	2.4	15.6	***	2.8	52.1	***	2.4
Month 8	55.9	69.6	19.2	36.8	***	2.4	13.7	***	2.8	50.5	***	2.4
Month 9	53.2	67.4	19.6	33.5	***	2.4	14.2	***	2.8	47.8	***	2.4
Month 10	49.9	60.7	20.6	29.4	***	2.5	10.8	***	2.9	40.2	***	2.5
Month 11	44.0	53.6	19.7	24.3	***	2.5	9.5	***	2.9	33.8	***	2.5
Month 12	42.4	50.2	19.0	23.4	***	2.5	7.8	***	2.9	31.2	***	2.5
Year 2												
Month 1	42.1	48.8	19.2	22.9	***	2.5	6.7	**	2.9	29.7	***	2.5
Month 2	41.4	50.5	18.1	23.3	***	2.5	9.0	***	2.9	32.3	***	2.5
Month 3	38.6	50.6	18.4	20.2	***	2.5	12.0	***	2.9	32.2	***	2.5
Month 4	36.0	50.6	18.2	17.8	***	2.5	14.7	***	2.8	32.4	***	2.5
Month 5	33.0	49.2	17.7	15.4	***	2.4	16.2	***	2.8	31.5	***	2.4
Month 6	33.1	49.6	16.4	16.7	***	2.4	16.5	***	2.8	33.3	***	2.4
Month 7	31.2	48.3	16.5	14.7	***	2.4	17.1	***	2.8	31.8	***	2.4
Month 8	29.9	46.7	17.2	12.7	***	2.4	16.9	***	2.8	29.5	***	2.4
Month 9	28.4	42.8	17.3	11.1	***	2.4	14.4	***	2.7	25.5	***	2.4
Month 10	24.3	37.7	17.1	7.2	***	2.3	13.4	***	2.7	20.5	***	2.3
Month 11	20.1	28.3	16.9	3.2		2.2	8.1	***	2.6	11.4	***	2.2
Month 12	17.1	22.3	16.4	0.7		2.1	5.2	**	2.5	5.9	***	2.1
Sample size (household level; total = 1,884)	470	470	944									

(continued)

Appendix Table D.5 (continued)

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix E

Tables Supplementary to Analysis of Survey Quality

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table E.1

Estimated Impacts on Type and Stability of Child Care Arrangements, in Year after Random Assignment, for Children under Age 6 at Random Assignment, for Respondents Answering Survey within 2 Years

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Ever used as primary provider (%)					
Any nonparental care	67.6	67.5	0.1		3.6
Center care	50.9	40.3	10.6	***	3.8
Home care, relative	14.3	21.4	-7.2	**	3.0
Home care, nonrelative	5.5	10.3	-4.8	**	2.0
Average number of months as primary care provider					
Center care	5.0	3.7	1.3	***	0.4
Home care, relative	1.4	1.8	-0.4		0.3
Home care, nonrelative	0.5	1.1	-0.6	***	0.2
Child care stability					
Average length of longest spell with a primary care provider (months)	6.7	6.3	0.4		0.4
Number of interruptions in primary care (%)				***	
No interruptions	92.3	87.9	4.4		
One	3.1	4.6	-1.5		
Two	2.6	2.5	0.1		
Three or more	1.0	4.2	-3.1		
Used two or more care providers in a month (%)	5.9	11.1	-5.2	**	2.2
Sample size (child level; total = 882)	489	393			

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families. Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences (p-value < 0.001).

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table E.2

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs, for Respondents Answering Survey within 2 Years

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Child care satisfaction and job-related problems since random assignment					
Satisfaction with primary care provider (scale of 0 to100)	78.8	70.4	8.5	***	1.5
Ever had job problems due to child care arrangement (%)	38.8	51.5	-12.8	***	3.2
Child care costs at time of survey (%)					
Average weekly out-of-pocket costs for child care				***	
Under $50	23.9	29.1	-5.2		
$50 to $100	34.1	27.6	6.5		
Over $100	34.0	40.1	-6.2		
Don't know/refused	8.1	3.2	4.9		
Sample size (household level; total = 925)	500	425			

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table E.3

Estimated Impacts on Additional Outcomes from Administrative Records, by Detailed Research Group

Outcome	Average Outcome Levels: 6-month group	Average Outcome Levels: 12-month group	Average Outcome Levels: Control group	6-Month vs. Control: Difference (Impact)	6-Month vs. Control: Standard Error	12-Month vs. 6-Month: Difference (Impact)	12-Month vs. 6-Month: Standard Error	12-Month vs. Control: Difference (Impact)	12-Month vs. Control: Standard Error
Year 1									
Quarters of employment	3.6	3.6	3.6	0.0	0.0	0.0	0.1	0.0	0.0
Earnings ($)	26,469	26,408	26,727	-258	542	-61	628	-319	542
Months of TANF or food stamp receipt	1.8	1.7	1.8	-0.1	0.2	0.0	0.2	-0.1	0.2
Total measured income ($)	27,021	26,992	27,316	-295	527	-29	611	-324	527
Year 2									
Quarters of employment	3.4	3.4	3.4	0.0	0.1	0.0	0.1	0.0	0.1
Earnings ($)	26,656	26,077	26,789	-133	723	-578	838	-712	722
Months of TANF or food stamp receipt	2.1	2.1	2.2	-0.1	0.2	0.0	0.2	-0.1	0.2
Total measured income ($)	27,372	26,781	27,549	-177	705	-591	816	-767	704
Total									
Quarters of employment	7.0	7.0	7.0	0.0	0.1	0.0	0.1	0.0	0.1
Earnings ($)	53,125	52,485	53,516	-392	1,137	-639	1,318	-1,031	1,137
Months of TANF or food stamp receipt	3.8	3.8	4.0	-0.2	0.3	0.0	0.4	-0.2	0.3
Total measured income ($)	54,384	53,762	54,854	-470	1,108	-622	1,282	-1,092	1,105
Sample size (total = 1,884)	470	470	944						

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
Estimated impacts on subsidy receipt by detailed research group are shown in Table 7.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table E.4

Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, for Children under Age 6 at Random Assignment, by Detailed Research Group

	Average Outcome Levels			6-Month vs. Control		12-Month vs. 6-Month		12-Month vs. Control	
Outcome	6-month group	12-month group	Control group	Difference (Impact)	Standard Error	Difference (Impact)	Standard Error	Difference (Impact)	Standard Error
Ever used as a primary provider (%)									
Any nonparental care	62.1	62.6	63.0	-0.9	3.6	0.5	4.0	-0.4	3.6
Center care	45.4	44.2	38.2	7.2 *	3.7	-1.2	4.1	6.0	3.7
Home care, relative	14.6	14.2	18.5	-3.9	2.9	-0.5	3.1	-4.3	2.9
Home care, nonrelative	4.1	6.9	9.8	-5.7 ***	1.7	2.8	2.0	-2.9	2.1
Average number of months as primary care provider									
Center care	4.4	4.5	3.6	0.8 **	0.4	0.1	0.4	0.9 **	0.4
Home care, relative	1.5	1.5	1.6	-0.1	0.3	0.0	0.3	-0.1	0.3
Home care, nonrelative	0.4	0.5	1.0	-0.6 ***	0.2	0.1	0.2	-0.4 **	0.2
Child care stability									
Average length of longest spell spell with a primary care provider (months)	6.1	6.3	5.9	0.2	0.4	0.2	0.5	0.4	0.4
Number of interruptions in primary care (%)								**	
No interruptions	92.0	92.0	88.5	3.5		0.0		3.5	
One	3.9	2.6	5.0	-1.1		-1.3		-2.4	
Two	2.1	2.0	1.9	0.3		-0.1		0.1	
Three or more	1.7	1.8	4.0	-2.3		0.1		-2.1	
Used two or more providers in a month (%)	7.3	4.3	9.1	-1.8	2.0	-3.0	1.9	-4.9 **	1.9
Sample size (child level; total = 1,237)	331	333	573						

(continued)

Appendix Table E.4 (continued)

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families. Standard errors of impact estimates on categorical outcomes are not adjusted for clustering.

In the table, the estimated impacts on the types of care ever used by children in the sample are examined separately because each child could have used more than one type of care. However, a chi-square test was also used to test the intervention's effects on the overall distribution of types of care used by program and control group members. The test found statistically significant differences (p-value < 0.001).

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table E.5

Estimated Impacts on Child Care Satisfaction, Job-Related Problems, and Costs, by Detailed Research Group

Outcome	Average Outcome Levels: 6-month group	12-month group	Control group	6-Month vs. Control: Difference (Impact)	Standard Error	12-Month vs. 6-Month: Difference (Impact)	Standard Error	12-Month vs. Control: Difference (Impact)	Standard Error
Child care satisfaction and job-related problems since random assignment									
Satisfaction with primary care provider (scale of 0 to 100)	76.8	79.8	71.0	5.7 ***	1.5	3.0 *	1.8	8.8 ***	1.5
Ever had job problems due to child care arrangement (%)	37.7	37.6	51.4	-13.7 ***	3.3	-0.1	3.8	-13.8 ***	3.3
Child care costs at time of survey (%)									
Average weekly out-of-pocket costs for child care				*				***	
Under $50	30.9	25.2	30.4	0.6		-5.7		-5.1	
$50-$100	30.5	33.7	28.3	2.3		3.1		5.4	
Over $100	32.4	34.1	37.7	-5.3		1.7		-3.6	
Don't know/refused	6.1	7.0	3.7	2.4		0.9		3.3	
Sample size (household level; total = 1,330)	346	353	631						

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, chi-square tests were used for categorical variables, and two-tailed t-tests were used for other variables.

For categorical outcomes, statistically significant impacts are identified with one set of stars, located above the impact estimates.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix F

Tables Supplementary to Subgroup Results

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table F.1

Additional Estimated Impacts on Outcomes from Administrative Records, by Applicant Type at Random Assignment

Outcome	New Applicants			Entered the Study at Redetermination		
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error
Year 1						
Months of subsidy receipt	1.5	5.8 ***	0.2	3.0	5.3 ***	0.3
Quarters of employment	3.6	0.0	0.1	3.6	0.0	0.1
Earnings ($)	27,629	-298	616	25,706	-392	635
Months of TANF or food stamp receipt	1.6	0.0	0.2	2.1	-0.2	0.2
Total measured income ($)	28,164	-334	601	26,363	-402	614
Year 2						
Months of subsidy receipt	1.6	2.5 ***	0.3	2.7	2.3 ***	0.3
Quarters of employment	3.4	0.0	0.1	3.5	0.0	0.1
Earnings ($)	28,000	-739	826	25,307	25	850
Months of TANF or food stamp receipt	2.0	-0.1	0.2	2.4	-0.1	0.3
Total measured income ($)	28,748	-832	810	26,086	24	822
Sample size (total = 1,884)	514	512		430	428	

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.
[a]The sample size in the last row of this column represents the number of program group members in the new applicant subgroup.
[b]The sample size in the last row of this column represents the number of program group members in the redetermination applicant subgroup.

Appendix Table F.2

Additional Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Applicant Type, for Children under Age 6 at Random Assignment

Outcome	New Applicants: Control Group	New Applicants: Difference[a] (Impact)	New Applicants: Standard Error	Entered the Study at Redetermination: Control Group	Entered the Study at Redetermination: Difference[b] (Impact)	Entered the Study at Redetermination: Standard Error
Average number of months as primary care provider						
Center care	3.6	0.7	0.4	3.7	0.6	0.5
Home care, relative	1.8	-0.2	0.3	1.4	0.0	0.4
Home care, nonrelative	1.0	-0.6 ***	0.2	1.0	-0.4 *	0.3
Child care stability						
Average length of longest spell with a primary care provider (months)	6.1	0.1	0.5	5.8	0.3	0.5
Used two or more care providers in a month (%)	8.8	-3.5	2.2	10.5	-4.8 *	2.9
Sample size (child level; total = 1,237)	326	371		247	293	

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

To assess differences across subgroups, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families.

[a]The sample size in the last row of this column represents the number of program group members in the new applicant subgroup.

[b]The sample size in the last row of this column represents the number of program group members in the redetermination applicant subgroup.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table F.3

Additional Estimated Impacts on Outcomes from Administrative Records, by Number of Subsidized Children in Care at Random Assignment

Outcome	One Subsidized Child in Care			Two or More Subsidized Children in Care			
	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	
Year 1							
Months of subsidy receipt	1.9	5.9 ***	0.2	2.6	5.1 ***	0.3	†
Quarters of employment	3.6	0.0	0.0	3.5	0.0	0.1	
Earnings ($)	25,471	-85	528	28,895	-363	775	
Months of TANF or food stamp receipt	1.7	0.0	0.2	2.1	-0.4	0.3	
Total measured income ($)	25,981	-62	515	29,640	-490	751	
Year 2							
Months of subsidy receipt	1.9	2.5 ***	0.2	2.5	2.2 ***	0.4	
Quarters of employment	3.4	0.0	0.1	3.4	-0.1	0.1	
Earnings ($)	25,136	245	714	29,810	-1,641	1,044	
Months of TANF or food stamp receipt	2.0	0.1	0.2	2.4	-0.4	0.3	
Total measured income ($)	25,788	281	692	30,763	-1,829 *	1,026	†
Sample size (total = 1,884)	602	621		342	319		

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

[a]The sample size the last row of in this column represents the number of program group members in the subgroup of families with one subsidized child in care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families with two or more subsidized children in care.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table F.4

Additional Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Number of Subsidized Children in Care, for Children under Age 6 at Random Assignment

	One Subsidized Child in Care			Two or More Subsidized Children in Care			
Outcome	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	
Average number of months as primary care provider							
Center care	4.3	0.5	0.4	2.7	1.3 **	0.5	
Home care, relative	1.3	0.3	0.3	2.0	-0.6	0.4	†
Home care, nonrelative	1.1	-0.6 **	0.2	0.8	-0.4 *	0.2	
Child care stability							
Average length of longest spell with a primary care provider (months)	6.5	0.2	0.4	5.3	0.3	0.5	
Used two or more care providers in a month (%)	10.8	-3.7	2.4	6.5	-2.1	2.4	
Sample size (child level; total = 1,237)	323	365		250	299		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

To assess differences across subgroups, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

See Appendix A for detailed notes on the construction of these outcomes.

Standard errors are adjusted to correct for clustering of children within families.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families with one subsidized child in care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families with two or more

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table F.5

Additional Estimated Impacts on Outcomes from Administrative Records, by Type of Care Used at Random Assignment

Outcome	Center-based Care				Licensed Home Care				Unlicensed Care				
	Control Group	Difference[a] (Impact)		Standard Error	Control Group	Difference[b] (Impact)		Standard Error	Control Group	Difference[c] (Impact)		Standard Error	
Year 1													
Months of subsidy receipt	2.0	6.2	***	0.2	2.9	6.5	***	0.4	1.5	2.4	***	0.4	†††
Quarters of employment	3.5	0.1	*	0.0	3.6	-0.1		0.1	3.7	-0.2	**	0.1	††
Earnings ($)	26,829	-18		578	26,482	224		999	26,559	-1,597		970	
Months of TANF or food stamp receipt	1.6	-0.1		0.2	1.6	0.0		0.3	3.1	-0.3		0.4	
Total measured income ($)	27,326	-44		565	26,927	275		973	27,648	-1,700	*	924	
Year 2													
Months of subsidy receipt	2.0	2.6	***	0.3	2.6	2.9	***	0.5	1.7	1.1	**	0.4	†††
Quarters of employment	3.3	0.1	**	0.1	3.6	-0.2	**	0.1	3.5	-0.2		0.1	†††
Earnings ($)	26,323	622		783	27,690	-1,680		1,301	27,168	-2,355	*	1,315	†
Months of TANF or food stamp receipt	2.0	-0.2		0.2	1.8	0.3		0.4	3.3	-0.1		0.5	
Total measured income ($)	27,038	530		764	28,273	-1,585		1,269	28,317	-2,473	*	1,276	†
Sample size (total = 1,884)	559	572			216	203			169	165			

SOURCE: MDRC calculations from State of Illinois administrative records.

NOTES: To assess differences across research groups, two-tailed t-tests were used.

Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families using center-based care.

[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families using licensed home care.

[c]The sample size in the last row of this column represents the number of program group members in the subgroup of families using unlicensed care.

The Evaluation of Child Care Subsidy Strategies: Illinois

Appendix Table F.6

Additional Estimated Impacts on Type and Stability of Primary Child Care Arrangements, in Year after Random Assignment, by Type of Care Used at Random Assignment, for Children under Age 6 at Random Assignment

	Center-based Care			Licensed Home Care			Unlicensed Care			
Outcome	Control Group	Difference[a] (Impact)	Standard Error	Control Group	Difference[b] (Impact)	Standard Error	Control Group	Difference[c] (Impact)	Standard Error	
Average number of months as primary care provider										
Center care	3.9	1.2 ***	0.4	4.4	-0.1	0.7	1.0	1.0 *	0.5	
Home care, relative	1.3	-0.3	0.3	1.0	-0.3	0.4	3.8	0.7	0.9	
Home care, nonrelative	0.5	-0.3 *	0.2	2.2	-1.1 *	0.5	1.4	-0.8	0.5	
Child care stability										
Average length of longest spell with a primary care provider (months)	5.4	0.7 *	0.4	7.3	-1.5 **	0.7	5.9	0.9	0.9	††
Used two or more care providers in a month (%)	9.3	-3.8 *	2.2	10.4	-6.2 *	3.3	6.7	0.2	4.0	
Sample size (child level; total = 1,237)	331	408		150	139		92	117		

SOURCE: MDRC calculations from Illinois Child Care Subsidy Evaluation survey.

NOTES: To assess differences across research groups, two-tailed t-tests were used.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
To assess differences across subgroups, an H-statistic was used. Statistical significance levels for tests of differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.
See Appendix A for detailed notes on the construction of these outcomes.
Standard errors are adjusted to correct for clustering of children within families.
[a]The sample size in the last row of this column represents the number of program group members in the subgroup of families using center-based care.
[b]The sample size in the last row of this column represents the number of program group members in the subgroup of families using licensed home care.
[c]The sample size in the last row of this column represents the number of program group members in the subgroup of families using unlicensed care.

References

Abt Associates Inc. 2009. "Child and Family Services Projects." Web site: http://www.abtassociates.com/page.cfm?PageID=1100&FamilyID=1100&OWID=2109766886&CSB=1.

Adams, Gina, Pamela A. Holcomb, Kathleen Snyder, Robin Koralek, and Jeffrey Capizzano. 2004. *Child Care, Welfare, and Families: The Nexus of Policies, Practices, and Systems*. Washington, DC: The Urban Institute.

Administration for Children and Families. 2003. *Child Care and Development Fund: Report to Congress*. Washington, DC: U.S. Department of Health and Human Services.

Administration for Children and Families. 2006. *Child Care and Development Fund: Report of State and Territory Plans, FY 2006-2007*. Washington, DC: U.S. Department of Health and Human Services.

Administration for Children and Families. 2007. *Child Care and Development Fund: Report to Congress for FY 2004 and FY 2005*. Washington, DC: U.S. Department of Health and Human Services.

Berger, Mark C., and Dan A. Black. 1992. "Child Care Subsidies, Quality of Care, and the Labor Supply of Low-Income Single Mothers." *Review of Economics and Statistics* 74, 4: 635-642.

Blau, David, and Erdal Tekin. 2001. "The Determinants and Consequences of Child Care Subsidy Receipt by Low-Income Families." in B. Meyer and G. Duncan (eds.), *The Incentives of Government Programs and the Well-Being of Families*. Chicago: Joint Center for Poverty Research.

Bloom, Howard S., Carolyn J. Hill, and James Riccio. 2001. *Modeling the Performance of Welfare-to-Work Programs: The Effects of Program Management and Services, Economic Environment, and Client Characteristics*. New York: MDRC.

Burman, Leonard E., Elaine Maag, and Jeffrey Rohaly. 2005. *Tax Subsidies to Help Low-Income Families Pay for Child Care*. Washington, DC: Tax Policy Center of the Urban Institute and Brookings Institution.

Collins, Ann M., Jean I. Layzer, and J. Lee Kreader. 2007. *National Study of Child Care for Low-Income Families: State and Community Substudy Final Report*. Cambridge, MA: Abt Associates Inc.

Gelbach, Jonah. 1999. "How Large an Effect Do Child Care Costs Have on Single Mothers' Labor Supply? Evidence Using Access to Free Public Schooling." Working Paper. College Park, MD: Department of Economics, University of Maryland.

Gennetian, Lisa A., Carla C. Ficano, and Pamela A. Morris. 2003. *The Effect of Child Care Subsidies on Work Behavior: A Three-State Comparison*. New York: MDRC.

Greenberg, David H., Charles Michalopoulos, and Philip K. Robins. Winter, 2004. "What Happens to the Effects of Government-Funded Training Programs over Time?" *The Journal of Human Resources* 39, 1: 277-293.

Layzer, Jean I., Carolyn J. Layzer, Barbara D. Goodson, and Cristofer Price. 2009. *Findings from an Experimental Test of Three Language/Literacy Interventions in Child Care Centers in Miami-Dade County*. Cambridge, MA: Abt Associates Inc.

Lee, Bong Joo, Robert M. Goerge, Mairead Reidy, J. Lee Kreader, Annie Georges, Robert L. Wagmiller, Jr., Jane Staveley, David Stevens, and Ann Dryden Witte. 2004. *Child Care Subsidy Use and Employment Outcomes of TANF Mothers During the Early Years of Welfare Reform: A Three-State Study*. Washington, DC: Child Care Bureau, Administration for Children and Families, U.S. Department of Health and Human Services.

MDRC. 2009. "Evaluation of Child Care Subsidy Strategies."
Web site: http://www.mdrc.org/project_11_38.html.

Meyers, Marcia K., Theresa Heintze, and Douglas A. Wolf. 2000. "Child Care Subsidies and the Employment of Welfare Recipients." Working paper. New York: School of Social Work, Columbia University.

Meyers, Marcia K., Laura R. Peck, Elizabeth E. Davis, Ann Collins, J. Lee Kreader, Annie Georges, Roberta Weber, Deanna T. Schexnayder, Daniel G. Schroeder, and Jerry A. Olson. 2002. *The Dynamics of Child Care Subsidy Use: A Collaborative Study of Five States*. Washington, DC and New York, NY: National Center for Children in Poverty and Columbia University, Mailman School of Public Health.

Michalopoulos, Charles. 2010. *Effects of Reducing Child Care Subsidy Copayments in Washington State*. New York: MDRC.

Press, Julie E., Jay Fagan, and Lynda Laughlin. 2006. "Taking Pressure Off of Families: The Impact of Child Care Subsidies on Mothers' Work-Hour Problems." *Journal of Marriage and Family* 68, 1: 151-171.

Puma, Michael J., Robert B. Olsen, Stephen H. Bell, and Cristofer Price. 2009. *What to Do When Data Are Missing in Group Randomized Controlled Trials*. National Center for Education Evaluation and Regional Assitance Technical Report 2009-0049. Washington,DC: U.S. Department of Education Institute of Education Sciences.

Shlay, Anne B. 2002. "Barriers to Child Care Subsidies: Why Subsidies Are Often Not Used." in C. J. Groark, K. E. Mehaffie, R. McCall and M. T. Greenberg (eds.), *From Science to Policy: Research on Issues, Programs and Policies in Early Care and Education*. University City, PA: Universities Children's Policy Collaborative.

Shlay, Anne B., Marsha Weinraub, Michelle Harmon, and Henry Tran. 2004. "Barriers to Child Care Subsidies: Reasons Why Low-Income Families Do Not Use Child Care Subsidies." *Social Science Research* 33, 1: 134-157.

Snyder, Kathleen, Sara Bernstein, and Robin Koralek. 2004. *Parents' Perspectives: Child Care Subsidies and Moving From Welfare to Work*. Washington, DC: The Urban Institute.

U.S. Department of Commerce, Bureau of the Census. 2008. *The 2008 Statistical Abstract.* Washington, DC: U.S. Bureau of the Census.

Witte, Ann D., and Magaly Queralt. 2003. "Impacts of Eligibility Expansions and Provider Reimbursement Rate Increases on Child Care Subsidy Take-Up Rates, Welfare Use and Work." NBER Working Paper No. 9693. Cambridge, MA: National Bureau of Economic Research.

Zaslow, Martha, Tamara Halle, Lina Guzman, Bridget Lavelle, Julie Dombrowski Keith, Daniel Berry, and Ayonda Dent. 2006. *Review and Synthesis of Selected Research Reports Submitted to the Child Care Bureau, U.S. Department of Health and Human Services*. Washington, DC: Child Trends.

About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-offenders and people with disabilities, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.