

EFFECTS OF REDUCING  
CHILD CARE SUBSIDY  
COPAYMENTS IN  
WASHINGTON STATE

Final Report

OPRE 2011-2

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## Overview

Federal funding for child care subsidies has increased substantially since 1996. Although many more low-income families are receiving help paying for child care, there is little rigorous evidence to guide states' decisions on how to structure subsidy programs. This is the final report of a two-year evaluation in Washington State focusing on one key state policy decision: how much families should contribute when they receive subsidies for child care (the copayment).

The study described in this report examined the effects of reduced copayments on child care subsidy use, employment and earnings, and receipt of Temporary Aid to Needy Families (TANF) and food stamps. Between October 18, 2005, and November 7, 2005, 5,106 families were randomly assigned to either a control group that was assigned the standard copayment amounts, or a program group that was assigned an alternative copayment schedule. Random assignment ensures that any systematic differences that emerged later could reliably be attributed to the alternative copayment schedule.

In determining how much families will be charged for copayments, Washington divides them into three income groups. In short, the alternative and standard copayment schedules were the same for families in Tier 1 (below 82 percent of the federal poverty level), diverged by \$35 each month for families at the bottom end of Tier 2 (between 82 and 137.5 percent of poverty), and differed the most for families in Tier 3 (between 137.5 and 200 percent of poverty). When they entered the study, Tier 2 families had an average monthly copayment of \$50 under the standard schedule but \$34 under the alternative schedule, and Tier 3 families paid \$211 on average under the standard copayment schedule but \$134 under the alternative schedule. Key results of the study are:

- **The alternative copayment schedule resulted in longer subsidy use.** In particular, program group families in Tier 3 received subsidies for 1.1 months longer than comparable control group families. The impact on subsidy receipt rates grew at around six months after families entered the study, when most of them would have had to reapply for subsidies and would have learned about changes in their monthly copayments.
- **The alternative copayment schedule did not result in more employment.** For Tier 3 families, for whom the alternative copayment differed most from the standard schedule, 77 to 88 percent of both the program and control groups worked in any given quarter after random assignment, leaving little room for the program to have an effect. The program also did not increase earnings or reduce use of food stamps or TANF.

These results should be interpreted cautiously. Although reduced copayments resulted in longer subsidy use, reliable information on child care arrangements and stability was not available for this study. It is therefore impossible to know whether reduced copayments helped families afford their desired form of child care or improved other outcomes related to child care. Although reduced copayments did not result in increased employment or earnings, as hoped, it is important to remember that copayments were reduced the most for the highest-income subsidy recipients, a group that worked steadily even under the standard copayment schedule, leaving little room to improve employment outcomes.



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The Author



## Executive Summary

Federal funding for child care subsidies, a strategy designed to support the employment and child care choices of low-income families, has increased substantially since 1996. Although many more low-income families are consequently receiving help in paying for child care, there is little rigorous evidence to guide states' decisions on how to structure these policies. This final report of a two-year evaluation in Washington State provides information on one key state policy decision: the amount families should contribute when they receive subsidies to help pay for child care, or copayments. The Washington program was one of four sites in the national Evaluation of Child Care Subsidy Strategies, which is funded by the Administration for Children and Families in the U.S. Department of Health and Human Services.

### Description of the Evaluation

All families in the state of Washington that were approved to receive child care subsidies between October 18, and November 7, 2005 — a total of 5,106 families — were entered into the study. These families were randomly assigned to two groups: (1) a control group that was assigned the standard copayment schedule used in the state, and (2) a program group that was assigned an alternative schedule that reduced copayments for many families. Because families were assigned at random to the two groups, any systematic differences that emerged after random assignment can reliably be attributed to the alternative copayment schedule.

### The Standard and Alternative Copayment Schedules

In its standard determination of copayments for families receiving child care subsidies, the state of Washington divides families into three groups, called tiers, based on their cash incomes: Tier 1 families have income below 82 percent of the poverty level, Tier 2 families have income between 82 and 137.5 percent of the poverty level, and Tier 3 families have income between 137.5 and 200 percent of the poverty level. In 2005, when this study began, the poverty level was \$16,090 for a family of three and \$19,350 for a family of four.

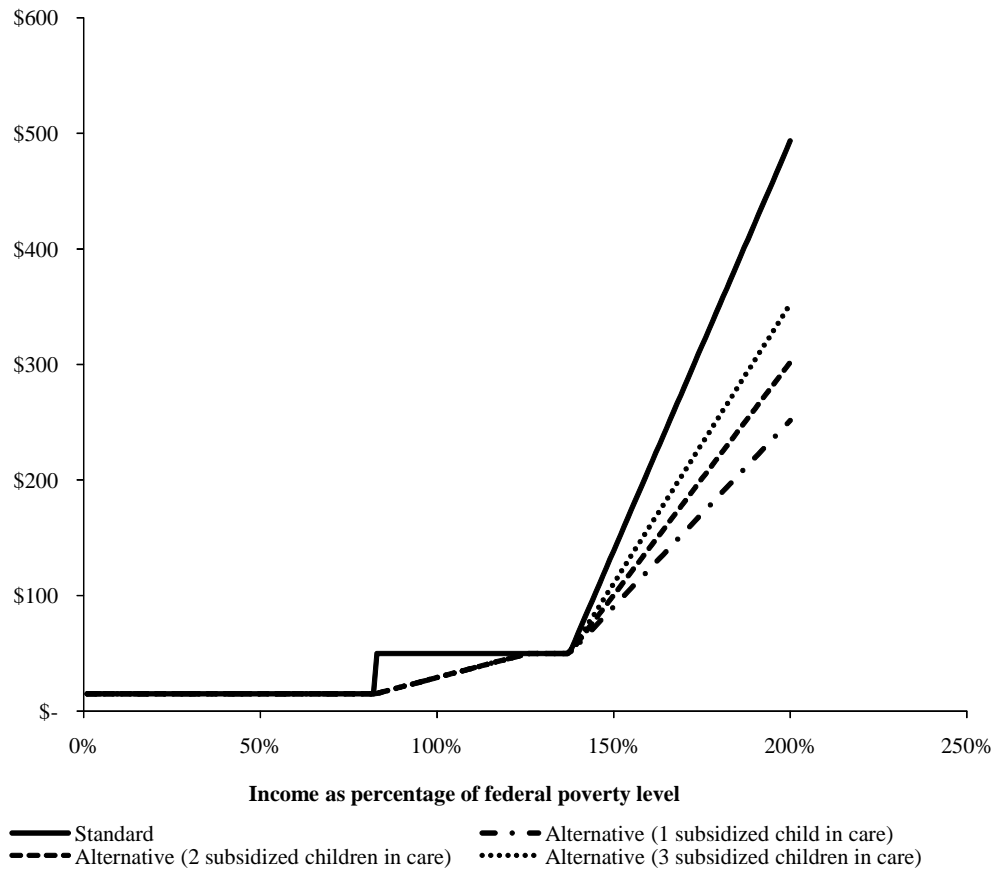
Figure ES-1 shows the standard and alternative copayment schedules for a family of four, which could be a two-parent family with two children or a single parent with three children.

- **Tier 1** families receiving subsidies paid \$15 each month for child care under both the standard and alternative copayment schedules.

## The Evaluation of Child Care Subsidy Strategies: Washington

Figure ES-1

### Standard and Alternative Child Care Copayments for a Family of Four



SOURCE: State of Washington Department of Social and Health Services.

- **Tier 2** families paid \$50 each month under standard state rules. Under the alternative schedule, copayments increased by 5 percent of income above 82 percent of the poverty threshold until they reached \$50 a month.
- **Tier 3** families paid a monthly copayment equal to \$50 plus 44 percent of the difference between their monthly family income and 137.5 percent of the federal poverty threshold under standard rules. Under the alternative schedule, the monthly copayment increased by 20, 25, or 30 percent of income with each additional dollar of income above 137.5 of the poverty line for families with one, two, or three or more subsidized children.



In short, the alternative and standard copayment schedules were the same for families in Tier 1, diverged by \$35 each month for families at the bottom end of Tier 2, and differed the most for families in Tier 3. For Tier 3 families, the alternative copayment schedule was particularly beneficial for families with one and two children in care. At the time of random assignment, Tier 2 families had an average monthly copayment of \$50 under the standard schedule but \$34 under the alternative schedule, while Tier 3 families had an average copayment of \$211 under the standard copayment schedule but only \$134 under the alternative schedule.

### **Study Sample**

Reflecting state rules on parents eligible to receive subsidies, the sample included three types of parents: working parents with family income below 200 percent of the federal poverty level, parents receiving Temporary Assistance for Needy Families (TANF) who were in approved work-related activities, and adult parents under age 22 who were pursuing a high school credential. Washington does not have a waiting list of applicants for subsidies, so all eligible parents who applied for subsidies were approved to receive them.

Most sample members were single parents. Most were white, but about 30 percent of the sample was black or Hispanic, and almost 11 percent identified themselves as either Asian, Native American, or from another racial or ethnic group. The average family had a monthly income of \$1,425. While about 70 percent of the sample had worked in any given quarter in the year before random assignment, about half had received TANF and three-quarters had received food stamps. In addition, nearly 80 percent had received child care subsidies in the year before entering the study and 65 percent were receiving subsidies when they entered the study.

There was considerable variation in economic circumstances by income tier. For example, average monthly income reported on the subsidy application ranged from \$666 for families in income Tier 1 to \$2,225 for families in Tier 3. On average, Tier 3 families earned more than \$15,000 and had an 82 percent employment rate in the prior year, while Tier 1 families earned only about \$5,000 and had less than a 50 percent employment rate. While 76 percent of Tier 1 families received TANF in the year before entering the study, only 27 percent of Tier 3 families received TANF during that year.

### **Hypothesized Effects**

Reducing copayments could have a range of effects on other outcomes. First, basic economic theory suggests that making families pay less for care when they receive subsidies will encourage them to receive subsidies for a longer period of time. By helping families pay for their desired form of care, increased subsidy receipt might help families achieve more stable

care, either by helping them afford inherently more stable care or by helping them pay for care on a regular basis. More stable care could in turn help parents stay employed. Likewise, reducing the amount that copayments increase when earnings increase could encourage parents to work and earn more, increasing their income and reducing their reliance on other forms of public assistance such as TANF and food stamps.

## Data Sources

To investigate the effects of reduced copayments on these outcomes, this report uses data from three administrative records sources: the child care subsidy system, which provided information on each form of care for which families used subsidies for each child in the family; the unemployment insurance (UI) system, which provided information on earnings and hours worked for each employer; and the public assistance system, which provided information on TANF and food stamps benefits. UI and public assistance data have the advantage of providing information on outcomes even when families stopped receiving child care subsidies. Although a survey was planned to capture information on child care arrangements and other outcomes, it was not used in this report because only 34 percent of individuals targeted for the survey responded to it.

## Main Findings

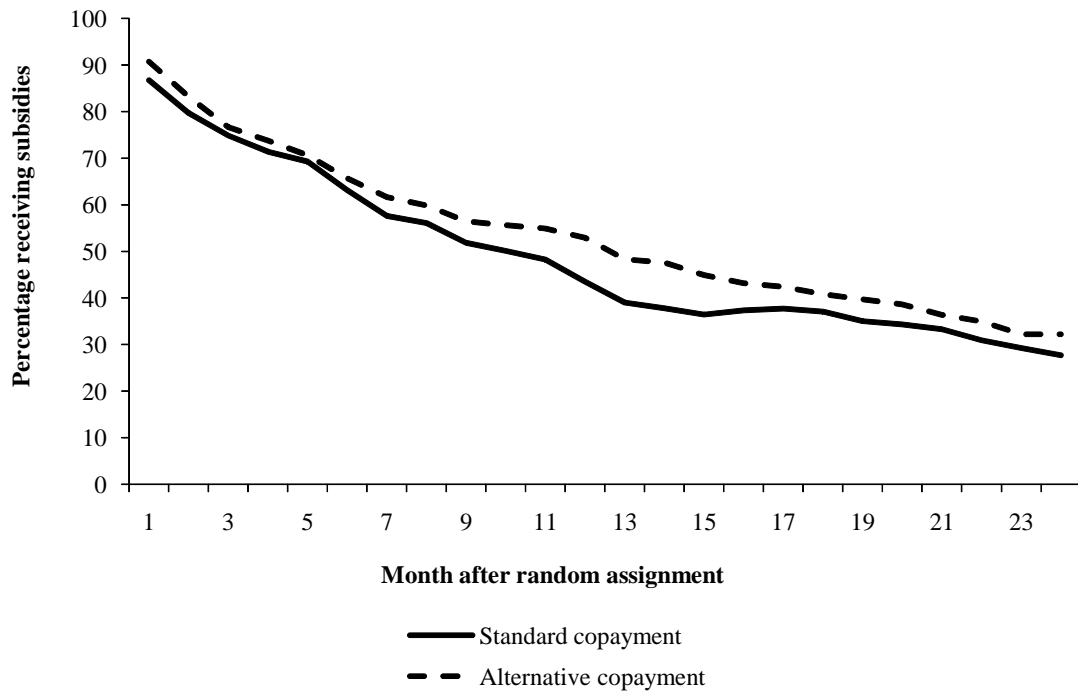
Key results from the study are:

- **Tier 3 families facing the alternative copayment schedule were more likely than similar control group families to receive subsidies.** As Figure ES-2 shows, while the percentage of families that received subsidies dropped to about 90 percent just after random assignment for both the alternative copayment and standard copayment groups over time, it decreased less for the alternative copayment group. In particular, the gap in subsidy receipt between the two groups grew around six months after random assignment, when most families would have had to reapply for subsidies and would have learned about any change in their copayments. In the latter part of the second year, however, the differences between the alternative and standard copayment group diminished.
- **The alternative copayment schedule did not result in more employment for Tier 3 families.** Figure ES-3 shows that 80 to 90 percent of both groups were employed after random assignment, and there was no difference in employment rates between the two groups. The program also did not increase earnings. The high rate of employment for Tier 3 parents suggests

The Evaluation of Child Care Subsidy Strategies: Washington

Figure ES-2

Estimated Impacts on the Percentage of Families Receiving Child Care Subsidies  
for Families in Income Tier 3 at Random Assignment



SOURCE: MDRC calculations from State of Washington administrative records.

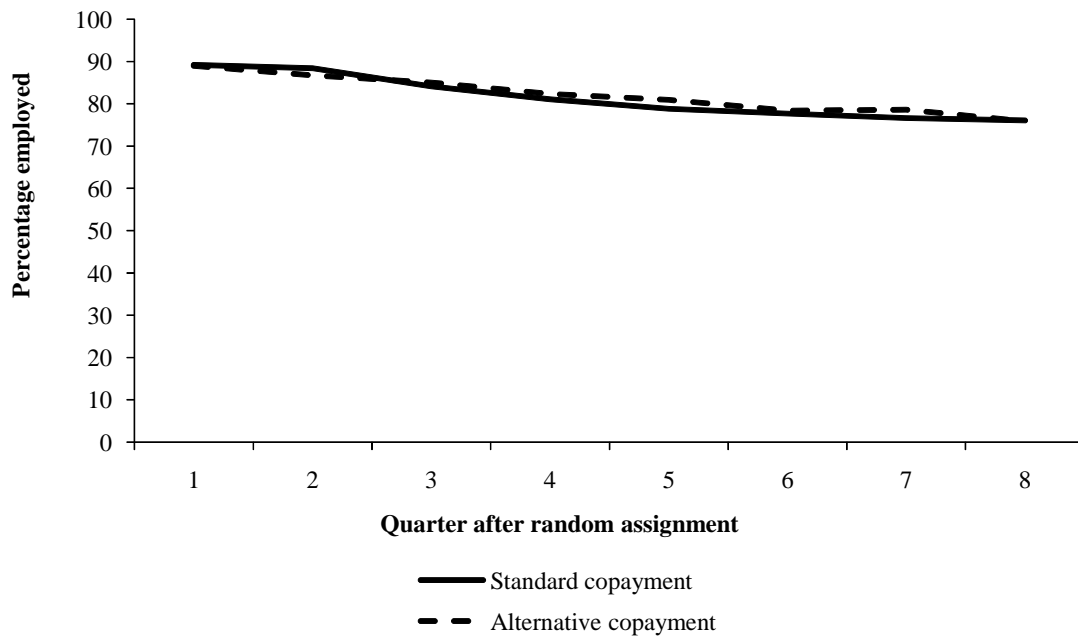
that subsidies had little room to increase employment levels among these parents.

- **The alternative copayment also affected subsidy receipt rates for families in Tiers 1 and 2, but the effects were smaller than for Tier 3 families.** For example, Tier 1 and Tier 2 families assigned the alternative copayment schedule received subsidies for 0.6 months more on average than comparable families in the control group, while the comparable difference for Tier 3 families was 1.1 months. However, there was little effect on employment, earnings, or use of public assistance for families in any income tier.

## The Evaluation of Child Care Subsidy Strategies: Washington

Figure ES-3

### Estimated Impacts on Quarterly Employment Rates for Families in Income Tier 3 at Random Assignment



SOURCE: MDRC calculations from State of Washington administrative records.

## Discussion of Results

The results presented above indicate that a reduced copayment schedule led families to receive subsidies for a longer period of time. This was especially true for higher-income subsidy recipients, for whom the alternative copayment represented the largest reduction in their copayment amounts. Reducing copayments did not appear to affect employment, however.

These results should be interpreted cautiously for several reasons. First, while the study provides credible evidence on the effects of a reduced copayment schedule in Washington, it might not represent what would happen within another state context. Second, for many of the families in the study, especially for those in Tier 1 and Tier 2, the differences in copayment amounts were not substantial; larger differences in copayments between the two groups may have had an impact. Third, although copayment amounts differed most for Tier 3 families, most

of those higher-income parents worked following random assignment even under the standard copayment schedule, leaving the program little room to alter employment rates. Finally, it was not clear that families were aware of how their employment decisions may have affected their assigned copayment amounts; if families had been more aware of the consequences of their employment decisions, effects on employment and earnings might have been larger.

In addition to suggesting caution when interpreting the study's results, it is also important to be clear about impacts that the study did not measure. By including only families that had already applied for benefits, the study does not capture the possibility that reduced copayments might encourage parents to apply for child care subsidies. In addition, the study did not provide any information on outcomes related to the impact of the alternative copayments on the type and attributes of the child care used by families in the study because reliable data were not available.



## Introduction

Public investment in child care has increased substantially over the past decade. Direct federal funding for child care subsidies for low-income families increased from \$3.2 billion in 1996 to \$11.96 billion in 2005.<sup>1</sup> In the state of Washington, state and federal spending on child care subsidies through the Child Care Development Fund (CCDF) increased from \$109 million in fiscal year 1997 to \$175 million in fiscal year 2006.<sup>2</sup> 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 on how to best structure child care subsidies to support employment of low-income parents. This final report of a two-year evaluation in Washington State focuses on one key state policy decision: the level of copayment (contribution to the cost of care) that families receiving child care subsidies should make. The study uses random assignment, a particularly reliable kind of evaluation method, to determine whether and if reducing the size of copayments that families are asked to pay affects outcomes such as parents' employment rates, family income, and levels of receiving public benefits.

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. Besides Washington State, the other three sites are Miami-Dade County, Florida; Massachusetts; and Cook County, Illinois. The study in Miami-Dade County is comparing three curricula designed to improve the literacy of subsidized children in child care centers before they attend elementary school.<sup>3</sup> The Massachusetts study is testing a method of improving the language skills of children in day care homes with children whose families receive subsidies by training providers in those homes to offer the children a language-rich environment and to interact one-on-one with the children in a nurturing and responsive way. The study in Illinois is testing the effects of providing subsidies to families who otherwise would have too much income to be eligible for subsidies.<sup>4</sup> The study is also testing the effects

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<sup>1</sup>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).

<sup>2</sup>Administration for Children and Families (2006); Collins, Layzer, and Kreader (2007). These amounts include dedicated state and federal CCDF funds and do not include TANF transfers to CCDF.

<sup>3</sup>Final results from the Miami-Dade program are described in Layzer, Layzer, Goodson, and Price (2009).

<sup>4</sup>Descriptions of the Illinois and Massachusetts studies are available in Abt Associates (2009) and MDRC (2009).

of extending the period for which individuals can receive subsidies before they must reapply for them from the current six-month timespan to a period of one year.

To set the stage for the summary of the Washington evaluation and its results, this introduction presents background information on several topics: the national policy context for the provision of child-care subsidies to low-income families, the Washington subsidy program, past research about the effects of child care costs on employment and on the use of child care, and the research questions addressed by the Washington study.

### **National Policy Context**

CCDF imposes several requirements on states for how child care subsidies are to be structured, but the law also provides flexibility to allow states to set policies that they believe 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 has priority for subsidies, the reimbursement rates for providers, how long families can receive subsidies before they have to be recertified, and copayment amounts. As noted, the experiment in Washington is examining the effects of changes in the copayment schedule for families who have been approved to receive subsidies.

CCDF requires states to establish sliding-fee scales that determine the amount of a family's copayment. According to federal regulations, copayments are to be based on family income and family size, but may also be based on other factors the state considers appropriate. In addition, copayments can be waived for families with incomes at or below the federal poverty level.

Beyond these regulations, CCDF gives states little further instruction on how to determine copayments, with the flexibility contributing to great variation in states' copayment policies. For example, some states base the copayment only on family income, but 24 states plus the District of Columbia require higher copayments for families with more subsidized children, and four states increase the copayment with the cost of care.<sup>5</sup>

All states require higher copayments for higher-income families, but there is substantial variation across the states. In 2006, 16 states plus the District of Columbia required no copayment for a family of three for the lowest-income families, but all states required some payments for higher-income families.<sup>6</sup> In 2002, the required copayment for families at 33 percent of state median income among the 17 states covered in the *National Study of Child Care for Low-*

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<sup>5</sup>Administration for Children and Families (2006).

<sup>6</sup>Administration for Children and Families (2006).



*Income Families* ranged from about 2 percent of a family's income in Minnesota to about 13 percent in New Jersey.<sup>7</sup> At 50 percent of state median income, copayments ranged from 1 percent of family income in California to 15 percent in New York. Families were not eligible for subsidies at that income level in Alabama, Illinois, Massachusetts, and Michigan.

In some states, the copayment schedule increases substantially for higher-income families. In Washington, for instance, the 2005 copayment for a family of three with income at 33 percent of the federal poverty level was 3 percent. This copayment amount climbed to 16 percent when the family of three reached the top of the state's income eligibility limit. In other states, the copayment was consistent across income levels; for example, in North Carolina, the copayment always equaled 10 percent of a family's income for a family of three.<sup>8</sup>

### **The Washington Child Care Subsidy Program**

In Washington, three groups of parents can receive child care subsidies. These groups are: working parents with family income below 200 percent of the federal poverty level, recipients of Temporary Assistance for Needy Families (TANF) engaged in approved job search or other work-related activities, and parents under age 22 who are in high school or preparing to obtain a General Educational Development (GED) credential. Unlike some states, Washington does not have a waiting list for subsidies; all eligible parents who apply for subsidies are approved to receive them.

Because families cannot receive subsidies if their incomes are more than 200 percent of the poverty level, applicants must verify their incomes for the three months preceding their applications.<sup>9</sup> Income to be verified includes earnings, TANF, Social Security income, child support, Supplemental Security Income (SSI), and disability or unemployment benefits. Applicants must produce specific documentation of these income sources. To verify earnings, for example, they must provide pay stubs or statements from their employers showing when they were hired and how much they are being paid.

Family income is also used to calculate the family's monthly copayment. For this purpose, families are placed into one of three groups, or tiers, based on their incomes. Under current state rules:

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<sup>7</sup>Collins, Layzer, and Kreader (2007).

<sup>8</sup>Administration for Children and Families (2006).

<sup>9</sup>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).

- **Tier 1** families pay a monthly copayment of \$15. This tier includes all families with incomes below 82 percent of the federal poverty threshold. At the start of the study in 2005, a family of three was in Tier 1 if its monthly income was less than \$1,100, while a family of four was in Tier 1 if its monthly income was less than \$1,322. (At that point the poverty level in Washington was \$16,090 for a family of three and \$19,350 for a family of four.) Because the income tier is based on the federal poverty level, larger families could have higher incomes and still be in Tier 1.
- **Tier 2** families pay a monthly copayment of \$50. This tier includes families with incomes between 83 and 137.5 percent of the federal poverty threshold. In 2005, this included families of three with monthly incomes between \$1,100 and \$1,843 and families of four with monthly incomes between \$1,322 and \$2,217.
- **Tier 3** includes families with incomes between 137.5 and 200 percent of the federal poverty threshold. (Families with incomes above 200 percent of the federal poverty threshold are ineligible for subsidies.). In 2005, this tier included families of three with monthly incomes between \$1,843 and \$2,681 and families of four with monthly incomes between \$2,217 and \$3,225. Families in this tier pay a monthly copayment equal to \$50 plus 44 percent of the difference between their monthly family income and 137.5 percent of the federal poverty threshold. Thus, a family of three with \$1,843 in monthly income pays \$50 each month. If the family's income is \$400 more — for a total of \$2,243 — the family faces a copayment of \$226 (\$50 plus 44 percent of \$400).

One of the purposes of the CCDF-sponsored subsidy policy is to help parents pay for the care they would like. In Washington, subsidies can be used for licensed child care centers, licensed family child care homes, relatives who provide care in their own homes or adults who come to the family's home to provide care. (These last two categories of caregivers must be approved before they can receive subsidies.) To verify that the family will be using subsidies for one of these four types of providers, subsidy applicants must list the providers they plan to use. If care is going to be provided by a relative, the application must include the relative's picture, Social Security information, current address, and a form allowing the state to perform a background check.

Because some types of care are more expensive than others, the subsidy system tries to support family choices by reimbursing some types of care more than others and by prohibiting providers from charging families receiving subsidies more than their copayments. Table 1

## The Evaluation of Child Care Subsidy Strategies: Washington

**Table 1**

### Monthly Reimbursement Rates for Child Providers Caring for Subsidized Children

	Licensed Child Care Center	Licensed Family Child Care Home	In-home/Relative Care <sup>a</sup>
<b><u>1-year-old child in Seattle</u></b>			
Full day (\$)	802.97	754.22	381.33
Half day (\$)	401.70	377.43	190.67
<b><u>4-year-old child in Seattle</u></b>			
Full day (\$)	673.62	635.48	381.33
Half day (\$)	336.92	317.85	190.67
<b><u>1-year-old child in Spokane</u></b>			
Full day (\$)	531.70	468.00	381.33
Half day (\$)	266.07	234.00	190.67
<b><u>4-year-old child in Spokane</u></b>			
Full day (\$)	502.45	468.00	381.33
Half day (\$)	251.55	234.00	190.67

SOURCE: State of Washington Department of Social and Health Services, *Working Connections Child Care (WCCC) Manual*, Section F: "Provider Rate Structures."

NOTES: The State of Washington Department of Health and Social Services (DSHS) will pay the amounts listed in this table unless the provider's usual reimbursement rate is less.

Monthly rates are calculated by multiplying the provider's daily rates by (260 days of care per year / 12 months per year) . The number of days of care per year is calculated by assuming 5 days of care per week, and 52 weeks per year.

<sup>a</sup>In-home/relative care rates are based on reimbursement rates for the child who needs the greatest number of hours of care, which is \$2.20 per hour. (A full day is considered 8 hours and a half day is considered 4 hours).

shows the total reimbursement rates for providers serving subsidized children in Seattle and Spokane, where a large proportion of state subsidy recipients live. As the table indicates, reimbursement levels depend on a number of factors, including the type of care, the age of the child, and whether care is full-day or half-day. Reimbursement levels are highest for licensed center care — for example, \$802.97 for a 1-year-old child in full-day care — followed closely by levels for licensed family child care homes. Reimbursement levels for relative care or other unlicensed, informal care are substantially lower than for center care. In addition, licensed providers are paid less for caring for older children, presumably because state regulations allow licensed providers to use fewer staff per older child.

### Prior Research on Effects of Child Care Costs

There is a large literature in the field of economics covering investigations of how much child care costs — and by extension child care subsidies and copayments — affect employment

and the use of child care. A review of the literature by Chaplin et al. (1999) finds that a 1 percent reduction in child care costs is projected to increase the number of families using paid child care by as much as 1 percent. This suggests that a lower copayment would encourage families to use nonparental care. Another review of the literature by Blau and Tekin (2001) finds that a 1 percent reduction in child care costs is projected to increase the number of parents who work by 0.4 percent. While few of the studies that Blau and Tekin summarize focus on low-income families, the studies that do so find employment increases that are higher than 0.4 percent when child care prices are reduced.

Zaslow et al. (2006) summarize more recent studies related to child care subsidies and suggest that copayments do not affect subsidy receipt patterns as much as other policy levers. An example of a study that Zaslow et al. review is that of Burstein and Layzer (2004), who examine child care arrangements for low-income families in 25 communities. Burstein and Layzer find that copayment amounts are not associated with who applies for or receives subsidies, suggesting that higher copayments do not discourage families from applying for subsidies. Likewise, in looking across five states, Meyers et al. (2002) do not find consistent evidence that copayment amounts are related to subsidy receipt rates. Finally, Adams et al. (2004) and Shlay, Weinraub, Harmon, and Tran (2004) find many reasons why families do not apply for or receive subsidies, ranging from bureaucratic hassles to ignorance about subsidy policy. The financial burden of subsidy copayments is not cited as one of the key deterrents to applications.

Despite the large number of studies on child care subsidies, considerable uncertainty still exists about the magnitude of the effects of these subsidies because prior studies have relied on nonexperimental analyses. A common method used in these studies is to compare outcomes for families who choose more expensive types of child care with outcomes for those who choose less expensive types, or to compare outcomes for parents with lower income levels — who are typically eligible for higher subsidies — with outcomes for parents with higher income levels. Because income and child care choices are affected by a complex array of factors, results from these studies may confound the effects of child care prices and subsidies with other differences.

The study described in this report aims to remove those confounding factors by using random assignment to determine which copayment schedule a parent receives. Families that were approved to receive subsidies under the usual Washington State rules were randomly assigned to one of two groups. One group was assigned the standard copayment schedule, while the second was assigned an alternative copayment schedule that called for copayments that were either the same as or lower than the standard schedule. Because families were assigned at random to the two groups, any systematic differences that emerged after random assignment can reliably be attributed to the alternative copayment schedule.

## Research Questions and Hypothesized Effects

The test of a reduced copayment study in the Washington State evaluation was guided by a conceptual framework of the child care subsidy system that suggests how copayments affect a range of outcomes (Figure 1). According to this framework, families apply for subsidies within a particular economic and general policy environment, and within particular communities. Community characteristics such as the availability of child care providers and the strength of the job market will play a role in whether families apply for subsidies and in what kinds of effects subsidies have on employment. In addition, family characteristics, such as the families' levels of commitment to work, and the availability of nonmarket child care also play a role in shaping outcomes.

Subsidy policy can also help parents pay for care, which would make work more financially rewarding. Copayments, the aspect of a subsidy policy that is of particular importance for this study, could affect a range of outcomes, such as rates of subsidy receipt, child care stability, and employment outcomes.

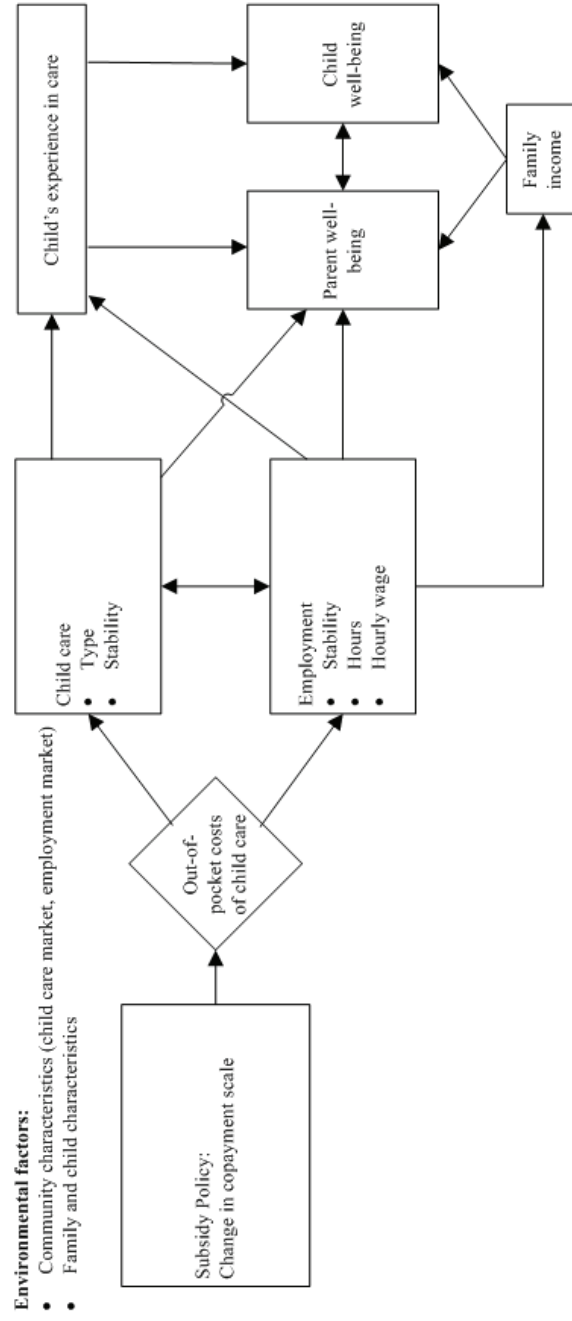
To see why copayments might affect whether a family uses child care subsidies, consider the following hypothetical families.

- The Smiths plan to apply the subsidy to a relative who is caring for their child. The relative will be paid the same amount whether or not the family receives subsidies. The Smith family will benefit from subsidies as long as the amount of their copayment is less than what the relative is paid.
- The Kims have a relative who will care for their child for free. They would like to place their child in a center but cannot afford the center without state assistance. The Kims should use subsidies as long as the value they place on center care compared with relative care outweighs the value of their copayment.

As these examples show, the level of copayment a family is charged may have an effect on whether that family uses a subsidy. And receiving subsidies can in turn affect a range of other outcomes. As the Kim family example suggests, subsidies might change the type of care a family uses. In particular, subsidies might encourage families to use more expensive forms of care than they would choose without assistance. The reliability of the state's subsidy payments might also increase the stability of care arrangements by helping parents pay for care each month and by helping them afford care that is inherently more stable. More reliable child care might in turn help parents to stay at work. Finally, the rate at which copayments increase with income might affect whether parents take better jobs, work more hours, or stay employed. These changes might in turn lead to more stable child care arrangements. More stable employ-

Figure 1

Conceptual Framework of Intervention



ment and income might also reduce the need to rely on cash assistance and other public benefits.

In addition to these intended effects, reduced copayments might have some unintended consequences. In particular, reducing the amount of a family's copayment also reduces the amount of income the family needs to make ends meet, which might encourage a parent to work and earn less. In addition, a reduced copayment for a family near the income eligibility ceiling means that the family faces a larger increase in child care costs if its income rises above the eligibility ceiling. This might discourage some parents from increasing their earnings and incomes beyond that amount.

This conceptual framework leads to the following research questions for this study:

- **How does a reduced copayment schedule affect parental employment, family income, and the receipt of public benefits?**<sup>10</sup>
- **Are the effects of a reduced copayment schedule greater for some families than for others?**

## Description of the Evaluation

As noted, the Washington study used a random assignment design to examine the effects of a reduced copayment schedule, with families approved to receive subsidies under the usual Washington State rules being randomly assigned to (1) a group assigned the standard copayment schedule (known as the *control group*), and (2) a group assigned an alternative copayment schedule that called for copayments that were either the same as or lower than the standard schedule (the *program group*). As also noted, random assignment allowed researchers to attribute any systematic differences that subsequently emerged to the alternative copayment schedule.

### The Standard and Alternative Copayment Schedules

Figure 2 shows the standard and alternative copayment schedules for a family of four, which could be a two-parent family with two children or a single parent with three children. Table 2, which summarizes the key features of the two copayment schedules, shows which

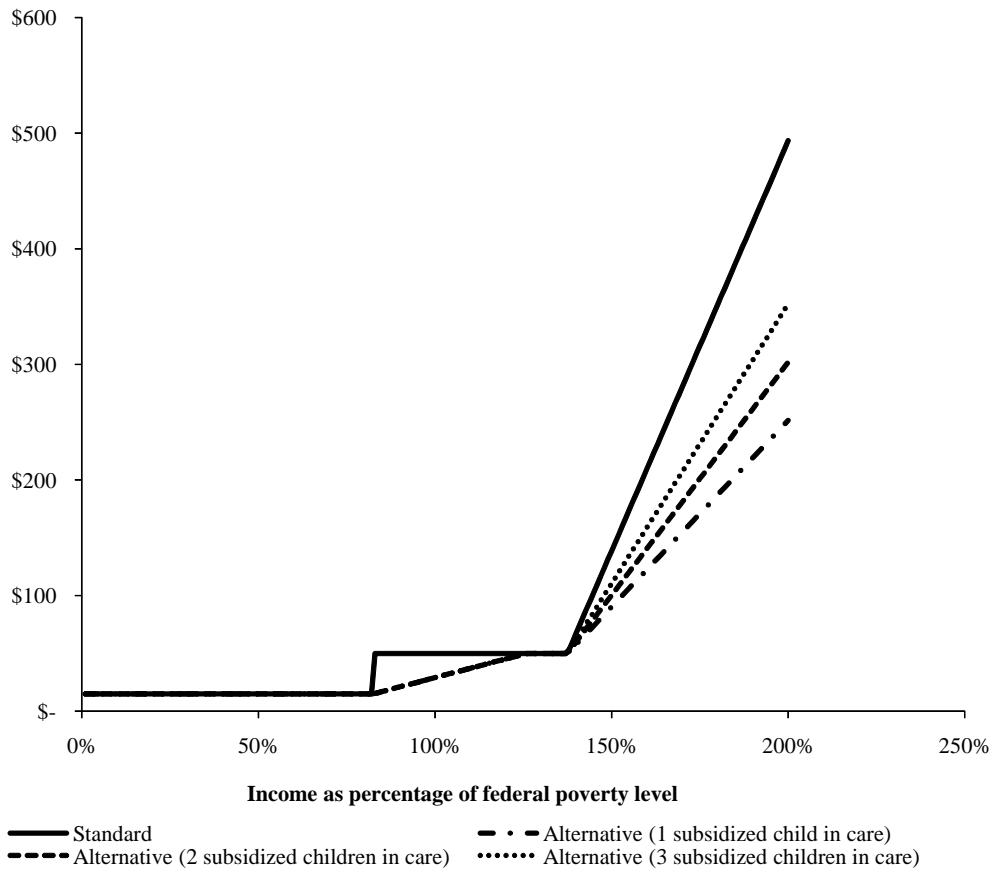
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<sup>10</sup> Another question that could be addressed by the study is how copayments affect the type of care a family uses. However, this study is unable to address that question because, as will be discussed in more detail, there was a very low response rate to a survey of sample members that, among other questions, asked respondents what type of care they were using. The study therefore relies on administrative data, which do not include comprehensive information on type of care used.

## The Evaluation of Child Care Subsidy Strategies: Washington

Figure 2

### Standard and Alternative Child Care Copayments for a Family of Four



SOURCE: State of Washington Department of Social and Health Services.

families were in each of the three income tiers and the size of their copayments. It should be noted that copayments determine only the family's contribution to care when the family receives subsidies, not how much the provider is paid. That is, a higher copayment reduces the state's contribution to the cost of care but does not increase the amount the provider receives.

As described earlier, a family's copayment depends on which income tier it is in.

- **Tier 1.** Under both the standard and alternative copayment schedules, families in Tier 1 paid \$15 per month when they received child care subsidies.



## The Evaluation of Child Care Subsidy Strategies: Washington

**Table 2**

### Assignment of Families to Income Tiers and Resulting Copayment Amounts

	Tier 1	Tier 2	Tier 3
<b><u>Income</u></b>			
Threshold of Federal Poverty Line (FPL) (%)	82.0 or less	82.1 - 137.5	137.6 - 200.0
Maximum monthly income level, 2005 (\$)			
Family of 3	Less than 1,100	1,100 - 1,843	1,843 - 2,681
Family of 4	Less than 1,322	1,322 - 2,217	2,217 - 3,225
<b><u>Monthly copayment amount per family (\$)</u></b>			
Alternative copayment schedule			
1 child in care	15	15 + 5% of income above 82% of FPL, up to \$50	50 + 20% of income above 137.5% of FPL
2 children in care	15	Same as 1 child	50 + 25% of income above 137.5% of FPL
3 children in care	15	Same as 1 child	50 + 30% of income above 137.5% of FPL
Standard copayment schedule <sup>a</sup>	15	50	50 + \$0.44 of every \$1 in income above 137.5% of FPL

SOURCE: State of Washington Department of Social and Health Services.

NOTE: <sup>a</sup>Standard copayment schedules do not vary with the number of subsidized children.

- Tier 2.** The standard monthly copayment in Tier 2 was \$50. Thus, families using the standard copayment schedule faced a “notch” that increased their monthly copayments from \$15 to \$50 when their incomes moved them from Tier 1 to Tier 2. Under the alternative schedule, copayments increased by 5 percent of income above 82 percent of the poverty threshold until a family reached \$50 a month. Thus, a family of three with \$1,100 in monthly income paid \$50 under the standard copayment schedule but \$15 under the alternative schedule. If the family’s monthly income increased to \$1,500, the copayment remained at \$50 under the standard schedule but increased from \$15 to \$35 under the alternative schedule.
- Tier 3.** The standard monthly copayment for families in Tier 3 equaled \$50 at the bottom of the income tier. The standard copayment increased by 44

cents with each additional dollar of income beyond 137.5 percent of the poverty level. Under the alternative schedule, the monthly copayment increased by 20, 25, or 30 percent of income with each additional dollar of income for families with one, two, or three or more subsidized children. Thus, a family of three with \$1,843 in monthly income paid \$50 each month under both copayment schedules. By contrast, a family of three whose income was \$400 more — for a total of \$2,243 — had a copayment of \$226 under the standard schedule, but under the alternative schedule, that family's monthly copayment was \$130 with one subsidized child, \$150 with two subsidized children, and \$170 with three or more subsidized children.<sup>11</sup>

In sum, the alternative and standard copayment schedules are the same for families in Tier 1, diverge by \$35 each month for families at the bottom end of Tier 2, and differ the most for families in Tier 3. For those higher-income families, the alternative copayment schedule is particularly beneficial for families with one and two children in care. As described in more detail later, the effect of the reduced copayment was determined by randomly assigning eligible families to the alternative and standard copayment schedules during a one-month period in late 2005. For those families who were in Tier 2, the average monthly copayment was \$50 for those assigned to the standard schedule but \$34 for those assigned to the alternative schedule. For families in Tier 3 at the time of random assignment, the average copayment was \$211 under the standard copayment schedule but only \$134 under the alternative schedule.

While the copayment sets a family's cost when the family receives child care subsidies, the value of that subsidy depends on the provider's total reimbursement, which is the sum of the copayment and the state's contribution to the care. A higher reimbursement level for the family's desired provider means the state is contributing a higher portion of the family's care. Putting together the copayment schedule and the reimbursement rates, then, a family with a one-year-old child would find subsidies valuable if the family wanted to use licensed care for an entire day because the copayment would be less than the total cost of care. Likewise, a family with two or more children in full-time care would get value from the subsidy because the total reimbursement would be at least \$762.66, while the highest copayment for a family of four even under the standard schedule is less than \$500. However, a family near the top of Tier 3 might pay the entire cost of care under the standard schedule if that family had only one child in care and was planning to use informal care in either Seattle or Spokane, or if the family was planning

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<sup>11</sup>A \$400 increase in monthly income would increase the monthly copayment by \$176 (44 percent of \$400) under the standard schedule, and — depending on how many children the family receives subsidies for — by \$80 (20 percent of \$400), \$100 (25 percent of \$400), or \$120 (30 percent of \$400) under the alternative schedule.

to use a licensed day care home in Spokane. Under the alternative schedule, by contrast, copayments were always less than the cost of full-time care in either city.

Although the alternative copayment schedule made the subsidy valuable even for Tier 3 families, it also created a steeper “cliff” for them when their incomes exceeded 200 percent of the poverty threshold and made them ineligible for subsidies. Consider a family of three with an income just below 200 percent of the poverty level and with one toddler in center care full time. Between the family’s copayment and the state’s contribution, the center would be reimbursed a total of about \$803 each month for caring for this child. Under the standard copayment schedule, the family would contribute \$419 and the state would contribute the remaining \$384. Under the alternative schedule, the family’s monthly contribution would be only \$218, while the state would pay \$585 each month. If the family’s income increased so that the family was no longer eligible for subsidies and the child care arrangements remained the same, the family would be responsible for the full monthly cost of care of \$803. Thus, under the standard schedule, the family’s out-of-pocket expenses for child care would increase by \$384, while under the alternative schedule they would increase by \$585. The steeper cliff under the alternative copayment schedule might discourage parents from increasing their hours worked and earnings to the point where they would lose eligibility for subsidies.

### **Sample Selection, Random Assignment, and Study Sample Characteristics**

The study used a statewide sample in order to obtain results that were applicable to the state as a whole. All households in the state that were approved to receive subsidies between October 18, 2005, and November 7, 2005,<sup>12</sup> were included in the study if they met the following criteria: (1) the parents in the household were adults (18 years or older); (2) the youngest child as younger than 11 (so that the family could be eligible for a subsidy for the full two years of the study); and (3) the household was not headed by a non-needy adult.<sup>13</sup>

In total, 5,106 families were included in the study and randomized to receive the standard or alternative copayment schedule. In an attempt to assign a similar number of families from each income tier to the alternative schedule while allowing all eligible families statewide into the study, the proportion of study participants assigned to the alternative schedule differed by income tier. As shown in Table 3, about 29 percent of families in the lowest income tier were

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<sup>12</sup>This period was chosen in part because many parents apply for subsidies when their children return to school.

<sup>13</sup>This is an adult who has physical custody of the child but is not the child’s legal guardian and does not receive TANF. Nonneedy adults were excluded from the study because only the child’s income is used to determine the copayment amount. Consequently, these adults would always have been assigned the minimal monthly copayment of \$15.

assigned the alternative schedule compared with 40 percent of families in the middle income tier and about half of families in the top income tier.<sup>14</sup> This resulted in 521 families from Income Tier 1 being assigned the alternative schedule, compared with 708 families from Income Tier 2 and 761 from Income Tier 3.

At the time of random assignment, the state provided a limited amount of information about the families in the study from the family's subsidy applications. In addition, administrative data provided information on subsidy receipt rates, earnings, and TANF and food stamp receipt rates in the year prior to random assignment. These sample characteristics are shown in Table 4.

Not surprisingly, study participants were more disadvantaged in some respects than the state as a whole (not shown in Table 4). Most sample members were single parents, with nearly 60 percent never having been married and nearly 30 percent separated or divorced. Although information on gender was not available at baseline, a survey of a subset of 848 study participants conducted 12 to 24 months after random assignment found that 95 percent were female. Thus, most parents in the study were single mothers. By comparison, the 2000 decennial census indicates that more than half of adults in the state were married and living with their spouses and only about one-fourth had never been married.<sup>15</sup> (Comparable proportions for the study sample were 12 percent married and living with spouses and 58 percent never married.)

The sample was mostly white, but about 30 percent was black or Hispanic and almost 11 percent identified themselves as either Asian, Native American, or from another racial or ethnic group. By comparison, Washington State is overwhelmingly white, with only about 15 percent of state residents indicating they belong to a minority group.<sup>16</sup>

According to Table 4, parents in the study were 28 years old on average at the time of random assignment, and lived in households with about three people, suggesting that the typical family was a single parent with two children. Consistent with household size, the average family had nearly two subsidized children. Although it is not shown in the table, families in the three income tiers were in similarly sized households and had similar numbers of children in care at the time of random assignment.

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<sup>14</sup>Based on information about the number of applicant and reapplicant families in each income tier in several months in 2004 and 2005, the proportion assigned the alternative copayment schedule in each income tier was chosen to achieve the end result of assignment of 666 families in each income tier to the alternative schedule. In fact, a smaller-than-projected proportion of Tier 1 families and a larger-than-projected proportion of Tier 3 families were approved to receive subsidies during the sample enrollment period, with the result that more Tier 3 families than families in the other two tiers were assigned to the alternative copayment schedule.

<sup>15</sup> Kreider and Simmons (2003).

<sup>16</sup> U.S. Department of Commerce, Bureau of the Census (2000).

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**Table 3**

### **Sample Size, by Income Tier and Research Group**

Research Group	Tier 1	Tier 2	Tier 3
With standard copayment schedule	1,285	1,061	770
With alternative copayment schedule	521	708	761
Proportion assigned alternative schedule (%)	28.8	40.0	49.7

SOURCE: MDRC calculations from State of Washington administrative records.

Information from the subsidy applications indicated that the average family had a monthly income of \$1,425. The bottom two panels of Table 4, which are based on data from various administrative records sources, show that the average family was in fairly modest economic circumstances. Parents worked 2.7 quarters on average in the year before entering the study, for an employment rate of nearly 70 percent, but about half received TANF and three-quarters received food stamps. Nearly 80 percent received subsidies in the year prior to entering the study and 65 percent were receiving subsidies at study entry (not shown in the table).

The mean economic characteristics mask considerable variation across the income tiers (not shown in the table). For example, average monthly income reported on the subsidy application ranged from \$666 for families in Tier 1 to \$2,225 for families in Tier 3. In the year before they entered the study, Tier 3 families earned on average more than \$15,000 and had an 80 percent employment rate. In contrast, average income during that year was only about \$5,000 for Tier 1 families, and on average those families had less than a 50 percent employment rate. While 76 percent of Tier 1 families received TANF in the year before entering the study, only 27 percent of Tier 3 families received TANF during that year.

Finally, it is worth noting that the time of the study was one of economic growth in Washington, with unemployment rates declining from 5.5 percent in 2005, when families entered the study, to 4.9 percent in 2006 and 4.5 percent in 2007.<sup>17</sup> Consequently, jobs might have been relatively easy to find for families assigned to either copayment schedule.

### **Implementing the Alternative Copayment**

Most of the work needed to implement the alternative copayment schedule was invisible to subsidy recipients. Parents applied for subsidies as usual through one of the state's

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<sup>17</sup>U.S. Department of Commerce, Bureau of Labor Statistics (2009).

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Table 4**

**Selected Weighted Characteristics of Applicants at Baseline, by Research Group**

Variable and Category	Alternative Copayment Group	Standard Copayment Group	Total
<b><u>Baseline Application</u></b>			
<b>Marital status (%)</b>			
Never married	58.8	57.8	58.2
Separated	12.8	12.3	12.5
Legally separated	3.8	3.5	3.6
Divorced	12.9	12.5	12.6
Married, living with spouse	11.0	12.8	12.1
Married, living apart	0.4	0.6	0.5
Widowed	0.5	0.5	0.5
<b>Race/ethnicity (%)</b>			
White	59.0	59.6	59.4
Black	11.8	12.7	12.3
Hispanic	17.2	18.0	17.7
Asian	3.2	2.9	3.0
Native American	3.4	2.3	2.7
Other	5.4	4.5	4.9
<b>Other</b>			
Average age of participant	28	28	28
Average monthly income (\$)	1,415	1,431	1,425
Average household size	3.1	3.1	3.1
Average number of children in subsidized care	1.7	1.7	1.7
<b><u>Administrative Records Data</u></b>			
<b>Employment and earnings in prior year</b>			
Number of quarters employed	2.7	2.7	2.7
Total earnings (\$)	9,927	9,985	9,962
<b>Public assistance receipt in prior year</b>			
Ever received TANF (%)	51.3	50.6	50.9
Ever received food stamps (%)	75.1	75.8	75.6
Ever received child care subsidies (%)	79.8	79.9	79.8
Sample size	1,990	3,116	5,106

SOURCE: MDRC calculations from baseline application form and the State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

regional call centers and all parents used the standard application form (reproduced in Appendix A). In addition, parents faced the same eligibility criteria whether they were assigned to the standard or alternative copayment.

Behind the scenes, the state made a number of changes to its management information system (MIS) to implement the study:

- The system was changed to allow staff processing applications to enter information on the number of subsidized children. Previously, this information was not needed to process applications, but it was needed to calculate copayment amounts for Tier 3 families under the alternative copayment schedule.
- For confidentiality reasons, the state, rather than the research team, carried out randomization. MDRC staff suggested an algorithm that would produce a string of pseudo-random numbers. Each day, these pseudo-random numbers were used to assign individuals whose applications had been approved to either the alternative or standard copayment group.
- The MIS had to be altered to calculate new copayment levels for Tier 2 and Tier 3 families. After copayments had been calculated, the MIS generated a letter to study members indicating that they had been approved to receive subsidies and what their copayment amounts were. The letter also informed them that they were being included in a study. Copies of the letter sent to two research groups are included in Appendix A. In addition, the state sent all families who were approved to receive subsidies a form indicating how their copayments were calculated and how the copayments would change if the families' incomes changed. A copy of this letter for a hypothetical person is included in Appendix A.

To make sure call center staff provided accurate information to families applying for subsidies, supervisors of regional call center staff received training from state agency staff in Olympia. Supervisors then trained their local staffs, explaining the purpose of the study, describing the alternative copayment schedule and the types of unusual copayments that might show up in the MIS (such as copayments between \$15 and \$50 for Tier 2 families), and instructing call center staff to record the number of children in care when entering application information into the MIS. In addition, call center staff used a set of scripts to address any questions from subsidy recipients or applicants about the study. A copy of one of these scripts is provided in Appendix A.

MDRC monitored the enrollment process by analyzing daily files from the state that included information on the number of people who had been enrolled that day, the demographics of new enrollees (including income for determining their income tiers), whether they had been assigned the standard or alternative copayment schedule, and whether they had been assigned the correct copayment amount. The first day of monitoring uncovered two problems with the changes in the MIS: (1) some families were not being assigned in accordance with the algorithm the state had intended to use to generate random numbers, and (2) some Tier 2 families assigned the alternative copayment schedule were given a copayment of \$50 rather than a copayment that varied between \$15 and \$50, depending on their incomes. Because regional call centers downloaded the new MIS over a number of days and the state corrected both problems quickly, only 37 out of the 5,106 families included in the study were assigned to the wrong copayment schedule. Because these families were about equally likely to have been assigned incorrectly to the standard copayment schedule as to the alternative schedule, they were kept in the study. In addition, copayments for 58 families were incorrectly set at baseline, although these errors were corrected the next time the family applied for subsidies at the time that the system calls “re-determination,” (the point when eligibility for benefits and their size is to be recalculated).

Although the state’s implementation of the study was mostly successful, the effects of reduced copayments are likely to have been small unless parents understood how their behavior affected their copayment amounts. To promote this understanding, the letter sent to successful subsidy applicants included a formula indicating how their copayments would change if their incomes changed. However, this letter only briefly described what could have been a complicated calculation, especially for families in the highest income tier. Perhaps as a result of the complexities, a survey of sample members conducted after random assignment found that only 44 percent of parents who received subsidies could come within \$10 of identifying how much their copayments would increase if their monthly incomes increased by \$100.

## **Data Sources**

This report uses data from three administrative records sources: the child care subsidy system, the unemployment insurance (UI) system, and the public assistance system that includes TANF and food stamp data. In particular, the following data were available for the analysis:

- **Baseline data** from the subsidy application completed shortly before random assignment provide information on household size, number of subsidized children, monthly income, race and ethnicity, marital status, and the office where the application was processed. In addition, state MIS data provide information on the copayment amounts that parents were assigned at this point.



- **The child care subsidy system** provides information that includes estimated copayment amounts (based on what was authorized rather than what was actually paid), number of subsidized children, type of care for each subsidized child, and amount paid by the state to providers. While these data provide accurate information whenever families used subsidies, they do not yield information on the type and cost of care that a family used when the family was not receiving subsidies.
- **Unemployment insurance (UI) data** provide information on earnings and hours worked each quarter for each employer. Although UI data provide accurate information on earnings and employment for jobs that are covered by the UI system, they do not include information on informal employment, employment for the federal government, or employment outside Washington.
- **Monthly public assistance data** provide information on TANF and food stamp payments to the household each month. These data have the same drawback as other administrative data sources: Namely, they do not include information on public assistance that was received outside Washington.

Data were used for the year prior to random assignment through two years following random assignment, that is, from October 2004 through December 2007. 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, the data can be used to compare employment, earnings, and public assistance receipt rates for all program group and control group families and thus they can be used to estimate the effect of the alternative copayment schedule on these outcomes.

Likewise, data from the child care subsidy system can be used to determine the effect of the alternative copayment schedule on whether families received subsidies. However, subsidy data cannot be used to determine whether the program changed the types of child care arrangements families used, because, as noted, these data do not indicate the types of child care families used when they did not receive subsidies. In particular, if more program group families than control group families received subsidies, the subsidy system would provide information on child care type for more program group families than control group families, and thus any comparison between these two groups of families would confound the effect of the program on child care type with differences in the types of families that continued to receive subsidies.

To supplement data from administrative records and learn more about child care arrangements, employment, and other outcomes, a survey was fielded with 2,500 study participants. Because only 34 percent (848) of the fielded sample responded to the survey and respon-

dents were not representative of the full study sample, survey data are not included in the impact analysis in this report, although some of the data are used descriptively in several places to provide some context for understanding the sample and sample members' knowledge of the subsidy system.

The fact that survey data could serve as only a relatively minor source of information for the study imposes several limitations on the analysis presented in this report. First, although one of the study's original purposes was to determine whether reduced copayments affect the types of child care arrangements that a family uses, the lack of survey data, combined with the difficulties of using administrative subsidy data to analyze the relationship between lower copayments and types of child care, means that this report has little to say about that relationship. (However, the discussion of findings presented in the next section does present an analysis that uses administrative data to try to shed light on the relationship.)

A second limitation concerns disposable income. Child care subsidies are likely to increase families' disposable income by reducing the amounts they have to pay for care. Reduced copayments may increase disposable income not only directly but indirectly — by encouraging families who might not have otherwise received subsidies to do so. But because survey data are the only source of information on families' out-of-pocket child care expenses, this report has little to say about the disposable-income issue.

Finally, while administrative data provide information on income from earnings, TANF, and food stamps, they do not encompass other sources of information that are used to determine subsidy eligibility and copayment amounts — for example, other family members' earnings, which were asked about on the survey. Consequently, results in this report may understate how much families change their total incomes in response to the alternative copayment schedule.

## **Statistical Issues Associated with the Analysis**

Because of random assignment, the effects of the alternative copayment can be estimated by comparing the outcome levels after random assignment for families assigned to the alternative copayment schedule (the program group) and those assigned to the standard copayment schedule (the control group). This difference is known as an “impact estimate.”<sup>18</sup> See Box 1 for information on how to read a table of impact estimates in this report.

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<sup>18</sup>Although the 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, including subsidy use, employment and earnings, and TANF and food stamp receipt, all measured for the year prior to random  
(continued)

## Box 1

### How Impacts are Estimated and Reported

Because families were randomly assigned to the alternative or standard copayment schedule, the effects of the alternative copayment schedule 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 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 of numbers. In this case, the program was estimated to have increased subsidy receipt by 0.5 months in Year 1, 0.7 months in Year 2, and 1.1 months overall.

#### Example of Estimated Impacts on Child Care Subsidy Receipt

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
Months of subsidy receipt, year 1	8.0	7.5	0.5 **	0.2
Months of subsidy receipt, year 2	4.8	4.2	0.7 ***	0.2
Months of subsidy receipt, total	12.8	11.7	1.1 ***	0.4
Sample size (total = 1,531)	761	770		

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. For example, the estimated impacts on subsidy receipt in Year 2 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. This is a measure of how precise the estimated impact is. It is similar to the margin of error that is reported in political polling — for example, polling done 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 0.1 percentage points ( $0.5 - 2 \times 0.2$ ) and 0.9 percentage points ( $0.5 + 2 \times 0.2$ ).

assignment, number of subsidized children, age of youngest child, race and ethnicity, presence of the other parent in the household, family size, and age of the parent who applied for subsidies.

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 was effective, but it does not eliminate it. For any given outcome, there is a 10 percent chance that an ineffective program could result in a statistically significant impact estimate on that outcome. Moreover, the chance of incorrectly concluding the program was effective increases with the number of impact estimates that are examined. (This is sometimes called the multiple comparison problem.) With 10 estimates, for example, it is very likely that one will be statistically significant even if the program is not effective. With hundreds of impact estimates — as are presented in this report — an ineffective program would generate a number of statistically significant results.

Several approaches were used to limit the possibility of these chance findings. First, the report limited the number of outcomes and subgroups examined to reduce the chance of an erroneous positive conclusion. To do that, the research team focused on outcomes most likely to be affected by the intervention. In each case, more detailed results are presented in an appendix but are not used to draw conclusions about the effectiveness of the program.<sup>19</sup>

A second method of reducing the possibility of incorrectly concluding that the program was effective was to compare results with the hypotheses described earlier. Statistically significant results that are not consistent with those hypotheses are more likely to be chance findings and therefore discounted in drawing conclusions about the study. For example, a finding that the program reduced rates of subsidy receipt would be viewed with great skepticism.

## **Estimated Effects of the Alternative Copayment Schedule**

This section presents the estimated effects of the reduced copayment schedule on subsidy receipt rates, employment rates, income, and rates of receipt of public assistance through TANF and food stamps. Here is an overview of key findings:

- The alternative copayment schedule increased subsidy use for families in all three income tiers. For families in Tier 3, the program's effect on subsidies emerged around the time families had to reapply for benefits at redetermination, and peaked around the end of the year after random assignment.

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<sup>19</sup>Although the research team considered making a statistical adjustment for multiple comparisons, no adjustment was made.

- The alternative copayment schedule did not increase employment or earnings, reduce TANF or food stamp receipt rates, or increase income for any of the income tiers or for the full sample.
- Effects were estimated for several sets of subgroups of Tier 3 families defined by number of subsidized children at the time of random assignment, age of the youngest subsidized child at the time of random assignment, type of care used at the time of random assignment, and employment in the year prior to random assignment. These results are shown in Appendix B rather than in the body of this report, because, with one exception, estimated impacts were rarely statistically different across subgroups.

As described earlier, the alternative and standard copayment schedules differed substantially for families in income Tier 3 but by much less for families in Tiers 1 and 2. Thus, the more detailed presentation of the findings that is given in the balance of this section opens with a discussion of the effects for Tier 3, where the impacts were expected to be the greatest. Later on, the section also presents results for the full sample, which encompasses all three income tiers.

### **Estimated Effects for Families in Tier 3**

Figure 3 shows the estimated effects of the alternative copayment schedule on monthly subsidy receipt rates for Tier 3 families. The two lines show the percentage of families assigned the alternative and standard copayment schedules that received child care subsidies in each month. The difference between the two lines represents the estimated effect of the difference in schedules.

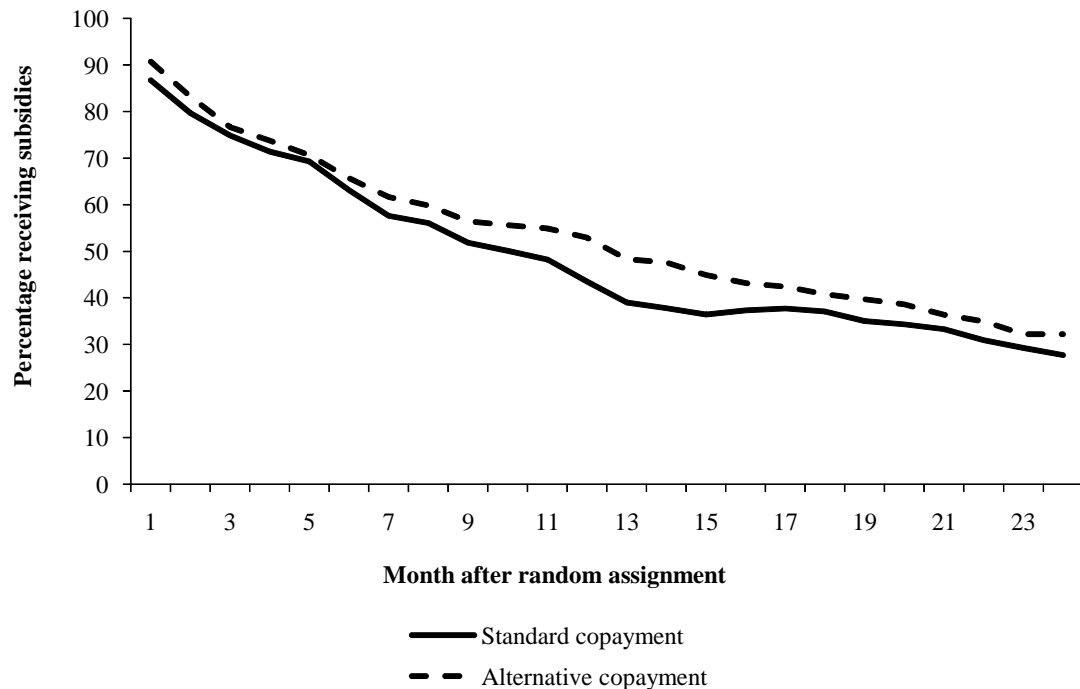
Although subsidy receipt rates dropped from about 90 percent just after random assignment for both groups, it dropped less for the alternative copayment program group, suggesting that lower copayments encourage subsidy use. In the middle of the follow-up period, in particular, the gap between the groups began to grow, reaching a peak of more than 9 percentage points at the end of the first year and beginning of the second year. In the last third of the follow-up period, the gap decreased, returning to its former pattern of hovering around 4 percentage points.

Prior research has found that many families stop receiving subsidies when they have to reapply for benefits at the time of their redetermination. Redetermination is often when the state learns that parents are no longer eligible for subsidies because they have stopped working or their incomes have increased enough to make them ineligible for subsidies. Parents might simply not reapply at this point because they realize they are no longer eligible. Also at redetermination, a parent whose income has increased over time may see an increase in her copy-

## The Evaluation of Child Care Subsidy Strategies: Washington

Figure 3

### Estimated Impacts on the Percentage of Families Receiving Child Care Subsidies for Families in Income Tier 3 at Random Assignment



SOURCE: MDRC calculations from State of Washington administrative records.

ment and therefore might decide to stop receiving subsidies, especially if she has a less expensive alternative outside the subsidy system. Given this possible scenario, it is reasonable to predict that redetermination might be a point at which an alternative subsidy schedule like the one used in this evaluation would have its greatest effect. This is because parents who were paying under the alternative schedule and whose incomes had risen would see less negative effect on their copayment levels than under the standard schedules and therefore might be more likely to choose to continue receiving subsidies.

In Washington, redetermination occurred every six months for most families. If families were responding differently to the alternative and standard copayments at the time of their redetermination, the impacts should have grown around that time. Figure 3 is consistent with

this possibility since it shows a difference between the two groups opening up about six months after random assignment.

Figure 4, which further explores this issue, shows the percentage of families in the two research groups who stopped receiving subsidies in each month. For example, about 9 percent of both groups stopped receiving subsidies in the month after random assignment. Likewise, about 8 percent of families stopped receiving subsidies in the second month after random assignment.

Families assigned the standard copayment stopped receiving subsidies in greater numbers than those assigned the alternative copayment at two points: month 7 and months 12 and 13. In month 7, for example, 6.6 percent of families assigned the standard copayment stopped receiving subsidies for the first time, compared with 5 percent of families assigned the alternative copayment. Likewise, 9.6 percent of families assigned the standard copayment, compared with 6.1 percent of those assigned the alternative copayment, stopped receiving subsidies after 11 or 12 months. Like the patterns shown in Figure 3, these patterns are consistent with the possibility that the intervention affected subsidy receipt rates primarily at the time of redetermination.

The next question is whether increased receipt rates of child care subsidies resulted in increased employment rates. Recall that Tier 3 parents had incomes of at least \$1,843 per month when they entered the study — an income level that is consistent with working full time at a job that pays more than \$10 per hour.<sup>20</sup> Moreover, 77 to 88 percent of Tier 3 parents worked in any given quarter in the year prior to random assignment. This suggests that subsidies probably could not increase employment levels much among these parents, but that subsidies could help families stay at work or help them return to work if they lost jobs.

In addressing the question of the relationship between higher subsidies and employment, it is also important to remember that parents could qualify for subsidies in one of three ways: by working, by participating in an approved welfare-to-work activity, or by attending high school or preparing for a GED while under age 22. Parents in Tier 3 had too much income to be receiving TANF, and only one in seven was young enough to qualify for a subsidy on account of pursuing a high school credential. Thus, most subsidy recipients in this group were

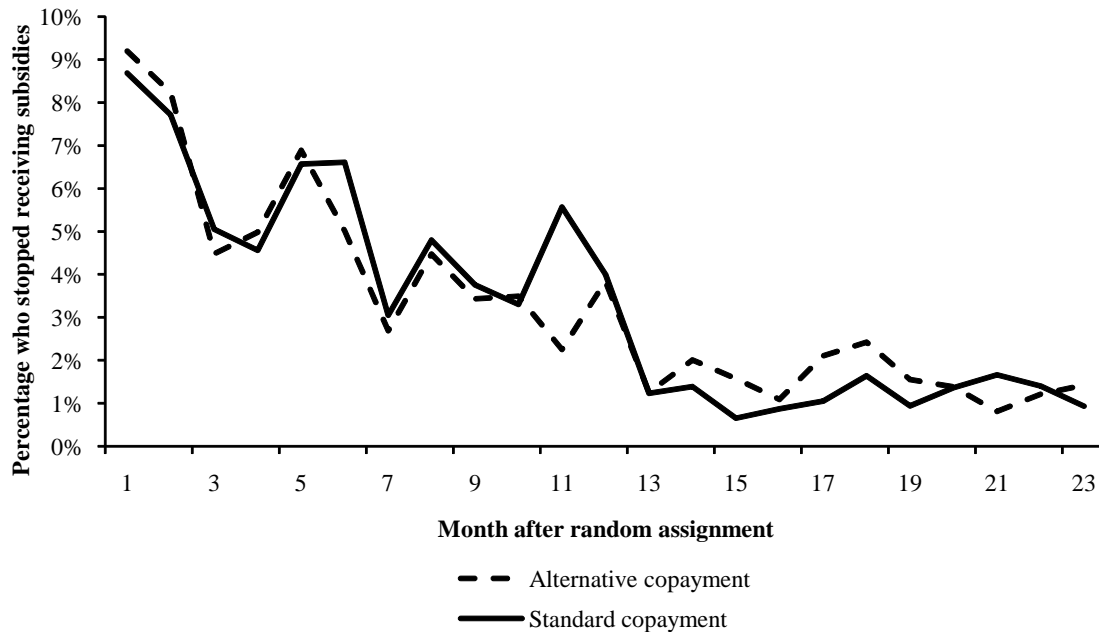
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<sup>20</sup>This calculation assumes that all of the family's income is from the parent's earnings. Although few parents reported another adult in the household on their child care subsidy applications, they might have had other income that counted in determining their eligibility and copayments. The state provided the research team only with the total family income supplied on the application form. Thus, it is possible that parents worked more hours than are consistent with this calculation. As indicated in Table 5 below, the average parent in Tier 3 worked about 1,450 hours in the year after random assignment, which averages 29 hours a week over 50 weeks. This is another indication that many Tier 3 parents were working close to or at full time.

## The Evaluation of Child Care Subsidy Strategies: Washington

Figure 4

**Percentage of Families Who Stopped Receiving Subsidies, by Month after Random Assignment, for Families in Income Tier 3 at Random Assignment**



SOURCE: MDRC calculations from State of Washington administrative records.

working. One way to think about the question of whether the program increased employment for Tier 3 families, then, is whether control group families were less likely than program group families to be working because they were less likely to be receiving subsidies, or whether those control group families were able to continue working even after they stopped receiving subsidies.

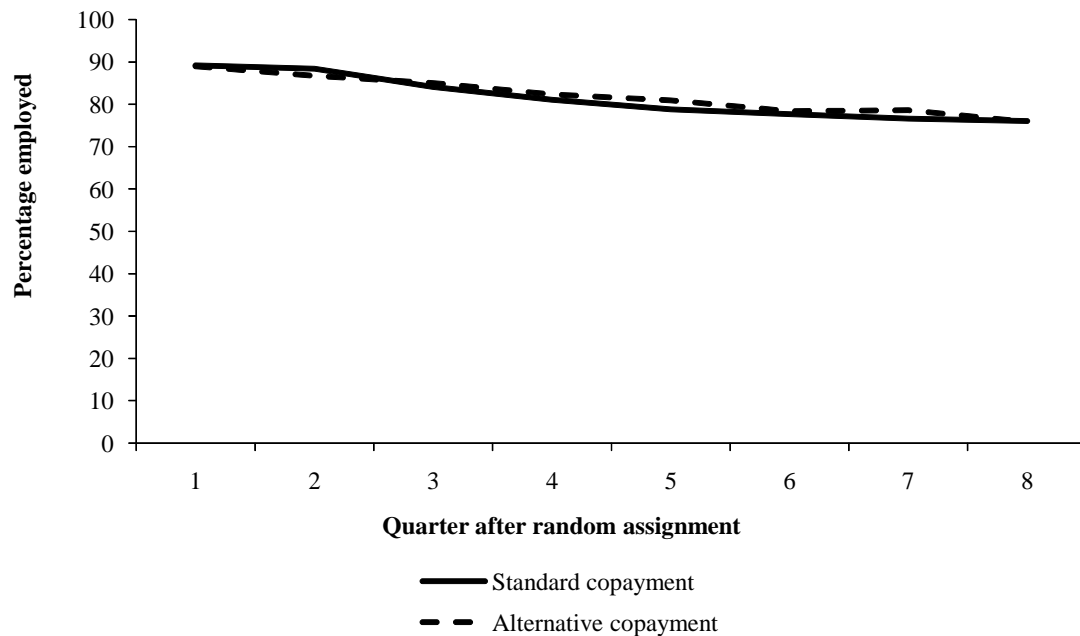
Figure 5 explores this question by showing the percentage of Tier 3 parents who worked, according to quarterly UI records. Employment rates for the two groups are virtually identical, indicating that reduced copayments and increased subsidy receipt rates did not lead to increased employment. It is important to note that 80 to 90 percent of both groups worked in any particular quarter, leaving little room for the intervention to increase employment.



## The Evaluation of Child Care Subsidy Strategies: Washington

Figure 5

### Estimated Impacts on Quarterly Employment Rates for Families in Income Tier 3 at Random Assignment



SOURCE: MDRC calculations from State of Washington administrative records.

Table 5 summarizes these results by year and for the full follow-up period and also shows estimated effects on income and receipt of public assistance.<sup>21</sup> Like Figures 4 and 5, the table presents outcome levels for both the alternative and standard copayment groups and the difference between outcome levels for the two groups, which is the estimated effect of the alternative copayment schedule. Results of statistical significance tests are presented using stars. A star next to an outcome indicates that the difference is unlikely to be due to chance and suggests that the alternative copayment schedule made a difference for that outcome. The final column of the table shows the estimated impact's standard error, which is similar to the margin of error reported in polling results.

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<sup>21</sup>Results by month for subsidy, TANF, and food stamp receipt rates and results by quarter for UI-reported employment and earnings for families in Tier 3 at random assignment are shown in Appendix C.

## The Evaluation of Child Care Subsidy Strategies: Washington

**Table 5**

### **Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Year 1</u></b>				
Months of subsidy receipt	8.0	7.5	0.5 **	0.2
Quarters of employment	3.4	3.4	0.0	0.1
Earnings (\$)	18,406	18,372	35	431
Hours worked	1,451	1,460	-9	34
Months of TANF or food stamp receipt	3.0	3.3	-0.3	0.2
Total measured income (\$)	19,597	19,584	13	412
<b><u>Year 2</u></b>				
Months of subsidy receipt	4.8	4.2	0.7 ***	0.2
Quarters of employment	3.1	3.1	0.0	0.1
Earnings (\$)	18,392	18,093	299	623
Hours worked	1,315	1,328	-14	42
Months of TANF or food stamp receipt	3.2	3.5	-0.2	0.2
Total measured income (\$)	19,727	19,464	263	598
<b><u>Total</u></b>				
Months of subsidy receipt	12.8	11.7	1.1 ***	0.4
Received subsidies for 7 consecutive months (%)	63.4	60.8	2.6	2.4
Received subsidies for 13 consecutive months (%)	38.5	29.9	8.7 ***	2.4
Quarters of employment	6.6	6.5	0.0	0.1
Earnings (\$)	36,798	36,465	333	954
Hours worked	2,767	2,807	-41	69
Months of TANF or food stamp receipt	6.3	6.8	-0.5	0.3
Total measured income (\$)	39,324	39,048	276	911
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The table confirms what was evident from the figures. The alternative copayment schedule increased subsidy receipt rates as measured in several different ways: When compared with families assigned the standard copayment schedule, families under the alternative copayment schedule received subsidies for an additional half month in each year. Families using the alternative schedule also had more stable patterns of subsidy receipt: They were substantially

more likely to receive subsidies for 13 or more consecutive months, and on average members of the program group received subsidies for 1.1 months longer than members of the control group. The table also verifies that reduced copayments did not improve employment outcomes for families in Tier 3. Families were about equally likely to work, and on average earned similar amounts and worked similar hours regardless of which copayment schedule they had. Reduced copayments also did not appear to affect receipt rates for TANF or food stamp benefits — a finding that is consistent with the lack of effects of reduced copayments on employment. Finally, the last row in each panel indicates that the program did not increase total measured income (income from earnings, TANF, and/or food stamps). This finding is not surprising since there were no effects on any of the components of this income measure.

### **Effects on Type of Care**

In light of the increase in subsidy receipt rates, an obvious question is one that has been discussed earlier — whether parents were able to use subsidies to change the types of child care arrangements they used. As has also been discussed, since copayments in Washington do not vary with the type of care, a family that would have used informal care if they did not receive subsidies might have used the subsidy to switch to more expensive forms of care such as centers and licensed day care homes. The stability of subsidy receipt might also have helped families use more expensive forms of care.

In the absence of survey data, which are the best data source on child care arrangements for families who did not use subsidies, administrative data may be able to shed some light on the question of whether parents used subsidies to change their care arrangements. If administrative data show that more program group families than control group families used center care and licensed homes and fewer used informal care while receiving subsidies, this would suggest that reduced copayments encouraged families to switch to more expensive care. By contrast, if program group families were more likely than control group families to use all types of care while receiving subsidies, this could mean that reduced copayments simply encouraged more families to receive subsidies without changing their types of care.

Table 6 shows the results of this analysis. At four points in time — months 6 and 12 of each follow-up year — the table shows the proportion of Tier 3 families in four categories: (1) those who did not receive subsidies in that month, (2) those who used subsidies for center care in that month, (3) those who used subsidies for a licensed day care home, and (4) those who used subsidies for unlicensed home-based care. Placing families into these categories capitalizes on the advantages of random assignment by allowing for comparisons of proportions using different kinds of care among the entire program and control groups.

Consider what happened six months after random assignment. At that point in time, program group families were not significantly more likely to be using subsidies: 34.3 percent of

## The Evaluation of Child Care Subsidy Strategies: Washington

**Table 6**

### **Estimated Impacts on Type of Child Care Used While Receiving Child Care Subsidies for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Year 1, Month 6 (%)</u></b>				
Did not receive subsidies	34.3	36.9	-2.5	2.3
Received subsidies and used center care	37.7	38.0	-0.3	2.4
Received subsidies and used licensed day care home	18.6	19.4	-0.7	2.0
Received subsidies and used home-based care (relative or nonrelative)	12.2	8.4	3.8 **	1.5
<b><u>Year 1, Month 12 (%)</u></b>				
Did not receive subsidies	47.1	56.5	-9.4 ***	2.5
Received subsidies and used center care	32.1	25.5	6.6 ***	2.3
Received subsidies and used licensed day care home	13.6	12.9	0.7	1.7
Received subsidies and used home-based care (relative or nonrelative)	9.0	6.7	2.3 *	1.4
<b><u>Year 2, Month 6 (%)</u></b>				
Did not receive subsidies	59.2	62.9	-3.7	2.5
Received subsidies and used center care	26.4	22.4	4.0 *	2.2
Received subsidies and used licensed day care home	10.4	11.1	-0.7	1.6
Received subsidies and used home-based care (relative or nonrelative)	6.2	5.2	1.0	1.2
<b><u>Year 2, Month 12 (%)</u></b>				
Did not receive subsidies	67.8	72.3	-4.5 *	2.3
Received subsidies and used center care	19.4	14.9	4.5 **	1.9
Received subsidies and used licensed day care home	8.2	9.2	-1.0	1.4
Received subsidies and used home-based care (relative or nonrelative)	6.0	4.5	1.5	1.1
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

Chi-square tests were used to test the statistical significance of the distribution of types of care at each point in time. The tests found statistically significant differences in Year 1, Month 12 (p-value = 0.002); and Year 2, Month 12 (p-value = 0.065).

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

those assigned to the alternative copayment schedule did not receive subsidies that month, compared with 36.9 percent of those assigned to the standard copayment schedule. Nevertheless, the program group was significantly more likely to use subsidies for unlicensed care; 12.2 percent of the program group received subsidies for unlicensed care, compared with 8.4 percent of the control group. This set of results could mean that more program group families used unlicensed care than control group families, or it could merely indicate that families who used unlicensed care were more likely to receive subsidies at the six-month point.

The story is somewhat different at the other three time periods. In each case, fewer program group families were not receiving subsidies — that is, more program group families were receiving subsidies — and more program group families than control group families used subsidies for center care. In month 12 of the first year, for example, when the program effect on subsidy receipt was near its peak, 32.1 percent of the alternative copayment group used subsidies for center care compared with 25.5 percent of the standard copayment group.

However, it is not clear what to conclude from this finding. The intervention might have encouraged families who would have used center care anyway to remain in the subsidy system, or it could have encouraged families to switch to center care by encouraging them to continue to receive subsidies. The results are inconclusive.

### **Estimated Effects for the Full Sample**

Although effects were expected to be largest for families in Tier 3, the alternative copayment schedule also reduced copayments modestly for most families in Tier 2. In addition, the reduced copayments amounts at higher income levels under the alternative copayment schedule provided incentives for families in both Tiers 1 and 2 to increase their earnings. For families that did increase their incomes, the alternative copayment schedule generally allowed copayments to increase more gradually than under the standard schedule. All of these factors might have encouraged parents to work more and to receive subsidies for a longer time. Thus, there were incentives to change employment or use of subsidies in Tiers 1 and 2 as well as in Tier 3.

Table 7 explores whether incentives did lead to changes for the full sample of parents involved in the study.<sup>22</sup> This is the best estimate of the effects that a statewide change to the alternative schedule would have.

As the table shows, the program had little effect overall in the year after random assignment; program group and control group families were about equally likely to receive

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<sup>22</sup>Results by month for subsidy, TANF, and food stamp receipt and by quarter for UI-reported employment and earnings for the full sample are shown in Appendix D.

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**Table 7**

### **Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families across All Income Tiers at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Year 1</u></b>				
Months of subsidy receipt	7.9	7.7	0.2	0.1
Quarters of employment	3.0	3.0	0.0	0.0
Earnings (\$)	12,784	12,680	104	225
Hours worked	1,096	1,100	-3	19
Months of TANF or food stamp receipt	7.1	7.1	0.0	0.1
Total measured income (\$)	16,010	15,987	23	214
<b><u>Year 2</u></b>				
Months of subsidy receipt	5.4	4.8	0.6 ***	0.1
Quarters of employment	2.7	2.7	0.0	0.0
Earnings (\$)	13,149	13,260	-111	308
Hours worked	1,034	1,048	-14	23
Months of TANF or food stamp receipt	6.1	6.1	-0.1	0.1
Total measured income (\$)	16,033	16,181	-148	296
<b><u>Total</u></b>				
Months of subsidy receipt	13.3	12.6	0.7 ***	0.2
Received subsidies for 7 consecutive months (%)	64.4	62.8	1.6	1.3
Received subsidies for 13 consecutive months (%)	39.9	35.4	4.6 ***	1.3
Quarters of employment	5.7	5.7	0.0	0.1
Earnings (\$)	25,933	25,940	-7	487
Hours worked	2,116	2,151	-35	39
Months of TANF or food stamp receipt	13.1	13.2	-0.1	0.2
Total measured income (\$)	32,043	32,168	-125	465
Sample size (total = 5,106)	1,990	3,116		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

subsidies, work, and receive public assistance. In the second year, however, program group families on average received subsidies for 0.6 months more than control group families (compared with a difference of 1.1 months for Tier 3 families). Over the two-year follow-up period, program group families were also more likely than control group families to receive subsidies for 13 consecutive months (39.9 percent of the program group compared with 35.4 percent of the control group). Despite these positive effects on subsidy receipt rates in the second year,

program group families continued to be no more likely than control group families to work and no less likely to receive TANF or food stamps.

The structure of the copayment schedules suggests that the program's effect is likely to differ by income tier. Consider families in Tier 1. Regardless of their copayment schedules, these families paid \$15 each month for care immediately after random assignment. They therefore faced the same immediate incentives to work or use subsidies. However, forward-looking individuals facing the alternative copayment schedule would have seen a smaller rise in their monthly payments if they moved into Tier 2 or 3 than similar parents using the standard copayment schedule. This might have encouraged some to work and earn more. In addition, those who happened to move into a higher income tier by their next redetermination would notice a smaller increase in their copayments under the alternative schedule. This could have encouraged more families under the alternative schedule to stay in the subsidy system, which could have altered their employment choices and resulted in impacts that grew over time.

By contrast, Tier 3 families faced much lower copayments under the alternative copayment schedule, especially if their incomes placed them near the income ceiling for receiving subsidies. The program could therefore have resulted in an immediate effect on the choice to receive subsidies. At redetermination, the program would again have provided an incentive for families with the alternative schedule to continue receiving subsidies and conversely, for families with standard schedules to stop using them. Those under the standard copayment schedule would have seen a bigger increase in what they owed while receiving subsidies than those facing the alternative schedule and therefore might have been more likely to stop receiving subsidies.

Differences in income levels and work effort across the income tiers also might have resulted in differential effects on employment. Having income below 82 percent of the federal poverty level suggests that most Tier 1 parents were not working full time or were working in low-paying jobs that typically represent less stable employment opportunities. There was therefore some room for reduced copayments to increase employment stability or hours of work for this group of parents. By contrast, most parents in Tier 3 were already working full time or close to full time. The program was therefore unlikely to increase their work effort while in a job, although it might have provided both incentives and assistance for those who lost jobs to return to work quickly.

Table 8 shows whether the intervention affected families in Tiers 1 and 2 as well as in Tier 3.<sup>23</sup> Consistent with the fact that copayments were reduced the most for Tier 3 families, the intervention increased subsidy use the most for these families, but it also increased subsidy use

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<sup>23</sup>More detailed results for Tiers 1 and 2 are shown in Appendixes E and F.

## The Evaluation of Child Care Subsidy Strategies: Washington

**Table 8**

### Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt, by Income Tier at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Income Tier 1</u></b>				
Months of subsidy receipt	12.7	12.0	0.6	0.4
Received subsidies for 7 consecutive months (%)	59.6	58.5	1.1	2.5
Received subsidies for 13 consecutive months (%)	37.2	32.5	4.7 **	2.4
Quarters of employment	4.6	4.6	0.1	0.1
Earnings (\$)	16,324	15,872	452	785
Hours worked	1,406	1,408	-2	68
Months of TANF or food stamp receipt	18.8	19.1	-0.3	0.3
Total measured income (\$)	26,520	26,287	233	744
Sample size (total = 1,806)	521	1,285		
<b><u>Income Tier 2</u></b>				
Months of subsidy receipt	14.5	13.8	0.6 *	0.4
Received subsidies for 7 consecutive months (%)	70.9	68.5	2.3	2.2
Received subsidies for 13 consecutive months (%)	43.9	43.1	0.9	2.4
Quarters of employment	6.1	6.1	0.0	0.1
Earnings (\$)	26,783	27,231	-448	844
Hours worked	2,320	2,350	-31	68
Months of TANF or food stamp receipt	13.2	12.9	0.3	0.4
Total measured income (\$)	31,763	32,221	-459	806
Sample size (total = 1,769)	708	1,061		
<b><u>Income Tier 3</u></b>				
Months of subsidy receipt	12.8	11.7	1.1 ***	0.4
Received subsidies for 7 consecutive months (%)	63.4	60.8	2.6	2.4
Received subsidies for 13 consecutive months (%)	38.5	29.9	8.7 ***	2.4
Quarters of employment	6.6	6.5	0.0	0.1
Earnings (\$)	36,798	36,465	333	954
Hours worked	2,767	2,807	-41	69
Months of TANF or food stamp receipt	6.3	6.8	-0.5	0.3
Total measured income (\$)	39,324	39,048	276	911
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



to some extent for lower-income families. However, there was little effect on employment, earnings, or use of public assistance across the three income tiers.

## **Discussion of Results**

The results presented above indicate that a reduced copayment schedule led families to stop receiving subsidies more slowly than otherwise, and that this was especially true for higher-income subsidy recipients, for whom the alternative copayment represented the largest difference in payment amounts. Reducing copayments did not appear to affect employment, earnings, or hours worked.

For several reasons, these results should be interpreted cautiously. First, the study was conducted in just one state and tested the effects of varying only one policy. While the results provide credible evidence on the effects of a reduced copayment schedule for families included in the study sample, they might not represent what would happen somewhere else or they may not be a good guide to the effects of other copayment schedules. Second, the study included only families who were approved to receive subsidies during a one-month period in fall 2005. Although this period was chosen because many families apply for subsidies when their children return to school, it is possible that the effects would be different for parents who apply at other times during the year. Moreover, by including families that had already applied for benefits, the study does not speak to the possibility that reduced copayments might benefit a larger group of families by encouraging more parents to apply for benefits. Third, as noted, a survey suggests that most families did not fully understand how their copayments would change if they were to change their earnings, and this lack of understanding may have limited the effect of the policy change. Finally, reliable information on child care arrangements is not available for this study, and it is possible the alternative copayment schedule had substantial effects on the types of child care families used or on the stability of that care.



## **Appendix A**

### **Materials Used in Implementing the Study**



## A.1: Washington Child Care Subsidy Application



### STATE OF WASHINGTON DEPARTMENT OF SOCIAL AND HEALTH SERVICES WORKING CONNECTIONS CHILD CARE (WCCC)

Date: \_\_\_\_\_



\_\_\_\_\_  
PARENT/GUARDIAN

\_\_\_\_\_  
CASE NUMBER

FOLD

Dear Applicant:

We received your request for Working Connections Child Care. This application is being sent in response to your request.

**We will process your application and determine eligibility once you provide ALL the following information.**

- WCCC application/provider information (you must **complete** this even if you are in a WorkFirst activity);
- Provide the last three months of household income (such as copies of pay stubs, child support, Social Security Income, Supplemental Security Income (SSI), and any other income received by someone in your family). Include your employment schedule and a contact person and telephone number. You do not need to provide proof of income from cash assistance from the state (TANF).
- If you are newly employed and have no pay stubs, we will accept a statement from your employer showing a hire date, how much you are making (per hour, salary, etc.) and what your schedule will be. Please have the statement include a contact person and telephone number.
- Proof of court or administrative ordered child support payments (if applicable) and verification of payments made.
- If care is provided by an in-home/relative provider, the provider must meet the qualifications listed on page four of this form and you must submit the provider's:
  - Picture identification;
  - Social Security card;
  - Current address; and
  - Background Authorization form. You may get this form from your WCCC authorizing worker. **No payment will be made for care provided prior to the date all background check results are received.**

Please call the number below if you have any questions.

Worker's Name: \_\_\_\_\_ Telephone/Fax Number: \_\_\_\_\_

WCCC APPLICATION  
DSHS 14-417 (REV. 07/2004) TRANSLATED



Washington State  
Department of Social  
& Health Services

WORKING CONNECTIONS CHILD CARE (WCCC)

**WCCC APPLICATION**

PART 1. APPLICATION INFORMATION

Incomplete information may delay approval for  
services and payment. Type or print clearly.

DATE		WORKER'S NAME				
LOCAL OFFICE		TELEPHONE NUMBER				
APPLICANT'S NAME		SOCIAL SECURITY NUMBER (OPTIONAL)				
BIRTHDATE		CASE NUMBER				
ETHNICITY		TELEPHONE NUMBER				
GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female						
COMPLETE STREET ADDRESS, CITY, STATE, ZIP CODE						
<b>CHILDREN FOR WHOM YOU ARE RESPONSIBLE LIVING IN THE HOUSEHOLD</b>						
NAME (LAST, FIRST, MIDDLE INITIAL)	BIRTHDATE	GENDER	ETHNICITY	SOCIAL SECURITY NUMBER (OPTIONAL)	U.S. CITIZEN OR LEGAL RESIDENT	RELATIONSHIP TO APPLICANT
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>SPOUSE OR THE CHILD'S OTHER PARENT/GUARDIAN LIVING IN THE HOUSEHOLD (REQUIRED)</b>						
NAME	BIRTHDATE	SOCIAL SECURITY NUMBER (OPTIONAL)		RELATIONSHIP TO APPLICANT	RELATIONSHIP TO CHILDREN ABOVE	
<b>APPLICANT</b>				<b>SPOUSE OR SECOND PARENT/GUARDIAN</b>		
NAME OF EMPLOYER, WORKFIRST ACTIVITY, OR SCHOOL				NAME OF EMPLOYER, WORKFIRST ACTIVITY, OR SCHOOL		
ADDRESS (EMPLOYMENT, WORKFIRST ACTIVITY, OR SCHOOL)				ADDRESS (EMPLOYMENT, WORKFIRST ACTIVITY, OR SCHOOL)		
TELEPHONE NUMBER		DATE STARTED		TELEPHONE NUMBER		DATE STARTED
IF YOU ARE EMPLOYED, HOW OFTEN ARE YOU PAID <b>AND</b> YOUR WAGE				IF YOU ARE EMPLOYED, HOW OFTEN ARE YOU PAID <b>AND</b> YOUR WAGE		
<input type="checkbox"/> Weekly <input type="checkbox"/> Every two weeks <input type="checkbox"/> Twice a month <input type="checkbox"/> Monthly \$				<input type="checkbox"/> Weekly <input type="checkbox"/> Every two weeks <input type="checkbox"/> Twice a month <input type="checkbox"/> Monthly \$		
Do you pay child support? <input type="checkbox"/> Yes <input type="checkbox"/> No Monthly amount: \$ _____						
<b>MONTHLY SOURCES OF EARNED/UNEARNED GROSS INCOME FOR ALL FAMILY MEMBERS</b>						
<b>Include COPIES (for the last three months):</b>		NAME	SELF	NAME	NAME	NAME
Employment (gross, before taxes)						
Self-employment						
Temporary Aid to Needy Families (TANF)						
Child support received						
Social Security (SSI, SSA)						
VA, Disability, L&I, or Unemployment benefits						
Other (specify):						
Do you receive any vouchers to help you pay for housing? <input type="checkbox"/> Yes <input type="checkbox"/> No						

PARENT/GUARDIAN'S ACTIVITY SCHEDULE			
APPLICANT		SPOUSE OR SECOND PARENT/GUARDIAN	
ACTIVITY (EMPLOYMENT, SCHOOL, WORKFIRST ACTIVITY)		ACTIVITY (EMPLOYMENT, SCHOOL, WORKFIRST ACTIVITY)	
	WHAT IS YOUR SCHEDULE FOR EMPLOYMENT, SCHOOL, WORKFIRST ACTIVITY?		WHAT IS YOUR SCHEDULE FOR EMPLOYMENT, SCHOOL, WORKFIRST ACTIVITY?
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			
What date will child care begin: _____			
CHILDREN'S ACTIVITY SCHEDULE			
CHILDREN'S NAMES	SCHOOL SCHEDULE (EXACT DAYS AND TIMES)	CHILD CARE SCHEDULE (EXACT DAYS AND TIMES)	
Do you have a child with Special Needs? <input type="checkbox"/> Yes <input type="checkbox"/> No    If yes, please contact the Authorizing Worker for information about special needs payment rates.			
<b>HEARING RIGHTS</b>			
You have a right to a hearing. To request a hearing, contact this office or write to Office of Administrative Hearings, PO Box 42489, Olympia WA 98504-2489. You must request your hearing within 90 days of the date you receive the decision. At the hearing, you have the right to represent yourself, be represented by an attorney or by any other person you choose. You may be able to get free legal advice or representation by contacting an office of legal services.			
<b>I declare under penalty of perjury that the information given by me in this declaration is true, correct and complete to the best of my knowledge and realize that willful falsification of this information by me may subject me to penalties as provided in Washington State Law. (RCW 74.08.055)</b>			
FIRST PARENT/LEGAL GUARDIAN'S SIGNATURE	DATE	SECOND PARENT/LEGAL GUARDIAN'S SIGNATURE	DATE
<b>MEDICAL FOR YOUR CHILDREN</b>			
Did you know that you could get medical and dental coverage for your children? There is no waiting list and it's as easy as <b>1 - 2 - 3!</b>			
<ol style="list-style-type: none"> <li>1. Are you receiving any other type of assistance through the state, such as food stamps or cash assistance? <ul style="list-style-type: none"> <li>• <b>YES:</b> Call the financial worker in charge of your case and request medical coverage for your children.</li> <li>• <b>NO:</b> Call the toll free telephone number for Children's Medical assistance at 1-800-204-6429.</li> </ul> </li> <li>2. Provide the worker with the information they need to tell if you are eligible. They may already have this or be able to take it over the telephone.</li> <li>3. Receive the medical card in the mail.</li> </ol>			
<b>Don't wait - medical coverage for your children is as close as a phone call away!</b>			

Discrimination is prohibited in all programs and activities: No one shall be excluded on the basis of race, color, religion, creed, national origin, sex, age, marital status, disabled veteran or Vietnam-era veteran status, or handicap.



## WORKING CONNECTIONS CHILD CARE (WCCC)

**WCCC APPLICATION**

## PART 2. PROVIDER INFORMATION

(TO BE COMPLETED BY PARENT/GUARDIAN AND PROVIDER)

Type or print clearly.

Incomplete information may delay approval for payment.

## 1. PROVIDER'S NAME AND ADDRESS



DATE
WORKER'S NAME
LOCAL OFFICE
TELEPHON/FAX NUMBER
CASE NUMBER
PARENT/GUARDIAN'S NAME
PROVIDER NUMBER
EXPECTED START DATE FOR CARE

FOLD HERE FOR WINDOW ENVELOPE

## 2. TYPE OF CARE: CHECK THE CORRECT BOX IDENTIFYING THE TYPE OF CARE YOU PROVIDE

<input type="checkbox"/> Child Care Center	PROVIDER'S SSN OR FEDERAL TAX IDENTIFICATION NUMBER	LICENSE EXPIRATION DATE		
<input type="checkbox"/> Family Child Care Home	PROVIDER'S SSN OR FEDERAL TAX IDENTIFICATION NUMBER	LICENSE EXPIRATION DATE		
<input type="checkbox"/> Care in the Child's Home; see Page 4, Sections 5 and 7.	PROVIDER'S SSN	18 OR OVER? <input type="checkbox"/> YES <input type="checkbox"/> NO	BIRTHDATE	RELATIONSHIP TO THE CHILD
<input type="checkbox"/> Care in the Relative's Home; see Page 4, Sections 6 and 7.	PROVIDER'S SSN	18 OR OVER? <input type="checkbox"/> YES <input type="checkbox"/> NO	BIRTHDATE	RELATIONSHIP TO THE CHILD

## 3. ENTER THE DAYS AND TIMES YOU WILL PROVIDE CARE FOR THE FOLLOWING CHILDREN

NAMES	BIRTHDATE	DAYS AND TIMES CARE WILL BE PROVIDED, SPECIFY BEFORE AND AFTER SCHOOL TIMES

## 4. PROVIDER: ENTER THE DAILY RATES YOU CHARGE FOR CHILD CARE

What are the usual rates you charge to parent/guardians?  <b>This information must be provided before payment is authorized.</b>	INFANT	TODDLER	REGISTRATION FEE	IF YES, AMOUNT:  <input type="checkbox"/> NONE <input type="checkbox"/> ONE-TIME <input type="checkbox"/> FIELD TRIP FEE
	\$	\$		
	PRESCHOOL	SCHOOL AGE		
	\$	\$		
				PER CHILD <input type="checkbox"/> PER FAMILY <input type="checkbox"/>
				\$ _____ PER MONTH
				RATE

Contact the Authorizing Worker for payment rates for children with special needs.

I understand completing this form does not guarantee payment. If child care is authorized, I agree to child care payment at my usual rate or the DSHS rate, whichever is less.

PROVIDER'S SIGNATURE	<input type="checkbox"/> Director <input type="checkbox"/> Non-relative caretaker <input type="checkbox"/> Other	DATE	TELEPHONE AND FAX NUMBER (INCLUDE AREA CODE)
	<input type="checkbox"/> Owner <input type="checkbox"/> Relative caretaker		

FOR AGENCY USE ONLY: ☐ Check box if licensed provider information was obtained by telephone.



5. PARENT COMPLETE IF CARE OCCURS IN YOUR HOME			
<p>The following information is needed when child care is provided in your home by your adult child or your parent. If you live with the provider, we consider the provider's home your home too. Please complete 1, 2, or 3. <b>Incomplete information could delay payment.</b></p>			
<p>1. <b>The provider is my child</b> (natural, step, adopted, or foster) 18 through 20 years old. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>2. <b>The provider is my parent</b> (natural, step, adopted, or foster). <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, please check the box below that applies to you (the person applying for child care, not the child care provider).</p> <p><input type="checkbox"/> I am widowed. <input type="checkbox"/> I am divorced and not remarried. <input type="checkbox"/> I am married, separated, or never married.</p> <p><input type="checkbox"/> I live with my disabled spouse who is unable to care for my child for at least four continuous weeks in a calendar quarter.</p>			
<p>3. <input type="checkbox"/> <b>Neither 1 or 2 apply to me</b> (the person applying for child care, not the provider).</p>			
6. PROVIDER COMPLETE IF CHILD CARE OCCURS OUTSIDE OF THE CHILD'S HOME			
<p>The provider must be an adult relative. The relative must provide the department with the names and birth dates of all persons, 16 years of age or older, who live with that provider. <b>ONLY</b> list the names of household members who are 16 years of age or older.</p>			
NAME	BIRTHDATE	NAME	BIRTHDATE
<p>I certify that the persons listed above are the only individuals, 16 years of age or older, who reside with me. I understand that these individuals will be subject to the same background inquiry process as me. I also understand that if another person, 16 years of age or older, moves into my home while I am an authorized provider for WCCC, I must immediately notify the parent.</p>			
PROVIDER'S SIGNATURE			DATE
7. PARENT AND PROVIDER CERTIFICATION			
<p>Are you, the provider, a U.S. citizen or an alien legally able to work in the U.S.? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>The in-home/relative provider, according to WAC 388-290-0130 and 288-290-0135, must:</p> <ul style="list-style-type: none"> <li>Be 18 years of age or older.</li> <li>Provide care only in the children's home. Care may be provided in the provider's home only if he/she is one of the following relatives to the children; aunt, uncle, grandparent, sibling living outside the home, or a great aunt, great uncle or great grandparent.</li> <li>Not have a disqualifying criminal background under WAC 388-290-0160 or WAC 288-290-0165.</li> <li>Be of suitable character or competence.</li> <li>Be of sufficient physical and mental health to meet the needs of the children in care. If requested by the department, the parents must provide written evidence that the provider is of sufficient physical and mental health to be a safe child care provider.</li> <li>Be able to work with the children without using corporal punishment or psychological abuse.</li> <li>Be able to accept and follow instructions.</li> <li>Be able to maintain personal cleanliness.</li> <li>Be prompt and regular in job attendance.</li> <li>Ensure the home where care is provided is safe for the care of the children.</li> <li>Be informed about basic health practices, prevention and control of infectious disease, immunizations, and home and physical premises safety relevant to the care of the children.</li> <li>Provide constant care and supervision of the children throughout the arranged time of care in accordance with the needs of the children.</li> <li>Provide developmentally appropriate activities for the children.</li> <li>Immediately report, to the parent, any notice of criminal convictions or pending charges against the provider.</li> <li>Immediately report, to the parent, any criminal conviction or pending charges of any of the provider's household members when care occurs outside the child's home.</li> <li>Not be the child's biological, step or adoptive parent, legal guardian, in loco parentis, or the spouse of any of these individuals.</li> </ul>			

7. PARENT AND PROVIDER CERTIFICATION (CONTINUED)			
<p>I, as the parent/guardian, certify that my in-home/relative provider meets the requirements listed above. I understand that:</p> <ul style="list-style-type: none"> <li>• If I cannot make these assurances, payment will not be authorized.</li> <li>• Certain background information may disqualify my provider. It is my provider's responsibility to immediately tell me if they, or any person, 16 years of age or older living with the provider, when care occurs outside of the child's home are charged or convicted of any crime. I am then responsible to immediately tell my DSHS child care worker.</li> <li>• <b>No payment will be made for care provided prior to the date all background check results are received.</b></li> <li>• The amount I receive for child care from the Department of Social and Health Services (DSHS) is to be paid in total to my child care provider each month.</li> <li>• I must notify WCCC staff, within five days, if this provider stops child care.</li> <li>• I may be required to provide receipts, up to one year later, to the department showing I paid the provider.</li> <li>• I am required to keep attendance records of the hours that child care is provided for one year.</li> <li>• My provider must not care for more than six children at the same time (same hours and days).</li> </ul> <p><b>I declare under penalty of perjury that the information given by me in this declaration is true, correct and complete to the best of my knowledge and realize that willful falsification of this information by me may subject me to penalties as provided in Washington State Law. (RCW 74.08.055)</b></p> <p>Maximum in-home/relative child care rates are set by DSHS. Taxes may be withheld, when appropriate. In-home/relative provider will be sent a W-2 form by the end of January each year. The form will be sent to the last address DSHS has on file.</p>			
PARENT/GUARDIAN'S SIGNATURE	DATE	PROVIDER'S SIGNATURE	DATE

#### ALL CHILD CARE PROVIDERS

**By accepting DSHS child care payments, providers agree to the following:**

DSHS reserves the right to withhold approval/authorization for any child care request.

**Provider Notification Note:** Although staff will attempt to do so, DSHS is not required to give child care providers advance notice if benefits are reduced or terminated. Please note the family eligibility date as indicated on the Social Service Payment System (SSPS) payment authorization notice. Provider information booklets, "Child Subsidies, A Booklet for Licensed and Certified Child Care Providers," DSHS 22-877(X), and "A Guide to In-Home/Relative Child Care," DSHS 22-223(X) are available. Contact your authorizing worker for a copy.

**Additional Payments:** A provider may not make parents/guardians pay the difference between what DSHS authorizes for regular child care services and the provider's usual rates. Contributions and additional payments by a third party such as an employer or charitable agency may be accepted where DSHS rates are lower than the provider's customary charges. A provider may not make a client find a third party to make additional payments or for the purposes of paying a copayment.

A provider may charge a DSHS client extra when a parent/guardian:

- Requires child care in excess of the amount of care authorized due to personal reasons (e.g., a parent/guardian is late picking up the children because they went shopping); or
- Requests optional enrichment programs (e.g., gymnastics, ballet, etc.) for the children.

**Providers are not employed by DSHS:** The provider and their employees performing under this agreement are not employees or agents of DSHS. The provider will not claim to be an officer or employee of DSHS or of the State of Washington, nor will they make any claim of right, privilege, or benefit which would accrue to a civil service employee under Chapter 41.06 RCW.

If applicable, DSHS reports child care earnings to the Internal Revenue Service (IRS).

## A.2: Subsidy Notification Letter – Alternative Copayment Group



STATE OF WASHINGTON

### DEPARTMENT OF SOCIAL AND HEALTH SERVICES

Economic Services Administration  
Division of Child Care and Early Learning  
P.O. Box 45480, Olympia, Washington 98504-5480

[Date]

[Name and address]

[EXPERIMENTAL GROUP COVER LETTER]

[Greeting]

You are part of a study of Working Connections Child Care. You were picked for the study because you were approved to get help paying for child care. About 5,500 families are in the study. The research team is from Abt Associates, a private company in Massachusetts. We hope this study will help us improve child care programs for working parents.

Families who get Working Connections pay some of the cost of child care. The amount you pay is based on your family income and a chart of payment levels. For this study, families were assigned by chance (like flipping a coin) to either the usual payment or a new level. The new payment scale requires families to pay the **same** or **less** than usual, at every income level. But **every** family in the study will **either pay less or the same amount** as before.

**Your payment is based on the new scale.** Your payments will be based on the new scale for the next 2 years, if you get Working Connections.

About 2,000 families will be asked to do a phone survey for the study. **DSHS plans to give the research team your name, address, and phone number.** Unless you refuse, the study team may call you. **If you do NOT want DSHS to tell the research team how to contact you, please call 1-888-270-0613 by August 15, 2005**

If you don't call DSHS in the next 2 months, you may be asked to do a survey. The survey team, Moore and Associates, may send you a letter about the study. Then they may call to ask you to take part. The survey will take place 3 times over 2 years. It takes about 35 minutes. You will get a gift certificate each time you take part.

**The survey is voluntary.** If you decide to take part, you don't have to answer every question. Your decision about taking part won't change the amount you pay for child care or any other benefits. All study information will be kept confidential. Your name will be kept separate from all information about you.

The study team will ask permission to get your records of child care payments, TANF (welfare), food stamps, and unemployment. You aren't required to give permission. If you just decide to do the survey, the study team won't get any of your records.

If you have questions about the study you can call Abt Associates at 1-866-250-8644. I hope you will decide to take part in this important study.

Sincerely,

Rachael Langen, Director  
Division of Child Care and Early Learning

### A.3: Subsidy Notification Letter – Standard Copayment Group



STATE OF WASHINGTON  
DEPARTMENT OF SOCIAL AND HEALTH SERVICES  
Economic Services Administration  
Division of Child Care and Early Learning  
P.O. Box 45480, Olympia, Washington 98504-5480

[Date]

[Name and address]

[CONTROL GROUP COVER LETTER]

[Greeting]

You are part of a study of Working Connections Child Care. You were picked for the study because you were approved to get help paying for child care. About 5,500 families are in the study. The research team is from Abt Associates, a private company in Massachusetts. We hope this study will help us improve child care programs for working parents.

Families who get Working Connections pay some of the cost of child care. The amount you pay is based on your family income and a chart of payment levels. For this study, families were assigned by chance (like flipping a coin) to either the usual payment or a new level. The new payment scale requires families to pay the **same** or **less** than usual, at every income level. But *every* family in the study will **either pay less or the same amount** as before.

**Your payment is based on the usual payment scale.** Your payments will be based on this scale for the next 2 years, if you get Working Connections.

About 2,000 families will be asked to do a phone survey for the study. **DSHS plans to give the research team your name, address, and phone number.** Unless you refuse, the study team may call you. **If you do NOT want DSHS to tell the research team how to contact you, please call 1-888-270-0613 by August 15, 2005.**

If you don't call DSHS in the next 2 months, you may be asked to do a survey. The survey team, Moore and Associates, may send you a letter about the study. Then they may call to ask you to take part. The survey will take place 3 times over 2 years. It takes about 35 minutes. You will get a gift certificate each time you take part.

**The survey is voluntary.** If you decide to take part, you don't have to answer every question. Your decision about taking part won't change the amount you pay for child care or any other benefits. All study information will be kept confidential. Your name will be kept separate from all information about you.

The study team will ask permission to get your records of child care payments, TANF (welfare), food stamps, and unemployment. You aren't required to give permission. If you just decide to do the survey, the study team won't get any of your records.

If you have questions about the study you can call Abt Associates at 1-866-250-8644. I hope you will decide to take part in this important study.

Sincerely,

Rachael Langen, Director  
Division of Child Care and Early Learning

## A.4: Sample Copayment Calculation Notification



WORKING CONNECTIONS CHILD CARE (WCCC)

### AWARD/CHANGE LETTER

LOCAL OFFICE <b>Lacey Government Ctr</b>	
CASE NUMBER <b>-4235992</b>	DATE <b>11/17/04</b>

**MaRy PoPiNs**  
**123 MAIN**

**OLYMPIA, WA 98501**

You are eligible for child care subsidies with a copayment starting 06/01/2004 and ending 11/30/2004.

**Please read the important information on Page 2**

Child care is being approved for the following: ☐ Employment ☒ Approved WorkFirst Activity ☐ School

☐ Other: \_\_\_\_\_

☐ Your beginning copayment will be \$15.00 for the period of \_\_\_\_\_ to \_\_\_\_\_

☒ Your monthly copayment will ☒ be ☐ change to \$80.00 for the period of 06/01/2004 and ending 11/30/2004

A copayment is your share of your child care cost to be paid directly to your provider. Your copayment is based on your household size and your monthly income as follows:

1. Family size is	<u>2</u>
2. Gross earned income (before taxes) is:	\$ <u>0.00</u>
3. Self employment income ( after allowable deductions ) is:	\$ <u>0.00</u>
4. Unearned income equals ( SSI, SSA, child support received, lump sum payments ) is:	\$ <u>1,500.00</u>
5. TOTAL INCOME ( add lines 2 - 4 above ):	\$ <u>1,500.00</u>
6. Child Support <u>paid out</u> is:	\$ <u>0.00</u>
7. Determine <u>countable</u> income ( subtract line 6 from 5 ): ( Countable income is used to determine eligibility and copayment )	\$ <u>1,500.00</u>
8. Copayment is calculated:	
<b><u>COUNTABLE INCOME</u></b>	<b><u>MONTHLY COPAYMENT</u></b>
At or below 82% of Federal Poverty Level (FPL)	\$15
Above 82% and up to 137.5% of FPL	\$50
Over 137.5% and up to 200% of FPL [ ( ( Countable income - 137.5% FPL ) x .44 ) + \$50 ]	

Your copayment is changing because (per WAC 388-290-0085):

- ☐ Your authorization period has expired. ☐ Your family size has changed.  
☐ Your income has decreased.  
☐ Other (explain) \_\_\_\_\_

Comments: \_\_\_\_\_

**Minh Bui**

WORKER'S NAME

DSHS 07-066 (REV. 07/2004)

**360-664-4852 360-586-4723**

WORKER'S TELEPHONE/FAX NUMBER

## A.5: Call Center Script

### Questions and Answers for Washington Copayment Study INFORMATION FOR AUTHORIZING WORKERS May 2005

#### Q. What will I need to know for the study?

#### Answer

1. Know the copayment study is going on and provide families the toll-free numbers to call if they have questions. The toll-free numbers are included in the letter sent to the families in the study.

- **[Abt toll free number 1-866-250-8644]** will be answered by Abt Associates. Families can call this number if they have questions specifically about the study.
- **[DCCEL toll free number 1-888-270-0613]** will be answered by DCCEL staff. Families can call this number if they want their name removed from the list of people being contacted for the interview. CSD field staff may call this number with questions related to the copayment study.

If the wrong toll-free number is called the caller will be directed to the correct toll-free number. Please ensure that if a family is reporting any changes that you update the case prior to referring them to the toll-free number.

2. Determining eligibility and copayment is the same for families chosen for the study. With the exception of WAC 388-290-0075(2), apply all WCCC rules as normal, including:

- 388-290-0085 When might my WCCC copayment change?;
- 388-290-0090 When do I pay the minimum copayment?; and
- 388-290-0032 What are the consequences if I do not report changes within the specified timelines?

If you have questions about the amount of the copayment you can call the DCCEL toll-free number listed above.



3. You will need to enter the number of children who receive care into a new field for all families in the study. The “**Children in care**” field will appear on the WCAP income screen. This number may be different than the number of children in the family. The new field will always display for families selected for the alternative copayment. For families selected for the standard copayment the new field will only appear once.

You will need to update this field each time the number of children in care changes for families in the alternative group only.

***Q. Who is doing the study?***

**Answer**

There are three research companies from the east coast involved in this study. Abt Associates Inc., MDRC, and Moore and Associates. Moore and Associates will be responsible for conducting the family interviews.

***Q. What is the reason for the study?***

**Answer**

The information received will help Washington State and other states understand how different copayment levels affect the child care choices and the employment of families who receive help with child care costs. There is currently very little research on this topic.

***Q. What is the study about?***

**Answer**

Starting May 2005, Washington will be selecting, about 5,500 families who apply or reapply for Working Connections Child Care (WCCC) program. Some of these families will be asked to pay copayments according to an alternative (new) copayment schedule for a two-year period. The alternative copayment amount will be the same or lower than the current standard copayment amount. Of the 5,500 families, about 2,000 will be randomly chosen to have the alternative copayment amounts, and the other 3,500 will form a control standard group that will make payments according to the current schedule.

DSHS administrative data will be used to follow the families' progress during the study. In addition, about 2,000 families will be interviewed three times over a 2-year period (half from the alternative copayment group, half from the standard copayment group). The interview is entirely voluntary. Families can decline to respond to the interview when contacted, or they can call 1 888-270-0613 and take their name off the interview list. If families call with questions about the study, you can refer them to 1-866-250-8644 to have their questions answered.

***Q. What happens when the two- year study ends during the eligibility period?***

**Answer**

When the family with the alternative copayment is reauthorized before the end of the two-year period, they will continue to pay according to the alternative schedule until that eligibility period is over, even if the two-year period ends first.

**For Example**

The copayment study is scheduled to terminate on July 31<sup>st</sup>. Betty's case comes up for reauthorization on May 1<sup>st</sup>. She meets all eligibility requirements and care is authorized for May 1 – Oct 31. She was in the alternative copayment group so an alternative copayment will continue through October 31.

The WCAP will support the alternative copayment schedule 6 months after the study is over.

***Q. Are there certain households that will not be included in the study?***

**Answer**

Yes. Households headed by non-needy adults, minor parents, or households where the youngest child is 11 years old or older will be excluded from the study.

**Q. How will families be assigned to the alternative copayment schedule?**

**Answer**

Families are selected randomly by WCAP, and families from all three FPL income levels will be selected.

If families have questions about the method of assigning families to the alternative or standard co-payment schedule, they should be directed to the

**Abt toll-free number 1-866-250-8644**

**Q. What will the telephone interview be about?**

**Answer**

The interviewer will ask families questions about their child care and employment circumstances. They will also ask some background questions about the participant's household. The interview will be kept confidential and individual responses will not be shared with DSHS. Families will receive a gift certificate each time they are interviewed.

**If families have questions about the interview, they should be directed to the  
Abt toll-free number 1-866-250-8644.**

***Q. Does the study change how eligibility is established?***

**Answer**

No, you will continue to establish eligibility based on current WCCC policy.

***Q. How will I be able to tell if a family has been selected for the study?***

**Answer**

WCAP has been programmed to randomly select 2,000 families for the alternative copayment and 3,500 families for the standard copayment. During this selection you will receive a one-time message advising you with one of the following messages: "This client has been chosen to be in the copay study with ALTERNATE copay" or "This client has been chosen to be in the copay study with STANDARD copay". The WCAP Address screen will display the family copayment status (either Alternate or Standard) in red letters on the bottom left hand corner of the screen

***Q. Does this affect the providers and will providers be notified?***

**Answer**

No, this study does not affect providers. The providers will not receive specific notification of this study. Providers will receive notification of the copayment amount and collect the copayment based on their current policy and procedures.

***Q. What happens when a family in the study has a break in WCCC service?***

**Answer**

If a family from either group has a break in service during the two-year period, WCAP will automatically return them to their previously assigned study group.

***Q. What will happen if families refuse to do the survey?***

**Answer**

Nothing. Answering the survey questions is completely voluntary and benefits will not be affected by their refusal. We hope families will agree to answer the questions because it can help Washington State and other states get important information about the child care subsidy program.

If families have questions about the survey or other aspects of the research, they should be directed to the

**Abt toll-free number 1-866-250-8644**

**Appendix B**

**Estimated Impacts by Subgroup**



**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table B.1**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families in Income Tier 3 at Random Assignment, by Type of Care in the Month Prior to Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>No care in month prior to random assignment</u></b>				
Months of subsidy receipt	10.2	9.5	0.7	0.8
Received subsidies for 7 consecutive months (%)	50.7	50.0	0.8	4.8
Received subsidies for 13 consecutive months (%)	24.3	23.3	1.0	4.2
Quarters of employment	6.2	6.3	-0.1	0.2
Earnings (\$)	31,446	32,783	-1,337	1,850
Hours worked	2,420	2,536	-116	143
Months of TANF or food stamp receipt	7.5	7.3	0.2	0.7
Total measured income (\$)	34,527	35,388	-861	1,788
Sample size (total = 445)	219	226		
<b><u>Some center care in month prior to random assignment</u></b>				
Months of subsidy receipt	14.1	13.0	1.0 *	0.6
Received subsidies for 7 consecutive months (%)	70.7	66.8	3.9	3.7
Received subsidies for 13 consecutive months (%)	45.0	34.8	10.3 ***	3.8
Quarters of employment	6.7	6.7	0.0	0.2
Earnings (\$)	39,071	39,159	-88	1,434
Hours worked	2,863	2,989	-126	104
Months of TANF or food stamp receipt	5.8	6.0	-0.3	0.5
Total measured income (\$)	41,525	41,595	-71	1,358
Sample size (total = 647)	333	314		
<b><u>No center care, some licensed home care in month prior to random assignment</u></b>				
Months of subsidy receipt	13.8	12.0	1.8 *	1.0
Received subsidies for 7 consecutive months (%)	67.7	64.0	3.7	5.8
Received subsidies for 13 consecutive months (%)	42.7	26.3	16.5 ***	5.9
Quarters of employment	6.6	6.4	0.2	0.3
Earnings (\$)	36,682	35,191	1,491	2,409
Hours worked	2,818	2,750	68	171
Months of TANF or food stamp receipt	5.9	7.0	-1.1	0.8
Total measured income (\$)	38,677	37,475	1,201	2,316
Sample size (total = 294)	132	162		

(continued)

**Appendix Table B.1 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Only nonlicensed home care in month prior to random assignment</u></b>				
Months of subsidy receipt	14.0	11.8	2.2	1.7
Received subsidies for 7 consecutive months (%)	64.0	58.4	5.5	10.9
Received subsidies for 13 consecutive months (%)	42.0	39.2	2.8	10.2
Quarters of employment	6.9	6.8	0.1	0.3
Earnings (\$)	39,823	40,517	-694	3,413
Hours worked	3,022	3,117	-95	248
Months of TANF or food stamp receipt	5.9	7.0	-1.1	1.4
Total measured income (\$)	42,607	43,694	-1,088	3,172
Sample size (total = 145)	77	68		

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table B.2

Estimated Impacts on Type of Child Care Used While Receiving Child Care  
Subsidies for Families in Income Tier 3 at Random Assignment,  
by Type of Care in the Month Prior to Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>No care in month prior to random assignment</u></b>				
<b>Year 1, Month 6 (%)</b>				
Did not receive subsidies	49.7	52.8	-3.1	4.7
Received subsidies and used center care	25.9	22.3	3.6	4.1
Received subsidies and used licensed day care home	13.6	15.6	-2.0	3.4
Received subsidies and used home-based care (relative or nonrelative)	12.3	10.6	1.7	3.0
<b>Year 1, Month 12 (%)</b>				
Did not receive subsidies	58.7	68.8	-10.1 **	4.7
Received subsidies and used center care	23.7	15.6	8.1 **	3.9
Received subsidies and used licensed day care home	11.0	9.3	1.7	3.0
Received subsidies and used home-based care (relative or nonrelative)	7.8	7.5	0.4	2.6
<b>Year 2, Month 6 (%)</b>				
Did not receive subsidies	69.8	68.7	1.1	4.5
Received subsidies and used center care	18.7	15.5	3.2	3.7
Received subsidies and used licensed day care home	8.0	10.0	-2.0	2.8
Received subsidies and used home-based care (relative or nonrelative)	4.0	7.7	-3.7	2.3 †
<b>Year 2, Month 12 (%)</b>				
Did not receive subsidies	72.1	77.5	-5.4	4.2
Received subsidies and used center care	15.4	8.1	7.2 **	3.1
Received subsidies and used licensed day care home	8.6	9.8	-1.2	2.9
Received subsidies and used home-based care (relative or nonrelative)	5.5	5.7	-0.3	2.2
Sample size (total = 445)	219	226		

(continued)

**Appendix Table B.2 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Some center care in month prior to random assignment</u></b>				
<b>Year 1, Month 6 (%)</b>				
Did not receive subsidies	29.0	27.5	1.4	3.6
Received subsidies and used center care	66.4	69.4	-3.1	3.7
Received subsidies and used licensed day care home	6.1	5.7	0.4	1.9
Received subsidies and used home-based care (relative or nonrelative)	3.1	1.2	1.9 *	1.2
<b>Year 1, Month 12 (%)</b>				
Did not receive subsidies	42.9	51.9	-9.0 **	3.9
Received subsidies and used center care	50.9	45.1	5.8	4.0
Received subsidies and used licensed day care home	4.6	4.1	0.5	1.6
Received subsidies and used home-based care (relative or nonrelative)	3.3	1.3	2.1 *	1.2
<b>Year 2, Month 6 (%)</b>				
Did not receive subsidies	53.9	58.5	-4.6	3.9
Received subsidies and used center care	41.0	38.0	3.0	3.9
Received subsidies and used licensed day care home	3.7	3.8	-0.1	1.5
Received subsidies and used home-based care (relative or nonrelative)	3.6	1.3	2.2 *	1.3 †
<b>Year 2, Month 12 (%)</b>				
Did not receive subsidies	64.9	69.1	-4.1	3.7
Received subsidies and used center care	29.4	25.8	3.6	3.5
Received subsidies and used licensed day care home	3.4	4.1	-0.7	1.5
Received subsidies and used home-based care (relative or nonrelative)	3.5	2.0	1.5	1.3
Sample size (total = 647)	333	314		

(continued)

**Appendix Table B.2 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>No center care, some licensed home care in month prior to random assignment</b>				
<b>Year 1, Month 6 (%)</b>				
Did not receive subsidies	25.5	33.5	-8.0	5.5
Received subsidies and used center care	6.9	11.1	-4.2	3.5
Received subsidies and used licensed day care home	66.4	57.6	8.8	5.8
Received subsidies and used home-based care (relative or nonrelative)	3.6	0.7	2.9	1.8
<b>Year 1, Month 12 (%)</b>				
Did not receive subsidies	39.2	52.6	-13.4 **	6.2
Received subsidies and used center care	12.6	7.6	5.0	3.7
Received subsidies and used licensed day care home	45.1	39.2	5.8	6.1
Received subsidies and used home-based care (relative or nonrelative)	4.6	1.8	2.8	2.2
<b>Year 2, Month 6 (%)</b>				
Did not receive subsidies	53.9	64.7	-10.8 *	6.3
Received subsidies and used center care	13.4	7.6	5.8	3.9
Received subsidies and used licensed day care home	34.2	29.5	4.7	6.0
Received subsidies and used home-based care (relative or nonrelative)	1.9	0.3	1.6	1.3 †
<b>Year 2, Month 12 (%)</b>				
Did not receive subsidies	67.3	72.3	-5.0	5.8
Received subsidies and used center care	10.8	6.0	4.8	3.4
Received subsidies and used licensed day care home	22.2	20.2	2.0	5.2
Received subsidies and used home-based care (relative or nonrelative)	0.8	1.8	-1.1	1.5
Sample size (total = 294)	132	162		

(continued)

**Appendix Table B.2 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Only nonlicensed home care in month prior to random assignment</u></b>				
<b>Year 1, Month 6 (%)</b>				
Did not receive subsidies	26.4	37.7	-11.3	10.6
Received subsidies and used center care	3.0	7.0	-4.0	4.6
Received subsidies and used licensed day care home	4.2	5.5	-1.3	4.7
Received subsidies and used home-based care (relative or nonrelative)	68.2	50.7	17.5	11.0
<b>Year 1, Month 12 (%)</b>				
Did not receive subsidies	45.3	45.7	-0.4	10.7
Received subsidies and used center care	6.5	11.8	-5.3	5.7
Received subsidies and used licensed day care home	3.0	6.9	-3.9	4.6
Received subsidies and used home-based care (relative or nonrelative)	48.8	35.9	12.8	10.7
<b>Year 2, Month 6 (%)</b>				
Did not receive subsidies	56.7	65.2	-8.6	10.1
Received subsidies and used center care	8.9	6.1	2.9	5.1
Received subsidies and used licensed day care home	6.5	4.4	2.2	4.8
Received subsidies and used home-based care (relative or nonrelative)	35.3	21.8	13.6	9.7 †
<b>Year 2, Month 12 (%)</b>				
Did not receive subsidies	61.7	78.7	-17.0 *	9.3
Received subsidies and used center care	7.0	2.3	4.7	4.2
Received subsidies and used licensed day care home	6.5	1.5	5.1	4.0
Received subsidies and used home-based care (relative or nonrelative)	29.3	15.4	13.9	8.9
Sample size (total = 145)	77	68		

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

Chi-Square tests were used to test the statistical significance of the distribution of types of care at each point in time. The tests found statistically significant differences in:

No care in month prior to random assignment, Year 1, Month 12 (p-value = 0.087).

Center care in month prior to random assignment, Year 1, Month 12 (p-value = 0.015).

No center care, some licensed home care in month prior to random assignment, Year 1, Month 6 (p-value = 0.057).

No center care, some licensed home care in month prior to random assignment, Year 1, Month 12 (p-value = 0.047).

# The Evaluation of Child Care Subsidy Strategies: Washington

## Appendix Table B.3

### Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families in Income Tier 3 at Random Assignment, by Age of Youngest Child in the Month Prior to Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error	
<b><u>No subsidy records in 3 months prior to random assignment</u></b>					
Months of subsidy receipt	9.5	9.1	0.4	0.9	
Received subsidies for 7 consecutive months (%)	47.6	48.1	-0.4	5.8	†
Received subsidies for 13 consecutive months (%)	21.7	24.5	-2.8	5.0	††
Quarters of employment	6.1	6.0	0.1	0.3	
Earnings (\$)	30,826	31,804	-977	2,273	
Hours worked	2,387	2,423	-36	176	
Months of TANF or food stamp receipt	7.8	7.2	0.6	0.8	
Total measured income (\$)	33,972	34,278	-305	2,220	
Sample size (total = 328)	160	168			
<b><u>Youngest child born before 2002</u></b>					
Months of subsidy receipt	12.8	11.0	1.9 ***	0.7	
Received subsidies for 7 consecutive months (%)	69.0	57.5	11.5 ***	4.4	†
Received subsidies for 13 consecutive months (%)	36.7	24.1	12.5 ***	4.1	††
Quarters of employment	6.9	6.9	-0.1	0.2	
Earnings (\$)	39,806	40,350	-544	1,544	
Hours worked	3,006	3,095	-89	113	
Months of TANF or food stamp receipt	5.1	5.8	-0.8	0.6	
Total measured income (\$)	41,910	42,484	-574	1,480	
Sample size (total = 517)	257	260			
<b><u>Youngest child born 2002 or later</u></b>					
Months of subsidy receipt	14.5	13.4	1.2 *	0.6	
Received subsidies for 7 consecutive months (%)	68.0	68.1	-0.1	3.6	†
Received subsidies for 13 consecutive months (%)	47.9	36.6	11.4 ***	3.8	††
Quarters of employment	6.5	6.5	0.0	0.2	
Earnings (\$)	36,587	36,269	319	1,450	
Hours worked	2,739	2,785	-45	104	
Months of TANF or food stamp receipt	6.4	7.3	-0.8	0.5	
Total measured income (\$)	39,222	39,190	33	1,364	
Sample size (total = 686)	344	342			

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table B.4

Estimated Impacts on Type of Child Care Used While Receiving Child Care  
Subsidies for Families in Income Tier 3 at Random Assignment,  
by Age of Youngest Child in the Month Prior to Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error	
<b><u>No subsidy records in 3 months prior to random assignment</u></b>					
<b>Year 1, Month 6 (%)</b>					
Did not receive subsidies	53.7	56.0	-2.3	5.7	
Received subsidies and used center care	24.2	18.7	5.5	4.8	†
Received subsidies and used licensed day care home	12.4	15.5	-3.1	3.9	
Received subsidies and used home-based care (relative or nonrelative)	11.3	11.3	0.0	3.6	
<b>Year 1, Month 12 (%)</b>					
Did not receive subsidies	60.1	70.2	-10.1 *	5.7	
Received subsidies and used center care	21.6	12.7	8.9 **	4.5	
Received subsidies and used licensed day care home	11.4	10.6	0.9	3.6	
Received subsidies and used home-based care (relative or nonrelative)	6.6	8.6	-2.0	3.0	
<b>Year 2, Month 6 (%)</b>					
Did not receive subsidies	72.5	68.4	4.1	5.4	
Received subsidies and used center care	16.8	14.9	1.9	4.3	
Received subsidies and used licensed day care home	6.9	11.3	-4.4	3.3	
Received subsidies and used home-based care (relative or nonrelative)	3.4	8.1	-4.7 *	2.6	††
<b>Year 2, Month 12 (%)</b>					
Did not receive subsidies	73.9	76.6	-2.8	5.0	
Received subsidies and used center care	13.6	8.5	5.1	3.5	
Received subsidies and used licensed day care home	8.4	10.5	-2.1	3.5	†
Received subsidies and used home-based care (relative or nonrelative)	5.1	5.2	-0.1	2.6	††
Sample size (total = 328)	160	168			

(continued)

**Appendix Table B.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error	
<b><u>Youngest child born before 2002</u></b>					
<b>Year 1, Month 6 (%)</b>					
Did not receive subsidies	29.0	34.1	-5.1	4.2	
Received subsidies and used center care	47.2	41.8	5.4	4.5	†
Received subsidies and used licensed day care home	15.4	18.7	-3.3	3.5	
Received subsidies and used home-based care (relative or nonrelative)	12.0	8.2	3.8	2.8	
<b>Year 1, Month 12 (%)</b>					
Did not receive subsidies	50.5	61.3	-10.8 **	4.5	
Received subsidies and used center care	32.7	22.3	10.4 **	4.1	
Received subsidies and used licensed day care home	11.5	10.6	0.9	2.8	
Received subsidies and used home-based care (relative or nonrelative)	7.9	6.4	1.5	2.4	
<b>Year 2, Month 6 (%)</b>					
Did not receive subsidies	62.0	69.5	-7.5 *	4.3	
Received subsidies and used center care	26.9	17.2	9.7 **	3.8	
Received subsidies and used licensed day care home	7.7	8.2	-0.5	2.5	
Received subsidies and used home-based care (relative or nonrelative)	6.4	6.4	0.0	2.3	††
<b>Year 2, Month 12 (%)</b>					
Did not receive subsidies	72.5	79.1	-6.7 *	3.9	
Received subsidies and used center care	16.4	10.4	6.0 *	3.2	
Received subsidies and used licensed day care home	8.1	4.7	3.5	2.2	†
Received subsidies and used home-based care (relative or nonrelative)	4.1	6.4	-2.3	2.1	††
Sample size (total = 517)	257	260			

(continued)

**Appendix Table B.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error	
<b><u>Youngest child born 2002 or later</u></b>					
<b>Year 1, Month 6 (%)</b>					
Did not receive subsidies	27.7	31.2	-3.5	3.5	
Received subsidies and used center care	38.1	43.5	-5.4	3.7	†
Received subsidies and used licensed day care home	24.3	21.4	2.9	3.3	
Received subsidies and used home-based care (relative or nonrelative)	12.9	7.2	5.6 **	2.3	
<b>Year 1, Month 12 (%)</b>					
Did not receive subsidies	37.9	46.7	-8.8 **	3.8	
Received subsidies and used center care	36.6	33.9	2.7	3.6	
Received subsidies and used licensed day care home	16.4	15.7	0.7	2.8	
Received subsidies and used home-based care (relative or nonrelative)	11.0	5.9	5.2 **	2.2	
<b>Year 2, Month 6 (%)</b>					
Did not receive subsidies	50.4	55.7	-5.3	3.9	
Received subsidies and used center care	30.5	29.8	0.7	3.5	
Received subsidies and used licensed day care home	14.7	12.7	2.1	2.7	
Received subsidies and used home-based care (relative or nonrelative)	6.9	3.3	3.5 **	1.7	††
<b>Year 2, Month 12 (%)</b>					
Did not receive subsidies	60.8	65.8	-5.0	3.7	
Received subsidies and used center care	25.5	20.3	5.2	3.2	
Received subsidies and used licensed day care home	8.4	11.8	-3.4	2.3	†
Received subsidies and used home-based care (relative or nonrelative)	7.7	2.8	4.8 ***	1.8	††
Sample size (total = 686)	344	342			

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

Chi-Square tests were used to test the statistical significance of the distribution of types of care at each point in time. The tests found statistically significant differences in:

Youngest child born before 2002: Year 1, Month 12 (p-value = 0.094).

Youngest child born 2002 or later: Year 1, Month 6 (p-value = 0.031); Year 1, Month 12 (p-value = 0.009); and Year 2, Month 12 (p-value = 0.008).



**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table B.5**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt, by Number of Children in Care, for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>One child in care</u></b>				
Months of subsidy receipt	12.8	10.9	1.9 ***	0.5 †††
Received subsidies for 7 consecutive months (%)	65.9	58.6	7.2 **	3.5 ††
Received subsidies for 13 consecutive months (%)	38.0	26.7	11.3 ***	3.4 †
Quarters of employment	6.6	6.6	0.1	0.2
Earnings (\$)	34,574	34,399	175	1,335
Hours worked	2,710	2,790	-80	99 ††
Months of TANF or food stamp receipt	6.0	6.5	-0.6	0.5 †
Total measured income (\$)	36,746	36,655	90	1,282
Sample size (total = 759)	374	385		
<b><u>Two children in care</u></b>				
Months of subsidy receipt	12.5	12.9	-0.4	0.7 †††
Received subsidies for 7 consecutive months (%)	60.1	65.3	-5.2	4.0 ††
Received subsidies for 13 consecutive months (%)	36.2	34.5	1.7	4.0 †
Quarters of employment	6.5	6.6	-0.1	0.2
Earnings (\$)	38,188	39,062	-874	1,571
Hours worked	2,765	2,914	-149	109 ††
Months of TANF or food stamp receipt	6.2	6.0	0.2	0.6 †
Total measured income (\$)	40,876	41,473	-597	1,479
Sample size (total = 552)	280	272		
<b><u>Three or more children in care</u></b>				
Months of subsidy receipt	14.4	11.2	3.3 ***	1.1 †††
Received subsidies for 7 consecutive months (%)	65.9	55.3	10.6	6.9 ††
Received subsidies for 13 consecutive months (%)	46.4	29.5	16.8 ***	6.4 †
Quarters of employment	6.6	6.1	0.5	0.3
Earnings (\$)	42,243	36,466	5,777 *	3,074
Hours worked	3,094	2,489	605 **	241 ††
Months of TANF or food stamp receipt	7.1	9.7	-2.6 **	1.0 †
Total measured income (\$)	45,437	40,882	4,554	2,912
Sample size (total = 220)	107	113		

(continued)

### Appendix Table B.5 (continued)

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table B.6**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or  
Food Stamp Receipt, by Baseline Employment,  
for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error	
<b><u>Not employed in year prior to random assignment</u></b>					
Months of subsidy receipt	10.2	11.7	-1.5	2.0	†
Received subsidies for 7 consecutive months (%)	46.1	59.1	-13.1	11.9	
Received subsidies for 13 consecutive months (%)	28.9	39.9	-11.0	11.4	
Quarters of employment	3.2	3.4	-0.2	0.7	
Earnings (\$)	13,759	13,847	-88	4,190	
Hours worked	992	1,139	-147	345	
Months of TANF or food stamp receipt	5.6	6.1	-0.5	1.4	
Total measured income (\$)	15,864	16,461	-597	4,154	
Sample size (total = 99)	50	49			
<b><u>Employed 1 to 3 quarters in year prior to random assignment</u></b>					
Months of subsidy receipt	11.1	11.1	0.0	0.8	†
Received subsidies for 7 consecutive months (%)	54.8	54.9	-0.2	5.2	
Received subsidies for 13 consecutive months (%)	33.0	29.0	4.0	4.9	
Quarters of employment	6.1	5.9	0.2	0.3	
Earnings (\$)	29,835	28,901	934	2,158	
Hours worked	2,373	2,361	12	163	
Months of TANF or food stamp receipt	7.7	7.9	-0.2	0.8	
Total measured income (\$)	32,980	32,150	830	2,085	
Sample size (total = 372)	181	191			
<b><u>Employed all quarters in year prior to random assignment</u></b>					
Months of subsidy receipt	13.8	12.0	1.8 ***	0.5	†
Received subsidies for 7 consecutive months (%)	68.8	64.0	4.9 *	2.9	
Received subsidies for 13 consecutive months (%)	41.1	30.1	11.0 ***	3.0	
Quarters of employment	7.1	7.0	0.1	0.1	
Earnings (\$)	41,695	41,557	138	1,293	
Hours worked	3,106	3,140	-35	85	
Months of TANF or food stamp receipt	5.6	6.1	-0.5	0.4	
Total measured income (\$)	44,021	43,901	120	1,244	
Sample size (total = 994)	497	497			

(continued)

### **Appendix Table B.6 (continued)**

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table B.7**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF  
or Food Stamp Receipt, by Number of Children in Care, for Families  
across All Income Tiers at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>One child in care</u></b>				
Months of subsidy receipt	12.5	11.6	0.9 ***	0.3
Received subsidies for 7 consecutive months (%)	61.7	58.9	2.8	2.0
Received subsidies for 13 consecutive months (%)	34.9	30.8	4.1 **	1.9
Quarters of employment	5.6	5.7	-0.1	0.1
Earnings (\$)	24,066	24,721	-655	681
Hours worked	2,006	2,128	-122 **	56 †
Months of TANF or food stamp receipt	12.3	12.4	-0.2	0.3
Total measured income (\$)	29,169	29,776	-607	647
Sample size (total = 2,416)	951	1,465		
<b><u>Two children in care</u></b>				
Months of subsidy receipt	13.8	13.3	0.5	0.4
Received subsidies for 7 consecutive months (%)	66.4	66.4	0.1	2.3
Received subsidies for 13 consecutive months (%)	43.9	38.9	5.0 **	2.4
Quarters of employment	5.9	5.8	0.1	0.1
Earnings (\$)	27,453	27,169	283	826
Hours worked	2,199	2,213	-14	66 †
Months of TANF or food stamp receipt	13.1	12.9	0.2	0.3
Total measured income (\$)	33,578	33,413	164	787
Sample size (total = 1,714)	683	1,031		
<b><u>Three or more children in care</u></b>				
Months of subsidy receipt	14.5	13.6	0.9 *	0.5
Received subsidies for 7 consecutive months (%)	67.7	66.3	1.5	3.1
Received subsidies for 13 consecutive months (%)	45.7	40.3	5.5 *	3.2
Quarters of employment	5.7	5.6	0.1	0.2
Earnings (\$)	28,111	26,696	1,415	1,290
Hours worked	2,237	2,107	130	95 †
Months of TANF or food stamp receipt	15.3	15.8	-0.5	0.5
Total measured income (\$)	36,759	35,852	907	1,247
Sample size (total = 976)	356	620		

(continued)

### Appendix Table B.7 (continued)

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table B.8**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF  
or Food Stamp Receipt, by Baseline Employment,  
for Families across All Income Tiers at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Not employed in year prior to random assignment</u></b>				
Months of subsidy receipt	11.3	10.8	0.4	0.6
Received subsidies for 7 consecutive months (%)	53.0	52.6	0.4	3.6
Received subsidies for 13 consecutive months (%)	31.8	30.2	1.6	3.3
Quarters of employment	3.3	3.3	0.0	0.2
Earnings (\$)	10,257	11,359	-1,101	1,122
Hours worked	874	988	-114	93
Months of TANF or food stamp receipt	16.4	16.1	0.4	0.5
Total measured income (\$)	19,216	20,534	-1,318	1,108
Sample size (total = 826)	297	529		
<b><u>Employed 1 to 3 quarters in year prior to random assignment</u></b>				
Months of subsidy receipt	12.7	11.9	0.7 *	0.4
Received subsidies for 7 consecutive months (%)	61.5	59.4	2.1	2.5
Received subsidies for 13 consecutive months (%)	35.2	32.1	3.0	2.4
Quarters of employment	5.4	5.2	0.2	0.1
Earnings (\$)	20,588	19,768	820	892
Hours worked	1,793	1,754	39	72
Months of TANF or food stamp receipt	14.9	15.3	-0.4	0.4
Total measured income (\$)	27,889	27,295	594	849
Sample size (total = 1,664)	610	1,034		
<b><u>Employed all quarters in year prior to random assignment</u></b>				
Months of subsidy receipt	14.6	13.7	0.9 ***	0.3
Received subsidies for 7 consecutive months (%)	71.6	68.9	2.6	1.8
Received subsidies for 13 consecutive months (%)	46.2	39.9	6.2 ***	2.0
Quarters of employment	6.8	6.9	0.0	0.1
Earnings (\$)	34,827	35,067	-240	881
Hours worked	2,782	2,836	-53	57
Months of TANF or food stamp receipt	10.8	10.9	-0.1	0.3
Total measured income (\$)	39,177	39,429	-252	850
Sample size (total = 2,449)	1,011	1,438		

(continued)

### Appendix Table B.8 (continued)

SOURCE: MDRC calculations from State of Washington 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.

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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



**Appendix C**

**Supplementary Results for Families in Income Tier 3  
at Random Assignment**



**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table C.1**

**Estimated Impacts on Child Care Subsidy Receipt, by Month,  
for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received child care subsidies (%)</u></b>				
<b>Year 1</b>				
Month 1	90.7	86.7	4.0 **	1.6
Month 2	83.2	79.7	3.5 *	1.9
Month 3	76.7	74.9	1.8	2.1
Month 4	73.8	71.4	2.4	2.2
Month 5	70.6	69.3	1.3	2.2
Month 6	65.7	63.1	2.5	2.3
Month 7	61.7	57.6	4.1 *	2.4
Month 8	59.8	56.1	3.8	2.4
Month 9	56.5	51.9	4.6 *	2.5
Month 10	55.6	50.1	5.5 **	2.5
Month 11	54.9	48.2	6.7 ***	2.5
Month 12	53.0	43.5	9.4 ***	2.5
<b>Year 2</b>				
Month 1	48.3	39.0	9.3 ***	2.5
Month 2	47.6	37.8	9.8 ***	2.5
Month 3	44.9	36.4	8.4 ***	2.5
Month 4	43.2	37.3	5.8 **	2.5
Month 5	42.4	37.7	4.7 *	2.5
Month 6	40.8	37.1	3.7	2.5
Month 7	39.7	35.1	4.6 *	2.4
Month 8	38.6	34.3	4.4 *	2.4
Month 9	36.4	33.3	3.1	2.4
Month 10	35.0	30.9	4.1 *	2.4
Month 11	32.2	29.2	2.9	2.3
Month 12	32.2	27.7	4.5 *	2.3
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table C.2**

**Estimated Impacts on Employment and Earnings, by Quarter,  
for Families in Income Tier 3 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Employed (%)</u></b>				
<b>Year 1</b>				
Quarter 1	89.0	89.2	-0.2	1.4
Quarter 2	86.7	88.5	-1.8	1.5
Quarter 3	85.0	84.1	0.9	1.8
Quarter 4	82.3	81.1	1.2	1.9
<b>Year 2</b>				
Quarter 1	80.9	78.8	2.1	2.0
Quarter 2	78.4	77.7	0.7	2.1
Quarter 3	78.6	76.6	2.0	2.1
Quarter 4	75.9	76.1	-0.2	2.2
<b><u>Earnings (\$)</u></b>				
<b>Year 1</b>				
Quarter 1	4,607	4,552	55	111
Quarter 2	4,588	4,640	-52	123
Quarter 3	4,613	4,564	49	137
Quarter 4	4,599	4,616	-17	153
<b>Year 2</b>				
Quarter 1	4,509	4,311	198	160
Quarter 2	4,548	4,509	39	168
Quarter 3	4,551	4,612	-61	177
Quarter 4	4,784	4,661	123	186
Sample size (total = 1,465)	728	737		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table C.3

Estimated Impacts on TANF Receipt and Benefits, by Month,  
for Families in Income Tier 3 at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received TANF (%)</u></b>				
<b>Year 1</b>				
Month 1	5.4	6.4	-1.0	1.1
Month 2	7.1	7.0	0.2	1.2
Month 3	7.6	7.1	0.5	1.2
Month 4	8.2	7.4	0.7	1.2
Month 5	8.5	8.0	0.5	1.3
Month 6	8.2	7.6	0.6	1.2
Month 7	7.4	8.4	-1.0	1.2
Month 8	6.7	7.3	-0.5	1.2
Month 9	7.0	7.4	-0.4	1.2
Month 10	8.0	8.6	-0.6	1.3
Month 11	8.2	8.4	-0.2	1.3
Month 12	7.5	8.6	-1.1	1.3
<b>Year 2</b>				
Month 1	7.7	8.9	-1.2	1.3
Month 2	7.3	9.0	-1.7	1.3
Month 3	7.3	9.0	-1.7	1.3
Month 4	6.6	8.9	-2.3 *	1.3
Month 5	7.0	8.4	-1.4	1.3
Month 6	7.2	9.0	-1.7	1.3
Month 7	7.6	8.7	-1.1	1.3
Month 8	6.9	7.7	-0.8	1.3
Month 9	6.5	8.2	-1.7	1.3
Month 10	7.4	8.6	-1.2	1.3
Month 11	7.6	7.7	0.0	1.3
Month 12	7.1	7.3	-0.3	1.3
<b><u>TANF amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	20	24	-4	4
Month 2	28	25	3	5
Month 3	31	28	2	5
Month 4	34	28	6	5
Month 5	35	32	3	6
Month 6	33	32	2	6
Month 7	30	35	-5	6
Month 8	26	34	-8	6
Month 9	28	30	-2	5
Month 10	32	34	-2	6
Month 11	35	38	-3	6
Month 12	32	38	-6	6

(continued)

**Appendix Table C.3 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	34	38	-5	6
Month 2	32	39	-7	6
Month 3	33	39	-5	6
Month 4	32	38	-6	6
Month 5	34	38	-4	6
Month 6	34	39	-5	6
Month 7	35	39	-4	7
Month 8	32	35	-3	6
Month 9	30	36	-6	6
Month 10	32	37	-4	6
Month 11	35	34	1	6
Month 12	32	33	-2	6
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table C.4

Estimated Impacts on Food Stamp Receipt and Benefits, by Month,  
for Families in Income Tier 3 at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received food stamps (%)</u></b>				
<b>Year 1</b>				
Month 1	23.5	24.2	-0.7	1.7
Month 2	23.5	25.3	-1.8	1.8
Month 3	24.9	26.7	-1.8	1.8
Month 4	25.4	26.8	-1.4	1.9
Month 5	25.8	26.7	-0.9	1.9
Month 6	25.4	25.9	-0.5	2.0
Month 7	23.8	26.9	-3.1	1.9
Month 8	24.2	26.3	-2.1	2.0
Month 9	26.0	25.9	0.1	2.0
Month 10	25.9	27.3	-1.4	2.1
Month 11	24.8	27.4	-2.6	2.1
Month 12	26.5	27.0	-0.5	2.1
<b>Year 2</b>				
Month 1	27.4	28.3	-0.9	2.1
Month 2	26.9	27.8	-0.9	2.1
Month 3	26.3	28.5	-2.2	2.1
Month 4	26.2	28.2	-2.0	2.1
Month 5	26.3	28.6	-2.4	2.1
Month 6	25.9	29.0	-3.1	2.1
Month 7	25.7	28.2	-2.5	2.1
Month 8	26.0	27.8	-1.9	2.1
Month 9	25.8	27.6	-1.7	2.1
Month 10	27.2	27.4	-0.3	2.1
Month 11	27.5	27.5	0.0	2.1
Month 12	27.9	26.9	1.0	2.1
<b><u>Food stamp amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	55	54	2	5
Month 2	59	61	-2	5
Month 3	64	65	-1	6
Month 4	66	67	-1	6
Month 5	67	68	-1	6
Month 6	67	69	-2	6
Month 7	66	72	-6	6
Month 8	66	71	-5	6
Month 9	69	70	-2	7
Month 10	71	71	0	7
Month 11	69	74	-5	7
Month 12	72	74	-2	7

(continued)

**Appendix Table C.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	75	78	-3	7
Month 2	77	78	-1	7
Month 3	78	82	-4	7
Month 4	76	82	-5	7
Month 5	74	82	-8	7
Month 6	75	81	-6	7
Month 7	76	76	0	7
Month 8	75	77	-2	7
Month 9	76	77	-1	7
Month 10	76	79	-3	7
Month 11	83	84	-1	7
Month 12	87	86	1	8
Sample size (total = 1,531)	761	770		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



## Appendix D

# Supplementary Results for the Full Sample



**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table D.1**

**Estimated Impacts on Child Care Subsidy Receipt, by Month,  
for Families across All Income Tiers at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received child care subsidies (%)</u></b>				
<b>Year 1</b>				
Month 1	87.2	86.7	0.5	0.9
Month 2	81.7	80.6	1.1	1.1
Month 3	74.2	74.0	0.2	1.2
Month 4	71.6	70.8	0.8	1.3
Month 5	67.8	68.7	-0.9	1.3
Month 6	64.8	64.1	0.7	1.3
Month 7	62.0	61.2	0.8	1.4
Month 8	60.3	59.1	1.2	1.4
Month 9	56.7	55.0	1.7	1.4
Month 10	55.7	53.7	2.1	1.4
Month 11	54.7	51.2	3.5 **	1.4
Month 12	53.7	48.9	4.8 ***	1.4
<b>Year 2</b>				
Month 1	50.5	45.9	4.5 ***	1.4
Month 2	49.1	44.7	4.4 ***	1.4
Month 3	47.9	43.3	4.6 ***	1.4
Month 4	47.5	43.0	4.6 ***	1.4
Month 5	47.7	42.5	5.2 ***	1.4
Month 6	46.9	41.5	5.4 ***	1.4
Month 7	45.2	40.3	4.9 ***	1.4
Month 8	44.4	39.2	5.2 ***	1.4
Month 9	42.0	37.2	4.8 ***	1.4
Month 10	41.2	36.1	5.1 ***	1.4
Month 11	39.8	35.7	4.1 ***	1.4
Month 12	39.2	34.6	4.7 ***	1.4
Sample size (total = 5,106)	1,990	3,116		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table D.2**

**Estimated Impacts on Employment and Earnings, by Quarter,  
for Families across All Income Tiers at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Employed (%)</u></b>				
<b>Year 1</b>				
Quarter 1	77.2	76.6	0.5	1.1
Quarter 2	75.0	75.9	-0.8	1.1
Quarter 3	75.0	73.7	1.3	1.2
Quarter 4	72.0	71.2	0.8	1.2
<b>Year 2</b>				
Quarter 1	69.4	68.8	0.5	1.3
Quarter 2	68.5	68.0	0.5	1.3
Quarter 3	68.6	68.4	0.3	1.3
Quarter 4	67.6	67.7	-0.1	1.3
<b><u>Earnings (\$)</u></b>				
<b>Year 1</b>				
Quarter 1	3,082	3,016	65	56
Quarter 2	3,162	3,185	-23	63
Quarter 3	3,266	3,223	43	71
Quarter 4	3,274	3,255	18	76
<b>Year 2</b>				
Quarter 1	3,158	3,081	77	79
Quarter 2	3,238	3,281	-43	83
Quarter 3	3,298	3,421	-122	89
Quarter 4	3,455	3,477	-22	93
Sample size (total = 4,919)	1,918	3,001		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table D.3

Estimated Impacts on TANF Receipt and Benefits, by Month,  
for Families across All Income Tiers at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received TANF (%)</u></b>				
<b>Year 1</b>				
Month 1	30.0	30.6	-0.6	0.9
Month 2	28.6	28.2	0.3	1.0
Month 3	27.0	26.4	0.6	1.0
Month 4	26.2	25.3	0.9	1.0
Month 5	25.3	24.6	0.6	1.0
Month 6	24.2	24.0	0.2	1.0
Month 7	23.1	23.3	-0.2	1.0
Month 8	21.9	22.7	-0.9	1.0
Month 9	22.2	22.5	-0.3	1.0
Month 10	21.7	22.7	-1.0	1.0
Month 11	21.7	22.1	-0.4	1.0
Month 12	20.9	21.5	-0.6	1.0
<b>Year 2</b>				
Month 1	20.5	21.2	-0.7	1.0
Month 2	20.2	21.2	-1.0	1.0
Month 3	20.2	20.4	-0.2	1.0
Month 4	20.2	19.8	0.3	1.0
Month 5	20.0	20.1	-0.1	1.0
Month 6	20.6	20.1	0.6	1.0
Month 7	20.0	19.2	0.8	1.0
Month 8	18.9	18.7	0.2	1.0
Month 9	18.2	18.8	-0.5	1.0
Month 10	18.5	18.9	-0.4	1.0
Month 11	18.3	18.0	0.3	1.0
Month 12	17.9	17.3	0.6	1.0
<b><u>TANF amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	130	131	0	5
Month 2	122	121	2	5
Month 3	117	115	3	5
Month 4	113	111	2	5
Month 5	111	109	2	5
Month 6	106	108	-2	5
Month 7	103	105	-2	5
Month 8	98	102	-4	5
Month 9	98	100	-3	5
Month 10	95	102	-7	5
Month 11	96	101	-5	5
Month 12	93	96	-3	5

(continued)

**Appendix Table D.3 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	95	98	-3	5
Month 2	92	99	-6	5
Month 3	93	93	1	5
Month 4	94	92	2	5
Month 5	92	93	-1	5
Month 6	92	94	-2	5
Month 7	89	90	-1	5
Month 8	85	86	-1	5
Month 9	81	84	-3	5
Month 10	83	85	-3	5
Month 11	83	82	1	5
Month 12	84	82	2	5
Sample size (total = 5,106)	1,990	3,116		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table D.4

Estimated Impacts on Food Stamp Receipt and Benefits, by Month,  
for Families across All Income Tiers at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received food stamps (%)</u></b>				
<b>Year 1</b>				
Month 1	61.9	60.9	1.0	0.9
Month 2	61.2	60.8	0.4	0.9
Month 3	61.2	60.9	0.4	1.0
Month 4	60.6	60.5	0.1	1.0
Month 5	59.9	59.0	0.9	1.1
Month 6	58.7	58.1	0.6	1.1
Month 7	56.0	56.9	-1.0	1.1
Month 8	54.6	55.5	-0.9	1.1
Month 9	55.1	55.0	0.1	1.2
Month 10	54.2	54.8	-0.5	1.2
Month 11	53.1	54.7	-1.6	1.2
Month 12	53.2	53.6	-0.3	1.2
<b>Year 2</b>				
Month 1	52.6	53.0	-0.4	1.2
Month 2	51.9	52.1	-0.2	1.2
Month 3	50.8	51.6	-0.8	1.2
Month 4	50.6	51.2	-0.5	1.3
Month 5	50.1	51.0	-1.0	1.3
Month 6	49.7	50.7	-1.0	1.3
Month 7	49.2	49.8	-0.7	1.3
Month 8	48.8	48.9	-0.1	1.3
Month 9	47.9	48.6	-0.7	1.3
Month 10	48.1	48.0	0.0	1.3
Month 11	48.2	47.6	0.6	1.3
Month 12	47.7	47.3	0.4	1.3
<b><u>Food stamp amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	175	171	4	3
Month 2	176	174	2	3
Month 3	177	176	1	4
Month 4	177	179	-1	4
Month 5	175	177	-1	4
Month 6	170	174	-3	4
Month 7	165	169	-4	4
Month 8	163	164	-1	4
Month 9	164	165	-1	4
Month 10	160	162	-2	4
Month 11	159	164	-5	4
Month 12	160	164	-3	4

(continued)

**Appendix Table D.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	159	163	-3	5
Month 2	155	158	-4	5
Month 3	154	158	-4	5
Month 4	153	158	-5	5
Month 5	152	157	-6	5
Month 6	151	154	-3	5
Month 7	151	152	-1	5
Month 8	150	152	-2	5
Month 9	147	150	-2	5
Month 10	147	149	-1	5
Month 11	152	153	-1	5
Month 12	157	158	-2	5
Sample size (total = 5,106)	1,990	3,116		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



**Appendix E**

**Supplementary Results for Families in Income Tier 1  
at Random Assignment**



**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table E.1**

**Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families in Income Tier 1 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Year 1</u></b>				
Months of subsidy receipt	7.2	7.2	0.0	0.2
Quarters of employment	2.4	2.3	0.1	0.1
Earnings (\$)	7,643	7,158	485	368
Hours worked	691	674	17	34
Months of TANF or food stamp receipt	10.3	10.4	-0.1	0.1
Total measured income (\$)	13,283	12,940	343	344
<b><u>Year 2</u></b>				
Months of subsidy receipt	5.5	4.8	0.7 ***	0.2
Quarters of employment	2.3	2.3	0.0	0.1
Earnings (\$)	8,681	8,714	-33	492
Hours worked	733	740	-7	40
Months of TANF or food stamp receipt	8.5	8.6	-0.2	0.2
Total measured income (\$)	13,237	13,348	-110	471
<b><u>Total</u></b>				
Months of subsidy receipt	12.7	12.0	0.6	0.4
Received subsidies for 7 consecutive months (%)	59.6	58.5	1.1	2.5
Received subsidies for 13 consecutive months (%)	37.2	32.5	4.7 **	2.4
Quarters of employment	4.6	4.6	0.1	0.1
Earnings (\$)	16,324	15,872	452	785
Hours worked	1,406	1,408	-2	68
Months of TANF or food stamp receipt	18.8	19.1	-0.3	0.3
Total measured income (\$)	26,520	26,287	233	744
Sample size (total = 1,806)	521	1,285		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table E.2**

**Estimated Impacts on Child Care Subsidy Receipt, by Month,  
for Families in Income Tier 1 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received child care subsidies (%)</u></b>				
<b>Year 1</b>				
Month 1	82.5	84.0	-1.5	1.9
Month 2	75.7	77.3	-1.6	2.2
Month 3	65.8	68.7	-3.0	2.4
Month 4	63.7	65.4	-1.7	2.4
Month 5	59.4	63.3	-3.9	2.5
Month 6	58.3	59.6	-1.3	2.5
Month 7	57.5	58.5	-1.0	2.5
Month 8	55.7	54.9	0.8	2.5
Month 9	52.7	50.6	2.1	2.5
Month 10	50.5	49.4	1.2	2.5
Month 11	49.5	46.5	3.0	2.5
Month 12	50.5	46.4	4.2 *	2.5
<b>Year 2</b>				
Month 1	49.0	44.6	4.4 *	2.5
Month 2	48.0	43.4	4.6 *	2.5
Month 3	46.7	43.4	3.4	2.5
Month 4	46.6	42.8	3.8	2.5
Month 5	47.9	41.9	6.1 **	2.5
Month 6	48.6	41.1	7.5 ***	2.5
Month 7	46.3	39.8	6.5 ***	2.5
Month 8	45.6	39.1	6.5 ***	2.5
Month 9	42.9	36.1	6.8 ***	2.5
Month 10	42.0	35.7	6.3 **	2.5
Month 11	42.1	36.2	5.9 **	2.5
Month 12	41.6	35.8	5.7 **	2.5
Sample size (total = 1,806)	521	1,285		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table E.3**

**Estimated Impacts on Employment and Earnings, by Quarter,  
for Families in Income Tier 1 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Employed (%)</u></b>				
<b>Year 1</b>				
Quarter 1	58.4	57.6	0.9	2.4
Quarter 2	59.3	58.5	0.8	2.5
Quarter 3	61.2	59.4	1.8	2.5
Quarter 4	59.3	57.7	1.6	2.5
<b>Year 2</b>				
Quarter 1	55.9	55.2	0.7	2.5
Quarter 2	55.5	55.7	-0.3	2.5
Quarter 3	57.0	58.3	-1.3	2.5
Quarter 4	58.3	57.6	0.7	2.5
<b><u>Earnings (\$)</u></b>				
<b>Year 1</b>				
Quarter 1	1,628	1,486	143	89
Quarter 2	1,876	1,787	89	105
Quarter 3	2,048	1,907	141	116
Quarter 4	2,091	1,978	113	121
<b>Year 2</b>				
Quarter 1	1,984	1,927	57	126
Quarter 2	2,118	2,167	-48	135
Quarter 3	2,252	2,273	-22	143
Quarter 4	2,327	2,347	-20	148
Sample size (total = 1,766)	515	1,251		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table E.4**

**Estimated Impacts on TANF Receipt and Benefits, by Month,  
for Families in Income Tier 1 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received TANF (%)</u></b>				
<b>Year 1</b>				
Month 1	67.0	68.7	-1.7	1.8
Month 2	61.4	61.4	0.0	2.0
Month 3	56.2	56.0	0.3	2.2
Month 4	52.2	51.9	0.2	2.2
Month 5	49.9	48.5	1.4	2.3
Month 6	46.6	46.8	-0.2	2.3
Month 7	44.0	45.1	-1.1	2.3
Month 8	40.8	43.4	-2.6	2.3
Month 9	40.9	41.9	-1.0	2.3
Month 10	40.9	41.8	-0.9	2.3
Month 11	40.8	40.0	0.8	2.3
Month 12	38.9	38.7	0.2	2.3
<b>Year 2</b>				
Month 1	38.0	37.8	0.2	2.4
Month 2	37.4	37.1	0.4	2.4
Month 3	37.7	35.3	2.3	2.3
Month 4	37.6	33.9	3.7	2.3
Month 5	36.8	34.5	2.3	2.3
Month 6	37.5	35.0	2.5	2.3
Month 7	37.0	32.9	4.1 *	2.3
Month 8	33.9	32.1	1.8	2.3
Month 9	32.3	31.7	0.7	2.2
Month 10	31.5	31.3	0.2	2.3
Month 11	30.6	29.7	0.9	2.2
Month 12	30.2	29.3	0.9	2.2
<b><u>TANF amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	304	306	-2	10
Month 2	267	271	-4	11
Month 3	251	249	2	11
Month 4	229	238	-9	12
Month 5	222	223	-1	12
Month 6	211	218	-7	12
Month 7	200	207	-7	12
Month 8	191	196	-5	12
Month 9	183	192	-9	12
Month 10	181	193	-12	12
Month 11	178	186	-8	12
Month 12	175	177	-2	12

(continued)

**Appendix Table E.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	176	178	-1	12
Month 2	172	177	-5	12
Month 3	176	165	11	12
Month 4	177	163	13	12
Month 5	169	163	5	12
Month 6	169	168	1	12
Month 7	164	157	7	12
Month 8	154	151	3	12
Month 9	144	144	0	11
Month 10	141	148	-6	12
Month 11	145	142	3	12
Month 12	145	141	4	12
Sample size (total = 1,806)	521	1,285		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

The Evaluation of Child Care Subsidy Strategies: Washington

Appendix Table E.5

Estimated Impacts on Food Stamp Receipt and Benefits, by Month,  
for Families in Income Tier 1 at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received food stamps (%)</u></b>				
<b>Year 1</b>				
Month 1	91.4	91.0	0.5	1.1
Month 2	90.7	90.2	0.5	1.2
Month 3	90.7	89.7	1.1	1.3
Month 4	89.6	89.3	0.4	1.4
Month 5	88.4	87.2	1.2	1.5
Month 6	87.1	86.1	1.1	1.6
Month 7	83.0	83.9	-0.9	1.7
Month 8	80.4	81.9	-1.5	1.8
Month 9	79.2	80.3	-1.0	1.9
Month 10	78.3	79.2	-1.0	2.0
Month 11	77.5	79.5	-2.0	2.0
Month 12	75.2	77.9	-2.7	2.0
<b>Year 2</b>				
Month 1	74.5	75.3	-0.8	2.1
Month 2	73.4	74.4	-1.0	2.1
Month 3	71.4	73.6	-2.2	2.2
Month 4	71.1	72.3	-1.1	2.2
Month 5	69.6	71.8	-2.1	2.2
Month 6	69.5	71.2	-1.7	2.2
Month 7	68.9	70.1	-1.2	2.3
Month 8	68.2	67.9	0.3	2.3
Month 9	66.2	67.3	-1.1	2.3
Month 10	66.1	66.0	0.0	2.3
Month 11	65.9	65.4	0.5	2.3
Month 12	66.1	65.4	0.7	2.3
<b><u>Food stamp amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	303	299	4	6
Month 2	301	298	3	6
Month 3	299	298	1	6
Month 4	295	297	-3	6
Month 5	290	293	-2	7
Month 6	282	289	-7	7
Month 7	270	277	-7	8
Month 8	262	266	-4	8
Month 9	260	262	-2	8
Month 10	252	256	-4	8
Month 11	253	260	-6	8
Month 12	251	257	-6	9

(continued)



**Appendix Table E.5 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	247	252	-4	9
Month 2	235	243	-8	9
Month 3	232	241	-9	9
Month 4	228	238	-11	9
Month 5	224	235	-10	9
Month 6	222	230	-7	9
Month 7	222	229	-7	9
Month 8	221	224	-4	9
Month 9	214	222	-8	9
Month 10	214	217	-3	9
Month 11	219	221	-2	10
Month 12	226	229	-4	10
Sample size (total = 1,806)	521	1,285		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



**Appendix F**

**Supplementary Results for Families in Income Tier 2  
at Random Assignment**



## The Evaluation of Child Care Subsidy Strategies: Washington

### Appendix Table F.1

#### Estimated Impacts on Child Care Subsidy Receipt, Employment, and TANF or Food Stamp Receipt for Families in Income Tier 2 at Random Assignment

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Year 1</u></b>				
Months of subsidy receipt	8.6	8.4	0.2	0.2
Quarters of employment	3.3	3.3	0.0	0.1
Earnings (\$)	13,361	13,497	-136	394
Hours worked	1,221	1,225	-3	34
Months of TANF or food stamp receipt	7.1	7.0	0.2	0.2
Total measured income (\$)	15,859	16,015	-156	374
<b><u>Year 2</u></b>				
Months of subsidy receipt	5.9	5.4	0.5 **	0.2
Quarters of employment	2.9	2.9	0.0	0.1
Earnings (\$)	13,422	13,734	-312	521
Hours worked	1,121	1,125	-4	40
Months of TANF or food stamp receipt	6.1	6.0	0.1	0.2
Total measured income (\$)	15,903	16,207	-303	501
<b><u>Total</u></b>				
Months of subsidy receipt	14.5	13.8	0.6 *	0.4
Received subsidies for 7 consecutive months (%)	70.9	68.5	2.3	2.2
Received subsidies for 13 consecutive months (%)	43.9	43.1	0.9	2.4
Quarters of employment	6.1	6.1	0.0	0.1
Earnings (\$)	26,783	27,231	-448	844
Hours worked	2,320	2,350	-31	68
Months of TANF or food stamp receipt	13.2	12.9	0.3	0.4
Total measured income (\$)	31,763	32,221	-459	806
Sample size (total = 1,769)	708	1,061		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table F.2**

**Estimated Impacts on Child Care Subsidy Receipt, by Month,  
for Families in Income Tier 2 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received child care subsidies (%)</u></b>				
<b>Year 1</b>				
Month 1	89.3	89.3	0.0	1.5
Month 2	86.7	84.6	2.2	1.7
Month 3	81.2	78.4	2.8	1.9
Month 4	78.2	75.5	2.7	2.0
Month 5	74.4	73.3	1.1	2.1
Month 6	71.1	69.1	2.0	2.2
Month 7	67.7	66.7	1.1	2.3
Month 8	65.7	65.8	-0.1	2.3
Month 9	61.3	62.1	-0.9	2.4
Month 10	61.5	60.9	0.6	2.4
Month 11	60.5	58.3	2.1	2.4
Month 12	58.1	56.0	2.1	2.4
<b>Year 2</b>				
Month 1	54.1	53.1	1.0	2.4
Month 2	51.5	52.1	-0.6	2.4
Month 3	51.7	49.1	2.6	2.4
Month 4	52.6	47.8	4.8 **	2.4
Month 5	52.5	46.9	5.6 **	2.4
Month 6	50.8	45.6	5.3 **	2.4
Month 7	49.3	45.0	4.3 *	2.4
Month 8	48.7	43.3	5.5 **	2.4
Month 9	46.5	41.5	5.0 **	2.4
Month 10	46.4	40.6	5.9 **	2.4
Month 11	44.8	40.6	4.2 *	2.4
Month 12	43.5	39.1	4.4 *	2.4
Sample size (total = 1,769)	708	1,061		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table F.3**

**Estimated Impacts on Employment and Earnings, by Quarter,  
for Families in Income Tier 2 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Employed (%)</u></b>				
<b>Year 1</b>				
Quarter 1	86.5	85.7	0.7	1.6
Quarter 2	81.4	83.2	-1.9	1.8
Quarter 3	80.9	79.5	1.4	1.9
Quarter 4	76.7	76.5	0.2	2.0
<b>Year 2</b>				
Quarter 1	73.4	74.3	-0.9	2.1
Quarter 2	73.4	72.4	1.0	2.2
Quarter 3	72.4	71.7	0.7	2.2
Quarter 4	70.4	70.9	-0.5	2.2
<b><u>Earnings (\$)</u></b>				
<b>Year 1</b>				
Quarter 1	3,286	3,285	0	98
Quarter 2	3,276	3,393	-117	108
Quarter 3	3,408	3,421	-14	122
Quarter 4	3,392	3,397	-5	131
<b>Year 2</b>				
Quarter 1	3,255	3,200	55	131
Quarter 2	3,298	3,365	-67	139
Quarter 3	3,350	3,563	-213	152
Quarter 4	3,519	3,606	-87	161
Sample size (total = 1,688)	675	1,013		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table F.4**

**Estimated Impacts on TANF Receipt and Benefits, by Month,  
for Families in Income Tier 2 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received TANF (%)</u></b>				
<b>Year 1</b>				
Month 1	13.3	12.8	0.4	1.5
Month 2	13.2	12.9	0.3	1.5
Month 3	13.7	13.1	0.5	1.5
Month 4	15.2	13.5	1.7	1.6
Month 5	14.8	14.6	0.2	1.6
Month 6	15.1	15.0	0.0	1.6
Month 7	15.4	13.9	1.5	1.6
Month 8	15.6	15.0	0.6	1.7
Month 9	16.2	15.7	0.5	1.7
Month 10	13.9	15.6	-1.7	1.6
Month 11	13.8	16.0	-2.2	1.7
Month 12	14.0	15.2	-1.2	1.7
<b>Year 2</b>				
Month 1	13.6	15.0	-1.4	1.6
Month 2	13.5	15.8	-2.2	1.7
Month 3	13.5	15.1	-1.6	1.6
Month 4	13.9	15.0	-1.1	1.7
Month 5	13.8	15.5	-1.6	1.7
Month 6	14.6	14.6	0.1	1.7
Month 7	12.9	14.5	-1.5	1.6
Month 8	13.4	14.7	-1.3	1.6
Month 9	13.4	15.0	-1.6	1.7
Month 10	14.5	15.3	-0.9	1.7
Month 11	14.5	15.1	-0.5	1.7
Month 12	14.3	13.9	0.4	1.7
<b><u>TANF amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	48	44	4	6
Month 2	55	49	6	7
Month 3	56	52	4	7
Month 4	63	53	10	7
Month 5	63	58	5	7
Month 6	62	62	0	7
Month 7	68	60	8	8
Month 8	68	64	3	8
Month 9	71	66	4	8
Month 10	61	67	-7	8
Month 11	64	69	-5	8
Month 12	62	65	-3	8

(continued)



**Appendix Table F.4 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	64	68	-5	8
Month 2	62	71	-9	8
Month 3	60	66	-6	8
Month 4	63	65	-2	8
Month 5	64	68	-4	8
Month 6	62	65	-2	8
Month 7	57	65	-8	8
Month 8	58	65	-7	8
Month 9	58	65	-7	8
Month 10	64	64	-1	8
Month 11	60	64	-4	8
Month 12	66	64	2	8
Sample size (total = 1,769)	708	1,061		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.

**The Evaluation of Child Care Subsidy Strategies: Washington**

**Appendix Table F.5**

**Estimated Impacts on Food Stamp Receipt and Benefits, by Month,  
for Families in Income Tier 2 at Random Assignment**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b><u>Received food stamps (%)</u></b>				
<b>Year 1</b>				
Month 1	64.6	62.2	2.5	1.6
Month 2	63.2	61.8	1.5	1.7
Month 3	62.2	61.2	1.0	1.9
Month 4	61.1	60.6	0.5	2.0
Month 5	59.9	58.4	1.5	2.0
Month 6	57.9	57.9	0.1	2.1
Month 7	55.7	55.7	0.0	2.1
Month 8	54.3	54.0	0.4	2.2
Month 9	55.4	54.5	0.9	2.2
Month 10	54.2	53.5	0.7	2.2
Month 11	52.9	52.8	0.1	2.2
Month 12	54.2	51.6	2.6	2.2
<b>Year 2</b>				
Month 1	52.4	51.7	0.7	2.3
Month 2	51.6	50.3	1.3	2.3
Month 3	51.1	49.1	2.0	2.3
Month 4	50.8	49.6	1.2	2.3
Month 5	50.6	49.3	1.3	2.3
Month 6	49.9	48.9	1.0	2.3
Month 7	49.0	48.1	0.9	2.3
Month 8	48.4	48.0	0.4	2.3
Month 9	48.1	47.9	0.2	2.3
Month 10	47.7	47.6	0.0	2.3
Month 11	47.9	47.0	0.9	2.3
Month 12	45.9	46.8	-0.9	2.3
<b><u>Food stamp amount received (\$)</u></b>				
<b>Year 1</b>				
Month 1	150	141	9	6
Month 2	150	143	7	6
Month 3	152	148	4	6
Month 4	156	154	2	7
Month 5	153	152	1	7
Month 6	146	148	-2	7
Month 7	145	144	1	7
Month 8	147	141	6	7
Month 9	149	147	2	8
Month 10	143	145	-2	8
Month 11	143	145	-2	8
Month 12	145	146	-1	8

(continued)

**Appendix Table F.5 (continued)**

Outcome	Alternative Copayment Group	Standard Copayment Group	Difference (Impact)	Standard Error
<b>Year 2</b>				
Month 1	143	144	-1	8
Month 2	140	141	-1	8
Month 3	142	139	3	8
Month 4	144	143	1	8
Month 5	143	144	-1	8
Month 6	145	142	3	8
Month 7	143	142	2	8
Month 8	142	143	-1	8
Month 9	141	140	1	8
Month 10	140	139	1	8
Month 11	142	143	-1	8
Month 12	146	148	-2	9
Sample size (total = 1,769)	708	1,061		

SOURCE: MDRC calculations from State of Washington 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.

The values shown in the columns labeled Alternative and Standard Copayment groups are covariate-adjusted average levels for those groups.



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## 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.