

CONDITIONAL CASH TRANSFERS IN NEW YORK CITY

The Continuing Story of the
Opportunity NYC–Family Rewards Demonstration

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Overview

Opportunity NYC–Family Rewards, an experimental, privately funded, conditional cash transfer (CCT) program to help families break the cycle of poverty, was the first comprehensive CCT program in a developed country. Launched in 2007 by New York City’s Center for Economic Opportunity (CEO), Family Rewards offered cash assistance to low-income families to reduce immediate hardship, but conditioned that assistance on families’ efforts to build up their “human capital” to reduce the risk of longer-term and second-generation poverty. The program thus tied cash rewards to pre-specified activities and outcomes in children’s education, families’ preventive health care, and parents’ employment. It operated as a pilot program for three years, concluding, as planned, in August 2010.

Six community-based organizations, in partnership with a lead nonprofit agency, ran Family Rewards in six of New York City’s highest-poverty communities. MDRC is evaluating the program through a randomized control trial involving approximately 4,800 families and 11,000 children, half of whom could receive the cash rewards if they met the required conditions, and half who were assigned to a control group that could not receive the rewards. This report presents final results on the experience of operating the program and interim findings on its effects on a wide range of outcomes three to four years after participants entered the program. Future reports will present longer-term findings.

Key Findings

Family Rewards transferred over \$8,700, on average, to families during the three-year period. As of spring 2013, it had had some positive effects on some outcomes, but left other outcomes unchanged. For example, the program:

- Reduced current poverty and material hardship, including hunger and some housing-related hardships, although those effects weakened after the cash transfers ended
- Helped parents increase savings and reduce reliance on families and friends for cash loans
- Did not improve school outcomes overall for elementary or middle school students, perhaps in part because, for these children, the program rewarded attendance (which was already high) and standardized test scores (rather than more immediate performance such as good report card grades)
- Had few effects on school outcomes for high school students overall, but substantially increased graduation rates and other outcomes for students who entered high school as proficient readers
- Did not increase families’ use of preventive medical care, which was already high, and had few effects on health outcomes
- Substantially increased families’ receipt of preventive dental care
- Increased the likelihood of self-reported full-time employment but did not increase employment in or earnings from jobs covered by the unemployment insurance system.

Building on the early evidence that is emerging from this evaluation, MDRC and CEO have revised the Family Rewards model considerably, and MDRC is now testing that new version in Memphis, Tennessee, and the Bronx, New York, in a separate demonstration project.

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Preface

The struggle to find effective ways to help low-income populations escape poverty without increasing long-term and multigenerational reliance on government has been with us for many years. Conditional cash transfer (CCT) programs represent one approach that has met with some success in lower- and middle-income countries. But until 2007, when Opportunity NYC–Family Rewards was launched, no comprehensive CCT program had been attempted in a higher-income country.

Built on Mexico’s pioneering Oportunidades program and sponsored by New York City’s Center for Economic Opportunity (CEO), Family Rewards used foundation funding to offer conditional cash incentives to poor families for a period of three years. Family Rewards was intended to help low-income families reduce economic hardship in the short run and to escape intergenerational poverty in the long run, while also incorporating the principle of reciprocity that has historically been embedded in the nation’s major income support programs. It did this by offering cash incentives to families if they took steps to improve their children’s educational outcomes, family members’ preventive health care practices, and parents’ employment. Conditioning transfer benefits is always controversial. But much of America’s safety net (including the Earned Income Tax Credit) already conditions transfers on work efforts. In a weak labor market, there may be value in giving low-income families additional opportunities to qualify for income transfers while also enabling them to invest in their own futures.

This interim report on effects through the third year of the program’s operation found that, while it operated, Family Rewards continued to reduce poverty and material hardship, increased savings by some families, and had some sustained, positive impacts on educational outcomes for better-prepared high school students. Particularly encouraging, it increased on-time graduation rates for ninth-graders who were academically proficient readers when they entered the program. The program also increased families’ receipt of dental care. But its effects on poverty and hardship began to fade once the reward payments were no longer available. The program also had no effects on younger students’ educational progress or families’ overall health outcomes, and it had small effects on parents’ labor market outcomes.

Recognizing from the early evidence that the program’s original design had produced mixed effects, MDRC and CEO revised the Family Rewards model and launched a separate follow-up demonstration project in Memphis, Tennessee, and the Bronx, New York. The new model targets low-income families with children in grades 9 and 10 only, rather than including children in elementary and middle school, as in the original program. It offers fewer rewards, disburses payments more frequently, and rewards report card grades in addition to attendance and test scores to provide a more immediate incentive for better school performance. It also adds a family

guidance component. It is hoped that this refined version of Family Rewards will be more effective than the original program.

As the current evaluation continues and the new Family Rewards program matures, we will gain evidence about whether and how CCT programs can be effective in various contexts. In the end, we hope to continue to learn whether this approach can reduce long-term and intergenerational poverty so that future generations can look forward to a better inheritance.

Gordon L. Berlin
President, MDRC

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We appreciate the continuing support of all the funders of the demonstration. These include Bloomberg Philanthropies, The Rockefeller Foundation, The Starr Foundation, the Open Society Institute, the Robin Hood Foundation, the Tiger Foundation, The Annie E. Casey Foundation, American International Group, the John D. and Catherine T. MacArthur Foundation, and New York Community Trust.

At MDRC, Donna Wharton-Fields assisted in the overall management of the demonstration while also serving as a liaison to Seedco and the NPOs and contributing valuable observations and insights about the operation of the program. Gordon Berlin, William Corrin, Richard Hendra, and John Hutchins provided valuable feedback on report drafts. Jared Smith and Gilda Azurdia led the processing of the vast amount of quantitative data used in the analysis, with expert assistance from Victoria Deitch, Zakia Barnes, Leila Kerimova, and Nathaniel Roth. Jo Anna Hunter helped manage the survey of parents, which was administered by Decision In-

formation Resources, Inc. Leslyn Hall helped design the survey instrument. David Greenberg conducted in-depth interviews and contributed to the qualitative analyses. Carolyn Fraker coded most of the qualitative data from the final wave of interviews and produced summary memos. Hortencia Rodriguez provided research support. Anastasia Korolkova coordinated the production of the report. Crystal Ganges-Reid helped with the production of the exhibits and, with Diane Singer, Jaya Varma, Jeremy Welsh-Loveman, and Mercy Emelike, assisted with fact-checking. Alice Tufel edited the report, and Stephanie Cowell prepared it for publication.

The Authors

Executive Summary

In 2010, the operational phase of New York City’s first experiment testing a comprehensive conditional cash transfer (CCT) program, known as Opportunity NYC–Family Rewards, concluded — as scheduled — after a planned three-year run. Launched in 2007 as a privately funded initiative in six of New York City’s highest-poverty communities, Family Rewards aimed to help families break the cycle of intergenerational poverty. This report presents interim results on the program’s effects through its final year of operations and, on some measures, during the first year after the program concluded. A future report will present longer-term post-program results.

CCT programs transfer cash to poor families to reduce immediate hardship and poverty. They condition the cash transfers on families’ efforts to improve their “human capital” (typically, children’s educational achievement and family health) in the hope of also reducing intergenerational poverty. Such programs have grown rapidly across lower- and middle-income countries, and evaluations have found some important successes. Family Rewards is the first comprehensive CCT program to be attempted in a higher-income country.

Family Rewards tied cash rewards to a prespecified set of activities and outcomes in three domains: children’s education, family preventive health care, and parents’ employment. The program was available to about 2,400 families for three years. Inspired by Mexico’s pioneering Oportunidades program, which offers poor families cash payments that are linked primarily to their children’s school attendance and family members’ preventive health care, Family Rewards’ effects are being measured via a randomized control trial — meaning that eligible families were assigned at random to either a program group, which received the Family Rewards intervention, or a control group, which did not.

The Family Rewards demonstration is one of about 50 initiatives sponsored by New York City’s Center for Economic Opportunity (CEO), a unit within the Office of Mayor Michael R. Bloomberg that is responsible for testing innovative strategies to reduce the number of New Yorkers who are living in poverty. Two national, New York–based nonprofit organizations — MDRC, a nonpartisan, social policy research firm, and Seedco, a workforce and economic development organization — worked in close partnership with CEO to design the demonstration. Seedco, together with a small network of local, community-based organizations, operated Family Rewards. In addition to managing the overall demonstration, MDRC is conducting the evaluation. A consortium of private funders is supporting the project.¹

¹These funders include Bloomberg Philanthropies, The Rockefeller Foundation, The Starr Foundation, the Open Society Institute, the Robin Hood Foundation, the Tiger Foundation, The Annie E. Casey
(continued)

This report examines the implementation of the program and families' responses to it through the end of its three years of operations. As noted above, the report also presents interim findings on the program's effects, or "impacts," on a wide range of outcome measures. For some measures, the results cover three years of follow-up after sample members entered the study (that is, when they were randomly assigned). These first three years cover the "program phase" of the follow-up period. For other measures, the follow-up period is somewhat longer, extending into the beginning of the post-program period. The evaluation findings are based on analyses of a variety of administrative records data, a survey of parents that was administered about 42 months (or three and a half years) after they entered the study, and qualitative in-depth interviews with program staff and families.

Overall, this report shows that Family Rewards made payments to virtually all families. It transferred substantial amounts of cash — over \$8,700 per family, on average, over the three-year period, with many families receiving considerably more. It succeeded in reducing current poverty and material hardship (its main short-term goal), but those effects weakened after the cash transfers ended. Family Rewards also produced positive effects on some human capital outcomes across all three program domains (children's education, family health care, and parents' work and training), especially for particular subgroups of participants. For example, it produced noteworthy effects on education outcomes for better-prepared high school students. At the same time, it left many other important outcomes unchanged.

Opportunity NYC–Family Rewards was the first comprehensive CCT trial in the United States. Its promising initial effects on poverty reduction and on a number of human capital outcomes offer a reason to continue experimenting with this approach. At the same time, features of the model that did not work as well point to a number of ways in which the Family Rewards approach could be strengthened. Building on the early evidence, MDRC and CEO revised the model considerably, and in 2011, MDRC began testing that new version of Family Rewards in Memphis, Tennessee, and the Bronx, New York.

The Original Program Model

All CCT programs condition immediate poverty relief on families' investments in human capital, especially in children. However, in adopting this core principle, the designers of Family Rewards understood that the model and its delivery structure would have to be adapted to suit a vastly different social, economic, and policy context than was present in Mexico and other middle- and lower-income countries. In New York City, the program attempted to address two-generation poverty in an urban setting, in contrast to the Mexican program's focus on rural

Foundation, American International Group, the John D. and Catherine T. MacArthur Foundation, and New York Community Trust.

poverty, and it was layered on top of an already well-developed network of safety net programs and policies.

Like all CCT programs, Family Rewards was based on the assumption that, for a variety of reasons, families may underinvest in their own human capital development. That lack of investment — while certainly not the only reason for their financial hardship — can make it difficult for parents and their children to escape poverty. The cash payments, in addition to being a short-term income supplement to reduce hardship immediately, were intended to function as enabling resources and as a stimulus to action. As enabling resources, the extra money families earned, once it began to accumulate, could help them to support and promote their children’s educational progress, obtain preventive health care, and pursue employment opportunities. As a stimulus, the reward payments could encourage families to make extra investments of time and energy for those purposes.

Types of Rewards

New York City’s program included an extensive set of rewards with the following conditions:

- **Education-focused conditions**, which included meeting goals for children’s attendance in school, achievement levels on standardized tests, and other school progress markers, as well as parents’ engagement with their children’s education
- **Health-focused conditions**, which included maintaining health insurance coverage for parents and their children, as well as obtaining age-appropriate preventive medical and dental checkups for each family member
- **Workforce-focused conditions**, aimed at parents, which included sustaining full-time work and participation in approved education or job training activities

The program offered a set of 22 different incentives during its first two years (some of which were discontinued in Year 3), ranging in value from \$20 to \$600 each per year. (See Table ES.1 for a detailed list.) The program designers included this broad range to create opportunities to assess which incentives might be the most effective. In addition, they sought to give families many different ways in which to earn money and to avoid attaching overly large amounts of money to any given activity or outcome. After reviewing early evidence of impacts, several rewards were discontinued for the third year. This was done to simplify the program, lower its costs, and make it easier to replicate should it prove to be successful.

The Opportunity NYC Demonstration: Family Rewards

Table ES.1

Schedule of Rewards

Activity	Reward Amount
<u>Education incentives</u>	
Elementary and middle school students	
Attends 95% of scheduled school days <i>(discontinued after Year 2)</i>	\$25 per month
Scores at proficiency level (or improves) on annual math and English language arts (ELA) tests	
Elementary school students	\$300 per math test; \$300 per ELA test
Middle school students	\$350 per math test; \$350 per ELA test
Parent reviews low-stakes interim tests <i>(discontinued after Year 1)</i>	\$25 for parents to download, print, and review results (up to 5 times per year)
Parent discusses annual math and ELA test results with teachers <i>(discontinued after Year 2)</i>	\$25 (up to 2 tests per year)
High school students	
Attends 95% of scheduled school days	\$50 per month
Accumulates 11 course credits per year	\$600
Passes Regents exams	\$600 per exam passed (up to 5 exams)
Takes PSAT test	\$50 for taking the test (up to 2 times)
Graduates from high school	\$400 bonus
All grades	
Parent attends parent-teacher conferences	\$25 per conference (up to 2 times per year)
Child obtains library card <i>(discontinued after Year 2)</i>	\$50 once during program
<u>Health incentives</u>	
Maintaining public or private health insurance <i>(discontinued after Year 2)</i>	
For each parent covered	Per month: \$20 (public); \$50 (private)
If all children are covered	Per month: \$20 (public); \$50 (private)
Annual medical checkup	\$200 per family member (once per year)
Doctor-recommended follow-up visit <i>(discontinued after Year 2)</i>	\$100 per family member (once per year)
Early-intervention evaluation for child under 30 months old, if advised by pediatrician	\$200 per child (once per year)
Preventive dental care (cleaning/checkup)	\$100 per family member (once per year for children 1-5 years old; twice per year for family members 6 years of age or older)
<u>Workforce incentives</u>	
Sustained full-time employment	\$150 per month
Education and training while employed at least 10 hours per week <i>(employment requirement discontinued after Year 2)</i>	Amount varies by length of course, up to a maximum of \$3,000 over 3 years

The program allowed families to receive cash rewards totaling several thousand dollars per year over a three-year period. The actual amounts that families received depended on the number and particular type of rewards they earned. (Some rewards carried higher payments than others.) Larger families could earn higher payments because each child's actions could earn education and health rewards.

In general, payments were made directly to the parents. However, some education-related payments for high school students were paid directly to the students. Depending on the reward, the entire payment was made to the student (for example, for passing a Regents exam) or split with the parents (for example, for meeting the attendance standard). To maximize the potential incentive value of the rewards, the program imposed no restrictions on how families could spend the money.

The Family Rewards model differs in important ways from CCT approaches in other countries. In many countries, CCT programs function as the main government-sponsored safety net, or as an important component of it, and they most commonly tie the payments only to children's school enrollment and attendance and to routine health checkups. In contrast, Family Rewards included many more conditions and rewards. In the education domain, it was unusual in rewarding children's school *achievement*, including standardized test score results, not just school enrollment and attendance. Its work-related component for parents was also distinctive. And as a short-term intervention layered on top of an already well-developed social safety net, Family Rewards served as a supplemental program rather than as the core welfare system, in contrast to programs in Mexico and a number of other countries. It was also unusual in being operated by private, nonprofit agencies rather than by the government.

The Delivery Structure

Seedco, the main implementing agency, assembled a network of local organizations in the designated community districts to assist in implementing Family Rewards. Called "Neighborhood Partner Organizations" (NPOs), these agencies recruited and enrolled eligible families into the research sample and served as the face of the program in the communities.² They provided ongoing customer service to participants who requested assistance, such as in making claims for the rewards or for information about other services in the community. NPOs also conducted informational workshops on how to earn and claim rewards in each of the domains in which the incentives were offered. Seedco maintained a telephone helpline and a Web site to provide additional information and assistance to families.

²These organizations are Urban Health Plan and BronxWorks (formerly Citizens Advice Bureau) in the Bronx; Brownsville Multi-Service Center and Groundwork, Inc., in Brooklyn; and Catholic Charities and Union Settlement Association in Manhattan.

Once Seedco verified that families earned rewards (which it did using a combination of administrative data from city agencies and special “coupon book” forms submitted directly by participants), it initiated a process of transferring payments electronically into participants’ newly opened or existing bank accounts or, if they preferred, onto stored value cards (which are prepaid cards, like gift cards). To provide families with a safe banking option, New York City officials worked with several banks and credit unions to develop special “Opportunity NYC accounts” that carried no fees and came with debit cards that were impossible to overdraw. The reward payments were made every two months, and families could access the money at any time through any automatic teller machine (ATM).

Envisioned as an “incentives-only” intervention, the program model did not provide social services or case management. However, it did include an information-and-referral component wherein the implementing agencies (Seedco and the NPOs) referred families (upon request) to other agencies in the community that provided relevant services.

The Study Sample

Family Rewards is being evaluated through a randomized control trial involving approximately 4,800 families, with 11,000 children, who applied to the program. The program could not serve all applicants, and the selection of participants was determined on a random basis. Through a lottery-like process, half of the applicant families were picked for Family Rewards and offered the incentives, and half were assigned to a control group that was not offered the incentives. Using such a process helps ensure that the program effects estimated by the evaluation are truly a result of the intervention.

Family Rewards targeted families who lived in selected community districts and who had incomes at or below 130 percent of the federal poverty level. Eligible families had to have at least one child in the fourth, seventh, or ninth grade. Those grades were selected because they are at or near the start of critical transition points in education. Once a family volunteered for the study, *all* children in the family who were school-age or younger were eligible for the program. The parents as well as the children had to be legal residents of the United States in order to be eligible.

Program operations began with the start of the new school year in September 2007. To ensure that the program reached a broad cross-section of children, not just the most motivated and active, potentially eligible families living in the targeted communities were identified from lists of students in the free school lunch program maintained by the New York City Department of Education. Seedco and the NPOs then attempted to recruit a representative group of those families through mailings, phone calls, and home visits, inviting them to apply to be in the study. Those who agreed were randomly assigned to the program or control group.

Implementation and Reward Receipt

A prior MDRC report examined the first two years of program operation in depth.³ It showed that by the second year, although complex to administer, the program was being operated in a way that was generally consistent with its designers' vision.

Program operations remained strong in the third and final year, which ended in August 2010. During that year, staff also began to focus on an “exit strategy” to prepare families to cope with the ending of the reward payments. Given the relatively short period of the program and the fact that families would be exiting in the wake of the Great Recession, most participants were likely to see their income drop as the program came to an end. The staff tried to help participants prepare for this income cliff by encouraging them to increase their labor market earnings and adjust their consumption patterns.

In-depth interviews with a sample of participants suggest that families reacted to the end of the program with acceptance. They expressed gratitude for having had the experience, but some were doubtful that they could replace the lost income with earnings from employment. Some expected to draw more on savings that they had accumulated during the program, and some expressed an intention to go back to school or try to increase their wage earnings.

- **Overall, families earned a substantial amount of reward money from the program — an average of over \$8,700 for all three years combined.**

Virtually all families earned at least some rewards during the three program years, and 89 percent earned at least one reward in Year 3 (when fewer rewards were offered). Reward amounts averaged over \$3,100 during each of the first two years and \$2,700 in the third year (when several rewards were discontinued). A majority of families — approximately 57 percent — earned at least \$7,000 over the life of the program. The top 20 percent earned more than \$13,000 in reward money.

To put these amounts in perspective, the federal poverty level for a family of three (for example, a single parent with two children) in 2009 (roughly midway through the program period) was \$18,310. Thus, families of that size and income level who received \$3,000 in reward payments in a year would increase their annual income by about 16 percent. Similarly sized families with income that is below half of the poverty level (or below \$9,155 for the example cited above), which some experts would define as living in “severe poverty,” would boost their income by 33 percent. Or, put differently, a reward amount of \$3,000 would add

³James Riccio, Nadine Dechausay, David Greenberg, Cynthia Miller, Zawadi Rucks, and Nandita Verma, *Toward Reduced Poverty Across Generations: Early Findings from New York City's Conditional Cash Transfer Program* (New York: MDRC, 2010).

about 21 percent to the total wages (\$14,560) of a single parent who was paid \$8 per hour for working 35 hours per week for an entire year.

Compared with other families, those in the top 20 percent of earners were larger (giving them more opportunities to earn rewards) and tended to be less disadvantaged. For example, the parents were more educated, more likely to be employed, and more likely to be married, and the families were less likely to be receiving government transfer benefits. In addition, in-depth interviews suggest that parents who were top earners may have been better organized, more able to handle the verification procedures associated with the program, and more likely to track their families' performance against the conditions they needed to meet in order to earn rewards.

Most reward money came from the education domain, accounting for 45 percent of the \$20.6 million spent on reward payments over the full course of the program. Health care rewards accounted for 34 percent of total payments, and workforce rewards (primarily for full-time work rather than education or training) accounted for 21 percent. Virtually 100 percent of families earned at least one education and one health reward, while about 53 percent earned a workforce reward.

- **Parents used the reward money to pay for basic household expenses, some “extras,” and, in some cases, to save for college and pay for special lessons to help their children in school.**

Family Rewards imposed no restrictions on families' access to their reward money or how they could spend it, and throughout the program families used the extra money in a variety of ways. Common uses included paying for basic living expenses, paying off bills, paying for school-related supplies or activities, buying electronic goods, saving for the future, and covering special recreational outings for the family, sometimes as a reward for school accomplishments. For many families, celebration of accomplishments took the form of spending time together on leisure activities, like eating out, going on a trip, or seeing a movie that would otherwise have been prohibitively expensive.

High school students received substantial amounts of money in their own bank accounts for meeting education-related conditions. A companion study of high school students and their parents found that parents exercised varying degrees of control over how much access students had to their rewards.⁴ The vast majority of parents who were interviewed for the 42-month survey (72 percent) said that their high school-age child had to ask them for permission to spend the money. Only 17 percent gave their children freedom to spend the

⁴Pamela Morris, J. Lawrence Aber, Sharon Wolf, and Juliette Berg, *Using Incentives to Change How Teenagers Spend Their Time: The Effects of New York City's Conditional Cash Transfer Program* (New York: MDRC, 2012).

money as they wished, and 9 percent did not allow their high school–age children to spend it at all. Despite the sizable money transfers into students’ own accounts, the program did not increase parent-teenager conflict, a problem that some observers feared. In addition, the program may have reduced certain troublesome behaviors among the teenagers, such as aggression and substance abuse.

Interim Impacts

Findings on the program’s effects, or “impacts,” are available on a wide variety of outcome measures covering three to four years after each family’s time of entry into the study, depending on the data source. Thus, the results reported here provide a full picture of the program’s effects while families were still participating in it and soon after the program ended. (Longer-term post-program impact findings will be presented in a future report.) All impacts that are discussed in this summary are statistically significant unless otherwise noted, thus indicating a high degree of confidence that the observed differences between program and control groups are most likely a result of the program rather than of chance.⁵

- **Family Rewards reduced families’ current poverty and economic hardships, including difficulties securing enough food and some housing-related hardships.**

As it is for all CCT programs, reducing current poverty and hardship was a key short-term objective of Family Rewards. In this area, Family Rewards succeeded. It substantially improved families’ economic position while they were in the program. For example, counting the value of the reward payments, it boosted self-reported average monthly household income for the program group by \$353 in Year 3, an improvement of about 22 percent relative to the control group’s average monthly income of \$1,620. (See Table ES.2.) This extra income reduced the proportion of families living at or below the federal poverty level by 12 percentage points below the control group rate of 68 percent.⁶ The program also cut the proportion of families

⁵Nonetheless, impact estimates are calculated for a large number of outcome variables, raising the risk of finding statistically significant effects just by chance. No formal statistical controls were used to guard against this risk, and caution should be used in attributing meaning to isolated impacts that are not part of a broader pattern of effects.

⁶In this study, income and poverty estimates include self-reported monthly cash income plus the cash value of benefits from the Food Stamp Program, now called the Supplemental Nutrition Assistance Program (SNAP), but it excludes tax credits. Poverty estimates are based on comparisons with the official federal poverty levels for families of various sizes. The reward payments did not affect other public benefits that families may have been receiving, such as SNAP, welfare payments under the Temporary Assistance for Needy Families (TANF) program, Medicaid, housing subsidies, and the Earned Income Tax Credit.

The Opportunity NYC Demonstration: Family Rewards

Table ES.2

**Impacts on Selected Outcomes Measuring Poverty, Material Hardship,
Banking, Health Care, and Employment Through the Final Program
Year or Early Post-Program Period**

Outcome	Program Group	Control Group	Difference (Impact)	Change (%)
<u>Income and poverty</u>				
Household income during Year 3 (including Family Rewards payments)				
Average monthly income ^{a,b,c} (\$)	1,973	1,620	353 ***	21.8
Annual income at or below federal poverty level ^{a,b} (%)	56.0	68.2	-12.2 ***	-17.8
Annual income less than 50% of federal poverty level ^{a,b} (%)	16.3	27.4	-11.1 ***	-40.7
Household income during early post-program period (excluding Family Rewards payments)				
Average monthly income ^{a,d} (\$)	1,700	1,620	79 *	4.9
Annual income at or below federal poverty level ^{a,d} (%)	66.2	68.2	-2.0	--
Annual income less than 50% of federal poverty level ^{a,d} (%)	25.9	27.4	-1.5	--
<u>Material hardship (%)</u>				
Family "sometimes" or "often" did not have enough food to eat in past month	15.3	20.7	-5.4 ***	-26.2
Family usually did not have enough money to make ends meet at end of month	35.4	41.0	-5.6 ***	-13.7
Family did not pay full rent or mortgage in past year ^c	40.0	44.1	-4.2 *	-9.4
Parent agrees "strongly" or "somewhat" that current financial situation is "better than last year"	51.4	46.6	4.8 **	10.3
<u>Banking and savings (%)</u>				
Parent currently has any bank account	64.0	46.6	17.5 ***	37.5
Parent cashes check at check casher at least once a month	29.2	31.5	-2.3	--
Family has any savings	24.6	16.8	7.8 ***	46.8
Family's average savings exceed \$500	12.5	9.2	3.2 **	35.1
Parent borrows cash from family or friends	47.3	52.5	-5.2 **	-9.8

(continued)

Table ES.2 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	Change (%)
<u>Parents' use of health services and health status</u>				
Had a period with no health insurance coverage in past 12 months	15.3	17.6	-2.3 *	-13.3
Uses hospital emergency room as usual source of care when sick	3.0	4.0	-1.0	--
Has seen health professional for any reason in past 12 months	94.4	94.5	-0.1	--
Had a health checkup in past 12 months	90.0	88.9	1.1	--
Treated for any medical condition	50.1	47.8	2.3	--
Self-rated health is "excellent" or "very good"	53.2	48.7	4.5	--
Has seen dentist for any reason in past 12 months	85.4	75.3	10.1 ***	13.4
Had 2 or more dental checkups in past 12 months	45.2	33.5	11.8 ***	35.2
<u>High school students' use of health services (%)</u>				
Uses hospital emergency room as usual source of care when sick	2.5	3.2	-0.8	--
Has seen dentist for any reason in past 12 months	93.8	89.1	4.7 **	5.2
Had 2 or more dental checkups in past 12 months	62.9	44.1	18.8 ***	42.6
<u>Parents' employment outcomes</u>				
Employment status, survey (%)				
Currently employed at the time of the survey	56.0	49.6	6.4 ***	12.9
Working full time (at least 30 hours per week) ^f	44.4	39.5	4.9 ***	12.4
Employment status, UI records				
Ever employed, Year 3 (%)	52.5	53.3	-0.9	--
Average quarterly employment, Year 3 (%)	46.1	46.7	-0.6	--
Average earnings, Year 3 (\$)	12,414	12,529	-116	--

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) wage records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

(continued)

Table ES.2 (continued)

Rounding may cause slight discrepancies in calculating sums and differences.

Percentage change shown only for statistically significant impacts.

Unless otherwise specified, the survey measures refer to the early post-program period.

Dollar averages include zero values for sample members who were not employed.

UI records include only employment and earnings in jobs covered by the New York State UI program. They do not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 7.2 percent of the sample is excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.6 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during program Year 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cThe Year 1 income measures reported on the 18-month survey are within 3 percent of the 42-month income measures reported here.

^dAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. This calculation does not include Family Rewards payments earned during program Year 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^eOnly about 4 percent of the survey sample (N = 130) owned an apartment or a house at the time of the survey.

^fIf a respondent worked multiple jobs at the time of the interview, then only the characteristics of the primary job are reported. (The job at which the respondent worked the most hours is considered primary.)

who were living in severe poverty (that is, families with starting incomes less than 50 percent of the federal poverty level, who make up about half of the study sample).

Most of these poverty reductions are attributable to the cash transfers that families received, rather than to increased earnings from jobs. Once the program ended and the transfers were no longer available, families' incomes dropped and were not substantially different from those of the control group.

The extra income they received during the program period helped families reduce a variety of material hardships, and those effects persisted into the early post-program period. For example, the proportion of families who experienced "food insufficiency" (as indicated by parents responding on the 42-month survey that their families "sometimes" or "often times" did not have enough to eat) dropped from over 20 percent in the control group to about 15 percent

in the program group, a reduction of over 5 percentage points.⁷ Program group families were less likely than the control group to report not having enough money to pay their rent some time in the past year. They were more likely to report having enough money to “make ends meet” and that their financial situation had improved over the prior year.

The reductions in hardships were largely concentrated among families who were living in severe poverty at the time they entered the program. Among that group, the program caused a 9 percentage point reduction in the likelihood of reporting food insufficiency after the program ended, and about an 11 percentage point reduction in the likelihood of not paying their full rent in the past year (not shown in table).

- **Family Rewards helped parents increase their savings and reduce their reliance on families and friends for cash loans.**

The parents in Family Rewards were about 18 percentage points more likely than the control group (64 percent versus 47 percent) to report having a bank account after the program had ended. They were 8 percentage points more likely than the control group (25 percent versus 17 percent) to have any savings. They were also more likely to have savings of more than \$500, and less likely to borrow cash from family or friends.

Education

- **Family Rewards did not improve school outcomes for elementary or middle school students.**

The analysis examined the effects of Family Rewards on school attendance rates, grade progression, and various achievement measures during the three years of the program and one year afterward — or four years in total after students began the program.

For elementary and middle school students, the analysis found few positive effects on attendance rates, scores on standardized tests, or other school outcomes during the program period or by the end of Year 4. In addition, subgroup analyses did not reveal any consistent patterns of positive effects for particular types of students in those grades. Perhaps the model’s limited approach for these children — of rewarding only attendance (which was already high, leaving little room for improvement) and standardized test scores (rather than more immediate performance indicators, such as good report card grades) — might explain in part why Family Rewards did not have an educational payoff for this group.

⁷Slight discrepancies in percentages are a result of rounding.

- **Family Rewards had few effects on school outcomes for high school students overall. However, it substantially increased graduation rates and other outcomes for students who were already stronger readers.**

Students who were behind educationally when they entered Family Rewards did not experience educational gains from the program. In contrast, those who entered better prepared for high school — who may have been in a better position to take advantage of the incentives offer — do appear to have benefited. Although subgroup findings tend to carry less statistical certainty than full-sample results, a number of other studies of education-focused incentives programs have similarly found more positive effects for more capable students.⁸

Family Rewards had particularly strong effects on students in the ninth-grade cohort who had scored at or above the basic proficiency level on their eighth-grade standardized English language arts (ELA) test (which primarily tests reading skills) before random assignment. For this subgroup, which made up almost one-third of the overall sample of ninth-graders, Family Rewards appears to have improved a range of school outcomes. (See Table ES.3.) These include an 8 percentage point increase in the likelihood of graduating from high school within four years (a gain of 12 percent above the 67 percent graduation rate among control group students who were ELA-proficient at the beginning of the study). The program also produced a 10 percentage point increase in the proportion of ELA-proficient students who were enrolled in grade 12 in Year 4, indicating that they were progressing through high school at the expected rate. In addition, Family Rewards increased their likelihood of earning at least 44 credits (the amount needed to graduate) by 9.6 percentage points, and the likelihood of passing at least five New York State Regents exams by 9.5 percentage points.⁹ These effects are particularly noteworthy because they occurred without any changes in the schools themselves or in teachers' instructional practices.

For the ninth-graders who were proficient on their eighth-grade math test, Family Rewards produced positive effects on various educational outcomes during the program phase only. For example, as Table ES.3 shows, it improved their attendance rates and credit accumulation while they were in the program. However, these positive effects did not persist into Year 4, when the incentives were no longer available. In addition, the math-proficient subgroup did not experience an increase in on-time graduation.

⁸See, for example, Joshua Angrist and Victor Lavy, "The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial," *American Economic Review* 99, 4 (2009): 1384-1414.

⁹Students must pass at least five tests in specified subject areas in order to graduate with a diploma recognized by the New York State Board of Regents, which sets standards and regulations for all public schools in the state.

The Opportunity NYC Demonstration: Family Rewards

Table ES.3

Impacts on Selected Education Outcomes for Students in Grade 9

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	Change (%)
<u>Students in grade 9 at baseline</u>				
Graduated within 4 years (%)	49.2	48.2	1.1	--
Enrolled in any grade in Year 4 (%)	80.1	79.2	0.9	--
Enrolled in grade 12, Year 4 (%)	53.1	51.2	1.9	--
Average attendance rate, Year 3 (%)	69.4	67.7	1.7	--
Average attendance rate, Year 4 (%)	60.7	59.7	1.1	--
Attendance rate 95% or higher, Year 3 (%)	25.1	21.9	3.1 *	14.3
Attendance rate 95% or higher, Year 4 (%)	17.4	15.3	2.1	--
Average number of credits earned, Years 1 to 4	32.7	31.9	0.8	--
Earned at least 33 credits, Years 1 to 3 (%)	41.9	40.9	0.9	--
Earned at least 44 credits, Years 1 to 4 (%)	41.5	40.5	0.9	--
Passed at least 5 Regents exams, Years 1 to 4 (%)	36.7	35.7	1.1	--
<u>Students in grade 9 at baseline, by proficiency level on 8th grade English language arts (ELA) test^a</u>				
Graduated within 4 years (%)			††	
Proficient on 8th grade ELA test	74.8	66.9	8.0 **	11.9
Not proficient on 8th grade ELA test	43.2	45.9	-2.8	--
Enrolled in any grade in Year 4 (%)				
Proficient on 8th grade ELA test	90.9	89.0	1.9	--
Not proficient on 8th grade ELA test	82.7	81.3	1.4	--
Enrolled in grade 12, Year 4 (%)			††	
Proficient on 8th grade ELA test	78.4	68.2	10.1 ***	14.8
Not proficient on 8th grade ELA test	48.3	50.3	-2.0	--
Average attendance rate, Year 3 (%)			††	
Proficient on 8th grade ELA test	83.9	77.1	6.8 ***	8.8
Not proficient on 8th grade ELA test	68.1	67.7	0.4	--
Average attendance rate, Year 4 (%)				
Proficient on 8th grade ELA test	76.7	71.6	5.1 *	7.1
Not proficient on 8th grade ELA test	59.8	60.4	-0.6	--
Average number of credits earned, Years 1 to 4			†††	
Proficient on 8th grade ELA test	44.3	40.0	4.3 ***	10.8
Not proficient on 8th grade ELA test	30.9	31.8	-0.8	--
Earned at least 33 credits, Years 1 to 3 (%)			†††	
Proficient on 8th grade ELA test	68.4	55.4	13.0 ***	23.4
Not proficient on 8th grade ELA test	36.3	40.1	-3.8	--

(continued)

Table ES.3 (continued)

Outcome (%)	Program Group	Control Group	Difference (Impact)	Change (%)
Earned at least 44 credits, Years 1 to 4 (%)			††	
Proficient on 8th grade ELA test	66.1	56.6	9.6 **	16.9
Not proficient on 8th grade ELA test	36.9	39.8	-2.8	--
Passed at least 5 Regents exams, Years 1 to 4 (%)			†††	
Proficient on 8th grade ELA test	72.5	63.1	9.5 **	15.1
Not proficient on 8th grade ELA test	25.8	28.9	-3.1	--
<u>Students in grade 9 at baseline, by proficiency level on 8th grade math test^a</u>				
Graduated within 4 years (%)				
Proficient on 8th grade math test	74.8	71.3	3.5	--
Not proficient on 8th grade math test	41.7	42.2	-0.5	--
Enrolled in any grade in Year 4 (%)				
Proficient on 8th grade math test	91.1	89.3	1.8	--
Not proficient on 8th grade math test	81.9	80.5	1.4	--
Enrolled in grade 12, Year 4 (%)				
Proficient on 8th grade math test	77.6	71.8	5.8	--
Not proficient on 8th grade math test	47.5	47.0	0.5	--
Average attendance rate, Year 3 (%)				
Proficient on 8th grade math test	82.8	78.2	4.6 **	5.9
Not proficient on 8th grade math test	67.8	66.7	1.1	--
Average attendance rate, Year 4 (%)				
Proficient on 8th grade math test	75.6	72.6	3.0	--
Not proficient on 8th grade math test	59.2	58.9	0.3	--
Average number of credits earned, Years 1 to 4				
Proficient on 8th grade math test	43.5	41.3	2.3 *	5.5
Not proficient on 8th grade math test	30.8	30.6	0.2	--
Earned at least 33 credits, Years 1 to 3 (%)			†	
Proficient on 8th grade math test	67.4	59.8	7.6 *	12.7
Not proficient on 8th grade math test	35.6	37.0	-1.4	--
Earned at least 44 credits, Years 1 to 4 (%)				
Proficient on 8th grade math test	64.4	60.4	4.1	--
Not proficient on 8th grade math test	36.9	36.8	0.1	--
Passed at least 5 Regents exams, Years 1 to 4 (%)				
Proficient on 8th grade math test	69.5	68.8	0.7	--
Not proficient on 8th grade math test	25.6	24.0	1.6	--

(continued)

Table ES.3 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Percentage change is shown only for statistically significant impacts.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

When they entered the study, ninth-graders who were proficient in reading were not necessarily proficient in math, and vice-versa.¹⁰ Why Family Rewards would have stronger and more sustained effects for reading-proficient students is not immediately clear. This question remains an important topic for further investigation.

Family Rewards did not help students who were less prepared for high school. More specifically, the analysis found no pattern of statistically significant impacts on educational outcomes for students in the ninth-grade cohort who had scored below the proficiency threshold on either the eighth-grade ELA or math exams before random assignment.¹¹

Some critics of incentives worry that extrinsic rewards can reduce children's intrinsic motivation to learn, especially after the incentives end, and thus harm their educational outcomes. So far, there is no indication that Family Rewards has caused any consistent pattern of statistically significant negative effects on school outcomes, even after the program ended. The evaluation will continue to assess that risk once longer-term data are available.

¹⁰On the students' eighth-grade standardized tests, the correlation between ELA proficiency and math proficiency was about 0.44.

¹¹As Table ES.3 shows, on most outcome measures, the impacts for ELA-proficient students were statistically significantly different from the impacts for non-ELA-proficient students.

Health

- **Family Rewards did not increase families' use of preventive medical care, which was already high, and it had few effects on health outcomes.**

The health-related incentives of the Family Rewards program were designed to encourage low-income families to adopt better preventive health care practices. It turned out that a higher proportion of families than the program's designers had expected were already receiving health insurance coverage and practicing preventive health care. This finding may reflect the success of efforts by New York State and New York City to expand access to health coverage in the years leading up to and during the study period.¹²

Perhaps for that reason, Family Rewards had few noteworthy health-related impacts, according to the 42-month survey. (See Table ES.2.) It did reduce the likelihood that parents or their children would experience an interruption in health insurance coverage in the prior year by over 2 percentage points (even after the health insurance rewards were discontinued in the third program year). But it did not improve the likelihood that parents or children would get health checkups or see health professionals for other reasons, primarily because most families already received those services. A small reduction in families' use of emergency rooms for routine medical care that was evident from the evaluation's 18-month survey faded, with very few families in either the program or control groups reporting on the 42-month survey that they had used emergency rooms for that purpose.

Although Family Rewards did not lead to improvements on a range of parents' health outcomes, or on health outcomes that parents reported for their children, one noteworthy suggestive subgroup finding emerged. Parents who indicated at the time of random assignment that they were in "fair" or "poor" health (about 20 percent of the sample; not shown in Table ES.2) were 6.2 percentage points more likely than the control group (or almost twice as likely) to report that they were in "very good" or "excellent" health at the time of the 42-month survey. They also reported lower rates of asthma.¹³ Although the latter finding is not easily explained by other patterns in the data, it may be a topic worthy of further exploration in future studies.

- **Family Rewards produced large increases in families' use of dental care services.**

¹²The study sample did not include low-income single adults or undocumented immigrants, who are much less likely to have health insurance.

¹³The difference in impacts on asthma across the health subgroup categories is statistically significant. The difference in impacts on current self-reported health is in the same direction but is not statistically significant, making the finding less certain.

Family Rewards led to increased dental care for parents and children alike. (See Table ES.2.) For example, parents in the program group were 10 percentage points more likely than control group parents to report having seen a dentist for any reason in the prior year, and about 12 percentage points more likely to have had two or more dental checkups in the past year. Strong positive effects were also observed among high school students (for example, a 19 percentage point increase in two dental checkups in the past year) and among younger children (not shown).

Employment

- **Family Rewards increased the likelihood of self-reported full-time employment. It did not increase employment in or earnings from jobs covered by the unemployment insurance (UI) system.**

According to the 42-month survey of parents, the program increased the likelihood of working at the time of the interview by 6 percentage points above the control group rate of 50 percent. This difference was driven by an increase in full-time work (which the program rewarded). (See Table ES.2.) However, the program had no statistically significant impact on the average quarterly employment rate in UI-covered jobs over a three-year follow-up period, according to administrative records data.¹⁴ The very small negative effect in Year 3 on average earnings in UI-covered jobs was not statistically significant.

Some jobs are not covered by the UI system, such as self-employment, federal government employment, and domestic work. In addition, the UI system also misses informal (casual or irregular) jobs that are never reported to state agencies. It is not clear why the effects of the program would vary across types of employment. Perhaps for some parents, non-UI jobs were easier to get in a weak economy, particularly those that offered the full-time hours necessary to qualify for the program's workforce rewards. Such jobs may also have been more attractive options if they were more conveniently located, easier to obtain, or offered more flexible schedules than UI-covered jobs.

It is also not clear why the program did not lead to larger increases in all types of employment (including UI-covered jobs), a finding that stands in contrast to previous work incentives programs. It may be that the added income that families received from the education and health rewards offset the program's work incentives for some participants, especially those who would have the most difficult time finding jobs in a tough economy. Indeed, subgroup analyses found that the program had a statistically significant negative effect on labor market outcomes for parents who entered the program with lower education levels and other disadvantages; in other words, they worked and earned less than they would have in the absence

¹⁴Employers report the wages of workers to the UI system on a quarterly basis.

of the program, according to UI records. For example, those without a high school diploma or General Educational Development (GED) certificate had an average quarterly employment rate in Year 3 that was 3 percentage points lower than that of their counterparts in the control group, and they earned an average of \$1,790 less (a reduction of almost 8 percent).¹⁵

Conclusion

The evidence that is available so far on Family Rewards shows that a CCT approach in one large city in a higher-income country can reduce immediate poverty and material hardship and promote at least some improvements in some forms of human capital investment, especially for certain subgroups. At the same time, the specific model tested in New York City left many important outcomes unchanged.

The evaluation of Family Rewards is continuing and the final story remains to be written. Further evidence will be available in the next evaluation report, to be completed in 2014, which will present findings on the program's effects over five to six years after random assignment. In the meantime, it seems reasonable to draw at least two general conclusions: (1) the Family Rewards model has not demonstrated its value enough to scale it up as a broader antipoverty policy in its *original* form, but (2) because of its success in reducing short-term poverty and material hardship while achieving at least some improvements in human capital development, continuing to experiment with a CCT approach in the United States has merit.

With these conclusions in mind, CEO and MDRC joined forces again to design and test a “next generation” version of Family Rewards. The new model, referred to as “Family Rewards 2.0,” builds on the lessons of the original New York City demonstration and incorporates several important modifications. It was launched in the Bronx, New York, and Memphis, Tennessee, in the summer of 2011 for low-income families with high school students in grades 9 or 10, all of whom were TANF or SNAP recipients. It includes a streamlined set of financial rewards, more frequent payments, and a new family guidance component to try to help more parents and students meet the conditions that enable them to earn rewards.¹⁶ It is hoped that these refinements to the model will make it a more effective intervention. The project is an initiative of the federal Social Innovation Fund, sponsored by the Corporation for National and Community Service. Like the original model, Family Rewards 2.0 is being carefully tested using a randomized control trial. An initial report on the sites' operational experiences and information on some early impact findings are planned for release in late 2014.

¹⁵The difference in impacts on average quarterly employment rates for parents with a high school diploma or GED certificate compared with parents who did not have one of those credentials is statistically significant. The difference in earnings impacts across those two education subgroups is in the same direction but is not statistically significant.

¹⁶See Chapter 7 of this report for more information about the new Family Rewards model.

Chapter 1

Introduction

In 2007, New York City launched, on a pilot basis, an experimental antipoverty initiative called Opportunity NYC–Family Rewards, a conditional cash transfer (CCT) program to help families break the cycle of intergenerational poverty. As planned, the program offered participants a three-year intervention, which concluded, on schedule, in late 2010. A comprehensive evaluation, using a randomized control trial, is assessing the program’s effects on family poverty and well-being over at least five years after families entered the study, including two years after families exited the program. This report presents interim findings on the program’s effects on a variety of education and family outcomes. The results presented here extend through the beginning of the post-program phase. (See Box 1.1 for the demonstration timeline.)

The first of its kind in the United States, Family Rewards ties cash rewards for very low-income families to a variety of activities and outcomes related to children’s educational efforts and achievement, family preventive health care practices, and parents’ employment. The intent of the program is to reduce family poverty and hardships in the short term while simultaneously supporting and encouraging families to invest in their own health, education, and employment potential — or “human capital development” — for their longer-term economic security. Family Rewards was inspired by similar initiatives in other countries, particularly Mexico’s Oportunidades program, and it is being tested in six of New York’s highest-poverty communities.

Family Rewards is one of about 50 initiatives sponsored by New York City’s Center for Economic Opportunity (CEO). A unit within the Office of Mayor Michael R. Bloomberg, CEO was established on the recommendation of a special “Poverty Commission” appointed by the mayor in 2006 to test a wide range of innovative antipoverty strategies.¹ Family Rewards is one of three incentives-based poverty reduction strategies launched by CEO in 2007. The other two are:

- *Work Rewards*, a project that offers work and training incentives to low-income recipients of government rent subsidies from New York City’s Housing Choice Voucher (Section 8) program²

¹For more information on CEO and its history and work, see the New York City Center for Economic Opportunity Web site at www.nyc.gov/ceo.

²Verma et al. (2012).

Box 1.1

Family Rewards Demonstration Timeline

- Sample recruited: July 2007 to December 2007
- First program year: September 2007 to August 2008
- Second program year: September 2008 to August 2009
- Third program year: September 2009 to August 2010
- Evaluation reports: 2010 to 2014
- Social Innovation Fund replication test in New York City and Memphis, Tennessee, launched in 2011

- *Spark*, a school-based education incentives program that was designed to improve the school performance of fourth- and seventh-graders by rewarding good performance on a series of standardized tests administered over the course of the academic year³

These three projects differ in important ways, but all offer cash rewards to help low-income families build human capital. Together they make up a set of demonstration projects known collectively as Opportunity NYC, and each has been part of a rigorous randomized control trial evaluation in which study participants are randomly assigned to either a program group, which receives the intervention, or a control group, which does not. Random assignment helps ensure that observed differences in outcomes between the two groups are truly a result of the program. A consortium of private funders has supported these studies.⁴

Two national, New York-based nonprofit organizations — MDRC and Seedco — worked in close partnership with CEO to design the Family Rewards and Work Rewards demonstrations. MDRC is a nonpartisan, social policy research firm with extensive experience conducting large-scale demonstration projects using random assignment research designs to build rigorous evidence on what works to improve the well-being of low-income families.

³Spark was evaluated by Harvard Education Labs, which developed the project in partnership with the New York City Department of Education. See Fryer (2010).

⁴The Opportunity NYC demonstration funders include the Bloomberg Philanthropies, The Rockefeller Foundation, The Starr Foundation, the Open Society Institute, the Robin Hood Foundation, the Tiger Foundation, The Annie E. Casey Foundation, American International Group, the John D. and Catherine T. MacArthur Foundation, New York Community Trust, and (for Spark only) the Broad Foundation.

Seedco works with local organizations to create economic opportunities for disadvantaged individuals and communities. The design team, made up of staff from CEO, MDRC, and Seedco, also conferred extensively with other New York City agencies and outside experts.⁵ Seedco, together with a small network of local, community-based organizations, operated the Family Rewards and Work Rewards programs, and MDRC is conducting the evaluations.

In March 2010, MDRC published a report on the Family Rewards program's early findings, covering the first one to two years of follow-up.⁶ That period included the program's start-up phase as well as a stage when the program was beginning to mature. Overall, that report showed that, while launching Family Rewards was challenging, the program passed a basic feasibility test: the operators successfully transferred substantial amounts of money to low-income families in a large American city, with all payments tied to a comprehensive set of conditions. The initial impact findings showed that the program began to achieve its primary short-term goal of reducing current poverty and material hardship. The program had also begun to generate some encouraging early effects on certain educational, health, and employment outcomes, but also left a number of important outcomes unchanged. The current report picks up the story, examining how the rewards were marketed and delivered during the third and final year of the program, how families' experiences with the program evolved as it matured, how families experienced their exit from the program, and the program's impacts through the early post-program period.

In 2011, MDRC published a report that, using qualitative data collected through in-depth interviews with a sample of parents and children, explores the variety of ways in which parents and children communicated about the program's educational incentives, the role of the program in parent-child relationships and family dynamics, and how the families used the reward monies they earned.⁷ In 2012, MDRC published a report that uses data from a special survey of high school students and their parents to explore how the program affected the teenagers' time use, spending patterns, parent-child relationships, and other outcomes.⁸ Later chapters in the current report draw on findings from these two special studies.

The current report shows that the Family Rewards cash transfers continued to reduce poverty and important material hardships (such as an insufficient supply of food and a number

⁵Staff from the New York City Department of Health and Mental Hygiene, Department of Education, Human Resources Administration, Department of Consumer Affairs, and Department of Small Business Services were the main planning partners on Family Rewards, while the New York City Department of Housing Preservation and Development and the New York City Housing Authority were the main planning partners for the Work Rewards demonstration.

⁶See Riccio et al. (2010).

⁷See Greenberg, Dechausay, and Fraker (2011).

⁸See Morris, Aber, Wolf, and Berg (2012).

of housing-related hardships) throughout the program period. However, these effects began to attenuate after the rewards were no longer available to families. The program continued to produce a number of positive effects on some education, health-related, and employment outcomes, especially for certain subgroups, including positive impacts on graduation rates for ninth-graders who were better prepared for high school than their peers when they entered the study. But it still left other important outcomes unchanged.

The evaluation of Family Rewards will continue through 2014, covering a follow-up period of up to six years after random assignment, depending on the data source. Thus, the findings presented in this report do not represent the final word on the program's effectiveness.

The Next Generation: Family Rewards and the Social Innovation Fund

In 2011, CEO and MDRC launched a new demonstration program to test a revised version of a CCT program — referred to here as “Family Rewards 2.0” — as a project of the federal Social Innovation Fund.⁹ The early findings on the original Family Rewards program, presented in MDRC's 2010 report on the program,¹⁰ identified rewards and strategies that held some promise, as well as those that did not appear to work well. That evidence helped inform the design of the new program. The new model covers the same three domains (education, health, and workforce), but it has many fewer types of cash rewards, making communication and marketing to families easier. The revised model also calls for payments to be made on a more frequent basis and includes a new family guidance component. It is hoped that this “new and improved” version of Family Rewards, which is now being tested in the Bronx, New York, and in Memphis, Tennessee, in a new randomized control trial, will prove more effective than the original version. (See Chapter 7 for more information on the new model.)

The remainder of this chapter reviews the Family Rewards demonstration, the program model, the characteristics of the study sample, and the overall approach for evaluating the intervention. Subsequent chapters present findings to date on the program's implementation experiences and impacts. For a detailed discussion of the origins of the demonstration,

⁹The Social Innovation Fund, enacted under the Edward M. Kennedy Serve America Act and administered by the Corporation for National and Community Service, targets public-private funds to expand effective solutions to pressing social problems through economic opportunity, healthy futures, youth development, and school support. This work seeks to create a catalog of proven approaches that can be replicated in communities across the country. See www.nationalservice.gov/about/programs/innovation.asp.

¹⁰See Riccio et al. (2010).

the theory of change underlying the model, and controversies over the approach, see MDRC's 2010 report.¹¹

Program Overview

Like other CCT programs in lower- and middle-income countries, the original Family Rewards program was a two-generation initiative with both shorter-term and longer-term poverty-reduction goals.¹² It included no new social services or case management. Instead, it attempted to use the offer of a new set of cash transfers in strategic ways to lessen immediate income-related hardships for poor families while simultaneously helping and encouraging those families to increase — or sustain — positive efforts to improve their own futures. The transfers were to function as an *income supplement* to improve families' economic security in the shorter term, as *enabling resources* to help make short-term human capital investments feasible for them, and as *inducements* to encourage them to make those investments. Payments, which were available for three years, were awarded when households met specific conditions in three key areas, or “domains”:

- **Education-based conditions**, which include children's superior attendance in school, meeting certain performance levels on standardized tests and other school outcomes, and parents' engagement with their children's education
- **Health-based conditions**, which include maintaining health coverage for parents and their children, as well as age-appropriate preventive medical and dental checkups for each family member
- **Workforce-related conditions**, aimed at parents, which include sustaining full-time work and participating in approved education or job-training activities

Family Rewards rested on the premise that financial incentives can influence individuals' short-term choices and actions in ways that can serve their best interests over the longer term. Economists, psychologists, and other scholars cite evidence, for example, that people often “discount the future,” meaning that they do not attach sufficient value to investments in education or health-related practices that can make them more economically secure or healthier because they do not fully recognize or appreciate the future payoffs that come from such investments.¹³ In addition, for young children in particular, the future is very distant, and long-

¹¹See Riccio et al. (2010).

¹²Riccio et al. (2010).

¹³See, for example, Fiszbein and Schady (2009) for a fuller discussion of this issue.

term rewards may be too abstract to be significant motivating forces. Community or peer group norms, fed by observations of persistent intergenerational poverty, may also reinforce these perceptions, especially in high-poverty communities. At the same time, the simple lack of resources and other structural constraints among poor families can make it challenging to build human capital. For example, poor families may encounter difficulties getting access to good schools and enrichment programs for their children; paying for tutoring for children who need extra help; affording reliable child care when parents work; getting paid for time off from work to take their children to medical or dental checkups; finding dentists who are willing to take Medicaid; and even paying for transportation to and from low-wage jobs or job interviews, health visits, and school activities — in addition to the many additional impediments with which poor families must often contend.

Financial incentives may help change the equation. In the face of more immediate and tangible rewards, people may take steps that serve their longer-term best interests, and perhaps even develop new habits, regardless of whether they fully recognize or believe in the longer-term value of those efforts. Furthermore, if the rewards are sizable, the extra resources can help make it more feasible for low-income people to undertake certain educational, health care, and work-related efforts in the short term. As resources accumulate from some activities, such as school attendance and doctor visits, they might help cover the costs of other activities and materials, such as the costs of educational materials or tutoring for children, transportation to a free dental clinic, the dental checkup itself (if not free or covered by insurance), clothes for a job interview, or tuition payments for a training program. In this sense, the conditioned rewards may function not only as financial *inducements*, but also as *enabling resources*. (See Figure 1.1 for a depiction of the general theoretical model.)

The Family Rewards model was operated in a total of six community districts — two each from the Bronx, Brooklyn, and Manhattan, as listed in Table 1.1. These six areas were chosen because they are among New York’s most persistently disadvantaged communities. At the same time, these communities are also diverse in terms of their racial and ethnic composition (although most residents are black or Hispanic/Latino), and in terms of the prevalence of social service and health organizations.¹⁴

Family Rewards was targeted toward families in these six community districts who had incomes at or below 130 percent of the federal poverty level.¹⁵ This standard is the same as the eligibility standard used for food stamps and a number of other benefit programs that serve very

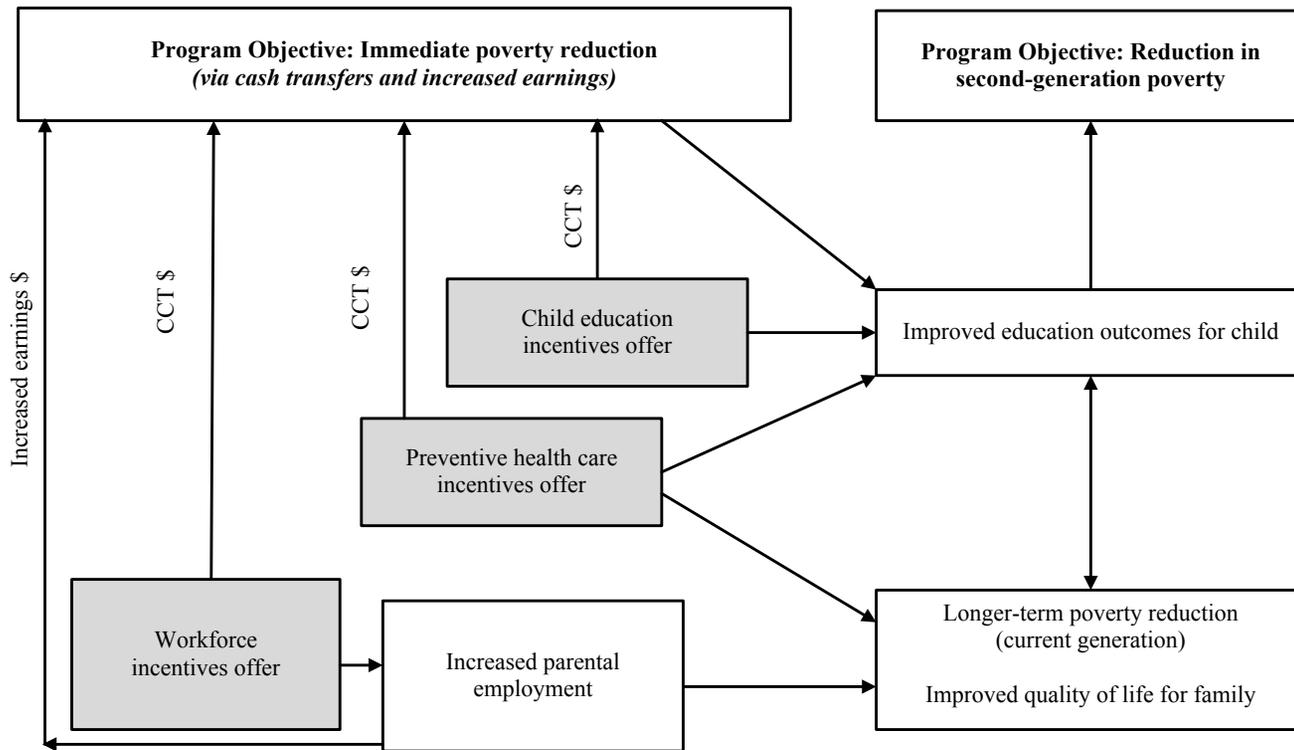
¹⁴For more background on these communities, see Riccio et al. (2010).

¹⁵In the continental United States, the 2007 federal poverty level for a family of three was \$17,170, and 130 percent of the poverty level for such a family was \$22,321. See U.S. Department of Health and Human Services (2007).

The Opportunity NYC Demonstration: Family Rewards

Figure 1.1

A Logic Model for Family Rewards



NOTES: CCT = conditional cash transfer. Shaded boxes reflect the three program domains.

The Opportunity NYC Demonstration: Family Rewards

Table 1.1

Key Neighborhoods in Selected Study Community Districts of New York City

Borough and District	Key Neighborhoods
Bronx	
Community District 5	Morris Heights, University Heights, Fordham, Mount Hope
Community District 6	East Tremont, Bathgate, Belmont, West Farms
Brooklyn	
Community District 5	East New York, New Lots, Starrett City
Community District 16	Brownsville, Ocean Hill
Manhattan	
Community District 10	Central Harlem
Community District 11	East Harlem

low-income families, making it a widely accepted benchmark for identifying families in need of government cash transfer programs. As a two-generation intervention, the program was intended for parents and their school-age children.¹⁶ Furthermore, all parents and children had to be legal residents of the United States.¹⁷

Eligible families had to have at least one child in the fourth, seventh, or ninth grade. However, once a family enrolled in the program, *all* school-age or younger children were eligible to participate in it. The demonstration targeted students in these grades because they are at or near the start of critical educational transition years. For example, by fourth grade, children are making a transition from “learning to read” to “reading to learn” — in other words, applying their newly developed reading skills to acquire content knowledge. Without making that transition smoothly, future school work becomes more difficult, and children who fall seriously behind by the third or fourth grade tend to have difficulty catching up later.¹⁸ The designers of Family Rewards thus hoped that offering three years of education incentives for the fourth-grade target group would help them do better in that critical year and successfully weather the transition to the first full year

¹⁶Adults were eligible only if they were the custodial parents or legal guardians of the eligible children, or a custodial parent’s cohabiting spouse or legally registered domestic partner.

¹⁷Undocumented residents were not included in the target population because they do not have a legal right to work in the United States. That means that they are not eligible for the program’s full-time work bonus. Consequently, including them would have impeded a full test of the two-generation CCT model in which workforce incentives for parents are an important program component.

¹⁸For one study showing this pattern, see Clotfelter, Ladd, and Vigdor (2006).

of middle school, which typically begins in sixth grade in New York City. Similarly, rewards targeted to the cohort of seventh-graders were intended to help support and encourage those students to perform well in middle school through the end of ninth grade (the first year of high school), another critical transition stage.

Although the incentives for the seventh-grade cohort ended after ninth grade, rewards for the ninth-grade cohort continued through the end of eleventh grade. Many high school students in low-income communities struggle in ninth grade. They begin to have more serious attendance problems and fall behind in credits, which puts them on a slippery slope toward dropping out of school. Students who succeed through the eleventh grade, however, are highly likely to graduate.¹⁹ Thus, offering students education-focused incentives beginning in the ninth grade — often considered a “make-or-break” year — may help boost achievement at this very critical stage; continuing incentives for two more years may put them on a solid path toward graduation.

Program Delivery Structure

Seedco assembled a network of six local organizations in the designated community districts to assist in implementing Family Rewards.²⁰ Called Neighborhood Partner Organizations (NPOs), these agencies recruited and enrolled eligible families into the research sample and served as the face of the program in the communities, providing ongoing customer service to participants who request assistance, such as in making claims for the rewards or for obtaining information about other services in the community. NPOs also conducted informational workshops on how to earn and claim rewards in each of the domains in which the incentives were offered. Seedco maintained a telephone helpline and a Web site to provide additional information and assistance to families.

Seedco verified that families earned rewards by using a combination of automated data from some City agencies and special “coupon book” forms submitted directly by participants. After verification, it initiated a process of transferring payments electronically into bank accounts that participants newly opened or into their existing accounts that they attached to the program, or, if they preferred, onto stored value cards (which are similar to debit cards but are not assigned to an individual account holder, such as prepaid telephone cards). The payments were made every two months (the length of a program “activity period”) and families could access the money at any time through any automatic teller machine (ATM).

¹⁹Kemple, Herlihy, and Smith (2005).

²⁰These organizations are Urban Health Plan and BronxWorks (formerly Citizens Advice Bureau) in the Bronx; Brownsville Multi-Service Center and Groundwork, Inc., in Brooklyn; and Catholic Charities and Union Settlement Association in Manhattan. See Chapter 3 of Riccio et al. (2010) for a description of these agencies and the services they normally provide apart from Family Rewards.

By design, Family Rewards included no case management. This means that it made no provision for staff to develop action plans to address barriers in participants' lives or to intervene in personal crises that may have made it difficult for them to succeed in the program. It also made no provision for staff to follow up with participants about their individual progress in meeting their goals or getting the services they needed, or to intervene directly with service providers on behalf of individual families, such as by helping to arrange tutoring for children, taking into account their children's specific learning needs, or arranging child care that is appropriate to a family's particular circumstances. Family Rewards also did not provide any direct services, such as tutoring, test preparation, job search classes, basic educational instruction, or occupational training.

The program's designers excluded these forms of assistance and services for four main reasons. First, they wanted to test the power of the cash incentive alone. Second, in contrast to participants in CCT programs in poorer nations, they expected that many families would have access to services through other programs in the community, and that Family Rewards should not duplicate those services. Third, they reasoned that if the New York City model could succeed without those extra elements, it would be easier and less expensive to "scale up" — that is, to operate the program on a larger scale — as an ongoing policy. And fourth, they hoped that the program would be less burdensome to families if they were not required to have regular appointments with staff while also trying to balance work and family obligations. Thus, just as low-income workers need not take part in services in order to benefit from the Earned Income Tax Credit (EITC),²¹ it was possible for Family Rewards participants to be "fully engaged" with the program without ever meeting with staff from Seedco and the NPOs (except to pick up their reward verification coupons). At the same time, the designers recognized that many families would need at least some guidance on where they could find the kinds of services and assistance that might enhance their success in the program — for example, where they could find tutoring or after-school programs, dental clinics, job search programs, and job training programs. For that reason, the designers included as part of the model an information-and-referral component through which Seedco and the NPOs were expected to help educate families about relevant resources that are available in the community, such as by disseminating written resource guides listing agencies that might be appropriate for parents to contact, and by reminding families about those resources in optional workshops and in marketing materials.

²¹The EITC is a refundable federal income tax credit for low- and moderate-income working individuals and families, offered in part to offset the burden of Social Security taxes and to provide an incentive to work. See www.irs.gov.

The Family Rewards Incentives: Conditions and Reward Amounts

During its first two years of operations, Family Rewards offered families an opportunity to receive 22 different types of cash rewards that could total several thousand dollars per year over a three-year period. As discussed shortly, the designers modified the rewards schedule for the third program year, dropping some rewards that appeared to be having little effect and simplifying several others.

The total amount of money that families could receive through the program depended on the degree to which they met the qualifying conditions attached to the rewards and, importantly, on the number of children in the family, each of whom could be a source of substantial rewards. In developing the rewards schedule, the design team (CEO, MDRC, and Seedco) sought to provide families with many different ways to earn rewards. This was considered a way to achieve the program's short-term goal of immediate poverty reduction while, at the same time, not attaching excessive amounts of money to any given reward. A broad reward structure that included a mix of easier-to-earn and harder-to-earn rewards would allow most families to earn some rewards. In addition, the designers had little evidence to decide a priori which rewards would be the most productive in changing family outcomes.²² However, with 22 different rewards (initially), the program was more complex than was desirable. That complexity meant that the program staff would need to make more intensive efforts to educate families about the full incentives offer and that families would undoubtedly take more time to respond to the full range of rewards than would be true in a simpler program.

The design team faced another important constraint in trying to ensure that rewards would be paid close to the time when families met the required conditions. Because of the large number and diverse types of rewards, the process of verifying compliance was complicated, and for practical reasons it was decided that payments would be made only every two months. There was also no way to avoid the long natural lags between activities and payments for certain rewards that were based on administrative data for verification. For example, it took time to distribute rewards for achievement on standardized academic tests because the New York City and New York State education departments took several months to score the tests and provide that information to the program.

Table 1.2 summarizes the incentives schedule, showing the specific types of behavior and achievements that earned payments and the amounts of those payments. In general, the payment amounts for the education and health components involved larger sums than has been true of most prior tests of incentives strategies in those two fields. In contrast, the full-

²²For a fuller discussion of considerations that influenced the program design, see Riccio et al. (2010).

The Opportunity NYC Demonstration: Family Rewards

Table 1.2

Schedule of Incentive Payments, by Domain

Domain	Schedule of Incentive Payments
<u>Children’s educational efforts and achievement</u>	
Grades 1-8 (payments made to parents)	
Attendance	\$25 per child per month (maximum: \$25 per month of school year) for superior attendance (95% of scheduled days, with provision for extended illness). <i>Discontinued for Year 3.</i>
Parent-teacher meetings	\$25 per meeting, twice per year (maximum: \$50 per child per year) for parent’s attendance at parent-teacher conferences. <i>Modified for Year 3 to include other parent-teacher consultations.</i>
Library card	\$50 paid once during program per child for having a public library card. <i>Discontinued for Year 3.</i>
Reviewing results of low-stakes interim tests	\$25 for parents to acquire and review on their own their children’s performance on interim standardized tests intended to help teachers diagnose students’ progress (up to 5 times per year; maximum: \$125 per child per year). <i>Discontinued for Year 2.</i>
Test scores (starting in grade 3)	
For grades 3-5	\$300 per child for scoring at a level 3 (indicating proficiency) or above on standardized ELA test, or (starting in grade 4) for improving by at least 1 level over prior year’s level; same for standardized math test. (Maximum: \$600 per child per year.)
For grades 6-8	\$350 per test for meeting the same conditions as for grades 3-5. (Maximum: \$700 per child per year.)
Discussing results of annual ELA and math tests with school (starting in grade 3)	\$25 per test, once per year (maximum: \$50 per child per year) for parents to discuss child’s test results with teachers or principal. <i>Discontinued for Year 3; incorporated into parent-teacher meeting reward.</i>

(continued)

Table 1.2 (continued)

Domain	Schedule of Incentive Payments
Grades 9-12 (payments split between parents and students, as indicated)	
Attendance	\$50 per child per school month (maximum: \$500 per year) for superior attendance (95% of scheduled days, with provision for extended illness). (50% paid to student, 50% paid to parent.)
Parent-teacher meetings	\$25 per meeting, twice per year (maximum: \$50 per child per year), for parent's attendance at parent-teacher conferences. (100% paid to parent.) <i>Modified for Year 3 to include other parent-teacher consultations.</i>
Library card	\$50 paid once during program per child for having a public library card. (100% paid to student.) <i>Discontinued for Year 3.</i>
Test scores	\$600 per child for passing (scoring 65 or above on) each of 5 Regents tests (maximum: \$3,000 during program). ^a (100% paid to student.)
Credit accumulation	\$600 per child per year for accumulating 11 credits during a school year. (50% paid to student, 50% paid to parent.)
PSAT	\$50 for taking PSAT test up to 2 times (maximum: \$100 during program). (100% paid to student.)
Graduation	\$400 payment for graduating from high school. (50% paid to student, 50% paid to parent.)
<u>Family preventive health care practices</u>	
Maintaining health insurance	\$20 per month (maximum: \$240 per year) for each parent who maintains public health insurance (including Medicaid and Family Health Plus coverage). <i>Discontinued for Year 3.</i>
	\$20 per month (maximum: \$240 per year) for maintaining Medicaid or CHIP coverage for all children (together). ^b (Not for TANF recipients due to near-automatic Medicaid enrollment.) <i>Discontinued for Year 3.</i>
	\$50 per month (maximum: \$600 per year) for each parent who maintains private/employer health insurance. \$50 per month (maximum: \$600 per year) for maintaining private/employer insurance for all children (together). ^b <i>Discontinued for Year 3.</i>

(continued)

Table 1.2 (continued)

Domain	Schedule of Incentive Payments
Nonemergency health screenings and early intervention	<p>\$200 per family member per year for completing an annual nonemergency medical checkup. Physician must fill out “preventive health care form” indicating that a minimum set of age-appropriate screenings and assessments was conducted and that other health information was reviewed with the patient and/or parent.</p> <p>\$100 per family member per year for completing a physician-advised follow-up visit within a specified time frame. <i>Discontinued for Year 3.</i></p> <p>For young infants and toddlers (children under 30 months of age): \$200 per child for completing a pediatrician-advised early-intervention evaluation.</p> <p>Dental care: \$100 per family member for cleaning and checkup; once per year for ages 1-5 and twice per year for ages 6 and older.</p>
<u>Adult workforce efforts</u>	
Sustained full-time employment	\$300 for working full time (an average of 30 hours per week for 6 weeks or more in each 2-month payment period — that is, approximately 75% of the time) (maximum: \$1,800 per year at \$150 per month).
Education and training while employed	Payments for completing an approved education or training course while holding a job. Must work at least 10 hours per week while attending course. (<i>Work requirement discontinued for Year 3.</i>) \$300 per each course lasting 35-70 hours; ^c \$400 per each course lasting 71-140 hours; \$600 for each 141-hour increment of a course lasting at least 141 hours (maximum: \$3,000 per adult during program). (Training may include ESL, basic skills, and GED courses.)

NOTES: ELA = English language arts. ESL = English as a Second Language. GED = General Educational Development.

^aHigh school students (grades 9-12) were eligible to earn rewards for the following Regents exams: English, one of any math exams (including Math A, Math B, Integrated Algebra, Geometry, and Algebra 2/Trigonometry), U.S. History and Government, Global History and Geography, and one of any science exams (including Living Environment, Chemistry, Physics, and Earth Science).

^bSeedco experienced logistical difficulties in using Human Resources Administration data to find out whether all children in a household were covered by public insurance in a timely manner. As a result, families were rewarded for public health insurance coverage if *any* child in the household was covered, in practice. As it turned out, most families either had health insurance coverage for all of their children or did not have it for any.

^cThe 2010 report incorrectly stated this reward amount as \$200.

time work bonus was somewhat smaller than similar incentives tried in demonstration projects that have tested or are currently testing wage supplementation strategies, but they were still substantial. When combined, the full set of cash transfers represents a potentially very significant increase in the incomes of the very poor families, allowing them to receive several thousands of dollars in extra income per year. The cash transfers did not affect eligibility or payment amounts for most existing government transfer benefits, including Temporary Assistance for Needy Families (TANF), food stamps,²³ Medicaid, the Children's Health Insurance Program (CHIP), housing assistance, or the EITC.²⁴ This strategy avoided undercutting the value of the incentives offer and greatly simplified the implementation of the program.

Education Rewards

The first panel of Table 1.2 presents the schedule of payments pertaining to children's education. For all students, rewards during the first two program years were attached to superior school attendance, obtaining a library card, and parents' participation in parent-teacher conferences.

For students in elementary and middle school (starting with children in third grade, when standardized testing begins in New York City schools), additional rewards were offered for scoring at or above a threshold level on annual standardized tests in English language arts (ELA) and math.²⁵ Payments were made if a student achieved a score that fell within the "proficient" range (a level 3 or 4 on a four-level proficiency scale) or improved his or her score in a given year over the prior year by at least one full level on that four-level scale.²⁶ The hope was that these rewards would encourage parents to engage more deeply with their children on activities that, in general, might help improve their performance in school in ways that would eventually be reflected in their standardized test scores, such as by monitoring their homework more closely, talking with them more about how they could perform better in school, taking advantage of other programs and school resources in the community that might support their performance, and talking more with their teachers. As a more direct incentive for increased

²³The federal Food Stamp program was renamed the Supplemental Nutrition Assistance Program (SNAP), beginning on October 1, 2008. However, this report refers to the program as the Food Stamp program because that is the name by which it is more commonly known at this time.

²⁴However, the CCT payments may affect the Supplemental Security Income (SSI) payments of participating families who were contending with physical or mental health disabilities and receiving such benefits. A waiver had been sought from the Social Security Administration but the request was not approved.

²⁵Because standardized testing begins in third grade, the opportunity to earn a reward through improvement from the prior year did not apply. It also does not apply to students who are new to New York City schools and have no prior-year standardized test score.

²⁶In 2010, New York State education officials increased the threshold scores that students had to meet on standardized tests, because they considered the existing thresholds too easy to reach and, therefore, not a good indicator of performance that met grade-level standards.

interaction with the schools, the program offered an additional reward for parents to discuss the results of the annual tests with their children’s teachers or school principals. (Most other countries’ CCT programs do not attach rewards to achievement outcomes.)

For high school students, Regents exams are the relevant tests. These exams are administered statewide each year by the New York State Board of Regents, an entity that sets standards and regulations that apply to all public schools and universities in the state. In order to graduate from high school with a diploma that is recognized by the Board of Regents, students must pass at least five tests in the following subject areas at some point during their high school career: English, mathematics, global history and geography, U.S. history and government, and science. Family Rewards offers students a separate payment for passing each of these five main content-area exams (that is, obtaining a score of at least 65).²⁷ High school students could also earn a small additional payment for taking up to two Preliminary Scholastic Aptitude Tests (PSATs), which they could do without charge in New York City. (These tests are designed to help students prepare for the Scholastic Aptitude Tests, or SATs, that many colleges and universities require for admission.) Additional payments were attached to earning a minimally acceptable number of credits in a given academic year (11 each year toward a total of 44 credits needed to graduate). This reward was created to encourage students to pass all their courses each academic year (taking advantage of summer school opportunities if necessary) so that they would remain on track to graduate in four years. An additional reward was available for graduating.

Preventive Health Care Rewards

The second panel of Table 1.2 (“Family preventive health care practices”) shows the preventive health care rewards. These rewards covered activities pertaining to health insurance, preventive health care checkups, and dental care.

Many families who enrolled in the study were eligible for publicly provided health insurance through Medicaid, or in some cases through CHIP or Family Health Plus (FHP) in New York State.²⁸ However, families must comply with annual recertification requirements for these

²⁷Special education students with Individualized Education Plans (IEPs) — mandated by the Individuals with Disabilities Education Act to help children with disabilities achieve their educational goals — need to pass the Regents Competency Test, a modified version of the Regents exam.

²⁸Medicaid is available to pregnant women and children under age 6 whose family income is at or below 133 percent of the federal poverty level, for children ages 6 to 19 with family income up to 100 percent of the federal poverty level, and for families receiving government income support through the federal TANF program or New York State’s Safety Net Assistance program. CHIP (known as Child Health Plus in New York State) is a federal public health insurance program, administered by states, for families with children who have incomes that are too high to qualify for Medicaid but are within 200 percent of the federal poverty level. FHP is a New York State public health insurance program for adults

(continued)

programs, and many eligible families fail to complete the process. Consequently, “churning” on the rolls can be significant, with many otherwise eligible families losing their coverage.²⁹ Family Rewards incentive payments for maintaining health insurance were offered to address this problem, encouraging families to keep their coverage in place. The program also offered payments to families in which the parent was not eligible for public health insurance but had access to private, employer-sponsored health insurance. Some families may forgo that insurance because of copayment costs for premiums or services; in these cases, the rewards, which were set at a higher amount than for maintaining public insurance, were intended to encourage families to make those copayments and get the insurance. Participants who were receiving TANF or Safety Net Assistance (SNA) benefits were not eligible for the program’s health insurance rewards.³⁰ This was because families who were receiving those benefits were routinely enrolled in Medicaid at the time of application and did not have to reestablish their eligibility as long as they remained on TANF or SNA.

The second set of health care incentives was designed to encourage families to get comprehensive, nonemergency physical examinations — the cornerstone of good preventive health care practice. The main objective was to ensure that family members got comprehensive medical assessments that could lead to the early diagnosis and treatment of health problems that might become more serious over time, and that could also alert them to or reinforce the importance of healthy lifestyle choices (for example, healthful eating, exercise, and protection against sexually transmitted diseases). At the same time, it was hoped that by promoting preventive health care visits, families would be more likely to establish a “medical home” — that is, a relationship with a regular doctor (or health care institution) who would maintain their medical records and understand their medical history, and to whom they could turn when problems arose, rather than resorting first to hospital emergency rooms.

To encourage thorough exams during these visits, the program designers, in consultation with the New York City Department of Health and Mental Hygiene, created a special “preventive care checklist form” that identified a set of common health conditions that doctors are expected to explore or screen for in any thorough annual physical examination. This form, which had to be signed by the participant’s doctor in order to verify that the activity had been

who are age 19 to 64 and who have income or resources too high to qualify for Medicaid; those with children can qualify with family incomes up to 150 percent of the federal poverty level.

²⁹One unofficial estimate that the New York City Human Resources Administration provided during the Family Rewards design phase suggested that 31 percent of Medicaid cases did not complete a recertification annually and were closed, although 27 percent of those closed cases were reopened within nine months.

³⁰Safety Net Assistance is a New York State welfare program for various low-income populations. For income-eligible families with dependent children, it allows those who have exhausted their five-year eligibility for cash assistance under TANF to continue receiving cash assistance on similar terms and conditions that applied under TANF, but paid out of non-federal funds.

completed, was tailored to the different needs of adults, teenagers, and younger children. For infants and toddlers, the form included a standard set of questions to encourage the doctor to screen for developmental problems and to make an appropriate referral for a fuller early intervention evaluation when warranted. An additional payment was offered to parents to encourage them to follow through with such a comprehensive evaluation (which is free in New York City) if their children's pediatricians advised them to do so.

The design team sought to create incentives for getting follow-up care that would make it practical for those who needed such care to get it, but without encouraging those who did not need care to try to get it just to earn the extra rewards, which would waste medical resources and program dollars. The decision was made to attach an incentive payment for one follow-up visit per family member per year in cases where the doctor indicated the need for it on the initial health care checklist (and specified the purpose and time frame for making the follow-up visit on a subsequent form). The payment amount for the second visit was set at half that of the first visit, to help temper the incentive to seek unneeded medical care.

Finally, the health component included incentives for preventive dental care (regular cleanings and checkups). Although many dentists do not accept Medicaid, a number of dental clinics around the city offer free or reduced-cost dental care. Identifying them, getting to them, and paying them (if they charge a fee) were expected to be significant burdens for low-income families. The incentive payments were intended to help compensate for those extra burdens and costs.

Workforce Rewards

The third panel of Table 1.2 ("Adult workforce efforts") presents the workforce component, which was aimed at the parents and had two main features. The first was a payment for sustained full-time employment. Operationally, this meant that a participating parent had to work at least 30 hours per week for six weeks out of every eight-week activity period. Allowing for some "downtime" was a way of recognizing that, for many low-wage workers, job turnover is common, sometimes because the job itself ends. Those who were in this situation or who left work for other reasons would have a strong incentive to seek another full-time job quickly.³¹

The workforce incentives also incorporated payments for completing approved education and training activities that could help build parents' human capital so that they could qualify for higher-skilled and better-paying jobs. The courses could be shorter term or longer term, and the incentive payments were tailored with that in mind, providing a higher payment

³¹This reward is modeled after a bonus that was tested in an employment retention and advancement demonstration project in the United Kingdom; see Riccio et al. (2008).

for a longer-term course. Instruction could include not only specific occupational skills training, but also instruction in English as a Second Language (ESL), adult basic education (ABE), and General Educational Development (GED) preparation.³² To discourage participants from dropping out of the labor force in order to undergo training, which would be inconsistent with New York City's welfare-to-work policies, the program's designers further required that the training reward be available only to parents who were working at least 10 hours per week.

Year 3 Modifications

The program's designers recognized early on that the incentives described above might need to be modified as the program unfolded. They knew before the program was rolled out that their estimates of how many families would earn rewards, and, hence, the cost of those incentives, were largely guesses. Furthermore, in the absence of a pre-study operational pilot, they could not fully anticipate all the practical difficulties that would be involved in marketing, verifying, and processing the long list of incentives to be offered. However, a better understanding began to emerge as operational experience grew and some preliminary impact findings became available. In the summer of 2009, as the end of the second program year was approaching, CEO, Seedco, and MDRC agreed on a set of modifications to the incentives schedule for the program's third and final year that would simplify the program and reduce its overall costs, both of which would make the program more feasible to replicate if successful. These modifications included the following:

- **Children's education.** First, the attendance reward was discontinued for elementary and middle school students because average attendance rates proved to be very high already for those grade levels, as evidenced by the control group's patterns, and it appeared that the program was producing little further gain. Second, the reward for parents to discuss their children's annual ELA and math test results with teachers was discontinued as a separate reward, and the parent-teacher conference rewards were no longer limited to attendance at the official semi-annual parent-teacher nights sponsored by the schools. Instead, a single, consolidated reward for parent-teacher exchanges was created and offered to parents twice a year (once during the first half of the year and once during the second half), to encourage them to talk with teachers about test scores and any other issues concerning their children's school performance, and at times of the parents' choosing. Third, payments

³²In order to earn the payments for these activities, participants in ABE, GED preparation, or ESL classes, for which standards of completion are often ambiguous and compliance hard to measure, had to provide documented evidence from their providers indicating that they made satisfactory progress in their classes and that they participated for the required number of hours established by Family Rewards for a given level of payment.

for library cards were discontinued because most children who were likely to get them were believed to have done so within the first two years.

- **Family health care.** First, all health insurance rewards, a costly component, were discontinued for Year 3. This was done partly because preliminary data from the evaluation suggested that insurance coverage rates were already very high for adults and children in the study. Second, rewards for doctor-recommended follow-up visits were discontinued because of the complexity of distinguishing visits that were truly separate follow-up visits.
- **Parents' work and training.** The requirement that parents must be working at least 10 hours per week while in education or training programs in order to earn that workforce reward was eliminated. Very few adults received that reward during the first two years, a problem that may have been exacerbated by the poor economy, which made it more difficult to find work.

Family Rewards Compared with Other Conditional Cash Transfer Programs

Family Rewards shared important principles with CCT programs in other countries, particularly its dual emphasis on immediate hardship reduction and human capital development. However, CCT programs in most other countries are at the heart of their social protection systems and are the main source of government cash assistance. In contrast, Family Rewards was layered on top of an already well-developed safety net in New York City. It offered families a chance to secure extra income. Indeed, as described later in this chapter, many of the families in the program were already receiving food assistance, public health insurance, cash welfare, and/or rent subsidies. New York also includes a broad network of social services programs. Thus, Family Rewards had to be adapted to a context in which the underlying social protection system is very different from that available in other countries.

Family Rewards shared with other CCT programs a central focus on children's education and family preventive health care. However, the reasons children may not remain in and progress in school or get the preventive care they need are also different from those found in Mexico and elsewhere, and the reward structure reflected those differences. More generally, New York's program was distinguished by the sheer number of rewards it offered (22 separate ones initially). It was also unusual in including rewards for educational achievement, not just attendance, and for work and training. In further contrast to most other CCT programs, Family Rewards was a short-term, time-limited intervention and was delivered entirely by private, nonprofit organizations rather than by government institutions. As an entirely urban program, it operated in a very different social and economic environment than the more heavily rural CCT

programs in the rest of the world. And, of course, as a pilot project, it operated on a much smaller scale than most other CCTs.

Evaluation Overview and Data Sources

When completed, the Family Rewards evaluation will show whether the program has the positive effects that its designers hope for. This report shows the effects, or “impacts,” of the program on family outcomes measured three to four years after participants entered the study, depending on the data source. This time period makes it possible to assess the program’s effects during the full three years in which the incentives were offered to families as well as (for some measures) during the beginning of the post-program period, after the program and the incentives ended. The post-program period is especially important for determining whether any positive impacts that were achieved while the incentives were available are sustained or grow, and whether negative effects on education or other outcomes emerge after the incentives are no longer offered. (The final report will cover a five- to six-year follow-up period.)

The evaluation is using an extensive set of quantitative and qualitative data. This information includes administrative records on school outcomes, employment, earnings, public health insurance, and welfare and food stamp payments obtained from various New York City and New York State agencies; two waves of a survey in which a subset of parents in the program and control groups are interviewed (this report focuses on the second wave of the survey administered at about 42 months after families entered the study);³³ program-related data on reward payments obtained from Seedco; and qualitative data obtained through in-depth interviews with a sample of program participants and through observations of staff carrying out program activities at Seedco and the NPOs. (See Appendix Table A.1 for the specific calendar periods covered by each data source.)

Who Enrolled in the Family Rewards Sample?

The six NPOs began recruiting the sample for Family Rewards in July 2007, working from lists of potentially eligible families constructed with data obtained from the New York City Department of Education. The lists contained the names and contact information for families who lived in the targeted areas, were enrolled in the National School Lunch program (which was open to families with incomes at or below 130 percent of the federal poverty level), and had children who were expected to enter the targeted grades in September 2007. The NPO staff

³³The survey had an overall response rate of 79 percent, with similar results for the program and control groups. For further details on the survey and response bias analysis, see Appendix J in the supplement to this report, Riccio et al. (2013), which is available at www.mdrc.org.

succeeded in enrolling approximately 4,800 families (and more than 11,000 children) in the Family Rewards sample in the six-month period between July and December 2007.³⁴

Appendix Tables A.2 to A.4 show the characteristics of all families, parents, and children in the sample at the time of random assignment, combining program and control group members from all the NPOs. The recruitment methods that NPOs used called for staff to make repeated attempts to contact hard-to-reach families, rather than filling up the sample with more easily located families or those who were most eager to join. This was done in order to try to generate a sample that would reflect that broader target population from which it was drawn. A comparative analysis of background characteristics suggests that the enrolled sample is a reasonable approximation of the larger targeted population. For example, the parents who were enrolled in the Family Rewards sample share many of the same characteristics as other low-income parents living in their communities. Moreover, the pre-program average test scores of the children who were enrolled in Family Rewards were virtually the same as the test scores of children on the sample recruitment list who did not enroll in the study.³⁵

Family and Parent Characteristics

As shown in Appendix Table A.2, most of the families who were enrolled in the Family Rewards sample were one-parent families (81 percent). Over half (57 percent) had one or two children, while 43 percent had three or more. Most families were receiving some form of government assistance. For example, 53 percent were receiving housing assistance in the form of either public housing (30 percent) or Section 8 rent vouchers (23 percent); over 59 percent were receiving food stamps; and 24 percent were receiving TANF or SNA. In fact, only 13 percent of enrolled families were *not* receiving any of these public benefits or housing assistance.

Appendix Table A.3 shows the background characteristics of the parents in the study sample. On average, parents were 40 years of age. Nearly all were either black, non-Hispanic/Latino (51 percent) or Hispanic/Latino (47 percent). Educationally, they were a diverse group. While 40 percent did not have a GED certificate or a high school diploma, 14 percent had either an associate's or bachelor's degree. Their employment status also varied widely, with slightly more than half (53 percent) holding a job. Overall, 40 percent of parents were working full time (at least 30 hours per week), and 13 percent were working part time (not shown in table).

³⁴See Chapter 2 in Riccio et al. (2010) for full details on the sample recruitment and enrollment process. For a comparison of the baseline characteristics of program and control group sample members, see Appendix A of that report.

³⁵See Chapter 2 in Riccio et al. (2010).

Children’s Characteristics

Appendix Table A.4 shows that 94 percent of enrolled children were born in the United States. The vast majority of children were attending public schools (98 percent), with 51 percent entering the targeted grades: 17 percent were entering fourth grade, 16 percent were entering seventh grade, and 19 percent were entering ninth grade. The remaining children were siblings of those targeted students and were enrolled in other grades. In the previous school year, 14 percent of all students had been enrolled in special education and 13 percent in the English Language Learner (ELL) program.³⁶ The children were spread across 407 elementary schools, 358 middle schools, and 390 high schools throughout the city, or 1,155 schools in all (not shown in table).

Most of the children’s parents reported attending a parent-teacher conference in the last year. Only 5 percent of children had a parent who reported never attending a parent-teacher conference. An additional 35 percent of children had a parent who reported attending one or two parent-teacher conferences. Because Family Rewards includes payments for attending parent-teacher conferences, these high rates at random assignment suggested that many families might be eligible for the payment.

Health Characteristics

The responses to health-related questions were similar for parents and children (see Appendix Tables A.3 and A.4). Both children and parents had high rates of health insurance coverage and annual medical exams, as discussed further in Chapter 5. Only 6 percent of parents and 3 percent of children had no health insurance coverage. Public health insurance was the most common form of coverage, with 71 percent of parents and 81 percent of children having such insurance. The rates of self-reported medical checkups were high. For example, 82 percent of parents reported having an annual medical exam within the past year, and this was also the case for 91 percent of the children in the sample. As might be expected, fewer participants reported having an annual dental checkup at the time of random assignment, with 65 percent of parents reporting a dental checkup in the past year, along with 75 percent of children.

Structure of This Report

This report updates findings on the wide range of topics that were explored at an early stage of the program in the evaluation’s first report, published in 2010.³⁷ Chapter 2 begins the analysis

³⁶English Language Learners are children who speak a language other than English at home and score below proficient on English assessments when they enter the New York City school system. See <http://schools.nyc.gov/Academics/ELL/default.htm>.

³⁷See Riccio et al. (2010).

by examining the operation of Family Rewards as it matured, through the third and final year of the program. It also explores how families' understanding of the incentives offer evolved over time, the number and amounts of rewards they earned, and their perspectives as they adjusted to the absence of reward payments after the program ended. Chapter 3 reports on Family Rewards' impacts on a variety of outcomes that are most closely associated with the program's short-term poverty-reduction goals. In addition to measuring impacts on income and poverty, that chapter examines the program's effects on commonly used indicators of material hardship, economic well-being, financial and banking behaviors, and asset building. Importantly, it considers how the effects on those measures changed after the special cash transfers were no longer available. Chapters 4 through 6 examine, by domain, the extent to which program participants earned particular types of rewards, and the program's impacts on children's education, family health-related outcomes, and parents' workforce outcomes. Chapter 7 offers concluding thoughts on the current analysis, describes what is ahead in the final report (scheduled for 2014), and describes the new version of Family Rewards that is now being tested in a companion study in the Bronx, New York, and Memphis, Tennessee.

Chapter 2

Operating Family Rewards and Patterns of Reward Receipt

Family Rewards aimed to encourage families to engage in behaviors that would enhance their “human capital” by offering financial incentives to participants for completing activities in the domains of education, health, and work. Enrolled elementary, middle, and high school students were eligible to earn the education rewards; every enrolled family member (including children who were not yet school age) could earn the health rewards; and enrolled adults could earn the workforce rewards. The program operated from September 2007 to August 2010 and served nearly 2,400 families in six of the highest-poverty communities in New York City.

Many of the key implementation questions surrounding Family Rewards were addressed in detail in the first report about the program.¹ That report explained how the functions that were required to operate a conditional cash transfer (CCT) program were shared by several organizations. Seedco, the lead implementing organization, developed systems to verify earned rewards and make payments to families, as well as to resolve payment issues. Seedco also provided general guidance and technical assistance to six Neighborhood Partner Organizations (NPOs), whose staff marketed the rewards to families, provided in-person assistance with claiming rewards, and made referrals to existing community agencies that could help families achieve the conditions for earning rewards. MDRC’s early assessment of the implementation of the program model found that, although the program staff struggled in the first year to balance the demands of recruiting the sample and providing customer service supports to program group members, they were operating the program as designed and using creative strategies to market the incentives to participants by the second year. Participants rated the customer service support very positively on an 18-month survey that they were asked to complete. Engagement with the program, as defined by the regularity with which families earned cash rewards and the total amount of the average reward, was also very high.

This chapter does not duplicate the descriptive data on program operations that were presented in MDRC’s earlier report. Instead, the goal is to take advantage of having three full years of program data to summarize families’ overall experiences, track trends in earning rewards, and highlight new dimensions of that experience, especially with respect to high school students, while drawing attention to the distinctive operational issues that were associated with the final year of the program. The chapter addresses these main questions: Were

¹See Riccio et al. (2010).

families able to understand and navigate this type of incentives-only CCT program? Which types of families were most successful in earning rewards and why? Were families prepared for the end of the financial incentives, and did they make provisions to sustain any positive behavioral, motivational, or material changes that they had experienced during the program?

In the following sections, this chapter describes two key changes that occurred in the third year of the program and how they affected the earning of rewards. Because it was the final year of the program, Seedco and the NPOs used the “last chance” message to motivate families to earn rewards and created a set of exit materials to prepare families for the potential income “cliff.” At the same time, the program eliminated several types of rewards that had been available in prior years. Thus, for families to maintain the same level of earning as in previous years, they would have had to earn rewards more frequently or in more categories than they had before. The data on reward earnings show that, although earnings from the program continued to be strong, families, on average, did not appear to adopt successful strategies to maximize earnings in the third year.

A deeper analysis of the pattern of earnings shows which types of families earned the most and the least from the program. The 2010 report found that the families who earned the most rewards were larger, had more children in high school, and were less disadvantaged at the time of random assignment. Language and race were not associated with the level of rewards earned, but immigrant families tended to be among the highest earners. This general pattern holds when all years of program earnings are combined.

Finally, this chapter investigates the uses that families made of their earnings at the end of the program and in the months directly after they received their final payments. Parents were asked on a 42-month survey whether they planned to make up for the loss of their Family Rewards earnings, and, if so, how. Given that the program did not offer individualized counseling about next steps, participants’ responses to this question reflect *aspirations* about what they believed they could accomplish on their own. Nevertheless, it is important to understand participants’ intentions for coping with the loss of the rewards — both as a source of income and as a means for parents to motivate children — in order to provide some indication of the possible long-term influences of this program on economic stability and family dynamics.

Data for the new analyses presented in this chapter come from a special section of the 42-month parent survey, field observations, and two waves of in-depth qualitative interviews. For the in-depth interviews, 50 parents and 39 children from the same families were first interviewed between October 2009 and April 2010. Of this sample, 22 parents and 14 high school students were interviewed in-depth again a few months after the program ended (in early 2011). Reference is also made, where appropriate, to data that were collected on the 18-month parent survey.

Three Years of Family Rewards

Given the number and diversity of rewards that the program offered, setting up a system to keep track of all of them, to determine when families met the conditions for earning them, and to make timely payments to families was a major implementation challenge. Activities and accomplishments were divided into those that required the family to submit a “coupon” in order to receive payment and those that were verified through administrative records. Most of the education rewards and the public health insurance rewards were verified through administrative data supplied directly to Seedco by the New York City Department of Education and the New York City Human Resources Administration. These are referred to as “automatically verified” rewards, and they required no effort on the part of families to claim payments. Administrative records were not available for any of the other rewards; thus, for those, families had to verify their compliance and submit claims manually using special coupons that were created for the program. Coupons were double-sided, colorfully designed sheets of paper that listed the name of the activity, some identifying information about the participant, the dollar value for completing the activity, and instructions for submitting it to Seedco for payment. The coupon itself either had to be signed by a teacher or doctor to verify completion of an education or health activity, or the participant had to photocopy and attach a prescribed document to it as a form of proof, such as a copy of a library card or pay stub. At the beginning of each program year, the NPOs invited families to pick up a personalized binder prepared by Seedco containing the suite of coupons for which their enrolled family members were eligible. Families were provided with self-addressed, stamped envelopes for mailing coupons.

Families were paid for their completed activities every other month. The 12-month academic year was divided into six 2-month “activity periods.” Participants completed the rewarded activities during a 2-month period, submitted any coupons that were required to verify completion of those activities by the fifteenth day of the following month, and received payment on the fifteenth day of the subsequent month. For example, participants who completed activities in September and October submitted any necessary paperwork by November 15 and were paid on December 15. This means that while participants were submitting coupons and awaiting payment from the first payment period, they had already entered the next one. In the example above, participants could have been completing activities in November and December in order to submit any required coupons by January 15 and receive payment on February 15.

When families were initially oriented into Family Rewards, they were encouraged with a \$50 incentive payment to submit a bank account number to the program to receive reward payments by direct deposit. Having linked bank accounts fulfilled a key operational requirement by enabling regular transfers of money to participants, but it was also seen by the program designers as a way to connect a low-income population to the mainstream banking system. Families could use their existing bank accounts or sign up for “Opportunity NYC accounts.”

These special “safe” accounts were created through negotiations between the City’s Office of Financial Empowerment and several local banks or credit unions.² They were savings accounts that were overdraft-protected and did not have fees or minimum balance requirements. On the 18-month parent survey, 55 percent of parents reported opening an Opportunity NYC account. Participants who could not or were not willing to use a bank account to receive reward payments could have their payments loaded onto a stored value card. Seedco chose the Chase Payment Card. The cards could be used at ATMs for cash withdrawals and for point-of-sale purchases as a debit or credit card. Chase provided access to activity and balance information online or through monthly paper statements; however, most transactions and services that were associated with the card carried fees. According to Seedco data, only 11 percent of adults opted for the stored value card.

In each family, a parent (or the legal guardian) — usually a single mother — received the payments for all health and workforce rewards earned by the family and any education rewards earned by elementary or middle school children. The parent also received half the value of some education rewards earned by high school students (for attendance, credit accumulation, and graduation) and the full value of the reward for attending high school students’ parent-teacher conferences. The program designers’ goal here was to reward parents for becoming more fully engaged with their children’s school performance. High school students, for whom financial incentives were expected to have more meaning than such incentives would have for younger children, and who controlled more of their own consumption behavior, had their own bank accounts or stored value cards into which they received payments for completing education activities. In addition to receiving half the value of some rewards, they received the full value of the rewards for having a library card, passing the Regents exams, and taking the Preliminary Scholastic Aptitude Test (PSAT). Because most high school students were minors, they were unable to open bank accounts without a parental cosigner. Some parents opened custodial accounts for their children. The result in both cases was that youth often needed their parent’s permission to access their funds, unless their parent chose to give them unfettered use of the account’s ATM card.

The payment processing system was described in detail in the 2010 Family Rewards report.³ It involved approximately 20 staff who used manual and automated processes to check and recheck each participant’s qualification for reward payments. Seedco staff rejected coupons when they were missing required signatures or documentation, or when the participant submit-

²The banks that offered Opportunity NYC accounts were Bethex Federal Credit Union, Brooklyn Cooperative Federal Credit Union, Carver Federal Savings Bank, Lower East Side Peoples Federal Credit Union, M&T Bank, North Fork Bank, and Union Settlement Federal Credit Union.

³See Chapter 3 and Appendix B in Riccio et al. (2010).

ting the coupon was not eligible for the reward. Participants were able to resubmit incomplete or incorrectly completed coupons for later payment using a coupon resubmission form.

Every other month, families received an Earnings Statement with their payment, which summarized how much the entire family had earned in a particular payment period, and for which activities. One Earnings Statement was mailed to the family, addressed to the parent. As a result, many high school students relied on their parents for updates about their program performance and bank account activity. In families where both the parent and student were engaged in the program, they became accustomed to the schedule of Family Rewards payments and had regular conversations, timed around the fifteenth of every other month or the arrival of the Earnings Statement, about what the student had achieved and failed to achieve.

Seedco oversaw the entire payment processing component of the program, including staffing a telephone helpline and distributing the Earnings Statements. Responsibility for providing families with in-person support concerning coupon submission, setting up bank accounts, or payment problems was handled by two Family Rewards staff members located at each of the six participating NPOs. These staff also provided referrals to resources in the community that could help families meet the conditions for earning rewards (for example, for tutoring or employment assistance). They hosted biannual social events to bring together larger groups of families and to build a sense of community and identification with the program. In its intermediary role, Seedco provided technical assistance to the NPOs about ways to market the rewards to families within the limits of the “no case management” model. Seedco developed some marketing material centrally, such as the resources available on the Family Rewards Web site, “robocalls,” and newsletters. Seedco also supported the NPOs in developing flyers and letters that were mailed regularly to families, the scripts for telephone outreach campaigns, and small group workshops.⁴

Early Experiences Operating Family Rewards

In the first year, Seedco and the NPOs succeeded in launching a professional operation with adequate capacity to meet the demands of serving almost 2,400 families, but they encountered some challenges. Seedco established the payment processing system early on, but many other elements of the customer support and marketing strategy were delayed because the recruitment period overlapped with the start of program activities or because they were still in development. The 2010 Family Rewards report describes the uneven delivery of program

⁴In addition, MDRC played a technical assistance role, providing guidance to and general oversight of Seedco and the NPOs, in particular about how to adhere to and strengthen the program model. The Center for Economic Opportunity (CEO), MDRC, and Seedco worked closely together to make policy decisions and review program progress throughout the demonstration.

orientations across the NPOs, which may have influenced some participants' initial understanding of the program. While the payment processing infrastructure was quickly put into place, the policies regarding acceptable forms of documentation for verifying certain rewards continued to evolve as Seedco and the program designers developed rules to cover unanticipated situations and tried to reduce administrative barriers to earning rewards. This was a particular issue in relation to the reward for full-time work because of the variety of pay stubs that people received and the prevalence of self-employment in this population. In sum, the first program year was the de facto "start-up" period because Family Rewards did not have a pre-research pilot phase, which affected some aspects of program delivery.

Nevertheless, Seedco and the NPOs committed to a process of continuous program improvement and were operating a mature and multidimensional program in the second year. Payment processing policies and procedures stabilized and became more routine and efficient. The payment processing team was thus able to troubleshoot some issues with coupon submissions without always rejecting the coupon and sending it back to the family. The program's paperwork demands and deadlines became more familiar to the staff, who were then better able to advise families about ways to incorporate them into daily life. In addition, Seedco, MDRC, and CEO worked together to clarify the distinctions between case management and customer service for staff. This clarification had a liberating effect on many staff members and in fact expanded the breadth and variety of outreach. In the first year, staff were uncertain about whether they could give *any* personalized information to participants for fear of crossing the line into case management, which was not part of the program design. Seedco regularly directed NPO staff to call all families to market the rewards without informing the staff whether a particular family had coupon rejections with which they needed assistance, or particular rewards they had failed to earn. By the second year, it was understood that Seedco could use its payment data to send out filtered lists of participants to NPOs so that they could engage in more targeted letter and telephone campaigns. Staff began contacting families with particular earnings histories and encouraging them to follow through on certain activities, like calling the helpline or attending a workshop at the NPO. Figure 2.1, which shows a flyer (with a fictional family name) that was mailed to participants, is an example of this kind of targeted outreach. Seedco mailed the flyer only to families who had coupon rejections in Year 2. The flyer instructs families to call the helpline to investigate and rectify the problem rather than go into the NPO for a one-on-one meeting (although many parents did that anyway). This example illustrates one of the ways in which a customer service-oriented approach differs from traditional case management.

The NPOs held numerous workshops each month on topics that were meant to give families the resources to earn rewards. NPOs in the same borough also started to collaborate with each other by hosting joint health fairs in the spring, where participants could get health-related information in one place.

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Figure 2.1

Family Rewards Targeted Outreach Flyer Urging Families to Resubmit Rejected Coupons

Earn up to \$300 **Hey, Vela Family**
for resubmitting your Year 2 Coupons

This is your last date to resubmit Year 2 Coupons that were rejected and earn **BIG REWARDS!!!!***

MAY 15, 2010

Call the Helpline Now at (212) 994-4528 and find out how to resubmit

You can download the Resubmission Coupon @ www.opportunitynyc.org/forms

OPPORTUNITY NYC

* Year 2 Coupons were for activities completed between 09/01/08 to 08/31/09

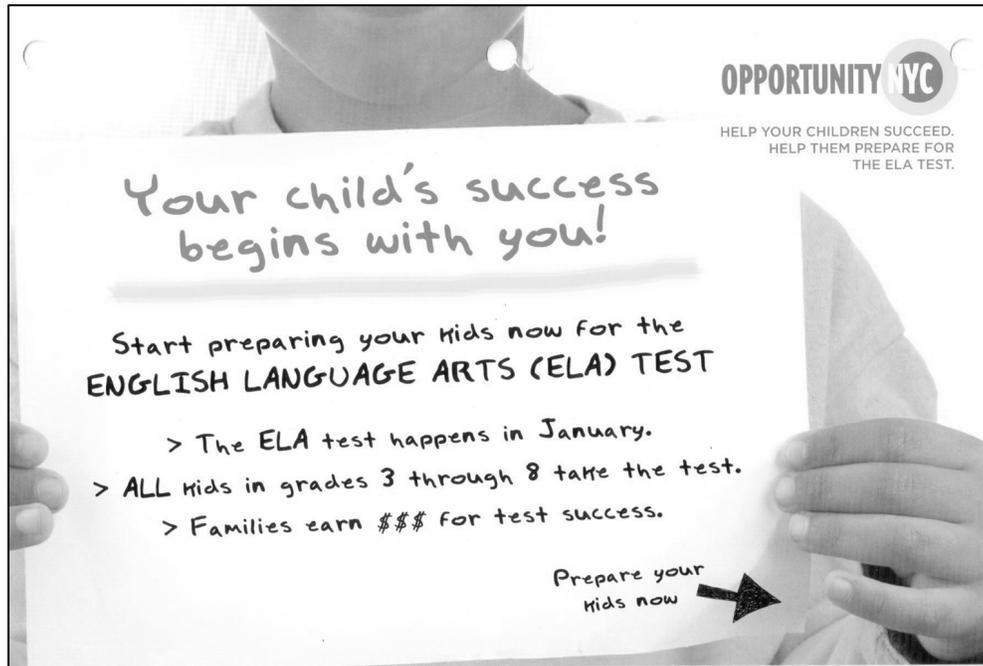
Seedco's engagement of the DCF Advertising firm to produce a Family Rewards Web site, newsletters, and other marketing materials was another key program development. These products were of professional quality (see Figure 2.2) and supplemented the many flyers created by the NPO staff each month.

When program group families were first oriented to the program, they were told that the program would last two or three years, depending on funding. As a result, NPO staff had to inform families that the program had been extended when the decision was made to offer a third year in the summer of 2009. They usually spoke to parents, who, in turn, were expected to communicate that the program had been extended to their children. Staff informed parents through letters, the Family Rewards Web site, and messaging during a social event that was held

The Opportunity NYC Demonstration: Family Rewards

Figure 2.2

Family Rewards Postcard Notifying Parents of Upcoming English Language Arts Exam



OPPORTUNITY NYC

IS YOUR CHILD READY FOR THE BIGGEST TESTS OF THE YEAR?

In January, all New York kids in grades 3 to 8 will take the English Language Arts (ELA) test. And in March, all kids will take the important Math test. The tests help decide if your child is ready to pass to the next grade.

Helping your child prepare now pays big. Families can automatically receive up to \$700 when a child passes the tests or improves scores.

There's a lot you and your child can do together to get ready. Now is the time to talk to your child's teachers and start preparing. Your child's future depends on you!

TEST DATES: Grades 3-5: January 12th - 16th
Grades 6-8: January 20th - 23rd

VISIT OUR NEW WEB SITE OR CALL YOUR COMMUNITY ORGANIZATION FOR TIPS ON THE ELA AND MATH TESTS.

WWW.OPPORTUNITYNYC.ORG

at the end of the second year. According to Seedco management reports, traffic on the Web site increased significantly (41 percent over the previous quarter) during this period, suggesting that families may have looked to the Web site for this notification.

Program Implementation During the Final Year

The third year of the program was a continuation of the program staff's confident implementation of the program model, but it also marked a time of transition because the rewarded activities changed and the entire intervention was coming to an end.

Seedco and the NPOs continued to engage in creative and multifaceted forms of outreach to families. These activities included targeting advice and referrals to families who had coupon rejections or had not earned particular rewards, making monthly automated calls to remind families about upcoming activities, sending newsletters to families, and attaching informational inserts to the bimonthly Earnings Statements. The program staff occasionally sent e-mails to families that provided program information or resources, such as information about local college fairs for college-bound high school students. The e-mail distribution list consisted of 700 to 800 participants.

Seedco had planned to install a module on each staff person's workstation that would have allowed the staff to access current participant payment information. This was considered an important tool to enhance the efficacy of the NPO staff's customer service role because they were often confronted with customers who were confused about why they had not earned a reward, but could not respond directly to their questions because payment decisions were made at Seedco. In these cases, the staff had to call the helpline to get more information — just like the participants. Seedco worked with programmers for more than a year to create the module, but it was never successfully implemented. As a work-around, the staff was given a dedicated line to access helpline staff.

In the third year, Seedco and the NPOs also added some new strategies to engage high school students. A large group of students who started Family Rewards in the seventh grade and were promoted on time every year entered high school at the start of Year 3. This cohort amounted to 721 additional high school students who needed their own bank accounts and to learn about the new educational rewards for which they would be eligible. The program staff hosted a "high school festival" at the Borough of Manhattan Community College in the fall of 2009 to bring together high school students from all boroughs and to provide information about the educational rewards and tips for earning them. This event was successful, attracting 97 high school students and more than 80 parents and other siblings.

Staff also called and sent flyers to the new high school students. An example of a flyer is provided in Figure 2.3. It incorporates the Web address for a special section of the

The Opportunity NYC Demonstration: Family Rewards

Figure 2.3

Family Rewards High School Student Outreach Flyer

EARN BIG

OPPORTUNITY NYC

Earn Your Opportunity NYC High School Rewards Now!

THIS IS THE LAST YEAR OF OPPORTUNITY NYC. TIME IS RUNNING OUT!

To Do List:

- ✓ Go to www.opportunitynyc.org/education/highschool to learn more about services and resources that can help you do better in school.
- ✓ Open an **Opportunity NYC Bank Account**. It's easy! You don't need any money to open it.
- ✓ Attend activities at Urban Health Plan.
- ✓ Start preparing for the **Regents**. The next ones are on **January 27 - 30**.

Don't Forget to Friend us on MySpace:
learn more about the program and get timely updates. Send a friend request, with your full name and family id #, to:
www.myspace.com/onyc_teen
If you don't know your family ID, ask your parent or call the Helpline at (212) 994-4528

Call Urban Health Plan at (347) 387-3747

Family Rewards Web site where students could find educational resources, a reminder about the upcoming Regents exams, the message that it was the last year of the program in order to encourage students to participate before time ran out, and an invitation to “friend” the program on MySpace.

The drive to use social media to engage youth was a major initiative in the third year, coming out of the recognition that program staff had to find more direct ways of marketing to young people because parents were not always reliable or effective messengers, and teens did not often show up to workshops or social events.⁵ NPO staff invited students to “friend” the program whenever the occasion arose, with one NPO even hosting a “MySpace Party.” Despite these efforts, the MySpace page was never a dynamic or much-frequented site, and did not get many users. The small number of students who commented on their lack of interest in the site during in-depth interviews with MDRC researchers or conversations with NPO staff said that they did not use MySpace because they had moved on to Facebook, Twitter, or other chatting applications; they did not think the site was informative or interesting; or they simply did not want their affiliation with the program to be part of their public profile.

Two Significant Program Changes in Year Three

There were two significant changes in the third year of the program that had implications for reward earnings: (1) the roll-out of an exit campaign, which started with a campaign to get participants to recognize that their chance to earn rewards was ending, and (2) the elimination of several rewards.

The campaign to prepare families for exit

Because it was the final year of the program, Seedco and the NPOs aimed to send the message that families should make the most of this last opportunity to earn money from the program, and to prepare participants for a return to life without the income boost provided by Family Rewards.⁶ These messages permeated most written materials that Seedco and the NPOs distributed in the last year. Figure 2.4 provides an example of this type of messaging in a newsletter. The title reads, “The Countdown Begins!” (Seedco did eventually put an image of a “countdown clock” on the Family Rewards Web site that indicated the number of days remaining in the program.) It goes on to say, “With only a few months left, now is the time to focus on earning all the Rewards you can and start planning for life after the program.” Parents were

⁵Greenberg, Dechausay, and Fraker (2011).

⁶Families could earn rewards for activities completed before September 1, 2010, and had until May 15, 2011, to resubmit rejected Year 2 coupons or turn in employment documentation if they were self-employed.

The Opportunity NYC Demonstration: Family Rewards

Figure 2.4

Family Rewards Flyer Preparing Families for the End of the Program

OPPORTUNITY NYC
family rewards

NEWSLETTER In this issue: Tips for Teens and Parents

The Countdown Begins!

With only a few months left, now is the time to focus on earning all the Rewards you can and start planning for life after the program. Ask yourself these questions to get started.

After 3 great years, ONYC will end on August 31, 2010. The deadline for Year 3 coupons is September 15, 2010.

Has my family had their annual doctor and dentist checkups?

Everyone can earn health Rewards, so consider taking your family to the doctor and dentist for their annual checkups if you haven't already. Going to the doctor and dentist regularly is important for everyone, especially for children. You can earn big Rewards for doing it, too.

Are my children prepared for the ELA, Math or Regents tests?

All children in grades 3-12 have some important standardized tests coming up. How well your children do on these tests helps their schools make decisions about their education. Success can earn your family big Rewards, too. Talk to your community organization about finding practice tests or go to www.OpportunityNYC.org for more resources.

How am I using my Family Reward payments now?

Thinking about how you're using your Reward payments now can help you prepare for when they stop coming. You can talk to your community organization about finding financial planning resources and tips.

invited to ask themselves whether they had completed and submitted coupons for their preventive health care visits, whether their children were prepared for the State exams, and how they were spending their current Family Rewards payments. Other flyers created that year encouraged parents to engage in more intentional financial planning and to focus on finding employment or training opportunities, since they would not be able to maintain the quality of life they had experienced during the program unless they could work more hours or advance at work.

Families generally reacted to the end of the program with acceptance. They expressed a mix of sadness, gratitude for having had the experience, and, in some cases, a desire to save more money in the final year to make the rewards last longer. One mother explained the end of the program to her two daughters, drawing on these themes:

I told them, “Okay, girls, we have to give thanks to God because we were so privileged with this program that has helped us so much. So, with what’s left and what’s still on the way, we have to figure out how we’re going to invest it and save it and stretch it as far as possible, because the program is going to end.”

“Oh, mom, that’s not good. Why?”

I said, “Well, you know how the economy is and everything. We have to give thanks to God because we got a lot out of this. We were very blessed. So, we have to know how we’re going to invest what’s on the way.”

Another mother had a simpler message that focused on being resilient rather than making plans for the program end: “I think I just sat them down, or in passing, I was just, like, you know, the program is about to end and things are gonna change. This is part of life. In life, you have to adjust to changes.”

While some parents tried to shift their families’ spending habits away from spending on “extras” to spending only on necessities, the parents who were interviewed described few strategies to earn more money from the program in its final year.

The centerpiece of the campaign to prepare families for the end of the financial rewards was a special section of the Family Rewards Web site that contained resources and worksheets designed to help families set goals for the future and access appropriate community resources. Seedco began developing the content of the site in early 2010 and it went live in mid-July. It listed important final deadlines regarding coupon submission and a resource guide that included contact information for an array of programs that offer services related to education, health, workforce development, and financial education throughout the five boroughs. It also included practical suggestions for both adults and students about money management. The information on the Web site was available in both Spanish and English, although some of the links to external services were only available in English. During the third quarter of 2010 (July through September), the exit section of the Web site received only 441 page views, about 4 percent of all

page views.⁷ None of the parents who were interviewed at the close of the program described using the exit resources.

There are a number of reasons the exit materials may not have been used more. The Web site was launched relatively late in the program year. Seedco noted that in the months preceding the launch of the exit page (April to June), the Web site received 4,296 visits, most of which were to the education and training page for parents (35 percent) and an advertisement for the National College Fair (41 percent), suggesting that participants may have begun to search for resources to cope with the post-program period earlier. At the end of the program, participants who had used the Web site (52 percent of those asked on the 42-month survey) may have believed that they knew what kinds of information they could get on the site because its structure had not changed much over the course of the program, so they may not have expected to find much new content.⁸ For those who did visit the exit page, it contained the equivalent of many pages of text, which placed heavy demands on literacy and may have limited accessibility. Last, the central theme of the exit strategy was that families should be encouraged to maintain the new habits they had formed during the program years and find ways to replace the extra income provided by the program by seeking assistance from other community agencies. For families who greeted the end of the program with resignation or indifference, or who required more intensive assistance to overcome their barriers to accessing appropriate supports, this message may not have resonated.

The fact that the exit materials on the Web site do not appear to have been used much does not mean that many families were not thinking about and preparing for the end of the program. Parents were asked on the 42-month survey whether they had ever attended a workshop or received referrals from the NPO in Year 3. Their answers demonstrate increased use of those services compared with the responses on the 18-month survey. At 18 months, 43 percent of parents had ever attended at least one workshop, and about one-fourth or less had received referrals for workforce development, educational services, or health care services. On the later survey, about half of parents had attended a workshop, and 57 percent had received a referral in the final program year. Of the parents who received referrals, most requested referrals to advance their own education and training or to get supplemental educational resources for their children, as shown in Table 2.1. It is impossible to know how many of those referrals were explicitly prompted by parents' desire to prepare themselves and their children for the end of the program, but it is likely that some of those referrals worked to support post-program readiness.

⁷All data about Web site visits are from Seedco management reports.

⁸Not all the content on the exit page was new. One of the links on the exit site brought users to the Education and Training resources, which could be accessed from the "Work" tab on the home page.

The Opportunity NYC Demonstration: Family Rewards

Table 2.1

Participants' Experience of Family Rewards Program Services

Outcome	Program Group
Number of times called NPO staff for information about Family Rewards, compared with the first 2 years (%)	
More often	20.8
Less often	40.9
About the same	35.4
Never	2.8
Payment processing decisions were (%)	
Consistent over time	84.6
Prompt and efficient	73.6
Fair	90.7
All of the above	64.1
NPO staff made any referral ^a (%)	57.0
Health care provider or dentist	27.5
Education or training program	36.3
Program to help find a job	31.5
Tutors, after-school activities, or programs to help children with school	37.8
Information about colleges for your child	31.8
Attended any Family Rewards workshop (%)	50.3
Visited the Family Rewards Web site for information (%)	51.5
Sample size	717

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: This table excludes control group members because it pertains only to the Family Rewards program. A randomly selected subsample of program group members was asked these questions.

 Sample sizes may vary because of missing values.

 NPO = Neighborhood Partner Organization.

^aPercentages may sum to more than 100 percent because sample members could list more than one response.

The elimination of several rewards

The second major development in the last year of the program was that several rewards that had been available in the first two years were discontinued. Those rewards were for school attendance (for students in first through eighth grades); discussing results of the annual English language arts (ELA) and math tests with teachers (for students in third through eighth grades); having a library card (for students in all grades); and maintaining public or private health

insurance and completing a doctor-recommended follow-up visit within a specified time frame (for all family members). In addition, the education and training reward was modified so that parents would not have to work to qualify for it, and the reward that parents received for reviewing the results of low-stakes interim tests (for students in the first through eighth grades) had been discontinued in Year 2.

Removing the part-time work requirement from the training activity made it easier for parents to qualify for the training reward. In the other cases, the elimination of the rewards removed an opportunity for families to earn money through the program. Program designers eliminated those rewards to focus the incentive schedule on activities for which there was sufficient opportunity to make an impact through the incentives (reflected in the disparity between the control and program group outcomes), and to remove rewards that were too time-consuming to verify or too difficult for families to complete. They also hoped that a shorter list of rewards would help families internalize the activities and sharpen their focus on particular behavioral outcomes. Interestingly, the change in the incentives schedule created the conditions for an early assessment of how families would respond to the removal of the financial incentives.

There was some risk that changing the incentives schedule at this stage would be confusing for families or even spark resentment toward the program. To address these concerns, Seedco and the NPOs explained the changes openly when they distributed coupon books at the start of the third year, and they created a special brochure explaining the changes. What was missing from this outreach to families was an explicit discussion of how the elimination of these rewards was likely to affect families' ability to earn the same amount of reward money as they had in the past — in short, that families would have to approach the program in a different way to maintain their same level of earning. This could have been part of the messaging around the exit campaign as well, but it was not.

Families' Understanding and Use of the Program

The Family Rewards study has tracked how participants' understanding of the incentives has evolved over time. This is important because the program's theory of change requires that participants (1) know what activities and performance levels are being rewarded, (2) are motivated by the offer, (3) have the intention and resources to accomplish the activities, and (4) are able to complete the verification procedures (that is, fill out and mail coupons when needed).⁹

⁹This is not necessarily the case when it comes to young children. Parents can play a role motivating and supporting young children's educational achievement even when the children don't know about the financial

(continued)

The extensive marketing of the rewards and the reduction of the number of rewarded activities in the third year were efforts to make it easier for families to familiarize themselves with and remember the rewards. The 18-month parent survey found that parents had a good but overly broad understanding of the rewards. They tended to believe that more activities were rewarded than was the case and had poorer recall of the specific levels of performance required for automatically verified rewards, suggesting that they relied heavily on the coupon book for program information. Ninety-three percent of parents said they knew what they needed to do to submit coupons for activities they had completed, although a lower proportion — 63 percent — said that they had no trouble keeping track of the coupons.

Seedco management data on parents' use of the helpline and on parents' responses to the 42-month survey provide some insight into how parents' understanding changed over time. Helpline call volume generally decreased over the course of the program. In Year 3, when participants called, it was usually to check to make sure their coupons had been received or to inquire about when a payment would be posted to their accounts. Parents reported on the survey that they sought help from NPO staff in the third year of the program the same amount as or less often than they had in the first two years, as shown in Table 2.1. The declining reliance on customer service could be seen as a sign of growing independence and comfort with the program mechanics. On the other hand, it could simply indicate lower levels of engagement as the program drew to a close. The balance of evidence suggests, however, that most families understood and were able to handle the paperwork requirements of the program by the time it ended.

When asked for their assessment of the payment processing system, most families rated it positively. Ninety-one percent of parents described payment decisions as fair, 85 percent said they were consistent over time, and 74 percent thought payments were received in a prompt and efficient manner. The fact that one-fourth of parents did not consider the payment process to be prompt and efficient is a concern, however, because the more removed in time the payments are from the behavior, the lower will be the expected reinforcement effects of the cash reward.¹⁰

A key question for the implementation research is whether families had particular difficulty submitting valid coupons for any of the activities. One of the reasons some activities were eliminated during the program and the rules for submitting others were changed was to remove activities that were not practicable and to reduce administrative barriers to successfully claiming rewards. Seedco program data on coupons that were rejected but never resolved was used to probe this issue. It shows that 1,915 families (about 80 percent of all families in the program)

rewards. Indeed, the implementation study found that young children sometimes were not told that their family was part of Family Rewards.

¹⁰Skinner (1974).

had outstanding rejections at the close of the program. Sixty-one percent of rejected coupons were in the health domain, 24 percent were in the workforce domain, and 15 percent were in the education domain. Table 2.2 lists the activities that had the highest number of unresolved coupon rejections. The coupons for full-time employment for adults and for maintaining private health insurance for children and adults top the list. All the activities that are listed in Table 2.2 were eliminated at the start of Year 3, with the exception of the coupons for full-time work and for dental care.¹¹

There is a temporal pattern to the volume of coupon rejections, which is illustrated in Figure 2.5. Most coupons that were rejected and never subsequently approved were received at the transition points between program years. Specifically, 9 percent of unresolved coupon rejections occurred in the first payment period, 10 percent in the sixth payment period, and 11 percent in the twelfth payment period. At the start of the program, families were likely to make

Table 2.2
Activities for Which Coupons Were Rejected
Most Often and Never Resolved

Activity	Coupon Rejections, Number	Coupon Rejections, as Percentage of Total
Sustained full-time employment	2,803	19.4
Maintaining private health insurance for children	2,212	15.3
Maintaining private health insurance for adults	2,074	14.4
Preventive dental care for children older than age 6	1,485	10.3
Completing a doctor-recommended follow-up visit for children	886	6.1
Preventive dental care for adults	723	5.0
Education and training while employed	701	4.9

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

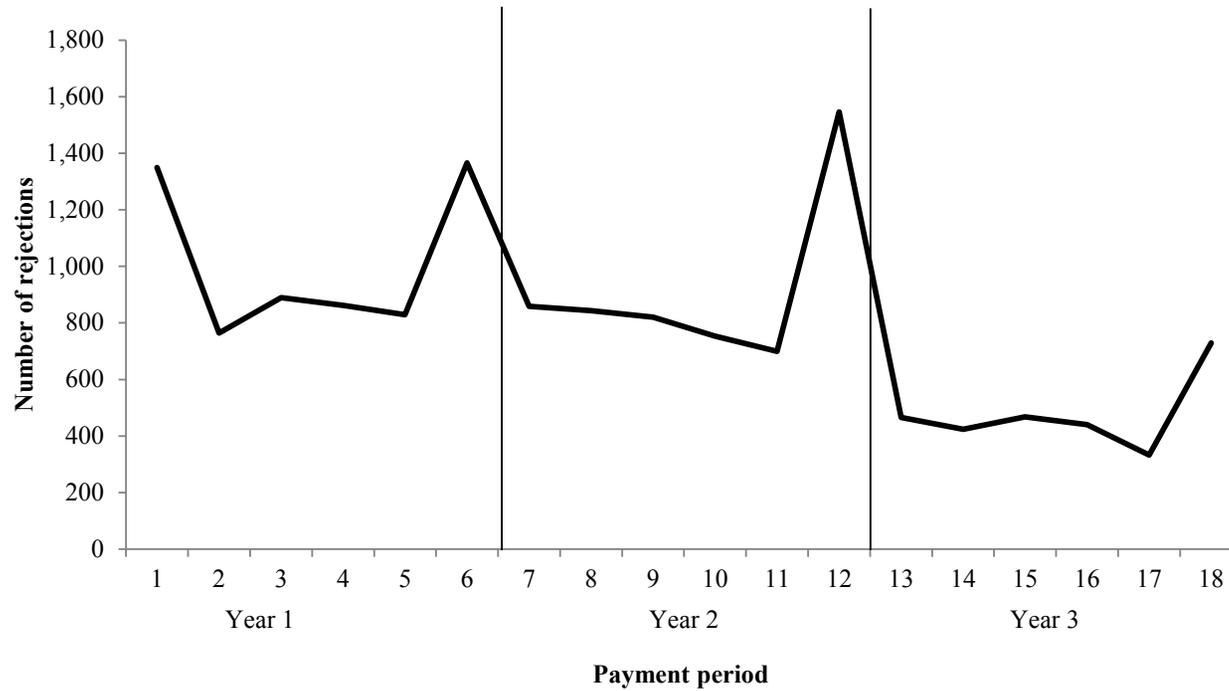
NOTE: These calculations show the number and percentage of coupons that were never approved for health and work-related activities that participants claimed to have completed between September 2007 and August 2010.

¹¹Coupons for education and training while employed were also continued.

The Opportunity NYC Demonstration: Family Rewards

Figure 2.5

Number of Coupon Rejections for the Full Sample, by Payment Period



SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTE: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

mistakes as they were getting to know the program rules. At the end of each program year, NPO staff launched massive campaigns to get families to submit all their eligible coupons and fix any outstanding errors. As a result of those campaigns, families submitted large numbers of coupons in the last payment period of the year, but it is clear from the volume of rejections that many of those coupons were not successfully redeemed.

With each passing payment period, the volume of permanently rejected coupons decreased, suggesting that parents became more competent at submitting valid coupons. A very small amount of the decrease may also be a result of attrition, as parents who experienced coupon rejections or other frustrations with the program stopped participating.¹²

Overall, these findings highlight the trade-offs that are involved in using coupon-based incentives. In order to fill out the coupons, participants had to learn program rules and navigate systems, like their Human Resources departments. The program staff invested significant resources explaining the verification rules and addressing rejected coupons. At the same time, the coupons provided a tangible reminder of the incentives that many participants appreciated and were manageable for most. These advantages and disadvantages need to be taken into consideration when designing the verification process for an incentives-based intervention.

Money Earned from Family Rewards

Family Rewards transferred a significant amount of additional income to poor families in New York City in exchange for their performance of certain activities. The amount of the average cash transfer to a household is on the order of the Earned Income Tax Credit (EITC).¹³ Cumulative reward earnings over three years averaged \$8,707, with the majority of families (71 percent) earning a total of more than \$5,000 from the program (Table 2.3). There are important differences to note between the EITC and Family Rewards, however. Unlike the EITC, which is paid out in one lump sum once a year, the Family Rewards payments were made every two months in sums that varied based on which activities families had completed. Earnings from Family Rewards were combined with other sources of revenue in participants' bank accounts or on stored value cards, and they were split between parents and high school students. Paying out rewards periodically likely increased the salience of the program for families, but the variable

¹²Analyses show, for example, that the bottom 10 percent of earners had most rejections in the beginning of the first year of the program, and subsequently very few rejections. Their overall earnings, in conjunction with this finding, suggest that these families stopped submitting coupons.

¹³The EITC is a tax credit for low-income taxpayers with qualifying children. The Internal Revenue Service (IRS) reported that the average amount refunded for the 2010 tax year was \$2,240 per family. See www.eitc.irs.gov/central/eitcstats.

The Opportunity NYC Demonstration: Family Rewards

Table 2.3

Summary of Rewards Earned by Families

Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
Family earned at least one reward (%)	99.5	98.0	89.1	99.6
Only automatically verified rewards	16.5	18.2	12.0	9.8
Any automatically verified rewards	98.7	96.7	73.7	99.3
Only coupon book rewards	0.8	1.3	15.4	0.3
Any coupon book rewards	83.1	79.8	77.2	89.9
Automatically verified and coupon book rewards	82.2	78.5	61.8	89.6
Average number of automatically verified rewards earned	14.0	13.0	3.4	30.4
Distribution of number of automatically verified rewards earned (%)				
0	1.4	3.3	26.3	0.7
1-10	32.7	34.8	69.5	7.7
11-20	47.2	47.5	4.3	20.2
21 or more	18.7	14.4	0.0	71.4
Average number of coupon book rewards earned	13.6	12.0	7.9	33.4
Distribution of number of coupon book rewards earned (%)				
0	17.0	20.2	22.8	10.1
1-10	27.2	30.2	43.4	12.5
11-20	31.4	28.1	29.7	14.1
21 or more	24.5	21.5	4.0	63.3
Family earned at least one reward (%)				
Education reward	96.4	91.5	82.5	97.9
Health reward	95.2	94.2	72.7	98.0
Workforce reward	42.2	42.1	41.9	53.2
Among families who earned a reward in a specified period, average reward amount earned (\$)	3,153	3,196	2,700	8,707
Average reward amount earned, by domain ^a (\$)				
Education	1,450	1,477	1,394	3,983
Health	1,224	1,247	879	3,039
Workforce	1,359	1,438	1,475	3,376
Average number of activity periods during which rewards were earned	5.6	5.6	4.2	14.8

(continued)

Table 2.3 (continued)

Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
Distribution of average reward amount earned ^b (%)				
\$1 - \$99	0.6	0.6	0.3	0.2
\$100 - \$499	4.7	5.2	7.1	1.1
\$500 - \$999	7.9	7.2	9.7	2.1
\$1,000 - \$2,999	39.6	37.9	43.7	11.2
\$3,000 - \$4,999	29.7	31.3	28.2	14.5
\$5,000 - \$6,999	12.1	13.2	9.1	13.6
\$7,000 or more	5.4	4.6	1.8	57.4
Family picked up coupon book (%)	89.8	86.9	87.0	96.0
Sample size				2,377

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

^aReward amounts are calculated among families who earned rewards for each domain during the specified period.

^bThe maximum amount earned in Year 1 was \$13,235; in Year 2, it was \$12,150; and in Year 3, it was \$10,425.

amounts of the payments affected families' ability to budget and account for the Family Rewards earnings, a topic that is discussed below.

Table 2.3 summarizes the rewards that families earned each program year and overall. In general, families showed a high level of participation in the program to the end. In Year 3, 89 percent of families earned at least one reward, and average annual earnings totaled \$2,700. Seventy-two percent of families earned between \$1,000 and \$5,000 that year.

At the same time, according to a variety of indicators, reward receipt generally declined between the second and third program years, with the exception of workforce rewards. Families earned rewards in fewer payment periods in Year 3 — an average of 4.2 out of 6 payment periods, compared with 5.6 payment periods in Year 2. They earned fewer automatically verified rewards — an average of 3.4 in Year 3 compared with 13 in Year 2. Twenty-six percent of families did not earn *any* automatically verified rewards in Year 3. The third year saw a decline in the average number of coupon-based rewards earned as well, although not as steep. About 88 percent of families picked up their coupon books each year, and 79 percent of families

picked up their coupon books in all three years (analysis not shown).¹⁴ The fact that families continued to get their coupon books and submit coupons is a sign that they continued to be invested in the program, since managing the administrative demands of coupon submission required attention and planning. Still, because the decline in automatically verified rewards was not met with an *increase* in the completion of coupon-based rewards in Year 3, families did not sustain the total dollar value of the transfers they had earned in the first two years of the program. On average, families earned \$496 (or 16 percent) less in the last year of the program than they did in Year 2.

Rewards Earned in the Education, Health, and Workforce Domains

Families earned a total of \$20.6 million from Family Rewards over three years.¹⁵ Of this total, 45 percent was paid for education rewards, 34 percent for health rewards, and 21 percent for workforce rewards, as Figure 2.6 illustrates. Almost every family earned at least one education and health reward, as shown in Table 2.3. About half of families earned at least one workforce reward. The level of participation in the workforce domain did not change over the course of the three years of the program; however, the proportion of families who earned at least one education or one health reward in Year 3 compared with Year 2 declined by 9 percentage points and 22 percentage points, respectively. In the final program year, 83 percent of families earned at least one education reward, 73 percent earned at least one health reward, and 42 percent earned at least one workforce reward.

The education rewards for high school students had the highest monetary value of any category of rewards. High school students directly earned about \$3 million in total for educational achievements, an amount that was deposited into bank accounts that students' cosigned with their parents or onto stored value cards in the student's name. In an attempt to estimate the relative contribution of high school students' education rewards to family earnings, Table 2.4 shows the proportion of average annual family earnings that was made up by ninth-graders' educational rewards.¹⁶ This table contains only the subgroup of program group families who had at least one ninth-grader at the start of the program and shows only the contribution of that

¹⁴Coupon book distribution continued for the entire program year. In Year 3, 77 percent of coupon books were distributed by December 31, 2009. This was the most efficient pace of distribution of any year. While it was possible to get individual coupons from NPO staff and the Web site, families who did not pick up their coupon books were likely to miss out on the opportunity to earn coupon-based rewards.

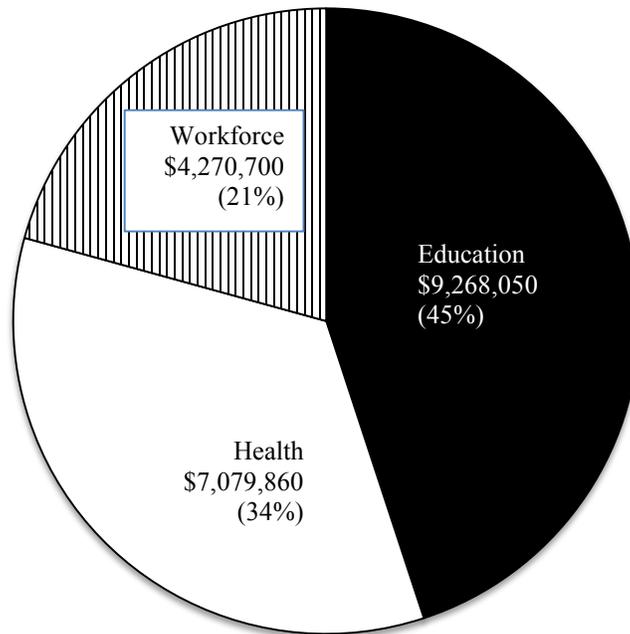
¹⁵Most of these payments were successfully made to families' accounts. This did not always occur every two months, as described earlier. Sometimes there were delays retrieving administrative data from the Department of Education, which delayed those payments. Some participants did not receive all the money they had earned from the program because of problems with their bank accounts that were never resolved, or because they never submitted a bank account number or signed up for a stored value card.

¹⁶In the tables and throughout this report, "baseline" refers to the time of random assignment.

The Opportunity NYC Demonstration: Family Rewards

Figure 2.6

Total Amount of Reward Money Earned by Families in the Three Program Years Combined, by Domain



SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTE: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

student's rewards even if there are other high school students in the household. Additionally, the analysis does not break down how the education reward money was divided between the parents' and the children's accounts.

Nonetheless, it is striking that in the first two years of the program, the starting ninth-graders' rewards constituted one-third of overall household earnings, and in the third year, they were more than 40 percent. The 2010 report found that Family Rewards produced higher education outcomes for ninth-graders who had scored at proficiency level on their math or ELA

The Opportunity NYC Demonstration: Family Rewards

Table 2.4

**Proportion of Annual Reward Earnings per Family
Made Up of Education Rewards Earned by Students in Grade 9
at the Time of Random Assignment, by Math Proficiency**

Sample and Program Year	Average Total Reward Earnings per Family (\$)	Education Reward Earnings (%)
<u>All families with students in grade 9 at baseline</u>		
Year 1	3,578	31.1
Year 2	3,531	30.3
Year 3	3,026	42.1
Years 1, 2, and 3 combined	9,846	34.4
Sample size		910
<u>Proficient on 8th grade math test^a</u>		
Year 1	4,663	40.5
Year 2	4,558	38.6
Year 3	3,613	47.5
Years 1, 2, and 3 combined	12,637	42.5
Sample size		295
<u>Not proficient on 8th grade math test^a</u>		
Year 1	3,086	28.6
Year 2	3,058	27.9
Year 3	2,757	42.1
Years 1, 2, and 3 combined	8,569	32.6
Sample size		531

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: Calculations are based on families who earned any rewards.

Education reward earnings are presented as a percentage of average total reward earnings per family.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

exams in eighth grade.¹⁷ Looking specifically at families with a ninth-grader who was proficient in math,¹⁸ the education earnings were about 43 percent of family earnings over the entire program, and peaked at almost half of family earnings in Year 3. For families with a ninth-

¹⁷Riccio et al. (2010).

¹⁸Table 2.4 shows findings for students whose proficiency is measured by their eighth grade math scores. Appendix Table B.1 shows the same analysis as measured by eighth grade ELA scores.

grader who was not proficient in math, the education earnings still accounted for a meaningful proportion of household earnings, making up about 33 percent of family earnings over the entire program and 42 percent of earnings in the final program year.

To put the amount of money transferred to high school students into context, it is important to recognize that parents exercised varying degrees of control over how much access students had to their rewards. When parents were asked about this on the 42-month survey, their answers varied depending on the age of the child, a finding confirmed by the in-depth interviews described in MDRC's qualitative report on Family Rewards.¹⁹ The vast majority of high school students — 72 percent — had to ask their parents for permission to spend money they had earned through the program.²⁰ Only 17 percent were able to spend the reward money as they chose, and 9 percent were not allowed to spend it at all.²¹

Explaining Patterns of Reward Receipt

Why Families Earned Less Money in Year 3 Than in Earlier Years

It was noted above that families earned, on average, \$496 less in the last year of the program than in Year 2. Why did earnings decrease in the final year despite efforts by the program operators to get families to make the most of their last chance to earn rewards? The main reason is the elimination of several rewards. Figure 2.7 shows the proportion of Year 1 and 2 average annual earnings that reflected the subsequently discontinued rewards. Public and private health insurance, which mostly reflected the automatically verified public health insurance reward, accounted for about one-fifth of annual earnings during that time. For families earning the least from the program, the health insurance rewards accounted for more than a third of their reward earnings in the first two years.

By removing the reward for maintaining public health insurance, the designers removed a reward that provided consistent payments and turned out to be relatively easy to earn. As a consequence, the incentives schedule became more rigorous in the third year and required

¹⁹Greenberg, Dechausay, and Fraker (2011).

²⁰A supplemental study of a sample of high school students and parents in the control and program groups explored spending and saving practices within families. See Morris, Aber, Wolf, and Berg (2012), pp. 37-41.

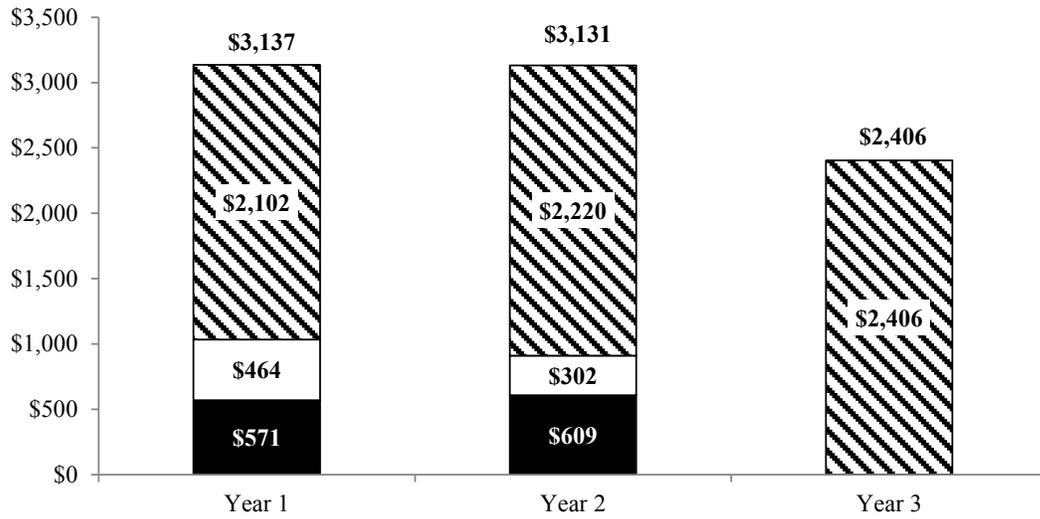
²¹Not all younger children even knew that they were earning money from the program or had access to it. Seventy-seven percent of elementary and middle school-age children knew about the money they earned from Family Rewards (though often not the specific amounts) and had access to it. Sixty percent of those parents required that their children get their permission before making purchases. Thirty-four percent allowed their children to spend as they pleased. (Most of the children in this last category are probably middle school students.)

The Opportunity NYC Demonstration: Family Rewards

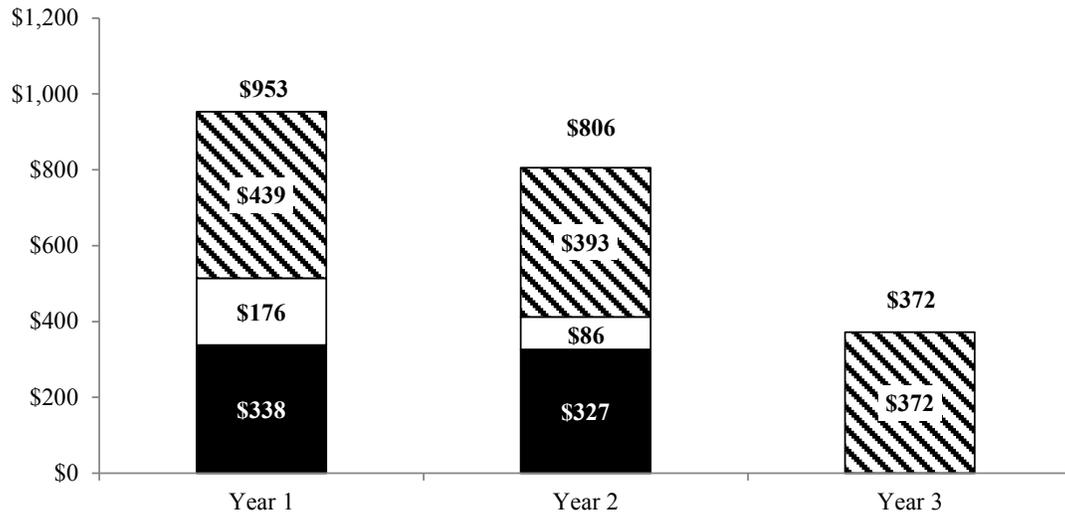
Figure 2.7

Composition of Annual Earnings, Full Sample and Bottom 20 Percent of Earners

Full Sample



Bottom 20 Percent of Earners



Health insurance - discontinued
 Other discontinued rewards
 Continued rewards

participants to take more deliberate steps to earn rewards and make up for the loss. It appears that families did not make those adjustments. This could be because the families were indifferent to the loss of income, being accustomed to ups and downs in their financial stability, or because they did not fully grasp the impact of losing the health insurance reward and needed more support in order to cope with that change in a proactive way.

One of the findings from the in-depth interviews is that parents and youth who were more organized were better able to both handle the verification procedures associated with the program and track their own performance to increase the motivational power of the rewards. For example, one Brooklyn mother explained that she calculated how much she was expecting to earn every two months before she got the Earnings Statement, and followed up with the helpline or her children whenever there was a discrepancy. She set up payment plans with her creditors based on her expected reward earnings. She was one of the few participants who was able to accurately state how much her family had earned from the program over three years. Most interviewees were not able to estimate this amount, with most vastly underestimating the amount of the cash transfer.

There are many reasons for this that relate to the concept of mental accounting, which is a broad concept that describes how people think about money, categorize it into different accounts or budgets, and use those categorizations to make decisions.²² One of the findings within this area of research is that small dollar amounts are not often noticed, getting assigned to the “petty cash” category that is not mentally recorded. Although the annual transfer to families was sizable, it was disbursed in small payments of variable size, and many parents and youth reported that they did not recognize how much they were actually earning or their earning potential.²³ Parents who were not independently engaged in cumulative accounting of their reward earnings over time, like the mother described above, may not have even recognized that their level of earning had decreased in Year 3 until it was too late. The failure to do cumulative accounting of reward receipt may also have affected the likelihood that participants would place rewards into an *incidental* category of expenditures — such as for a monthly bill or article of clothing — rather than recognizing the potential for the money to be saved for a larger investment, like a computer or debt repayment.

Why Some Families Earned More Rewards Than Other Families

Adding up reward earnings over three years reveals a considerable range in the amount of money families earned from the program. On average, families earned \$8,700 overall, but the highest-earning family earned \$32,820 in rewards while the lowest-earning family earned \$0. A

²²Thaler (1999).

²³The Earnings Statement did not provide a tally of rewards earned to date.

large majority of families — approximately 80 percent — earned more than \$3,375 over the life of the program, while the top 20 percent earned more than \$13,000 (and an average of over \$17,000) in reward money. It is impossible to fully explain the mechanisms that were responsible for the range in earnings outcomes because families varied widely in their composition, attributes, and internal dynamics, but certain baseline and program engagement characteristics are associated with being a low, moderate, or high earner in Family Rewards.

The Association Between Baseline Characteristics and Reward Receipt

Family size and composition were significantly correlated with earnings. The larger the family — especially the more high school students — the more opportunities it had to earn rewards. Table 2.5 demonstrates this pattern. For each additional child up to three, families earned about \$2,000 more on average. Families with no high school students earned about \$2,800 less than families with at least one high school student. Having two adults enrolled in the program was another factor contributing to reward earnings (not shown in table), but few families had two adults (only 6 percent at the time of enrollment).

The Opportunity NYC Demonstration: Family Rewards

Table 2.5

Variation in Average Amount of Reward Money Earned, by Family Size and Composition

Average Rewards Earned and Family Composition ^a	Years 1, 2, and 3 Combined (\$)	Percentage of Total Sample
Families with		
1 child	6,120	22.8
2 children	8,121	33.3
3 children	10,283	26.7
4 children or more	10,891	17.2
No high school students	7,311	49.5
At least 1 high school student	10,078	50.5
Sample size		2,368

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

"Sample size" refers to the number of families who earned rewards.

Data for number of children were missing for 8 families at the time of random assignment.

^aCalculations are based on families who earned any rewards.

Table 2.6 illustrates the relationship between household size and the total amount of rewards earned. The top 20 percent of families, in terms of earning rewards, generally had more children than did other families. These larger families averaged four members (one adult and three children), with one of the three children being in high school. In comparison, families in the middle or bottom of the distribution had around three family members (two children) and were less likely to have a high school student.

Although all families were eligible for the study because they qualified for free school lunch and lived in communities of concentrated poverty, the families who earned more rewards were less disadvantaged at the time of enrollment than families who earned fewer rewards, and they made more extensive use of the helpline and NPO staff. The top 20 percent of earners had, on average, higher levels of education, employment, earnings from employment, marriage, and self-reported mental and physical health than did other families at the time of enrollment, as shown in Table 2.6. They were less likely to be receiving government transfer benefits or slightly less likely to be living in very unstable housing (for example, with a friend or in a group shelter). The heads of household in these families were slightly younger than those who earned less.

Earnings patterns were generally similar among black and Hispanic participants. Families who spoke Spanish at home were at no disadvantage when it came to earning rewards, likely due, at least in part, to the availability of bilingual NPO and helpline staff and translated program materials. Families with a foreign-born head of the household constituted 45 percent of the highest-earning group. A separate regression analysis also found that households with foreign-born parents received higher reward amounts, even after controlling for other baseline characteristics,²⁴ suggesting that immigrant families adapted especially well to the intervention.

All these attributes were strongly correlated with placement on the reward earning distribution when the same analysis was done with reward receipt data from Years 1 and 2. Does this mean that reward earnings potential was predetermined by characteristics that existed before random assignment and remained fixed over three years? Additional analyses were done to look at earnings mobility between Years 1 and 3. About 41 percent of families were in the same quintile on the earnings distribution in Year 3 as they were in Year 1; 29 percent moved to a higher quintile; and 30 percent moved to a lower quintile. There were 477 families who

²⁴The regression analysis controlled for household-level baseline characteristics, including ethnicity, primary language in the household, citizenship, household composition, parents' educational attainment, public assistance receipt, mental and physical health, connection to mainstream banking, and the focal child's standardized test scores.

The Opportunity NYC Demonstration: Family Rewards

Table 2.6

**Characteristics of Families Who Earned Rewards,
by Range of Earnings During Program Years 1, 2, and 3 Combined**

Characteristic	Range of Earnings		
	Bottom 20%, \$0 - \$3,375	Middle 60%, \$3,376 - \$13,125	Top 20%, \$13,126 - \$32,820
<u>Characteristics of families at baseline</u>			
Average number			
In household	2.9	3.4	4.2
Of children enrolled in Family Rewards	2.0	2.4	3.0
Of high school students in household	0.5	0.6	1.0
Primary language spoken at home is Spanish (%)	18.9	21.7	25.5
Family was receiving no government transfer benefits (%)	15.0	18.1	38.1
Sample size (total = 2,377)	476	1,427	474
<u>Characteristics of parents at baseline^a</u>			
Average age (years)	41	40	39
Race/ethnicity (%)			
Hispanic/Latino	45.5	48.1	46.2
Black, non-Hispanic/Latino	52.6	50.1	52.3
Receives housing assistance (%)	55.9	54.6	44.2
Housing status (%)			
Rents	83.5	87.3	86.3
Lives with friends	4.7	3.4	1.5
Group shelter	3.9	1.6	0.6
No high school diploma or GED certificate (%)	65.0	52.0	36.8
Foreign-born (%)	24.4	30.2	44.9
Married or in a legal domestic partnership (%)	13.5	15.8	36.7
Working full time (%)	27.5	37.2	65.1
Average weekly earnings among those currently working (\$)	336	377	457
Physical or mental health problem (%)	30.3	26.2	10.6
At risk of depression (%)	16.3	15.8	9.2
Sample size (total = 2,377)	476	1,427	474

(continued)

Table 2.6 (continued)

Characteristic	Range of Earnings		
	Bottom 20%, \$0 - \$3,375	Middle 60%, \$3,376 - \$13,125	Top 20%, \$13,126 - \$32,820
<u>Pattern of reward receipt and coupon submissions</u>			
Average number of automatically verified rewards earned	17.7	30.2	43.8
Number of coupon book rewards earned	6.0	31.3	67.5
Never submitted a coupon (%)	35.9	4.2	0.0
Number of activity periods family earned rewards	10.4	15.2	17.5
Sample size (total = 2,377)	476	1,427	474
<u>Parents' experiences with program (%)</u>			
Payment processing decisions were			
Consistent over time	71.7	86.8	88.0
Prompt and efficient	62.6	73.0	83.1
Fair	83.9	91.3	93.9
Visited the Family Rewards Web site	33.9	54.0	58.3
Ever attended any workshop	44.6	51.3	51.9
Received a referral from NPO to find			
Education or training program	27.4	36.4	42.3
Job search program	19.7	31.8	39.5
Tutoring program	28.2	38.9	41.7
Received assistance from a friend or family member to claim rewards	24.2	25.9	35.0
Discussed Family Rewards with children when talking about school performance	39.2	41.4	49.7
Being in program			
Led to more family interactions	42.2	56.8	64.0
Got children thinking about family budget	48.7	55.2	53.7
Sample size (total = 715)	121	430	164

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey, Seedco's Family Rewards program data, and Baseline Information Forms.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

GED = General Educational Development. NPO = Neighborhood Partner Organization.

^aThis section excludes information for enrolled second parents in two-parent households.

were in the bottom 20 percent of earners in the first year; 209 (just less than half) had moved to a higher quintile in the last year of the program. This pattern suggests that families had a reasonable chance to improve their performance in the program over time (as measured by reward earnings), but that a small group was extremely difficult to reach.

The Association Between Engagement with the Program and Reward Receipt

It was noted earlier that the bottom 20 percent of earners relied most heavily on the automatically verified public health insurance reward for their earnings from this program. This finding helps explain the pattern of reward receipt and submissions described in Table 2.6, which shows the characteristics of families who earned rewards for all three program years combined. On average, these families submitted only six coupons over the entire three years of the program, and 36 percent never submitted a coupon. Clearly, these families were not engaged by the program, or they did not understand or could not handle the coupon submission requirements.²⁵ They showed a diminishing willingness to pick up their coupon books over time. In Year 1, 71 percent of the bottom 20 percent of earners picked up their coupon books (analysis not shown). In Years 2 and 3, about 60 percent picked up the book.

Interestingly, over the three years, about the same percentage of low-earning families (24 percent) stated that they asked a friend or family member for help claiming rewards as families who earned a moderate amount (26 percent). This percentage is not very high in either case and may indicate an unmet need among some families for hands-on help from people they trust.

The bottom 20 percent of earners did not seek much help from the program staff to get the additional support they may have needed. They were the least frequent users of the Web site and workshops, and they received the fewest referrals. They were the most dissatisfied with the payment processing system and they had the fewest interactions within their families that were prompted by the program.

In contrast to the low-earners, moderate-and high-earners earned coupon-based and automatically verified rewards more often, had a more positive view of the payment processing system, and made more use of the program services. The highest-earning families asked for the most referrals to educational and employment resources from NPO staff. A larger percentage of high-earning parents (35 percent) also received help navigating the program from family and

²⁵A small number of families were never reengaged after they signed up for the study and were selected for the program group. These families never picked up coupon books. They may have moved, experienced a family trauma, or simply changed their mind about participating. It is also true that relocation or personal upheavals, such as a death in the family or a period of institutionalization, may have hampered participation at any time during the program.

friends. The highest-earning families attributed more changes in their interactions with their children to the program.

It is not surprising that families who earned the most rewards described the program's customer service most positively and felt that the program had the biggest impact on their family dynamics. This does not mean that engagement with the program *caused* the families to earn more money — the relationship between program engagement and reward earnings is not unidirectional (that is, earning money from the program is as likely to lead to more interactions with and discussions of the program as interacting with and discussing the program could lead to higher reward earnings) and it is strongly mediated by the participant's ability to meet the conditions for a reward. At the same time, some findings from the 42-month survey and the qualitative data about the behavior of higher earners suggest that cooperation between parents and children, parental oversight of children's spending of their reward earnings, social support from friends and extended family, and supportive relationships with program staff were mechanisms by which the high-earning group may have increased their tendency to earn rewards. These factors characterize the ways foreign-born families, particularly Spanish-speaking immigrant families, incorporated Family Rewards into their lives, and may be part of the reason this group was disproportionately represented among the highest earners in the sample.

Ways Families Used the Rewards

Parents were asked on the 18-month and 42-month surveys to describe how they spent money that they earned from Family Rewards. Their spending habits provide some insight into how central the reward payments were to the household budget toward the end of the program.

The main difference between parents' uses of Family Rewards earnings from the first survey wave to the second one is that on the 42-month survey parents reported *fewer uses* of the rewards; they made more strategic investments of their lower Year 3 earnings rather than spreading their spending across multiple categories of use. This can be seen in Table 2.7, where the two most common uses of the rewards at 42 months are household expenses such as rent and utilities (53 percent) and paying for a few "extras" such as eating out (62 percent). These were also the top two responses on the 18-month survey but were more commonly reported than on the 42-month survey. At 18 months, 70 percent of parents stated that they were using reward money for household expenses, and 72 percent were using it for extras.

Parents were asked if they were spending Family Rewards earnings on education or training for the first time on the 42-month survey. Eleven percent indicated that they were.

Additional analyses (not shown) demonstrate that uses varied predictably for families who earned the most from the intervention. Families who earned more money from the program

The Opportunity NYC Demonstration: Family Rewards

Table 2.7

**Parents' Report of Family's Use of Rewards Received
at 18 Months and 42 Months from the Time of Random Assignment**

Outcome	Program Group	
	18 Months	42 Months
<u>Use Family Rewards payments to (%)</u>		
Help pay for regular expenses, such as rent, utilities, or food	69.9	52.6
Pay off bills, such as credit cards or medical bills	32.4	22.1
Make a major purchase, such as a house, major appliance, or car	11.6	8.0
Save for some future need, such as college tuition or retirement	46.0	31.8
Pay for health or dental care or health insurance	15.2	4.8
Pay for things to help children in school, such as special lessons or private schools	34.6	21.7
Pay for a few extras, such as eating out, going to a movie, buying electronics or clothes	72.3	62.2
Help other family members or friends with expenses	11.7	8.9
Pay for college tuition or other costs for training	--	11.2
Other	18.7	4.7
Sample size	1,032	717

SOURCE: MDRC calculations using data from the Family Rewards 18-month survey and the Family Rewards 42-month survey.

NOTES: This table excludes control group members because it pertains only to the Family Rewards program. A randomly selected subsample of program group members was asked these questions.

Sample sizes may vary because of missing values.

A double dash (--) indicates "not applicable."

Percentages may sum to more than the number participating in any activity because sample members could list more than one response.

were more likely to state on the 42-month survey that they were saving for some future need, such as college or retirement, and paying for special lessons to help children in school.

Post-Program Aspirations and Plans

The theory behind the conditional cash transfer program is that by providing families with additional financial resources in exchange for completing activities that promote health, educational achievement, and workforce participation, families will benefit immediately through a reduction in poverty over the short term and, over the long run, from the habits and skills that the incentives reinforced and the possible financial cushion created by any savings. The expectation — or hope — is that, in the absence of the financial incentives, participants should continue to engage in activities that had become routine during the program years and that were reinforced by mechanisms other than the financial incentives alone, and when their environment facilitated those behaviors.

The evaluation explored whether participants hoped to sustain any of the positive behavioral and lifestyle changes that they perceived they had achieved with the help of the program. The 42-month survey asked respondents how they planned to cope with the loss of reward income. Although about half of the survey respondents indicated that they intended to save their reward earnings to make them last longer, a sizeable proportion — 37 percent — said they would not be affected by the loss of income or would not do anything to replace it, as Table 2.8 indicates. About half of families reported a combination of strategies to cope with the loss of income. The most frequently reported combination was saving along with going back to school or working more.

During in-depth interviews that were conducted just after the program ended, parents shared stories that represented the opposing perspectives outlined above. On the one hand, some parents expressed a desire to increase their workforce participation in order to sustain the standard of living that their families had enjoyed during Family Rewards. One mother explained how her job search became more urgent as the program drew to a close:

I've been looking [for a job], but it just gave me more — I think after reality really hit, then I got on it, like one day I'd get up and say, "Uh-oh." Like, in March, I said, "Oh man — we've only got, like..." They sent you letters saying three more, two more payments, and I was, like, "Oh, wow." And I started looking more in the computer. I was up late doing that.

Another mother described how the benefit to her daughters from the extra income motivated her: "[I wanted to] work as high as I can in the health field to make sure they can live well and be as much as possible and as wealthy as possible."

The Opportunity NYC Demonstration: Family Rewards

Table 2.8

Families’ Plans to Make Up for Loss of Family Rewards Income

Outcome	Program Group
<u>Plans (%)</u>	
Pick up more paid work (parent)	24.5
Pick up more paid work (children)	11.5
Go back to school	31.1
Save money to make it last longer	54.0
Take on more debt	10.2
Apply to public assistance, such as food stamps or TANF	21.9
Ask friends or family members for financial help	11.2
Other plans	1.7
No plans	12.8
Loss of rewards income unlikely to affect family	24.3
<u>Extent of planning</u>	
Family listed 2 or more ways to make up for Family Rewards income loss (%)	52.5
Average number of ways families plan to make up for Family Rewards income loss	2.0
Sample size	717

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: This table excludes control group members because it pertains only to the Family Rewards program. A randomly selected subsample of program group members was asked these questions.

Sample sizes may vary because of missing values.

Percentages may sum to more than 100 percent because sample members could list more than one response.

These mothers had high aspirations, but it is important to recognize that, in both cases, they were pursuing their job search on their own. Family Rewards retained a skeleton staff at the NPOs for seven months after the end of the third program year who could help families with paperwork and referrals to services related to education, health, and employment; however, parents did not seem to be aware of their availability or seek their help.

On the other hand, some parents expressed utter resignation about the loss of income. A mother from the Bronx said plainly that she could not even imagine how to replace that money. “No,” she said, “I don’t think that... I haven’t thought about it. What am I going to do? The necessities will never go away. Things get more expensive every day.” Another mother said she

had no way to make a sustainable change in her income level because her job as a hair stylist was unpredictable — some days are good, others are bad, and that is the way it is. In some cases, parents thought their adolescent children could get summer jobs to soften the transition.

Another dimension of the transition to post-program life was the need for parents to motivate their children to do well in school without being able to leverage the financial incentives. Many parents tried to motivate their children with words of encouragement or disappointment. These strategies met with varying levels of success. One such parent, who felt that her high school-age children's academic performance did improve, tried to encourage them to retain that level of motivation after the program ended by telling them:

Through the program, you were taught to feel good about good grades. It was a learning experience. After you've worked together and come to a higher level, it's not good to go back down. Because you see the good results. Aside from the incentives, you see the good results.

But this parent had another child who had just started high school when the program ended, and she worried because this child was not willing to attempt as many Regents exams as her older siblings had been when they were eligible for the rewards. The parent said she was not sure how to overcome her daughter's resistance in the absence of the rewards offer.

With respect to health-related appointments, parents expressed a desire to be as diligent in setting and keeping appointments after the program as they had been when they had both the financial incentives and the dates on the coupons as reminders about when to set appointments. One parent found she had to fight the urge to procrastinate:

Being in the program, it would...keep me — okay, yeah, you got to put this on the calendar. You got to schedule this in order for them to get their appointments and to complete the forms that you have to fill out. 'Cause...right now, after the program, I know they have to have their appointments, but it's like, okay, but I have to do this first and this and there. I keep pushing everything back, and I'm, like, "Oh, my gosh. I have to be on top of [these appointments] like before."

In general, parents were ambivalent about their lives after the program ended. They frequently expressed gratitude for having had the opportunity to participate in the program and a desire to sustain perceived positive changes. However, their optimism about the future was constrained by limited financial resources, the burdens of daily life as mostly single parents raising children in poverty, and, in some cases, their difficulty imagining an economically stable life.

Conclusion

The Family Rewards experiment is one of many programs that have used financial incentives to encourage particular health, educational, and workforce behaviors. It was more complex than other financial incentive programs because it targeted two generations within the family across these three domains. This chapter demonstrates that Family Rewards succeeded as a vehicle to transfer cash to families in exchange for completing certain activities. The payment processing and marketing systems were sound, and most families earned a significant annual cash transfer, particularly for activities related to health and education. Participating adults and their children described the financial incentives as generally aligned with their own values, encouraging greater follow-through or engagement with positive behaviors, but not so powerful that they motivated participants to abandon their values or chosen priorities just so they could earn extra money, especially when it came to work. In this regard, the program designers were successful in developing a program involving cash incentives for low-income people that was not coercive and did not, according to qualitative and survey evidence, generate high levels of conflict within families.²⁶ However, participants clearly expressed an unmet need for more support than the “incentives only” model allowed to actually achieve the outcomes for which they were striving. In making the transition to post-program life, families also required guidance for sustaining or amplifying any gains they had made while they were receiving the rewards. The next generation of the Family Rewards program, described in Chapter 7, attempts to address those gaps.

²⁶Though not reported in this chapter, the survey and qualitative research in the core Family Rewards evaluation, and a supplemental study of high school students and parents (Morris, Aber, Wolf, and Berg, 2012), explored the issue of family conflict. One of the concerns about offering incentives to families — and paying some of the reward money directly to high school students — was that it might increase conflict between intimate partners or between parents and their teenage children over the use of the money. The qualitative and survey research found that families who received the incentives had more conversations about money, but families did not describe higher levels of conflict than they had experienced before the program began or compared with the control group’s experience.

Chapter 3

Effects on Income and Material Well-Being

The long-term goal of Family Rewards is to reduce poverty across generations by promoting human capital development among low-income children and their parents. The short-term goal is to reduce current poverty and material hardship through its direct cash reward payments — or conditional cash transfers (CCTs) — and through any immediate increases it could generate in parents' earnings from employment, which could also boost Earned Income Tax Credit (EITC) payments. The early evaluation results showed that Family Rewards succeeded in substantially improving families' economic circumstances in its first two years, and the extra cash rewards received from the program helped families reduce a variety of material hardships.¹ Chapter 2 in the current report shows that families continued to earn cash transfers through the end of the program, with the majority of them earning substantial cash accounts.

This chapter examines the effects of the cash transfers on a broad range of outcomes related to income and well-being. It considers how, and to what extent, participation in Family Rewards continued to alleviate poverty and hardship. It looks at the program's effect on these and other material circumstances while the cash transfers were in effect, and provides an early glimpse of these effects after the cash payments ended. The condition of the economy was worsening during the early part of the evaluation period, and thus the chapter examines the program's effects on those outcomes in a tough economic context.

These analyses draw heavily on the Family Rewards 42-month parent survey, as well as administrative records data on Temporary Assistance for Needy Families (TANF) and food stamp receipt provided by the New York City Human Resources Administration (HRA). The 42-month survey was administered to a random subset of the full study sample, and provides extensive data on 2,966 families.² Most of these interviews were conducted between November 2010 and June 2011, after the three-year program had ended in August 2010. Thus, all interviews were completed after respondents could earn any more rewards — and almost all (91.6 percent) were interviewed after they had received their final payment. With the excep-

¹See Chapter 5 of Riccio et al. (2010) for early evaluation findings on income and well-being.

²The 42-month survey provides information about Family Rewards sample members on a broad set of topics such as participation in employment and education activities, health care, employment and job characteristics, household composition, and child outcomes. Overall, 2,966 sample members completed the survey interview, resulting in a response rate of 79 percent. Appendix J, which appears in the supplement to this report (Riccio et al., 2013, available at www.mdrc.org), provides additional details on the survey effort and analyzes response patterns.

tion of some retrospective measures, the 42-month survey largely provides a snapshot of families' circumstances after the program had ended — also referred to as the “early post-program” period.

Box 3.1 explains how to interpret the tables that show estimated program impacts that are presented throughout the remainder of this report. These tables cover a large number of impact estimates that are relevant to family poverty, hardship, and economic security in the three domains in which rewards are provided: children's education, family preventive health care, and parents' work and training. The estimates of program impacts were calculated controlling for a range of pre-random assignment background characteristics, such as the parents' race/ethnicity, education level, marital status, and employment status. As the number of outcomes that are examined increases, the probability of findings that are statistically significant simply by chance also increases.³ Although the impact analysis does not formally account for “multiple hypothesis testing,”⁴ caution is used when interpreting impacts that do not appear to be part of a larger pattern of impacts within a given set of measures.

Overall, the results presented here show that when the program was operational and families were eligible to earn rewards, Family Rewards continued to achieve some of its immediate goals: it reduced the proportion of families who were living in poverty (and in severe poverty), reduced reports of material hardship, and improved parents' sense of their family's financial well-being. However, in the early post-program period, when most of the 42-month survey interviews were conducted and when families could no longer boost their income with reward payments, the program's effects on household income and poverty fade. This pattern is also evident for a few other positive outcomes that were documented in the early stages of the evaluation.⁵ Yet, despite the loss of substantial additional income from reward payments, the program families appear to report lower levels of some types of hardships (for instance, food insufficiency) in the post-program period than does the control group. However, those effects are most obvious for program families who were interviewed closer to the end of the program in August 2010, suggesting that those positive effects may be lingering effects of the cash transfers.

³Statistical significance indicates the extent to which the difference between the program and control group outcomes — or the “impact” of the program — is likely to have been a true result of the program.

⁴Multiple hypothesis testing is concerned with the idea that when a large number of impacts is examined, some will be statistically significant simply by chance.

⁵See Riccio et al. (2010).

Box 3.1

How to Read the Impact Tables in This Report

In the context of this evaluation, an “impact” is a measure of how much Family Rewards changed outcomes for program participants. All the tables in this report that show impacts use a similar format, illustrated in the table excerpt below, which presents data on two material hardship and well-being outcomes that were obtained from parents’ reports on the Family Rewards 42-month survey. The top row, for example, shows that 5.5 percent of respondents in the program group had their utilities turned off in the 12 months before the survey interview, compared with 8.0 percent of control group respondents.

Because families were assigned randomly either to the program group or to the control group, the effects of the program can be estimated by the difference in outcomes between the two groups. The “Difference” column in the table shows the differences between the two research groups’ outcomes — that is, the program’s estimated impacts on the outcomes. For example, the estimated program impact on having a utility turned off can be calculated by subtracting 5.5 percent from 8.0 percent, yielding a reduction, or estimated impact, of –2.5 percentage points.

The p-value shows the probability that this difference, or impact, arose by chance. In the table excerpt below, the difference between the program and control groups in having a utility turned off has less than a 3 percent probability of arising as a result of chance rather than as a result of the Family Rewards program. In contrast, the difference on the measure of financial well-being (bottom row) has less than a 2 percent probability of having arisen by chance. For this evaluation, only differences that have a 10 percent probability or less of arising by chance are considered “statistically significant” and therefore represent true program impacts. The number of asterisks indicates whether the impact is statistically significant at the 1 percent (***), 5 percent (**), or 10 percent (*) level. An impact that is statistically significant at the 1 percent level, for example, has a 1 percent chance or lower of having arisen by chance.

The effect size, shown in the final column, is the difference between the program and control group outcomes divided by the “standard deviation” of the outcome (a measure of its variability). Expressing an impact in standard deviation units helps to interpret its size, particularly when the outcome is in nonstandard units, such as scale scores, as in the second row. The interpretation of effect sizes has typically followed guidelines that consider an effect size of 0.20 to be small, 0.50 to be medium, and 0.80 to be large.[†] Others argue that effect sizes should be interpreted in the context of the outcome and demonstration.[‡]

Impacts on Two Material Hardship and Well-Being Outcomes, from the Family Rewards 42-Month Survey

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Utility (gas, oil, electricity) turned off in past 12 months (%)	5.5	8.0	-2.5**	0.028	—
Financial well-being scale (4 = low; 16 = high)	9.0	8.8	0.2**	0.017	0.108

NOTE: Effect size is not calculated for discrete variables.

[†]Cohen (1988).

[‡]See, for example, Hill, Bloom, Black, and Lipsey (2008).

Income and Poverty

A central goal of the Family Rewards cash incentives was to boost household income and reduce immediate poverty and hardship. To characterize household income and poverty, families completing the 42-month survey were asked to list their sources of income and total household income for the calendar month prior to the month in which their survey interview was conducted.⁶ As the majority of families were interviewed after the program had ended, two sets of calculations are presented here. One set captures income and poverty at the time of the 42-month survey interview — essentially reflecting income and circumstances in the *early post-program* period.⁷ A second set of estimates pertains to income and poverty in Year 3 (the last year of the program, from September 2009 to August 2010) and includes reward payments earned by participants in that year.⁸ Both of those estimates are presented in Table 3.1.

As the first panel of Table 3.1 shows, the estimated average monthly household income in Year 3 was \$1,973 for the program group (including reward payments) and \$1,620 for the control group, representing a statistically significant gain of \$353 per month (or about a 22 percent increase relative to the control group's income). On average, families in the program group earned an additional \$276 each month in reward payments during the three years of the program.⁹ Excluding those rewards in the early post-program measure of income shows that the estimated average monthly household income at the time of the interview was \$1,700 for the program group and \$1,620 for the control group, representing a statistically significant but smaller gain of about \$79 per month (or about 5 percent of the gain with reward payments excluded). To a large extent, the income gains demonstrated during the program are mainly

⁶Respondents were instructed to exclude tax refunds and program reward payments, and to include income from all other sources such as their job(s), jobs of other household members, food stamps, child support, TANF, Supplemental Security Income (SSI), and unemployment insurance, among other sources, for everyone living together in the household. Respondents were also asked to exclude EITC payments because of the difficulty of converting it into a monthly amount. The reported sources of income were combined and used to calculate household poverty and income relative to the federal poverty threshold, using the 2010 and 2011 poverty guidelines, depending on when a respondent was interviewed. (In 2010, the federal poverty level for a family of three was \$18,310.) Because the poverty estimates presented in this report have a particular definition, readers should be cautious about comparing them with estimates from other published sources.

⁷Roughly 76 percent completed this interview within six months from the time when the program ended. Thus, for the most part, the survey captures circumstances early in the post-program period.

⁸The estimate of household income from the 42-month survey closely matches the estimate obtained from the 18-month survey, which was conducted when the program was in effect and provides an estimate of income and poverty during the program period.

⁹Year 3 payment data, which cover August 2009 to September 2010 and overlap with the survey period, are used to estimate the average monthly incentive payment during this period. The average monthly incentive amount of \$276 that is reported in the table is about 17 percent of the control group income. More information on families' participation and reward receipt patterns is offered in Chapter 2.

The Opportunity NYC Demonstration: Family Rewards

Table 3.1

Impacts on Income and Income Sources

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income and poverty (Year 3)</u>				
Average total household income in month prior to interview (including Family Rewards payments) ^{a,b,c} (\$)	1,973	1,620	353 ***	0.000
Average monthly Family Rewards payment, Year 3 ^d (\$)	276	--	--	--
Household income at or below the federal poverty level (including rewards) ^{a,b} (%)	56.0	68.2	-12.2 ***	0.000
Total household income in prior year as a percentage of the federal poverty level (including rewards) ^{a,b} (%)				
Less than 50%	16.3	27.4	-11.1 ***	0.000
50% - 100%	39.8	40.8	-1.0	0.655
101% - 129%	15.8	11.2	4.7 ***	0.004
130% or more	28.1	20.6	7.5 ***	0.000
<u>Income and poverty (early post-program)</u>				
Average total household income in month prior to interview (excluding Family Rewards payments) ^{a,c} (\$)	1,700	1,620	79 *	0.093
Household income at or below the federal poverty level (excluding rewards) ^{a,c} (%)	66.2	68.2	-2.0	0.309
Total household income in prior year as a percentage of the federal poverty level (excluding rewards) ^{a,c} (%)				
Less than 50%	25.9	27.4	-1.5	0.499
50% - 100%	40.3	40.8	-0.6	0.754
101% - 129%	13.2	11.2	2.1	0.167
130% or more	20.6	20.6	-0.1	0.976
<u>Income sources (%)</u>				
Household income source in month prior to interview ^f				
Respondent's earnings	59.6	50.3	9.3 ***	0.000
Other household members' earnings	23.2	20.7	2.5	0.163
Food stamps	69.6	70.7	-1.1	0.554
Child support	18.7	18.2	0.5	0.754
Temporary Assistance for Needy Families (TANF) or other cash assistance	14.5	16.1	-1.6	0.292
Supplemental Security Income or Disability	28.5	32.4	-3.9 **	0.042
Unemployment insurance (UI)	9.8	8.9	0.8	0.522
Other	73.5	72.6	0.9	0.655
<u>Taxes (%)</u>				
Filed for taxes in prior year and used tax preparation service ^g	55.8	54.8	1.0	0.628
Filed for taxes in prior year and received a refund-anticipation loan	13.7	13.2	0.5	0.767

(continued)

Table 3.1 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever employed since random assignment				
<i>Filed for taxes in prior year and used tax preparation service^g</i>	65.6	66.5	--	--
<i>Filed for taxes in prior year and received a refund-anticipation loan</i>	16.7	17.0	--	--
Sample size (total = 1,982)	1,024	958		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

The items in this section of the survey were administered to a random subsample (N = 1,982) of the survey respondents.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Italic type indicates comparisons that are nonexperimental. Statistical tests were not performed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

A double dash (--) indicates "not applicable."

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 7.2 percent of the sample is excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.6 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during program Year 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cThe Year 1 income measures reported on the 18-month survey are within 3 percent of the 42-month income measures reported here.

^dFamily Rewards payments are based on Seedco's Family Rewards data from program Year 3, which includes activities completed in September 2009 through August 2010. The monthly Family Rewards payment amount is calculated by dividing the annual reward amount by 12. The payment data do not include bonus payments that some families received for opening new bank accounts.

^eAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. This calculation does not include Family Rewards payments earned during program Year 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^fPercentages may add up to more than 100 percent because respondents may have multiple income sources.

^gThis includes free tax preparation services and paid tax preparers.

driven by the cash transfers that the families received over the three years of their participation in Family Rewards. The small, early post-program impact on income is potentially driven by Family Rewards' effect on employment; as discussed in more detail in Chapter 6, the program led to a small increase in survey-reported employment (most likely in jobs not covered by the unemployment insurance, or UI, system).

Next, poverty rates are calculated by estimating annual family income relative to the federal poverty level pertaining to each family's size.¹⁰ Table 3.1 presents the distribution of this measure of poverty across four levels, including severe poverty, which is defined as income below 50 percent of the poverty level. The Year 3 estimate, which includes reward payments in the calculation of average household income, shows that Family Rewards substantially altered the distribution of families across different levels of poverty, especially by reducing the proportion of households in severe poverty and increasing the proportion with income at or above 130 percent of the federal poverty level. For example, while 27.4 percent of the control group had income falling into the severe poverty category, the rate for the program group was 16.3 percent, representing a statistically significant drop of 11.1 percentage points. Similarly, 28.1 percent of the program group had income at or above 130 percent of the federal poverty level compared with 20.6 percent of the control group, a statistically significant gain of 7.5 percentage points. This poverty reduction effect of the program is generally expected, especially given the substantial cash transfers earned by the majority of families.

In the next panel ("Income and poverty"), the early post-program estimate of poverty, which does not include the additional income earned from reward payments, shows that once the reward payments stopped at the end of Year 3, the program's poverty reduction effect faded. For example, 68.2 percent of the control group had income at or below the federal poverty level, and the rate for the program group was 66.2 percent, a 2.0 percentage point difference that is not statistically significant. The reductions in poverty in the final year of the program were mostly driven by the cash transfers themselves — and not by changes in other sources of income — and once those transfers ended, the income and poverty effects were not sustained.

To gather information about the program's effects on sources of income, the 42-month survey contained a question asking whether respondents had received income or benefits in the prior month from a variety of sources, including earnings, government benefits, and child support. The third panel of Table 3.1 ("Income sources") shows that Family Rewards neither increased nor decreased the likelihood of receiving income from most of those sources. However, it did appear to increase earnings from employment and slightly decrease the likelihood of receiving Supplemental Security Income (SSI) or disability assistance. The observed earnings

¹⁰Annual household income is estimated based on the one-month household income snapshot gathered at the time of the survey interview.

and employment effects are discussed more fully in Chapter 6. It is less clear why Family Rewards would reduce SSI and disability assistance receipt for the program group families. This issue may require further investigation, but there was a small difference in SSI receipt at study enrollment, suggesting that this result is not an effect of the program.¹¹

Administrative records data were used to estimate the program's effects on cash aid from the TANF and Safety Net Assistance (SNA) programs and food stamp benefits.¹² The available data covered three years of follow-up after the quarter of random assignment. Overall, the results, presented in Table 3.2, show that Family Rewards had no effect on benefits receipt — either the likelihood of receiving payments or the average dollar amount received. Among program group members, 76.1 percent received food stamp benefits at some point (that is, not continuously) over the three-year follow-up period, compared with 76.5 percent of the control group. Similarly, roughly the same proportions of program and control group families ever received TANF/SNA assistance during the follow-up period (43.4 percent versus 43.8 percent in the program and control groups, respectively).

Banking and Financial Services

Family Rewards made payments electronically to families who earned rewards, depositing the money into bank accounts or onto stored value cards.¹³ The program provided all parents and high school students with a chance to use special savings accounts that, with the cooperation of several banks and credit unions, were designed explicitly for the program. Called “Opportunity NYC accounts,” these special accounts did not carry fees or minimum balances and could not be overdrawn.¹⁴ Over the three years of the program, the organizations operating Family Rewards strongly urged all families to maintain their bank accounts.

The bank accounts provided the program with an efficient mechanism for paying out cash rewards. In addition, this linkage with mainstream financial institutions had the potential to spur other positive effects for families' financial security. For one, the designers of Family Rewards recognized the possibility that with these accounts and the extra money earned from

¹¹Information about SSI receipt at study entry was collected as part of the 42-month follow-up survey.

¹²The SNA program provides assistance to individuals and families in New York State who do not qualify for the time-limited federal TANF program. SNA payments may take the form of direct cash aid to beneficiaries or vendor payments (for example, to landlords) made on their behalf.

¹³Only about 11 percent of the participants opted for stored value cards. Program operations data show that the majority of families had bank accounts linked to the program for payment purposes.

¹⁴In the early phases of the program, recognizing that families might also benefit from some guidance on how to manage the money they earned from the program, Seedco and the Neighborhood Partner Organizations provided them with information (including a special workshop) on the basics of budgeting, money management, and debt management, all issues related to asset-building.

The Opportunity NYC Demonstration: Family Rewards

Table 3.2

Impacts on Temporary Assistance for Needy Families (TANF) or Safety Net Assistance (SNA) and Food Stamp Receipt and Payments, Years 1 to 3

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Ever received TANF/SNA (%)</u>				
Year 1-3	43.4	43.8	-0.5	0.627
Year 1	37.2	38.1	-1.0	0.281
Year 2	34.4	34.0	0.4	0.691
Year 3	32.1	30.9	1.1	0.295
<u>Amount of TANF/SNA received (\$)</u>				
Year 1-3	6,236	6,066	170	0.477
Year 1	2,238	2,140	98	0.244
Year 2	2,081	2,018	63	0.479
Year 3	1,916	1,907	9	0.924
<u>Ever received food stamps (%)</u>				
Year 1-3	76.1	76.5	-0.4	0.701
Year 1	66.9	67.5	-0.6	0.598
Year 2	68.3	68.9	-0.6	0.578
Year 3	69.3	70.3	-1.0	0.371
<u>Amount of food stamps received (\$)</u>				
Year 1-3	9,283	9,354	-71	0.717
Year 1	2,479	2,483	-4	0.942
Year 2	3,286	3,329	-43	0.572
Year 3	3,517	3,541	-24	0.763
Sample size (total = 4,749)	2,377	2,372		

SOURCE: MDRC calculations using administrative records data from the New York State Human Resources Administration.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not receiving TANF/Safety Net Assistance or food stamps.

the program, some families would save and try to build assets. Second, by connecting families to mainstream banking institutions, the program also potentially steered families away from using alternative services like check cashers or “payday loans,”¹⁵ which are often available to low-income households at very high prices and in ways that many experts contend mislead and exploit the poor.¹⁶

Local and national studies show that low-income populations are less likely to hold bank accounts and more likely to face high costs for basic financial transactions through non-mainstream financial institutions.¹⁷ The use of check cashers and payday loans may reflect lower financial literacy, as users accept higher interest rates than those offered by mainstream banks, or it may reflect limited access to mainstream financial institutions (because of hours or forms of discrimination) and short-term credit available through credit cards. For Family Rewards, about 53 percent of the sample did not have a bank account at the time of program enrollment.¹⁸ Also, early evaluation findings show that, at least in the short term, Family Rewards was effective in linking program group families to mainstream banking institutions and reducing their reliance on alternative options like check cashers and payday loans.

The 42-month survey provides a longer-term assessment of these effects. The data show that Family Rewards continued to have a positive effect on the banking behaviors of program participants: roughly four years into the follow-up period, and after Family Rewards had ended, the program group was more likely to remain connected to mainstream financial institutions. As shown in Table 3.3, 64 percent of the program group reported having a bank account at the time of this interview, compared with 46.6 percent of the control group respondents, a statistically significant difference of 17.5 percentage points.¹⁹ The program group was also more likely (by 12.0 percentage points) to report having a checking account. Although similar proportions of the program and control groups were likely to close a bank account at some point following random assignment (10.7 percent and 11.0 percent, respectively), the program clearly generated a net increase in the proportion who had a bank account, even after the program had ended.

¹⁵A payday loan is a loan from a check-cashing outlet or other lending institution that must be repaid by the next payday. Payday loans are illegal in New York, but may be available through the Internet.

¹⁶Barr and Blank (2009).

¹⁷Barr (2004).

¹⁸See New York City Department of Consumer Affairs (2008) for more information on the extent to which families are unbanked (that is, do not have a bank account) in different parts of New York City.

¹⁹From Chapter 2, it is clear that a much higher percentage of program group families earned a reward in the final year of the program and had deposits made to their bank account than is reported in the 42-month survey. After the program ended, it is possible that some families with active bank accounts were no longer using them and failed to recall having a bank account when interviewed. A smaller number of other participants received their payments via stored valued cards.

The Opportunity NYC Demonstration: Family Rewards

Table 3.3

Impacts on Banking, Savings, and Debt

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Use of banking/financial services (%)</u>				
Currently has any bank account	64.0	46.6	17.5 ***	0.000
Currently has checking account	55.3	43.3	12.0 ***	0.000
Had a bank account closed last year	10.7	11.0	-0.3	0.844
Financial transactions at least once a month				
Cash check at check casher	29.2	31.5	-2.3	0.260
Pay bill at check casher	36.8	39.1	-2.3	0.288
Use ATM card to access cash	64.7	54.9	9.8 ***	0.000
Take cash advance on credit card	4.0	4.1	-0.2	0.863
Bounce check or overdraw checking account	4.9	4.1	0.7	0.432
Get payday loan	1.0	1.2	-0.2	0.710
<u>Family savings and debt</u>				
Average savings ^a (\$)	440	361	80	0.314
\$0 (%)	75.4	83.2	-7.8 ***	0.000
\$1 - \$250 (%)	6.9	3.6	3.3 ***	0.002
\$251 - \$500 (%)	5.3	3.9	1.3	0.176
More than \$500 (%)	12.5	9.2	3.2 **	0.023
Any (%)	24.6	16.8	7.8 ***	0.000
Average debt ^b (\$)	6,425	6,121	304	0.544
\$0 (%)	42.0	41.9	0.2	0.932
\$1 - \$1,000 (%)	6.0	6.8	-0.8	0.489
\$1,001 - \$5,000 (%)	23.5	21.2	2.3	0.238
\$5,001 - \$15,000 (%)	17.1	18.6	-1.6	0.378
More than \$15,000 (%)	11.4	11.6	-0.1	0.929
Outstanding loans, bills, or payments (%)				
None	41.5	42.1	-0.6	0.782
Car loan	6.4	5.3	1.1	0.300
Home loan	2.9	1.1	1.9 ***	0.003
Back rent	9.9	13.0	-3.1 **	0.033
Student loan	19.7	21.0	-1.4	0.446
Hospital or medical bill	18.0	17.3	0.7	0.672
Credit card or store bill	44.9	42.7	2.2	0.316
Child support payments	0.4	0.2	0.2	0.395
Other	4.3	5.2	-0.9	0.339

(continued)

Table 3.3 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Currently repaying (%)				
Any loan	42.0	39.7	2.3	0.291
Car loan	5.5	3.6	2.0 **	0.036
Home loan	2.7	1.0	1.7 ***	0.005
Student loans	9.4	8.1	1.4	0.280
Hospital or medical bill	5.0	3.8	1.2	0.205
Credit card or store bill	30.3	24.2	6.2 ***	0.002
Other	2.5	2.9	-0.4	0.545
Sample size (total = 1,982)	1,024	958		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

The items in this section of the survey were administered to a random subsample (N = 1,982) of the survey respondents.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between outcomes for the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aAbout 6 percent of the sample is excluded from this analysis because of missing data.

^bAbout 3.6 percent of the sample is excluded from the debt measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the debt reported was \$100,000 or more. Debt amounts equal to or greater than \$100,000 were excluded from these calculations. The survey questions on savings and debt are largely framed around family finances; thus, it is mostly likely that participants are reporting debt accumulated by the family.

Table 3.3 also presents the proportion of sample members reporting use of alternative financial services. The survey asked whether they had used these fringe financial services several times a month, about once a month, every few months, a few times during the year, or never (not shown specifically in Table 3.3). Program group members were less likely to report on the 42-month survey that they had used these types of services. However, but for the exception of one, most of these differences are not statistically significant. As expected, Family Rewards continued to increase the use of ATMs for cash withdrawal, a benefit made possible by having formal banking accounts. Not surprisingly, very few sample members reported getting a payday loan, which, as noted above, is illegal in New York State.

Savings and Debt

Participants in Family Rewards could use their program reward payments as they pleased — in other words, no restrictions were placed on how the rewards should be used. The program designers believed that imposing restrictions (such as requiring that the reward money be used only for education, training, or home ownership, as some asset-building programs do, or for any particular purpose) would have reduced the incentive value of the rewards. Thus, one question is whether, without such restrictions, the families would still use the additional income from the program to build their financial security — a positive program effect that was evident in the early evaluation findings. Previous studies suggest that resources received in large, lump sums, rather than in smaller, more regular payments, are more likely to be saved, used to pay down debt, or invested in human capital.²⁰

At the 42-month point, roughly 25 percent of the program group reported having some family savings after the program ended, compared with 17 percent of the control group, a statistically significant difference of 7.8 percentage points. The program also increased the proportion who had more than \$500 in savings by 3.2 percentage points. Some of these higher average household savings are concentrated among two-parent families and those who are less likely to be receiving government housing assistance,²¹ suggesting that such families may have been better able to save than their single-parent or housing-assisted counterparts.²² However, while the distribution of average household savings shows some positive effects, the program group and control group reported similar levels of average household savings overall — \$440 for the program group compared with \$361 for the control group, a difference of about \$80 that is not statistically significant, as shown in Table 3.3.²³ This is in contrast to the early evaluation finding that program group families were more likely to report savings than their control group counterparts (\$575 for the program group, compared with \$374 for the control group). Over time, average household savings reported by control group members held more or less constant,

²⁰Chambers and Spencer (2008); Smeeding, Phillips, and O'Connor (2000).

²¹See supplementary Appendix Tables F.1 to F.6 in Riccio et al. (2013), available at www.mdrc.org.

²²Looking at predictors of the use of Family Rewards cash transfers, a recent analysis finds that households demonstrating greater financial literacy, those with savings goals, and those who do not use alternative financial services are more likely to use some or all of their cash rewards to build savings or human capital. On the other hand, households demonstrating greater access to or use of mainstream banking services and credit are more likely to use some or all rewards to pay down debt. See Verma et al. (2011).

²³The survey respondents were asked to report how much they (and their spouse or partner) had in savings. (At enrollment, a majority of the participants — 80.9 percent — were in one-parent families). The reported savings could include any money or savings kept at home or elsewhere, such as money in a savings account, money market fund, credit union, pension fund, stocks or bonds, or certificates of deposit. The calculation shown in Table 3.3 includes those with zero savings, so for those with any savings, the amount could be substantially higher.

but savings reported by program group members declined, possibly a function of the loss of income from the cash rewards.

Stemming from the broad question about families' use of the additional income is the related question that asks whether the reward payments were used to clear debt. Those findings are also presented in Table 3.3. At the start of the program, it was unclear whether families would use the extra income from Family Rewards to manage their finances better — clear their debt, for example — or whether it would encourage them to incur additional debt, recognizing that an increase in debt is not necessarily always a sign of poor financial management. As documented in the early evaluation report, the 18-month survey showed that the program reduced the proportion of program group families with debt by a statistically significant 3.1 percentage points.²⁴ To explore this potential effect over the longer term, the 42-month survey asked respondents to indicate whether they had any debt and, if they had, the amount owed.²⁵ Table 3.3 shows that both groups reported relatively high amounts of family debt, but the difference is not statistically significant (\$6,425 for the program group versus \$6,121 for the control group).²⁶ Those families who reported higher levels of debt (over \$5,000) were repaying multiple types of loans or bills, including credit card payments, student loans, or medical bills.

Respondents were also asked about the types of loans or payments that were outstanding and the types that they were repaying at the time of the interview. Discussions with families over the course of the first three years of the program suggest that some were able to use their cash rewards for such purposes. The data from more recent interviews, particularly after the program had ended, provide a perspective on families' coping strategies and the types of adjustments they made to meet their obligations and to sustain financial stability. This participant describes how she adjusted her budget to manage debt repayments while attempting to cover other needs:

I had to adjust my budget based on what it is that — the changes that was made in August... Yes, where would I cut back? Where would my cutbacks be? My cutbacks would be on debtors that I was paying on a bimonthly basis. I had agreements that I made, I needed to contact them and let them know that unfortunately I wouldn't be able to make those payments. We'd have to adjust and weigh the payments, so instead of me making \$300 every two months, then now I have to adjust it back based on my income.

²⁴Riccio et al. (2010).

²⁵The survey questions on savings and debt are largely framed around family finances, and it is likely that participants are reporting debt accumulated by the family rather than simply the respondents' personal debt.

²⁶The calculation of average debt excludes four cases reporting extremely high levels of debt (over \$100,000). The cases were excluded to test the sensitivity of the results to the exclusion of a few extreme values. At least two of the four were paying back home loans.

The second panel (“Family savings and debt”) in Table 3.3 presents data on financial stability from the 42-month survey. As shown, respondents noted various types of outstanding loans and payments. For example, roughly 45 percent of the program group reported having an unpaid balance on a credit card or store bill,²⁷ compared with 43 percent of the control group, a difference that is not statistically significant. Eighteen percent of the program group reported having outstanding hospital or medical bills, compared with 17.3 percent of the control group (again, a difference that is not statistically significant). However, the cash incentives appear to have reduced the program group’s likelihood of having outstanding back rent — as shown, almost 10 percent of the program group reported this hardship, compared with 13 percent of the control group, a 3 percentage point reduction that is statistically significant.

As shown at the bottom of Table 3.3, under “Currently repaying,” both program and control group members are almost equally likely to be paying off any loan (42 percent of the program group versus 39.7 percent of the control group), but the program group participants were more likely to be paying off certain types of loans: 30.3 percent of the program group members said they were paying off credit card or store bills, compared with 24.2 percent of the control group, a statistically significant increase of 6.2 percentage points. As shown, Family Rewards also increased the program group’s likelihood of paying off car and home loans, albeit these types of loans were incurred by small fractions of families participating in Family Rewards.

Across the range of indicators examined here, it appears that Family Rewards continued to demonstrate small but positive impacts on families’ financial security. At the time of the 42-month survey, program group families were more likely to maintain bank accounts, have some savings, and be repaying debt. Unlike the early evaluation findings, the longer-term survey data do not show that the program had a positive effect on average household savings, but they do indicate that it continued to increase the program group’s likelihood of having “any” savings and savings over \$500. Both groups reported similar levels of debt. However, by being more likely to pay down some types of debt (such as credit card bills), program group families were on a path to building and maintaining a credit history, a positive outcome for low-income families. Further, it is also possible that families diverted their extra income — and potential savings — to address immediate household needs, reduce hardships, and help improve their quality of life, issues that are examined in the next section.

²⁷From the data, it is not possible to tell whether the balance is ongoing debt or whether it is a monthly balance to be paid off in the next credit payment cycle.

Material Hardship

The early findings from the first two years of Family Rewards provide support for the program’s positive effects on material well-being. This section examines whether the positive effects observed in the short run were sustained — or even grew — in the early post-program period, when families could no longer boost their income with Family Rewards cash incentives.

Unfortunately, a common definition of “material well-being” does not exist, nor is there a standard approach to its measurement. As a result, most efforts to measure this concept include scales or items that capture various dimensions of need — or hardships — across domains such as food adequacy, shelter, financial strain, and the like. The Family Rewards 42-month survey includes those types of measures to look more comprehensively at how families were faring at the time of the interview or in the recent past. Thus, depending on the measure, the outcomes reflect families’ circumstances during the program period or in the post-program period. The measures include:

1. A multi-item material hardship index, based on responses to five commonly asked questions that assess whether families have experienced the following difficulties with housing or utilities in the past 12 months: not paid full rent or made a full mortgage payment, evicted for not paying rent or mortgage, unable to pay full utility bill, been without utilities, or had phone service disconnected.²⁸
2. A financial strain scale, with scores ranging from 4 to 16 — a lower score indicating greater perceptions of financial strain. The scale includes four statements, each capturing how strongly respondents feel about their financial well-being (for example, “My financial situation is better than last year” and “I don’t worry about having enough money in the future”).
3. An overall financial well-being measure that is assessed by asking respondents how their family finances usually work out at the end of the month, whether they have some money left over, just enough to make ends meet, or not enough money to make ends meet.
4. A common self-reported measure of food insufficiency to assess the adequacy of food for the family in the past month.²⁹

²⁸Material hardship scales were pioneered by Mayer and Jencks (1989).

²⁹This same question has been used in United States Department of Agriculture surveys since the mid-1970s to measure food deprivation, and has been validated against other measures of hunger and nutritional adequacy; see Rose and Oliveira (1997).

5. Measures of whether families ever had to forgo medical care or medicine because of costs in the past 12 months.

The top panel of Table 3.4 focuses on hardships related to housing and utilities that were experienced over the 12 months preceding the 42-month survey. For respondents, this 12-month period spans both Year 3 and the early post-program months, when families were beginning to experience the loss of additional income from reward payments. As shown, Family Rewards had no effect on the summary measure (“Any housing/utilities material hardships”). However, it did cause small but statistically significant reductions across a range of hardships in this domain, such as not paying full rent or mortgage payments or having utilities turned off.

Assessing respondents’ financial circumstances more broadly, the survey’s financial strain scale asks respondents to compare their current financial situation with what it had been a year before. Exactly 51.4 percent of the program group reported that their current financial situation was better than it had been the year before, compared with 46.6 percent of the control group, a statistically significant increase of 4.8 percentage points. Program group members also scored a higher average “financial well-being” score (9.0 percent versus 8.8 percent), indicating that they were more likely to be positive about their financial well-being. Further, program group members were also less likely to report ever having borrowed cash from family and friends — 47.3 percent of the program group reported having done so, compared with 52.5 percent of the control group, reflecting a statistically significant difference of 5.2 percentage points. Thus, across a range of measures, the program group’s perceived financial well-being appears to be more positive than that of the control group.

Interestingly, when asked the same set of financial strain questions on the earlier 18-month survey, a much higher percentage (62.7 percent) of program group members rated their current financial situation better than in the previous year, compared with 44.5 percent of the control group members who felt the same. Over time, reports of financial strain stayed relatively unchanged for control group respondents, but reports of perceived financial strain increased for the program group — in other words, by the 42-month survey, fewer program group members than on the 18-month survey reported that their current financial situation was better than it had been in the last year.

Focusing on the month before the interview, or on more recent experiences in the post-program period, results for an indicator of family finances also reveal positive effects. For example, the program group was more likely to report that they were able to “make ends meet” with the resources they had available (as shown under “Family finances usually work out...” in Table 3.4). Roughly 35 percent of the program group reported that they did not have enough to make ends meet at the end of the month, compared with 41 percent of the control group, a statistically significant reduction of 5.6 percentage points on this measure of hardship.

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Table 3.4

Impacts on Material Hardship and Financial Strain

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Any housing/utilities material hardship in the past 12 months (%)	55.3	58.8	-3.5	0.118	
Did not pay full rent or mortgage ^a	40.0	44.1	-4.2 *	0.061	
Evicted from home for not paying rent or mortgage ^a	3.9	4.5	-0.5	0.554	
Did not pay full utility bill ^b	30.7	32.3	-1.6	0.444	
Utility was turned off ^b	5.5	8.0	-2.5 **	0.028	
Phone service was disconnected ^c	19.8	22.3	-2.5	0.169	
Financial well-being (4 = low; 16 = high) ^d	9.0	8.8	0.3 **	0.017	0.108
Strongly or somewhat agree with the following (%)					
Financial situation is better than last year	51.4	46.6	4.8 **	0.034	
Do not worry about having enough money in future	20.5	20.2	0.3	0.852	
Can generally afford to buy needed things	67.8	65.4	2.4	0.258	
Sometimes have enough money to buy something or go somewhere just for fun	30.3	28.0	2.3	0.272	
Family finances usually work out to have the following at end of month (%)					
Some money left over	14.9	12.5	2.4	0.123	
Just enough to make ends meet	49.7	46.5	3.2	0.152	
Not enough to make ends meet	35.4	41.0	-5.6 ***	0.009	
Ever borrow cash from family or friends (%)	47.3	52.5	-5.2 **	0.021	
Ever sell personal belongings at a pawnshop (%)	14.6	18.3	-3.7 **	0.027	
Children skipped meal in prior month (%)	3.6	6.5	-2.9 ***	0.004	
Food security (1 = low; 4 = high) ^e	3.4	3.3	0.1 ***	0.001	0.144
Insufficient food ^f (%)	15.3	20.7	-5.4 ***	0.002	
Did not get needed medical care because of cost in past 12 months ^g (%)	7.1	8.1	-1.1	0.371	
Did not fill prescription because of cost in past 12 months (%)	14.4	13.0	1.3	0.393	
Sample size (total = 1,982)	1,024	958			

(continued)

Table 3.4 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

The items in this section of the survey were administered to a random subsample (N = 1,982) of the survey respondents.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

The effect size is the difference between program and control group outcomes expressed as a proportion of the standard deviation of the outcome for both groups combined.

^aOnly about 4 percent of the survey sample (N = 130) owned an apartment or a house at the time of the survey.

^bUtilities include gas, oil, and electricity.

^cThis includes cellular or land service.

^dComponents of the financial well-being scale have been coded such that a lower score implies being worse off and a higher score implies being better off. The scale is calculated by summing responses to the four component questions. Thus, the financial well-being scale presented here ranges from 4 to 16 points.

^eThe food security question describes food eaten by the family in the prior month: 1= Often not enough to eat; 2 = Sometimes not enough to eat; 3 = Enough to eat but not always the kinds of food desired; 4 = Enough to eat of the kinds of food desired.

^fInsufficient food is defined as "sometimes" or "often times" not having enough food to eat.

^gThis excludes prescriptions.

The program also reduced reports of food insufficiency, which is measured with a question that asks respondents to describe the food that they and their families have eaten in the prior month: (1) often not enough to eat, (2) sometimes not enough to eat, (3) enough to eat, but not always the kinds of food desired, and (4) enough to eat of the kinds of food desired. Overall scores close to 1 indicate that families often do not have enough to eat. Values close to 4 indicate that families have enough of the kinds of food desired. Households reporting that they sometimes or often do not get enough to eat are termed “food-insufficient.” The results suggest that program group members were less likely than the control group members to report food insufficiency — in other words, that they sometimes or often did not get enough to eat (15.3 percent versus 20.7 percent, respectively, for the program and control groups, a statistically significant drop of 5.4 percentage points).

Also reflecting hardship, the survey asked respondents whether they were unable to get needed medical care because of costs in the prior year, and whether they were unable to fill prescriptions for the same reason. Eight percent to 13 percent of control group members indicated that they had incurred these hardships, and the rates were comparable for the program

group participants. As described later in this report, health coverage rates were very high for the study sample, which may have ensured their access to needed medical care.

Overall, consistent with the early evaluation results, the pattern of findings across the range of measures in this section provides evidence that Family Rewards, even after the payments ended, continued to improve families' financial security and material well-being — particularly their perceived financial well-being and reported food security. (In both cases, it appears that reports of hardships are increasing for control group members but are staying about the same for program participants.) However, recognizing that the material well-being experiences for families who were interviewed closer to the end of the program may be more positive than for those who were interviewed many months after they stopped receiving the cash transfers, an additional analysis was conducted to look at their well-being impacts separately. Consistent with expectations, as shown in the supplement to this report,³⁰ the program's positive effects on material well-being and hardship appear to be concentrated among the families who were interviewed soon after they had completed their three years in the program — in other words, they were eligible to earn rewards for a significant portion (seven months or more) of the prior 12-month period that is used here to examine various aspects of material well-being.

Reports of growing hardships, in the early months after the program ended, were captured in the interviews that were conducted with participating parents and their children. In one case, a high school student described how her mother was coping to cover household expenses:

Now [that the program is over], my mom needs more help, like, for buying groceries and for money for laundry, and if we need some little things in the house that we're missing she's always asking, "Do you guys have extra money that you can lend me?" And I know she asks her siblings. Her own siblings, but sometimes she has to ask our neighbor for money.... I know before the program she had to...do that sometimes. And...while we were in the program it was, like, less frequent and now it's become more frequent.

Housing Stability

In the early stages of the evaluation, some participants in the in-depth interviews discussed the strides they had made in improving their housing circumstances. One participant reported using the payments to move to a bigger apartment, and another was able to pay off debt that was preventing her from getting credit to purchase a house. The 42-month survey provides longer-term evidence on the topics of housing status and residential stability (that is, whether people stay or move from the neighborhood in which they were living at the time of random assign-

³⁰See supplementary Appendix Table F.9 in Riccio et al. (2013), available at www.mdrc.org.

ment). The Family Rewards sample members, who all lived in high-poverty neighborhoods at study entry, may be vulnerable to housing instability, which, in turn, may have consequences for child and family well-being. Some studies report an association between high mobility and poor school outcomes for children in low-income families.³¹

Family Rewards survey respondents were asked to report on their housing status — whether they owned a home or rented, or received some form of housing assistance (Section 8, public housing, or other form of housing subsidy). They were also asked whether they had moved since random assignment and, if they had, to describe the reasons they moved. Residential mobility is high among low-income populations, and families move for a variety of reasons, including a desire for safety, a better neighborhood, a bigger place, and proximity to good schools and jobs, or because they are unable to pay the rent at their current residence.

Table 3.5 shows that Family Rewards did not have an effect on housing status or residential mobility. Both the program and control group respondents were equally likely to have moved after random assignment (21.6 percent versus 21.4 percent) and they offered generally the same types of reasons for moving.³²

Marriage and Family Composition

The data in Table 3.5 suggest that Family Rewards may have had small effects on family composition, including marital status. According to the 42-month survey, roughly equal percentages of respondents were married and living with a spouse in the two groups (18.7 percent versus 17.8 percent in the program and control groups, respectively). However, program group members were somewhat more likely to report that they were divorced (15.4 percent versus 13.1 percent, a statistically significant increase of 2.3 percentage points). What might explain this effect? It was first documented in the early evaluation report and appears to persist over time.³³ Although only speculative, it is possible that the increased financial stability that

³¹Simpson and Fowler (1994); Crowley (2003); Burkam, Lee, and Dwyer (2009).

³²Nationally, roughly 12 percent of the U.S population moved to a new address in 2008; see the Bureau of Labor Statistics Web site at www.bls.gov. However, mobility rates are higher among the low-income populations, renters, and younger populations, but these rates can vary according to local housing markets, which can limit mobility options; New York City is one example of a tight housing market with limited housing opportunities. One recent study of a cross-section of residents in 10 low-income neighborhoods found that roughly 57 percent of the sample had moved from their original housing unit in a three-year survey period; see Coulton, Theodos, and Turner (2009).

³³Similarly, the early evaluation (Riccio et al., 2010) found some evidence suggesting that Family Rewards may have had small effects on marital status, increasing to a small degree the likelihood of marriage. The follow-up survey does not provide support for that finding.

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Table 3.5
Impacts on Housing and Family Composition

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Housing status and residential mobility (%)</u>				
Current housing arrangement				
Owns home or apartment ^a	4.8	4.0	0.9	0.237
Rents home or apartment ^a	89.5	89.9	-0.4	0.708
Lives with family or friends				
Contributes to rent	3.6	3.7	-0.1	0.854
Does not contribute to rent	0.9	1.0	-0.2	0.674
Other	1.2	1.4	-0.2	0.687
Currently lives in public or subsidized housing	67.4	68.0	-0.6	0.714
Currently lives in New York City	97.6	98.1	-0.6	0.281
Moved since random assignment	21.6	21.4	0.2	0.902
<u>Family composition (%)</u>				
Current marital status				
Single, never married	45.9	47.3	-1.5	0.364
Married and living with spouse	18.7	17.8	0.9	0.442
Separated or living apart from spouse	16.0	17.1	-1.2	0.395
Divorced	15.4	13.1	2.3 *	0.067
Widowed	4.2	4.7	-0.6	0.433
Living with partner	10.5	9.5	0.9	0.406
Number of children ^b				
0	2.2	2.2	0.0	0.964
1	30.4	33.2	-2.8 *	0.088
2	32.6	32.7	-0.1	0.959
3 or more	34.8	31.9	2.9 *	0.082
Had or fathered a child since random assignment	8.8	7.6	1.2	0.218
Had or fathered a child out of wedlock	6.0	5.0	1.1	0.190
Sample size (total = 2,966)	1,543	1,423		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aOnly about 4 percent of the survey sample (N = 130) owned an apartment or a house at the time of the survey.

^bThis measure only includes children 18 years of age or younger.

some participants experienced over the course of their participation in the program may have led them to feel better positioned to divorce. It should be underscored that the overall effects on divorce are consistent and small, and the mechanisms through which the program might have influenced those results are not understood.

Table 3.5 also shows that Family Rewards had a small effect on family composition, with more program group members than control group members reporting three or more children living with them. Since the program did not have an effect on childbearing, it is likely that the effect on the number of children in the household is driven by the dynamics of children moving in and out of the household — that is, changes in their living arrangements.

Impacts for Key Subgroups

Because overall impacts can mask program effects for some groups of study participants, the income and material well-being impacts of Family Rewards are analyzed for subgroups defined by baseline measures of education, employment, and income. The subgroups were prioritized based on the understanding that indicators of well-being vary greatly across groups defined by socioeconomic characteristics, the possibility that groups defined by those characteristics might have differential responses to the program’s cash incentives, and that different capacities or starting points might affect how individuals respond to the incentives. For example, the more “advantaged” participants — those with higher income or those who were employed or who had higher levels of education at study entry — may be more likely to earn rewards and thus experience greater improvements in income, poverty, and material well-being. Descriptive analyses discussed in Chapter 2 of this report also reveal significant variations across the top and bottom 20 percent of reward earners. Among other distinguishing characteristics, the top-earning families were more likely to have been employed at baseline and to hold a high school diploma or a General Educational Development (GED) certificate.

To examine program impacts for subgroups with different starting advantages or disadvantages, the effects of Family Rewards were analyzed separately for parents who did not have a high school diploma or GED certificate at the time of random assignment, and for those with at least a high school diploma or GED certificate. A similar approach was used to examine the program impacts for the subgroups who were defined by employment and income at random assignment. In general, impacts are expected to vary to some extent across subgroups, simply as a result of natural variation around the average impact for the full sample. This section examines whether that variation in impacts across subgroups is statistically significant, or beyond what would be expected to occur naturally. For that reason, the focus is not on whether a given impact for, say, the less educated subgroup is statistically significant, but whether the difference between that impact and the impact for the more educated subgroup is statistically significant (which is indicated by daggers in the rightmost column of the tables). If the difference between

these two impacts is not statistically significant, the results suggest that the effects observed for the full sample generally hold across both groups compared.

About 40 percent of the parents in the study sample did not have a high school diploma or a GED certificate when they enrolled in Family Rewards. The program group that is defined by a high school diploma or GED certificate at baseline earned an average \$9,563 in cash rewards over the three-year period, a difference of \$2,175, or 29 percent, compared with the average reward earnings of \$7,388 for those without a high school diploma or GED certificate. While both groups supplemented their household income with substantial cash rewards, one question is whether the differential in the amounts of rewards earned translates into different quality-of-life and well-being outcomes for the two groups. Findings that are presented in the supplement to this report suggest that the program impacts on income and financial well-being were largely comparable for the groups with and without a high school diploma or GED certificate.³⁴ On the measures that were examined, the small differences in impacts across the subgroups were not statistically significant.

A similar analysis was conducted comparing subgroups that are defined by parents' employment status at the time of random assignment. Fifty-three percent of the parents who enrolled in Family Rewards were working at the time of study entry. Over the course of the three years, the group working at baseline earned an average \$10,095 in cash rewards, compared with their nonworking program group counterparts, who earned closer to \$7,203, a difference of \$2,892, or 40 percent. Despite these differences in total rewards earned, results shown in the supplement to this report suggest that Family Rewards had similar effects on the income and financial well-being measures whether or not the parent was working upon entry into the study.³⁵

The last subgroup examined here, in Table 3.6, is distinguished by parents' income status at random assignment — that is, parents with income at or above 50 percent of the federal poverty level and those with income below 50 percent of the federal poverty level. Baseline income both captures the families' level of economic disadvantage at enrollment in the study and the relative value of the rewards for them — for instance, a family with two children in the program could earn up to \$3,000 from the children's education rewards, more than \$2,000 from health rewards, and more than \$2,000 from the parents' educational and training rewards. This potential \$7,000 would represent a bigger relative share of income for a family starting out in severe poverty relative to those starting out less poor. Thus, the “incentive value” might be greater for those in severe poverty, and it may have a bigger relative consequence for their living conditions.

³⁴See supplementary Appendix Table F.7 in Riccio et al. (2013), which is available at www.mdrc.org.

³⁵See supplementary Appendix Table F.8 in Riccio et al. (2013), which is available at www.mdrc.org.

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Table 3.6
Impacts on Income, Poverty, and Material Hardship,
by Respondent's Poverty Level at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Income at or above 50% of FPL</u>					
<u>at baseline</u>					
Household income at or below the federal poverty level (including Family Rewards payments) ^{a,b} (%)	51.1	62.1	-11.0 ***	0.000	
Household income at or below the federal poverty level (excluding rewards) ^c (%)	62.4	62.1	0.2	0.903	
Average total household income in month prior to interview (including rewards) ^{a,b} (\$)	2,093	1,771	323 ***	0.000	
Insufficient food ^d (%)	16.0	19.0	-3.0	0.181	†
Did not pay full rent or mortgage in past 12 months ^c (%)	42.9	42.0	0.9	0.764	††
Usually not enough money to make ends meet at end of month (%)	34.7	38.1	-3.4	0.227	
Average savings more than \$500 ^f (%)	13.7	11.7	2.0	0.304	
Sample size (total = 1,193)	642	551			
<u>Income less than 50% of FPL</u>					
<u>at baseline</u>					
Household income at or below the federal poverty level (including Family Rewards payments) ^{a,b} (%)	63.5	77.2	-13.6 ***	0.000	
Household income at or below the federal poverty level (excluding rewards) ^c (%)	71.9	77.2	-5.3 *	0.088	
Average total household income in month prior to interview (including rewards) ^{a,b} (\$)	1,781	1,409	372 ***	0.000	
Insufficient food ^d (%)	14.0	23.2	-9.2 ***	0.001	†
Did not pay full rent or mortgage in past 12 months ^c (%)	35.7	46.4	-10.8 ***	0.002	††
Usually not enough money to make ends meet at end of month (%)	36.4	45.2	-8.8 **	0.012	
Average savings more than \$500 ^f (%)	10.3	6.0	4.2 **	0.035	
Sample size (total = 788)	382	406			

(continued)

Table 3.6 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

FPL = federal poverty level.

^aFamily Rewards payments are based on Seedco's Family Rewards data from program Year 3, which include activities completed in September 2009 through August 2010. The monthly Family Rewards payment amount is calculated by dividing the annual reward amount by 12. The payment data do not include bonus payments that some families received for opening new bank accounts.

^bAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during program Year 3; see the preceding note. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. This calculation excludes the Family Rewards payments earned during program Year 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2010 or 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^dInsufficient food is defined as "sometimes" or "often times" not having enough food to eat.

^eOnly about 4 percent of the survey sample (N = 130) owned an apartment or a house at the time of the survey.

^fAbout 6 percent of the sample is excluded from this analysis because of missing data.

Over the three-year program period, the households in severe poverty (that is, below 50 percent of the federal poverty level) at random assignment earned, on average, about \$7,368 in reward payments, compared with the \$9,469 earned by participants in less severe poverty (not shown in table). The difference in cash rewards earned appears to be largely driven by the inability of the very poor to earn the workforce rewards. Both groups appear to have relatively similar earnings for rewards in two of the three domains — education and health. Among those with household income under 50 percent of the federal poverty level, as shown in Table 3.6, Family Rewards reduced the proportion of families reporting food insufficiency by about 9 percentage points, compared with the 3 percentage point reduction for their higher-income counterparts. It also reduced the proportion of households below 50 percent of the federal poverty level who were not paying their full rent or mortgage (by -10.8 percent versus 0.9 percent for the higher-income group, a difference in impacts that is statistically significant). Even though the very low-income families earned less in reward payments than their higher-income

counterparts, the data seem to suggest that the additional income from Family Rewards may have made a bigger difference in their lives and had a greater impact on their material well-being — the rewards accounted for 12.7 percent of Year 3 income for the families in severe poverty, compared with 14.5 percent for those with income at or above the poverty level (not shown).

Based on the subgroups that are examined here, the program does not appear to have had different effects on material well-being depending on parents' readiness for work (that is, their education or work status at enrollment). There is some evidence, however, that families with very low income at enrollment experienced more positive improvements on some indicators of well-being than their higher-income counterparts. In addition to the subgroups that are discussed here, variation in income and material well-being impacts was examined for other subgroups, including those defined by household composition, housing status, and food stamp receipt. These analyses, included in the supplement to this report,³⁶ point to few noteworthy effects.

Conclusion

Family Rewards was launched as a bold new intervention to address intergenerational poverty among low-income families. Achieving that goal meant that families had to take the necessary steps to earn rewards that were conditioned on a variety of activities designed to improve their human capital and overall well-being.

Drawing extensively on the 42-month survey, this chapter explored the extent to which program participation — and the cash rewards earned — reduced household poverty and improved the economic and material well-being of program participants. The results presented here provide evidence that supports Family Rewards' continued effectiveness in reducing short-term poverty and income-related hardships while the program was in effect: as long as families were eligible to earn rewards, and they were able to supplement their household income with cash transfers, the program produced significant income gains for participating households. It reduced the proportion of families who were living in poverty, including severe poverty. It reduced the proportion of families who were suffering from food insufficiency or financial strain, or reporting different types of housing-related material hardships. However, these effects were mostly driven by the cash transfers themselves, and there is little evidence that the program continued to have these effects long after they ended.

The report turns next to an examination of the effects of Family Rewards on program participants' human capital development. Chapter 4 focuses on Family Rewards' effects on children's education; Chapter 5 examines the program's impacts on family health care practices and outcomes; and Chapter 6 explores the program's effects on parents' employment and training.

³⁶The supplement to this report is available at www.mdrc.org; see Riccio et al. (2013).

Chapter 4

Effects on School Progress and Performance

Family Rewards sought to break the cycle of intergenerational poverty by increasing children's school performance and narrowing the achievement gap between children in low-income families and their higher-income counterparts.¹ The program provided a range of incentives tied to school-related behaviors, including incentives for attendance, parental engagement, student performance on tests, and other indicators of achievement.

As shown in the earlier MDRC report on Family Rewards, after two years the program had mixed effects on students' school performance.² Although Family Rewards did lead to small increases in engagement among parents of elementary and middle school students, it had no effects on these students' school progress. However, the program did lead to notable and encouraging effects for ninth-graders who were more academically prepared than their peers, increasing their attendance, the number of credits they earned, and the number of Regents exams they had passed by the end of Year 2.

This chapter updates the findings through Year 4. It examines whether effects emerged for the younger students (in elementary and middle school) as they aged, and whether the encouraging effects for the more academically prepared ninth-graders persisted and led to higher graduation rates. Finally, it examines whether the effects persisted beyond the third year, when the rewards were no longer offered.

Although the program did not affect the school progress of younger students during the first two years, as noted in the earlier report, it is plausible that effects could emerge during or after Year 3. First, on average, the school performance of children from low-income families declines as they age, with many children falling further and further behind their higher-income peers.³ The incentives may have helped stem the extent to which these children become disengaged from school. Second, Family Rewards transferred substantial sums of money to participating families, reducing poverty and material hardship. Other research suggests that these increases in family income and well-being can affect school performance by themselves.⁴

¹See Lee and Burkham (2002) for further evidence on this achievement gap.

²Riccio et al. (2010).

³Carneiro and Heckman (2003).

⁴Dahl and Lochner (2012); Morris and Gennetian (2003). In addition, positive effects in the other domains, such as improved health, can also lead to better school outcomes; see Romero and Lee (2008). See, also, the Family Rewards logic model in Chapter 1, Figure 1.1.

Overall, the findings through Year 4 continue the story from Year 2. The program had no effect on the school performance of elementary and middle school students, but continued to increase the performance of proficient ninth-graders, or those ninth-graders who scored at the proficient level or higher on their eighth-grade standardized tests. The latter group showed large increases in attendance and credits earned during the first three years. In addition, the effects lasted into the fourth year for ninth-graders who were proficient on the English language arts (ELA) test, although not for those who were proficient on the math test. By the end of the fourth year, ninth-graders who entered the study proficient on the ELA test were more likely than their control group counterparts to have passed the required number of Regents exams necessary for a diploma, and they were more likely to have graduated — by 8 percentage points. The effects for this group are encouraging and on a par with those found from other more intensive, school-based interventions.⁵

The Education Rewards Offer

The education incentives were intended to encourage both achievement and the effort that supports achievement. For this reason, the program rewarded a variety of behaviors, listed in Table 4.1. Key differences between the rewards by age are that high school students can earn considerably more than can younger students (given that attendance and performance tend to decline with age) and that some or all of the rewards they earn are paid directly to them, rather than to their parents (given that high school students have more direct control over their educational effort than do younger students).

By rewarding a variety of activities, the program ensures that most families will receive at least some payments, even if they are not able to meet every benchmark. At the same time, the program can achieve its goal of immediate poverty reduction by transferring significant resources to low-income families. For example, a single parent with one child in middle school and one child in high school could earn more than \$3,000 per year through the education rewards alone if she and her children met all or most of the benchmarks.

As noted in Table 4.1 and discussed in more detail in Chapter 2, several rewards were discontinued after the second program year, based on cost considerations and the early impact findings. For example, the attendance reward was discontinued for elementary and middle school students. Average attendance rates were already fairly high for students in those grades, as shown by the control group, and the program produced little effect on this outcome through Year 2.

⁵Quint, Bloom, Black, and Stephens (2005); Kemple, Herlihy, and Smith (2005); Bloom and Unterman (2012).

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Table 4.1

Education Rewards

Activity	Payment
Attendance: 95% or higher <i>Discontinued for Year 3 for elementary and middle school students</i>	\$25 per month for elementary/middle school students; \$50 per month for high school students ^a
English language arts (ELA) and math standardized tests: scoring at proficiency level or improving 1 level	\$300 for each test for elementary school students; \$350 for each test for middle school students
Regents exams: passing	\$600 for each test for high school students, up to 5 tests ^b
Credits: earning 11 or more per year	\$600 for high school students per year ^a
PSAT: taking the test	\$50 per test, for taking the test up to 2 times (maximum of \$100 per student) ^b
High school graduation	\$400 once ^a
Having a library card <i>Discontinued for Year 3</i>	\$50 once during the program (all grades) ^c
Attending parent-teacher conferences	\$25 per conference, twice per year
Parent meetings with teachers to discuss annual ELA and math test results <i>Discontinued for Year 3</i>	\$25 once per year for elementary/middle school students

NOTES: ^aHalf of the payment was made directly to the student, and half was made to the parent.

^bThe entire payment was made directly to students who were in high school.

^cThe entire payment was made directly to students who were in high school; for elementary and middle school students, payment was made to the parent.

Data and Samples

This chapter uses data from several sources. First, administrative payment data from the program provide information about the receipt of rewards during all three years of program operation. These records provide data on the number and type of rewards earned, as well as the total amount earned by families and students.

Data on key education outcomes are obtained from administrative records provided by the New York City Department of Education (DOE).⁶ These data are available for all students in the study for one year before study entry, or school year 2006-2007, and for four years after study entry, or through school year 2010-2011. School outcomes that are available from the DOE records include attendance rates, scores on annual math and English language arts (ELA) tests, performance on Regents exams, course credits earned, and school enrollment status. Although these data do not provide information for students attending parochial schools, private schools, or schools outside New York City, survey data shown later indicate that few students in the sample attended these other types of schools.

Finally, a survey was administered about 42 months after study entry to a random subset of parents. The survey provides information on intermediate outcomes, such as parental effort (parents' interaction with their children and their children's teachers), children's engagement in extracurricular activities, and parents' ratings of their children's school performance. See Appendix J, in the supplement to this report, for a survey description and a response analysis.⁷

Although families who were targeted for the study had to have at least one child in the fourth, seventh, or ninth grade, once they were enrolled in the program all their school-age children were eligible for rewards.⁸ Over 9,000 children were school-age when they enrolled in the study, and nearly 60 percent of these children were entering one of the three target grades. The analysis of education outcomes presented in this chapter focuses on students in each of the three target grades, meaning students who were set to enter fourth, seventh, or ninth grade when they enrolled in the study. The focus is on a specific grade cohort, rather than a broader cohort of "all elementary-age students," for example, for two reasons. First, the findings for a one-grade cohort are more easily interpreted than those for a broader group. It is easier to assess how a cohort is faring when all students in that cohort started out in the same grade — for example, all entering ninth-graders should be in twelfth grade by Year 4, having earned 44 or more credits and passed five or more Regents exams. A cohort that is made up of ninth- through twelfth-graders, in contrast, will be at different points by Year 4. The second reason for focusing on students in the target grade only is that they make up the majority of the sample. Seventh-

⁶Students in the target grades (fourth-, seventh-, and ninth-graders) were matched to the DOE data using their DOE student ID, which was known to the study team, given that these youth were identified as eligible for the study using DOE records. However, parents were not required to provide a student ID when enrolling other children (siblings of the target children) into the study, since few would have known it. For those children, student IDs were obtained by comparing name, date of birth, and other information on the study enrollment form with similar data on the DOE records. Using this matching process, MDRC was able to obtain student IDs for more than 90 percent of students in the Family Rewards study.

⁷The supplement to this report is available at www.mdrc.org; see Riccio et al. (2013).

⁸These three grades were chosen because they represent key transition periods in a child's school trajectory. See Riccio et al. (2010) for more detail.

graders, for example, make up 65 percent of the middle school group. Results for the full sample in each age range (elementary school, middle school, and high school) are presented in the supplement to this report.⁹ The results are similar to those presented here.

All impacts are estimated using an ordinary least squares regression model that controls for a range of background characteristics, such as the student’s race/ethnicity, gender, and test scores from the preceding year, and parents’ education level, marital status, and employment status.¹⁰ The standard errors of the impact estimates are adjusted to account for the potential clustering of student outcomes at the family level. Finally, as noted in earlier chapters, impacts are examined for multiple outcomes within each area — parental engagement, student attendance, student performance, and so on. Given that the likelihood of finding “false positives” increases as the number of outcomes increases, caution should be used when interpreting impacts that do not appear to be part of a larger pattern of impacts within a given area.

School Progress Through Year 4 for the Control Group

Students who enrolled in the study came from low-income families in six of New York’s highest-poverty neighborhoods. As such, they face a range of challenges to their school progress. Children from low-income families in general can be distinguished from those in higher-income families as early as kindergarten, exhibiting lower scores on a range of achievement and school readiness measures.¹¹ These early disparities grow over time.¹² By high school, for example, low-income students are nearly three times more likely than higher-income students to have repeated a grade and nearly six times more likely to have dropped out.¹³ Data for students in the control group for this study bear this out.

Figure 4.1 presents school progress over the four years following study enrollment for control group students in the three target grades.¹⁴ Students who were “on grade” were in the grade they should be in if they had been promoted each year. Consider fourth-graders first. By

⁹See supplementary Appendix Tables G.1 through G.3 in Riccio et al. (2013), at www.mdrc.org.

¹⁰Specifically, the regression model includes the following variables: community district, average class size for grade and school attending at study entry, prior year’s math score, prior year’s ELA score, male, African-American, special education status, number of children in the household, English is the primary language spoken at home, two-parent family, mother’s education level, mother’s employment status, and presence of mother in the home.

¹¹Lee and Burkam (2002).

¹²Carneiro and Heckman (2003).

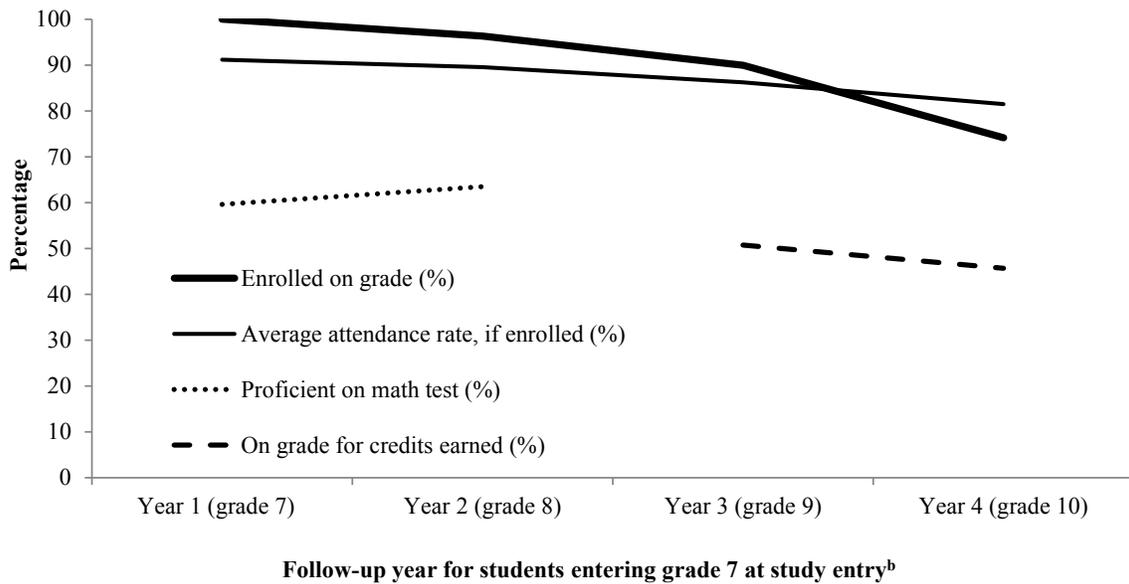
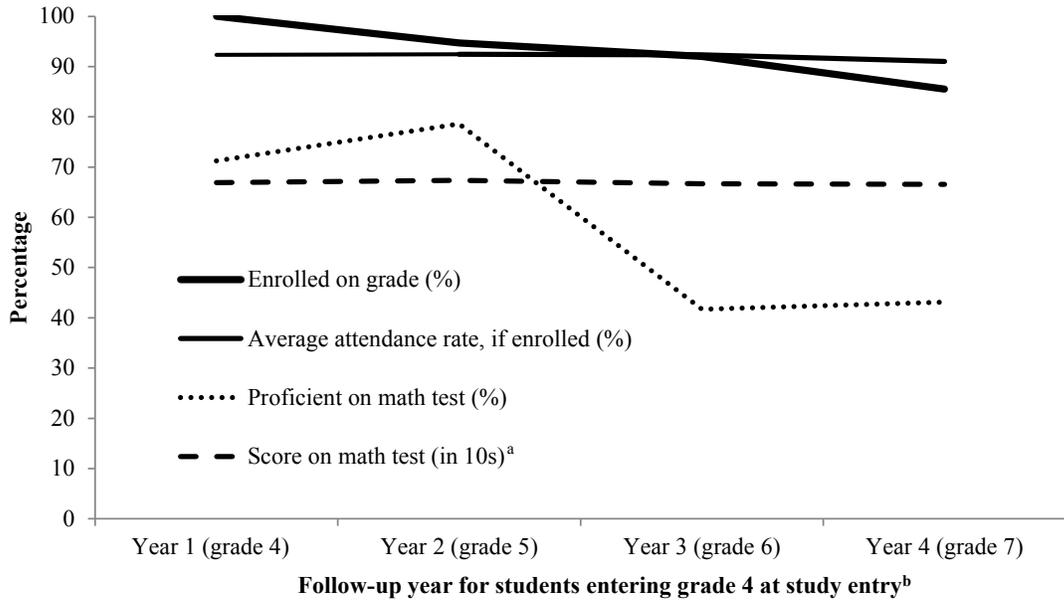
¹³Planty et al. (2009).

¹⁴The data underlying these figures are shown in supplementary Appendix Table G.4 in Riccio et al. (2013), which is available at www.mdrc.org.

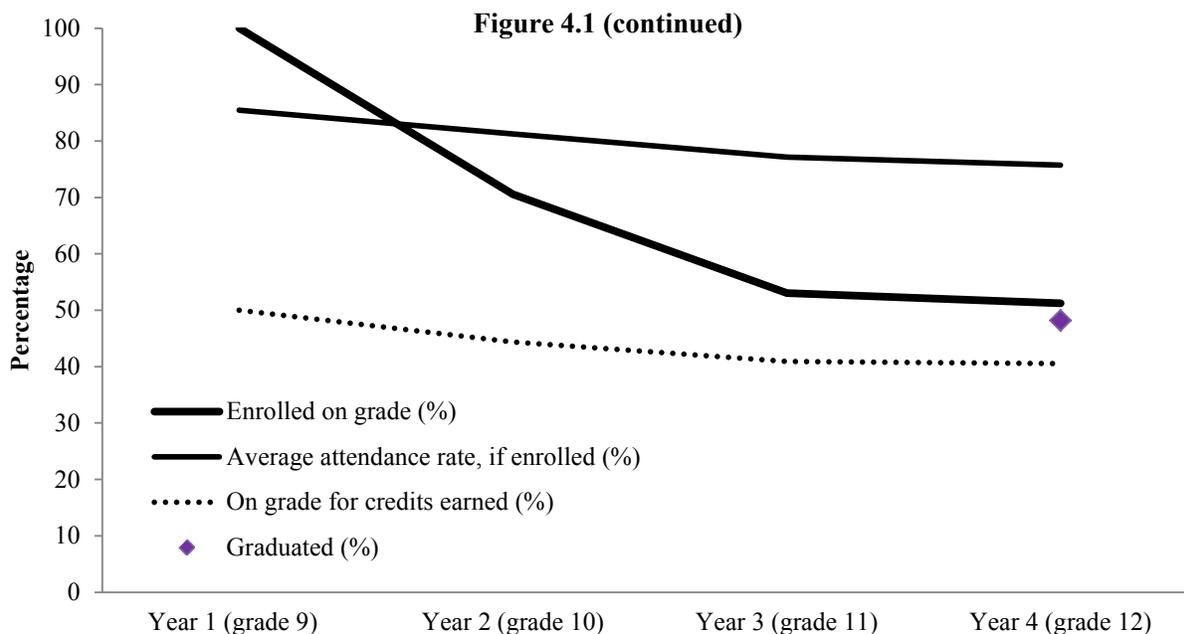
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Figure 4.1

School Progress During the Four-Year Study Period, Control Group



(continued)



Follow-up year for students entering grade 9 at study entry^b

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: ^a The math score is divided by 10 for ease of presentation. For example, a score of 610 is shown on the graph as 61.

^b The follow-up year refers to the expected grade, assuming yearly promotion.

Year 4, only 86 percent of the children in the control group who began the study in fourth grade had progressed to seventh grade. About one-third of the remaining 14 percent of the control group students had been held back at some point, while the remainder were no longer attending a New York City public school. The figure also shows scores and proficiency ratings for the standardized math tests administered to all New York State students in the third through eighth grades. In Year 1, for example, over 70 percent of control group students who were entering the fourth grade scored at the proficient level or higher on the math test, with an average score of 669 (depicted in 10s in Figure 4.1). While average scores stayed fairly constant over the four years, proficiency rates dropped to just over 40 percent in Years 3 and 4.

In 2010, amid concerns that these tests had become too easy and not reflective of the proficiency needed in each grade, the New York State Department of Education raised the scores necessary to be deemed proficient. In 2009 and earlier, a score of 650 or higher was required in order to be deemed proficient. Starting in 2010, the cutoff scores were raised to 658

to 684, depending on the grade level and the test. As a result, proficiency rates citywide fell dramatically between 2009 and 2010, as they did for students in the Family Rewards study.¹⁵

The second panel of Figure 4.1 presents data for entering seventh-graders in the control group. This group shows a steeper decline in on-grade status, particularly between Years 3 and 4, when most of them should have moved from ninth to tenth grade. By Year 4, only about 74 percent of these students were enrolled in tenth grade. And while the majority were enrolled in tenth grade in Year 4, only about half of these students (45.7 percent) had accumulated 22 credits (that is, were on grade for credits earned) by the end of that year.

The final panel presents data for entering ninth-graders. The percentage of these students who were on grade plummeted over the years, particularly between the ninth and tenth grades (Years 1 and 2 of the study). By Year 4, only 51 percent of this group was enrolled in twelfth grade. About 28 percent of these students were enrolled in a lower grade, and most of the remaining 21 percent were listed on the DOE records as having dropped out or transferred out of the New York City school system at some point during the four-year study period. Attendance was also lower in the higher grades — among those enrolled in Year 4, for example, the average attendance rate was 76 percent. Finally, only 48 percent of these students had graduated by the end of Year 4, or one in two students who had started ninth grade four years earlier.¹⁶

Receipt of Education Rewards

The previous report on Family Rewards illustrated that, through Year 2, most students in the program had earned at least one education reward in each year, with rewards for attendance being the most common.¹⁷ Table 4.2 presents reward receipt over the full three-year program period.¹⁸ (Chapter 2 presents a discussion of reward receipt and families' engagement with the program more generally over the three-year period.)

For entering fourth-graders, reward receipt fell substantially from Year 2 to Year 3. Only 66.8 percent of these students earned a reward in Year 3 (compared with 94.2 percent in Year 2),

¹⁵Medina (2010).

¹⁶The graduation rate (48 percent) is somewhat higher than the percentage of students who had accumulated 44 credits or more through Year 4 (41 percent). This discrepancy appears to occur in part because a few high schools do not use the standard system of reporting credits, which leads to an underreporting of credits earned to OE. In addition, students with Individualized Education Plans (IEPs) — mandated by the Individuals with Disabilities Education Act, to help children with disabilities achieve their educational goals — can earn an IEP diploma without earning 44 credits or more. This diploma, which is not recognized by New York State as a regular diploma, will no longer be offered starting in 2013.

¹⁷Riccio et al. (2010).

¹⁸Reward receipt for the full sample of children in each age range is presented in supplementary Appendix Table G.5 in Riccio et al. (2013), which is available at www.mdrc.org.

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Table 4.2

Education Rewards Earned, by Grade Level at the Time of Random Assignment

School Level and Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
<u>Students entering grade 4</u>				
Earned any education reward (%)	97.5	94.2	66.8	99.0
Total amount earned ^a (\$)	604	651	342	1,446
Earned at least 1 attendance reward (%)	87.0	76.5	--	91.8
Earned an attendance reward in more than 4 periods (%)	46.9	38.9	--	
Earned reward for English language arts (ELA) test ^b	49.8	71.8	26.2	83.1
Earned reward for math test ^b	66.6	78.1	38.5	88.8
Earned reward for obtaining a library card (%)	66.2	7.9	--	74.1
Parent earned a reward for attending parent-teacher conference (%)	67.8	63.5	47.9	80.9
Sample size				862
<u>Students entering grade 7</u>				
Earned any education reward (%)	97.6	89.2	82.4	99.0
Total amount earned ^a (\$)	637	585	1,203	2,156
Earned at least 1 attendance reward (%)	84.2	71.8	67.6	91.5
Earned an attendance reward in more than 4 periods (%)	48.3	32.2	37.8	
Earned reward for ELA test ^b	50.1	45.8	3.5	41.4
Earned reward for math test ^b	63.2	61.1	6.9	69.0
Earned rewards for a Regents exam in	0.0	0.0	51.5	45.6
Math	0.0	0.4	33.9	34.3
Science	0.0	0.2	31.8	32.1
Earned reward for earning at least 11 credits (%)	0.0	0.0	54.6	54.6
Earned reward for obtaining a library card (%)	65.6	7.4	--	73.0
Parent earned a reward for attending parent-teacher conference (%)	61.7	56.3	45.1	75.5
Sample size				823

(continued)

Table 4.2 (continued)

School Level and Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
<u>Students entering grade 9</u>				
Earned any education reward (%)	87.7	76.4	72.8	92.0
Total amount earned ^a (\$)	1,054	1,217	1,393	3,117
Earned at least 1 attendance reward (%)	69.6	56.2	52.1	76.7
Earned an attendance reward in more than 4 periods (%)	46.1	37.1	37.7	
Earned rewards for a Regents exam in	36.1	49.3	58.6	68.9
Math	24.1	20.2	9.5	53.9
Global History and Geography	2.8	26.9	11.3	41.1
U.S. History and Government	4.5	4.3	29.2	37.9
Comprehensive English	2.2	10.5	34.2	47.0
Science	23.8	16.4	9.8	50.0
Earned reward for earning at least 11 credits (%)	51.4	45.7	45.5	63.2
Earned reward for obtaining a library card (%)	59.9	6.3	--	66.2
Earned reward for taking the PSAT (%)	0.0	13.8	10.4	17.1
Parent earned a reward for attending parent-teacher conference (%)	52.6	41.7	33.4	64.2
Sample size				988

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: Sample sizes may vary because of missing values.

The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

A double dash (--) indicates "not applicable."

^aThis is calculated only for students who earned any education rewards.

^bReceipt of elementary and middle school test score rewards in a given year is calculated only for students who are in grades that take the tests (grades 3 to 5 among elementary school students and grades 6 to 8 among middle school students).

and the average amount earned, among those who did earn rewards, was \$342 in Year 3. This fall in receipt is driven by several factors. First, the attendance rewards for elementary and middle school students were dropped in Year 3, given that attendance rates were fairly high already. Second, the new, higher standard for proficiency, mentioned earlier, meant that many fewer students earned the ELA and math test rewards. Finally, receipt of the reward for attending a parent-teacher conference fell in Year 3. Although most parents reported meeting with their children's teachers (shown later in this chapter), it is possible that they did not focus on submitting coupons for this reward, given that it represented only a \$25 payment twice per year.

Reward receipt did not fall as dramatically for entering seventh-graders, and, on average, they earned more in Year 3 than in earlier years. In Year 3, 82.4 percent of these students, most of whom were by then in ninth grade, earned a reward, and they earned an average of \$1,203. The larger amount stems from the fact that these students were now eligible to earn rewards for passing Regents exams (\$600 for each exam passed) and for accumulating 11 or more credits (\$600 per year). Recall that much of the money earned for these rewards went to the students themselves, once they were in high school. For this reason, the program may have become more salient to these students in Year 3.

The final panel of the table presents reward receipt for entering ninth-graders. Reward receipt is fairly stable from Year 2 to Year 3, as these students continued to earn rewards for passing Regents exams and earning 11 or more credits. On average, ninth-graders who participated in the program and earned at least one reward earned more than \$3,100 over the three-year program period.

Impacts on School Activities and Outcomes

This section presents the effects of the Family Rewards program on a variety of schooling outcomes. Data from the 42-month survey are used to present effects on intermediate outcomes, such as parental engagement with teachers and children, students' use of tutoring, or students' participation in extracurricular activities. Since most families were interviewed during the fall of the year after the program ended, data from the survey indicate whether the earlier impacts on parental engagement and student activities persisted once the program ended. Data from DOE records are used to present effects on school performance, including attendance rates, test scores, credits earned, and grade progression. These data cover four years after study entry, providing one year of post-program outcomes.

Fourth-Grade Entry Cohort

The supplement to this report presents data from the survey on various measures of parental engagement and children's performance and activities for students who were entering fourth grade when they entered the study.¹⁹ Given the timing of the survey, most of these students were in seventh grade when this survey was administered to their parents. At the 18-

¹⁹Parental engagement was measured by whether the respondent attended parent-teacher conferences, talked with the child about school, helped with homework, checked to make sure homework was complete, and helped the child prepare for tests. Children's performance and activities were measured by child's attendance at school, school performance (on a scale of 1 to 5), participation in extracurricular activities, and use of the Internet, a cell phone, and the library. See supplementary Appendix Table G.17 in Riccio et al. (2013), available at www.mdrc.org.

month point, the program led to small increases in self-reported parental engagement in their children's schooling and an increase in use of the public library. At the 42-month point, there are no effects on parental engagement, with teachers or with children, although these parents report a fairly high level of engagement already. For example, 95 percent of parents in the control group reported attending a parent-teacher conference since study entry.

The survey data continue to show an increase in use of the public library — 87.4 percent of students in the program group were reported to have visited the library in the previous six months, compared with 82.7 percent of control group students. While obtaining a library card was rewarded, visiting the library was not, suggesting that visiting the library may have become habitual. One new effect that was not measured at the 18-month point was an increase in access to the Internet from home. Parents may have used the money from the program to buy a computer and pay for this access.

Table 4.3 presents effects on enrollment status, attendance, and test scores based on DOE administrative records. This table focuses on the fourth-grade entry cohort.²⁰ MDRC's earlier report on Family Rewards documented no effects for this group on these measures of school progress through Year 2.²¹ The top panel of Table 4.3 shows that more than 90 percent of students in the control group who entered the study as fourth-graders were enrolled in the fifth grade during their second year in the program. In this case, enrollment indicates enrollment in a New York City public school. Most of the remaining students had transferred out of the school system, and a few students had been retained in the fourth grade. By the fourth year after study entry, only 86 percent of those students were enrolled in seventh grade. About 5 percent of those students were still in sixth grade, and most of the remaining students had transferred out of the New York City public school system during the four-year period. The program had no effects on enrollment status.

Attendance rates were fairly high, at 91 percent on average for control group students in Year 1. However, there is room for improvement in terms of achieving very high attendance — only about 40 percent of those students attended school for 95 percent of the time or more time during each of the follow-up years. Attendance rates fall somewhat over the years, although that decrease is partly because nonenrolled students are included in the attendance measures.²² Recall from Figure 4.1 that attendance rates among enrolled students were fairly high, at more than 90 percent in each year. The program had no effects on attendance.

²⁰Effects for all students who were in elementary school at study entry are similar to those presented here; see supplementary Appendix Table G.1 in Riccio et al. (2013), available at www.mdrc.org.

²¹Riccio et al. (2010).

²²In order to maintain the experimental comparison, attendance impacts are calculated using the full program group and the full control group, even though some fraction of those students were no longer enrolled in New York City public schools in the later years of the follow-up period.

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Table 4.3

Impacts on Enrollment, Attendance, and Test Scores, for Students in Grade 4 at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment status (%)</u>				
Enrolled in grade 5, Year 2	93.8	94.7	-0.9	0.416
Enrolled in grade 6, Year 3	90.4	92.0	-1.6	0.241
Enrolled in grade 7, Year 4	84.6	85.5	-0.9	0.587
Enrolled in any grade in Year 4	90.3	91.0	-0.7	0.620
<u>Attendance rate 95% or higher (%)</u>				
Year 1	43.2	43.2	0.0	0.987
Year 2	44.5	41.6	2.9	0.221
Year 3	41.3	40.2	1.1	0.648
Year 4	40.0	39.3	0.7	0.765
<u>Average attendance rate (%)</u>				
Year 1	91.5	91.0	0.5	0.417
Year 2	87.9	88.3	-0.4	0.684
Year 3	84.6	86.3	-1.6	0.187
Year 4	82.4	82.7	-0.3	0.807
<u>Scored at proficient level or higher on ELA^a (%)</u>				
Year 1	50.7	51.1	-0.4	0.861
Year 2	67.6	68.1	-0.5	0.816
Year 3	27.9	29.1	-1.3	0.541
Year 4	24.8	25.2	-0.4	0.846
<u>Scored at proficient level or higher on math^a (%)</u>				
Year 1	73.4	71.2	2.1	0.234
Year 2	80.3	78.6	1.7	0.351
Year 3	40.5	41.7	-1.3	0.561
Year 4	44.5	43.1	1.3	0.555
Sample size (total = 1,726)	862	864		

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

ELA = English language arts.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

The final two panels in Table 4.3 present data on test scores. In contrast to the attendance measures, proficiency rates in each year were only calculated using students who took each test. However, few students were missing test score data in any year and there were minimal differences between the program and control groups in the rate of missing data. In Year 1, about half of entering fourth-graders in the control group were proficient on the ELA exam, and just over 71 percent were proficient on the math exam. As noted earlier, proficiency rates fell dramatically between Year 2 and Year 3, given the change in New York State standards that are used to determine proficiency.²³ In Year 4, only one in four students in the study sample was deemed proficient in English language arts using the updated standards. The program had no effect on proficiency rates or average test scores (not shown).

Seventh-Grade Entry Cohort

The supplement to this report presents impacts on parental engagement and student activities for the group of students who were entering seventh grade when they entered the study.²⁴ Most of these students were in tenth grade when their parents responded to the 42-month survey. Data from the 18-month survey, presented in the last report, showed that the program led to a small increase in parents' attendance at parent-teacher conferences, an increase in parents helping their children with homework, and an increase in these students' participation in extracurricular activities.²⁵

Data from the 42-month survey show continued small effects on parents' engagement with their children. Parents in the program group, compared with those in the control group, reported higher rates of talking with their children about school and checking their homework. In contrast, by Year 4, the program had no effects on extracurricular activities. Finally, as with the fourth-grade cohort, the program had a continued effect for this group on visits to the library.

Table 4.4 presents effects on school progress using DOE administrative records.²⁶ Students in this group should have been in ninth grade in follow-up Year 3 and in tenth grade in follow-up Year 4, if they had been promoted regularly. Thus, the table also presents data in Year 3 and Year 4 on high school credits earned and Regents exams taken. To preserve the experimental comparison, these outcomes are presented for all students, with zero values for

²³ Although the primary change in test scoring was to raise the score needed for proficiency, the New York State Department of Education also revised the tests to make the questions less predictable. Average scores, as shown in Figure 4.1, fell very little between 2009 and 2010.

²⁴ See supplementary Appendix Table G.18 in Riccio et al. (2013), available at www.mdrc.org.

²⁵ Riccio et al. (2010).

²⁶ Effects for all middle school students are generally similar to those presented here and are shown in supplementary Appendix Table G.2 in Riccio et al. (2013), which is available at www.mdrc.org.

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Table 4.4

Impacts on Enrollment, Attendance, Test Scores, Credits, and Regents Exams, for Students in Grade 7 at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment status (%)</u>				
Enrolled in grade 8, Year 2	95.0	96.4	-1.3	0.179
Enrolled in grade 9, Year 3	87.6	89.9	-2.3	0.145
Enrolled in grade 10, Year 4	70.3	74.1	-3.9 *	0.076
Enrolled in any grade in Year 4	89.8	91.7	-1.9	0.189
<u>Attendance rate 95% or higher (%)</u>				
Year 1	43.5	43.0	0.5	0.846
Year 2	36.6	35.0	1.6	0.477
Year 3	36.8	34.3	2.5	0.287
Year 4	26.7	24.9	1.8	0.402
<u>Average attendance rate (%)</u>				
Year 1	91.1	90.8	0.3	0.533
Year 2	86.4	87.6	-1.2	0.185
Year 3	79.3	80.4	-1.0	0.462
Year 4	73.0	74.5	-1.5	0.343
<u>Scored at proficient level or higher on ELA^a (%)</u>				
Year 1	50.6	50.6	0.0	0.995
Year 2	46.5	46.0	0.5	0.809
<u>Scored at proficient level or higher on math^a (%)</u>				
Year 1	60.4	59.6	0.8	0.675
Year 2	61.9	63.5	-1.6	0.429
<u>Attempted 11+ credits (%)</u>				
Year 3	78.0	79.0	-0.9	0.621
Year 4	77.3	77.2	0.1	0.963
<u>Earned 11+ credits (%)</u>				
Year 3	50.9	50.7	0.2	0.931
Year 4	46.5	48.5	-2.0	0.403
<u>Number of Regents exams taken</u>				
Year 3	1.2	1.1	0.0	0.400
Year 4	1.9	1.9	0.0	0.836
<u>Number of Regents exams passed</u>				
Year 3	0.7	0.7	0.0	0.293
Year 4	1.0	1.0	0.1	0.261
Sample size (total = 1,670)	823	847		

(continued)

Table 4.4 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

students who had not been promoted to high school by Year 3 or Year 4. The previous report documented few effects on attendance and test scores for this cohort.

Looking at the control group in Table 4.4, under "Enrollment status," the top rows show that 96.4 percent of entering seventh-graders were enrolled as eighth-graders in Year 2, and 89.9 percent were enrolled as ninth-graders in Year 3. Progress slows dramatically after Year 3, however, or during the transition between ninth and tenth grade. By Year 4, only 74.1 percent of entering seventh-graders in the control group are enrolled in tenth grade, representing a 16 percentage point drop in on-grade status from the preceding year. A majority of the remaining 26 percent of students were still in ninth grade (15 percent). Most of the other students had transferred out of the school system during the four-year period. The program appears to have led to a small reduction (when comparing the program and control groups), of 3.9 percentage points, in on-grade status in Year 4. However, the lack of effects on other measures of school progress suggests that this difference may be random variation and not a true program effect.

Attendance rates fall similarly over the years, with only 25 percent of students in the control group attending at the 95 percent rate or higher in Year 4. Recall that nonenrolled students are included in these measures with zero values, which partly explains the low average rates. When these students are taken out of the calculation, as shown in Figure 4.1, the average rate increases to 82 percent in Year 4. The program had no effect on attendance rates. The subsequent rows present data on test scores and the high school outcomes of credits earned and Regents exams passed; the program had no effect on those outcomes.

Ninth-Grade Entry Cohort

The supplement to this report presents impacts on parental engagement and student activities for students who entered the study as they were entering ninth grade.²⁷ According to DOE records, about half of entering ninth-graders were in twelfth grade when their parents took the survey; 28 percent were still enrolled in ninth, tenth, or eleventh grade; and 21 percent were no longer enrolled (not shown). The last report showed that the program had no effect on parental engagement at the 18-month point and a small effect on extracurricular activities.²⁸

The 42-month data show a new, small effect on parental engagement. Parents in the program group were more likely to report checking their children's homework and talking with their children about school. The program did have some effects, albeit small, on ninth-graders' progress during the three-year program period, as measured by the DOE records data. It may be that parents in the program group were responding to their children's improved performance by becoming more engaged.

As shown in Appendix Table G.19 in the supplement to this report,²⁹ almost 92 percent of parents in the control group reported that their children were enrolled in school. These reports match the DOE data fairly well for the subgroup of students whose parents responded to the survey.³⁰ The program did not lead to an increase in reported enrollment. The difference of 2.8 percentage points between the program and control groups is not statistically significant.

Finally, the program led to an increase in participation in extracurricular activities, which is driven largely by an increase in programs to help with school work and participation in sports.³¹ Program group students were also more likely to have a library card and to report having a cell phone.³²

²⁷See supplementary Appendix Table G.19 in Riccio et al. (2013), available at www.mdrc.org.

²⁸Riccio et al. (2010).

²⁹See Riccio et al. (2013), available at www.mdrc.org.

³⁰DOE data indicate that about 88 percent of these children (of survey respondents) were enrolled in school during Year 4. When parents were asked where their children were enrolled, 88 percent reported a New York City public school. The remaining 3 percent were enrolled in private schools in New York City or in schools outside New York City.

³¹Although the survey did not ask parents whether the school offered these sports, participation in school-sponsored sports does require minimum attendance and credits; see the Public School Athletic League Web site, www.psal.org. It is possible that Family Rewards helped more students become eligible for school sports by increasing their attendance and credits earned in earlier years.

³²The survey also collected parents' reports on whether youth were involved in a variety of risky behaviors, including arrests, trouble with the police, substance use, and childbearing. The program had no effects on those outcomes (not shown).

Table 4.5 presents effects on school progress using DOE administrative records.³³ The previous report documented small effects on attendance and effort through Year 2 for the full sample of entering ninth-graders.³⁴ Students in the program group attended at higher rates and they attempted more credits and Regents exams, although they did not earn more credits or pass more Regents exams than their control group counterparts.

As noted earlier, only 51 percent of the control group students who had entered ninth grade at the start of the study were enrolled in twelfth grade by Year 4, although 79 percent of them were still enrolled in school. Most of the remaining students had either dropped out or transferred in an earlier year.

The table illustrates that the only lasting effect of the program for this cohort is an increase in the number of Regents exams they had taken by the end of Year 4. Through Year 4, students in the program group took an average of 5.9 Regents exams, compared with 5.6 exams for the control group. However, there was no effect on the percentage of students who had passed five exams by the end of Year 4, the number needed to obtain a Regents diploma.

The program had no effect on enrollment status but did increase the likelihood of very high attendance in Years 2 and 3. In Year 3, 25.1 percent of program group students attended school at least 95 percent of the time, compared with 21.9 percent of control group students, for a statistically significant difference of 3.1 percentage points. Similarly, the program did not affect credits earned overall, with the exception of a small increase in Year 3. However, by the end of Year 4, when the rewards were no longer offered, the number of students with 44 credits or more was similar for the two groups. The program also did not increase the graduation rate.

Impacts for Key Subgroups

The previous report on Family Rewards presented program effects for several subgroups that were selected in advance of the analysis — students' prior performance, parents' education level, and students' school environment.³⁵ The results showed little variation in effects across

³³Results for the full group of entering high school students are shown in supplementary Appendix Table G.3 in Riccio et al. (2013), which is available at www.mdrc.org.

³⁴Riccio et al. (2010).

³⁵Effects across additional dimensions were also examined as part of a more exploratory analysis. These other dimensions include baseline poverty level, public assistance receipt, public housing status, parents' reported risk of depression, parents' employment, family structure, immigration status, and gender. In general, the results showed little variation in effects across these groups. The analysis is more exploratory in nature, meaning that the findings are less certain, given that these subgroups were not identified before the start of the analysis, and the likelihood of finding effects due to chance increases as the number of subgroups that are analyzed increases. These results are presented in supplementary Appendix Tables G.6 through G.14 in Riccio et al. (2013), available at www.mdrc.org.

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Table 4.5

Impacts on Enrollment, Graduation, Attendance, Credits, and Regents Exams, for Students in Grade 9 at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment and graduation (%)</u>				
Enrolled in grade 10, Year 2	73.1	70.6	2.6	0.193
Enrolled in grade 11, Year 3	54.8	53.0	1.7	0.411
Enrolled in grade 12, Year 4	53.1	51.2	1.9	0.360
Enrolled in any grade in Year 4	80.1	79.2	0.9	0.610
Graduated within 4 years	49.2	48.2	1.1	0.621
<u>Attendance rate 95% or higher (%)</u>				
Year 1	34.0	31.5	2.5	0.211
Year 2	28.8	23.7	5.1 ***	0.007
Year 3	25.1	21.9	3.1 *	0.089
Year 4	17.4	15.3	2.1	0.197
<u>Average attendance rate (%)</u>				
Year 1	81.8	81.4	0.4	0.683
Year 2	75.3	74.3	1.0	0.439
Year 3	69.4	67.7	1.7	0.254
Year 4	60.7	59.7	1.1	0.508
<u>Attempted 11+ credits (%)</u>				
Year 1	87.8	83.9	3.9 ***	0.006
Year 2	80.5	77.9	2.6	0.126
Year 3	71.0	68.0	3.0	0.126
Year 4	45.6	47.4	-1.9	0.403
<u>Earned 11+ credits (%)</u>				
Year 1	49.7	50.0	-0.3	0.896
Year 2	45.2	45.4	-0.2	0.928
Year 3	42.8	39.2	3.7 *	0.080
Year 4	31.6	31.5	0.1	0.961
Earned at least 44 credits, Years 1 to 4	41.5	40.5	0.9	0.652
Average number of credits earned, Years 1 to 4	32.7	31.9	0.8	0.300
<u>Regents exams, Years 1 to 4</u>				
Number taken	5.9	5.6	0.3 *	0.085
Number passed	3.0	2.9	0.1	0.123
Passed at least 5 exams (%)	36.7	35.7	1.1	0.562
Sample size (total = 1,978)	988	990		

(continued)

Table 4.5 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

subgroups for the elementary and middle school students. The updated results through Year 4 tell a similar story and are presented in Appendix Tables C.1 to C.6.³⁶

For the ninth-graders, the effects of the program also did not differ significantly by parents' education level or by school environment.³⁷ School environment was defined using test scores of earlier cohorts in the school a student entered when he or she entered the study. Specifically, students' schools were ranked according to their average pass rates for the English and math Regents exams in the 2005-2006 and 2006-2007 school years. The schools were then divided into thirds based on this ranking. As shown in Appendix Table C.8, the effects of the program did not vary across school types.

As another test of school environment, students were divided into two groups, based on whether a student did or did not enter one of the new small high schools that were opened in New York City over the past decade in response to the closing of many large, failing high schools. In an ongoing evaluation by MDRC that takes advantage of the lottery-like process by which students are admitted to New York City high schools, these small schools have been found to lead to large improvements in school progress and graduation rates.³⁸ For this reason,

³⁶There is some suggestion of varying effects by school environment for entering fourth- and seventh-graders, with negative effects on attendance at the lowest-ranking schools and positive effects at the highest-ranking schools. However, this pattern does not carry over to test scores. In addition, a similar pattern is not found for entering ninth-graders.

³⁷These results are presented in Appendix Tables C.7 and C.8.

³⁸Bloom and Unterman (2012).

these small schools are arguably “higher quality” than other schools. However, the effects of Family Rewards were not significantly different for students in these small schools compared with students in other schools.³⁹

In contrast, as shown in the previous report on Family Rewards, the effects of the program did differ by students’ level of academic proficiency when they entered the study. Table 4.6 presents four-year effects by math proficiency, or for students who scored at the proficient level on the eighth-grade math test versus students who did not score at the proficient level. The findings show large positive effects through Year 3 for the proficient group, and few effects for the nonproficient group. For example, in Year 3 the program led to an increase of 6.7 percentage points in the percentage of students who earned 11 or more credits, an impact that is similar in size to the impact on the number of credits attempted. However, by the end of Year 4, the program group was not more likely to have earned at least 44 credits and not more likely to have graduated. This lack of effect seems to be in part the result of a negative effect on credits attempted in Year 4, in which program group students were 8.3 percentage points less likely to have attempted 11 or more credits.

A key question in the Family Rewards evaluation is whether any observed behavioral responses to the incentives, such as attempting more credits or taking more Regents exams, would end once the incentives were taken away. The data in Table 4.6 suggest that effects on attendance and credits attempted did diminish after the incentives were removed, although it is somewhat surprising that the effects were negative for credits attempted. The fact that the program and control groups were equally likely to have earned at least 44 credits by the end of Year 4 might suggest that most of this reduction in attempted credits represents a diminished effort in Year 4 by program group students because they had earned more than 33 credits by the end of Year 3. However, a reduction in motivation because the incentives were removed cannot be ruled out.⁴⁰

The last panel of Table 4.6 presents data on rewards earned for the two groups. Not surprisingly, students who were math-proficient earned almost twice the amount of rewards that their less proficient counterparts earned, approximately \$4,500 versus \$2,400, with the biggest difference in amounts earned for Regents exams.

³⁹These results are presented in supplementary Appendix Table G.15 in Riccio et al. (2013), which is available at www.mdrc.org.

⁴⁰Although it is a nonexperimental comparison, a similar reduction in attempting 11 credits or more in Year 4 was observed among those students who had accumulated less than 33 credits through Year 3, and thus would have needed at least 11 more credits to graduate. This result is consistent with findings from a program for elementary school students that rewarded students for achievement on one reading and math test per year. Among students in the program group who had already earned the maximum incentive from the first test, the effect of the program was to reduce their performance on the second test; see Bettinger (2010).

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Table 4.6

Impacts on Enrollment, Graduation, Attendance, Credits, and Regents Exams, for Students in Grade 9 at the Time of Random Assignment, by Performance on Math Test in the Prior Year (Grade 8)

Subgroup and Outcome	Proficient on 8th Grade Math Test ^a			Not Proficient on 8th Grade Math Test ^a			Sig.
	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	
<u>Enrollment and graduation (%)</u>							
Enrolled in grade 12, Year 4	77.6	71.8	5.8	47.5	47.0	0.5	
Enrolled in any grade in Year 4	91.1	89.3	1.8	81.9	80.5	1.4	
Graduated within 4 years	74.8	71.3	3.5	41.7	42.2	-0.5	
<u>Attendance rate 95% or higher (%)</u>							
Year 1	53.8	46.9	7.0 *	29.0	26.9	2.1	
Year 2	50.8	36.7	14.1 ***	21.8	19.4	2.4	††
Year 3	42.6	34.4	8.2 **	19.2	18.1	1.0	
Year 4	28.8	23.2	5.6	14.1	13.2	0.8	
<u>Average attendance rate (%)</u>							
Year 1	91.4	88.1	3.3 **	82.2	81.5	0.6	
Year 2	87.9	82.9	5.1 ***	74.0	74.0	0.1	††
Year 3	82.8	78.2	4.6 **	67.8	66.7	1.1	
Year 4	75.6	72.6	3.0	59.2	58.9	0.3	
<u>Attempted 11+ credits (%)</u>							
Year 1	95.7	91.5	4.2 **	90.5	84.9	5.6 ***	
Year 2	92.3	89.5	2.9	80.8	78.8	2.1	
Year 3	86.9	81.1	5.9 *	71.2	69.0	2.1	
Year 4	51.3	59.7	-8.3 **	48.3	47.2	1.1	†

(continued)

Table 4.6 (continued)

Subgroup and Outcome	Proficient on 8th Grade Math Test ^a			Not Proficient on 8th Grade Math Test ^a			Sig.
	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	
<u>Earned 11+ credits (%)</u>							
Year 1	77.4	68.9	8.5 **	43.5	47.1	-3.6	†††
Year 2	71.5	62.8	8.7 **	37.6	41.5	-3.9	†††
Year 3	64.2	57.5	6.7 *	37.3	35.0	2.3	
Year 4	42.2	44.6	-2.4	30.6	29.4	1.2	
Earned at least 44 credits, Years 1 to 4 (%)	64.4	60.4	4.1	36.9	36.8	0.1	
Average number of credits earned, Years 1 to 4	43.5	41.3	2.3 *	30.8	30.6	0.2	
<u>Regents exams, Years 1 to 4</u>							
Number taken	7.3	7.0	0.3	5.8	5.5	0.3	
Number passed	5.1	4.9	0.2	2.3	2.2	0.1	
Passed at least 5 exams (%)	69.5	68.8	0.7	25.6	24.0	1.6	
<u>Rewards earned, Years 1 to 4 (\$)</u>							
Total amount earned	4,490	--	--	2,369	--	--	
Amount earned from attendance	815	--	--	460	--	--	
Amount earned from Regents exams	2,313	--	--	1,168	--	--	
Amount earned from earning 11+ credits	1,297	--	--	745	--	--	
Sample size (total = 1,726)	298	285		565	578		

(continued)

Table 4.6 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

A double dash (--) indicates "not applicable."

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

Proficiency status for the previous report on Family Rewards was defined using the math test. Results using the ELA test were not shown because they were fairly similar to the findings using math through Year 2. However, the additional data through Year 4 show emerging differences between the two proficiency groups. Table 4.7 presents the results by ELA proficiency.

For these students, as for the math-proficient students, the effects on attendance and credits attempted diminish after Year 3, when the incentives ended. However, the large early gains translated into benefits that lasted through the end of Year 4. For example, students in the program group, compared with the control group, were 10 percentage points more likely to be enrolled in twelfth grade in Year 4 and 10 percentage points more likely to have earned at least 44 credits by the end of that year. The program also led to notable effects on the number of Regents exams passed and on graduation rates. The graduation rate for students in the control group, for example, was 66.9 percent, compared with 74.8 for students in the program group, an increase of 8 percentage points, or 12 percent. These effects are on a par with graduation effects observed in the recent evaluation of New York City's new small schools.⁴¹

Finally, a separate study of incentives (discussed below) found notable differences by gender, with positive effects only for girls. To examine whether this pattern holds for Family Rewards, effects were examined for ELA-proficient boys versus ELA-proficient girls. The effects of the program are substantially larger and more consistent for girls than for boys.⁴² However, none of the differences in impacts between boys and girls was statistically significant, owing largely to the small sample size. Thus, it is not possible to assert with any degree of certainty that the program worked better for proficient girls. Nonetheless, the results are intriguing and warrant further study and replication.

In sum, the results by proficiency status indicate that the program had positive effects on students who entered the study more academically prepared than their peers. The program encouraged those students to increase their efforts (attendance and attempted credits), which led to an increase in the number of them who reached key milestones (Regents exams passed and graduation). Findings from a Family Rewards child and family study also illustrate how the program encouraged additional effort from these proficient students.⁴³

⁴¹Bloom and Unterman (2012).

⁴²These results are presented in supplementary Appendix Table G.16 in Riccio et al. (2013), which is available at www.mdrc.org.

⁴³Specifically, the program changed the ways in which teenagers spent their time while they were not in school, increasing the proportion of teenagers who engaged primarily in academic activities — for example, homework and achievement-oriented after-school activities. These effects were concentrated among proficient ninth-graders. See Morris, Aber, Wolf, and Berg (2012.)

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Table 4.7

Impacts on Enrollment, Graduation, Attendance, Credits, and Regents Exams,
for Students in Grade 9 at the Time of Random Assignment, by Performance
on English Language Arts (ELA) Test in the Prior Year (Grade 8)

Subgroup and Outcome	Proficient on 8th Grade ELA Test ^a			Not Proficient on 8th Grade ELA Test ^a			Sig.
	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	
<u>Enrollment and graduation (%)</u>							
Enrolled in grade 12, Year 4	78.4	68.2	10.1 ***	48.3	50.3	-2.0	††
Enrolled in any grade in Year 4	90.9	89.0	1.9	82.7	81.3	1.4	
Graduated within 4 years	74.8	66.9	8.0 **	43.2	45.9	-2.8	††
<u>Attendance rate 95% or higher (%)</u>							
Year 1	54.9	42.3	12.6 ***	29.6	29.6	0.1	††
Year 2	47.0	33.9	13.1 ***	24.3	21.5	2.8	††
Year 3	40.3	30.8	9.5 **	21.4	20.4	1.0	†
Year 4	28.1	23.0	5.2	14.8	14.3	0.5	
<u>Average attendance rate (%)</u>							
Year 1	92.0	86.9	5.1 ***	82.1	82.3	-0.2	†††
Year 2	87.5	81.4	6.1 ***	74.9	75.1	-0.3	††
Year 3	83.9	77.1	6.8 ***	68.1	67.7	0.4	††
Year 4	76.7	71.6	5.1 *	59.8	60.4	-0.6	
<u>Attempted 11+ credits (%)</u>							
Year 1	95.8	91.6	4.2 **	90.7	85.5	5.1 ***	
Year 2	93.0	86.3	6.6 **	80.9	80.4	0.4	†
Year 3	87.7	80.3	7.4 **	71.8	70.1	1.7	
Year 4	53.3	58.8	-5.5	48.3	48.8	-0.5	

(continued)

Table 4.7 (continued)

Subgroup and Outcome	Proficient on 8th Grade ELA Test ^a			Not Proficient on 8th Grade ELA Test ^a			Sig.
	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	
<u>Earned 11+ credits (%)</u>							
Year 1	76.3	66.1	10.2 ***	45.0	49.6	-4.6	†††
Year 2	71.3	58.5	12.9 ***	38.0	44.5	-6.5 **	†††
Year 3	65.1	53.4	11.8 ***	37.8	37.9	-0.1	††
Year 4	42.8	43.8	-1.0	31.1	31.0	0.1	
Earned at least 44 credits, Years 1 to 4 (%)	66.1	56.6	9.6 **	36.9	39.8	-2.8	††
Average number of credits earned, Years 1 to 4	44.3	40.0	4.3 ***	30.9	31.8	-0.8	†††
<u>Regents exams, Years 1 to 4</u>							
Number taken	7.2	6.5	0.8 ***	5.9	5.8	0.1	†
Number passed	5.0	4.6	0.5 **	2.4	2.5	0.0	††
Passed at least 5 exams (%)	72.5	63.1	9.5 **	25.8	28.9	-3.1	†††
<u>Rewards earned, Years 1 to 4 (\$)</u>							
Total amount earned	4,536	--	--	2,447	--	--	
Amount earned from attendance	800	--	--	483	--	--	
Amount earned from Regents exams	2,342	--	--	1,203	--	--	
Amount earned from earning 11+ credits	1,308	--	--	764	--	--	
Sample size (total = 1,700)	271	256		576	597		

(continued)

Table 4.7 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

A double dash (--) indicates "not applicable."

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

As mentioned in the previous report, given that families were largely left on their own to find ways to earn the incentives in Family Rewards, it makes sense that the achievement gains would be larger for the students who were better prepared academically. These students were staying afloat academically and probably had the personal and other resources necessary to take advantage of the incentives offered. It is not clear why the effects would be larger for students who are proficient in ELA. However, given that reading and language skills are relevant and necessary for all school subjects, it is easy to imagine that these students were the most prepared to respond to the program.⁴⁴

The findings are consistent with those from several other studies of incentives in education, where effects were largest for students who were on the threshold of achievement, or those for whom the desired outcomes are within reach. The most similar program is one in Israel that offered incentives to high school students for taking and passing matriculation exams and for graduating.⁴⁵ That program led to positive effects on graduation rates and college enrollment rates. However, the effects occurred largely for girls, and for the subset of girls who were more academically prepared when they entered the study.

Two other programs targeted different age groups but found similar effects. A program in Ohio, which offered incentives to elementary school students for good test performance, had its largest effects on students who had higher test scores before they entered the study.⁴⁶ Another program that offered incentives to first-year college students had positive effects on school progress for the most prepared students and negative effects for the least prepared students.⁴⁷

Finally, as an additional test of the robustness of the results, effects by proficiency status were estimated separately for ninth-graders in each of the three New York boroughs, based on the argument that those boroughs can be considered three separate and independent tests of the program. The findings were very similar across the three places.

Conclusion

Through four years, Family Rewards has had mixed success in improving children's school outcomes. The program had few effects on younger students, but did lead to notable gains — an

⁴⁴Many of the same students who are proficient in ELA are also proficient in math, although the two outcomes are not perfectly correlated. For example, among those students who are proficient in ELA, about 60 percent are also proficient in math.

⁴⁵Angrist and Lavy (2009).

⁴⁶Bettinger (2010).

⁴⁷Leuven, Oosterbeek, and van der Klaauw (2010).

increase in the graduation rate of 8 percentage points — for reading-proficient ninth-graders. Even though this group may be the least disadvantaged academically among low-income students, they still face many obstacles to success. An increase in graduation rates of this magnitude is impressive and on a par with effects from other, more intensive interventions that change the school structure, for example, or alter instructional practices.

The question remains why the program did not affect performance for other students — for example, younger students and nonproficient ninth-graders. Despite early, albeit small, increases in parental engagement and sizable reductions in poverty and material hardship, Family Rewards had no effect on the school progress of elementary and middle school students. In terms of the effectiveness of the incentives, perhaps they were not as salient to the younger children, since these children did not receive the money themselves. Also, many of the parents of these younger students may have wanted to help their children earn the incentives but did not know what steps to take.⁴⁸

The less proficient ninth-graders may have similarly not known how to improve their grades or test scores. The replication of Family Rewards through the Social Innovation Fund, discussed in more detail in Chapter 7, seeks to address this issue. Unlike the original version of the program that is described in this report, in which staff were deliberately constrained in the services they could provide, staff in the replication program are charged with working proactively with families to help them earn the rewards, which may include directing these families to tutoring and other educational services when their children are struggling academically.

Finally, one question about the education rewards from the outset was whether the behavioral effects would end once the program ended or, worse, whether they would become negative if the program had somehow reduced students' intrinsic motivation levels. Data for the ninth-graders indicate that there was a small reduction in credits attempted in Year 4, although it is not clear that this effect represents reduced intrinsic motivation. In addition, the effects on attendance did diminish somewhat after Year 3. For proficient ninth-graders, the fading effects may not have mattered much, since the program's effect in helping them reach twelfth grade may have been enough of a gain to sustain them through that year without rewards (although the program did offer a graduation reward). For younger students, however, the rewards may need to be structured in a different way in order to have lasting effects.

⁴⁸The Spark program, evaluated as part of Opportunity NYC, also provided incentives to fourth- and seventh-graders for achieving certain minimum test scores. However, that program was found to have no effects on test scores or other measures of school progress; see Fryer (2011). Fryer suggests that these students did not know how to improve their school progress in order to earn the incentives and that the incentives would be more effective if they were provided for inputs to school progress (such as reading or homework), rather than outputs (such as test scores).

Chapter 5

Effects on Health Care and Health

Making some safety net benefits for low-income families conditional on certain preventive health care practices is a feature of conditional cash transfer (CCT) programs worldwide. These programs typically require families to obtain regular checkups at health clinics and, in some cases, to participate in health and nutrition education sessions that are designed to promote active attention to health care in order to receive cash benefits.¹ Family Rewards incorporated this principle of linking financial payments to preventive health care but adapted it for the very different health care and safety net context found in the United States. It offered incentives to low-income families to maintain public or private health insurance and to obtain age-appropriate preventive medical and dental checkups.²

This chapter describes the health impacts of Family Rewards. It presents findings on the longer-term effects of the program on participants' health insurance coverage, use of health care services, and health outcomes. The findings show that at around 42 months after random assignment, when participating parents were interviewed, Family Rewards produced a number of small, positive effects on outcomes in the health domain. It increased the continuity of health insurance coverage and increased the receipt of regular preventive care, particularly dental care. It may have produced a few beneficial effects on health outcomes for certain adult populations. However, other outcomes of interest were unaffected by the intervention, and, as noted below, a number of impacts that were observed during the previous survey period (18 months after random assignment) had dissipated by the time of the 42-month follow-up. Although most of the health effects of Family Rewards are small and limited, they are observed on outcomes that are generally considered difficult to influence through social interventions.³

¹Fernald, Gertler, and Neufeld (2008).

²See Chapter 1 and Riccio et al. (2010) for a discussion of the logic model and the pathways through which Family Rewards is expected to influence health.

³The literature on the effectiveness — or the relative value — of preventive clinical interventions (that is, interventions designed to change health care behavior) is vast and inconsistent. In general, the response to preventive clinical interventions is weak. In a systematic review and analysis of recent interventions, Maciosek et al. (2006) find insufficient evidence to support the effectiveness of a variety of counseling and preventive care practices (for example, counseling the general population of adults and children about physical activity and diet; counseling children and adults about preventive dental care practices; or counseling older children, adolescents, and adults on safety practices). Furthermore, while some evidence suggests that health insurance alone has beneficial effects on life expectancy, the impacts are small; see Muennig, Franks, and Gold (2005). On the other hand, the effects of social interventions, such as improved early childhood education, have demonstrated effective ways of improving later health outcomes; see Belfield (2007). The gains are large, ranging from four to nine
(continued)

As described in the early evaluation report, the families in the Family Rewards sample had higher-than-expected insurance coverage and patterns of preventive care when they entered the study.⁴ These characteristics may reflect efforts that began around 2000 in New York City and New York State to improve access to health care coverage and to improve the health delivery system for low-income and moderate-income families. For example, state and city officials have worked with a range of stakeholders to implement measures to reduce administrative barriers to enrollment in and maintenance of public health insurance programs in order to provide coverage to more individuals.⁵ Moreover, New York City has been at the forefront of creating public-private partnerships to identify and enroll eligible uninsured residents. This enrollment push has been aided by a combination of state funding support, city agency partnerships, and use of community-based enrollment staff.⁶ New York City and New York State have also enacted a series of reforms to increase the retention of public insurance among participating families and individuals.⁷ For instance, they have reduced documentation requirements for Medicaid renewal and streamlined the renewal process.

All these reforms are an important backdrop for understanding the health-related impacts of Family Rewards. They are likely to account for the already high health care coverage and preventive health care practices reported by control group parents at the time they entered the study and in follow-up interviews. Consequently, on some measures, Family Rewards had limited room to improve health outcomes further.

Measuring the Health-Related Impacts of Family Rewards

The analysis of health-related outcomes and impacts is based on a variety of data sources. First, Seedco's Family Rewards payment system provides data on the receipt of health rewards during the program term. As described in Chapter 2, this system records the number and types of health reward payments earned, as well as the total amount earned by parents and children. Second, the analysis of public health insurance coverage (that is, Medicaid) is based on administrative records obtained from New York City's Human Resources Administration (HRA).⁸ Those

years in increased life expectancy for those who earn a high school diploma, or up to an 11.5 percent increase; see Muennig (2000). These interventions, however, require many years to demonstrate effects.

⁴Riccio et al. (2010).

⁵However, undocumented immigrants are not eligible for public health insurance because their immigration status disqualifies them for the programs.

⁶New York City Mayor's Office of Health Insurance Access (2004).

⁷See United Hospital Fund (2009).

⁸As noted in Chapter 1 of Riccio et al. (2010), Medicaid is available to pregnant women and children under 6 years of age whose family income is at or below 133 percent of the federal poverty level, for children ages 6 to 19 with family income up to 100 percent of the federal poverty level, and for families receiving government

(continued)

data are used to calculate public health insurance receipt for parents and children, and are available for one quarter before random assignment and for three years afterward for the full sample.⁹ Third, the Family Rewards 42-month parent survey provides extensive information on health care practices and outcomes that cannot be captured from the administrative records databases. The 42-month survey was administered to a random subset of the full study sample,¹⁰ and it is the only source of data for analyzing the program's effects on parents' and children's health care use and health outcomes. It also provides information on access to private health insurance, which, unlike information on public health insurance, is not available from administrative records. Where possible, the chapter presents survey estimates for parents and for three groups of focal children, based on the grade they were in when they entered the study: fourth grade, seventh grade, and ninth grade.¹¹ Most of the survey interviews were conducted between November 2010 and June 2011.¹²

All survey-based measures involving health and health care are reported by the parents in the study sample. One potentially problematic aspect of measurement from survey-based assessment is the extent to which respondents tend to give "socially desirable" answers to questions about their health care behavior rather than reporting on their actual behavior. This report is mindful of the potential problems of social desirability, as well as the accuracy of respondent recall, another potential problem in survey data, and, wherever possible, uses other sources (for instance, Seedco's payment data or national and local studies) to try to put the Family Rewards survey findings in context.

Finally, the impact analysis examines a large number of outcomes related to health care. As mentioned in Chapter 3, as the number of outcomes used for impact estimates increases, the probability of finding "false positives," or differences that are statistically significant simply by chance, also increases. Although no attempt is made to formally account for the problem of multiple comparisons, caution must be used when interpreting impacts that do not appear to be part of a larger pattern of impacts within a given set of measures.

income support through the federal Temporary Assistance for Needy Families program or New York State's Safety Net Assistance program. States have some discretion to cover individuals outside those categories.

⁹Because of issues with coverage dates included in the data, Medicaid receipt in a given quarter is measured using the recipient's status on the first day of a quarter. As a result, the measure reported here captures coverage status at the start of each quarter.

¹⁰The survey sample for the 42-month survey comes from the same random draw that generated the 18-month survey sample. However, some respondents to the 18-month survey did not respond to the 42-month survey and vice versa. Therefore, the individuals who are included in each respondent pool differ slightly.

¹¹Overall, 2,966 sample members completed the 42-month survey interview, resulting in a response rate of 79.3 percent. About 86 percent of the respondents completing the 42-month survey also completed the 18-month survey.

¹²All interviews were completed after the end of program, and 91.6 percent of respondents were interviewed after they had received their last payment.

The Health Care Rewards

Table 5.1 summarizes the Family Rewards health incentives.¹³ The first two panels focus on rewards for preventive health and dental examinations. Each program year, families could earn \$200 per family member for completing an annual nonemergency medical checkup. Families with infants and toddlers could earn another reward for having one early childhood intervention screening (which is free of charge to all qualifying residents of New York City), in addition to a regular checkup, when a physician identified potential developmental problems and recommended such an assessment. Increasing preventive health care was expected to ensure that family members get regular medical attention, which can lead to early diagnosis and treatment of health problems that can become more serious if left untreated. In addition, the program’s designers hoped that by encouraging regular care, they could increase the likelihood that participants would establish a “medical home” — in other words, a relationship with a doctor (or health care institution) who knows their medical history and can provide a place for them to turn when problems arise, rather than resorting to hospital emergency rooms as a first response.

Participants were expected to present doctors with an age-appropriate “preventive care checklist form” that identified a set of common health conditions that doctors should explore or screen for in any thorough annual physical examination. Separate forms were created for parents and children. The form was also a way to specify exactly what kind of visit to the doctor was to be rewarded, and it communicated to the doctor and the patient that the reward is given to participants for preventive behavior only — not for going to the doctor when they feel sick or have a particular medical problem. Specifying the activities that are supposed to take place during the visit is one way of distinguishing this type of doctor visit from other types of doctor visits. Figure 5.1 presents the first page of the Adult Non-Emergency Medical Checkup Form for Parents that was used in the Family Rewards program.¹⁴ In order to claim a reward for this activity, parents were required to have the doctor sign this form at the checkup. The form included a standard set of questions to encourage the doctor to screen for common health problems. To encourage adherence to physician-advised follow-up care, the program also offered an incentive payment for one follow-up visit per family member per year over the first two years of the program. These rewards, as well as the above-mentioned reward for completing an early intervention assessment, were discontinued during the third year of the program because of the complexity of distinguishing visits that were truly separate follow-up visits.

¹³See Chapter 1 for further detail.

¹⁴The Child Non-Emergency Medical Checkup Form is shown in supplementary Appendix Figure H.1 in Riccio et al. (2013), which is available at www.mdrc.org.

The Opportunity NYC Demonstration: Family Rewards

**Table 5.1
Health Rewards**

Activity	Payment
<u>Preventive health care</u>	
Complete annual nonemergency medical checkup	\$200 per family member; once a year
Complete physician-advised follow-up <i>Discontinued for Year 3</i>	\$100 per family member; once a year
Complete pediatrician-advised early-intervention referral and evaluation for child under 30 months	\$200 per child; once a year
<u>Preventive dental care</u>	
Complete 2 dental checkups per year for family members age 6 and older	\$100 per family member; twice a year
Complete 1 dental checkup per year for family members ages 1-5	\$100 per child; once a year
<u>Health insurance coverage^a</u>	
Get or maintain health insurance coverage, including Medicaid, Family Health Plus, and/or Child Health Plus <i>Discontinued for Year 3</i>	\$40 every 2 months per adult and for all children combined
Get or maintain private health insurance <i>Discontinued for Year 3</i>	\$100 every 2 months per adult and for all children combined

NOTE: ^aRegardless of the number of children in the family, the reward payment is the same. For example, \$100 per adult was paid every 2 months to families for getting or maintaining private health insurance.

Family Rewards also offered an incentive for preventive dental care. It rewarded two visits per year for cleanings and checkups for all enrolled family members 6 years of age and older, and one per year for children between the ages of 1 and 5 years.

The bottom panel of Table 5.1 focuses on rewards for health insurance coverage. Many families who enrolled in the study are eligible for means-tested public health insurance through

The Opportunity NYC Demonstration: Family Rewards

Figure 5.1

Adult Non-Emergency Medical Checkup Form for Parents (Front Page)



ADULT Non-Emergency Medical Check-up Form

Program Year: September 2007-August 2008

Patient Name:	DOB:	Patient #:	Date of Visit:

Screenings and Tests

CONDITIONS	GUIDELINES	COMPLETION STATUS
Blood pressure	Measure at every annual visit	<input type="checkbox"/> <i>Screening completed</i>
Body Mass Index (BMI) <i>(please refer to latest BMI chart)</i>	Measure at every annual visit	<input type="checkbox"/> <i>Screening completed</i>
Diabetes: Fasting Plasma Glucose	Test if: Age = 45+ and BMI ≥ 25	<input type="checkbox"/> <i>Obtained specimen for test</i> <i>No specimen obtained because:</i> <input type="checkbox"/> Not needed for this patient or at this time <input type="checkbox"/> Patient declined <input type="checkbox"/> Other
Smoking status <i>(Never, past, current?)</i>	Ask at every annual visit	<input type="checkbox"/> <i>Screening completed</i> <input type="checkbox"/> If smoker, cessation recommended
Cholesterol	Test every 5 years for: • Male ≥ age 35 • Female ≥ age 45	<input type="checkbox"/> <i>Obtained specimen for test</i> <i>No specimen obtained because:</i> <input type="checkbox"/> Not needed for this patient or at this time <input type="checkbox"/> Patient declined <input type="checkbox"/> Other
HIV status	Ask at every annual visit and offer test if status is unknown	<input type="checkbox"/> <i>Obtained specimen for test</i> <i>No specimen obtained because:</i> <input type="checkbox"/> Not needed for this patient or at this time <input type="checkbox"/> Patient declined <input type="checkbox"/> Other
Depression <i>(Use Depression Screening tool on back – PHQ-2)</i>	Ask at every annual visit	<input type="checkbox"/> <i>Screening completed</i> <input type="checkbox"/> Patient declined
Alcohol/Drug use <i>(Alcohol and Drug Use Screening Tool on back – CAGE-AID)</i>	Ask at every annual visit	<input type="checkbox"/> <i>Screening completed</i> <input type="checkbox"/> Patient declined
<i>Female-only:</i> Pelvic/PapTest	Test: • Every year until age 30 • Every 2-3 years if ≥ age 30	<input type="checkbox"/> <i>Obtained specimen for test or referred to GYN</i> <i>No specimen obtained because:</i> <input type="checkbox"/> Not needed for this patient or at this time <input type="checkbox"/> Patient declined <input type="checkbox"/> Other
<i>Female-only:</i> Family Planning Visit	At every annual visit, counseling, referral, prescribing and dispensing of contraceptives and screening for STIs	<input type="checkbox"/> <i>Counseling completed</i>
<i>Female-only:</i> Mammogram	Test every 1-2 years if: Age ≥ 40	<input type="checkbox"/> Recommended mammogram <input type="checkbox"/> Not needed for this patient or at this time
Colonoscopy	For average risk, test every 10 years for ≥ age 50	<input type="checkbox"/> Recommended colonoscopy <input type="checkbox"/> Not needed for this patient or at this time

Immunizations Review

Discussed immunization status and made appropriate recommendations for:
 Influenza, Pneumococcal, Hepatitis B, Tetanus and Diphtheria.

Medicaid, the Children’s Health Insurance Program (CHIP),¹⁵ or Family Health Plus.¹⁶ The cash incentives were intended to encourage families to keep their coverage in effect. Substantial evidence exists about the potentially harmful impacts of losing Medicaid insurance. For example, studies have linked loss of medical insurance with discontinuity of care, reduced ambulatory care use, increased emergency room use, higher health care costs, and worse patient outcomes.¹⁷ Furthermore, children of parents who lose Medicaid may themselves be affected through “spill-over effects” and are more likely to be uninsured despite their eligibility for coverage.

Because recipients of Temporary Assistance for Needy Families (TANF) and Safety Net Assistance (SNA) are routinely enrolled in Medicaid and are not required to reestablish their eligibility as long as they remain on TANF or SNA cash welfare,¹⁸ they were ineligible for this incentive while receiving those benefits, according to the program design. However, complexities in administering this portion of the Family Rewards program meant that during the first and second years of operation, many of these families did, in fact, receive the rewards. A slightly higher payment was offered to families when the parent had coverage from private, employer-sponsored health insurance, to offset the costs of copayment that would be incurred.

The health insurance rewards were discontinued at the start of Year 3. As noted in Chapter 1, this decision was made partially because data from the early stages of the evaluation suggested that insurance coverage rates were very high for participants in the study and there was not very much room for Family Rewards to improve them.

Receipt of Health Care Rewards

This section briefly reviews the extent to which program members earned health care rewards during the three years of Family Rewards. As discussed in Chapter 2, approximately 95 percent of the participating families earned at least one health care reward in Year 1 of the program. Data for Years 2 and 3 suggest that an equally high proportion of families continued to earn health rewards through the second year of the program, but that this number dropped off substantially (to approximately 73 percent) in the third and final program year. Furthermore, previous analysis suggests that most families were fairly well informed and knowledgeable about the

¹⁵CHIP targets uninsured children and pregnant women in families with incomes too high to qualify for Medicaid, but often too low for them to afford private coverage.

¹⁶Family Health Plus is a public health insurance program for low-income adults who are age 19 to 64 who have income or resources too high to qualify for Medicaid. Health care is provided through participating managed care plans in the area.

¹⁷See Finkelstein et al. (2012); Saunders and Alexander (2009); Fairbrother et al. (2004); Cassedy, Fairbrother, and Newacheck (2008); Duderstadt, Hughes, Soobader, and Newacheck (2006).

¹⁸Safety Net Assistance provides benefits to eligible individuals and families who do not qualify for TANF or other federal cash assistance programs.

health-related activities that the program rewarded.¹⁹ While there was some confusion about activities that the program did not reward, almost all survey respondents knew that they could earn rewards for making regular doctor or dentist visits for preventive care. This section takes a closer look at Seedco's payment data to help clarify the extent to which study participants earned the various health care rewards that the program offered.

Table 5.2 summarizes the rewards that parents and children in the program earned for preventive medical and dental visits. Data are shown for each of the three years of the program separately and for the three years combined.²⁰ Parents earned rewards for medical visits at roughly similar levels across the three years of the program. In each year, approximately 60 percent of parents earned at least one reward, with around 50 percent earning rewards for a doctor visit and about 45 percent earning rewards for a dentist visit each year. Overall, 77.9 percent of parents earned at least one reward during the three years of the program for either a preventive doctor or dental visit, with about 71 percent earning a reward for a doctor visit and about 65 percent earning a reward for a dental checkup. While overall medical and dental reward receipt rates are high, the annual data suggest that some families earned this reward more consistently than others.

For children, the data suggest a small drop in reward receipt over time. Around 60 percent of program households earned a reward for a child's doctor visit and slightly more than 50 percent earned a reward for a dentist visit each year. Those who earned at least one health care reward dropped somewhat from about 72 percent in Year 1 to around 65 percent in Year 3. Overall, 83 percent of children were in households that earned at least one preventive health care reward during the life of the program, with 79.6 percent earning a reward for a doctor visit and 72.4 percent earning a reward for a dentist visit.

Table 5.3 shows the preventive health care rewards for children, by age and school level. There are few differences by child's age or school level, and high school students were not more likely to earn rewards than were elementary or middle school students.²¹ The general pattern, however, is a small drop over time. High school students evidence larger drop-offs in reward receipt over the life of the program: 71.3 percent in Year 1 to 57.7 percent in Year 3. For children under the age of 30 months, reward receipt for early intervention evaluation dropped from 8.3 percent in Year 1 to 0.8 percent in Year, largely because children in this range at random assignment had aged out of Early Intervention Program eligibility after three years.²²

¹⁹See Riccio et al. (2010).

²⁰As noted, incentives for doctor-recommended follow-up visits were discontinued in Year 3.

²¹As discussed in Chapter 1 and in Riccio et al. (2010), some education payments were made to high school students directly, but all other payments, including all health payments, were made to the parents.

²²The national, state-administered Early Intervention Program provides therapeutic and support services for infants and toddlers with disabilities and their families.

The Opportunity NYC Demonstration: Family Rewards

Table 5.2

Rewards Earned for Parents' and Children's Doctor and Dentist Visits

Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
<u>Parents (%)</u>				
Earned at least 1 reward for medical or dental visit	60.3	62.4	61.6	77.9
Annual physical	49.7	51.5	52.0	71.3
Dental care checkup	42.1	46.0	47.3	64.8
1 dental checkup	26.4	27.0	27.6	--
2 dental checkups	15.7	19.0	19.6	--
Doctor-recommended follow-up visit	27.9	32.0	--	44.2
Sample size				2,515
<u>Children (%)</u>				
Earned at least 1 reward for medical or dental visit	71.9	68.9	65.4	83.0
Annual physical	63.0	58.9	59.0	79.6
Dental care checkup ^a	54.6	53.1	52.1	72.4
Doctor-recommended follow-up visit	30.4	30.3	--	44.2
Sample size				5,680

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

"Sample size" refers to the number of individuals.

A double dash (--) indicates "not applicable."

^aFamilies can earn rewards for preventive dental visits up to twice a year for each child ages 6 and up and once a year for children under age 6.

Table 5.4 shows health insurance rewards earned for maintaining coverage. As this reward was discontinued in Year 3, the table reports results for Years 1 and 2 only.²³

Impacts on Health Insurance Coverage

As discussed in the previous report on Family Rewards and noted above, overall health insurance coverage was already extremely high for this sample when the study began. Nonetheless, Family Rewards helped raise it even higher.

²³For a detailed discussion of the results for Years 1 and 2, see Chapter 7 of Riccio et al. (2010).

The Opportunity NYC Demonstration: Family Rewards

Table 5.3

**Rewards Earned for Children’s Preventive Doctor and Dentist Visits,
by Child’s Age or School Level**

Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
<u>Children under 30 months of age at baseline (%)</u>				
Child earned at least 1 reward for medical or dental visit	76.4	73.6	68.5	87.0
Annual physical	70.1	67.7	63.0	85.8
Early intervention evaluation	8.3	1.6	0.8	10.6
Dental care visit ^a	27.6	43.7	48.8	60.6
Doctor-recommended follow-up visit	34.7	33.5	--	50.0
Sample size				254
<u>Children 30 months to 5 years of age at baseline (%)</u>				
Child earned at least 1 reward for medical or dental visit	73.5	74.0	72.0	85.6
Annual physical	67.1	64.7	66.5	83.9
Dental care visit ^a	54.8	59.6	57.2	75.7
Doctor-recommended follow-up visit	33.6	35.7	--	49.7
Sample size				547
<u>Elementary school students at baseline (%)</u>				
Child earned at least 1 reward for medical or dental visit	74.3	73.9	71.7	85.6
Annual physical	65.9	63.5	65.3	83.0
Dental care visit ^a	59.6	60.1	59.0	77.2
Doctor-recommended follow-up visit	31.2	33.8	--	46.3
Sample size				1,889
<u>Middle school students at baseline (%)</u>				
Child earned at least 1 reward for medical or dental visit	72.4	70.7	68.8	85.4
Annual physical	63.5	60.2	62.8	82.3
Dental care visit ^a	56.1	53.9	55.3	73.8
Doctor-recommended follow-up visit	31.5	30.6	--	45.1
Sample size				1,264
<u>High school students at baseline (%)</u>				
Child earned at least 1 reward for medical or dental visit	71.3	63.9	57.7	80.7
Annual physical	61.0	52.9	50.9	75.4
Dental care visit ^a	54.9	48.4	45.1	70.6
Doctor-recommended follow-up visit	28.5	26.7	--	41.3
Sample size				1,538

(continued)

Table 5.3 (continued)

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

"Sample size" refers to the number of children.

A double dash (--) indicates "not applicable."

^aFamilies can earn rewards for preventive dental visits up to twice a year for each child ages 6 and up and once a year for children under age 6.

The Opportunity NYC Demonstration: Family Rewards

Table 5.4

Health Insurance Rewards Earned for Maintaining Coverage

Outcome	Year 1	Year 2	Year 3 ^a	Years 1, 2, and 3 Combined
<u>Parents (%)</u>				
Earned at least 1 reward for				
Parent's public health insurance	66.5	68.3	--	74.3
Parent's private health insurance	20.1	20.0	--	23.7
Parent's public or private health insurance	82.3	84.5	--	90.4
Sample size				2,515
<u>Families (%)</u>				
Earned at least 1 reward for				
Children's public health insurance	70.8	71.3	--	77.2
Children's private health insurance	15.4	13.9	--	17.8
Children's public or private health insurance	81.5	81.6	--	88.1
Sample size				2,377

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTE: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

^aThese rewards were discontinued in Year 3.

Health Insurance Coverage Overall

The analysis of health insurance coverage draws on both the 42-month survey and administrative records data. The survey provides a more comprehensive snapshot of health insurance coverage by including a series of questions on whether participants — and members of their families — were covered by public or private health insurance in the month before the survey interview. The administrative records data, on the other hand, capture receipt of public insurance only, but offer multiple data points, pre- and post-random assignment, allowing the study to trace impacts on Medicaid and other public health insurance receipt over time. Therefore, these two data sources offer slightly different lenses for assessing the program’s effects on health insurance coverage.

Table 5.5 presents impacts on families’ health insurance coverage. Starting with the survey-based results, it is evident that at about 42 months after random assignment (the average length of the survey follow-up period), few sample members were without health insurance coverage. The control group coverage rates are higher than the designers of Family Rewards anticipated, especially for people living in the very high-poverty neighborhoods from which the sample was selected. A number of factors may be contributing to the higher rates found in the Family Rewards sample. First, the study sample does not include undocumented immigrants, who tend to have much lower coverage rates than legal immigrant and nonimmigrant low-income families. Nor does it include singles without children, another group with historically low coverage rates. Second, as discussed previously, New York City and New York State have expanded public health insurance coverage for low-income families (Medicaid program, Family Health Plus, and CHIP) and have intensified their efforts to market that coverage to those families in recent years. Along with the efforts to expand coverage, the city and state have also made significant investments in strengthening the primary and preventive health care delivery system.²⁴ Moreover, many states “churn” Medicaid recipients at a higher rate, requiring them to renew coverage every six months, compared with every year in New York. In an attempt to reduce the number of parents and children churning on and off Medicaid and CHIP, New York has implemented several steps to streamline and simplify Medicaid renewal processes.²⁵ Nevertheless, program group respondents were more likely (95.5 percent versus 92.9 percent, a difference of 2.7 percentage points) to report having health insurance in the previous month.²⁶

²⁴Coalition of New York State Public Health Plans (2009).

²⁵United Hospital Fund (2009).

²⁶More program group respondents than control group respondents reported that their children had health insurance coverage, though this comparison is nonexperimental and no statistical testing was done for it. About 80 families either refused to discuss their children or noted that they had a child age 19 or older who no longer lived with them (for whom no coverage information was obtained); they are not included in the calculation.

The Opportunity NYC Demonstration: Family Rewards

Table 5.5

Impacts on Families' Health Insurance Coverage

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Health insurance coverage in previous month (%)</u>				
Respondent had health insurance	95.5	92.9	2.7 ***	0.002
Publicly funded	71.9	71.0	0.9	0.545
Privately funded	32.5	28.1	4.4 ***	0.003
Publicly and privately funded	8.9	6.1	2.7 ***	0.005
<i>All dependent children had health insurance^a</i>	<i>95.0</i>	<i>92.6</i>	--	--
<i>Public health insurance only^b</i>	<i>74.8</i>	<i>74.9</i>	--	--
<i>Private health insurance only^b</i>	<i>17.5</i>	<i>16.0</i>	--	--
<u>Health insurance coverage in past 12 months (%)</u>				
Respondent had a period with no coverage	15.3	17.6	-2.3 *	0.087
<i>Some or all of respondent's children had a period with no coverage^a</i>	<i>13.9</i>	<i>17.2</i>	--	--
Sample size (total = 2,966)	1,543	1,423		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

Italic type indicates comparisons that are nonexperimental. Statistical tests were not performed.

^aChild-related health insurance measures were calculated for sample members with at least 1 child living with them at the time of the survey.

^bThe percentages of all children covered by public health insurance and all children covered by private health insurance do not add up to the percentage of all children covered by any insurance because some families reported having children covered by both types of insurance.

Continuous Health Insurance Coverage

Low-income families experience a high rate of interruptions — or churning — in public health coverage. Despite recent efforts to streamline and simplify the Medicaid renewal process, it is estimated that approximately one-third of New York's public health enrollees

fail to complete the recertification process each year and lose coverage as a result.²⁷ Even though they remain eligible, some families lose coverage at the time of recertification because they fail to successfully complete the process. Furthermore, gaps in coverage also occur with private insurance programs.

Program group respondents (see Table 5.5) were somewhat less likely than control group respondents to report a period of no insurance coverage since random assignment (15.3 percent versus 17.6 percent, a decrease of 2.3 percentage points).

Public Health Insurance Coverage

On the 42-month parent survey, program and control groups report fairly comparable levels of public health insurance coverage: 71.9 percent of the program group and 71.0 percent of the control group reported having such insurance at the time of the interview, a difference of 0.9 percentage point that is not statistically significant, as shown in Table 5.5. The public health insurance levels reported at the point of the survey interview are fairly comparable with the levels reported upon entry into the study.

Appendix Table D.1 displays impacts on parents' Medicaid coverage. It lists Medicaid coverage for each of the three program years and for the three years combined. About 80 percent of both control and program group parents were ever covered by Medicaid during the three years of the program. Parents in the program group were more likely than control group parents to have had continuous coverage during the program period (37.3 percent versus 34.8 percent, a difference of 2.5 percentage points). This result is statistically significant for Year 1 (2.6 percentage points) and Year 2 (2.9 percentage points). There are, however, no statistically significant differences in Year 3.

Appendix Table D.2 displays impacts on parents' Medicaid coverage by receipt of TANF or SNA status at the time of random assignment. Because individuals receiving TANF or SNA benefits are automatically enrolled in Medicaid, they did not receive rewards during the first two years of the program for maintaining insurance coverage.²⁸ Therefore, it was less likely that program participation would produce impacts on coverage for the subgroup receiving TANF or SNA benefits at the time of random assignment.

²⁷Lake Research Partners and Perry (2009).

²⁸In Year 1, many recipients of TANF or SNA did receive rewards for maintaining public health insurance, even though they were not eligible for those rewards. Although Seedco staff corrected for the overpayments when they discovered the error by debiting the overpaid amounts from future reward payments, they were unable to make the correction in all cases.

Among those who were not receiving TANF or SNA benefits at the time of random assignment, there is a difference between program and control groups in both the percentage who were always covered by Medicaid (that is, without interruption) and the average number of quarters covered. For example, 34.5 percent of the program group always had coverage, compared with 31.1 percent of the control group — a statistically significant difference of 3.4 percentage points. The effect persists for each individual year. Overall, there is no difference in coverage between the program and control groups among parents who were receiving TANF or SNA benefits at the time of random assignment.

There are no differences between the program and control groups in children's Medicaid coverage for the sample overall, as shown in the supplement to this report.²⁹

Impacts on Receipt of Health Care Services

Parents' Receipt of Health Care Services

As discussed previously, Family Rewards incentives are also intended to promote regular preventive medical and dental care for all family members. Adopting good preventive health care practices is linked to healthier lives by reducing unmet health care needs. National data from one study show that 81.8 percent of adults 18 years of age and over had contacted a doctor or other health professional within the previous 12 months (excluding overnight hospital stays).³⁰ While it is unclear whether these visits were for regular checkups, these rates are lower than the rates of preventive health care visits reported by the low-income Family Rewards sample. The program's designers expected that the opposite would be the case.

The 42-month survey attempts to capture receipt of preventive health care services by asking respondents whether they had gone to a doctor, hospital, or clinic for a routine physical checkup (when they were not sick) at any time after random assignment. A separate question asked whether they had seen their personal doctor or health care provider for a checkup or any medical care in the prior 12 months. Similarly, since the program encourages participants to have two dental checkups a year, survey respondents were asked how many times they had seen a dentist for a routine checkup or to have their teeth cleaned.

Findings for parents' receipt of preventive health care services are shown in Table 5.6. The data show no effect on health checkups, visits to emergency rooms, or overnight hospital

²⁹See supplementary Appendix Table H.7 in Riccio et al. (2013), available at www.mdrc.org.

³⁰See Schiller, Lucas, and Peregoy (2012). Another study, using a 19-month window, finds that 90 percent of all Americans, 74 percent of African-Americans, and 70 percent of children age 5 to 15 received preventive exams in that period; see Cherry, Woodwell, and Rechtsteiner (2007).

admissions. Program group parents were, however, more likely than those in the control group to report having had at least one dental checkup (81.3 percent versus 71.4 percent, a difference of 10 percentage points) or two or more dental checkups (45.2 percent versus 33.5 percent, a difference of 11.8 percentage points) in the previous 12 months.

Source of Health Care

The 42-month survey included a question that asked respondents whether they had a regular source of care — a place where they usually go when they are sick or in need of advice about their health, or when they need routine health care, like a checkup. Those who gave a positive response to the question were asked whether they go to a clinic or health center, a doctor’s office or HMO, a hospital emergency room, a hospital outpatient department, or some other place for care.³¹ This question does not attempt to measure actual use of the emergency room or hospital outpatient department; rather, it attempts to assess whether families have a “usual” place of care to which they turn when needed for routine health care purposes.

By encouraging participants to have a regular health care provider, the program promoted the “medical home” concept, a model of health care delivery that, as explained earlier, includes an ongoing relationship between provider and patient, and a comprehensive approach to care and coordination of care through providers and community services.³² Such a model of health care delivery is expected to reduce reliance on hospital emergency rooms for routine care. Emergency room costs per visit are generally much higher than the costs of delivering comparable care in an outpatient clinic or doctor’s office. At 42 months, as shown in Table 5.6, parents in the program group were more likely than those in the control group to report using a clinic or health center as a usual source of health care (59.5 percent versus 52.7 percent, a difference of 6.8 percentage points) and less likely to report having a doctor’s office as a usual source of health care (21.8 percent versus 25.1 percent, a reduction of 3.3 percentage points). There was no effect on use of hospital emergency rooms as a usual source of care.

³¹National estimates for this type of measure suggest that 16 percent of adults who are 18 years of age and over were without a usual place of health care. Of those with a usual place of care, 77 percent considered a doctor’s office or HMO to be their usual place of health care, 20 percent considered a clinic or health center to be their usual place of health care, and 3 percent considered a hospital emergency room or outpatient department to be their usual place of health care; see Pleis, Lucas, and Ward (2009).

³²The concept of the medical home has evolved since its introduction by the American Academy of Pediatrics in 1967. Research suggests that individuals who have continuity with a regular practitioner are more likely to adhere to prescribed medications and to receive preventive care and well-coordinated, resource-efficient, and family-centered care, and are less likely to visit the emergency department and be hospitalized; in addition, their practitioner is more likely to recognize their problems and track their information. See Christakis et al. (2001, 2002, 2003) and Starfield and Shi (2004).

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Table 5.6

Impacts on Parents' Receipt of Health Care Services

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Respondent's health care use (%)</u>				
Has a usual source of health care	94.6	93.5	1.2	0.277
Clinic or health center	59.5	52.7	6.8 ***	0.002
Doctor's office	21.8	25.1	-3.3 *	0.067
Hospital emergency room	3.0	4.0	-1.0	0.238
Hospital outpatient department	9.9	11.3	-1.3	0.331
Other	0.5	0.4	0.0	0.924
Has seen health professional for any reason in past 12 months	94.4	94.5	-0.1	0.924
Had a health checkup in past 12 months	90.0	88.9	1.1	0.427
Number of visits to dentist for any reason in past 12 months				
None	14.6	24.8	-10.1 ***	0.000
1	22.0	25.2	-3.2 *	0.100
2	38.6	28.1	10.5 ***	0.000
3 or more	24.7	21.9	2.8	0.149
Has seen dentist for any reason in past 12 months	85.4	75.3	10.1 ***	0.000
Had 1 or more dental checkups in past 12 months	81.3	71.4	10.0 ***	0.000
Had 2 or more dental checkups	45.2	33.5	11.8 ***	0.000
Number of visits to emergency room in past 12 months				
None	55.8	53.8	2.0	0.378
1	17.2	19.6	-2.4	0.177
2	13.6	14.6	-1.0	0.512
3 or more	13.4	12.0	1.5	0.333
Number of overnight admissions to hospital in past 12 months				
None	86.1	87.3	-1.2	0.426
1	7.6	7.3	0.3	0.777
2 or more	6.3	5.4	0.9	0.404

(continued)

Table 5.6 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Unmet health needs due to cost in past 12 months (%)</u>				
Did not get needed medical care ^a	7.1	8.1	-1.1	0.371
Did not fill prescription	14.4	13.0	1.3	0.393
Sample size (total = 1,961)	1,022	939		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: The items in this section of the survey were administered to a random subsample (N = 1,961) of the survey respondents.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aThis excludes prescriptions.

Unmet Health Needs

In order to determine the program's effects on reducing unmet health needs, the 42-month survey included questions that asked respondents whether they needed to see a doctor or fill a prescription for medicine in the prior year but had not done so because of the cost. At 42 months after random assignment, there were no differences between the program and control groups in reported unmet health care needs because of costs.

For nondental health care use, overall percentages in both the control and program groups are similar to those found in the 18-month survey.³³ On the other hand, effects on having a usual source of health care or unmet health needs that were detected in the 18-month survey had faded by the time of the 42-month survey, except for having a clinic or health center as the usual source of health care. The number of dental checkups fell in both groups between the two surveys,³⁴ though the drop-off was steeper for control group members, produc-

³³See Riccio et al. (2010). While there is significant overlap in respondents between the 18-month and 42-month surveys, the latter included some individuals who were not in the original sample. This does not change the interpretation of the findings.

³⁴The 18-month survey asked solely about dental checkups, but the numbers suggest that respondents may have included any other dental visits when answering this question. As a result, in the 42-month survey, (continued)

ing a statistically stronger and quantitatively larger difference in dental care use between the program and control groups.³⁵

Children's Receipt of Health Care Services

Findings for focal children's receipt of preventive health care services are shown in Table 5.7. (Focal children continue to be counted in their original grade category in Year 3 even if they have aged into the next school-level category.)³⁶

Children under the age of 5 years at the time of random assignment. There are no statistically significant differences between the control and program groups in routine checkups, dental checkups, or Early Intervention Program screening for children under the age of 5.³⁷

Elementary school students at the time of random assignment. For focal children who were in elementary school at the time of random assignment, there are almost no statistically significant differences in nondental health care use. Effects on receipt of dental care are strong. Program group children are more likely to have had one or more dental checkups (94.1 percent versus 89.6 percent, a difference of 4.5 percentage points) and two or more dental checkups (61.5 percent versus 46.4 percent, a difference of 15.0 percentage points) in the previous 12-month period.

Middle school students at the time of random assignment. Program group children were more likely to have had a health checkup or received shots in the past 12 months than were those in the control group (97.4 percent versus 93.6 percent, a difference of 3.8 percentage points). They were also more likely to have had one or more dental checkups (94.2 percent

MDRC asked about routine (preventive) dental checkups and other dental visits separately. While this change brought responses more in line with expectations, a significant minority of respondents continued to answer the question on checkups in a way that suggests they included dental visits for other reasons.

³⁵Though Medicaid covers dental expenses, only about 20 percent of dentists accept it (U.S. General Accounting Office, 2000). This can make it difficult to find a provider who accepts Medicaid. Low-income households may, therefore, have to pay for dental care out-of-pocket. Dental care (especially a second visit each year) may be seen as a lower priority and thus an obvious place to cut back during financial hardship or in anticipation of future hardship such as during the deep economic recession that occurred during the program period. It appears that program participation is associated with sustained or at least less attenuated use of routine dental care. The cash rewards (still available to most respondents during the year before the survey) could have provided a means to sustain dental care that participants would otherwise not have had.

³⁶For example, children who were in elementary school (grade 4) at baseline are counted in this category even though they had aged into the middle school category (grade 7) by the time of the 42-month survey.

³⁷In the 18-month survey, this category included children up to age 6.

The Opportunity NYC Demonstration: Family Rewards

Table 5.7

**Impacts on Focal Child’s Receipt of Health Care Services,
by Child’s Age or School Level**

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Children under age 5 at baseline^a (%)</u>				
Had routine health checkup in past year ^b	97.9	97.2	0.7	0.650
Had dental checkup in past year ^{b, c}	59.2	57.0	2.2	0.690
Any children screened for Early Intervention Program ^d	30.4	25.6	4.8	0.262
Sample size (total = 456)	239	217		
<u>Elementary school students at baseline (%)</u>				
Child has usual source of routine care	93.6	90.9	2.7	0.132
Child has personal pediatrician	89.4	89.0	0.4	0.861
Child has more than 1 personal pediatrician	12.1	9.2	2.8	0.162
Child has seen health professional for any reason in past 12 months	98.4	98.0	0.4	0.677
Child has seen personal pediatrician for any reason in past 12 months	78.3	77.8	0.5	0.855
Child had health checkup or got shots in past 12 months	97.3	96.7	0.5	0.648
Child has usual source of care when sick	93.8	94.1	-0.3	0.842
Clinic or health center	59.8	59.5	0.3	0.919
Doctor's office	26.0	25.5	0.5	0.870
Hospital outpatient department	5.7	6.3	-0.7	0.663
Hospital emergency room	1.7	2.8	-1.1	0.279
Other place	0.6	0.0	0.7 *	0.086
Child saw dentist for any reason in past 12 months	94.2	90.1	4.1 **	0.024
Child had 1 or more dental checkups in past 12 months	94.1	89.6	4.5 **	0.013
2 or more dental checkups	61.5	46.4	15.0 ***	0.000
Sample size (total = 939)	486	453		

(continued)

Table 5.7 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Middle school students at baseline (%)</u>				
Child has usual source of routine care	93.2	90.7	2.5	0.174
Child has personal pediatrician	89.5	90.0	-0.5	0.815
Child has more than 1 personal pediatrician	12.5	13.5	-1.0	0.648
Child has seen health professional for any reason in past 12 months	98.9	95.9	3.0 ***	0.004
Child has seen personal pediatrician for any reason in past 12 months	79.6	77.4	2.3	0.412
Child had health checkup or got shots in past 12 months	97.4	93.6	3.8 ***	0.006
Child has usual source of care when sick	95.5	93.4	2.1	0.158
Clinic or health center	65.6	60.5	5.1	0.113
Doctor's office	23.4	24.8	-1.4	0.628
Hospital outpatient department	5.2	6.7	-1.5	0.342
Hospital emergency room	1.4	1.3	0.1	0.943
Other place	0.0	0.2	-0.1	0.511
Child saw dentist for any reason in past 12 months	94.4	86.8	7.7 ***	0.000
Child had 1 or more dental checkups in past 12 months	94.2	86.5	7.7 ***	0.000
2 or more dental checkups	61.6	46.9	14.8 ***	0.000
Sample size (total = 905)	473	432		
<u>High school students at baseline (%)</u>				
Child has usual source of routine care	93.1	90.5	2.6	0.183
Child has personal pediatrician	88.0	85.9	2.1	0.369
Child has more than 1 personal pediatrician	14.9	9.8	5.1 **	0.031
Child has seen health professional for any reason in past 12 months	96.4	96.4	0.1	0.953
Child has seen personal pediatrician for any reason in past 12 months	78.0	73.2	4.8	0.115
Child had health checkup or got shots in past 12 months	94.0	94.3	-0.3	0.876
Child has usual source of care when sick	93.6	93.3	0.4	0.832
Clinic or health center	55.6	56.2	-0.6	0.870
Doctor's office	26.4	25.6	0.8	0.785
Hospital outpatient department	8.5	7.5	1.0	0.598
Hospital emergency room	2.5	3.2	-0.8	0.522
Other place	0.7	0.8	-0.1	0.822

(continued)

Table 5.7 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Child saw dentist for any reason in past 12 months	93.8	89.1	4.7 **	0.021
Child had 1 or more dental checkups in past 12 months	93.0	88.6	4.4 **	0.037
2 or more dental checkups	62.9	44.1	18.8 ***	0.000
Sample size (total = 812)	429	383		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: This table presents outcomes for the randomly selected focal child only, who must have been living in the household at the time of interview.

Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between outcomes for the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aIn the previous Family Rewards survey (the 18-month survey), this section was asked of respondents with a child under age 6 in the household; however, in the 42-month survey, this section was asked of respondents with a child under age 5 in the household.

^bThis measure pertains only to a child in the household under age 5 who was randomly selected for the respondent to discuss.

^cIf the randomly selected child is less than 1 year old, then the child is excluded from this measure.

^dThis includes any of the respondent's children under age 5.

versus 86.5 percent, a difference of 7.7 percentage points) and two or more dental checkups (61.6 percent versus 46.9 percent, a difference of 14.8 percentage points) in the previous 12-month period.

High school students at the time of random assignment. There were almost no differences between high school-age children in the program and control groups in nondental health care use. Program group high school-age children were, however, more likely to have had one or more dental checkups (93.0 percent versus 88.6 percent, a difference of 4.4 percentage points) and two or more dental checkups (62.9 percent versus 44.1 percent, a difference of 18.8 percentage points) than those in the control group. With the exception of changes in the frequency of dental checkups, numbers for children's receipt of health care services remain consistent in magnitude across surveys for both the control and program groups. In some cases weaker statistical effects (10 percent level) disappeared or emerged between surveys. On the

other hand, effects on the frequency of dental checkups emerged and became stronger. As of the 42-month survey, there were large and strongly statistically significant effects on dental care for elementary school students and middle school students. The effect for high school students at 42 months extends to the receipt of one or more checkups, and the impact size on having received two or more checkups increases to 18.8 percentage points. As with parents' results, the effect appears to emerge from a drop in the frequency of dental visits for the control group. Program group respondents maintain previous levels of dental care receipt or else drop care at reduced rates. Again, as already noted, it is possible that incentive payments helped program participants continue to receive dental care (often effectively uncovered given the small number of dentists who accept Medicaid and possibly considered a domain for reduced spending) during the significant economic downturn that began in 2008.

Impacts on Health Outcomes

If Family Rewards encourages continuous health care coverage and preventive health care visits, a logical question is whether this behavior translates into improved health outcomes for both parents and children. In the short run, Family Rewards is expected to improve health status through more diagnosis and management of chronic health conditions. Through its focus on health, the program might also have potential “spillover” effects on other health risk-taking behavior, such as smoking and lifestyle habits that lead to obesity, both of which are linked to mortality and a wide range of health problems and costs.³⁸ By conditioning reward payments on preventive health care activities, and by providing participants with the health care checklist to guide the rewarded interactions with doctors, it is possible that the program can generate secondary benefits, such as reductions in the types of behavior that have documented health risks.

Parents' Health Outcomes

Self-Reported Health Status

Table 5.8 presents several measures for assessing the program's effects on health outcomes. The first item is a widely used and validated global self-assessment of health status. Perceived health status is assessed based on an item drawn from the “Short Form 12 Health Sur-

³⁸Obesity has been linked to an increased risk of numerous comorbidities, including high blood pressure, high blood cholesterol, type 2 diabetes mellitus, coronary heart disease, osteoarthritis, asthma, and gallbladder disease; see Must et al. (1999) and Mokdad et al. (2003). Moreover, obesity has been found to significantly lower life expectancy, particularly among young adults; see Fontaine et al. (2003). With the rise in obesity, poor diet and physical inactivity have now become the number two preventable causes of death in the United States, behind only tobacco in the number of lives claimed each year; see Mokdad, Marks, Stroup, and Gerberding (2004).

vey” (SF12), a widely used scale in national health surveys that provides a generic, multi-dimensional measure of physical and mental health.³⁹ The Family Rewards 42-month survey respondents were asked, “Would you say your health in general was excellent, very good, good, fair, or poor?” When the same question was posed to a national sample, 13 percent of U.S. adults who were 18 years of age and over assessed themselves as being in fair or poor health. Adults in near-poor and poor families were two to three times more likely to have fair or poor health compared with adults in families who were not poor.⁴⁰ About one-third of parents in the Family Rewards study gave such a response, and, overall, the program produced no differences in perceived health status at 42 months after random assignment.

Health Conditions

Survey respondents were also asked whether they had a medical or health condition, such as high blood pressure, high cholesterol, asthma, cancer, diabetes, or another health problem. They were asked to indicate whether the conditions that they mentioned were being treated. Overall, the program had no impact on the likelihood of reporting a medical condition,⁴¹ or of receiving treatment for any medical condition.

Health Risks

Table 5.8 also presents findings for selected behaviors that are known to have serious health implications: smoking and lifestyle habits that lead to being overweight. To explore the potential impacts of the program, this section presents the estimated effects of Family Rewards on smoking and obesity.

Nationally, the prevalence rate for smoking by individuals who are 18 years of age or older in 2010 was estimated to be 19.3 percent.⁴² The Family Rewards control group reports a somewhat higher rate than that (24.5 percent). Survey respondents were asked whether they were currently smoking and the number of cigarettes smoked a day. There were no statistically significant differences between the program and control groups on this outcome.

³⁹See Hays, Sherbourne, and Mazel (1995).

⁴⁰This is consistent with the National Health and Nutrition Examination Survey (NHANES) finding that Food Stamp program (FSP) participants have a more negative perception of their health status than do higher-income nonparticipants. About a third of the FSP participants rated their health status as very good or excellent, and a third rated their health status as fair or poor. The NHANES also finds that physician assessments of general health status are consistently more positive than are self-assessments. See www.cdc.gov/nchs/nhanes.htm.

⁴¹Table 5.8 shows only the four most common health conditions that respondents mentioned.

⁴²The data suggest that adults with low educational attainment had the highest prevalence of smoking — that is, 45.2 percent among persons with a General Educational Development (GED) certificate, compared with 6.3 percent among those with a graduate degree. The prevalence of current smoking is also higher among adults who live below the federal poverty level (28.9 percent). See Centers for Disease Control and Prevention (2011).

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Table 5.8

Impacts on Parents' Health Outcomes

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
<u>Health status</u>					
Average self-rated health (1 = poor; 5 = excellent)	3.1	3.1	0.1	0.165	0.056
Excellent (%)	14.6	14.1	0.5	0.759	
Very good (%)	21.3	18.8	2.5	0.149	
Good (%)	33.4	34.3	-0.9	0.667	
Fair (%)	24.3	25.6	-1.3	0.500	
Poor (%)	6.4	7.2	-0.8	0.452	
Currently pregnant (%)	1.3	2.4	-1.1 *	0.083	
<u>Health conditions and risks</u>					
Smokes cigarettes (%)	22.6	24.5	-1.9	0.314	
Has any medical condition ^a (%)	55.4	53.8	1.5	0.463	
Asthma	17.3	16.3	1.0	0.561	
High blood pressure/hypertension	27.4	26.7	0.8	0.689	
High cholesterol/high LDL	10.1	11.4	-1.3	0.326	
Diabetes	11.5	11.1	0.4	0.759	
Treated for any medical condition ^a (%)	50.1	47.8	2.3	0.276	
Asthma	15.0	14.9	0.1	0.942	
High blood pressure/hypertension	25.6	24.8	0.8	0.672	
High cholesterol/high LDL	9.0	9.4	-0.5	0.709	
Diabetes	11.2	10.4	0.8	0.568	
Average Body Mass Index (BMI) ^b	30.6	30.6	0.0	0.905	-0.006
Underweight (%)	1.0	0.6	0.5	0.258	
Normal weight (%)	20.2	21.7	-1.6	0.407	
Overweight (%)	32.8	31.3	1.5	0.491	
Obese (%)	46.0	46.4	-0.4	0.864	
<u>Psychosocial well-being</u>					
Average score on "State of Hope" scale (6 = low; 24 = high) ^c	17.9	17.5	0.3 ***	0.005	0.127
How life today compares to way it was a year ago (%)					
Much better today	32.5	31.7	0.8	0.715	
Somewhat better	26.7	27.7	-1.0	0.630	
About the same	28.1	27.3	0.8	0.677	
Somewhat worse	7.8	7.6	0.2	0.869	
Much worse	4.9	5.7	-0.9	0.403	
Sample size (total = 1,961)	1,022	939			

(continued)

Table 5.8 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

The effect size is the difference between program and control group outcomes expressed as a proportion of the standard deviation of the outcomes for both groups combined.

A randomly selected subsample of survey respondents (N = 1,961) was asked these questions.

^aThe 4 most commonly reported conditions are listed.

^bWeight categories are from the National Institutes of Health. Underweight is defined as having a BMI of less than 18.5. Normal weight is defined as having a BMI between 18.5 and 24.9. Overweight is defined as having a BMI between 25.0 and 29.9. Obesity is defined as having a BMI of at least 30. About 6 percent of the sample is excluded from this analysis because of missing data.

^cThe "State of Hope" scale measures the level of ongoing goal-directed thinking. The response codes (1 to 4) of the 6 items for each person are summed, with lower values representing less goal-directed thinking and higher values representing more. The scale is taken from Snyder et al. (1996).

Obesity is another pressing health concern, with many experts claiming that the country is suffering from an obesity epidemic. The concerns about the increasing prevalence of obesity are founded in the association between obesity and adverse health outcomes, including excess mortality, and increased health expenditures.⁴³ The measure used most often to assess this condition is referred to as the Body Mass Index, or BMI. It is calculated from the sample members' responses to survey questions regarding height and weight.⁴⁴ As shown in Table 5.8, there are no statistically significant differences in the BMI scores for the Family Rewards program and control groups. However, around 46 percent of the sample members in each group were classified in the obese category.

⁴³Schmeiser (2008); Flegal, Graubard, Williamson, and Gail (2005).

⁴⁴"Underweight" is defined as a BMI of less than 18.5, "normal weight" as greater than or equal to 18.5 and less than 25, "overweight" as greater than or equal to 25 and less than 30, and "obese" as greater than or equal to 30. Using self-reported measures of height and weight on the 42-month survey, BMI scores were calculated for the program and control group members in the Family Rewards sample.

Psychosocial Well-being

The final set of measures that is shown in the table captures two dimensions of psychological well-being: psychological distress and the belief in one's ability to initiate and sustain action.⁴⁵ Consistent with prior research, it is possible that changes in health and economic well-being brought about by such programs could improve mental health and emotional well-being. The Family Rewards findings offer a small bit of support for this hypothesis. As shown in Table 5.8, program group respondents, on average, score slightly higher on the State of Hope scale used to measure psychosocial well-being (17.9 units versus 17.5 units, a 0.3 unit increase on a scale from 6 to 24 and a statistically significant increase of 1.7 percent over the control group value).

In summary, the magnitudes for measures of health status, medical conditions, and psychosocial well-being in both the control and program groups are consistent with those reported in the 18-month survey. The earlier report on Family Rewards found statistically significant effects on average self-rated health. Program group respondents were also more likely to report excellent health and less likely to report poor health.⁴⁶ These effects were no longer evident by the time of the 42-month survey, suggesting that the initial effects had dissipated or previously were the product of statistical "noise." The effect on the State of Hope scale reported above was not present in the results of the 18-month survey, though the overall values remain similar. This effect, though small, is strongly statistically significant, which suggests that it reflects a program impact that emerged in the time between surveys. Overall, however, the Family Rewards program had few temporary or lasting effects on parents' health outcomes.

Children's Health Outcomes

As discussed earlier in this report, the survey targeted "focal" children in three age categories based on the grade at which they entered the study: elementary school (grade 4), middle school (grade 7), and high school (grade 9). In the 42-month survey, parents were asked to report on a set of questions related to the health outcomes of their focal child. These measures, some of which were introduced in the parent-focused tables, are presented in Appendix Table D.3, by child's school level at the time of random assignment.

⁴⁵Distress is measured using the Kessler Psychological Distress Scale, known as the "K-10 scale," which is a 10-item questionnaire intended to yield a global measure of distress based on questions about anxiety and depressive symptoms that a person has experienced in the most recent four-week period; see Kessler et al. (2002). The ability to initiate and sustain action is assessed using the State of Hope scale, which measures goal-directed thinking; see Snyder et al. (1996).

⁴⁶Riccio et al. (2010).

Elementary school students at the time of random assignment. For focal children in elementary school at the time of random assignment, there are no statistically significant differences in overall health status or occurrence of health conditions.

Middle school students at the time of random assignment. Health effects for children appear to be concentrated among those children who were in middle school at the time of random assignment. Program group respondents, on average, rated their focal child's health higher than did those in the control group. They were more likely to rate their child's health as 5, or "excellent" (45.9 percent versus 38.3 percent, a statistically significant 7.6 percentage point increase), and less likely to rate it as 3, or "good" (21.2 percent versus 26.4 percent, a reduction of 5.3 percentage points). No differences in health conditions were observed between the control and program groups.

High school students at the time of random assignment. There were no differences between high school-age children in the program and control groups in health status. Numbers remain largely consistent in magnitude across surveys for both the control and program groups. At the time of the 18-month survey, there were no program impacts on children's health status or health conditions for elementary or middle school students. Program group high school students did, however, display statistically significant drops in any health condition and with asthma in particular.⁴⁷ At the time of the 42-month survey, parents in the program group were, as noted above, more likely to report excellent health for their middle school-age children. This finding could represent an impact that emerged in the time between the surveys but, as it is not part of a larger pattern, caution is advised in interpreting this result. The effects on health conditions for high school students had dissipated by the time of the 42-month survey. Overall, the Family Rewards program had few temporary or lasting effects on children's health outcomes.

Impacts for Key Subgroups

Because average effects for the full group can mask program effects for some groups of study participants, the health impacts of Family Rewards are analyzed for subgroups defined by baseline measures of parental education, employment, poverty, and self-assessed health status.⁴⁸

⁴⁷Riccio et al. (2010).

⁴⁸MDRC conducted additional exploratory subgroup analysis on health impacts, by family type (single- or two-parent households), immigration status, reported risk factors for depression, food stamp and TANF receipt, and housing status (public housing, Section 8 vouchers, and other). Overall, few noteworthy effects were observed across these subgroups. The findings are included in Appendix H in the supplement to this report, Riccio et al. (2013), which is available at www.mdrc.org. Additional subgroup analyses were conducted on impacts on health insurance rewards earned for maintaining coverage, by TANF receipt. Again, few noteworthy effects were observed across the subgroups. These findings are included in Appendix Table D.4 at the back of this report. In addition to education and employment, variation in impacts was examined across a range of di-

(continued)

These subgroups were pre-selected, based on the extensive literature demonstrating inequalities in health care access and health outcomes by socioeconomic characteristics. While numerous variables can capture the social and economic status of individuals, education, income, and employment or occupational status are most often used to examine variations in the distribution of disease and health.⁴⁹ Recent reviews reveal that these measures remain persistent and pervasive predictors of variations in health.⁵⁰

In general, impacts are expected to vary somewhat across subgroups, simply as a result of natural variation around the average impact for the full sample. This section focuses on whether that variation in impacts across subgroups is statistically significant, or whether it goes beyond what would be expected to occur naturally. For that reason, the focus is not on whether a given impact is statistically significant for the less educated subgroup, for example, but whether the difference between that impact and the impact for the more educated subgroup is statistically significant (as indicated by daggers in the rightmost column of the tables). If the difference between those two impacts is not statistically significant, the results suggest that the effects observed for the full sample generally hold across more and less educated individuals.

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Educational Level at Baseline

In general, studies find that more educated adults report better health than those who are less educated. They are less likely to be hypertensive, to suffer from diabetes, to report that they are in poor health, and to report anxiety or depression.⁵¹ There are multiple reasons for those associations, although it is likely that such health differences are in part the result of differences in behavior across education groups. Overall, research suggests very strong gradients where the better educated have more healthy behaviors along virtually every margin: those with more years of schooling are less likely to smoke, drink heavily, be overweight or obese, or use illegal drugs.⁵²

The Family Rewards health impacts were analyzed separately for parents who had less than a high school diploma or GED certificate at the time of random assignment and for those with at least a high school diploma or GED certificate. The program's impacts on a variety of health measures are shown in the supplement to this report.⁵³ For parents' health outcomes, there are three statistically significant differences in impacts between the subgroups defined by

mensions, including assisted housing status and poverty level at random assignment. Overall, the impacts are similar across these subgroups, with a few exceptions.

⁴⁹Kreiger, Williams, and Moss (1997).

⁵⁰See, for example, the "Social Environment Notebook" of the MacArthur Research Network on Socioeconomic Status and Health, at www.macses.ucsf.edu/default.php.

⁵¹Muennig, Schweinhart, Montie, and Neidell (2009); Muennig (2007); Cutler and Lleras-Muney (2006).

⁵²Muennig, Schweinhart, Montie, and Neidell (2009); Muennig (2007); Cutler and Lleras-Muney (2006).

⁵³See supplementary Appendix Table H.8 in Riccio et al. (2013), available at www.mdrc.org.

possession of a high school diploma/GED certificate.⁵⁴ Program group members in the more educated subgroup show a statistically significant drop in high cholesterol versus the control group (7.8 percent versus 10.9 percent, a drop of 3.1 percentage points) while those in the less educated subgroup do not. Program group members in the less educated subgroup show a statistically significant increase in reported incidence of diabetes (15.2 percent versus 11.1 percent, an increase of 4.1 percentage points) while those in the more educated subgroup show no effect. The less educated subgroup also shows a higher impact on being treated for diabetes. This increase in reported diabetes may be the result of better screening by doctors during checkups, as program participants were provided with health checklists to discuss with their doctors. Overall, however, there are few differences in impacts by parents' education level at the time of random assignment, suggesting that education was not an important factor in determining the health and health care effects of the Family Rewards intervention.

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Employment Status at Baseline

Several studies have documented the relationship between health and employment.⁵⁵ Among studies of welfare recipients and low-income mothers, health problems (of parents and children) are a barrier to regular employment and to entry into the labor force.⁵⁶ These studies also show that employed women have consistently reported being in better health than have unemployed women. However, the causal chain underlying the relationship between employment and health is still open to debate. Longitudinal evidence seems to suggest that employment affects health, but reciprocal effects are also possible.⁵⁷ This section extends the subgroup analysis and examines the program's impacts on health by respondents' self-reported employment status at the time of random assignment.

The supplement to this report includes impacts on parents' receipt of health care services and on health outcomes, by employment status at random assignment.⁵⁸ Program participants who were unemployed at the time of random assignment display a drop in obesity rate over the control group (46.6 percent versus 53.1, a drop of 6.5 percentage points), while those who were employed at random assignment display no statistically significant change. There are otherwise no significant differences in impacts by baseline employment status, suggesting that employment was not an important factor in determining the health and health care effects of the Family Rewards intervention.

⁵⁴This includes only outcome measures that display statistically significant differences between the program and control groups.

⁵⁵Rogot, Sorlie, and Johnson (1992); Ross and Mirowsky (1995).

⁵⁶Zedlewski (1999).

⁵⁷Polit, London, and Martinez (2001).

⁵⁸See supplementary Appendix Table H.9 in Riccio et al. (2013), available at www.mdrc.org.

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Poverty Level at Baseline

Though the same amounts of cash transfers were offered for successfully completing rewarded activities regardless of the participants' poverty level, rewards for the poorest participants represented a much larger gain in proportion to their base earnings. Put another way, while the absolute value of the rewards was fixed, the relative value of a reward payment varied according to participants' poverty level. As the relative value of an incentive payment increases, the probability of trying to earn the reward may also increase. The very poor may have thus been more likely to work toward health rewards and therefore use health care services at a greater rate than participants who were less disadvantaged. This behavior could have led, in turn, to better health outcomes. Alternatively, for this population, greater poverty may make it more likely that a participant is covered by public health insurance. This likelihood results from the gap in Medicaid coverage: above a certain income a person may lose access to insurance from Medicaid but be unable to secure insurance through her employer. If that is the case, then less severe poverty may be associated with lower health insurance coverage. For those participants who are living in less severe poverty, Family Rewards could have offered expanded access to health care services; those suffering more severe poverty would likely already have had access to preventive health care through Medicaid. Therefore, the former might instead evidence greater health impacts.

To investigate these potential relationships, impacts on parents' receipt of health care services and health outcomes were examined by parents' income at random assignment. Parents with income at or above 50 percent of the federal poverty level and those with income below 50 percent of the federal poverty level were examined separately. Table 5.9 shows program impacts on parents' health outcomes, by poverty level. There are almost no significant differences in health care and health outcomes by poverty level, suggesting that parental earnings, on average, were not a factor in determining the health care effects of the Family Rewards intervention.

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Self-Reported Health Status at Baseline

The effectiveness of the Family Rewards program with regard to improving health outcomes and increasing the receipt of health care services may be related to the initial health status of its participants. If those who initially suffered from poor health were in that condition because they lacked access to health care services relative to the larger sample, the Family Rewards intervention could result in particularly improved health outcomes for this group. As part of the intervention, Family Rewards also required that doctors fill out a checklist including

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Table 5.9

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Respondent's Poverty Level at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Income at or above 50% of FPL at baseline (%)</u>					
Had a health checkup in past 12 months	90.6	90.1	0.5	0.770	
Had 1 or more dental checkups in past 12 months	83.1	75.5	7.5 ***	0.002	
Had 2 or more dental checkups	46.0	35.0	11.0 ***	0.000	
Excellent or very good self-rated health	41.3	37.4	3.9	0.145	
Has any medical condition ^a	51.3	47.8	3.5	0.206	
Asthma	15.1	14.0	1.0	0.618	
High blood pressure/hypertension	22.8	23.5	-0.7	0.753	
High cholesterol/high LDL	9.7	9.6	0.1	0.968	
Diabetes	9.3	7.9	1.4	0.370	
Treated for any medical condition ^a	46.3	41.8	4.5 *	0.096	
Asthma	13.1	13.0	0.1	0.941	
High blood pressure/hypertension	21.4	21.5	-0.1	0.978	
High cholesterol/high LDL	8.4	7.1	1.3	0.379	†
Diabetes	9.2	7.2	2.0	0.208	
Obese according to Body Mass Index (BMI) ^b	45.5	44.1	1.4	0.630	
Sample size (total = 1,184)	628	556			
<u>Income less than 50% of FPL at baseline (%)</u>					
Had a health checkup in past 12 months	89.1	87.2	1.9	0.411	
Had 1 or more dental checkups in past 12 months	78.6	65.3	13.3 ***	0.000	
Had 2 or more dental checkups	44.0	31.3	12.8 ***	0.000	
Excellent or very good self-rated health	27.3	26.4	0.9	0.759	
Has any medical condition ^a	61.3	63.2	-1.9	0.549	
Asthma	20.9	19.6	1.3	0.649	
High blood pressure/hypertension	34.9	31.2	3.7	0.236	
High cholesterol/high LDL	10.3	14.4	-4.0 *	0.082	
Diabetes	14.7	15.9	-1.1	0.649	

(continued)

Table 5.9 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Treated for any medical condition ^a	55.6	57.2	-1.6	0.631	
Asthma	18.0	17.5	0.5	0.844	
High blood pressure/hypertension	32.4	29.6	2.8	0.364	
High cholesterol/high LDL	9.4	13.2	-3.8 *	0.087	†
Diabetes	14.3	15.3	-1.1	0.658	
Obese according to Body Mass Index (BMI) ^b	46.8	49.9	-3.2	0.392	
Sample size (total = 777)	394	383			

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

FPL = federal poverty level.

^aThe 4 most commonly reported conditions are listed.

^bWeight categories are from the National Institutes of Health. Obesity is defined as having a BMI of at least 30. About 6 percent of the sample is excluded from this analysis because of missing data.

questions about common ailments during checkups (shown in Figure 5.1). Therefore, even if the rate at which individuals in the control and program groups remained comparable, the quality of care received may have improved for Family Rewards participants. This increase in quality could have been particularly important for those who were initially burdened with poor health. Furthermore, health status and employment are, as noted, correlated. Those in poor health may, of course, be less likely to obtain and sustain stable employment and thus may suffer financially. Conversely, the material hardship and financial instability generated by unemployment can lead to increased physical and psychological stress, which can damage health. To the extent that program recipients suffered poor health as a result of stress induced by material hardship, Family Rewards may have improved health outcomes indirectly for this subgroup through its full range of conditional cash transfers.

Table 5.10 shows impacts on parents' receipt of health care services and health outcomes, by self-reported health status at the time of random assignment. The scale includes five

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Table 5.10

Impacts on Parents' Receipt of Health Care Services and Health Outcomes,
by Respondent's Self-Rated Health at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Self-rated health is excellent or very good at baseline (%)</u>					
Had a health checkup in past 12 months	89.4	88.1	1.3	0.556	
Had 1 or more dental checkups in past 12 months	82.9	73.9	8.9 ***	0.002	
Had 2 or more dental checkups	43.2	35.0	8.2 **	0.016	
Excellent or very good self-rated health	53.2	48.7	4.5	0.183	
Has any medical condition ^a	42.7	39.8	2.9	0.381	
Asthma	14.0	10.4	3.5	0.117	†††
High blood pressure/hypertension	17.6	17.0	0.7	0.793	
High cholesterol/high LDL	6.6	7.4	-0.9	0.618	
Diabetes	7.1	5.5	1.5	0.347	
Treated for any medical condition ^a	37.0	33.5	3.5	0.265	
Asthma	11.8	8.8	3.1	0.141	†††
High blood pressure/hypertension	16.2	15.6	0.6	0.794	
High cholesterol/high LDL	5.0	5.7	-0.7	0.658	
Diabetes	7.0	5.3	1.8	0.276	
Obese according to Body Mass Index (BMI) ^b	43.0	39.2	3.8	0.278	
Sample size (total = 847)	425	422			
<u>Self-rated health is good at baseline (%)</u>					
Had a health checkup in past 12 months	88.7	89.5	-0.8	0.734	
Had 1 or more dental checkups in past 12 months	82.9	73.6	9.3 ***	0.003	
Had 2 or more dental checkups	47.0	35.2	11.8 ***	0.002	
Excellent or very good self-rated health	28.4	29.1	-0.7	0.847	
Has any medical condition ^a	56.2	54.4	1.8	0.617	
Asthma	18.5	14.5	4.1	0.149	†††
High blood pressure/hypertension	28.2	26.7	1.5	0.638	
High cholesterol/high LDL	8.3	11.4	-3.1	0.160	
Diabetes	9.8	10.9	-1.1	0.636	

(continued)

Table 5.10 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Treated for any medical condition ^a	52.5	47.6	4.9	0.179	
Asthma	16.1	13.6	2.5	0.354	†††
High blood pressure/hypertension	26.7	24.1	2.7	0.397	
High cholesterol/high LDL	7.6	8.7	-1.1	0.595	
Diabetes	9.6	9.6	-0.1	0.979	
Obese according to Body Mass Index (BMI) ^b	46.0	49.9	-3.9	0.321	
Sample size (total = 702)	372	330			
<u>Self-rated health is fair or poor at baseline (%)</u>					
Had a health checkup in past 12 months	93.5	90.1	3.4	0.226	
Had 1 or more dental checkups in past 12 months	75.1	62.4	12.7 ***	0.008	
Had 2 or more dental check-ups	45.7	27.8	17.9 ***	0.000	
Excellent or very good self-rated health	12.6	6.4	6.2 **	0.039	
Has any medical condition ^a	80.0	82.9	-2.8	0.46	
Asthma	21.8	32.9	-11.1 **	0.014	†††
High blood pressure/hypertension	45.9	47.2	-1.3	0.801	
High cholesterol/high LDL	20.6	19.7	0.9	0.833	
Diabetes	23.6	23.4	0.2	0.961	
Treated for any medical condition ^a	73.1	79.1	-6.0	0.157	
Asthma	19.4	30.8	-11.4 ***	0.009	†††
High blood pressure/hypertension	42.7	46.1	-3.4	0.491	
High cholesterol/high LDL	19.7	18.6	1.1	0.790	
Diabetes	22.7	23.3	-0.5	0.901	
Obese according to Body Mass Index (BMI) ^b	52.3	54.2	-1.9	0.719	
Sample size (total = 398)	219	179			

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aThe 4 most commonly reported conditions are listed.

^bWeight categories are from the National Institutes of Health. Obesity is defined as having a BMI of at least 30. About 6 percent of the sample is excluded from this analysis because of missing data.

categories: excellent, very good, good, fair, and poor. For the purposes of this analysis, individuals are grouped into three categories: fair or poor, good, and excellent or very good. Two impacts stand out. First, while those in the good and excellent or very good categories did not experience drops in common medical conditions relative to those in the control group, those in the fair or poor category did experience a drop in asthma (21.8 percent versus 32.9 percent, respectively, for the program and control groups — a difference of 11.1 percentage points). This difference is statistically significant and significantly different from that of the other health subgroups. Second, program members in the fair or poor health category were 6.2 percentage points more likely to report excellent or very good health at the time of the survey (12.6 percent versus 6.4 percent). This impact is statistically significant; however, the impact for this subgroup category is not statistically significantly different from the impact observed for the other two subgroup categories. This makes the observed variation in effects on this measure less certain. The drop in reported asthma symptoms among those with the worst self-reported health is an intriguing finding. It is possible that the apparent effect is illusory — in other words, that it is the product of statistical chance and not indicative of a “true” change. There is some reason, though, to think otherwise. First, the effect does not appear in isolation. Program group members in the fair or poor health category were also significantly more likely than control group members to report excellent or very good health at the time of the survey. Though the difference in impact between health subgroups is not significant, an improvement in perceived health condition is consistent with decreased asthma symptoms. Second, the asthma effect is significant at the 5 percent level. This is stronger than the 10 percent standard and makes it less likely that the effect is illusory.

Subgroup analysis conducted separately for each of the three boroughs that the survey sample covered provides mixed results. The impact differential is present in the Bronx but not in Brooklyn or Manhattan. While this may indicate that the overall effect is simply the product of statistical noise, the much smaller sample sizes that were generated by dividing respondents according to borough reduces statistical power significantly. This makes it more difficult to detect present effects.

If asthma symptoms diminished among program group members in this health subgroup, there should be evidence of a mechanism, an explanation for how participation in Family Rewards produced this result. Asthma symptoms are known to be correlated with smoking tobacco and with physical and emotional stress. Family Rewards, as noted, required that participants provide their doctors with a checklist of health-related questions to be answered and discussed during a checkup. These included a question about use of tobacco products and instructions for the doctor to discuss options for quitting. Simply talking with one’s doctor about tobacco use and its risks might lead one to quit.⁵⁹ If Family Rewards led individuals in this

⁵⁹Glynn (1990).

group to give up smoking, this could explain a drop in reported asthma symptoms. Furthermore, for this group, rewards for health, employment, and education activities may have reduced material hardship and financial stress, common triggers for asthma attacks. To explore potential mechanisms, MDRC conducted additional statistical analyses for a variety of outcomes for the health subgroups. MDRC examined the effects on smoking for the health subgroup but found no significant impact or impact differential. Turning to stressors, there were no significant impact differences by health subgroup for psychosocial well-being, a potential indicator of emotional stress. Finally, there were no significant impact differences by health subgroup for measures of material hardship and financial well-being, two indicators of financial stress.

Overall, though both the impact on asthma rates that was detected for program group respondents in the fair or poor self-rated health subgroup and the difference in impact across the health subgroups are strong and statistically significant, there are no obvious changes in habits (for example, smoking) or stressors that might serve to explain them. However, a large decrease in the incidence of a debilitating condition for those who are already struggling with poor health remains an intriguing finding. Future research on conditional cash transfer programs with a health component should pay special attention to asthma.

Conclusion

Family Rewards health incentives were designed to encourage low-income families to adopt better preventive health care practices. It turned out that a higher proportion of families than the program's designers had expected were already receiving health insurance coverage and practicing preventive health care, which limited the program's ability to improve some health practices and health care behavior further for this sample. Nevertheless, Family Rewards produced small positive impacts on overall and continuous health insurance coverage and strong, lasting effects on the receipt of dental care by both parents and children.

Given the already high rates of insurance coverage and health care receipt among study participants before random assignment, it is perhaps not surprising that the program did not produce many notable lasting effects on overall health outcomes for parents or children.

Chapter 6

Work-Related Rewards and Effects

The work and training incentives in Family Rewards are distinctive because, unlike incentives in many other employment and training-focused programs, they are part of a larger package of rewards that are intended to motivate positive family practices in education, health, and work. Earlier studies have found that providing work and training incentives in the absence of the other incentives can increase work and, in some cases, training.¹ Since the structure of Family Rewards allows families to earn rewards through a range of activities, effects on work and training depend not only on the labor market, but also on how families decide to complete health, education, and workforce-related activities to earn rewards. Parents and children can focus on some activities to the exclusion of others. Similarly, additional money that families receive from education and health rewards may reduce the need to work and offset some or all of the work incentive that these rewards offer.

The first-year Family Rewards findings revealed a much lower receipt rate for workforce rewards than for the education and health rewards. As a result, and in preparation for the end of the three-year reward earnings period, the program made an effort to focus more on work during Year 2. MDRC's 2010 report on Family Rewards, covering one year of unemployment insurance (UI) system data and 18 months of survey data from the time of random assignment, found that the program led to a small increase in employment in jobs that are not covered by the UI system and to a small decrease in employment in UI-covered jobs.²

This chapter presents the effects of Family Rewards on parents' employment and earnings over three years. The positive employment impact on survey-reported employment found on the 18-month survey is sustained after three years, while the small negative impact on UI-covered employment in Year 1 disappears in Year 2. It is not clear why program effects are different across UI-covered and non–UI-covered employment. The survey data capture a broader range of jobs, since self-employment, federal government, domestic, and informal (including irregular or “off-the-books”) jobs are also not captured.³ The earlier report suggested that non–UI-covered jobs may have been easier to obtain, more flexible, or more convenient.

Evidence from reports of occupations and industries on the 42-month survey gives credence to this possibility. Survey-reported jobs that were not covered by UI records were overwhelmingly in service occupations, and most of those jobs were related to child care. Since

¹Riccio et al. (2008); Martinson and Hendra (2006); Michalopoulos et al. (2002).

²Riccio et al. (2010).

³Stevens (2007); Wallace and Haveman (2007).

most of the families in the study were female-headed households with multiple children, it makes sense that parents seeking to maintain full-time employment could more easily begin and sustain a job that might allow them to provide for their own child care needs, choose a convenient location, and work more flexible hours.

The Work and Training Rewards Offer

The schedule of workforce rewards is presented in Table 6.1. The first payment is for sustained full-time employment, requiring a participant to work at least 30 hours per week for six out of every eight weeks. Parents who work the minimum amount receive \$300 every two months, or up to \$1,800 per year. By increasing the payoff to work, the reward creates an incentive for parents to find full-time jobs, to move from part-time into full-time work, or to sustain full-time employment. For a parent working 40 hours per week at \$8 per hour, for example, the reward effectively increases her net wage by 11 percent, to \$8.90 per hour.

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Table 6.1

Work and Training Rewards

Activity	Payment
<u>Work</u>	
30 hours or more per week for 6 weeks or more, each 2-month period	\$300 every 2 months
<u>Education and training</u>	
Must work at least 10 hours per week, while completing an approved course ^a <i>Minimum work requirement discontinued in Year 3</i>	\$300 to \$600, per 8-week activity period, depending on length of course; maximum of \$3,000 per adult over 3 years

NOTE: ^aTraining may also include basic education activities, such as English as a Second Language (ESL), basic skills, and General Educational Development (GED) preparation courses.

Parents could earn another \$300 to \$600 every two months, up to a total of \$3,000 during the program, if they completed an approved education or training course. In order to qualify for the education and training rewards during the first two years of the program, parents had to participate in approved education or training activities while working at least 10 hours per week.

Since the receipt of these rewards was so low in Years 1 and 2 (less than 2 percent of eligible adults earned these rewards), the minimum work hours requirement was discontinued in Year 3.

Data and Samples

The three data sources used in this chapter are Seedco's Family Rewards program data, the Family Rewards 42-month parent survey, and earnings records from the New York State unemployment insurance system. As described in Chapter 2, Seedco's database tracked reward earnings and payments to every family in the program group. The rewards data cover the full three years that families were eligible for rewards (September 2007 through August 2010) and several months afterward to resolve late coupon payment submissions, correct bank account errors that were not allowing payments to be made, and reconcile reports of discrepancies between earned and paid amounts, through July 2011.

The UI data provide quarterly employment and earnings information, as reported by employers, for the majority of workers in the state. These data are available for the entire Family Rewards evaluation sample of nearly 5,000 parents for several quarters before their date of random assignment and for three years afterward, and, unlike survey data, they do not depend on respondent recall. At the same time, although these records cover most employment in the United States, they do not capture certain types of jobs, including self-employment, federal government employment, military jobs, informal jobs, and out-of-state jobs. Another drawback of UI records is that they do not provide information on hours worked during a quarter or week or on the characteristics of jobs held, such as hourly wage rates, benefits, and schedule.

The Family Rewards 42-month survey, which was administered to participating parents about 42 months following random assignment, complements the UI data by capturing all types of jobs held and providing data on their characteristics. Respondents provided information on whether these jobs were full time or part time, their wage rates, and any benefits offered by the employer. These data are available for a randomly chosen subset of the full evaluation sample, or just under 3,000 individuals. As discussed in detail in the supplement to this report,⁴ although the survey sample is generally representative of the full evaluation sample, some caution must be used when interpreting findings from the survey. There were some differences in characteristics between program and control group respondents. (In particular, the program group had more earnings from UI-covered jobs in the year before entering the study).⁵

⁴See Appendix J in the supplement to this report, Riccio et al. (2013), which is available at www.mdrc.org.

⁵This difference is accounted for in the impact analysis. The impact regression model includes UI-reported employment and earnings and a range of demographic characteristics.

Receipt of Work and Training Rewards

While fewer families received education and health rewards in the third year of the program than they had during the first two years, 42 percent of families in the Family Rewards group, the same proportion as in previous years, earned at least one workforce reward in the program's final year (as was shown in Table 2.3). Table 6.2 presents the receipt of the work and training rewards in more detail, focusing on parents rather than families as the unit of analysis. The top several rows show that, as in Years 1 and 2, almost all of the workforce rewards earned in Year 3 were for full-time work. In addition, receipt of the workforce rewards was somewhat regular. Only about 1 in 10 parents who received a reward did so in only one activity period each year. In Year 3, nearly half of the parents who had earned any work-related reward did so in each activity period. Very few parents — only 4 percent of the program group — earned rewards for education and training at some point that year.

Two recent employment studies — one evaluating a program in the United Kingdom and another in the United States — found that over 25 percent of participants who were offered financial incentives for education and training in those programs received them.⁶ These employment programs, however, had more extensive job coaching and referral services, which were not part of the Family Rewards program model. During interviews, program group members indicated that having no referral source and limited time to search for affordable training that could fit into their busy schedules on their own were challenges to earning training rewards. (See Box 6.1.)

The receipt of education and training rewards remained low in Year 3, although the percentage of parents who earned these rewards rose from less than 2 percent in prior years to 4 percent in Year 3. The concurrent 10-hour-a-week employment requirement for earning this reward was dropped in the final year of the program, creating an opportunity for families who were struggling to find work to earn more cash while acquiring more skills. Interviews with parents indicated that dropping this requirement in the last year of the program did not give families enough time to locate and complete training opportunities. (See Box 6.1.)

Receipt rates by employment status at baseline may provide a better indication of individuals' ability or willingness to earn rewards for full-time work, as shown in the bottom panel of Table 6.2. Not surprisingly, receipt rates are much higher for the 41 percent of parents who reported being employed full time (or for at least 30 hours per week) when they entered the study, a group most likely to be eligible for the rewards and consequently most likely to be earning those rewards as a windfall. About 73 percent of parents in this group received at least

⁶Hendra et al. (2011); Miller, van Dok, Tessler, and Pennington (2012).

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Table 6.2

Workforce Rewards Earned by Parents

Outcome	Year 1	Year 2	Year 3	Years 1, 2, and 3 Combined
<u>Full program group (%)</u>				
Parent earned at least one workforce reward	41.6	41.5	41.2	52.6
For full-time employment ^a	41.1	41.3	39.3	51.2
For education and training while employed ^b	1.8	1.9	4.0	5.5
Parent earned a workforce reward in ^c (%)				
1 activity period only	12.9	10.6	11.2	--
2 or 3 activity periods only	21.6	17.4	17.7	--
4 or 5 activity periods only	27.8	28.2	24.3	--
6 activity periods	37.7	43.8	46.8	--
Sample size				2,515
<u>By employment status at random assignment (%)</u>				
Parent earned at least one full-time employment reward ^d				
Employed full time at random assignment ^e	73.2	69.7	65.8	82.3
Employed part time at random assignment	40.8	42.7	43.2	57.3
Not employed at random assignment	12.9	15.8	14.9	22.5
Sample size				2,322

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTES: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

A double dash (--) indicates "not applicable."

At the time of random assignment, 967 program group members reported being employed full time, 206 reported being employed part time, and 1,149 reported not being employed.

^aFull-time employment is at least 30 hours per week for 6 weeks or more in each 2-month payment period - that is, approximately 75 percent of the time.

^bIn Years 1 and 2, a parent had to work at least 10 hours per week, while attending a course of at least 35 hours. In Year 3, the 10-hour work requirement was discontinued.

^cThis measure is calculated only for adults with any workforce rewards.

^dA total of 8 percent of the sample was missing employment status information at the time of random assignment.

^eFull-time employment at random assignment refers to working at least 30 hours per week.

Box 6.1

Hurdles to Earning Training Rewards

In the qualitative interviews that were conducted after the first year of the program, many parents expressed regret about not being able to claim the work-related training reward. The reasons for their limited ability to earn those rewards ranged from physical and logistical challenges to misconceptions about the reward's requirements. Examples include:

- Not being able to successfully locate an affordable, approved course or part-time job that fit into their schedules, especially given child care responsibilities and the fact that most were searching for resources on their own
- Not being able to demonstrate completion of an approved course because of difficulties obtaining the necessary documentation
- Believing that the training they were receiving through the welfare office did not qualify for the reward
- Erroneously thinking that the part-time work requirement had not been eliminated in the third year or believing that they had missed the deadline for submitting training documentation
- Health issues that prevented them from either attending training or working part time

One parent expressed strong frustration that the part-time work requirement was eliminated so late in the program. She felt that by the third year, participants did not have adequate lead time to find and enroll in training: "If they had just had training [from the beginning], a lot of families would have got out more and maybe be working by now [Year 3]." She went on to explain the challenges of balancing training and work for mothers in her community:

It was hard for a . . . lot of families to jump from training and part-time work because you know what it did? A lot of training was from 9:00 to 5:00, and so they had to work nighttime, so it was hard. Then you have to get a babysitter, so it didn't work for a lot of families.

one reward during the first program year. The receipt rate for full-time workers at study entry fell each year, to 66 percent by Year 3. The large drop in the proportion of those parents who earned rewards for full-time work may be in part a result of the economic recession that hit toward the beginning of Year 2. In contrast, parents who were not working or were working part time at study entry had slightly higher receipt rates in Years 2 and 3 than in the first year of the program. Their rates, however, were still lower overall than the rates of those who entered the program as full-time workers.

Impacts on Education and Training

This section presents the program's effects on participation in education and training activities and on certificate and degree receipt. The previous report on Family Rewards found no overall effect of the program on education or training participation rates through 18 months, although the program did lead to small increases in credential receipt.⁷

Table 6.3 presents effects on participation in education, training, and employment-related activities. By the 42-month point, 41 percent of respondents in the control group reported having participated in some activity since study enrollment. This rate is not much higher than the rate at 18 months, suggesting that not many additional individuals took up training after that point. Within 42 months, the program led to a small increase in participation in college courses: 15 percent of the program group had taken at least one college course for credit, compared with 13 percent of the control group. At the time of the survey, program group parents were also more likely to be in some kind of education or training activity than were control group parents.

Table 6.4 presents data on credential receipt. The table shows the percentage of individuals holding a given credential as of the 42-month survey interview point, so these numbers include both adults who obtained these credentials after they enrolled in Family Rewards and adults who held these credentials before they entered the study. However, any difference observed between the groups would have occurred since random assignment and can be attributed to the program. Similar to the findings from the previous report, the program led to small but statistically significant increases in the proportion of parents with a trade license or certificate (by 4 percentage points) and in the proportion of parents who held an associate's degree (by 2 percentage points). Data on the type of license or certificate that was received indicate that a large fraction of these credentials were for service occupations, including home health aides, nursing, and child care.

The training rewards are unlikely to have led to such effects on participation and credential receipt, because so few individuals received those rewards. Although it is not certain, effects on participation and credential receipt may instead be driven by the extra income provided to families through the program, which may have functioned as a type of financial aid to either cover tuition or offset necessary child care or transportation costs associated with attending classes.

Impacts on Employment and Earnings

This section presents the effects of Family Rewards on employment and earnings over the three years that families were in the study. Effects for the subsample of parents who responded to the

Riccio et al. (2010).

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Table 6.3

Impacts on Participation in Employment and Education Activities

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever participated in any education, training, or employment activity (%)	42.2	41.2	1.0	0.577
ABE, GED, or high school classes	9.8	10.1	-0.3	0.748
ESL classes	7.9	7.9	0.0	0.965
College courses for credit	14.9	12.6	2.3 *	0.060
Vocational training	15.9	16.1	-0.3	0.838
Other educational, training, or employment program activities	8.5	8.5	0.1	0.956
Currently participating in any education, training, or employment-related activity (%)	13.2	10.1	3.1 ***	0.008
Sample size (total = 2,966)	1,543	1,423		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause discrepancies in calculating sums and differences.

Percentages may sum to more than the overall participation rate because sample members could list more than one response.

ABE = Adult Basic Education. GED = General Educational Development. ESL = English as a Second Language.

42-month survey are examined using survey data. As mentioned in earlier chapters, all survey respondents were interviewed after the three-year period during which they were eligible to earn rewards, but because some payments lagged, a small percentage of the subsample responded to the survey before receiving their last reward payments. As a result, the work-related impacts for the survey sample reflect the early post-program period — a time when families were adjusting to no longer receiving income from the program.

Effects for the full sample of parents are estimated using UI records data. Because the data are reported quarterly, the follow-up for most sample members (who entered the study

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Table 6.4

Impacts on Educational Attainment

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Has any degree, license, or certificate (%)	82.6	82.2	0.4	0.723
Has any trade license or training certification (%)	54.4	50.3	4.2 **	0.021
Home health aide	11.3	10.5	0.8	0.451
Nurse's aide/nurse's assistant (CNA)	4.7	4.4	0.3	0.665
Child care/teaching	6.3	5.0	1.4	0.114
Security	3.5	3.7	-0.2	0.750
Other	28.6	26.6	2.0	0.232
Has any degree or diploma (%)	66.7	66.5	0.2	0.849
Highest degree or diploma (%)				
GED certificate	18.7	20.9	-2.1	0.140
High school diploma	27.3	28.7	-1.4	0.365
Associate's degree	10.8	8.4	2.4 **	0.022
Bachelor's degree or higher	9.8	8.4	1.4	0.169
Sample size (total = 2,966)	1,543	1,423		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

This table reports on degrees, licenses, and diplomas received, regardless of whether they were received before or after random assignment.

GED = General Educational Development. CNA = Certified Nurse's Assistant.

during July through September of 2007) covers July 2007 through September 2010. As discussed below, the survey data typically capture more employment than UI records capture, since the latter data source only includes employment reported to the UI system.

It is important to consider these findings in the context of two major factors that might have affected work activity among the study sample. First, the tough economy in the wake of the recession that began during Year 2 of Family Rewards may have made finding and keeping

a job more challenging. The recession, although external to the program, could affect the program and control groups in different ways. For example, individuals in Family Rewards may have been less likely to search for a job if the cash rewards in the health and education domains provided more financial security when jobs were scarce. The second factor, which might make individuals in the program more likely to seek work, was the prospect that the cash payments would stop after the third program year. In preparing for the end of the program, families may have increased their employment activity in an effort to maintain their cash flow.

Results Based on the Survey

The previous report on Family Rewards showed that the program had increased survey-reported employment by 3 percentage points relative to the control group's rate over the first 18 months of follow-up and by 5.6 percentage points at the time of the 18-month survey. Nearly all of the new employment was in full-time work. More than half of these jobs provided benefits such as paid leave and health insurance, and about a third of these jobs were reported as self-employment.⁸

Table 6.5 presents data on employment and current job characteristics within the 42 months following random assignment.⁹ At the 42-month survey point, 50 percent of parents in the control group reported that they were working and earning, on average, about \$14 an hour. The majority of the employed sample was working full time (30 hours or more per week), and over half of these workers received key benefits. The control group's employment and job characteristics at 42 months were very similar to that reported at 18 months, with the exception that the overall employment rate was somewhat higher at 18 months, when 54 percent of respondents reported being employed.¹⁰

At the 42-month point, Family Rewards increased self-reported employment by 6 percentage points, from 50 percent for the control group to 56 percent for the program group. The program similarly increased employment in the prior year, by 4 percentage points. Employment impacts grew with the longer follow-up period, mainly because of a larger drop in the current employment rate among the control group than among the program group.

Although Family Rewards produced strong employment impacts, about 44 percent of the program group was not employed at the time of the survey interview, and about 10

⁸Riccio et al. (2010).

⁹Respondents who were not employed at the time of the survey are included in all the current job characteristic measures except for the average hourly wage. The average hourly wage measure includes only respondents who were employed at the time of the survey.

¹⁰Riccio et al. (2010).

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Table 6.5

Impacts on Employment and Job Characteristics

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Employment status (%)</u>				
Currently employed at the time of the survey	56.0	49.6	6.4 ***	0.000
Employed in past year	66.2	61.8	4.3 ***	0.004
<u>Characteristics of current job^a</u>				
<i>Average hourly wage (\$)</i>	<i>13.79</i>	<i>14.02</i>	--	--
Less than \$7.00 (%)	6.5	4.4	2.1 **	0.011
\$7.00 - \$8.99 (%)	8.5	7.6	0.9	0.365
\$9.00 or more (%)	35.0	30.2	4.8 ***	0.001
Not reported (%)	6.1	7.5	-1.4	0.135
Hours worked per week (%)				
1-19	3.4	3.2	0.3	0.693
20-29	7.0	5.9	1.2	0.201
30-34	6.1	6.0	0.0	0.979
35 or more	38.3	33.5	4.9 ***	0.001
Not reported	1.2	1.1	0.1	0.805
Worked at least 30 hours per week (%)	44.4	39.5	4.9 ***	0.001
Average weekly earnings (\$)	257	226	31.5 ***	0.001
Usual work schedule (%)				
Regular daytime shift	40.7	37.4	3.3 **	0.037
Regular evening/night shift	6.8	5.4	1.4	0.112
Rotating or split shift	4.9	3.9	1.0	0.196
Irregular shift	2.9	2.1	0.8	0.178
Other	0.6	0.7	-0.1	0.794
Self-employed (%)	7.1	4.9	2.2 **	0.011
Employer-provided benefits ^b (%)				
Paid sick days	33.6	30.4	3.2 **	0.026
Paid vacation days	35.3	33.3	2.0	0.152
Paid holidays, including Christmas and New Year's Day	35.8	32.7	3.1 **	0.029
Dental benefits	27.1	24.7	2.4 *	0.083
A retirement plan	28.1	25.1	2.9 **	0.033
A health or medical insurance plan	29.5	26.9	2.5 *	0.066
Enrolled in a work-related health or medical insurance plan	21.3	20.2	1.1	0.393

(continued)

Table 6.5 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Employment search (%)</u>				
Looked for work in previous 4 weeks	24.6	25.3	-0.7	0.638
Sample size (total = 2,966)	1,543	1,423		

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Italic type indicates comparisons that are nonexperimental. Statistical tests were not performed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

^aIf a respondent worked multiple jobs at the time of the interview, then only the characteristics of the primary job are reported. (The job at which the respondent worked the most hours is considered primary.) Respondents who were not employed at the time of the survey are included in all the current job characteristics measures, except for average hourly wage. The average hourly wage measure includes only respondents who were employed at the time of the survey.

^bThis includes benefits that are or eventually will be offered, regardless of whether the respondent received them.

percent of the program group was working part time. (The data discussed in this paragraph and the next are not shown in Table 6.5.) These parents would not have been eligible to earn the full-time work rewards and may have decided to pursue more education as a result. Although that may be true for some, survey responses indicate that, for the most part, that was not the case. Parents who were not employed at the time of the survey indicated that the main reasons they did not work were their own or a family member's illness or disability (46 percent) and their inability to find work (22 percent). Only 4 percent of those who were not working cited school and training as their main reason for not working.

Parents who had part-time work at the time of the survey were mainly unable to find full-time work or increase their current working hours. About 49 percent of program group members who were working part-time indicated having difficulty finding full-time work. For this group, education and training was a more prominent reason for not working full-time than for the unemployed group (13 percent indicated school and training as their main reason, compared with 4 percent of those who were not working), as was taking care of their homes and families (15 percent, compared with 12 percent of those who were not working).

Family Rewards also led to impacts on a range of job characteristics. The program increased full-time employment, employment in jobs with regular daytime shifts, and employment in jobs with a range of key benefits. These effects indicate that much of the increase in employment that the program generated was in full-time jobs that offered benefits. The program also increased earnings by about \$32 a week,¹¹ with the impact primarily driven by the higher employment rate in the program group.

Consistent with findings at the 18-month point, which was administered about halfway through the program, about one-third of the increase in survey-reported employment was in self-employment (derived by dividing the 2.2 percentage point increase in self-employment by the 6.4 percentage point increase in total employment).¹² The proportion of new employment attributed to self-employment is notable, since only 7 percent of the program group and 5 percent of the control group reported being self-employed.

Results Based on Administrative Records

Table 6.6 presents impacts on UI-reported employment and earnings for the three-year follow-up period for the full sample. Considering outcomes for the control group first, about 65 percent of parents in the control group worked at some point during the follow-up period in UI-covered jobs. On average, they were employed in about half of the follow-up quarters and earned just over \$12,000 per year. This average earnings amount includes zeroes for those who did not work; it does not represent the actual earnings of just those who worked. Among those who did work, average earnings were about \$19,000 a year (not shown in table). Even though the nationwide recession occurred in Year 2 and lasted through Year 3 of the follow-up period, it did not seem to cause employment rates of the Family Rewards sample to fall dramatically in later years.

The earlier report showed that the program reduced UI-covered employment slightly in the first year of Family Rewards.¹³ The top panel of Table 6.6 presents the impacts for three follow-up years. The program group was slightly less likely to have worked than the control group in Year 1, with a negative impact of 2.4 percentage points. By Year 2, this negative effect was no longer statistically significant. The earlier report considered the possibility that the program created a disincentive to work in UI-covered employment, as a result of what economists call the “income effect” — a reduction in work in response to increased income from sources

¹¹In the table, the hourly wage is measured among those who worked, while weekly earnings are measured among the survey sample.

¹²The proportion of new jobs that have certain characteristics can be determined by dividing the program’s impact on a particular characteristic by its impact on the employment rate.

¹³Riccio et al. (2010).

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Table 6.6

Impacts on UI-Covered Employment and Earnings, Years 1 to 3

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever employed (%)				
Years 1-3	63.3	64.9	-1.6	0.114
Year 1	56.3	58.7	-2.4 ***	0.008
Year 2	55.0	56.2	-1.2	0.240
Year 3	52.5	53.3	-0.9	0.420
Average quarterly employment (%)				
Years 1-3	47.7	48.7	-1.0	0.209
Year 1	49.1	50.4	-1.3 *	0.098
Year 2	47.8	48.8	-1.0	0.273
Year 3	46.1	46.7	-0.6	0.512
Total earnings (\$)				
Years 1-3	36,912	37,506	-594	0.424
Year 1	12,154	12,376	-221	0.323
Year 2	12,344	12,601	-257	0.369
Year 3	12,414	12,529	-116	0.720
Sample size (total = 4,993)	2,513	2,480		

SOURCE: MDRC calculations using data from New York State unemployment insurance (UI) wage records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

This table includes only employment and earnings in jobs covered by the New York State UI program. It does not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

other than work (from the education and health rewards in this case). However, these longer-term results suggest that any slight reduction of work or earnings that was detected for the full sample early in the program was not sustained over time. It is possible that the workforce incentives caused families who would otherwise have reduced their work effort to maintain or acquire more UI-covered work as their economic outlook became more uncertain, because of the recession, or as they approached the end of the program.

Comparison of Results from the Survey and Administrative Records

Even though survey data often capture jobs that are not covered by UI data, it is not immediately clear why survey findings show a large, positive employment effect that does not appear in the UI data. For low-income populations, informal work and self-employment are typically more prevalent and probably do account for a significant fraction of the jobs that are not reflected in the UI records.¹⁴ The new, program-generated employment captured by the survey may include self-employment and a few “off-the-books” jobs but may also reflect federal government and out-of-state jobs,¹⁵ which UI records do not cover.

Table 6.7 compares the employment rate reported on the survey with employment that appears on UI records for survey respondents in the quarter of their interviews. The program led to a 6.4 percentage point increase in survey-reported employment but did not affect UI-covered employment. The employment rates for the control group are consistent, at just under 50 percent according to both sources. In contrast, the survey shows an employment rate that is 9 percentage points higher than what UI records indicate for the program group. Some, but not all, of the new employment captured on the survey can be attributed to self-employment. Very few parents — only 1 percent of both the program and control groups — had out-of-state jobs that would not show up in UI records.

Since the Family Rewards program offered incentives for all types of full-time jobs, it is not clear why the program would only increase non–UI-reported employment. It is unlikely that all of the increase in survey-reported employment is in “off-the-books” jobs, since individuals were required to show evidence of income tax withholding or other employer-related tax documentation in order to earn the full-time work rewards.¹⁶ The impacts described earlier on earnings, work schedules, and benefits also do not indicate movement into many off-the-books

¹⁴Other research suggests that the UI data may miss relatively more employment for low-income populations than for higher-income groups. For example, the survey–UI discrepancy is larger for less-educated workers; see Abraham, Haltiwanger, Sandusky, and Spletzer (2009). In addition, smaller employers and employers with high turnover, who tend to employ relatively high numbers of less skilled workers, tend to underreport earnings to the UI system more than do other types of employers; see Burgess, Blakemore, and Low (1998).

¹⁵Because New Jersey and Connecticut are easily accessible to residents of New York City and its surrounding boroughs, it is fairly common for residents of New York to be working outside the state.

¹⁶Family Rewards did not reward full-time work in “off-the-books” jobs. To make sure individuals did not receive reward payments for unapproved jobs, the program’s documentation requirements for full-time work were extensive. Program group members who held a regular full-time job had to submit copies of their pay stubs to earn the full-time work reward. If they did not receive pay stubs, they needed to fill out an Employment Verification Form and submit copies of their paychecks. Self-employed individuals needed to submit Quarterly Estimated Tax Payments (Form 1040ES) or Annual Tax Payments for any of the months for which they submitted coupons to receive rewards, as well as their tax returns with the Profit and Loss from Business Statement (Schedule C). Additional forms and timesheets were required for home-based or out-of-home child care jobs.

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Table 6.7

Employment and Earnings Impacts Based on Unemployment Insurance Administrative Records and 42-Month Survey Data

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
42-month survey respondents				
Currently working, according to survey (%)	56.0	49.6	6.4 ***	0.000
Working in quarter of survey interview, according to UI data (%)	46.7	45.2	1.4	0.324
Self-employed, according to survey (%)	7.1	4.9	2.2 **	0.011
Working out of state, according to survey (%)	1.3	1.4	-0.1	0.915
Sample size (total = 2,966)	1,543	1,423		

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

jobs. The documentation process may also have prompted some parents to legitimize their previously informal employment.

Survey response bias might be a concern for these employment outcomes. Less disadvantaged sample members are often more likely to respond to a survey about the program than sample members who are more disadvantaged. In the case of Family Rewards, program group respondents were much more likely to earn a work-related reward in the final year of the program than were program group nonrespondents.¹⁷ However, because, according to UI wage data, impacts for the respondent sample do not look different from the impacts for the full sample, response bias is not likely to have distorted impact differences between UI and survey-reported employment.

¹⁷Additional details are provided in the response bias analysis in Appendix J, which appears in the supplement to this report, Riccio et al. (2013), at www.mdrc.org.

The earlier report looked in a bit more detail at UI versus non-UI employment, and showed that the non-UI jobs were “lower quality” than UI jobs in that they paid somewhat less and were less likely to offer key benefits.¹⁸ Additional details on the types of non-UI-covered jobs that parents held at the time of the 42-month survey appear in Appendix Table E.6.

That table also compares the occupations and industries of individuals who reported working at the time of their survey interviews but were not shown as working in the UI data with individuals who were employed according to both the survey and UI data.

Although jobs in the services sector were common among all employed adults in the study, such positions were more prevalent among people working in non-UI-covered jobs (61 percent) than among people working in UI-covered jobs (47 percent). Moreover, 35 percent of people with non-UI jobs worked in child care, whereas only 2 percent of those with UI-covered jobs were in that field. In contrast, people with UI-covered jobs were more likely to work in the health care field, in positions such as home health aides and nurse’s aides or assistants.

In summary, health care jobs made up a large part of the employment that was both reported on the survey and captured by the UI data. In contrast, child care jobs made up more than a third of the jobs that were reported on the survey but missed by the UI data. This pattern suggests that part of the reason why the survey data indicate that Family Rewards increased employment while the UI data do not show that same effect may be because child care jobs, which the UI system is less likely to cover, account for a portion of the increase in employment on the survey. It is not surprising that parents looking for full-time work might seek jobs in child care. Because most of the adults in the study are single mothers with more than one child, child care may have been an easy way to serve the dual purpose of caring for their own children and earning money by providing care for other working parents.

Impacts for Key Subgroups

Family Rewards produced significant gains for the full sample in employment in non-UI-covered jobs but did not affect employment in UI-covered jobs during the program years. Often, however, average impacts for the full sample can mask variation in effects across subgroups. The earlier Family Rewards report found different effects on employment across a range of subgroups, including subgroups based on self-reported employment status and educational attainment at study entry. This section updates those effects by employment status and educational attainment, and presents effects by poverty level.

¹⁸Riccio et al. (2010).

It is easy to imagine that the effects of the program might vary across subgroups defined by dimensions of employment, education, and poverty level. For example, adults who are already employed when they enroll in a program that offers an incentive for working full time, compared with adults not working at that time, may be less likely to increase their earnings in response to the rewards because many of them may be working full time already. In fact, Appendix Table E.7 shows that, among the control group members, parents who were employed at the time of random assignment earned about six times more in UI-covered jobs over three years than did parents who were not employed at the time of random assignment (\$62,000 compared with \$10,000). Table 6.8 and Appendix Table E.8 show the same pattern of large differences in three-year UI earnings between more and less “work-ready” subgroups. Although there is less room for improvement among individuals who are already employed, many low-income workers do not work steadily, or work only part time.¹⁹ In contrast, there is more room for improvement among individuals who were not working at random assignment, but they may also face greater barriers to moving into full-time work in order to earn the rewards. The earlier report found some differences in impacts across these groups, with a general pattern of positive effects on survey-reported employment for the more work-ready subgroups and negative effects on UI-covered work for the less work-ready subgroups.²⁰ Table 6.8 and Appendix Table E.7 update these findings.

This pattern of differential employment and earnings effects between more and less “work-ready” subgroups defined by prior employment, education credentials, and income levels persisted after three years of Family Rewards. Appendix Table E.7 presents impacts by employment status at baseline. According to the 42-month survey, Family Rewards produced an increase of 7 percentage points in self-reported employment and 4 percentage points in UI-covered employment for those in the survey sample who were working at baseline and, according to UI records, it had no effect on average quarterly UI-covered employment. In contrast, the program had a smaller effect on employment according to the survey and a pattern of small negative (but not all statistically significant) effects on UI employment for those who were not working at baseline. There were no significant differences in impacts on employment or earnings between full-time and part-time workers. (See the supplement to this report.)²¹

¹⁹Martinson and Hendra (2006) also recently found that a post-employment program that included a financial incentive for full-time work had larger effects for individuals who had been employed in the year before random assignment, indicating that those who were more recently in the labor market could more effectively respond to an incentive to reenter it.

²⁰Riccio et al. (2010).

²¹See Appendix Table I.7 in the supplement to this report, Riccio et al. (2013), which is available at www.mdrc.org.

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Table 6.8

**Impacts on Employment, Earnings, and Average Rewards Earned,
by Respondent's Education Level at the Time of Random Assignment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>High school diploma/GED certificate or higher at baseline</u>					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	56.3	55.8	0.4	0.682	††
Total earnings, Years 1-3 (\$)	48,320	48,406	-86	0.937	
Sample size (total = 2,863)	1,404	1,459			
Survey sample					
Self-reported responses					
Currently working (%)	63.8	55.4	8.3 ***	0.000	
Ever worked since random assignment (%)	82.9	81.2	1.7	0.278	
Number of months worked in past year	7.6	6.8	0.8 ***	0.000	†
UI records					
Working in quarter of survey interview, according to UI (%)	55.6	53.2	2.5	0.202	
Average quarterly employment, Years 1-3 (%)	57.1	55.8	1.2	0.345	††
Total earnings, Years 1-3 (\$)	48,164	46,740	1,424	0.287	†
Sample size (total = 1,769)	915	854			
Rewards earned, program group families					
Amount of education rewards earned (\$)	4,095	--	--		
Amount of health rewards earned (\$)	3,146	--	--		
Amount of workforce rewards earned (\$)	2,321	--	--		
Total rewards earned (\$)	9,563	--	--		
Sample size	1,341				

(continued)

Table 6.8 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>No high school diploma/GED certificate at baseline</u>					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	36.2	39.2	-3.1 **	0.014	††
Total earnings, Years 1-3 (\$)	20,730	22,519	-1,790 *	0.060	
Sample size (total = 1,960)	1,021	939			
Survey sample					
Self-reported responses					
Currently working (%)	44.0	40.8	3.2	0.203	
Ever worked since random assignment (%)	69.4	68.0	1.4	0.568	
Number of months worked in past year	5.3	5.2	0.1	0.601	†
UI records					
Working in quarter of survey interview, according to UI (%)	33.1	33.0	0.1	0.973	
Average quarterly employment, Years 1-3 (%)	34.6	37.9	-3.3 **	0.042	††
Total earnings, Years 1-3 (\$)	18,727	20,805	-2,078 *	0.081	†
Sample size (total = 1,128)	592	536			
Rewards earned, program group families					
Amount of education rewards earned (\$)	3,570	--	--		
Amount of health rewards earned (\$)	2,735	--	--		
Amount of workforce rewards earned (\$)	1,083	--	--		
Total rewards earned (\$)	7,388	--	--		
Sample size	962				

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) wage records, and Seedco's Family Rewards program data.

NOTES: Sample sizes may vary because of missing values.

(continued)

Table 6.8 (continued)

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

UI records include only employment and earnings in jobs covered by the New York State UI program. They do not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

A double dash (--) indicates "not applicable."

Employment effects by education level follow the same pattern, although the effects on UI employment are more negative for the less educated, with no effect on employment captured by the survey (as shown in Table 6.8). Although the earnings impact is not statistically different between the more and less educated subgroups, those without a high school diploma or General Educational Development (GED) certificate also saw a reduction of nearly \$1,800 in UI wages over three years — about 9 percent of their total three-year earnings. The positive survey-reported employment effects are concentrated among parents who had a GED certificate or high school diploma at baseline. Those who were in extreme poverty when they entered the study also experienced negative UI employment effects similar to those who were less educated; the extreme poverty group, however, had increased survey employment rates that were comparable with the effects found for those with income at or above half of the federal poverty level at baseline (Appendix Table E.8).

Consistent with the findings in the 2010 report, the program appears to have benefited those who were more work-ready at the time of random assignment by increasing survey-reported work that does not show up on UI records. For more disadvantaged subgroups, the program produced smaller effects on survey-reported employment and zero to negative effects on UI employment.²²

²²Appendix I in the supplement to this report presents differences in impacts on employment, education, and training for a number of exploratory subgroups; see Riccio et al. (2013), available at www.mdrc.org. Differences were explored between one- and two-parent families, foreign- and U.S.-born families, parents who reported risk factors for depression and those who did not, food stamp recipients and nonrecipients, Temporary Assistance for Needy Families (TANF)/Safety Net Assistance (SNA) recipients and nonrecipients, families in different types of private or government-subsidized housing, part-time and full-time workers, and parents who

(continued)

The “income effect” from the reward payments seems to be operating for these more disadvantaged groups. It makes sense that those who were least connected to the labor market and were least educated when they entered the study would be the quickest to reduce, or at least not increase, their work effort. During a worsening economy that likely made it more difficult for lower-skilled individuals to find work, the income effect may have been amplified. Appendix Tables E.2 and E.3 suggest that this may be the case, showing impacts that are less negative in Year 3, when the program was about to end and the economy was beginning to recover, than in Years 1 and 2. Since families were able to earn program rewards by completing education or health-related activities, parents who were less prepared for the labor market may have relied more on earning what they could from those two components of Family Rewards and less on looking for or maintaining full-time work. Some less work-ready individuals might have used the education and health rewards to cover various costs associated with acquiring more skills and credentials. The more disadvantaged groups did earn reward amounts that were a substantially larger share of their labor market earnings than did those who were more work-ready.

Because families received substantial amounts of program income from the program’s comprehensive package of rewards, those who entered the study with lower job prospects and earnings stood to gain more as a share of their incomes by responding to these financial incentives than those who were more work-ready. For example, Table 6.8 shows that families who are led by adults with no high school–equivalent credential averaged over \$6,300 in education and health rewards over three years, or about 30 percent of their earnings from UI-covered jobs. For more educated adults, education and health rewards made up about 15 percent of their total UI earnings. The significant cash transfers that the more disadvantaged families received in the education and health domains suggests that more disadvantaged subgroups, who were likely less able to quickly enter the labor market, were much more likely to focus on the more attainable education and health activities that the program rewarded and less on searching for jobs or increasing their work hours.

As suggested above, some parents may have reduced their UI employment to obtain additional skills for the labor market. The employment effects described above are most pronounced for the education subgroups. Table 6.9 presents findings on education and training by education level. Those without a high school diploma or GED certificate may have additional barriers that make it difficult for them to persist in education and training. Similar to the

self-reported different levels of health. The findings do not reveal many significant differences in subgroup impacts. Subgroups defined by a depression indicator and by food stamp receipt at random assignment showed the same pattern of negative UI employment and earnings impacts for the less work-ready subgroups as described in the text, with a large reduction in earnings for those at risk of depression and a small reduction in UI work for food stamp recipients.

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Table 6.9

Impacts on Education and Training, by Respondent's Education Level at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>High school diploma/GED certificate or higher at baseline (%)</u>					
Currently participating in any education or training activity	14.4	10.7	3.8 **	0.017	
Has any trade license or training certification	59.2	52.2	7.0 ***	0.003	†
Has bachelor's degree or higher	15.5	13.9	1.6	0.340	
Sample size (total = 1,769)	915	854			
<u>No high school diploma/GED certificate at baseline (%)</u>					
Currently participating in any education or training activity	11.4	8.8	2.7	0.145	
Has any trade license or training certification	47.3	47.5	-0.2	0.944	†
Has bachelor's degree or higher	0.7	0.2	0.5	0.194	
Sample size (total = 1,128)	592	536			

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

This table reports on degrees and licenses received, regardless of whether they were received before or after random assignment.

employment findings, the program’s positive effects on education and training were concentrated among the more highly educated group. When survey respondents were interviewed, 52 percent of the more educated adults in the control group had a trade license or training certification, compared with 48 percent of the less-educated adults in the control group. The program increased the rate of holding a license or certificate by 7 percentage points among the more educated adults and did not affect those credentials for adults with less education. Education and training impacts for employment and income subgroups are shown in Appendix E.²³

The program increased employment in non–UI-covered jobs and did not affect UI-covered employment for the full sample. The individuals who took non–UI-covered jobs were primarily service workers, and a large percentage of them worked in occupations related to child care. The prevalence of new child care and other service jobs among primarily single-parent households suggests that the kinds of non-UI jobs that less disadvantaged program members took may have been easier to access and provided more convenient options for them to take advantage of the full-time work rewards offer.

Conclusion

After three years of program operations, Family Rewards led to a small increase in college course participation and a small increase in getting a trade license or training certification. The program also increased employment, although most of that increase was in jobs that were not reported to the UI system. Survey-reported jobs that are not covered by UI data were heavily concentrated in service occupations, the majority of which were child care–related. Non–UI-covered jobs may not have offered as many benefits, but for low-income, single-parent households, child care jobs may have been easier to find or more flexible in arranging work and family priorities. According to the survey, the program also increased earnings and benefits, indicating that although most of the new employment was not covered by UI data, some of these new jobs included better schedules and more benefits.

The program’s positive employment impacts are more pronounced across a number of more work-ready subgroups. For adults who were more connected to or prepared for the labor market — meaning they entered the program with a high school–equivalent credential, were already employed, or had income in the past year at or above 50 percent of the federal poverty level — the program increased survey-reported work without affecting UI employment.

²³The program’s positive impacts on training were concentrated among those who were unemployed or living in severe poverty at baseline, and did not differ by income level. The employment subgroup finding suggests that individuals who were less connected to the labor market may have felt more motivated to acquire more skills, even though they did not necessarily reduce work to get more education or training.

In contrast, the program led to reductions in UI-covered work for the less work-ready, with no or small effects on survey-reported employment. The reduction in UI-covered work may be a response to the substantial rewards that these families were earning from the program's health and education domains, or the program's "income effect." While not as strong as it could have been, the income effect that is apparent on the less work-ready subgroups, and not on the less disadvantaged groups, is a concern. Parents who were less work-ready were less connected to the labor market when the program ended, and longer-term follow-up will show whether these negative UI employment effects persist for them.

Chapter 7

Conclusion

When Family Rewards was launched in 2007, it sparked a great deal of interest in and speculation about how it would affect participating families. Conditional cash transfer (CCT) programs have reduced poverty and increased schooling and health care use in a range of low- and middle-income countries. But would a similar idea work in a very different context — a large city in a higher-income country? Since 2007, a lot has been learned about the feasibility of implementing a CCT program in a large, diverse city such as New York, what participating families think about the program, and its effects on their income, well-being, and other outcomes.

Overall, the program's effects were more modest than had been hoped. Its largest effects were to reduce poverty and hardship during the three years that the cash rewards were offered. But the behavioral responses, the key to long-term poverty reduction, were either small or limited to subgroups. To be fair, the program led to some encouraging effects, such as the notable increase in high school graduation rates for ninth-graders who demonstrated proficiency in reading, or the big increase in dental care for all types of families. But it had no effects for younger students and small effects on other outcomes related to health care and parents' employment.

While the findings suggest that this version of a CCT program will not lead to big changes in long-term poverty, it is too early to make conclusions about the CCT model's relevance for U.S. policy. Family Rewards represents just the first iteration of a CCT program in this country, and it led to enough positive changes to suggest that it could be made more effective if modified somewhat or targeted to certain types of families. Would the effects have been larger, for example, if the rewards were offered along with other services, if they were offered for somewhat different outcomes, or if they were targeted to specific families or students or to different geographic areas? It will be important to assess how adaptations to the model might make it more effective. The Great Recession highlighted the need for a safety net in the United States that provides low-income families with adequate support when jobs are hard to find, while also encouraging self-sufficiency. Continued experimentation with the CCT idea will be important to inform this debate.

This chapter summarizes the findings to date from Family Rewards and places them in the context of findings from international CCT programs and incentives programs more generally in higher-income countries. It discusses what the findings suggest for the next version of a CCT program and describes this next version of Family Rewards, which is currently being tested in two cities in the United States.

Summary of Findings

During the three years the program operated, the average participating family earned nearly \$9,000 in rewards, or roughly \$3,000 in each year. Nearly all families earned at least one education reward and one health reward during the program period, while just over 53 percent earned a work reward. As the program designers intended, families were able to and did earn rewards across a broad range of areas, and the significant amount that they earned increased their monthly incomes by 22 percent on average and reduced poverty and severe poverty by about 12 percentage points. However, the reductions in poverty and hardship began to diminish after Year 3, when the program ended.

What were the effects on outcomes in the three areas in which rewards were offered? In terms of children's school progress, Family Rewards improved outcomes for ninth-graders who were performing relatively better academically than their peers when they entered the study. For the reading-proficient group, although not for the math-proficient group, those early gains in performance led to sizable effects on grade promotion and on graduation. In contrast, the program had no effect for lower-performing ninth-graders or for elementary and middle school students. In the health area, early, positive effects on visits to the doctor and health status faded, although there were continued impacts on health coverage and, especially, dental visits. Finally, the program led to modest increases in employment throughout the follow-up period, although much of this new work was in jobs that were not reported to the unemployment insurance (UI) system. Also, the program may have led to a reduction in UI-covered work for a subgroup of more disadvantaged adults in the study.

The findings in this report are based on three to four years of follow-up data, covering up to one year after the program ended, but they are not the final word on its effects. First, some effects may emerge anew. In particular, a growing research documents the importance of family income and environment on the achievement of very young children, and many of the families in the study had children under the age of 6 when they first enrolled. A future report will examine whether the significant income boost that families received for three years has effects on these young children's school progress. Second, it will be important to assess whether the positive effects observed to date persist beyond the program period. Given the large, positive effects for reading-proficient ninth-graders, for example, a future report will examine the effects on their college enrollment.

Considerations for Designing Future Conditional Cash Transfer and Incentives Programs

The Family Rewards findings add to a growing body of evidence on the effects of CCTs and more targeted incentives programs across a range of countries. This section considers the results

from Family Rewards and these other programs to discuss the implications of program design in each of the three domains that were studied — education, health, and work.

The idea for Family Rewards came from CCT programs that have become so popular in low- and middle-income countries. One of the first programs, and the one that has been the most studied, is Mexico's Oportunidades program, launched as PROGRESA in 1997. However, there are now CCT programs of varying scope and scale in most Latin American countries, as well as in several countries in Africa, the Middle East, and Asia. Most of the programs, which are often the main safety net program in the country, offer incentives for education (for school-age children) and health (typically for very young children), while a few target only education. Some are offered broadly to all low-income families in an area, while others are targeted to specific populations of concern. The programs overall have been found to reduce short-term poverty and increase consumption, particularly food consumption, with larger effects from programs that offer bigger transfers.

A key question about the use of CCTs in a higher-income country such as the United States is whether they would work in a very different context. In lower-income countries, for example, the school attendance payment is designed to offset in part the opportunity costs (in terms of forgone income) that families face by keeping their children in school rather than sending them to work.

Nonetheless, incentives have also become increasingly popular in the United States and other higher-income countries as a way to influence behavior. In education, however, they are less focused on school enrollment and more focused on performance. Examples of targeted behaviors include performance on standardized tests, taking and passing Advanced Placement courses, taking a full-time college course load, losing weight, quitting smoking, working full time, and participating in a training program. These programs tend to differ from Family Rewards in that they are not holistic but are targeted to one area or outcome.

Education

The CCT programs that have been run across a range of lower- and middle-income countries have generally led to increases in school attendance.¹ The effects have been larger at the secondary school level, since attendance at the primary (elementary school) level is already relatively high, and they have been larger in areas or countries where attendance rates would have been lowest in the absence of the program. In some cases the education impacts were also larger among the poorest households.

¹Fiszbein and Schady (2009).

However, few of these programs led to improvements in school performance. While none of them rewarded performance per se, the expectation was that students would learn more if they attended more often. Some researchers posit that the lack of effects is a result of poor schools and poor home environments, neither of which was addressed by the CCTs. The exception to this finding is for very young children, where some studies suggest cognitive gains for children who were preschool-age when their families participated.² This finding is consistent with the increasingly popular idea that investments in early childhood can have important, lasting effects.³

In the United States and other higher-income countries, a growing number of studies have tested financial incentives to increase student performance. At the elementary and secondary school levels, for example, incentives have been offered to improve reading time, test performance, and course taking.⁴ At the college level, there are programs to increase grades, courses taken, and persistence.⁵ Studies that are particularly relevant to Family Rewards include tests of targeted incentives in four large U.S. school districts, including the SPARK program in New York City,⁶ a study of incentives for test performance in rural Ohio,⁷ and a study of incentives given to Israeli high school students to take and pass high school exit exams.⁸

A general finding from these studies is that incentives can increase student effort, at least in the short run.⁹ For example, the Israeli program encouraged more students to take and pass required high school exams, largely by encouraging some students to spend more time studying. However, it is not always clear that this increased effort while the incentives were offered translated into higher achievement in the long run. For example, a program that paid students in rural Ohio for performance on annual, standardized tests found positive effects on math scores during the program period but no effects in later years when the rewards were not offered. Family Rewards' effects on attendance and credits earned for proficient ninth-graders also diminished in Year 4, after the program had ended.

²Paxson and Schady (2008).

³Carneiro and Heckman (2003).

⁴Bettinger (2010); Jackson (2010); Fryer (2011).

⁵Patel and Rudd (2012); Leuven, Oosterbeek, and van der Klaauw (2010); Angrist, Lang, and Oreopoulos (2009).

⁶Fryer (2011). As mentioned in Chapter 1, SPARK was a school-based education incentives program designed to improve the school performance of fourth- and seventh-graders by rewarding good performance on a series of standardized tests that were administered over the course of the academic year.

⁷Bettinger (2010).

⁸Angrist and Lavy (2009).

⁹A substudy within Family Rewards also found, using a survey of ninth-graders, that the program increased proficient ninth-graders' time spent in academic activities, suggesting the mechanism by which the program had its effects; see Morris, Aber, Wolf, and Berg (2012).

The design of the incentives also matters. More immediate incentives have larger effects than rewards paid in the future; in-kind rewards can be as effective as monetary rewards for younger students; and rewards framed as losses (in which individuals are given a payment up front and must return some or all of it if they do not meet the required milestones) can have larger effects than those framed more traditionally as bonuses.¹⁰ It has also been suggested, based on findings from the programs in four large schools districts, that incentives should reward inputs (for example, reading and homework), not outputs (such as test scores).¹¹ Rewarding inputs may be more effective because students, and perhaps their parents, do not fully understand how to increase their achievement levels. Of course, this idea rests on the assumption that program designers know the right inputs to reward and can find a practical way to do so. Family Rewards did lead to some small increases in parents' engagement with their children's schooling, but those effects did not translate into improved school performance.

Another finding from several of these studies, including Family Rewards, is that the incentives had larger effects on students who were on the margins of higher performance, or students who were within reach of the outcome that was rewarded.¹² For example, the positive effects on test scores for elementary school students in rural Ohio were larger for more academically prepared students. The program that offered rewards for passing high school exit exams in Israel similarly had larger effects for more prepared students. Put another way, these are the students who could have performed relatively well, but would not have attended as much or tried as hard without the incentive.¹³

The findings from Family Rewards and these other studies suggest a number of considerations for the design of future incentives programs. First is the question of what behaviors to reward. Should the program reward inputs (such as attendance, homework, reading, test preparation, and tutoring) in addition to or instead of outputs (such as test scores and grades)? If students (and parents) would like to earn the rewards but do not know what steps to take to improve their school performance, rewarding inputs seems like an effective strategy.

An alternative, or complement to this strategy, might be to offer more guidance to families about how to help their children perform better in school. The next version of Family Rewards includes more proactive guidance for families for identifying when their children are performing poorly and developing steps, such as tutoring, to help them improve their performance. Of course, an additional consideration here is the practicality of rewarding certain

¹⁰Levitt, List, Neckermann, and Sadoff (2012); Fryer, Levitt, List, and Sadoff (2012).

¹¹Fryer (2011).

¹²Bettinger (2010); Angrist and Lavy (2009); Leuven, Oosterbeek, and van der Klaauw (2010).

¹³Slavin (2010). In his review of incentives for school progress, Slavin questions the cost-effectiveness of these programs, arguing that other types of reforms, such as those that change an entire school, might affect more students than just those on the margin of success.

behaviors on a large scale. As an example, Family Rewards program designers considered offering rewards for completing homework. Given the wide variation in how schools and teachers assign homework and track its completion, however, implementing and verifying a compliance process was deemed impractical.

On a broader level, it is worth considering whether the incentives should be combined with additional services, beyond staff guidance. Should they be combined with incentives for teachers, for example, which have been found to be effective in some circumstances?¹⁴ Should they be combined with broader school reforms, in an effort to improve the learning environment in which the students reside? One of the arguments made at the onset of Family Rewards was that the program did little to address the poor quality of some of the schools that these students attended.¹⁵ While there is little evidence from Family Rewards that the incentives were more effective at higher-performing schools, this is an issue for further research.

Finally, how often should the rewards be given and to whom should they be paid? Theory suggests that more immediate incentives are more salient to individuals, and the recent research cited earlier confirms that student effort is less responsive to distant payments. In addition, in both Family Rewards and other programs, students often forgot about the incentives for certain activities until they received a payment. In Family Rewards, for example, payments for Regents exams passed or credits earned during the year were typically made during the summer. While a number of administrative constraints made it impossible to structure Family Rewards to provide immediate rewards for school achievement, the next version of the program incorporates several changes that move further in this direction. For example, it rewards performance more frequently by rewarding passing grades, paid at each report card period. In addition, payments for any rewards earned (in all three domains) are paid on a monthly basis, rather than every two months.

Who should receive the rewards? Most of the targeted incentives that have been reviewed provided payments directly to the students, even students as young as elementary school-age. Family Rewards, like most other CCT programs, gave rewards for elementary and middle school students to the parents and relied on them to tell their children about the incentives.¹⁶ As a result, at least in Family Rewards, many of the younger children in the program were not fully aware that incentives were being offered. Programs might consider providing incentives directly to students or, at a minimum, providing more guidance to parents about how to tell their children about the incentives. The next version of Family Rewards targets only high

¹⁴Fryer, Levitt, List, and Sadoff (2012).

¹⁵The City attempted to address the issue of poor school quality through several other initiatives.

¹⁶This was done for practical reasons and because many parents would not have wanted their children to be given the sometimes large sums of money provided through the program.

school students for the education rewards, and they will receive the entire portion of each education incentive that they earn directly.

Health

As with effects on school attendance, most of the international CCT programs have been found to increase the use of health services.¹⁷ Parents in the programs were more likely to have their children visit health clinics. Evidence on health outcomes, however, is more mixed. Some studies find increased height among the youngest children, while others find no effects on health status.

In terms of more targeted programs in the United States, a growing research documents that incentives can affect a variety of health-related behaviors, such as weight loss,¹⁸ smoking,¹⁹ and adherence to prescribed medication.²⁰ In addition, a recent summary of studies found that the majority of incentives programs that were reviewed — providing rewards in the form of cash, lotteries, gifts, or coupons — were found to affect individuals' behavior.²¹ Additionally, another review suggests that the payments need not be large to affect a variety of health-related outcomes.²²

However, most of the U.S. studies are small, clinical trials, and most of them studied only behavior change in the short term. In the few studies that did track long-term outcomes, the effects typically faded after the program ended. Family Rewards' modest effects on health care use and status followed a similar pattern.

Most relevant to Family Rewards are incentives for more general outcomes, such as maintaining health insurance and visiting the doctor and dentist. Two studies in the review that is mentioned above did provide incentives for visiting the dentist, but there is little research to date on incentives to maintain health insurance, and recent research shows that having health insurance does increase the use of preventive care.²³ Family Rewards did lead to small increases in the rate of sustained health care coverage, but coverage rates in New York City were already much higher than anticipated.²⁴ While the program may have had much larger effects if tested in an area with low coverage, the Affordable Care Act may lessen the need for this particular reward.

¹⁷Fiszbein and Schady (2009); Lagarde, Haines, and Palmer (2007).

¹⁸Volpp et al. (2008a).

¹⁹Volpp et al. (2009).

²⁰Volpp et al. (2008b).

²¹Kane, Johnson, Town, and Butler (2004).

²²Sindelar (2008).

²³Finkelstein et al. (2012).

²⁴The Family Rewards sample does not include individuals without children or undocumented immigrants, both groups with lower rates of health coverage.

However, the Act places significant emphasis on preventive care, through Medicaid policies and other campaigns that are targeted to smoking, nutrition, exercise, and obesity. A holistic CCT program like Family Rewards may not be the best platform to tackle these types of behaviors because it would likely require more intensive monitoring for compliance and verification, but it can work to address the first step in the process — encouraging individuals to make preventive care visits. (Although Family Rewards did increase preventive care dental visits, it did not increase the rate of preventive care doctors' visits, which were already quite high. The program might have had an effect if it had been run in an area where such checkups are less common.) The findings from the existing research and Family Rewards suggest, however, that the incentives may need to be ongoing in order to affect behavior in the long term.

Work

To date, none of the major CCT programs in low- and middle-income countries has included rewards for parents' work or training, although there was concern that the provision of education and health rewards may lead to a reduction in adults' work effort. In general, evaluations have not found negative effects on work, with the exception of one program in Nicaragua, where the rewards for education and health were quite large.²⁵ The findings from Family Rewards also suggest this type of "income" effect, although the reduction in work was only for UI-covered work and was found only for more disadvantaged adults in the study.

The use of incentives to encourage work has a long history in the United States. The Earned Income Tax Credit (EITC) is the best and largest example of a program that increases the payoff to work, providing benefits to more than 27 million families. A range of studies suggests that expansions in the EITC significantly increased the employment rates of single mothers.²⁶ A number of recent evaluations have tested programs that provide monthly earnings supplements for full-time employment or rewards for sustained work.²⁷ In general, these programs do increase work, in some cases by moving more people into the labor market and in other cases by encouraging part-time workers to work full time.

In several of the programs that were studied,²⁸ the effects on employment faded over time, even before the incentives offer had ended, meaning that the main effect of the incentives was to move individuals into work more quickly than they would have gone otherwise. However, for other groups, who would have had low employment rates in the absence of the program, the effects can last longer. Another finding from some studies is that incentives plus

²⁵Fiszbein and Schady (2009).

²⁶Holt (2006); Eissa and Hoynes (2006).

²⁷Earlier studies are summarized in Michalopoulos (2005). More recent studies include Hendra et al. (2011) and Martinson and Hendra (2006).

²⁸Michalopoulos (2005).

services are more effective at increasing employment than incentives alone,²⁹ suggesting that some people may need additional help moving into work to take advantage of the rewards. The next version of Family Rewards will include a more active advisement component, some of which might involve providing families with resources to help them find employment, if such assistance is desired.

The evidence for training incentives is more mixed. Some recent programs did increase the take-up of training and the receipt of certificates. However, it is not clear that such training had much return in the labor market. In one program, there were no effects on employment, while in the other program the effects appear to have faded over time.³⁰

This research has several implications for the design of work incentives in a CCT program. First, some families may choose to reduce their work effort in response to earning substantial rewards in the other areas. Chapter 6 presented evidence suggesting that this type of “income effect” occurred for more disadvantaged individuals in the study, but it is also possible that the rewards earned by individuals in the other two domains dampened the effectiveness of the work rewards more broadly. The answer is probably not to eliminate the work incentives altogether, since the reductions in work may have been bigger in the absence of those incentives.

The work incentives might also be more effective if combined with employment services, ranging from basic job search preparation and assistance, to job development, to help with re-employment services if parents were to lose their jobs.³¹ This type of guidance might make the work incentives more effective in general but might also help to stem the reduction in work that may occur among more disadvantaged individuals in response to the income that is available from the other rewards.

Similarly, more guidance and direction are likely needed for the training incentives, to help direct individuals to the types of training that are both appropriate for them and relevant to the local labor market. The advisement assistance that was added to the model for the next version of Family Rewards also includes guidance for work and training, although perhaps not at the level of expertise that would be provided by a formal job developer.

General Considerations

Beyond the three domains, the research suggests additional issues for consideration. For example, should the CCT program be holistic? Family Rewards was deliberately designed to focus on three domains and to offer families many ways to earn rewards. This design helped to

²⁹Michalopoulos (2005).

³⁰Hendra et al. (2011); Miller, van Dok, Tessler, and Pennington (2012).

³¹Hamilton and Scrivener (2012).

ensure that all families could earn at least some rewards, and it undoubtedly led to the program's substantial effects on income and poverty. However, it is possible that packaging the rewards together in this way may have reduced the power of any given incentive. With so many ways to earn rewards, for example, families could choose to focus on the "easy" ones and not stretch to meet the more challenging milestones. In addition, the large number of rewards, at 22, may have overwhelmed participants and led them to focus their efforts on just a few.

Consider a program that offers only two incentives, one for high attendance at school and one for performance on standardized tests. Assuming for the moment that these are the right two behaviors to reward, will the program have more widespread effects on education if families have only those two rewards to focus on and to earn? Findings from at least some of the more targeted incentives programs suggest that it may have bigger effects. But the flip side of the coin is that such a pared-down program would not reduce poverty and material hardship nearly as much as Family Rewards did. With a greater number of incentives, families had a better chance to earn large cash transfers.

One other design consideration relates to the target group and the role of CCTs in U.S. antipoverty policy. Some have suggested that a CCT program such as Family Rewards could be incorporated into or layered on top of a safety net program, such as Temporary Assistance for Needy Families (TANF). Politically, this program may be more popular and sustainable if it came with those types of strings attached. However, a nontrivial fraction of families did not earn very much from Family Rewards. The bottom fifth of earners received, on average, just over \$700 per year from the program, while the top fifth earned \$5,700 per year on average. The former group of families was a very disadvantaged subset of the study sample, with higher rates of unemployment, lower education levels, and higher rates of mental and physical health problems. Conditioning benefits on the achievement of certain milestones may put much of the safety net out of reach for the families who need it the most.

On the other hand, as it stands, much of the current safety net is conditioned on only one activity — work (particularly, working in the case of the EITC and looking for work in the case of TANF). This system, the EITC in particular, worked well when jobs were plentiful but has proven inadequate in a bad labor market.³² Conditioning benefit receipt on a range of productive activities (work, schooling, and health) may be a way to expand benefits to those in need. In addition, CCTs might be built into the current system in a way that provides families with enhanced payments or allows benefits to continue after they have reached a welfare time limit.

³²Berlin (2011).

Finally, if the CCT idea were to play a larger role in U.S. policy, it is worth considering its costs. While there is no plan to conduct a formal benefit-cost analysis of Family Rewards, an analysis of the full costs of the program will be presented in a future report. The costs include the cash transfers to families, the costs of maintaining the payment system, and the costs of monitoring and enforcement for each of the reward conditions. The costs of Family Rewards are large and likely to outweigh the benefits, given the modest impacts it had in each of the domains. In addition, the monitoring and compliance costs are not trivial. While it is unlikely that an unconditional cash transfer to families would have led to similar effects in each of the domains, the lower cost would be one advantage of providing transfers with no strings attached. Political support for an unconditional cash transfer of this size, however, may be limited.

Next Steps: “Family Rewards 2.0”

The Center for Economic Opportunity and MDRC, with the Mayor’s Fund to Advance New York City, are replicating the Family Rewards model in two cities in the United States through grants provided by the federal Social Innovation Fund (SIF) and private funders.³³ In both New York City (the Bronx), and Memphis, Tennessee, just over 600 families were enrolled in each city’s program between September 2011 and February 2012.³⁴ Twice as many families were recruited for the study, with half randomly assigned to a program group, who are eligible for Family Rewards, and half assigned to a control group, who are not eligible for the program. With a sample of 1,200 families in each city, the evaluation will be able to examine program effects for the combined sample and for each city by itself.

As mentioned throughout this chapter, the design of Family Rewards 2.0 builds on the lessons learned from this evaluation. For example, the new program targets families with children who were set to enter ninth or tenth grade in the upcoming school year, since effects on education were found in this study only for the older students. However, once enrolled in Family Rewards 2.0, all of the family’s school-age children are eligible for the health-related rewards. The program also targeted TANF and SNAP (food stamp) recipients,³⁵ in order to target resources to the neediest families and to consider how a CCT program might supplement or interact with these safety net programs.

³³The SIF, enacted under the Edward M. Kennedy Serve America Act and administered by the Corporation for National and Community Service, targets public-private funds to expand and replicate proven approaches to pressing social problems through economic opportunity, healthy futures, youth development, and school support. See www.nationalservice.gov/about/programs/innovation.asp.

³⁴Within New York City, the Bronx was selected for the replication because the original Family Rewards program was tested there, which would facilitate future comparisons between the original and new models, and also because among New York City’s low-income communities, those in the Bronx have among the highest poverty rates.

³⁵SNAP is the federal Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

The new model also differs in several key ways from the original Family Rewards program. First, the new program is much simpler, offering only 8 incentives instead of 22, across the three domains. Second, the new program includes a more active advisement role for the staff. Recall that active case management was proscribed for staff in the original Family Rewards program, although they could certainly refer individuals to services if assistance was requested. While families generally reported satisfaction with the program, the implementation research indicated that many of them wanted to earn certain rewards but did not know what steps to take to meet the conditions. Those families might have benefited from more active guidance. Staff at the NPOs for Family Rewards 2.0 develop a Family Earnings Plan with every family and aim to meet with them twice a year to discuss their progress toward earning the rewards. Staff also use strategic outreach to engage families who are not earning rewards and have access to a small “resource fund” (discretionary money) to help families invest up front in services they may need to help them earn the rewards, such as short-term tutoring, work uniforms, transportation to job interviews, or certain licensing fees. Third, the new program attempts to make the rewards more timely (and thus more salient) by disbursing payments monthly, rather than every two months. Rewarding grades, in addition to test scores, also provides a more immediate incentive for school performance.³⁶

Families will be eligible for the rewards for three years, and the evaluation will track their outcomes for five years to assess the effects of the rewards both during and after the program. The findings will help to assess whether the modifications to the model made it more effective for eligible families. In addition, the test of the program in Memphis as well as New York City will provide information on how the program’s effects might vary across different contexts within the United States.

Conclusion

A general idea behind CCTs and other incentives programs is that individuals sometimes do not make decisions in the short term that are in their longer-term interests. These types of behaviors run the gamut from not saving enough for retirement to eating foods that aren’t healthful, and occur across all types of individuals. The reasons may vary and are often linked to basic human nature, such as the tendency to maintain the status quo, for example, or to succumb to peer pressure. Other reasons include a lack of willpower, discounting the future too heavily, a lack of

³⁶The program also tries to tap into the power of “loss aversion.” (Recall that incentives framed as losses have been found to be more effective than those framed as gains.) Each pay period, families will receive a statement indicating what they did earn and the amount they could have earned had they met additional milestones.

information, or a lack of resources. This recognition has given rise to an increasing use of incentives and other nonmonetary “nudges” to help individuals make better choices.³⁷

Poor families are especially challenged in their ability to make decisions that serve their longer-term interests, given that they must devote significant time and energy to manage in the short term with limited resources.³⁸ Family Rewards was the first comprehensive CCT program in the United States that attempted to help and encourage families to make more investments in their human capital, while at the same time reducing their current levels of poverty and material hardship. The findings presented in this report show that in some cases the incentives worked and in other cases they did not. These findings add to the growing body of evidence on the promise and challenges of using incentives to influence behavior. They have also helped to shape a revised Family Rewards model and led to a test of this revised model in a new city. Future reports on the original and new models will provide more evidence on the potential value of a CCT approach in the United States.

³⁷Thaler and Sunstein (2008).

³⁸Mullainathan and Shafir (2012).

Appendix A

Supplementary Tables for Chapter 1

The Opportunity NYC Demonstration: Family Rewards

Appendix Table A.1

Data Sources and Coverage Periods for Current Report

Data Source	Months for Which Data Were Collected	Length of Follow-Up Period for Quantitative Measures	End of Follow-Up Period Relative to Program Years 1 and 3
Unemployment insurance wage records ^a	July 2007 - September 2010	36 months from each family's random assignment date	Near end of third program year for most sample members
Temporary Assistance for Needy Families/Safety Net Assistance records	July 2007 - January 2011	36 months from each family's random assignment date	End of third program year for all sample members
Food stamp records	July 2007 - January 2011	36 months from each family's random assignment date	End of third program year for all sample members
Medicaid records ^b	July 2007 - January 2011	36 months from each family's random assignment date	End of third program year for all sample members
School records	September 2007 - August 2011	1 year after end of the program	1 year after end of the program for all sample members
Family Rewards data from Seedco ^c	September 2007 - July 2011	3 complete program years	End of third program year for most sample members
Survey	November 2010 - June 2011	42 months (average) from each family's random assignment date	End of third program year for all sample members
Program observations and in-depth interviews	July 2007 - March 2011	--	--

NOTES: A double dash (--) indicates "not applicable."

^aUnemployment insurance (UI) wage records are provided in calendar quarters (quarter 3, 2007, through quarter 3, 2010).

^bMedicaid receipt was measured by collecting snapshots of the sample's Medicaid status during the first day of each calendar quarter.

^cThis source refers to the data that Seedco collects on the rewards that program participants earned. These data do not include information on payments made to participants.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table A.2

Characteristics of Families at the Time of Random Assignment

Characteristic	Total
One-parent family ^a (%)	80.9
Two-parent family with both parents enrolled in Family Rewards study ^b (%)	5.7
Number of children in household (%)	
1 child	22.8
2 children	34.2
3 children	25.1
4 children or more	17.8
Average number of children in household	2.5
Primary language spoken at home is Spanish (%)	21.7
Housing status (%)	
Own home or apartment	5.9
Rent home or apartment	87.1
Other housing arrangement	7.1
Living in public housing (%)	30.3
Receiving Section 8 rental assistance (%)	23.0
Receiving TANF or Safety Net Assistance ^c (%)	24.0
Receiving food stamps (%)	59.4
At least one adult covered by public health insurance (%)	70.9
Not receiving any public benefits or housing assistance ^d (%)	13.1
Earnings above 130% of federal poverty level ^e (%)	14.9
Sample size	4,749

SOURCE: MDRC calculations using data from Baseline Information Forms.

NOTES: In order to assess differences in characteristics across research groups, chi-square tests were used for categorical variables, and t-tests were used for continuous variables.

Sample sizes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums.

Public health insurance measures in this table exclude child information.

^aThis measure includes families with parents who reported their marital status as single, single but living with a boyfriend or girlfriend, separated, divorced, or widowed.

^bThis measure refers to sample members who enrolled in the Family Rewards study with their spouse or legal domestic partner.

^cThis measure includes families with child-only cases.

^dThis measure refers to families who were not receiving TANF/Safety Net Assistance, food stamps, Medicaid, or Section 8 housing vouchers and did not live in public housing.

^eIncome amounts from sources other than earnings were not available from the Baseline Information Form.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table A.3

Characteristics of Parents at the Time of Random Assignment

Characteristic	Total
Female (%)	94.3
Age (%)	
18-24 years	0.3
25-34 years	28.9
35-44 years	45.2
45-59 years	22.8
60 years or more	2.9
Average age (years)	39.9
U.S. citizen ^a (%)	83.1
By birth	67.4
By naturalization	15.7
Legal Permanent Resident (%)	16.9
Race/ethnicity (%)	
Hispanic/Latino	46.7
White, non-Hispanic/Latino	0.7
Black, non-Hispanic/Latino	51.2
Other	1.4
Education (highest degree or diploma earned) ^b (%)	
GED certificate	8.9
High school diploma	17.1
Some college	19.7
Associate's degree/2-year college	7.1
4-year college or beyond	6.9
None of the above	40.2
Marital status (%)	
Single	62.5
Cohabiting	2.3
Separated, widowed, or divorced	16.1
Married or in a legal domestic partnership	19.1
Has an account at bank or credit union (%)	47.0
<u>Employment measures</u>	
Currently working (%)	53.0
Working full time ^c (%)	40.2
Average weekly earnings, among those currently working (\$)	394
During past year, average number of months worked ^d	9.9

(continued)

Appendix Table A.3 (continued)

Characteristic	Total
<u>Health measures (%)</u>	
Health insurance coverage	
Public health insurance	70.5
Employer health insurance	20.6
Other health insurance	3.0
Not covered	6.0
Had annual medical checkup when not sick	
Within the past year	82.1
1-2 years ago	14.3
More than 2 years ago	3.4
Never	0.2
Last medical checkup was at own (regular) doctor's office or clinic	95.1
Had preventive dental checkup	
Within the past year	64.9
1-2 years ago	23.5
More than 2 years ago	10.9
Never	0.7
Self-rated health	
Excellent or very good	43.0
Good	36.9
Fair or poor	20.1
Over the past 2 weeks,	
Had little or no interest in doing things	22.4
Had been feeling down, depressed, or hopeless	21.9
Had little or no interest in doing things, and had been feeling down, depressed, or hopeless	13.8
Sample size	4,749

SOURCE: MDRC calculations using data from Baseline Information Forms.

NOTES: In order to assess differences in characteristics across research groups, chi-square tests were used for categorical variables, and t-tests were used for continuous variables.

Sample sizes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums.

This table excludes information for enrolled second parents in two-parent households (N = 247).

^aThis measure refers to U.S. citizens both by birth and by naturalization.

^bIn the earlier report on Family Rewards (Riccio et al., 2010), individuals who reported “some college” were excluded from the educational attainment measure; thus, the percentages shown here differ slightly from the percentages shown for educational attainment in the earlier report.

^cThis measure refers to 30 hours a week or more. In the earlier report on Family Rewards (Riccio et al., 2010), some responses were inadvertently omitted from the "working full time" measure; the percentage shown here is the correct one.

^dThis measure shows the number of months individuals worked during the past year, regardless of employment status at the time of random assignment.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table A.4

**Characteristics of All Children at the
Time of Random Assignment**

Characteristic	Total
Gender (%)	
Female	50.0
Male	50.0
Age (%)	
0-5 years	13.7
6-10 years	30.6
11-13 years	26.2
14 years or older	29.5
Born in the United States (%)	93.5
Race/ethnicity (%)	
Hispanic/Latino	47.0
White, non-Hispanic/Latino	0.4
Black, non-Hispanic/Latino	50.4
Other	2.2
Type of school child attended in the past year (%)	
Public or charter school	97.5
Private or parochial school	2.5
Grade ^a (%)	
Not yet in pre-K or kindergarten	7.1
Pre-K	2.4
Kindergarten	2.8
Grade 1	3.5
Grade 2	4.2
Grade 3	3.8
Grade 4	16.7
Grade 5	3.9
Grade 6	4.3
Grade 7	16.1
Grade 8	3.9
Grade 9	18.6
Grade 10	4.1
Grade 11	3.6
Grade 12	3.0
College ^b	1.2
Not enrolled ^c	0.9

(continued)

Appendix Table A.4 (continued)

Characteristic	Total
<u>Education measures (%)</u>	
Child's parent attended parent-teacher conference during past year	
Never	5.0
1-2 times	35.3
3-4 times	35.0
5-6 times	11.8
More than 6 times	12.9
Child's parent spoke with teacher about grades, tests, or homework during past year	
Not at all	2.9
A little	8.2
Some	20.0
A lot	34.5
A great deal	34.5
Enrolled in special education in the past school year	13.5
Enrolled as an English Language Learner in the past school year	12.9
<u>Child health outcomes (%)</u>	
Health insurance coverage	
Public health insurance	81.1
Employer health insurance	14.5
Other health insurance	1.7
Not covered	2.7
Parent's rating of child's health	
Excellent	43.5
Very good	31.1
Good	21.8
Fair	3.1
Poor	0.4
Had annual medical checkup when not sick	
Within the past year	90.8
1-2 years ago	8.3
More than 2 years ago	0.8
Never	0.2
Last annual checkup was at own (regular) doctor's office or clinic	97.7

(continued)

Appendix Table A.4 (continued)

Characteristic	Total
Had preventive dental checkup	
Within the past year	74.6
1-2 years ago	17.2
More than 2 years ago	3.1
Never	5.1
Has a physical problem that limits activities	9.5
Has an emotional or mental health problem that limits activities	6.3
Has a physical, emotional, or mental health problem that limits activities	13.3
Sample size	11,329

SOURCE: MDRC calculations using data from Baseline Information Forms.

NOTES: In order to assess differences in characteristics across research groups, chi-square tests were used for categorical variables, and t-tests were used for continuous variables.

Sample sizes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums.

Children whose parents withdrew from the study were excluded from the sample, resulting in slight discrepancies on some measures between this report and the earlier report on Family Rewards (Riccio et al., 2010).

^aGrades 4, 7, and 9 were "target grades" for the Family Rewards program. Therefore, all enrolled families had to have a child in grade 4, 7, or 9.

^bCollege students who were under the age of 18 were enrolled in Family Rewards. They were not eligible for any reward payments.

^cThe "not enrolled" category includes school-age children who are no longer attending or have graduated before the age of 18.

Appendix B

Supplementary Table for Chapter 2

The Opportunity NYC Demonstration: Family Rewards

Appendix Table B.1

**Proportion of Annual Reward Earnings per Family Made Up of
Education Rewards Earned by Students in Grade 9 at the Time of
Random Assignment, by English Language Arts (ELA) Proficiency**

Sample and Program Year	Average Total Reward Earnings per Family (\$)	Education Reward Earnings (%)
<u>Proficient on 8th grade ELA test^a</u>		
Year 1	4,422	39.5
Year 2	4,418	38.7
Year 3	3,600	49.0
Years 1, 2, and 3 combined	12,291	42.9
Sample size		272
<u>Not proficient on 8th grade ELA test^a</u>		
Year 1	3,279	29.6
Year 2	3,185	28.0
Year 3	2,809	41.8
Years 1, 2, and 3 combined	8,946	32.6
Sample size		553

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTE: Calculations are based on families who earned any rewards.

Education reward earnings are presented as a percentage of total reward earnings per family.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

Appendix C

Supplementary Tables for Chapter 4

The Opportunity NYC Demonstration: Family Rewards

Appendix Table C.1

Impacts on School Outcomes for Students in Grade 4 at the Time of Random Assignment, by Performance in the Prior Year (Grade 3)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Proficient on 3rd grade math test^a (%)</u>					
Attendance rate, Years 1 to 3	92.3	91.9	0.4	0.526	
Attendance rate, Year 4	83.2	83.2	-0.1	0.976	
Scored at proficient level or higher on ELA, Year 4	29.9	31.7	-1.8	0.455	
Scored at proficient level or higher on math, Year 4	53.2	53.1	0.1	0.972	
Sample size (total = 1,290)	656	634			
<u>Not proficient on 3rd grade math test^a (%)</u>					
Attendance rate, Years 1 to 3	89.5	90.4	-0.9	0.370	
Attendance rate, Year 4	81.9	81.4	0.6	0.846	
Scored at proficient level or higher on ELA, Year 4	7.3	4.4	3.0	0.323	
Scored at proficient level or higher on math, Year 4	13.1	9.2	3.9	0.288	
Sample size (total = 377)	178	199			
<u>Proficient on 3rd grade ELA test^a (%)</u>					
Attendance rate, Years 1 to 3	92.1	92.6	-0.5	0.505	
Attendance rate, Year 4	81.4	82.4	-1.0	0.672	
Scored at proficient level or higher on ELA, Year 4	41.9	46.3	-4.3	0.238	
Scored at proficient level or higher on math, Year 4	59.0	63.9	-4.9	0.167	††
Sample size (total = 760)	382	378			

(continued)

Appendix Table C.1 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Not proficient on 3rd grade ELA test^a (%)					
Attendance rate, Years 1 to 3	91.2	90.5	0.7	0.371	
Attendance rate, Year 4	84.8	82.9	1.9	0.296	
Scored at proficient level or higher on ELA, Year 4	10.6	8.5	2.0	0.337	
Scored at proficient level or higher on math, Year 4	32.1	25.5	6.6 **	0.030	††
Sample size (total = 878)	437	441			

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

ELA = English language arts.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

The Opportunity NYC Demonstration: Family Rewards

Appendix Table C.2

**Impacts on School Outcomes for Students in Grade 4 at the
Time of Random Assignment, by Parents' Education Level**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Parent has high school diploma/GED certificate or higher at baseline (%)</u>				
Attendance rate, Years 1 to 3	92.2	92.1	0.1	0.822
Attendance rate, Year 4	82.5	81.9	0.6	0.758
Scored at proficient level or higher on ELA, Year 4 ^a	27.9	28.0	-0.1	0.974
Scored at proficient level or higher on math, Year 4 ^a	47.9	46.6	1.3	0.656
Sample size (total = 1,035)	495	540		
<u>Parent has no high school diploma/GED certificate at baseline (%)</u>				
Attendance rate, Years 1 to 3	90.3	90.0	0.4	0.702
Attendance rate, Year 4	82.0	83.4	-1.4	0.503
Scored at proficient level or higher on ELA, Year 4 ^a	19.1	19.7	-0.6	0.854
Scored at proficient level or higher on math, Year 4 ^a	38.0	37.6	0.5	0.898
Sample size (total = 638)	342	296		

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

ELA = English language arts.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

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Appendix Table C.3
Impacts on School Outcomes for Students in Grade 4 at the
Time of Random Assignment, by School Environment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Students in lower-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	89.4	91.8	-2.4 **	0.023	†††
Attendance rate, Year 4	79.9	85.5	-5.5 **	0.025	††
Scored at proficient level or higher on ELA, Year 4 ^a	21.2	23.2	-2.0	0.571	
Scored at proficient level or higher on math, Year 4 ^a	44.7	39.1	5.6	0.170	
Sample size (total = 531)	255	276			
<u>Students in medium-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	92.4	91.3	1.1	0.197	†††
Attendance rate, Year 4	84.3	81.7	2.6	0.240	††
Scored at proficient level or higher on ELA, Year 4 ^a	23.3	18.8	4.6	0.152	
Scored at proficient level or higher on math, Year 4 ^a	41.7	43.2	-1.5	0.688	
Sample size (total = 664)	326	338			
<u>Students in higher-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	93.3	91.4	1.9 **	0.028	†††
Attendance rate, Year 4	84.7	81.3	3.4	0.239	††
Scored at proficient level or higher on ELA, Year 4 ^a	32.9	35.1	-2.2	0.610	
Scored at proficient level or higher on math, Year 4 ^a	50.6	48.0	2.6	0.569	
Sample size (total = 438)	226	212			

(continued)

Appendix Table C.3 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

ELA = English language arts.

School environment was defined using ELA and math scores for all students in grade 4 attending a school in the two years prior to the study. Schools were then divided into thirds based on the ranking (lower, medium, and higher) of their average scores.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

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Appendix Table C.4

Impacts on School Outcomes for Students in Grade 7 at the Time of Random Assignment, by Performance in the Prior Year (Grade 6)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Proficient on 6th grade math test^a (%)</u>				
Attendance rate, Years 1 to 3	91.6	91.5	0.2	0.794
Attendance rate, Year 4	76.9	78.6	-1.7	0.415
Earned at least 11 credits, Year 4	54.7	59.1	-4.4	0.190
Sample size (total = 854)	432	422		
<u>Not proficient on 6th grade math test^a (%)</u>				
Attendance rate, Years 1 to 3	86.3	86.4	-0.1	0.928
Attendance rate, Year 4	68.8	70.3	-1.4	0.532
Earned at least 11 credits, Year 4	38.8	37.7	1.1	0.767
Sample size (total = 761)	370	391		
<u>Proficient on 6th grade ELA test^a (%)</u>				
Attendance rate, Years 1 to 3	91.9	91.1	0.8	0.272
Attendance rate, Year 4	76.0	76.8	-0.8	0.762
Earned at least 11 credits, Year 4	54.0	54.6	-0.6	0.877
Sample size (total = 600)	301	299		
<u>Not proficient on 6th grade ELA test^a (%)</u>				
Attendance rate, Years 1 to 3	87.6	87.7	-0.1	0.903
Attendance rate, Year 4	71.5	73.0	-1.5	0.455
Earned at least 11 credits, Year 4	43.0	45.6	-2.5	0.415
Sample size (total = 993)	490	503		

(continued)

Appendix Table C.4 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

ELA = English language arts.

^aIn New York State, students who score at a level of 3 or higher on a 4-point scale are deemed "proficient."

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Appendix Table C.5

**Impacts on School Outcomes for Students in Grade 7 at the
Time of Random Assignment, by Parents' Education Level**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Parent has high school diploma/GED certificate or higher at baseline (%)</u>				
Attendance rate, Years 1 to 3	90.3	89.6	0.7	0.312
Attendance rate, Year 4	75.0	74.9	0.2	0.934
Earned at least 11 credits, Year 4	49.7	50.5	-0.8	0.812
Sample size (total = 932)	472	460		
<u>Parent has no high school diploma/GED certificate at baseline (%)</u>				
Attendance rate, Years 1 to 3	87.6	88.0	-0.4	0.653
Attendance rate, Year 4	69.9	73.4	-3.5	0.129
Earned at least 11 credits, Year 4	41.8	44.5	-2.7	0.475
Sample size (total = 680)	325	355		

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

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Appendix Table C.6

Impacts on School Outcomes for Students in Grade 7 at the Time of Random Assignment, by School Environment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Students in lower-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	86.3	87.0	-0.7	0.503	††
Attendance rate, Year 4	69.5	73.0	-3.5	0.187	
Earned at least 11 credits, Year 4	40.8	45.1	-4.2	0.317	
Sample size (total = 562)	266	296			
<u>Students in medium-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	88.4	89.3	-0.9	0.374	††
Attendance rate, Year 4	73.2	74.3	-1.1	0.716	
Earned at least 11 credits, Year 4	50.3	50.4	0.0	0.994	
Sample size (total = 453)	213	240			
<u>Students in higher-ranking schools at baseline (%)</u>					
Attendance rate, Years 1 to 3	92.3	90.0	2.3 ***	0.009	††
Attendance rate, Year 4	76.8	74.9	1.9	0.518	
Earned at least 11 credits, Year 4	57.4	60.0	-2.6	0.580	
Sample size (total = 457)	241	216			

(continued)

Appendix Table C.6 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

School environment was defined using ELA and math scores for all students in grade 7 attending a school in the two years prior to the study. Schools were then divided into thirds based on the ranking (lower, medium, and higher) of their average scores.

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Appendix Table C.7

Impacts on School Outcomes for Students in Grade 9 at the Time of Random Assignment, by Parents' Education Level

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Parent has high school diploma/GED certificate or higher at baseline (%)</u>				
Graduated within 4 years (%)	53.7	53.6	0.1	0.967
Attendance rate, Years 1 to 3 (%)	80.4	79.6	0.8	0.523
Attendance rate, Year 4 (%)	64.0	62.5	1.5	0.457
Earned at least 44 credits, Years 1 to 4 (%)	45.0	43.9	1.1	0.680
Average number of credits earned, Years 1 to 4	34.6	33.7	0.8	0.408
Passed at least 5 Regents exams, Years 1 to 4 (%)	41.1	39.3	1.8	0.474
Sample size (total = 1,166)	559	607		
<u>Parent has no high school diploma/GED certificate at baseline (%)</u>				
Graduated within 4 years (%)	41.2	40.7	0.5	0.884
Attendance rate, Years 1 to 3 (%)	75.7	75.2	0.6	0.745
Attendance rate, Year 4 (%)	55.8	57.1	-1.3	0.644
Earned at least 44 credits, Years 1 to 4 (%)	35.4	35.6	-0.2	0.963
Average number of credits earned, Years 1 to 4	29.6	29.3	0.3	0.846
Passed at least 5 Regents exams, Years 1 to 4 (%)	30.4	31.8	-1.4	0.645
Sample size (total = 744)	392	352		

(continued)

Appendix Table C.7 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

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Appendix Table C.8

**Impacts on School Outcomes for Students in Grade 9 at the
Time of Random Assignment, by School Environment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Students in lower-ranking schools at baseline</u>				
Graduated within 4 years (%)	38.6	37.7	0.9	0.792
Attendance rate, Years 1 to 3 (%)	73.1	73.8	-0.7	0.689
Attendance rate, Year 4 (%)	53.5	52.7	0.8	0.767
Earned at least 44 credits, Years 1 to 4 (%)	33.2	32.9	0.4	0.914
Average number of credits earned, Years 1 to 4	29.1	28.7	0.4	0.754
Passed at least 5 Regents exams, Years 1 to 4 (%)	27.2	25.8	1.4	0.645
Sample size (total = 745)	342	403		
<u>Students in medium-ranking schools at baseline</u>				
Graduated within 4 years (%)	53.3	49.3	4.0	0.342
Attendance rate, Years 1 to 3 (%)	80.6	79.4	1.2	0.532
Attendance rate, Year 4 (%)	63.8	62.0	1.8	0.560
Earned at least 44 credits, Years 1 to 4 (%)	45.6	43.3	2.3	0.584
Average number of credits earned, Years 1 to 4	34.3	33.8	0.5	0.743
Passed at least 5 Regents exams, Years 1 to 4 (%)	38.6	34.4	4.2	0.271
Sample size (total = 555)	287	268		
<u>Students in higher-ranking schools at baseline</u>				
Graduated within 4 years (%)	63.6	68.2	-4.5	0.280
Attendance rate, Years 1 to 3 (%)	85.6	83.4	2.2	0.156
Attendance rate, Year 4 (%)	70.0	68.3	1.8	0.530
Earned at least 44 credits, Years 1 to 4 (%)	53.1	52.6	0.5	0.914
Average number of credits earned, Years 1 to 4	39.4	37.8	1.6	0.286
Passed at least 5 Regents exams, Years 1 to 4 (%)	54.2	56.0	-1.8	0.656
Sample size (total = 456)	239	217		

(continued)

Appendix Table C.8 (continued)

SOURCE: MDRC calculations using data from New York City Department of Education administrative records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to the differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Years 1, 2, 3, and 4 cover the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years, respectively.

The Regents measures in this table include the following Regents exams: English, Math A, Math B, Geometry, Integrated Algebra, Algebra 2/Trigonometry, U.S. History and Government, Global History and Geography, Living Environment, Chemistry, Physics, and Earth Science.

School environment was defined using the average pass rates for the English and math Regents exams for all students attending a given school in the two years prior to the study. Schools were then divided into thirds based on the ranking (lower, medium, and higher) of the pass rates.

Appendix D

Supplementary Tables for Chapter 5

The Opportunity NYC Demonstration: Family Rewards

Appendix Table D.1

Impacts on Parents' Medicaid Coverage, Years 1 to 3

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Parents' Medicaid coverage</u>				
Ever covered (%)				
Years 1-3	79.8	79.9	-0.2	0.848
Year 1	74.4	73.7	0.6	0.463
Year 2	72.6	71.2	1.4	0.171
Year 3	71.0	69.8	1.1	0.293
Always covered (%)				
Years 1-3	37.3	34.8	2.5 **	0.041
Year 1	54.4	51.8	2.6 **	0.028
Year 2	54.9	52.0	2.9 **	0.018
Year 3	52.5	50.6	1.9	0.136
Average number of covered quarters				
Years 1-3	7.7	7.5	0.2 *	0.056
Year 1	2.6	2.6	0.1 *	0.074
Year 2	2.6	2.5	0.1 *	0.072
Year 3	2.5	2.5	0.1	0.200
Sample size (total = 4,995)	2,515	2,480		

SOURCE: MDRC calculations from Human Resources Administration (HRA) Medicaid coverage data.

NOTES: A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table D.2

**Impacts on Parents' Medicaid Coverage,
by Parents' TANF or SNA Receipt at the Time of Random Assignment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Not receiving TANF/SNA at baseline</u>				
Ever covered by Medicaid (%)				
Years 1-3	74.3	74.5	-0.2	0.840
Year 1	67.8	67.1	0.7	0.539
Year 2	67.0	64.7	2.3 *	0.053
Year 3	65.3	63.8	1.5	0.242
Always covered by Medicaid (%)				
Years 1-3	34.5	31.1	3.4 **	0.013
Year 1	48.8	45.9	3.0 **	0.025
Year 2	50.7	47.0	3.7 ***	0.009
Year 3	48.8	46.3	2.5 *	0.087
Average number of quarters covered by Medicaid				
Years 1-3	7.1	6.8	0.3 **	0.030
Year 1	2.4	2.3	0.1 *	0.077
Year 2	2.4	2.3	0.1 **	0.023
Year 3	2.3	2.2	0.1	0.134
Sample size (total = 3,716)	1,848	1,868		
<u>Receiving TANF/SNA at baseline</u>				
Ever covered by Medicaid (%)				
Years 1-3	97.6	96.2	1.4	0.105
Year 1	96.1	93.4	2.7 **	0.026
Year 2	91.0	90.7	0.3	0.858
Year 3	89.1	88.0	1.1	0.530
Always covered by Medicaid (%)				
Years 1-3	45.0	45.1	-0.1	0.962
Year 1	71.7	70.3	1.3	0.612
Year 2	67.5	66.4	1.1	0.693
Year 3	64.2	62.7	1.4	0.621
Average number of quarters covered by Medicaid				
Years 1-3	9.8	9.7	0.1	0.451
Year 1	3.4	3.4	0.1	0.242
Year 2	3.2	3.2	0.0	0.748
Year 3	3.1	3.1	0.0	0.688
Sample size (total = 1,128)	583	545		

(continued)

Appendix Table D.2 (continued)

SOURCE: MDRC calculations from Human Resources Administration (HRA) Medicaid coverage data.

NOTES: A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of families or sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table D.3

Impacts on Focal Child's Health Outcomes, by Child's School Level

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Elementary school students at baseline					
Child's health (1 = poor; 5 = excellent)	4.0	4.0	0.0	0.781	0.018
Excellent (%)	42.4	39.6	2.8	0.383	
Very good (%)	23.3	27.8	-4.5	0.119	
Good (%)	25.7	23.7	2.0	0.479	
Fair (%)	7.7	7.7	-0.1	0.977	
Poor (%)	0.9	1.2	-0.3	0.655	
Child has any health condition ^a (%)	29.9	29.8	0.1	0.971	
Asthma	11.6	12.0	-0.5	0.831	
Learning disability	8.0	8.8	-0.8	0.638	
Attention deficit disorder	3.4	4.6	-1.2	0.337	
Sample size (total = 939)	486	453			
Middle school students at baseline					
Child's health (1 = poor; 5 = excellent)	4.1	3.9	0.1 *	0.051	0.127
Excellent (%)	45.9	38.3	7.6 **	0.021	
Very good (%)	24.5	25.8	-1.3	0.663	
Good (%)	21.2	26.4	-5.3 *	0.064	
Fair (%)	5.9	8.4	-2.5	0.141	
Poor (%)	2.6	1.1	1.5 *	0.096	
Child has any health condition ^a (%)	26.1	26.4	-0.3	0.914	
Asthma	9.8	9.3	0.5	0.815	
Learning disability	5.5	5.6	-0.2	0.918	
Attention deficit disorder	3.5	3.9	-0.4	0.725	
Sample size (total = 905)	473	432			
High school students at baseline					
Child's health (1 = poor; 5 = excellent)	3.9	3.9	0.0	0.598	0.037
Excellent (%)	37.2	37.0	0.2	0.959	
Very good (%)	27.0	25.7	1.3	0.674	
Good (%)	26.0	25.3	0.7	0.819	
Fair (%)	8.5	10.7	-2.2	0.282	
Poor (%)	1.4	1.4	0.0	0.992	

(continued)

Appendix Table D.3 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Child has any health condition ^a (%)	24.7	23.9	0.8	0.788	
Asthma	7.2	6.3	0.9	0.620	
Learning disability	5.6	5.5	0.2	0.920	
Attention deficit disorder	2.1	2.4	-0.4	0.732	
Sample size (total = 812)	429	383			

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: This table presents outcomes only for focal children who were living in the household at the time of the survey interview. Over 95 percent of elementary, middle, and high school level children were in the 4th, 7th, and 9th target grades at random assignment, respectively.

Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

The effect size is the difference between program and control group outcomes expressed as a proportion of the standard deviation of the outcomes for both groups combined.

^aThis includes physical, medical, learning, emotional, or mental health conditions. The three most commonly reported conditions are listed. Sample members may list multiple conditions.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table D.4

**Health Insurance Rewards Earned for Maintaining Coverage,
by TANF or SNA Receipt at the Time of Random Assignment**

Outcome	Year 1	Year 2	Year 3 ^a	Years 1, 2, and 3 Combined
<u>Families not receiving TANF/SNA at baseline (%)</u>				
Parents				
Earned at least one reward for parents'				
Public health insurance	61.4	63.5	--	69.2
Private health insurance	25.8	25.3	--	29.9
Public or private health insurance	82.4	84.4	--	90.4
Sample size				1,848
Families				
Earned at least one reward for children's				
Public health insurance	68.9	69.1	--	74.9
Private health insurance	20.0	18.1	--	23.0
Public or private health insurance	83.2	82.6	--	89.4
Sample size				1,724
<u>Families receiving TANF/SNA at baseline (%)</u>				
Parents				
Earned at least one reward for parents'				
Public health insurance	81.3	82.5	--	89.4
Private health insurance	3.1	4.0	--	5.0
Public or private health insurance	82.5	85.1	--	90.9
Sample size				583
Families				
Earned at least one reward for children's				
Public health insurance	75.4	77.2	--	82.8
Private health insurance	2.3	2.1	--	3.0
Public or private health insurance	76.3	78.9	--	83.8
Sample size				569

SOURCE: MDRC calculations using Seedco's Family Rewards program data.

NOTE: The first program year covers September 2007 through August 2008; the second program year covers September 2008 through August 2009; and the third program year covers September 2009 through August 2010.

^aThis reward was discontinued in Year 3.

Appendix E

Supplementary Tables for Chapter 6

The Opportunity NYC Demonstration: Family Rewards

Appendix Table E.1

**Impacts on UI-Covered Employment, Earnings,
and Earnings Categories, Years 1 to 3**

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever employed (%)				
Years 1-3	63.3	64.9	-1.6	0.114
Year 1	56.3	58.7	-2.4 ***	0.008
Year 2	55.0	56.2	-1.2	0.240
Year 3	52.5	53.3	-0.9	0.420
Average quarterly employment (%)				
Years 1-3	47.7	48.7	-1.0	0.209
Year 1	49.1	50.4	-1.3 *	0.098
Year 2	47.8	48.8	-1.0	0.273
Year 3	46.1	46.7	-0.6	0.512
Total earnings (\$)				
Years 1-3	36,912	37,506	-594	0.424
Year 1	12,154	12,376	-221	0.323
Year 2	12,344	12,601	-257	0.369
Year 3	12,414	12,529	-116	0.720
Total earnings, Year 1 (%)				
\$1 - \$4,999	9.0	10.6	-1.6 **	0.047
\$5,000 - \$9,999	6.7	7.5	-0.8	0.282
\$10,000 - \$19,999	14.5	14.7	-0.1	0.886
\$20,000 - \$29,999	11.1	10.3	0.8	0.323
Over \$30,000	14.9	15.7	-0.7	0.299
Total earnings, Year 2 (%)				
\$1 - \$4,999	9.4	9.1	0.3	0.736
\$5,000 - \$9,999	6.3	6.6	-0.3	0.669
\$10,000 - \$19,999	12.7	13.9	-1.1	0.210
\$20,000 - \$29,999	10.7	10.4	0.3	0.761
Over \$30,000	16.0	16.3	-0.3	0.682
Total earnings, Year 3 (%)				
\$1 - \$4,999	7.4	7.8	-0.4	0.580
\$5,000 - \$9,999	6.1	6.0	0.1	0.893
\$10,000 - \$19,999	12.1	13.4	-1.3	0.140
\$20,000 - \$29,999	10.3	10.1	0.2	0.826
Over \$30,000	16.6	16.0	0.6	0.460
Sample size (total = 4,993)	2,513	2,480		

(continued)

Appendix Table E.1 (continued)

SOURCE: MDRC calculations using data from New York State unemployment insurance (UI) wage records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the difference between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics for sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

This table includes only employment and earnings in jobs covered by the New York State UI program. It does not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

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Appendix Table E.2

Impacts on UI-Covered Employment and Earnings, by Respondent's Education Level at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>High school diploma/GED certificate or higher at baseline</u>					
Full sample (UI records)					
Ever employed (%)					
Year 1-3	71.2	72.1	-0.9	0.451	
Year 1	65.3	66.6	-1.3	0.261	
Year 2	63.4	63.1	0.3	0.844	†
Year 3	60.5	59.9	0.6	0.667	
Average quarterly employment (%)					
Year 1-3	56.3	55.8	0.4	0.682	††
Year 1	57.9	58.7	-0.8	0.435	
Year 2	56.5	55.6	0.9	0.442	††
Year 3	54.3	53.2	1.1	0.395	††
Total earnings (\$)					
Year 1-3	48,320	48,406	-86	0.937	
Year 1	15,730	16,084	-354	0.276	
Year 2	16,219	16,198	21	0.960	
Year 3	16,370	16,124	247	0.611	
Sample size (total = 2,863)	1,404	1,459			
<u>No high school diploma/GED certificate at baseline</u>					
Full sample (UI records)					
Ever employed (%)					
Years 1-3	53.0	55.6	-2.6	0.128	
Year 1	44.2	48.4	-4.2 ***	0.007	
Year 2	43.9	47.4	-3.5 **	0.042	†
Year 3	41.8	44.6	-2.8	0.116	
Average quarterly employment (%)					
Years 1-3	36.2	39.2	-3.1 **	0.014	††
Year 1	37.1	39.6	-2.5 **	0.049	
Year 2	36.2	40.0	-3.8 **	0.010	††
Year 3	35.1	38.0	-2.9 *	0.062	††

(continued)

Appendix Table E.2 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Total earnings (\$)					
Years 1-3	20,730	22,519	-1,790 *	0.060	
Year 1	7,011	7,249	-238	0.414	
Year 2	6,875	7,689	-815 **	0.032	
Year 3	6,844	7,580	-737 *	0.062	
Sample size (total = 1,960)	1,021	939			

SOURCES: MDRC calculations using data from New York State unemployment insurance (UI) wage records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

This table includes only employment and earnings in jobs covered by the New York State UI program. It does not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

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Appendix Table E.3

Impacts on UI-Covered Employment and Earnings, by Respondent's Employment Status at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Employed at baseline</u>					
Full sample (UI records)					
Ever employed (%)					
Years 1-3	86.3	87.2	-0.8	0.374	
Year 1	83.1	84.2	-1.1	0.255	†
Year 2	79.5	80.3	-0.9	0.486	
Year 3	76.5	76.4	0.1	0.928	
Average quarterly employment (%)					
Years 1-3	73.8	73.6	0.2	0.853	†
Year 1	77.2	77.8	-0.6	0.533	
Year 2	73.3	73.0	0.4	0.777	
Year 3	70.8	70.0	0.8	0.563	
Total earnings (\$)					
Years 1-3	61,296	61,979	-683	0.569	
Year 1	20,522	20,837	-315	0.372	
Year 2	20,291	20,715	-425	0.357	
Year 3	20,484	20,427	57	0.915	
Sample size (total = 2,633)	1,324	1,309			
<u>Not employed at baseline</u>					
Full sample (UI records)					
Ever employed (%)					
Years 1-3	37.4	39.8	-2.4	0.192	
Year 1	25.7	30.0	-4.3 **	0.011	†
Year 2	27.3	29.1	-1.8	0.295	
Year 3	25.5	27.7	-2.2	0.201	
Average quarterly employment (%)					
Years 1-3	18.2	20.7	-2.5 **	0.033	†
Year 1	17.2	19.7	-2.6 **	0.042	
Year 2	19.0	21.6	-2.6 *	0.057	
Year 3	18.3	20.7	-2.4 *	0.097	

(continued)

Appendix Table E.3 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Total earnings (\$)					
Years 1-3	9,368	10,007	-640	0.447	
Year 1	2,685	2,862	-177	0.502	
Year 2	3,384	3,487	-103	0.752	
Year 3	3,298	3,659	-360	0.293	
Sample size (total = 2,282)	1,147	1,135			

SOURCES: MDRC calculations using data from New York State unemployment insurance (UI) wage records.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

This table includes only employment and earnings in jobs covered by the New York State UI program. It does not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

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Appendix Table E.4

**Impacts on Education and Training, by Respondent's
Employment Status at the Time of Random Assignment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Employed at baseline (%)</u>					
Currently participating in any education or training activity	15.4	10.9	4.6 ***	0.009	
Has any trade license or training certification	57.5	57.1	0.4	0.873	††
Has bachelor's degree or higher	12.6	11.7	0.9	0.568	
Sample size (total = 1,529)	799	730			
<u>Not employed at baseline (%)</u>					
Currently participating in any education or training activity	10.5	9.3	1.1	0.489	
Has any trade license or training certification	50.8	43.2	7.7 ***	0.004	††
Has bachelor's degree or higher	7.2	4.8	2.4 *	0.055	
Sample size (total = 1,395)	721	674			

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

This table reports on degrees and licenses received, regardless of whether they were received before or after random assignment.

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Appendix Table E.5

**Impacts on Education and Training, by Respondent's
Poverty Level at the Time of Random Assignment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income at or above 50% of FPL at baseline (%)</u>				
Currently participating in any education or training activity	15.0	10.5	4.5 ***	0.005
Has any trade license or training certification	56.5	53.7	2.8	0.226
Has bachelor's degree or higher	10.5	10.1	0.5	0.742
Sample size (total = 1,785)	964	821		
<u>Income less than 50% of FPL at baseline (%)</u>				
Currently participating in any education or training activity	10.4	9.2	1.2	0.494
Has any trade license or training certification	51.1	45.4	5.7 **	0.049
Has bachelor's degree or higher	9.1	5.9	3.2 **	0.034
Sample size (total = 1,180)	579	601		

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. No statistically significant differences between subgroup impacts were observed.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.

Rounding may cause slight discrepancies in calculating sums and differences.

This table reports on degrees and licenses received, regardless of whether they were received before or after random assignment.

FPL = federal poverty level.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table E.6

**Occupations and Industries of Jobs Held by Respondents
at the Time of the 42-Month Survey**

Outcome	Survey Data Only (Non-UI)	UI and Survey Data
<u>Occupation (%)</u>		
Service workers	61.4	46.6
Child care	35.1	1.6
Health care support	8.3	21.4
Clerical workers	9.1	16.8
Maintenance workers	7.5	6.0
Sales-related workers	3.5	5.0
Management, business/finance	4.0	5.0
Teaching assistants and school aides	3.5	9.5
Other	11.0	11.2
<u>Industry (%)</u>		
Transportation, warehousing, and utilities	3.0	4.3
Construction, manufacturing, wholesale trade, and retail trade	7.4	8.0
Finance, insurance, real estate, rental, and leasing	1.1	2.6
Educational services	3.6	11.7
Health care and social services	50.0	43.3
Food preparation and accomondation	3.0	3.1
Administrative, support, and waste management	6.8	8.7
Public administration, information, arts and entertainment, professional, and other services	14.2	8.5
Other	10.9	9.9
Sample size (total = 1,562)	373	1,189

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) administrative records.

NOTES: Sample sizes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums and differences.

Estimates include only the sample members who reported that they were employed at the time of the survey interview.

The Opportunity NYC Demonstration: Family Rewards

Appendix Table E.7

Impacts on Employment, Earnings, and Average Rewards Earned,
by Respondent's Employment Status at the Time of Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Employed at baseline</u>					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	73.8	73.6	0.2	0.853	†
Total earnings, Years 1-3 (\$)	61,296	61,979	-683	0.569	
Sample size (total = 2,633)	1,324	1,309			
Survey sample					
Self-reported responses					
Currently working (%)	82.3	75.2	7.0 ***	0.001	
Ever worked since random assignment (%)	96.3	96.0	0.3	0.786	
Number of months worked in past year	9.7	9.0	0.7 ***	0.003	
UI records					
Working in quarter of survey interview, according to UI (%)	72.2	68.5	3.7 *	0.074	††
Average quarterly employment, Years 1-3 (%)	75.9	75.4	0.5	0.717	
Total earnings, Years 1-3 (\$)	62,550	61,554	995	0.513	
Sample size (total = 1,529)	799	730			
Rewards earned, program group families					
Amount of education rewards earned (\$)	4,094	--	--		
Amount of health rewards earned (\$)	3,099	--	--		
Amount of workforce rewards earned (\$)	2,903	--	--		
Total rewards earned (\$)	10,095	--	--		
Sample size	1,235				

(continued)

Appendix Table E.7 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Not employed at baseline					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	18.2	20.7	-2.5 **	0.033	†
Total earnings, Years 1-3 (\$)	9,368	10,007	-640	0.447	
Sample size (total = 2,282)	1,147	1,135			
Survey sample					
Self-reported responses					
Currently working (%)	27.5	23.1	4.4 *	0.054	
Ever worked since random assignment (%)	57.2	55.1	2.2	0.387	
Number of months worked in past year	3.5	3.1	0.4 *	0.097	
UI records					
Working in quarter of survey interview, according to UI (%)	18.9	21.1	-2.2	0.294	††
Average quarterly employment, Years 1-3 (%)	18.1	20.4	-2.3	0.129	
Total earnings, Years 1-3 (\$)	8,948	9,405	-457	0.661	
Sample size (total = 1,395)	721	674			
Rewards earned, program group families					
Amount of education rewards earned (\$)	3,728	--	--		
Amount of health rewards earned (\$)	2,876	--	--		
Amount of workforce rewards earned (\$)	599	--	--		
Total rewards earned (\$)	7,203	--	--		
Sample size	1,103				

(continued)

Appendix Table E.7 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) wage records, and Seedco's Family Rewards program data.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

UI records include only employment and earnings in jobs covered by the New York State UI program. They do not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

A double dash (--) indicates "not applicable."

Opportunity NYC Demonstration: Family Rewards

Appendix Table E.8

**Impacts on Employment, Earnings, and Average Rewards Earned,
by Respondent's Poverty Level at the Time of Random Assignment**

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Income at or above 50% of FPL at baseline</u>					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	66.2	66.6	-0.3	0.725	†
Total earnings, Years 1-3 (\$)	55,026	55,435	-409	0.708	
Sample size (total = 3,062)	1,584	1,478			
Survey sample					
Self-reported responses					
Currently working (%)	67.9	62.0	5.9 ***	0.002	
Ever worked since random assignment (%)	87.4	86.0	1.4	0.344	
Number of months worked in past year	8.1	7.5	0.6 ***	0.007	
UI records					
Working in quarter of survey interview, according to UI (%)	63.7	62.0	1.6	0.392	
Average quarterly employment, Years 1-3 (%)	67.6	67.7	-0.1	0.956	
Total earnings, Years 1-3 (\$)	55,558	54,561	997	0.472	
Sample size (total = 1,785)	964	821			
Rewards earned, program group families					
Amount of education rewards earned (\$)	3,998	--	--		
Amount of health rewards earned (\$)	3,076	--	--		
Amount of workforce rewards earned (\$)	2,395	--	--		
Total rewards earned (\$)	9,469	--	--		
Sample size	1,478				

(continued)

Appendix Table E.8 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
<u>Income less than 50% of FPL at baseline</u>					
Full sample, UI records					
Average quarterly employment, Years 1-3 (%)	17.6	20.8	-3.2 **	0.011	†
Total earnings, Years 1-3 (\$)	7,946	9,281	-1,335 *	0.095	
Sample size (total = 1,931)	929	1,002			
Survey sample					
Self-reported responses					
Currently working (%)	38.0	30.9	7.2 ***	0.004	
Ever worked since random assignment (%)	63.2	60.2	3.0	0.225	
Number of months worked in past year	4.6	4.0	0.6 **	0.015	
UI records					
Working in quarter of survey interview, according to UI (%)	20.4	20.2	0.2	0.928	
Average quarterly employment, Years 1-3 (%)	18.0	20.2	-2.2	0.176	
Total earnings, Years 1-3 (\$)	7,815	8,807	-992	0.312	
Sample size (total = 1,180)	579	601			
Rewards earned, program group families					
Amount of education rewards earned (\$)	3,736	--	--		
Amount of health rewards earned (\$)	2,818	--	--		
Amount of workforce rewards earned (\$)	813	--	--		
Total rewards earned (\$)	7,368	--	--		
Sample size	899				

(continued)

Appendix Table E.8 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 42-month survey and New York State unemployment insurance (UI) wage records, and Seedco's Family Rewards program data.

NOTES: Sample sizes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the program and control groups. The p-value indicates the likelihood that the differences between the program and control groups arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Standard errors were adjusted to account for multiple observations per family.

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not employed.

UI records include only employment and earnings in jobs covered by the New York State UI program. They do not include employment outside of New York State, nor in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

A double dash (--) indicates "not applicable."

FPL = federal poverty level.

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