FIRST CONDITIONAL CASH TRANSFER PROGRAM

What Worked, What Didn't



James Riccio Cynthia Miller

May 2016

New York City's First Conditional Cash Transfer Program

What Worked, What Didn't

James Riccio Cynthia Miller



May 2016

Funders of the Opportunity NYC-Family Rewards Demonstration

MDRC conducted the Opportunity NYC-Family Rewards Demonstration through a contract with the Mayor's Fund to Advance New York City and under the direction of the New York City Center for Economic Opportunity. Funding for the project is provided by 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, and the New York Community Trust.

Dissemination of MDRC publications is supported by the following funders that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JBP Foundation, The Joyce Foundation, The Kresge Foundation, Laura and John Arnold Foundation, Sandler Foundation, and The Starr Foundation.

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

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders, the Mayor's Fund to Advance New York City, or the New York City Center for Economic Opportunity.

For information about MDRC and copies of our publications, see our website: www.mdrc.org.

Copyright © 2016 by MDRC®. All rights reserved.

Overview

This report summarizes the findings of a long-term evaluation of Opportunity NYC–Family Rewards, an experimental, privately funded, conditional cash transfer (CCT) program to help families break the cycle of poverty. Family Rewards was the first comprehensive CCT program in a developed country. Launched in 2007 by New York City's Center for Economic Opportunity, it 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 a broad array of cash rewards (financial incentives) to prespecified activities and outcomes in the areas of 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 evaluated the program through a randomized controlled trial involving approximately 4,800 families with 11,000 children; half of the families could receive the cash rewards if they met the required conditions, and half were assigned to a control group that did not participate in the program and could not receive the rewards. This report distills previously published findings and some longer-term updates on the program's effects on a wide range of outcomes, covering two to six years after families entered the study (depending on the data source).

Key Findings

Family Rewards transferred over \$8,700, on average, to families during the three-year period in which it operated. By the end of the study, it had produced some positive effects on some outcomes, but left many other outcomes unchanged. For example, the program:

- Reduced current poverty and material hardship, including hunger and some housing-related hardships (especially for families in severe poverty), although those effects weakened after the cash transfers ended
- Did not improve school outcomes for elementary or middle school students
- Substantially increased graduation rates and other school outcomes for ninth-graders who entered high school as proficient readers, and increased their likelihood of subsequently enrolling full time in four-year colleges
- Had few positive effects on school outcomes for nonproficient students
- Did not increase families' receipt of annual medical checkups, which was already high, and had limited effects on families' health outcomes
- Substantially increased families' receipt of preventive dental care
- Did not increase parents' employment in or earnings from jobs covered by the unemployment insurance system (thus impeding sustained reductions in poverty), and led to some small earnings reductions for certain more disadvantaged subgroups

MDRC is also studying a revised Family Rewards model that operated in Memphis, Tennessee, and the Bronx, New York, as part of a separate demonstration project, referred to as Family Rewards 2.0.

Contents

Lis Pre Acl	erview t of Exhibits eface knowledgments ecutive Summary	iii V ix xi ES-1
	apter	L5-1
1	Introduction Origins of the Family Rewards Demonstration Controversies Evaluation Findings in Brief Family Rewards 2.0 The Remainder of This Report	1 2 5 6 7 9
2	Designing Family Rewards The Theory Behind Family Rewards Eligibility for Family Rewards Types of Rewards A Complex Design Challenge No Case Management	11 11 13 14 18 20
3	Delivering Cash Rewards Operating the Program Families' Understanding of the Rewards Families' Receipt and Use of the Cash Transfers Program Costs	23 23 24 27 30
4	The Impact of Family Rewards on Poverty, Hardship, and Human Capital Current Poverty and Hardship Children's Education Health Care Behaviors and Health Conditions Parents' Employment and Training	33 33 37 55 61
5	An Overall Assessment Why Didn't Family Rewards Have Larger and Broader Impacts? A Revised CCT Model: Family Rewards 2.0 Conclusion	69 69 75 77
Ref	ferences	79
	rlier MDRC Publications on the Opportunity NYC–Family Rewards monstration	85

List of Exhibits

Table		
2.1	Incentives Offered in Opportunity NYC-Family Rewards	15
3.1	Summary of Rewards Earned by Families	27
4.1	Impacts on Selected Outcomes Measuring Poverty, Material Hardship, and Banking Through the Final Program Year or Early Post-Program Period	34
4.2	Impacts on Selected Outcomes Measuring Income, Poverty, and Material Hardship Through the Final Program Year or Early Post-Program Period, by Respondent's Poverty Level at the Time of Random Assignment	38
4.3	Impacts on Selected Education Outcomes for Students in Grade 9 at Random Assignment	43
4.4	Impacts on Selected Education Outcomes for Students in Grade 9 at Random Assignment, by Performance on English Language Arts (ELA) Test in the Prior Year (Grade 8)	45
4.5	Impacts on Postsecondary Enrollment for Students in Grade 9 at the Time of Random Assignment	53
4.6	Impacts on Postsecondary Enrollment 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)	54
4.7	Impacts on Test Scores for Children Ages 2 to 7 at the Time of Random Assignment	55
4.8	Impacts on Selected Outcomes Measuring Health Care Through the Final Program Year or Early Post-Program Period	58
4.9	Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Respondent's Self-Rated Health at the Time of Random Assignment	60
4.10	Impacts on Selected Characteristics of Parents' Self-Reported Employment in the Final Program Year or Early Post-Program Period	63
4.11	Impacts on Employment and Earnings Covered by Unemployment Insurance, Years 1 to 5	64
4.12	Impacts on Respondents' Employment and Earnings Covered by Unemployment Insurance, by Selected Characteristics at the Time of Random Assignment	66

Box

ES.1	Types of Activities for Which Family Rewards Offered Incentives	ES-3
2.1	The Family Rewards Incentives: Overall Design Considerations	19
3.1	How Families Responded to the Education Incentives in Family Rewards: A Qualitative Perspective	26
4.1	How to Read the Impact Tables in This Report	36
4.2	Using Incentives to Change the Way Teenagers Spend Their Time	48

Preface

In 2006, under former Mayor Michael R. Bloomberg, New York City officials began exploring new approaches to reduce poverty. One bold idea that captured their attention — conditional cash transfers (CCTs) — came from Mexico, and it was spreading throughout Latin America and other low- and middle-income regions of the world. The concept was fairly simple in principle: to reduce current poverty by making substantial cash payments to poor families now, while structuring those payments in a way that could reduce families' longer-term poverty, especially the chances that their children would grow up poor. To receive the cash transfers, parents had to keep their children in school and get regular preventive health care for the whole family.

This concept was transformational in Mexico, which had had no national cash transfer system previously. A rigorous evaluation showed that it reduced poverty and improved a number of health and school outcomes for children. That evidence gave the program staying power across government administrations, and it propelled other countries to replicate the approach. Evaluation findings from multiple countries offered further support.

Learning about this expanding international CCT movement, New York City officials wondered whether such a program could work in their city despite differences between its poverty and the largely rural poverty of Mexico, and the reality that New York City already had a well-established safety net (with important strands conditioned on work). To find out, the city's Center for Economic Opportunity (CEO) commissioned MDRC to help it design and test a CCT approach, which came to be known as Opportunity NYC–Family Rewards. This three-year pilot program was launched in 2007 in six of the city's highest-poverty communities. Broader in scope and more complex than other CCT programs, Family Rewards' incentives were spread across three domains: children's education, families' preventive health care, and parents' employment. It was bold, innovative, untested, and — given the broad-ranging opinions about fighting poverty with incentives — controversial.

The results of a careful randomized trial are now in and paint a mixed picture. The program's near-term reductions in poverty and, especially, in a range of material hardships, were its most impressive effects. And, overall, it achieved those effects without large unintended consequences, and despite transferring substantial amounts of money to participating low-income families. It also appeared to produce encouraging improvements in some academic and health-related outcomes for select participant subgroups. But it left most human capital outcomes — the primary targets of the program — unchanged.

Still, some promising effects that emerged early in the study provided a foundation and rationale for trying again with a modified approach. In 2011, MDRC and CEO redesigned and launched a test of a revised CCT model, dubbed "Family Rewards 2.0." It operated for over three years (ending in 2014) in the Bronx, New York, and in Memphis, Tennessee. A report on its effects is scheduled for release in late 2016.

During the design phase of the original demonstration, many choices about what activities and accomplishments to reward, and how to structure and target the rewards, had to be made without the benefit of a strong evidence base. The lessons that are now available can help inform further considerations of the use of incentives and CCT programs to help low-income families rise out of poverty, internationally as well as in the United States.

Gordon L. Berlin President, MDRC

Acknowledgments

This report reflects contributions from many people. We are especially grateful to the families who participated in the Opportunity NYC–Family Rewards program and the members of the control group who allowed us to learn firsthand from their experiences. We also appreciate the assistance of the many staff members at Seedco, especially former staff members Andrea Phillips and Rebecca Ross, and the participating Neighborhood Partner Organizations for the hours they spent helping us understand their pioneering efforts in operating the program and in supplying us with essential data on families' participation.

We owe special thanks to former Mayor Michael R. Bloomberg and former Deputy Mayor Linda Gibbs for their support for the project from its inception and their commitment to its rigorous evaluation. We thank staff of the New York City Center for Economic Opportunity, especially Sinead Keegan and Kate Dempsey and former staff members Veronica White, Kristin Morse, and Allegra Blackburn-Dwyer, for their overall coordination of the project, their assistance in helping us acquire crucial data from various city agencies, and their insights over the course of the study into the policy significance of the findings.

We appreciate the support of all the funders throughout the demonstration. They 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, and the New York Community Trust.

At MDRC, Gordon Berlin, William Corrin, David Greenberg, and John Hutchins provided valuable feedback on drafts of this report. Jared Smith led a team of MDRC researchers in acquiring and processing the quantitative data used in the analysis. Kemar Taylor and Jonathan Rodriguez prepared the exhibits and assisted with fact-checking. Alice Tufel edited the report, and Stephanie Cowell and Carolyn Thomas prepared it for publication. We also acknowledge with gratitude the work of many other MDRC staff and consultants who contributed to MDRC's previously published reports on Family Rewards (which are listed at the end of this document) — the foundation on which most of the current report is based.

The Authors

Executive Summary

In 2006, during the administration of former Mayor Michael R. Bloomberg, New York City officials began to explore bold new ways of using financial incentives to address some of the root causes of poverty. City officials had become intrigued with the success of Mexico and a growing number of other lower- and middle-income countries in reducing poverty through incentives-based conditional cash transfer (CCT) programs, which provide cash rewards that are conditioned on participants' achievement of specified behavioral benchmarks. They wondered whether such an approach could work in New York City. The newly established Center for Economic Opportunity (CEO), a unit within the Office of the Mayor, led the effort to find out.

After an extensive consultation and design phase, supported in part by the Rockefeller Foundation and involving input from a wide range of city, national, and international experts (including MDRC and Seedco, a New York-based nonprofit workforce and economic development organization), CEO launched Opportunity NYC–Family Rewards, an experimental three-year CCT program for some of New York City's most disadvantaged families. It selected Seedco to operate the program in partnership with six community-based organizations, and MDRC to evaluate it. A consortium of private funders paid for the cash transfers, the operation of the program, and the evaluation. The program concluded, as planned, in 2010.

This report recaps the history and design of Family Rewards and summarizes the main research findings. In doing so, it synthesizes MDRC's previously published findings and presents new results on selected outcomes over a longer follow-up period (many of which confirm early patterns). Depending on the data source, it covers program effects on parents and children for up to six years after the date when each family entered the study. A companion document provides more detail on the longer-term findings from the administrative data and is available as an online supplement to this report.²

The International CCT Movement

Mexico pioneered the use of CCT programs. Its program, Prospera, was originally named Progresa and then Oportunidades. It provides immediate relief to very poor families, mostly in rural areas, through direct cash payments that are conditioned in part on children remaining in school. These payments are intended as one effort to combat the problem of children leaving school

¹The funders of Opportunity NYC–Family Rewards are 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, and New York Community Trust.

²Cynthia Miller and Victoria Deitch, New York City's First Conditional Cash Transfer Program: What Worked, What Didn't — Supplemental Data on Impacts and Costs (New York: MDRC, 2016).

early, particularly in the middle grades, often to work in the fields to help their families earn much-needed income. It also requires families to get preventive health care and adopt certain child nutrition practices. In these ways, Prospera links basic income support with investments in families' education, health, and employment potential — that is, their "human capital."

Today, CCT programs of varying scope and scale operate in most Latin American countries and in several countries in Africa, the Middle East, and Asia. Many of the programs serve as a core feature of a country's social and economic "safety net," and they typically condition the cash transfers on children's school attendance and families' preventive health care practices. Overall, studies have found CCT programs to improve school attendance, reduce short-term poverty, and increase consumption, particularly food consumption, with larger effects from programs that offered bigger transfers.³

A CCT Program for New York City: What Was Tried?

New York City officials recognized that the urban poverty of its communities was vastly different from the largely rural poverty of Mexico and other low- or middle-income countries, and the reasons for children dropping out of school or performing poorly were not the same. Moreover, New York City, like the rest of the United States, already had a well-developed safety net, including income transfer programs for poor families. In contrast, Mexico had no national income support system, and its CCT program was instituted as the country's main cash welfare system for poor families. A CCT program in New York City would thus have to be adapted to very different conditions.

Following the basic tenet of all CCT programs, the intent of New York's initiative was twofold: to use the rewards to reduce *current* family poverty and hardships, while simultaneously supporting and encouraging families to invest in their own "human capital development" for their *longer-term* economic security. It tied cash rewards to a variety of activities and outcomes in three main domains: (1) children's educational efforts and achievement, (2) families' preventive health care practices, and (3) parents' employment. The program operated in six of New York City's highest-poverty communities, two each from the Bronx, Brooklyn, and Manhattan.

The Family Rewards model was far more comprehensive and complex than CCT programs in other countries. It included 22 different financial rewards for various activities, which are summarized in Box ES.1. Values ranged from \$20 per month for a parent maintain-

³Ariel Fiszbein and Norbert Schady, *Conditional Cash Transfers: Reducing Present and Future Poverty* (Washington, DC: The World Bank, 2009).

Box ES.1

Types of Activities for Which Family Rewards Offered Incentives

Children's Education

Students:

- High attendance (95 percent of scheduled days)
- Proficient performance on standardized tests
- Taking PSATs
- · Getting a library card
- Earning required number of high school credits per year
- · Graduating from high school

Parents:

- Discussing test results with teachers
- Attending parent-teacher conferences

Family Preventive Health Care

- Maintaining health insurance
- Getting preventive medical and dental check-ups

Parents' Work and Training

- Sustaining full-time work
- Completing education/training

ing public health insurance coverage for herself or himself to \$600 for a high school student passing a New York State Regents (subject area) test.⁴

The program purposely included no case management. The goal was to test an "incentives-only" intervention. However, the program staff informed families about other programs and services that they could try to access in the community that might help them achieve the outcomes for which Family Rewards offered cash incentives. Its staff also marketed the incentives heavily over the three-year program period in order to remind families of the CCT offer.

⁴Regents exams are administered to all public high school students in New York State. Students 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.

The Evaluation

Family Rewards was certainly not the first income transfer program in the United States to attach conditions to the receipt of benefits. The Earned Income Tax Credit (EITC), for example, conditions payments entirely on work. And the Temporary Assistance for Needy Families (TANF) program conditions cash assistance on parents' efforts to look for work (unless they are exempted).

Family Rewards established a much broader quid pro quo for benefits than these mainstream, work-based safety net programs. Its expansion of conditionality into the domains of education and health, in addition to employment, with a large and diverse range of incentives, made it much more comprehensive and complex than any income transfer program ever operated in the United States (and possibly anywhere). Neither its operational success nor its effects on families could be taken for granted.

MDRC used a randomized controlled trial (RCT) to determine the program's effects on families. The study involved approximately 4,800 families who applied for it, with 11,000 children (including elementary, middle, and high school students). Through a lottery-like process, about half of the applicant families were picked for Family Rewards and offered the incentives (the program group), and the balance were assigned to a control group that was not offered the incentives. As an RCT, the evaluation of Family Rewards measured the program's effects, or "impacts," by comparing the outcomes of the program and control groups; differences between the two groups' outcomes that are statistically significant — that is, that are unlikely to have arisen by chance alone — can be attributed with a high degree of confidence to the program.⁵

Data for the evaluation came from administrative records and two waves of surveys of parents (at 18 months and at 42 months after random assignment), and a special survey of teenagers at two years after random assignment. Other data, including findings from in-depth interviews with families and staff, as well as program fiscal data, provided evidence on program operations and costs, families' reward receipt patterns, and families' understanding and views of the program.

The evaluation found that Family Rewards transferred a substantial amount of cash to families, which reduced their current poverty and material hardship — its short-term goal. It also had a number of positive impacts on some participants' human capital outcomes (in support of its longer-term poverty-reduction goal), but it left most human capital outcomes unchanged for the majority of families.

⁵Unless otherwise noted, the impacts cited in this Executive Summary are statistically significant, with less than a 10 percent likelihood that they arose by chance alone.

Lessons Concerning Immediate Poverty Reduction

• Family Rewards successfully implemented a broad-based quid pro quo in transferring substantial amounts of money to low-income families.

The program passed a basic feasibility test: it transferred substantial amounts of money to low-income families, with all payments tied to a comprehensive and verifiable set of conditions. Virtually all families in the study's program group earned and received rewards. On average, each family earned over \$8,700 for all three years combined. 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 cash transfers.

• Family Rewards reduced current poverty and material hardship, especially for families in "severe poverty" — those with incomes that are less than half of the federal poverty level.

Overall, when the program was operating, it succeeded in reducing current poverty. For example, counting the value of the reward payments, it boosted self-reported average household income for the program group by \$353 per month in Year 3, an improvement of about 22 percent relative to the control group's average monthly income of \$1,620. This extra income reduced the proportion of families living at or below the federal poverty level by 12 percentage points relative to the control group rate of 68 percent.

The extra income helped those families reduce a variety of material hardships. For example, the proportion of families experiencing food insufficiency (meaning that parents indicated in survey interviews that their families "sometimes" or "often times" did not have enough to eat in the prior month) was 7 percentage points (or about 33 percent) lower than the control group average of 22 percent, according to the 18-month survey (when all program group members were still enrolled in Family Rewards). The magnitude of this effect was somewhat smaller by the time of the 42-month survey (about 5 percentage points). The parents in Family Rewards were also less likely (by 4 percentage points) than control group parents to report on the 42-month survey that they did not have enough money to pay their rent at some point in the prior year. They were less likely (by 5.6 percentage points) to report at that time that they did not have enough money to "make ends meet." Program group parents were about 18 percentage points more likely to report having a bank account after the program had ended. They were almost 8 percentage points more likely than control group parents to have any savings. And they were about 5 percentage points less likely to have borrowed cash from family or friends in the prior year.

Hardship reductions tended to be more concentrated among families who were living in severe poverty when they entered Family Rewards. For example, according to the 42-month

survey, the program reduced the proportion of that subgroup reporting food insufficiency by 9 percentage points (or by 40 percent) relative to similar families in the control group, and it reduced the proportion that had not paid their full rent in the past year by 11 percentage points (or 23 percent). In contrast, reductions in hardships were small and statistically insignificant among those whose poverty was not as severe at the time they began the program.

The reductions in material hardship that are evident in the early post-program period (as indicated by the 42-month survey results, roughly within the six months after the rewards offer ended) most likely reflected a lingering effect of the cash transfers. They were not indicative of a permanent change.

• The poverty and hardship reductions that Family Rewards had achieved began to attenuate after the cash transfers ended.

Most of the poverty reduction observed during the program period was attributable to the cash transfers that families received. Once Family Rewards ended and the transfers were no longer available, the average income of families in the program group no longer differed substantially from that of the control group. This outcome was a direct consequence of the failure of the program to lead to increased parental employment and earnings.

Lessons Concerning Human Capital Development

Although Family Rewards sought to reduce current poverty in a way that would improve the human capital of parents and children, to help them avoid future poverty, this goal proved harder to achieve. Some participants, especially teenagers who were already better students when they entered the program (that is, they had scored proficient or higher on their eighth-grade standardized tests), benefited from Family Rewards in a number of important ways. On most measures, however, and for the majority of families, the program had no positive effects or produced only small improvements.

A Few Positive Results

 Family Rewards increased high school achievement and graduation rates for initially better-prepared students, and increased their likelihood of full-time enrollment in four-year colleges.

Among students who were entering ninth grade when their families enrolled in Family Rewards, those who scored at or above proficiency levels on their eighth-grade standardized math and reading-focused English language arts (ELA) tests performed better in high school than they would have in the absence of the program. For example, these students achieved higher attendance rates, accumulated more course credits, and passed more subject-area Regents

exams than similarly proficient students in the control group. Moreover, as a result of Family Rewards, of the ninth-graders who were deemed *reading*-proficient when they entered high school (who made up about 31 percent of the overall sample of ninth-graders), 82 percent graduated within six years, a rate that was nearly 10 percentage points higher than the rate for similar students in the control group.

A special study that was conducted as part of the evaluation revealed that high school students in Family Rewards shifted more of their time during nonschool hours from social activities to academic activities (for example, homework and achievement-oriented after-school activities), compared with the way students in the control group spent their time. This change was greater among the more proficient students. As such, it may be one of the mechanisms through which the program improved the school outcomes for such students.

For the subgroup of ninth-graders who were initially proficient in reading, the positive schooling effects of Family Rewards carried over somewhat to postsecondary education. Although the program did not increase their overall enrollment in college and other postsecondary institutions, it changed the patterns of their engagement. For example, it increased *full-time enrollment* in *four-year institutions* by 9 percentage points above the 41 percent rate observed for comparable students in the control group.

Family Rewards reduced self-reported problem behaviors among teenagers.

The special study of teenagers' time use also examined the effects of Family Rewards on teenagers' mental health and problem behaviors. It found that teenagers in the program group reported lower levels of aggression and lower levels of alcohol and marijuana use, and a lower likelihood of having friends using those substances, compared with their control group peers. For example, they were about 10 percentage points less likely to report having engaged in behaviors that were intended to cause harm to others, and 15 percentage points less likely to report having engaged in any substance abuse in the prior month. These effects were observed regardless of the teenagers' educational proficiency levels.

Family Rewards increased families' receipt of dental care

Family Rewards led to increased dental care for parents and children alike. According to responses to the 42-month survey, 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

⁶Pamela 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).

year, and about 12 percentage points more likely to have had two dental checkups or more in the past year. The program also had strong positive effects on dental care among high school students and younger children.

Disappointing Results

Family Rewards had no positive effects on school outcomes for elementary school students or for middle school students.

For elementary and middle school students, the evaluation found no pattern of positive effects on attendance rates, scores on standardized tests, grade progression, or other school outcomes during the program period or after six years from the time of random assignment. In addition, subgroup analyses did not reveal any consistent patterns of positive effects for particular types of students in those grades. Perhaps the program model's limited approach for these children — primarily rewarding attendance and standardized test scores (rather than more immediate performance indicators, such as good report card grades), and paying all rewards to the parents — might help explain why Family Rewards did not benefit students who were in elementary and middle school when they entered the program.

Family Rewards had no positive effects on school outcomes for less proficient ninth-graders.

Ninth-grade students who were behind educationally when they entered Family Rewards (that is, they had scored below proficiency levels on their eighth-grade reading or math tests) did not experience any educational gains from the program. It may be that the members of this group, who made up about two-thirds of the overall sample of ninth-graders, were just too poorly prepared for high school or too disengaged from school for the incentives to make a difference.

Family Rewards did not improve the receipt of preventive health care services for most families.

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. The high rate in New York City, which was higher than in many other cities, likely reflects prior efforts by the city and state to improve access to health care coverage and to improve the health care delivery system for low- and moderate-income families. Most parents in the control group reported having health insurance for their families, reported getting regular physicals for themselves and their children,

⁷The study sample did not include low-income single adults or undocumented immigrants, who are much less likely to have health insurance.

and said they had a regular place for receiving routine health services (a "medical home"). Consequently, on some measures, Family Rewards had much less room to improve the use of basic preventive health care services further.

• Family Rewards did not lead parents to increase their employment or earnings in 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 over 6 percentage points above the control group rate of 50 percent. This difference was driven largely by an increase in full-time work (which the program rewarded). However, according to administrative records data, the program had no statistically significant impact on the average quarterly rate of employment in UI-covered jobs or on average earnings. (Some jobs, such as private child care, are not covered by the UI system.)

At the same time, subgroup analyses revealed that Family Rewards 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 of the program, according to UI records. For example, parents who did not have a high school diploma or General Educational Development (GED) certificate had an average quarterly employment rate over the five years after random assignment that was 3 percentage points lower than that of their counterparts in the control group, and they earned an average of \$2,934 less (a reduction of almost 8 percent).

The small reductions in UI-covered work among more disadvantaged parents may be a response to the substantial rewards that these families were earning from the program's health and education domains — an "income effect." 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 program components and less on looking for or maintaining full-time work.

Some Exploratory Findings

As a comprehensive assessment of a new and complex intervention, the Family Rewards evaluation includes a number of exploratory analyses of hypotheses that emerged while the study was under way. Although the results from these analyses do not carry the same weight as the study's main findings, they suggest some other possible ways in which a CCT program might influence families, and that might be worth testing in future studies. Two of these analyses are highlighted here.

• Family Rewards *may* have improved school achievement of younger siblings.

A sizable number of families in the Family Rewards evaluation had very young children, who ranged in age from preschoolers to kindergarteners when their parents enrolled in the study. These children were eligible for the health rewards but not the education rewards, unless they reached third grade during the three-year program period. However, they would have experienced increased family incomes during their preschool or early elementary school years from the rewards received by their parents and older siblings. A question to consider is whether living in a family with less poverty at that younger age improves their subsequent educational outcomes. The current study cannot answer that question definitively, but it offers some suggestive evidence.

By the fifth and sixth years after random assignment, many of these children were old enough to have taken standardized tests, which are administered starting in third grade. According to an exploratory analysis, Family Rewards increased the proportion of these children who scored at proficiency levels on the ELA test in Year 6 by 5 percentage points, and on the math test by nearly 6 percentage points. Although the mechanisms for these impacts are not known, the pattern is consistent with findings from a number of "welfare-to-work" experiments that showed that program-produced increases in family income could have positive effects on young children's school performance. Given the exploratory nature of this analysis, additional evidence would be required to confirm these findings.

• Family Rewards *may* have improved health outcomes for parents with more health problems than other sample members.

It is reasonable to expect that family members who were healthy when they entered Family Rewards would not see much improvement in their health status during the study's follow-up period, although the program might help them stay healthy through its emphasis on preventive care. In contrast, those who were less healthy to begin with would have more room to improve their health outcomes. An exploratory subgroup analysis found some indications of different effects for these groups. For example, parents who at the time of random assignment rated themselves as being in "fair" or "poor" health (about 19 percent of the sample) were 6 percentage points more likely than similar parents in 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. No such effect was observed for the healthier subgroup. However, parents in the healthier subgroup were more likely than similar parents in the control group (by 4 percentage points) to report being treated for a medical condition (perhaps one that had previously gone undiagnosed), such as

⁸Pamela A. Morris, Aletha C. Huston, Greg J. Duncan, Danielle A. Crosby, and Johannes M. Bos, *How Welfare and Work Policies Affect Children: A Synthesis of Research* (New York: MDRC, 2001).

asthma. Although not large or definitive, these findings suggest that future studies of health-related incentives should take initial health status into account.

What's Next?

Although it is impossible to know for sure, it is reasonable to question whether certain design choices help explain why Family Rewards did not produce larger and more widespread positive effects on human capital outcomes. For example, were the right behaviors and achievements rewarded? Were they structured and operationalized appropriately? Were there too many rewards overall? Were appropriate dollar values attached to the rewards? Should case management have been included? Chapter 5 of this report explores these and other questions.

But Opportunity NYC–Family Rewards was not the end of the efforts to experiment with a CCT approach in the United States. With the early evidence pointing to some promising effects of the original model, but also revealing a number of limitations, CEO and MDRC sought to try again in 2011 with a modified approach, even though the final results from the first attempt would not be available for several years. They collaborated to redesign Family Rewards and secured funding to test it with a new randomized trial. Support came from the federal Social Innovation Fund and private funds. This time, the program would be tested in two very different locations: the Bronx, New York, and Memphis, Tennessee. It operated from 2011 through 2014.

The revised model, referred to as Family Rewards 2.0, is notable in a number of ways. While still a three-year program, it included many fewer incentives (8 rather than 22), with some dropped after it was determined that they were not working very well based on very early indications emerging from the original demonstration. The revised program also targeted only families with high school students in grades 9 or 10, since no positive effects on school outcomes had been found for elementary and middle school students. It further restricted the selection of families to those who were receiving TANF or SNAP benefits, as a way to focus attention on families who were among the poorest and for whom control group outcomes in the original study tended to be worse than for those who were not participating in these benefit programs. This targeting decision was also seen as a way of testing a program that offered the potential of a more direct connection to two of the country's mainstream safety net programs.

The new model also included a "family guidance" component, whereby each family was assigned a family adviser. The decision to include this feature was based on the emerging

⁹The difference in impacts across subgroup categories was statistically significant for the measure "being treated for a medical condition" but not for the self-rated health measure.

¹⁰The Social Innovation Fund is a program of the Corporation for National and Community Service that combines public and private resources to replicate and further test promising innovations to improve the lives of people in low-income communities.

findings from the original study suggesting that incentives by themselves would not be sufficient to produce big gains in human capital development.

Finally, Family Rewards 2.0 also attempted to make the reward payments more timely (and thus more salient) by disbursing payments monthly rather than every two months. Rewarding good report card grades, in addition to test scores, provided a more immediate incentive for teenagers to try to improve their school performance, since these rewards were tied to course grades in each report card.

The original Family Rewards experiment revealed a number of challenges in trying to use a two-generation, incentives-only strategy to achieve the dual goals of immediate poverty reduction and family human capital development. Whether the revised approach represented by Family Rewards 2.0, which builds on but also departs substantially from the initial model, is more effective remains to be seen. Impact findings on that project will be available in late 2016.

Chapter 1

Introduction

During the administration of former Mayor Michael R. Bloomberg, New York City officials sponsored a major new antipoverty initiative called Opportunity NYC– Family Rewards, a conditional cash transfer (CCT) program to help families break the cycle of intergenerational poverty. The first of its kind in the United States, Family Rewards tied cash rewards for very-low-income families to a variety of activities and outcomes related to children's educational efforts and achievement, families' preventive health care practices, and parents' employment. The intent of this three-year demonstration project was twofold: (1) to use the rewards to reduce *current* family poverty and hardships, while (2) simultaneously supporting and encouraging families to invest in their own education, health, and employment potential — or "human capital development" — for their *longer-term* economic security.

The New York City Center for Economic Opportunity (CEO) was assigned overall responsibility for Family Rewards, which was operated in six of New York's highest-poverty communities by nonprofit organizations. MDRC conducted a comprehensive evaluation of the program. The study showed that, while the cash transfers were available, the program substantially reduced family poverty and material hardship, particularly among the poorest families. It also produced positive effects on some human capital outcomes, including higher graduation rates among some high school students and some improvements in certain health-related indicators. However, it also left most important outcomes unchanged.

This report recaps the history and design of the program and summarizes the main research findings. In doing so, it synthesizes previously published findings and presents new results on selected outcomes over a longer follow-up period (many of which confirm early patterns). Depending on the data source, it covers program effects on participants' outcomes for up to six years after the date when each family entered the study.² A companion document provides more detail on the longer-term findings from the administrative data and is available as an online supplement to this report.³

¹CEO is a unit within the Office of the Mayor charged with building and applying evidence on innovative policies to reduce poverty and promote economic mobility among lower-income New Yorkers.

²These past studies are referenced throughout this document and are listed at the back of this report. See also Miller et al. (2015) for a summary of earlier impact findings.

³See Miller and Deitch (2016), available at www.mdrc.org.

Origins of the Family Rewards Demonstration

In 2006, New York City officials began to explore bold new ways of using financial incentives to address some of the root causes of poverty. They initiated this effort after learning about successful efforts with CCT programs in Latin America and a growing number of lower- and middle-income countries throughout the world. Mexico pioneered this movement, and its experience was known best. It launched its first program, called Progresa, in 1997, and as it continued to evolve, renamed the program Oportunidades in 2002 after a change in government, and then Prospera in 2014 under a new government. The program provides immediate relief to very poor families, mostly in rural areas, through direct cash payments that are conditioned in part on children remaining in school. These payments are intended as one effort to combat the problem of children leaving school early, particularly in the middle school grades, often to work in the fields to help their families earn much-needed income. Prospera also offers payments to families who get preventive health care and adopt certain child nutrition practices. In these ways, Prospera links basic income support with investments in families' human capital.

Today, CCT programs of varying scope and scale operate in most Latin American countries, as well as in several countries in Africa, the Middle East, and Asia. Most of the programs, many of which serve as a core feature of a country's economic and social safety net, offer incentives for education (for school-age children) and preventive health care, 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, and a mix of results for other outcomes.⁵

Adapting the CCT Concept to New York City

Inspired by the examples of Mexico and other countries, New York City officials wondered whether some form of a CCT program could work in their own city, and they began to explore the idea of a trial project. Of course, the urban poverty of New York City is vastly different from the largely rural poverty of Mexico and other low-income countries, and the reasons for children dropping out of school or performing poorly are not the same. Moreover, New York City, like the rest of the United States, already has a well-developed social safety net, in-

⁴For a comprehensive review of the history and evaluation of Progresa, see Levy (2006).

⁵For a detailed review of CCT programs worldwide and a synthesis of available evaluation findings, see Fiszbein and Schady (2009). Summarizing those findings, Fiszbein and Schady state (pp. 3-4): "CCTs have led poor households to make more use of health and education services, a key objective for which they were designed. Nevertheless, the evidence on improvements in final outcomes in health and education is more mixed." The authors point to the findings such as positive effects on school enrollment but not on learning outcomes as measured by achievement tests, and although some CCT programs have produced positive health outcomes, such as reduced stunting (of physical growth) and improved nutrition, others have not.

cluding income support systems for poor families. In contrast, Mexico had no national income support system, and its CCT program was instituted as the country's main cash welfare system for poor families. A CCT program in New York City would thus have to be adapted to very different conditions. Still, the basic principle of CCTs — structuring cash transfers in a way that promotes human capital development while simultaneously alleviating immediate poverty and hardship — was compelling.

To explore the feasibility and potential value of a CCT program for New York City, CEO entered into a partnership with the Rockefeller Foundation, which envisioned that such a project could provide a new opportunity to help low-income New Yorkers while also building evidence on a poverty reduction strategy that would have national and international importance. With a special grant from the Rockefeller Foundation, CEO commissioned MDRC to help design the project, including a rigorous evaluation. Subsequently, CEO and MDRC engaged Seedco, a nonprofit workforce and economic development organization, in the planning process, and the three groups worked closely together to come up with a design for a CCT demonstration project. During this planning process, they conferred with officials and researchers involved with Mexico's Oportunidades program, meeting with them in New York City and visiting their program in Mexico. The designers also sought guidance and feedback on the idea from the World Bank; the Inter-American Development Bank; experts in universities, foundations, other social policy organizations; and officials in various New York City government agencies.

The design team also reviewed evidence on other types of incentives programs in the United States and in other high-income countries. These programs tend to differ from most CCT programs in less affluent countries in that they are usually targeted to one area or type of outcome, such as workforce outcomes, health outcomes, or school outcomes, and (with the exception of some workforce wage supplementation programs) did not provide large cash transfers with the goal of reducing immediate poverty and hardship. They targeted and had some success in improving such outcomes as performance on standardized tests, taking and passing Advanced Placement courses, taking a full-time college course load, losing weight, quitting smoking, working full time, or participating in a training program.

The Distinctiveness of Family Rewards

The Family Rewards model that emerged from this design process is one that was far more comprehensive than most incentive-based programs previously tried in the United States, and more comprehensive and complex than CCTs in other countries. The rewards were structured into three main domains:

⁶Mexico's program serves about five million households, accounting for almost a fifth of the entire Mexican population (Fiszbein and Schady, 2009).

- 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
- Work-focused conditions, aimed at parents, which included sustaining fulltime work and participation in approved education or job training activities

An important feature of Family Rewards was that it purposely did not include case management. The goal was to test an "incentives-only" intervention. However, the program did make information available to families on services and other programs that they could try to access in the community to help them achieve the outcomes that Family Rewards encouraged. Its staff also marketed the incentives heavily in order to remind families of the offer that was available to them over the three-year program period.

City officials anticipated that a CCT program in New York City would be controversial (as discussed below) and that funding this unconventional approach with public dollars, even on a trial basis, would be widely opposed. Consequently, they sought to support the demonstration with private resources. After initial funding was secured, CEO granted final approval for the project in the late spring of 2007. Agreements were established for Seedco to operate the program and for MDRC to evaluate it. Most of the families who were recruited for the study were enrolled by the end of 2007, with early enrollees beginning to earn rewards in September of that year.

⁷Family Rewards was one of three incentives-based poverty reduction strategies launched by CEO in 2007 under the rubric of Opportunity NYC. The other two are Work Rewards, a workforce program for recipients of government rent subsidies from New York City's Housing Choice Voucher (Section 8) program, and Spark, a school-based education incentives program for fourth- and seventh-graders, which was evaluated by Harvard Education Labs. Funders of the Opportunity NYC demonstration 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 (for Work Rewards only), New York Community Trust, and the Broad Foundation (for Spark only).

⁸For this project, MDRC was a contractor to the Mayor's Fund for the City of New York, a 501(c)(3) entity through which private funds can be donated to the city for specific charitable uses. CEO provided general direction and oversight, in cooperation with the Mayor's Fund. Seedco was a subcontractor to MDRC.

Controversies

From the time of its announcement, the idea of a CCT program for New York City was controversial. Critics pointed to possible negative effects that could arise from this type of intervention, including ramifications that could extend beyond the program's effects on the participating families.

Some critics argued vociferously that "paying" people to be "good parents" and to "behave responsibly" is morally wrong and may weaken norms that signal and guide socially appropriate behavior for parents and children. While believing that poor families' own motivational problems or bad choices contribute to their lower incomes, lower educational attainment, and, in some cases, health problems, such critics contended that offering incentives was not the right way to try to change that behavior. Some expressed a fear that, if offered on a larger scale, this approach would feed expectations among low-income families — and perhaps others — that they should be paid for fulfilling their "moral obligations" as parents and citizens.

Some scholars strongly oppose attaching financial rewards to education in general, arguing that such an approach can harm children's educational achievement over time. Drawing largely on psychological theory and laboratory-like experiments, these scholars contend that extrinsic rewards can undermine an intrinsic motivation to achieve particular goals — including the motivation to learn — and that persistence in pursuing those goals may weaken once the rewards are terminated. For example, the desire to learn for its own sake may be diluted when students are rewarded with money or prizes to engage in learning activities. Some critics also fear that participants who have difficulty earning rewards may become discouraged and be more likely give up trying to achieve certain outcomes as a result. But other scholars have challenged claims that external rewards undermine intrinsic motivation.

Some commentators objected that Family Rewards would distract attention from what they deem to be the main causes of poverty, which are more structural in nature — for example, poor schools, poor services, and a lack of good jobs. They were thus skeptical that the program could make a substantial difference. Some also viewed it as paternalistic and "insulting" to poor parents to assume that they need to be paid to do what is right for their families.¹²

City officials had a different view. They wanted to try new strategies to tackle persistent, entrenched poverty where other approaches had failed, and that, given the positive results that other CCT programs and incentive-based strategies have sometimes achieved, they believed that this approach was worth testing in New York City. The evidence would show, for

⁹See, for example, Rosenberg (2008).

¹⁰See, for example, Deci, Koestner, and Ryan (1999).

¹¹See, for example, Cameron and Pierce (2002).

¹²For an example of contrasting views, see Becker (2008).

example, whether students' achievement was helped (or harmed), whether family poverty was reduced or left unchanged, and whether preventive health care practices and parents' employment prospects were improved. They urged that final judgments about the merits of Family Rewards and whether it had any place in public policy wait until the results of the evaluation were available.¹³

They also challenged the moral arguments against incentives, stressing that incentives were already used widely throughout society to influence the choices and activities of middle-class and wealthy people, including tax deductions designed to encourage home purchases and tax breaks to steer a multitude of business investment decisions in particular directions. ¹⁴ Furthermore, the program offered a substantial amount of extra resources to poor families, adding to — not competing with — other benefits that were already available to them.

Evaluation

The Family Rewards model was operated in a total of six community districts — two each from the Bronx, Brooklyn, and Manhattan. These six areas were chosen because they were among New York's most persistently disadvantaged communities. At the same time, these communities were 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.¹⁵

The program was evaluated through a randomized controlled trial involving approximately 4,800 families who applied for it, with 11,000 children (including elementary, middle, and high school students). The program could not serve all applicants, and participants were selected on a random basis. Through a lottery-like process, half of the applicant families were picked for Family Rewards and were offered the incentives (the program group), and half were assigned to a control group that was not offered the incentives. Differences between the program and control groups' outcomes reflect estimates of the program's impacts; statistically significant differences are those that are likely a result of the program rather than chance alone. Using such a process helped ensure that program effects estimated by the evaluation could be attributed with confidence to the intervention.

¹³New York City Office of the Mayor (2007).

¹⁴In a speech at a conference on CCT programs hosted by the Organization of American States in September 2009, former Mayor Bloomberg said, "Financial incentives have already proved to be a powerful tool in so many areas. The federal government puts them in our tax code, through policies such as the mortgage interest tax deduction for homeowners. And the private sector uses them too, in the form of compensation packages. So why shouldn't local governments also harness the power of incentives?" See New York City Office of the Mayor (2009).

¹⁵For more background on these communities and the families that enrolled in the study, see Riccio et al. (2010).

The evaluation used 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 benefit 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 were interviewed; a special survey of a subsample of high school students and their parents; program-related data on incentive payments ("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 demonstration's Neighborhood Partner Organizations (NPOs) — local organizations in the designated community districts that were selected to assist in implementing Family Rewards.

Findings in Brief

During the three years that Family Rewards operated, the average participating family earned over \$8,700 in rewards, or roughly \$3,000 in each year. As the program designers intended, families earned rewards across a broad range of areas, allowing them to increase their average monthly income by 22 percent during the program period. This reward system led to statistically significant reductions in poverty and, more important, to reductions in a number of material hardships, including not having enough food to eat. No restrictions were imposed on how families could spend their reward money, and 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. However, the reductions in poverty and material hardship began to diminish after Year 3, when the program and its cash transfers ended.

The program had some positive impacts on family behaviors and outcomes, but also left many important outcomes unchanged. 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 example, it increased their attendance rate, credit accumulation, and rate of passing New York State Regents exams. ¹⁶ For the better-prepared subgroup of ninth-graders who were reading-proficient according to their eighth-grade standardized tests (although not for those who were math-proficient), the early gains in school performance led to sizable increases in grade promotion and a higher graduation rate. A special study of teens' time use suggests that these positive effects were at least partly achieved by getting teens to spend more time on academic pursuits when they were not in school, and less time

¹⁶Regents exams are administered to all public high school students in New York State. Students 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.

on social pursuits.¹⁷ That study also found evidence that the program may have reduced certain problem behaviors and substance abuse among teens in the program. Although Family Rewards does not appear to have increased overall enrollment in college and other postsecondary institutions, it seems to have led to a shift among students in the reading-proficient subgroup toward attending college full time rather than part time, and a shift from attending two-year institutions to attending four-year colleges.

In contrast, the program had no effect for students in the ninth-grade cohort who performed below proficiency levels on their eighth-grade standardized tests. Nor did it have any effects on educational outcomes for elementary and middle school students, either overall or for particular subgroups.

A supplementary — and exploratory — analysis examined effects on school outcomes for young children who were the siblings of older students in the study. These children ranged from preschool age to kindergarten age when their parents enrolled in Family Rewards, and most were not expected to benefit directly from the education rewards during the period that the program operated. (They were 2 to 7 years old at the time of random assignment, and in grades 3 through 6 in the sixth year of follow-up.) The program increased the proportion of these students scoring at the proficient level on their annual standardized tests in whatever grade they were in during Year 6 of the follow-up period. Although the effects are not large and the mechanisms for them are not clear, the increased income that Family Rewards provided to these households may have benefited those younger children (not just older siblings or adults) during that early formative period in their lives.

In the health area, early positive effects on visits to the doctor and on health status faded for the full sample. However, some suggestive evidence indicates that the incentives may have improved self-rated health outcomes for adults who said that they were in "fair or poor" health when they entered the program, and may have also increased (by a small amount) the likelihood that adults in better health would get treatment for certain medical conditions. Sizable increases in dental visits persisted for adults as well as children.

Finally, the program produced small increases in training and educational credentials among adults and led to modest increases in employment in jobs that were not covered by or reported to the unemployment insurance (UI) system (such as private child care jobs). However, it had no overall effects on employment in UI-covered jobs, and, according to subgroup analyses, led to small *reductions* in employment and earnings among more disadvantaged adults in the study.

¹⁷Morris, Aber, Wolf, and Berg (2012).

Family Rewards 2.0

As the early results of the Family Rewards study emerged, they informed initial insights about the possible strengths and limits of the original design. In light of that early evidence, and the expansion of CCTs internationally, CEO and MDRC decided to develop a revised version of the Family Rewards approach, dubbed "Family Rewards 2.0." Among other changes, the new version included fewer incentives and a "family guidance" component to help families meet the conditions that would earn them rewards. The new program was launched as a federal Social Innovation Fund project in the Bronx, New York, and in Memphis, Tennessee, with a combination of private and federal funds. MDRC is conducting a comprehensive evaluation of that project, which operated from 2011 through 2014. Impact findings from that study will be available by late 2016 and will show whether or not the new model (which is described more fully in Chapter 5 of this report) produced larger impacts across more outcomes for a broader range of participants. ¹⁹

The Remainder of This Report

The next three chapters in this report describe the design of and theory underlying the original Family Rewards program model, the operation of the program, and its impacts on income, poverty, and material hardship as well as on outcomes in each of the three key domains — children's schooling, family health, and parents' work and training. The final chapter provides a summary assessment of the program. It explores whether certain types of design modifications to the Family Rewards model might produce stronger results.

¹⁸The Social Innovation Fund is a program of the Corporation for National and Community Service that combines public and private resources to replicate and further test promising innovations to improve the lives of people in low-income communities.

¹⁹For early findings on the implementation of the revised program and families' patterns of reward receipt, see Dechausay, Miller, and Quiroz-Becerra (2014).

Chapter 2

Designing Family Rewards

Opportunity NYC-Family Rewards represented an ambitious attempt to adopt the principles of international conditional cash transfer (CCT) programs and incorporate them into a new two-generation poverty-reduction initiative for very-low-income families living in some of the highest-poverty communities in New York City. Although the first of its kind in terms of its comprehensiveness and scope, the program was certainly not the first one in the United States to condition government transfer benefits on certain behaviors. One of the largest income transfer programs, the Earned Income Tax Credit (EITC), is an earnings supplement paid only to low-income families who are working, and the Temporary Assistance for Needy Families (TANF) program includes work requirements that condition welfare payments on parents' efforts to prepare for and look for work. Family Rewards expanded the typical scope of conditionality by tying some income transfers to families to their children's school progress and to parents' and children's receipt of preventive health care as well as to parents' employment.

Designing this program was a complex challenge. It had to incorporate a set of conditions that would be *achievable* by families so that they could earn sizable cash transfers (to reduce immediate poverty and hardship), conditions that were *verifiable*, incentive amounts that would be potentially *affordable* if Family Rewards were scaled up as part of a government program, and incentives that would help families take steps to build their *human capital*. This chapter summarizes the design that emerged and the reasoning behind the choices that were made.

The Theory Behind Family Rewards

Family Rewards rested on the premise that financial incentives can encourage individuals to make short-term choices and take certain actions that may serve their best interests over the longer term. Furthermore, the extra income earned through incentive payments ("reward payments"), if they are sufficiently large, can make it easier for families to take those steps to improve their human capital, while simultaneously helping to alleviate their immediate material hardships.

The simple lack of income can impede families' investments in their own futures. Understandably, poor families have more difficulty than better-off families in getting access to good schools and providing their children with educational materials and enrichment programs;

¹A growing body of evidence suggests that very low income, material hardship, and financial strain may have negative causal influences on children's life trajectories. For a review of evidence on the relationship between family income and child development, see Duncan, Magnuson, and Votruba-Drzal (2014).

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 and themselves 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.

Some experts contend that parents who are struggling with poverty may have difficulty devoting mental and emotional energy to helping their children succeed in school and to advance themselves economically. When financial resources are scarce, parents' preoccupation with providing the basic necessities for their families and constant worry about making ends meet on so little income can make it more difficult for them to focus on and plan effective ways of escaping poverty.²

Some evidence suggests that low-income individuals may "discount the future" more substantially than higher-income individuals, meaning that they may not attach sufficient value to investments in education or health-related practices that can improve their longer-term economic security, health, and well-being because they may not fully recognize or believe in the future payoffs that might come from such investments.³ In high-poverty communities, community or peer group norms, fed by observations of persistent intergenerational poverty, may reinforce lower expectations. For young children in particular, the future is very distant, and positive long-term outcomes may be too abstract to be a significant motivating force.

Conditional cash transfers may help change the equation. In the face of more immediate and tangible rewards (a source of "extrinsic motivation"), people may take steps that serve their longer-term best interests, and perhaps develop new habits, even without fully recognizing or believing in the longer-term value of those short-term efforts. For example, with the right incentives, students may attend school more regularly or study harder; parents may focus more attention on preventive health care for their families and making lifestyle choices that promote better heath; and parents may increase their efforts to find and keep jobs. Furthermore, if the rewards are sizable, as they were in Family Rewards, the extra resources can help make it more feasible for low-income people to undertake certain educational, health care, and work-related investments in the short term. As resources accumulate from some activities, such as children's school

²Mullainathan and Shafir (2013, p. 47) describe two related components of mental functioning that are affected by poverty: (1) *cognitive capacity*, "the psychological mechanisms that underlie our ability to solve problems, retain information, engage in logical reasoning, and so on," and (2) *executive control*, "which underlies our ability to manage our cognitive activities, including planning, attention, initiating and inhibiting actions, and controlling impulses." They emphasize that "scarcity affects both." Mani, Mullainathan, Shafir, and Zhao (2013) write, "The poor must manage sporadic income, juggle expenses, and make difficult tradeoffs. Even when not actually making a financial decision, these preoccupations can be present and distracting. The human cognitive system has limited capacity. Preoccupation with pressing budgetary concerns leaves fewer cognitive resources available to guide choice and action."

³See, for example, Fiszbein and Schady (2009) for a fuller discussion of this issue.

attendance and family members' doctor visits, the extra money can help cover the costs of other activities and materials, such as the cost of school supplies, fees for enrichment programs, or tutoring for children; transportation to a free dental clinic; the dental checkup itself (if not free or covered by insurance); clothes or transportation for a job interview; or certain fees for an adult training program. The increased income through the cash transfers may also reduce some of the stress and cognitive constraints arising from poverty, leading to improvements in overall family functioning. Thus, the conditioned payments may function not only as financial *inducements* that stimulate action, but also as *enabling resources* that make it easier to be productive, and as *income supplements* that mitigate the difficulties associated with poverty.⁴

Eligibility for Family Rewards

To be eligible for the program, families had to have at least one child in the fourth, seventh, or ninth grade, although once a family was enrolled, *all* school-age or younger children could participate in it. Students in these three grades are at or near the start of critical educational transition years. For example, some research shows that children who fall seriously behind in school by the third or fourth grade have difficulty catching up later. 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 of middle school, which typically begins in sixth grade in New York City. Similarly, rewards that were 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.

The families also had to be eligible for free school meals under the National Free School Lunch program. This federally funded program provides free lunches for children in families with incomes at or below 130 percent of the federal poverty level (and subsidized meals for other students with somewhat higher incomes). Enrollment in the free school lunch program was a proxy for determining a family's income eligibility for the purposes of the demonstration. The families also had to be living in one of the six designated high-poverty communities, and all parents and children had to be legal residents of the United States.

A majority of the families (81 percent) who enrolled in Family Rewards were oneparent families at the time of random assignment, but they differed widely in a number of other

⁴Duncan, Magnuson, and Votruba-Drzal (2014) cite evidence suggesting that increasing poor parents' incomes may in and of itself help children achieve better school and life outcomes, and that the effects may be greatest when children are very young and their brains and other systems are developing rapidly.

⁵For a more recent discussion of this pattern and the importance in particular of early reading proficiency, see Feister (2013).

⁶See Riccio et al. (2010), page 36, for more details.

background characteristics. For example, over half of all families (57 percent) had only one or two children, but 43 percent had three or more. About 47 percent of the families were Hispanic/Latino, while most others (51 percent) were black, non-Hispanic/Latino. Just over half of the parents (53 percent) were employed, with about 40 percent working full time. About one-fourth (26 percent) had only a high school diploma or General Educational Development (GED) certificate, and about 14 percent had an associate's or bachelor's degree, while 40 percent had not completed high school and did not have a GED certificate. About 83 percent were U.S. citizens, while the rest (17 percent) were legal permanent residents.

Types of Rewards

Family Rewards 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 2.1 for a detailed list.) These rewards did not count as income that would affect other benefits the families might receive, such as TANF benefits, EITC payments, housing subsidies, Medicaid, the Children's Health Insurance Program, (CHIP),⁷ or Supplemental Nutrition Assistance Program (SNAP) benefits (formerly known as food stamps).⁸

Education Rewards

Poor academic achievement and dropping out of school are widely understood to be associated with worse future employment outcomes and earnings, contributing to intergenerational poverty. And, increasingly, as the U.S. labor market requires more critical thinking and specialized skills, postsecondary education has become a critical pathway to good jobs. Consequently, succeeding in elementary, middle, and high school is one of the most important ways that children growing up in poor families can prepare for the future and avoid poverty in adult-hood. For this reason, children's school performance and academic achievement were a central focus of Family Rewards.

In contrast to the limited scope of education incentives in other countries' CCT programs, which primarily targeted school enrollment and attendance, ¹¹ Family Rewards included

⁷CHIP, also known as Child Health Plus in New York, 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.

⁸Supplemental Security Income benefits were an exception. A waiver had been sought from the Social Security Administration, but the request was not approved. The small number of families receiving such benefits were informed about other agencies in the community that could help them understand the implications of reward payments for their benefit amounts.

⁹Haskins and Sawhill (2009).

¹⁰Levy and Murnane (2004).

¹¹Fiszbein and Schady (2009).

Table 2.1

Incentives Offered in Opportunity NYC-Family Rewards

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

incentives tied to a much broader range of school-related behavior and achievement. These incentives included rewards for high attendance rates, certain types of parental engagement, student performance on standardized tests, and even a reward for getting a library card. The value of the rewards ranged from \$25 per month for achieving a 95 percent attendance rate in elementary and middle school to \$600 for passing a high school subject area Regents exam.

Reflecting the important role that parents can play in their children's success in school, ¹² the incentives in this domain were intended to encourage parents to become more fully engaged with their children's education. In this way, Family Rewards differed from school-based incentives programs that only offer rewards directly to students, largely bypassing their parents. In Family Rewards, the education incentives for elementary and middle school students were paid entirely to the parents, and what children learned about the rewards depended on what their parents chose to tell them. In addition, the schools played no direct role in the program, and teachers would not know which of their students were in it unless the students themselves or their families informed them.

At the high school level, the focus shifted. Although some rewards were still paid to the parents, others were partially or completely paid to the students directly. This policy was based on the recognition that high school students increasingly take on responsibility for their own school and consumption behaviors, and so paying them directly would give them an immediate financial stake in their school performance.

Health Care Rewards

Not surprisingly, a number of studies have shown that poor children tend to have worse health outcomes than their peers who are not poor.¹³ In addition, studies of welfare recipients and other low-income populations suggest that health problems are a common impediment to steady work among the parents in low-income families.¹⁴ To some extent, these outcomes may derive from inadequate preventive health care.

For a variety of reasons having to do with a lack of resources, knowledge, information, or administrative hurdles posed by the health care system, many low- and moderate-income families do not get routine preventive health care. To some extent this problem results from their lack of health insurance coverage or gaps in that coverage. For example, some families who are eligible for public insurance do not realize they are eligible and remain uninsured. Others who know they are eligible may not follow through with the application process, which can be burdensome or confusing. Similarly, many families lose public insurance when they fail to

¹²See Haskins and Sawhill (2009) for a brief review of evidence.

¹³Aber, Bennett, Conley, and Li (1997).

¹⁴Bloom (1997); Polit, London, and Martinez (2001); Zedlewski and Loprest (2001).

complete the necessary recertification process. Other low-income individuals who are working and are eligible to participate in employer-sponsored health insurance plans cannot afford the required copayments.

Families who lack health insurance are understandably less likely to have a regular family physician and tend to rely on more costly hospital emergency rooms when they need care. However, even families with health insurance, particularly public health insurance, may not maintain good preventive care or follow up on recommended treatments — a problem that cuts across socioeconomic groups. (Notably, a number of health insurers have begun offering their subscribers financial incentives to go to the gym.) Low-income families who rely on public insurance face the added challenge of finding doctors who will accept their insurance, which can be difficult because of low reimbursement rates and may discourage them from getting regular preventive care. Similarly, many dentists do not accept Medicaid, so getting preventive dental care may require low-income families to search for dental clinics that offer free care or that charge according to a sliding scale based on a family's income. Parents who are working in low-wage jobs that do not offer paid personal or sick days may face an added opportunity cost in getting preventive care if they lose pay when they miss work for a doctor's visit.

Anticipating that these broad, nationally observed trends would be significant problems in the high-poverty communities that were targeted for Family Rewards, and following the practice of international CCT programs, the designers of Family Rewards placed a major emphasis on preventive health care. They attached rewards to the maintenance of health insurance as well as to getting regular medical and dental checkups. ¹⁶ The rewards ranged in value from \$20 per month per adult for maintaining public health insurance to \$200 per family member for an annual physical. The designers hoped that sustained insurance, better preventive care, and quicker responses to emerging health problems would help to reduce poverty by removing barriers to steady employment among parents and by minimizing school absences and improving school performance among children.

The Work and Training Rewards

Work does not guarantee an escape from poverty, as the growing number of "working poor" families attests. 17 Skills deficits and wage stagnation are important impediments to eco-

¹⁵See Polit, London, and Martinez (2001).

¹⁶To qualify for rewards for annual physicals, participants were expected to present doctors with an age-appropriate "preventive care checklist form," specially designed for Family Rewards, 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. See Riccio et al. (2010) for further information.

¹⁷In 2005, over 46 percent of poor households in New York City were "working poor" — that is, they had incomes below the poverty level despite the fact that the head of household worked at least part of the year. See New York City Center for Economic Opportunity (2006).

nomic advancement. But it is also true that, for most families, it is impossible to improve family income and escape poverty *without* working. Family Rewards could increase family income through the direct cash transfers themselves, but only temporarily. *Sustained* reductions in child and family poverty after the payments end would require that parents maintained regular employment. The program thus included a work component that was intended to promote steady, full-time employment and the acquisition of skills to help participants qualify for better-paying jobs. The designers also expected that a cash transfer program that included a component that explicitly supported and encouraged families' pursuit of self-sufficiency could have broader appeal across the political spectrum than one that did not. This type of component is absent from most other CCT programs and thus holds special interest to the international community.

Family Rewards offered parents a reward for sustaining full-time employment. In order to earn this reward, a participant was required to work at least 30 hours per week for six out of every eight weeks. Parents who worked the minimum amount received \$300 every two months, or up to \$1,800 per year. By increasing the payoff to work, the reward was intended to create an incentive for parents to find full-time jobs, to move from part-time into full-time work, or to stay in full-time employment. For a parent working 40 hours per week at \$8 per hour, for example, the reward would effectively increase her net wage by 11 percent, to \$8.90 per hour.

Parents could earn another \$300 to \$600 every two months, up to a total of \$3,000 during the program period, 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. Because 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.

A Complex Design Challenge

In establishing the scope and value of the incentives, the program designers sought to balance a variety of theoretical, practical, and political concerns (as described in Box 2.1). They included a broad range of rewards 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 particular activity or outcome. After reviewing early evidence of impacts, several rewards were discontinued for the third year to simplify the program, lower its costs, and make it easier to replicate should it prove to be successful overall.

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

Box 2.1

The Family Rewards Incentives: Overall Design Considerations

In developing the rewards schedule, the Family Rewards design team (CEO, MDRC, and Seedco) was guided by the following key principles:

- 1. Incentives should be attached to activities and achievements that represent investments in human capital development.
- 2. The conditions for incentive payments should be achievable with a reasonable level of effort.
- 3. The incentives should not be tied to activities that are not generally available or reasonably accessible to participants (such as attendance in early Head Start programs).
- 4. To the extent feasible, more money should be attached to conditions that are more challenging to meet. (For example, students' passing standardized tests and parents' sustaining full-time work should earn more than a parent's attendance at a parent-teacher conference.)
- 5. The activities and achievements that earn payments should be verifiable in ways that are practical, timely, and resistant to fraud.
- 6. Incentives for children's school performance should avoid putting undue pressure on students or putting them at risk of abuse if their families lose out on getting extra money because of their poor performance.
- 7. The amounts for any given activity should be substantial enough for families to take the offer seriously.
- 8. The amounts for any given activity and overall must not be so high as to appear extremely unreasonable by policymakers and the public, and, hence, politically unsustainable.
- 9. High compliance with the conditions by all family members across all domains should yield a substantial total cash transfer (in the range of 25 percent of family income in the absence of the program).
- 10. A broad range of incentives should be included to give families many different ways to earn rewards — and to earn meaningful amounts of money within each of the three domains.

number and particular type of rewards they earned. (Some rewards carried higher payments than others.) Larger families could earn higher payments because they could earn education and health rewards for each child.

Mutually Reinforcing Rewards

Although each of the three components targeted specific problems that contribute to long-term and intergenerational poverty, the Family Rewards model assumed that sustained achievements in any one of these areas may be aided by progress in the others. For example, children may make more progress in school if their health care is improved and efforts are made to catch and address health problems early. Their health and education may benefit if they grow up in a household that has increased economic resources at its disposal, for which parents' sustained employment is critical. Children's health as adults may also be influenced by their education, which can affect their understanding of good health practices and healthy lifestyle choices. In sum, the model assumed that the health rewards were not just important to health outcomes, that the education rewards were not just important to education outcomes, and that the work rewards were not just important to work outcomes. For all these reasons, combining all three components into a single, two-generation package was considered to be more powerful than focusing on any one or two of these components alone. In addition, as noted previously, the extra income from all three components, which would serve the program's immediate poverty reduction goal, could have important beneficial effects on child outcomes simply by reducing the hardships of poverty.

No Case Management

By design, Family Rewards included no case management. This feature meant that no provision was made for staff to develop action plans that could address barriers in participants' lives or to intervene in personal crises that may have made it difficult for participants to succeed in the program. Family Rewards also made no provision for staff to follow up with participants on 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 — for instance, by helping to arrange tutoring for children; offering assistance finding child care; or making service referrals for job search assistance, occupational skills training, or doctor visits. 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 incentives 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, because of Family Rewards, more reason to take advantage of them), 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 expand the scale of the program 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 EITC, it was possible for Family Rewards participants to be fully engaged with the program without meeting with program staff (except to pick up their reward verification coupons).

Still, 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 program included an informational component through which Seedco and the participating community organizations 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.

Chapter 3

Delivering Cash Rewards

As the first comprehensive conditional cash transfer (CCT) program in the United States, Family Rewards was breaking new ground, and given the model's many facets and its many operational demands — recruiting, informing, verifying, and paying participants on a trial basis — its operational success could not be taken for granted. In the end, the program passed a basic feasibility test: the operators successfully transferred substantial amounts of money to low-income families, with all payments tied to a comprehensive set of conditions, and virtually all participating families earned and received rewards. This chapter reviews how the program was operated, how the participants viewed and responded to it, the families' patterns of reward receipt, and what the program cost. ¹

Operating the Program

The implementing organizations succeeded in operating all the major program systems and procedures that the Family Rewards model required, although it took until the second year for the program to function as envisioned. Program operations remained strong in the third and final year, which ended, as originally planned, in August 2010. The program successfully distributed \$20.6 million in reward payments over the full course of the three-year program.

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. They provided ongoing customer service (not case management) to participants who requested assistance with, for example, submitting claims for the rewards or getting 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 website to provide additional information to families.

¹For a full description and analysis of the sample recruitment process, program implementation experience, and participants' patterns of reward receipt and views of and experiences in the program, see Riccio et al. (2010); Greenberg, Dechausay, and Fraker (2011); and Riccio et al. (2013a).

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.

Seedco was responsible for verifying participants' eligibility for reward payments. Efforts were made to minimize the steps that families had to take to establish their compliance with reward conditions. This was easily achieved in the domain of children's education, for which Seedco obtained electronic data files from the New York City Department of Education to measure attendance and performance. Verification for all education rewards based on these benchmarks was entirely automated, requiring no action on the part of families to claim them. For other behaviors and accomplishments, families manually filled out special coupons with appropriate documentation verifying their compliance with the required conditions (for example, showing they had received an annual physical or worked full time), and they submitted these materials to Seedco to claim their rewards.³

Once Seedco verified that families had earned rewards, 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).

Recruiting Families

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 who were 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.

Families' Understanding of the Rewards

Because Family Rewards was an "incentives-only" intervention, it was essential that families understood what conditions they would have to meet in order to earn the rewards. Thus, the program operators had to place a great deal of emphasis on marketing the incentives to the families and educating them about the requirements. They did this by creating a special website for participants; sending letters, flyers, and postcards to remind them about particular activities that would earn rewards (for example, upcoming tests that the children had to take in school); send-

³See Riccio et al. (2010) for more detail on these verification forms and processes.

ing earnings statements after each payment period specifying how much they had actually earned and reminding them of the rewards they could earn; conducting special informational workshops on school, health, and employment topics; and holding social events (such as holiday parties and summer barbeques) that offered further opportunities to remind families about the program.

• Parents understood the program's general offer and purposes, but many were confused about the details.

Survey and in-depth qualitative data reveal that parents possessed a good general awareness of the incentives, but their understanding was fuzzy in some places. For example, they tended to think that many school-related activities and behavior qualified for incentive payments when in fact only some of those activities and behaviors qualified. This confusion may indicate that participants believed that positive behavior in general would be rewarded. Such a misperception could have positive effects on families, but it shows that knowledge of the program was often imprecise.

Younger children's understanding of the education incentives varied widely, in part according to how much their parents wanted them to know. Special marketing efforts were required to build awareness among high school students.

Qualitative data suggest wide variation in the level of understanding that children and teenagers in the program may have had about the rewards. While some parents discussed the program in detail with their elementary or middle school-age children and viewed the rewards as another tool to motivate their children, others provided only limited information because they did not want to emphasize money as a reason for achievement. High school students, who could receive some incentive payments directly, were the target of independent marketing efforts. However, these efforts were not undertaken until the second year of operations, after it became clear that many of the participating high school students did not fully understand — or believe — that they could earn money for their school attendance and performance.

Parents generally saw great value in the program as a support for their children's educational progress — and, indeed, many viewed it *primarily* as a program for the benefit of their children. Yet, they typically did not know *how* they could improve their children's school performance beyond providing general encouragement. (See Box 3.1.)

Box 3.1

How Families Responded to the Education Incentives in Family Rewards: A Qualitative Perspective

As part of the evaluation of Family Rewards, MDRC conducted an in-depth qualitative study of the variety of ways that parents and children interacted with each other in relation to the incentives. Unlike other educational incentives programs across the country, Family Rewards relied heavily on parents to explain the program to younger children and to find ways of supporting their children's learning in school. While parents received incentive payments for their younger children's activities in Family Rewards, high school students received incentive payments directly and so were more directly exposed to the program. Key findings include the following:

- Most parents and children embraced the broad goals of Family Rewards, viewing the program as an opportunity for children and an investment in their academic future. It was not clear when the study began how families would view the program, but parents and children believed that Family Rewards was a worthwhile idea because they believed it had the potential to support children's academic performance and their success over time.
- Many parents did not know how to improve their children's educational performance beyond offering general encouragement. Many parents needed assistance in identifying additional strategies that they could use to help support their children's learning, although some parents used reward payments for after-school activities or tutoring.
- Many parents were reluctant to discuss the incentives with younger children, who had only a limited knowledge of the program as a result. High school students were much better informed. Some parents did not want to put financial pressure on their younger children, while others found creative ways to talk about incentives with them. Most likely as a result of the program being marketed directly to them, high school students were very aware of the program, and their parents reported that they were more likely to remind their older children of tasks that had to be completed in order to receive rewards.
- Family Rewards payments helped strengthen some better-prepared high school students' belief that they were "on track" to graduation, college, and a better future, which reinforced their motivation. Some highly motivated and generally proficient high school students used the rewards to save for college and to pay for educationally enriching experiences.

SOURCE: Greenberg, Dechausay, and Fraker (2011).

Families' Receipt and Use of the Cash Transfers

Virtually all families earned at least some rewards during the three program years, and, as shown in Table 3.1, 89 percent earned at least one reward in Year 3 (when fewer rewards were offered).

Table 3.1
Summary of Rewards Earned by Families

0.4	W1	W	W2	Years 1, 2, and 3
Outcome	Year 1	Year 2	Year 3	Combined
Family earned at least one reward (%)	99.5	98.0	89.1	99.6
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
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: Sample sizes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums.

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.

 b The maximum amount earned in Year 1 was \$13,235; in Year 2, it was \$12,525; and in Year 3, it was \$10,425.

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

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 incomes by about 16 percent. Similarly sized families with incomes below half of the poverty level (or below \$9,155 for the example cited above), used here as a measure of "severe poverty," would boost their incomes by at least 33 percent. Or, put differently, a reward amount of \$3,000 would add 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.

Larger and relatively more advantaged families earned more cash transfers.

Compared with other families, those who received the most money in reward payments (for example, those in the top 20 percent of families in terms of total reward dollars received) were larger families (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, better 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 reward and one health reward, while about 53 percent earned a workforce reward.

⁴Riccio et al. (2013a), 47-48.

 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, but parents exercised varying degrees of control over how much access students had to their rewards. The vast majority of parents who were interviewed for the 42-month survey (72 percent) said that their high school-age children had to ask them for permission to spend the money. Only 17 percent gave their children freedom to spend the 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, a companion study found that Family Rewards may have reduced certain troublesome behaviors among the teenagers, such as aggression and substance abuse.⁵

 During the final year, staff 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.

⁵See Morris, Aber, Wolf, and Berg (2012). The analysis examined effects on a variety of delinquent behaviors, aggressive behaviors, and drug use (including reported drug use among friends, which may be less vulnerable to reporting bias). Relative to their control group counterparts, teenagers in the program group reported substantial reductions across many of these outcomes.

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.

Program Costs

Counting the total value of the reward payments and the expense to operate the program, Family Rewards cost an average of \$13,093 per family (in 2014 dollars) for the entire three-year operating period, or approximately \$4,364 per family per year.⁶ When these costs are averaged per participant, taking all parents and children separately, Family Rewards cost about \$3,798 per family member for the entire program period, or \$1,266 per family member per year.⁷

Expenses to administer the program were incurred primarily by Seedco and the NPOs that were the face of the program in the local communities. For Seedco, these costs covered such activities as developing a payment tracking system, processing administrative records to determine whether automatically verified rewards had been earned, creating coupon books for reward payments that required families to submit documents proving that they had earned given rewards, verifying that requirements for coupon payment rewards were met, maintaining up-to-date bank account information to make sure payments were disbursed to the correct accounts, issuing earnings statements each payment period to mail to families, creating and maintaining a helpline to answer questions, making payments to families who earned rewards, marketing the program, performing general program management, and overseeing the NPOs. For the NPOs, costs were incurred for conducting program orientations for participants, providing refresher sessions, and organizing various social events and workshops. The NPOs were also responsible for distributing coupon books and providing general customer service.⁸

The cash transfers themselves (on average, more than \$8,700 per family — or \$8,900 in 2014 dollars — over the course of the intervention) account for about 68 percent of program costs, with administrative expenditures accounting for the remainder (32 percent). Put differently, as a small-scale demonstration project, it cost Family Rewards about 47 cents in operating expenses per each dollar of rewards transferred to participants. This amount is high compared with ongoing, mainstream government transfer programs, such as Temporary Assistance for

⁶See Miller and Deitch (2016), available at www.mdrc.org, for full details on the cost estimation methodology and results.

⁷These costs include sample recruitment, program start-up, and program wrap-up costs as well as the ongoing operation of the program. Some research costs incurred by the administrators of the program are included, but these are quite limited. See Miller and Deitch (2016) for a full discussion of findings from the cost analysis and how costs were estimated.

⁸See Riccio et al. (2010) and Riccio et al. (2013a) for further details on program operations and on the division of responsibilities between Seedco and the NPOs.

⁹"Administrative expenditures," "administrative costs," and "non-reward costs" are used interchangeably in this report.

Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP),¹⁰ or Medicaid, which operate at a vastly larger scale and thus enjoy large economies of scale. Moreover, Family Rewards became more efficient over time. In the final year, it cost 34 cents per dollar of reward payments, although the number of rewards was also reduced.

If Family Rewards were run at a larger scale, it would most certainly get to a point where the non-reward cost per reward dollar paid would decrease substantially. Just for the sake of illustration, if it were as efficient as TANF, for instance, administrative costs would be 17 cents per dollar of reward payments. Applying this hypothetical estimate, and using the same average dollar value of reward payments, total administrative costs would be \$1,486 per family, and overall program costs would be \$10,386 per family — compared with \$4,364 and \$13,093, respectively, incurred during the demonstration.

 $^{^{10}}$ SNAP was formerly the Food Stamp Program. SNAP benefits are still often referred to as "food stamps."

Chapter 4

The Impact of Family Rewards on Poverty, Hardship, and Human Capital

The long-term goal of Family Rewards was to reduce poverty across generations by promoting positive health care behavior, educational achievement, and employment — or "human capital development" — among low-income children and their parents. The short-term goal was to reduce current poverty and material hardship through the program's 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. Overall, the program was more successful in achieving its short-term goal than its longer-term objectives. However, it did improve some human capital outcomes for some participants, including high school graduation rates.

Current Poverty and Hardship

Family Rewards succeeded in recruiting a population that continuously struggled with very low income and material hardships, as control group outcomes on a variety of measures attest. For example, three and a half years after they entered the study, control group parents reported an average family income from all sources of only \$1,620 per month (or \$19,440 on an annual basis), as shown in Table 4.1. This finding indicates that about 68 percent of families were at or below the federal poverty level, with 27 percent having incomes below 50 percent of the poverty level — in what experts commonly consider "severe poverty." Moreover, 44 percent were not able to pay their full rent or utilities bills at some point in the prior year or had other housing-related hardships, and about 20 percent reported "sometimes" or "often" not having enough food to eat. Clearly, their needs were great, and those needs were exacerbated by New York City's high cost of living.

Effects on Current Poverty and Hardship

 Family Rewards reduced families' current poverty and economic hardships, including difficulties securing enough food and some housingrelated hardships.

Overall, when the program was operational and families were earning rewards, it was quite successful in achieving its short-term poverty reduction goal. For example, counting the value of the reward payments, it boosted self-reported average monthly household income for

Table 4.1
Impacts on Selected Outcomes Measuring Poverty, Material Hardship, and Banking Through the Final Program Year or Early Post-Program Period

	Program	Control	Difference	
Outcome	Group	Group	(Impact)	P-Value
Income and poverty				
Household income during Year 3				
(including Family Rewards payments)				
Average monthly income ^{a,b,c} (\$)	1,973	1,620	353 ***	0.000
Annual income at or below federal poverty level ^{a,b} (%)	56.0	68.2	-12.2 ***	0.000
Annual income less than 50% of federal				
poverty level ^{a,b} (%)	16.3	27.4	-11.1 ***	0.000
Household income during early post-program period (excluding Family Rewards payments)				
Average monthly income ^{a,b,c} (\$)	1,700	1,620	79 *	0.093
Annual income at or below federal poverty level ^{a,b} (%)	66.2	68.2	-2.0	0.309
Annual income less than 50% of federal				
poverty level ^{a,b} (%)	25.9	27.4	-1.5	0.499
Material hardship (%)				
Family "sometimes" or "often" did not have enough				
food to eat in past month				
18-month survey	14.8	22.1	-7.3 ***	0.000
42-month survey	15.3	20.7	-5.4 ***	0.002
Family usually did not have enough money to make				
ends meet at end of month				
18-month survey	34.1	41.8	-7.8 ***	0.000
42-month survey	35.4	41.0	-5.6 ***	0.009
Family did not pay full rent or mortgage in past year ^d				
18-month survey	39.0	41.5	-2.5	0.245
42-month survey	40.0	44.1	-4.2 *	0.061
Parent agrees "strongly" or "somewhat" that current				
financial situation is "better than last year"	(2.7	44.5	102 444	0.000
18-month survey	62.7	44.5	18.3 ***	0.000
42-month survey	51.4	46.6	4.8 **	0.034
Banking and savings (%)				
Parent currently has any bank account				
18-month survey	73.3	51.8	21.5 ***	
42-month survey	64.0	46.6	17.5 ***	0.000
Parent cashes check at check casher at least				
once a month	20.2	26.5	2 0 444	0.000
18-month survey	29.2	36.5	-7.3 ***	0.000
42-month survey	29.2	31.5	-2.3	0.260 ontinued)

(continued)

Table 4.1 (continued)

	Program	Control	Difference	
Outcome	Group	Group	(Impact)	P-Value
Family has any savings ^e				
18-month survey	25.7	16.3	9.4 ***	0.000
42-month survey	24.6	16.8	7.8 ***	0.000
Family's average savings exceed \$500 ^e				
18-month survey	14.1	8.0	6.0 ***	0.000
42-month survey	12.5	9.2	3.2 **	0.023
Parent borrows cash from family or friends				
(42-month survey only)	47.3	52.5	-5.2 **	0.021
Sample size, 18-month survey (total = $2,060$)	1,051	1,009		
Sample size, 42-month survey (total = 1,982)	1,024	958		

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

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.

See Riccio et al. (2010) and Riccio et al. (2013a,b) for more details on the measures and calculations used in this table.

The items in the poverty, material hardship, and banking sections of the 42-month survey were administered to a random subsample of the survey respondents.

The early post-program period refers approximately to the first six months since the time the program ended, which is when most respondents to the 42-month survey completed their interviews.

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation.

^bAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. 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, applying the applicable poverty level threshold 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.

^dOnly about 4 percent of the 42-month survey sample owned an apartment or a house at the time of the survey.

^eAbout 6 percent of the 42-month survey sample is excluded from this analysis because of missing data.

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, as shown in Table 4.1. (See Box 4.1 for guidance on how to read the impact tables in this report.) This extra income reduced the proportion of families living at or below the federal poverty level by 12 percentage points relative to the control group rate of 68 percent. The program also cut the proportion of families who were living in severe poverty by 11 percentage points (or nearly 41 percent).

Box 4.1 How to Read the Impact Tables in This Report

In the context of this evaluation, an "impact" is a measure of the effect of the Family Rewards program, represented by the difference in outcomes between those families who were randomly assigned to the program group and those who were randomly assigned to the control group. The "Difference" column in each impact table shows the differences between the two research groups' outcomes — that is, the program's estimated *impacts* on the outcomes. The p-value shows the probability that this difference, or impact, arose by chance, rather than as a result of the program; the higher the p-value, the more likely that the difference occurred by chance. The number of asterisks indicates whether the impact is statistically significant at the 1 percent (***), 5 percent (***), or 10 percent (*) level — that is, whether there is less than a 1, 5, or 10 percent likelihood that the difference arose by chance.

Most of this poverty reduction is attributable to the cash transfers that families received, rather than to increased earnings from jobs. Once Family Rewards ended and the transfers were no longer available, the average income of families in the program group no longer differed substantially from that of the control group.

The extra income that Family Rewards participants received during the program period helped those families reduce a variety of material hardships, also shown in Table 4.1. For example, the proportion of families experiencing food insufficiency (meaning that parents indicated in survey interviews that their families "sometimes" or "often times" did not have enough to

¹In 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 benefits, welfare payments under the Temporary Assistance for Needy Families (TANF) program, Medicaid, housing subsidies, and the EITC.

eat in the prior month) was 7.3 percentage points (or about 33 percent) lower than the control group average of 22.1 percent according to the 18-month survey (when all program group members were still in Family Rewards). The magnitude of this effect was somewhat smaller by the time of the 42-month survey (5.4 percentage points). Program group families were also less likely than those in the control group to report not having enough money to pay their rent some time in the year prior to the time they were interviewed. They were more likely to report having enough money to "make ends meet" and that their financial situation had improved over the prior year. Where these effects were evident in the early post-program period (as indicated by the 42-month survey results), they were most likely reflecting a lingering effect of the cash transfers rather than a permanent change.

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

As Table 4.1 shows, the parents in Family Rewards were about 18 percentage points more likely than parents in the control group to report having a bank account after the program had ended. They were almost 8 percentage points more likely than those in the control group to have any savings. And they were about 5 percentage points less likely to have borrowed cash from family or friends in the prior year.

 The reductions in hardships were large and heavily concentrated among families who were living in severe poverty at the time they began Family Rewards.

Among families in the severe-poverty subgroup (that is, had an income that was less than 50 percent of the federal poverty threshold at the time of random assignment), those in Family Rewards were 14 percentage points less likely than similar families in the control group to have income below the federal poverty level in Year 3. (See Table 4.2.) Family Rewards also reduced this higher-poverty subgroup's relative likelihood of experiencing food insufficiency after the program ended (according to the 42-month survey) by 9 percentage points, and reduced the relative likelihood of not paying their full rent in the past year by about 11 percentage points.

Children's Education

The CCT programs instituted by lower- and middle-income countries have generally led to increases in school attendance. The effects have been larger at the secondary school level, since

²Slight discrepancies in percentages are a result of rounding.

³As discussed in Riccio et al. (2013a), post-program hardship reductions were smaller among survey respondents in the program group whose survey interviews took place later in the post-program period.

Table 4.2
Impacts on Selected Outcomes Measuring Income, Poverty, and Material Hardship Through the Final Program Year or Early Post-Program Period, by Respondent's Poverty Level at the Time of Random Assignment

Respondent's Toverty Level	Program	Control	Difference		
Subgroup and Outcome	Group	Group	(Impact)	P-Value	Sig.
Income at or above 50% of FPL at baseline					
Household income during Year 3 (including Family Rewards payments) Average monthly income ^{a,b,c} (\$)	2,093	1,771	323 ***	0.000	
Annual income at or below FPL ^{a,b} (%)	51.1	62.1	-11.0 ***	0.000	
Household income during early post-program p (excluding Family Rewards payments) Annual income at or below FPL ^{a,b} (%)	eriod 62.4	62.1	0.2	0.903	
Family "sometimes" or "often" did not have end food to eat in past month (%)	ough 16.0	19.0	-3.0	0.181	†
Family usually did not have enough money to mends meet at end of month (%)	nake 34.7	38.1	-3.4	0.227	
Family did not pay full rent or mortgage in past year ^d (%)	42.9	42.0	0.9	0.764	††
Family's average savings exceed \$500° (%)	13.7	11.7	2.0	0.304	
Sample size (total = $1,193$)	642	551			
Income less than 50% of FPL at baseline					
Household income during Year 3 (including Family Rewards payments) Average monthly income ^{a,b,c} (\$) Annual income at or below FPL ^{a,b} (%)	1,781 63.5	1,409 77.2	372 *** -13.6 ***	0.000 0.000	
Household income during early post-program p	eriod 71.9	77.2	-5.3 *	0.088	
Family "sometimes" or "often" did not have end food to eat in past month (%)		23.2	-9.2 ***	0.001	†
Family usually did not have enough money to mends meet at end of month (%)	nake 36.4	45.2	-8.8 **	0.012	
Family did not pay full rent or mortgage in past year ^d (%)	35.7	46.4	-10.8 ***	0.002	††
Family's average savings exceed \$500e (%)	10.3	6.0	4.2 **	0.035	
Sample size (total = 788)	382	406		(continued	

Table 4.2 (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.

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

FPL is federal poverty level.

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.

See Riccio et al. (2010) and Riccio et al. (2013a,b) for more details on the measures and calculations used in this table.

The items in the poverty, material hardship, and banking sections of the 42-month survey were administered to a random subsample of the survey respondents.

The early post-program period refers approximately to the first six months since the time the program ended, which is when most respondents to the 42-month survey completed their interviews.

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation.

^bAnnual household income is calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. 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, applying the applicable poverty level threshold 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.

^dOnly about 4 percent of the 42-month survey sample owned an apartment or a house at the time of the survey.

^eAbout 6 percent of the 42-month survey sample is excluded from this analysis because of missing data.

attendance at the primary (elementary school) level is often already relatively high. The effects have also 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.⁴

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 posited that the lack of effects was a result of poor schools and problematic home environments, neither of which was addressed by the CCTs. The exception to this finding is for very young children, where some studies suggest that cognitive gains were achieved for children who were of preschool age when their families par-

⁴Fiszbein and Schady (2009).

ticipated.⁵ This finding is consistent with the increasingly popular idea that investments in early childhood can have important, lasting effects.⁶

In the United States and other higher-income countries, a growing number of studies have tested financial incentives linked to student performance. At the elementary and secondary school levels, for example, incentives have been offered to improve reading time, test performance, and course taking.⁷ At the college level, some programs offer incentives linked to grades, courses taken, and persistence.⁸ Studies that are particularly relevant to Family Rewards include tests of targeted incentives in three large U.S. school districts, including the SPARK program in New York City;⁹ a study of incentives for improving test performance in rural Ohio;¹⁰ a study of alternative forms and timing of incentive offers in school districts in and near Chicago;¹¹ and a study of incentives given to Israeli high school students to take and pass high school exit exams.¹²

A general finding from these studies is that incentives can increase student effort, at least in the short run. For example, the Israeli program got 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 increased effort while incentives are offered will translate 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. In contrast, a test of different incentives across three urban school districts found that they generally did not increase achievement, although there were positive effects for one subgroup in one city. In that study, incentives were offered to elementary school students for reading books (in Dallas); to high school students for good grades, with larger rewards for better grades (in Chicago); and to middle school students for proficient test performance (in the New York City SPARK program). The author acknowledges that each of the three tests did not have enough statistical power to detect notable effects, but concludes that, at best, the incentives had small to modest effects on performance. 13 The other Chicago study, which tested the timing of incentive payments, found that incentive payments that are distributed quickly to students can be more effec-

⁵Paxson and Schady (2008).

⁶Carneiro and Heckman (2003).

Bettinger (2010); Jackson (2010); Fryer (2011).

⁸Patel and Rudd (2012); Leuven, Oosterbeek, and van der Klaauw (2010); Angrist, Lang, and Oreopoulos (2009)

⁹Fryer (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.

¹⁰Bettinger (2010).

¹¹Levitt, List, Neckermann, and Sadoff (2012).

¹²Angrist and Lavy (2009).

¹³Fryer (2011).

tive in improving test scores, and that the motivation to change behavior can vanish when incentive payments are delayed.

Another finding from several of these studies 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. 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.¹⁴

More recently, research on CCTs in two Latin American countries has looked at longer-term effects on children's school outcomes, with encouraging findings. For example, a non-experimental study of a Colombian CCT program found positive effects on high school graduation for cohorts of students who were exposed to the program for anywhere from one to nine years. ¹⁵ A more powerful example comes from a program in Nicaragua. That study, based on an experimental design, found positive effects after 10 years on educational attainment and test scores for boys who were ages 9 to 12 when they entered the program. ¹⁶ The effects on achievement are notable, because they were measured seven years after the families of the young men stopped receiving the transfers.

Effects on Education-Related Outcomes

Coming from very-low-income families in six of New York's highest-poverty neighborhoods, it is no surprise that the students in Family Rewards faced a range of challenges to their school progress. The magnitude of those challenges can be seen clearly from the experiences of the control group, who represent the "norm," or students' experience in the absence of Family Rewards. For example, only 86 percent of the children in the control group who began the study in fourth grade had progressed to ninth grade (the expected grade level) by Year 6. Children in the control group who were entering seventh grade at the time of random assignment were even less likely to keep up: by Year 6, only 43 percent of the students in that seventh-grade cohort had graduated on time, although 81 percent were still officially enrolled in school.

Among entering ninth-graders, the percentage who were on track plummeted over the ensuing years. The falloff was greatest between the ninth and tenth grades (Years 1 and 2 of the

¹⁴Slavin (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.

¹⁵Baez and Camacho (2011).

¹⁶Barham, Macours, and Maluccio (2013).

¹⁷See Miller and Deitch (2016), available at www.mdrc.org, for these data.

study). By Year 4, only 51 percent of control group members who were entering ninth grade at the start of the study were enrolled in twelfth grade (as shown in Table 4.3). Attendance also fell with each passing year. Among those in the control group who were enrolled in Year 4, for example, the average attendance rate was only 60 percent. Finally, only 48 percent of the ninth-grade control group cohort had graduated by the end of Year 4. The graduation rate improved only marginally by Year 6, rising only to 52 percent.

It was against this backdrop that Family Rewards sought to make a difference in children's school performance.

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

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 6 (not shown in the tables). ¹⁸ In addition, subgroup analyses did not reveal any consistent patterns of positive effects for particular types of students in those grades. Perhaps the limited approach of the Family Rewards model for these children — that is, rewarding only attendance and standardized test scores above a certain level (rather than more immediate performance indicators, such as good report card grades), and paying all rewards to the parents — might explain in part why the program did not have an educational payoff for this group.

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

Generally speaking, as Table 4.3 shows, ninth-grade students in Family Rewards overall performed no better on school outcomes than did their control group counterparts. Both groups had disappointing outcomes, with just under half graduating within four years, and just over half graduating within six years.

The picture changes when the results are examined separately according to students' academic readiness for high school, according to their scores on their eighth-grade standardized tests. 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 from Family Rewards. In contrast, ninth-grade students who were behind educationally when they entered Family Rewards did not experience educational gains from the program. It may be that, on average,

¹⁸See Miller and Deitch (2016), available at www.mdrc.org, for these data.

Table 4.3
Impacts on Selected Education Outcomes for Students in Grade 9 at Random Assignment

	Program	Control	Difference	
Outcome	Group	Group	(Impact)	P-Value
Outcome	Group	Group	(Impact)	r - v arue
Enrollment and graduation (%)				
Enrolled in grade 12 in 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
Enrolled in any grade in Year 6	8.8	10.8	-2.1	0.123
Graduated within 4 years	49.2	48.2	1.1	0.621
Graduated within 6 years	53.9	52.3	1.6	0.420
Dropped out within 6 years	18.1	19.3	-1.1	0.505
Attendance rate 95% or higher (%)				
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
Average attendance rate (%)				
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
Credits earned				
Average number of credits earned, Years 1 to 4	32.7	31.9	0.8	0.300
Average number of credits earned, Years 1 to 6	33.7	33.4	0.4	0.667
Earned at least 44 credits, Years 1 to 4 (%)	41.5	40.5	0.9	0.652
Earned at least 44 credits, Years 1 to 6 (%)	45.5	45.7	-0.2	0.923
Regents exams passed (%)				
Passed at least 5 Regents exams, Years 1 to 4	36.7	35.7	1.1	0.562
Passed at least 5 Regents exams, Years 1 to 6	38.1	38.2	-0.1	0.942
Rewards earned, Years 1 to 3 ^a (\$)				
Total amount earned for education activities	2,868			
Attendance	534			
Regents exams	1,370			
Earning 11+ credits	855			
Sample size (total = 1,978)	988	990		

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

(continued)

Table 4.3 (continued)

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, 4, 5, and 6 cover the 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, and 2012-2013 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."

^aReward amounts are calculated across all program group members, including those who did not earn any education rewards. The total amount includes other rewards for education activities not listed.

this group was just too far behind educationally or too disengaged from school for the incentives to make much of a difference. Although subgroup findings tend to carry less statistical certainty than full-sample estimates, these results are consistent with some prior research: as previously mentioned, a number of studies of education-focused incentives programs found more positive effects for more capable students.¹⁹

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 4.4.) These improvements include positive impacts on, among other outcomes, the proportion of ELA-proficient students who were enrolled in grade 12 in Year 4 (and thus headed toward on-time graduation), on their likelihood of earning at least 44 credits (the amount needed to graduate), and on their likelihood of passing at least five New York State Regents exams. It also produced an 8 percentage point increase in the likelihood of on-time graduation from high school

¹⁹See, for example, Angrist and Lavy (2009).

²⁰In 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 a range of 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.

²¹Students 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.

Table 4.4

Impacts on Selected Education Outcomes for Students in Grade 9 at Random Assignment, by Performance on English Language Arts (ELA) Test in the Prior Year (Grade 8)

<u> </u>	8th	Proficient on 8th Grade ELA Test ^a			Not Proficient on 8th Grade ELA Test ^a			
Outcome	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	Sig.	
Enrollment and graduation (%) Enrolled in grade 12 in Year 4 Enrolled in any grade in Year 4 Enrolled in any grade in Year 6	78.4 90.9 4.4	68.2 89.0 5.9	10.1 *** 1.9 -1.6	48.3 82.7 9.9	50.3 81.3 12.9	-2.0 1.4 -3.0	††	
Graduated within 4 years Graduated within 6 years	74.8 81.7	66.9 72.2	8.0 ** 9.5 ***	43.2 50.8	45.9 52.5	-2.8 -1.6	†† ††	
Attendance rate 95% or higher (%) Year 1 Year 2 Year 3 Year 4	54.9 47.0 40.3 28.1	42.3 33.9 30.8 23.0	12.6 *** 13.1 *** 9.5 ** 5.2	29.6 24.3 21.4 14.8	29.6 21.5 20.4 14.3	0.1 2.8 1.0 0.5	†† †† †	
Average attendance rate (%) Year 1 Year 2 Year 3 Year 4	92.0 87.5 83.9 76.7	86.9 81.4 77.1 71.6	5.1 *** 6.1 *** 6.8 *** 5.1 *	82.1 74.9 68.1 59.8	82.3 75.1 67.7 60.4	-0.2 -0.3 0.4 -0.6	††† †† ††	
<u>Credits earned</u> Average number of credits earned, Years 1 to 4 Average number of credits earned, Years 1 to 6	44.3 45.2	40.0 41.2	4.3 *** 3.9 ***	30.9 32.1	31.8 33.6	-0.8 -1.4	††† †††	
Earned at least 44 credits, Years 1 to 4 (%) Earned at least 44 credits, Years 1 to 6 (%)	66.1 71.3	56.6 60.8	9.6 ** 10.5 **	36.9 41.0	39.8 46.3	-2.8 -5.3 *	†† †††	
Regents exams passsed (%) Passed at least 5 Regents exams, Years 1 to 4 Passed at least 5 Regents exams, Years 1 to 6	72.5 74.0	63.1 65.4	9.5 ** 8.6 **	25.8 27.1	28.9 31.4	-3.1 -4.3 *	††† <u>†††</u>	

(continued)

Table 4.4 (continued)

	Proficient on 8th Grade ELA Test ^a			N 8th			
	Program	Control	Difference	Program	Control	Difference	
Outcome	Group	Group	(Impact)	Group	Group	(Impact)	Sig.
Rewards earned, Years 1 to 3 ^b (\$)							
Total amount earned for education activities	4,536			2,447			
Amount earned from attendance	800			483			
Amount earned from Regents exams	2,276			1,109			
Amount earned from earning 11+ credits	1,308			764			
Sample size (total = 1,700)	271	256		576	597		

SOURCE: MDRC calculations using data from New York City Department of Education administrative 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 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: $\dagger\dagger\dagger=1$ percent; $\dagger\dagger=5$ percent; $\dagger=10$ 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, 4, 5, and 6 cover the 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, and 2012-2013 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."

^bReward amounts are calculated among all program group members in each subgroup, including those who did not earn any education rewards. The total amount includes other rewards for education activities not listed.

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 graduation-rate impact rose to 10 percentage points (or 13 percent) by the end of Year 6.²² These effects are particularly noteworthy because they occurred without any changes in the schools themselves or in teachers' instructional practices. The positive effects also tended to be larger and more consistently statistically significant among girls than among boys in the proficient-reader subgroup (although possibly owing to small subgroup sample sizes, the differences in impacts by gender are not themselves statistically significant). ²³

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 (not shown in tables). ²⁴ For example, 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 graduation rates.

Why Family Rewards would have stronger and more sustained effects for *reading*-proficient students is not immediately clear. It was not because math-proficient students were less capable students overall. In fact, among control group members, those who were proficient in math were somewhat more likely than those who were proficient in reading to graduate within four years (71 percent versus 67 percent).²⁵ In the absence of the program, perhaps reading-proficient students, on average, would have been more likely than math-proficient students to perform below their potential (possibly in math courses, in particular), leaving them more room to improve by investing more effort, as inspired by the incentives.

• Family Rewards led high school students to change how they spent their time when they weren't in school, which may have contributed to the educational gains that the more proficient students experienced.

The findings from a special study that was conducted as part of the evaluation showed that high school students in the program group shifted more of their attention during nonschool

²²As Table 4.4 shows, on most outcome measures, the impacts for ELA-proficient students were statistically significantly different from the impacts for students who were not ELA-proficient.

²³These results are presented in Appendix Table G.16 in Riccio et al. (2013b), which is available at www.mdrc.org.

²⁴See Miller and Deitch (2016), available at www.mdrc.org.

²⁵See Tables S2.4 and S2.5 in Miller and Deitch (2016), available at www.mdrc.org. It is also noteworthy that when they entered the study, ninth-graders who were proficient in reading were not necessarily proficient in math, and vice versa. On the students' eighth-grade standardized tests, the correlation between ELA proficiency and math proficiency was about 0.44.

Box 4.2

Using Incentives to Change the Way Teenagers Spend Their Time

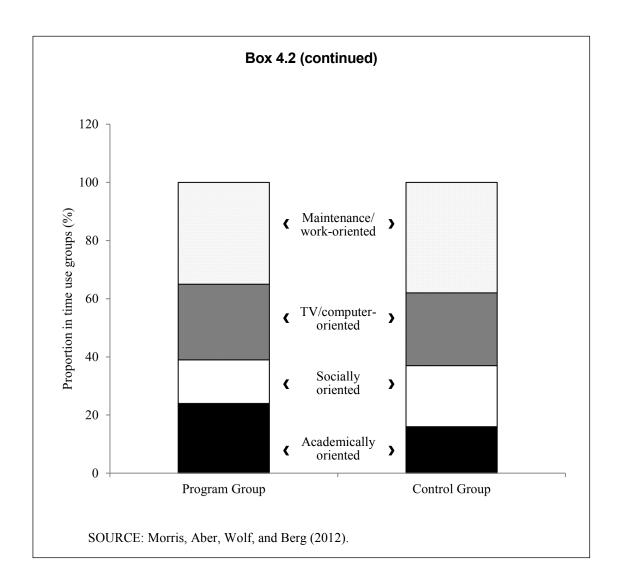
The Family Rewards evaluation included a special study of high school students to discover whether the program affected the way they spent their time when they were not in school. It also examined effects on other outcomes, such as their mental health, aggressive behavior, substance use, and family spending patterns. The study found that Family Rewards:

- Changed how teenagers spent their time when not in school, increasing the proportion who engaged primarily in academic activities and reducing the proportion who engaged primarily in social activities relative to similar teenagers in the control group.
- Had the most pronounced effect on use of time among the teenagers who were better prepared for high school (that is, had scored at proficiency levels on their eighth-grade standardized math test when they entered Family Rewards.
- Increased parents' spending on school-related and leisure activities and supplies, and increased the proportion of parents who saved money for their children's future education.
- Had no effects on parents' monitoring of their teenage children's activities or behavior and did not increase parent-teenager conflict (as might have been expected by paying substantial cash rewards directly to teenagers) or the teenagers' depression or anxiety.
- Did not reduce teenagers' intrinsic motivation by paying them rewards for school attendance and academic achievement.
- Substantially reduced teenagers' self-reported problem behavior, such as aggression and substance use.

(continued)

hours from social activities to academic activities (for example, doing homework and participating in achievement-oriented after-school activities), compared with the way students in the control group spent their time when they were not in school.²⁶ (See Box 4.2.) This change was concentrated among students in the more proficient subgroup. As such, it may be one of the mechanisms through which the program improved the school outcomes for that subgroup.

²⁶Morris, Aber, Wolf, and Berg (2012).



• The effects of Family Rewards were no better or worse for students who were enrolled in higher-performing schools or in lower-performing schools or for students with more versus less educated parents.

As part of the analysis of effects on school outcomes, the evaluation prespecified three dimensions across which the program's effects might vary: students' past performance, parents' education level, and students' school environment. The results showed little variation in effects across these subgroups for the elementary and middle school students. For entering ninth-graders, unlike the effects by students' past performance, the effects of the program did not differ significantly by parents' education level or by school environment.

School environment — that is, whether a school was "low-performing" or "high-performing" — 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 (low-, medium-, and high-performing) based on this ranking. The findings indicate that school environment is strongly associated with outcomes — for example, students who entered the study in the lowest-ranked schools had lower attendance rates and graduation rates than did their counterparts who attended higher-ranking schools. Nonetheless, the program's impacts were not found to differ between higher- and lower-performing schools.

The education incentives do not appear to have reduced students' intrinsic motivation.

As discussed in Chapter 1, some critics of incentives believe that extrinsic rewards might reduce children's intrinsic motivation to learn, especially after the incentives end, harming their educational outcomes. There is no indication that Family Rewards caused any consistent pattern of statistically significant negative effects on school outcomes, even after the program ended. For example, for the group for whom the program had the largest effect — reading-proficient ninth-graders — the behavioral changes in terms of attendance and credits attempted lessened in general once the incentives were removed. But students in the program group did not perform systematically worse on these or other outcomes than did those in the control group. Moreover, the special study of ninth-graders measured intrinsic motivation directly by asking study participants a series of questions (similar to those used in other studies) about engagement in school and motivation to learn. That analysis found no difference in intrinsic motivation between the program and control group students.

29

²⁷Wolf (2014) examined how the program's impacts varied by school environment, using a more comprehensive definition of school environment that included attendance rates, per-pupil expenditures, and students' perceptions of school safety as well as test scores. For a subset of ninth-graders, she found that effects on academic achievement in Year 3 were positive at lower-quality schools and negative at higher-quality schools, for an inverse relationship. However, this finding was not evident in an analysis that was conducted for the current report for the full sample of ninth-graders, or for other measures of achievement, such as four-year and six-year graduation rates. The discrepancy may have to do with differences in the composition of the samples across the two analyses. See, also, Riccio et al. (2013a) for further details on an earlier full-sample analysis.

²⁸Among the nonproficient readers, Table 4.4 does show some outcomes for the program group that are lower than those for the control group. However, most of the differences are small and not statistically significant, and thus do not suggest a meaningful pattern of negative effects.

²⁹Morris, Aber, Wolf, and Berg (2012). Similarly, Fryer (2011) found little evidence that the school-based incentives programs that he studied caused reductions in intrinsic motivation.

 Family Rewards reduced teenagers' problem behaviors, key outcomes that the intervention did not target directly. No increases were found in teenagers' depression or anxiety.

The special study of teenagers' use of time also examined the possible effects of Family Rewards on teenagers' mental health and problem behaviors.³⁰ It found that teenagers in the program group reported lower levels of aggression and lower levels of alcohol and marijuana use, and a lower likelihood of having friends using those substances, compared with their peers in the control group. It may be that the shifts in use of time from more social to more academic activities resulted in less opportunity to engage in problem behaviors and possibly a change in time spent with peers who engage in such behaviors. The program also had no statistically significant impacts on teenagers' depression and anxiety. Given concerns that parents would put undue pressure on their children and increase their anxiety levels as a result, this "null" finding should be seen as positive.

 Family Rewards increased parents' spending on their teenagers and savings for their teenagers' future education, indicating positive effects on parents' investment in children's human capital.

By providing cash transfers to families, Family Rewards should have resulted in greater spending and, perhaps, savings within families. However, whether or not those increased resources would be spent in ways that would benefit children's long-term human capital was an open question because the program placed no constraints on how families could spend their reward payments. The special study of teenagers' use of time examined this question and found that parents in the program group had higher levels of monthly spending on academic activities and supplies and on leisure and entertainment than did parents in the control group.³¹ Notably, Family Rewards also had a positive impact on parents' indicating that they were currently saving for their teenagers' future education.

 Family Rewards did not increase the rate of enrollment in postsecondary educational programs, but it does seem to have encouraged readingproficient ninth-graders to enroll full time, rather than part time, and to enroll in four-year colleges rather than two-year institutions.

Following students for six years after random assignment, the evaluation can track many of them into college or postsecondary technical institutes. This tracking is possible using data from the National Student Clearinghouse, which collects data on postsecondary enrollment and degree receipt nationwide, covering 95 percent of postsecondary enrollment in the United

³⁰Morris, Aber, Wolf, and Berg (2012).

³¹Morris, Aber, Wolf, and Berg (2012).

States.³² For the Family Rewards ninth-grade cohort, the Clearinghouse data cover two years after high school graduation for those who graduated within four years.

As Table 4.5 shows, 42.5 percent of ninth-graders in the control group enrolled in a postsecondary institution at some point during the six-year follow-up period. Family Rewards had no statistically significant effect on this outcome. A more relevant analysis may be for the reading-proficient ninth-graders (shown in Table 4.6), since the program increased high school graduation rates for this group, better positioning them for enrollment in college or a technical institute. Although 62.5 percent of the reading-proficient program subgroup enrolled in such an institute (according to National Clearinghouse data), this rate was about the same as the rate for reading-proficient students in the control group. However, it does seem that Family Rewards caused the proficient students to move away from two-year institutions and part-time enrollment toward full-time enrollment in four-year colleges. For example, the program increased full-time enrollment in four-year colleges by 9.3 percentage points for the ELA-proficient subgroup.³³

• Family Rewards may have improved early school outcomes for younger children, who were ages 2 to 7 when their families enrolled in the study.

A growing literature suggests that increases in family income can have positive effects on children's well-being and school progress, particularly for very young children.³⁴ As it turns out, a substantial number of families in the Family Rewards evaluation had very young children, who ranged from preschoolers to kindergarteners when their parents enrolled in the study. These children were eligible for the health rewards but not the education rewards, unless they reached elementary school during the three-year program period.³⁵ However, they would have experienced increased family incomes during their preschool years or very early elementary school years, primarily from the rewards that their parents and older siblings received. By the fifth and sixth years of follow-up, many of these children were old enough to have taken standardized tests, which are administered starting in third grade. The evaluation thus had an opportunity to examine whether these children in the program group, who lived in households with

³²Dynarski, Hemelt, and Hyman (2015). The authors found very high rates of coverage for public institutions and lower rates for for-profit institutions.

³³The reasons why students in the Family Rewards group who were not proficient in reading, compared with those in the control group, may have been less likely to enroll in any college or to enroll full time are uncertain. For example, it is not clear whether they were more discouraged about further schooling, or more likely to be working, or more likely to be enrolled in vocational training or General Educational Development (GED) programs not captured by the National Clearinghouse data. It may be an issue worthy of further investigation.

³⁴See, for example, Dahl and Lochner (2012); Magnuson et al. (2013); Duncan, Magnuson, and Votruba-Drzal (2014); and Miller et al. (2008).

³⁵Attendance rewards began in first grade and test score rewards began in third grade.

Table 4.5
Impacts on Postsecondary Enrollment for Students in Grade 9 at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever within 6 years after baseline (%)				
Enrolled at any postsecondary institution	39.9	42.5	-2.6	0.204
2-year	20.5	22.5	-2.0	0.281
4-year	22.5	22.8	-0.4	0.841
Highest level ever enrolled was full time	27.5	28.8	-1.3	0.510
Highest level ever enrolled was part time	3.9	3.9	0.0	0.993
Enrolled in 4-year and full time	18.8	17.7	1.2	0.475
Enrolled in 2-year and full time	11.2	13.5	-2.3	0.127
Sample size (total = 1,978)	988	990		

SOURCE: MDRC calculations using data from the National Student Clearinghouse.

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.

higher incomes than those in the control group during the period the program operated (because of the reward payments), had any better school outcomes.

Table 4.7 shows the results for these children on the standardized tests they took in the evaluation's sixth year of follow-up, when they were in the third, fourth, or fifth grade (depending on their ages). As can be seen from this exploratory analysis, Family Rewards increased the proportion of these children who scored at proficiency levels on the ELA test in Year 6 by 5.3 percentage points and on the math test by 5.5 percentage points. These impacts are consistent with other experiments showing the positive effects that increases in family income (resulting from participation in welfare-to-work and related programs that included earnings supplements) can have on young children's school performance.³⁶ However, given the attention that Family

³⁶Morris et al. (2001).

Table 4.6
Impacts on Postsecondary Enrollment 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)

	Proficient on 8th Grade ELA Test ^a			Not Proficient on 8th Grade ELA Test ^a			_	
Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)	Sig.	
Ever within 6 years after baseline (%)								
Enrolled at any postsecondary institution	62.5	61.2	1.4	33.8	38.9	-5.0 *		
2-year	21.3	26.3	-5.0	21.5	23.1	-1.6		
4-year	46.0	38.8	7.1 *	15.4	18.2	-2.8	††	
Highest level ever enrolled was full time	49.9	40.6	9.3 **	21.4	26.8	-5.4 **	†††	
Highest level ever enrolled was part time	4.7	4.9	-0.2	4.2	4.0	0.2		
Enrolled in 4-year and full time	40.9	31.2	9.7 **	12.2	13.5	-1.4	††	
Enrolled in 2-year and full time	12.4	13.7	-1.3	11.9	14.8	-2.9		
Sample size (total = 1,700)	271	256		576	597			

SOURCE: MDRC calculations using data from the National Student Clearinghouse.

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: $\dagger \dagger \dagger = 1$ percent; $\dagger = 10$ 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.

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

Table 4.7

Impacts on Test Scores for Children Ages 2 to 7 at the Time of Random
Assignment

Assignment							
	Program	Control	Difference				
Grade Level and Outcome	Group	Group	(Impact)	P-Value			
Year 6, Grades 3-5							
ELA scale score	288.7	287.6	1.2	0.611			
Scored at proficient level or higher on ELA ^a	18.1	12.8	5.3 **	0.048			
Math scale score	288.6	285.8	2.8	0.227			
Scored at proficient level or higher on math ^a	21.4	15.9	5.5 *	0.062			
Average attendance rate (%)	85.8	85.1	0.7	0.686			
Attendance rate 95% or higher (%)	39.2	39.2	0.0	0.996			
Sample size (total = 788)	410	378					

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

NOTES: Sample sizes may vary because of missing values. The ages of 2 to 7 are based on the age recorded in the Baseline Information Form. There are three children included in this sample whose ages fall outside this range.

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; ** = 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.

Year 6 covers the 2012-2013 school year.

Proficiency in Year 6 is based on the Common Core State Standards.

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

Rewards focused on children's education in general, the results may have also been driven in part by changes that might have occurred in parents' attitudes toward or support for their young children's education (although these indicators were not measured).

Health Care Behaviors and Health Conditions

International CCT programs have been found to increase the use of health services.³⁷ For example, a number of studies have shown impacts on visits to health clinics, especially for very

³⁷Fiszbein and Schady (2009); Lagarde, Haines, and Palmer (2007).

young children, who are often the focus of health care incentives. 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 body of research documents that incentives can affect a variety of health-related behaviors, such as weight loss, ³⁸ smoking, ³⁹ and adherence to prescribed medication. ⁴⁰ 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. ⁴¹ Another review suggests that the payments need not be large to affect a variety of health-related outcomes. ⁴² However, most of these studies were small, clinical trials, and most of them evaluated behavioral change in the short term only. In the few studies that did track long-term outcomes, the effects typically faded after the intervention ended.

Most relevant to Family Rewards are incentives for more general preventive practices, such as maintaining health insurance and visiting the doctor and dentist. Evidence on the effects of incentives to maintain health insurance is scant, but recent research shows that having health insurance does increase the use of preventive care.⁴³

Effects on Health-Related Outcomes

• 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. ⁴⁴ The high rate in New York City, which was higher than in many other cities, likely reflects efforts by the city and state to improve access to health care coverage and to improve the health care delivery system for low-and moderate-income families. ⁴⁵ Most parents in the control group reported having public

³⁸Volpp et al. (2008a).

³⁹Volpp et al. (2009) and Volpp et al. (2015).

⁴⁰Volpp et al. (2008b).

⁴¹Kane, Johnson, Town, and Butler (2004).

⁴²Sindelar (2008).

⁴³Finkelstein et al. (2012).

⁴⁴The study sample did not include low-income single adults or undocumented immigrants, who are much less likely to have health insurance.

⁴⁵See United Hospital Fund (2009) for a list of reforms that New York State implemented in 2007. That report documents that in the year after the reforms were introduced, 85 percent of eligible children were covered by Medicaid or the State Children's Health Insurance Program, a rate substantially above the national

health insurance (Medicaid and the State Children's Health Insurance Program) for their families, reported getting regular physicals for themselves and their children, and said they had a regular place for receiving routine health services (a "medical home"). Consequently, on some measures, Family Rewards had much less room to improve the use of basic preventive health care services further.

Perhaps for that reason, Family Rewards had few noteworthy health-related impacts, according to the 42-month survey. (See Table 4.8.) 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 received those services already. 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 group reporting on the 42-month survey that they had used emergency rooms for that purpose.

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

Family Rewards led to increased dental care for parents and children alike. For example, according to responses to the 42-month survey, 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 dental checkups or more 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). The importance of oral health has been well documented, in addition to disparities by income level in access to oral health services. ⁴⁶ Poor oral health can affect children in the short run, but it can also lead to a number of more serious medical conditions as they age. ⁴⁷

• Family Rewards may have improved health outcomes among those who had significant health problems when they entered the program.

average. Similarly, data for 2009 from the U.S. Census Bureau indicate that the percentage of low-income children without insurance was lower in New York State than in the United States, and the rate of government-provided coverage for this group was higher in New York State than in the United States on average.

⁴⁶Fisher-Owens et al. (2008).

⁴⁷A recent study also documents effects of poor oral health on labor market outcomes (Glied and Neidell, 2010).

Table 4.8

Impacts on Selected Outcomes Measuring Health Care
Through the Final Program Year or Early Post-Program Period

	Program	Control	Difference	
Outcome	Group	Group	(Impact)	P-Value
Parents' use of health insurance (%)				
Had a period with no health insurance coverage in past 12 months	15.3	17.6	-2.3 *	0.087
Sample size (total = 2,966)	1,543	1,423		
Parents' use of health services and health status				
Uses hospital emergency room as usual source of care when sick	3.0	4.0	-1.0	0.238
Has seen health professional for any reason in past 12 months	94.4	94.5	-0.1	0.924
Used emergency room for own health problem in past 12 months	44.2	46.2	-2.0	0.378
Had a health checkup in past 12 months	90.0	88.9	1.1	0.427
Currently has, and is being treated for, any medical condition ^a Asthma High blood pressure/hypertension High cholesterol/high LDL Diabetes	50.1 15.0 25.6 9.0 11.2	47.8 14.9 24.8 9.4 10.4	2.3 0.1 0.8 -0.5 0.8	0.276 0.942 0.672 0.709 0.568
Smokes cigarettes	22.6	24.5	-1.9	0.314
Self-rated health is "excellent" or "very good"	35.9	32.9	3.0	0.137
Has seen dentist for any reason in past 12 months	85.4	75.3	10.1 ***	0.000
Had 2 dental checkups or more in past 12 months	45.2	33.5	11.8 ***	0.000
Sample size (total = 1,961)	1,022	939		
High school students' use of health services (%)				
Uses hospital emergency room as usual source of care when sick	2.5	3.2	-0.8	0.522
Has seen dentist for any reason in past 12 months	93.8	89.1	4.7 **	0.021
Had 2 dental checkups or more in past 12 months	62.9	44.1	18.8 ***	0.000
Had health checkup or got shots in past 12 months	94.0	94.3	-0.3	0.876
Sample size (total = 812)	429	383		

(continued)

Table 4.8 (continued)

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Rewards earned, Years 1-3 (\$) Total amount earned for health activities ^b	2,978			
Sample size	2,377			

SOURCE: MDRC calculations using data from the Family Rewards 42-month survey 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 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 items in the health section of the survey were adminstered to a random subsample (N = 1,961) of the survey respondents.

The early post-program period refers approximately to the first six months since the time the program ended, which is when most respondents to the 42-month survey completed their interviews.

^aThe four most commonly reported conditions are listed.

^bReward amounts are calculated among all program group families, including those who did not earn any health rewards.

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 subgroup finding emerged from an exploratory analysis. AP Parents who indicated at the time of random assignment that they were in "fair" or "poor" health (about 19 percent of the sample) were 6.2 percentage points more likely than parents in 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. (See Table 4.9.) They also reported lower rates of having asthma and being treated for it. In contrast, those who began the program in better health reported a small increase in the likelihood of having and being treated for any medical conditions, including asthma, possibly reflecting previously undiagnosed conditions. Although the effects on asthma are not easily explained by other patterns in the data, preexisting health status may be worthy of further exploration in future studies of incentives tied to general preventive health care.

⁴⁸This subgroup was not prespecified.

Table 4.9

Impacts on Parents' Receipt of Health Care Services and Health Outcomes, by Respondent's Self-Rated Health at the Time of Random Assignment

v 1				,	
Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Self-rated health is excellent, very good, or good at baseline (%)					
Had a health checkup in past 12 months	89.1	88.7	0.3	0.833	
Has seen dentist for any reason in past 12 months Had 2 dental checkups or more	86.3 45.1	76.8 34.9	9.5 *** 10.2 ***	$0.000 \\ 0.000$	
Excellent or very good self-rated health	41.7	40.0	1.8	0.463	
Currently has, and is being treated for, any medical condition ^a Asthma High blood pressure/hypertension High cholesterol/high LDL Diabetes	44.1 13.9 21.2 6.3 8.2	39.8 10.8 19.2 7.0 7.2	4.3 * 3.0 * 1.9 -0.7 1.1	0.070 0.069 0.319 0.584 0.433	†† †††
Smokes cigarettes	21.8	23.6	-1.8	0.393	
Obese according to Body Mass Index (BMI) ^b	44.1	44.2	-0.1	0.978	
Sample size (total = 1,549)	797	752			
Self-rated health is fair or poor at baseline (%)					
Had a health checkup in past 12 months	93.5	90.1	3.4	0.226	
Has seen dentist for any reason in past 12 months Had 2 dental checkups or more	81.5 45.7	68.8 27.8	12.7 *** 17.9 ***	0.004 0.000	
Excellent or very good self-rated health	12.6	6.4	6.2 **	0.039	
Currently has, and is being treated for, any medical condition ^a Asthma High blood pressure/hypertension High cholesterol/high LDL Diabetes	73.1 19.4 42.7 19.7 22.7	79.1 30.8 46.1 18.6 23.3	-6.0 -11.4 *** -3.4 1.1 -0.5	0.157 0.009 0.491 0.790 0.901	†† †††
Smokes cigarettes	26.6	28.4	-1.8	0.697	
Obese according to Body Mass Index (BMI) ^b	52.3	54.2	-1.9	0.719	
Sample size (total = 398)	219	179		(a a mti-	

(continued)

Table 4.9 (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.

Differences across subgroup impacts were tested for statistical significance. Statistical significance levels (Sig.) are indicated as follows: $\dagger\dagger\dagger\dagger=1$ percent; $\dagger\dagger=5$ percent; $\dagger=10$ 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 items in the health section of the survey were adminstered to a random subsample (N = 1,961) of the survey respondents.

^aThe four 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.

Parents' Employment and Training

Among parents in the control group, 69 percent had worked in a job covered by unemployment insurance (a "UI-covered" job) at some point during the five-year period for which those data are available, but only about 48 percent were working in such a job during any given quarter of that follow-up period. Those who worked at all at a UI-covered job in Year 5 (about 53 percent) earned an average of about \$24,000 in that year.

To move out of poverty on a sustained basis without Family Rewards, parents in the program would need to do better. The employment and training rewards were intended to encourage and support their work efforts.

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. ⁴⁹ A range of studies suggests that expansions in the EITC increased the employment rates of single mothers. ⁵⁰ A number of evaluations have tested programs that provide monthly earnings supplements for full-time employment or rewards for sustained work. ⁵¹ In general, these programs have increased work, in some cases by moving more people into the labor market, in other cases by

⁴⁹In the 2013 tax year, the most recent year for which data are available, over 27 million families and individuals received the EITC (Center on Budget and Policy Priorities, 2016).

⁵⁰Holt (2006); Eissa and Hoynes (2006).

⁵¹Earlier studies are summarized in Michalopoulos (2005). More recent studies include Hendra et al. (2011) and Martinson and Hendra (2006).

moving people who would have worked anyway to do so more quickly, and in other cases by encouraging people who would have worked part time to work full time instead. Another finding from some studies is that "incentives plus services" are more effective at increasing employment than incentives alone, 52 suggesting that some people may need additional help moving into work to take advantage of the incentives offer.

The evidence for training incentives is more mixed. Some programs using incentives have increased the rate at which participants engaged in training and received certificates. However, the increase in training did not necessarily lead to better labor market outcomes.⁵³

The work and training incentives in Family Rewards are distinctive in the United States because, unlike work 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. Thus, Family Rewards offers a rare opportunity to test the effects of work incentives in the context of other incentives that are not conditioned on work.

To date, none of the major CCT programs in lower- and middle-income countries has included rewards for parents' work or training, although there has been concern that the provision of education and health rewards may lead to a reduction in adults' work effort. In general, CCT 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.⁵⁴

Effects on Employment and Training

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

According to the 42-month survey of parents, the program increased the likelihood of working at the time of the interview by 6.4 percentage points above the control group rate of 49.6 percent. This difference, shown in Table 4.10, was driven largely by an increase in full-time work (which the program rewarded). However, the program had no statistically significant impact on the average quarterly employment rate in UI-covered jobs over the five-year follow-up period, according to administrative records data. ⁵⁵ (See Table 4.11.) A very small negative

⁵²Michalopoulos (2005); Nuñez, Verma, and Yang (2015).

⁵³Hendra et al. (2011); Miller, van Dok, Tessler, and Pennington (2012).

⁵⁴Fiszbein and Schady (2009).

⁵⁵Employers report the wages of their workers to the UI system on a quarterly basis.

Table 4.10

Impacts on Selected Characteristics of Parents' Self-Reported

Employment in the Final Program Year or Early Post-Program Period

Outcome (%)	Program Group	Control Group	Difference (Impact)	P-Value
Currently employed at the time of the survey Working full time (at least 30 hours per week) ^a	56.0	49.6	6.4 ***	0.000
	44.4	39.5	4.9 ***	0.001
Currently employed and job provides Paid sick days Paid vacation days	33.6	30.4	3.2 **	0.026
	35.3	33.3	2.0	0.152
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.

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

The early post-program period refers approximately to the first six months since the time the program ended, which is when most respondents to the 42-month survey completed their interviews

^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.)

effect on average quarterly employment (less than 2 percentage points) persisted after the program ended, but the small negative effects on average earnings in UI-covered jobs during and after the program period are not statistically significant.

Some jobs are not covered by the UI system, such as self-employment (for example, providing child care), 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 Family Rewards would vary across types of employment. Perhaps for some parents, non-UI jobs were easier to get, particularly those that offered the full-time hours necessary to qualify for the program's work rewards. Such jobs may also have been more

Table 4.11
Impacts on Employment and Earnings Covered by Unemployment Insurance,
Years 1 to 5

	Program	Control	Difference	
Outcome	Group	Group	(Impact)	P-Value
Ever employed (%)				
Years 1-5	66.8	69.1	-2.3 **	0.021
Year 1	56.3	58.7	-2.4 ***	0.008
Year 5	51.6	53.2	-1.6	0.171
Average quarterly employment (%)				
Years 1-5	46.8	47.6	-0.9	0.270
Year 1	49.1	50.4	-1.3 *	0.098
Year 5	44.9	46.7	-1.8 *	0.082
Total earnings (\$)				
Years 1-5	62,036	62,947	-911	0.496
Year 1	12,154	12,376	-221	0.323
Year 5	12,485	12,746	-261	0.476
Rewards earned, Years 1-3 (\$)				
Total amount earned for workforce activities ^a	1,698			
Sample size (total = 4,993)	2,513	2,480		

SOURCE: MDRC calculations using data from 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 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).

^aReward amounts are calculated among all program group adults, including those who did not earn any workforce rewards.

attractive options if they were more conveniently located, easier to obtain, or offered more flexible schedules than UI-covered jobs. 56

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 the effects of previous work incentives programs. Furthermore, 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 of the program, according to UI records. For example, as shown in Table 4.12, parents who did not have a high school diploma or GED certificate when they entered Family Rewards had an average quarterly employment rate over the five years of follow-up that was 3 percentage points lower than that of their counterparts in the control group, and they earned an average of \$2,934 less than those control group members over that period (a reduction of almost 8 percent). Similarly, the program led to reductions in UI-covered employment among parents who were not working at the time of random assignment and among those whose family incomes were below 50 percent of the federal policy level when they entered the program.

The reductions in UI-covered work among more disadvantaged parents may be a response to the substantial rewards that these families were earning from the program's health and education domains — an "income effect." For example, over the entire program period, the subgroup with no high school diploma or GED certificate received an average of \$7,388 in reward payments, with \$6,305 (or 85 percent) coming from health and education rewards (not shown in Table 4.12). The deep recession and slow recovery that occurred during the follow-up period would have made it especially difficult for lower-skilled individuals to find work, and the income effect may have been amplified for them. 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.⁵⁷

⁵⁶Health 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. See Riccio et al. (2013a).

⁵⁷The work disincentive of government transfer programs is one that is predicted by economic theory and has been found in practice. Reductions in work effort, although generally modest in size, have been found for a range of programs that provide benefits, including SNAP (Hoynes and Shanzenbach, 2012), UI benefits (Krueger and Meyer, 2002), and housing subsidies (Jacob and Ludwig, 2012). Jacob and Ludwig, for example, found that the use of housing vouchers from a program in Chicago reduced quarterly employment rates by about 4 percentage points.

Table 4.12
Impacts on Respondents' Employment and Earnings Covered by Unemployment Insurance, by Selected Characteristics at the Time of Random Assignment

Kandon				Random Assignment									
Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.								
Education	<u>*</u>	<u> </u>	` '										
High school diploma/GED certificate or higher at baseline													
Ever employed, Years 1-5 (%)	74.1	76.0	-2.0	0.114									
Average quarterly employment, Years 1-5 (%)	55.1	54.5	0.6	0.561	††								
Total earnings, Years 1-5 (\$)	81,411	81,466	-55	0.978									
Sample size (total = $2,863$)	1,404	1,459											
No high school diploma/GED certificate at baseline													
Ever employed, Years 1-5 (%)	57.5	60.7	-3.1 *	0.081									
Average quarterly employment, Years 1-5 (%)	35.5	38.5	-3.0 **	0.018	††								
Total earnings, Years 1-5 (\$)	34,579	37,512	-2,934 *	0.074									
Sample size (total = 1,960)	1,021	939											
Employment													
Employed at baseline													
Ever employed, Years 1-5 (%)	87.4	88.6	-1.1	0.236									
Average quarterly employment, Years 1-5 (%)	71.6	71.3	0.3	0.783	†								
Total earnings, Years 1-5 (\$)	102,409	102,931	-522	0.809									
Sample size (total = $2,633$)	1,324	1,309											
Not employed at baseline													
Ever employed, Years 1-5 (%)	43.5	47.4	-3.9 **	0.040									
Average quarterly employment, Years 1-5 (%)	18.7	21.1	-2.4 **	0.036	†								
Total earnings, Years 1-5 (\$)	16,412	18,051	-1,640	0.268									
Sample size (total = 2,282)	1,147	1,135											

(continued)

Table 4.12 (continued)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Sig.
Income					
Income at or above 50% of FPL at baseline					
Ever employed, Years 1-5 (%)	84.0	84.3	-0.4	0.732	†††
Average quarterly employment, Years 1-5 (%)	64.3	64.2	0.1	0.928	††
Total earnings, Years 1-5 (\$)	91,639	91,822	-183	0.926	
Sample size (total = $3,062$)	1,584	1,478			
Income less than 50% of FPL at baseline					
Ever employed, Years 1-5 (%)	39.0	45.3	-6.3 ***	0.002	†††
Average quarterly employment, Years 1-5 (%)	18.3	21.8	-3.5 ***	0.005	††
Total earnings, Years 1-5 (\$)	14,624	17,514	-2,890 **	0.046	
Sample size (total = 1,931)	929	1,002			

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: $\dagger\dagger\dagger=1$ percent; $\dagger\dagger=5$ percent; $\dagger=10$ percent.

GED is General Educational Development.

FPL is federal poverty level.

Family Rewards led to small but statistically significant increases in the proportion of parents who, at the time of the 42-month survey, were taking community college courses for credit (by 2.3 percentage points), who had earned a trade license or certificate (by 4.2 percentage points), or who held an associate's degree (by 2.4 percentage points) (not shown in tables). 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

⁵⁸See Riccio et al. (2013a).

and credential receipt, because so few individuals received those rewards. Although it is not certain, effects on participation and credential receipt may instead have been 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.

It seems unlikely that parents who experienced a reduction in earnings were substituting education or training for work, hoping that doing so would improve their work opportunities in the future. Although this possibility cannot be ruled out, it is noteworthy that for the subgroups with reductions in earnings, Family Rewards did not consistently have larger impacts on participation in education or training or on receiving a degree or credential.

Chapter 5

An Overall Assessment

When launched in 2007, Family Rewards 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? The findings are now in, and they add to the growing body of evidence not only on the broader concept of CCTs, but also on the promise and challenges more generally of using incentives to influence behavior.

Overall, the program's effects were more modest than had been hoped. Its largest effects were to reduce poverty and material hardship during the three years that the cash rewards were offered, particularly for families who entered the program in more severe poverty. But the behavioral responses, the key to long-term poverty reduction, were either small or limited to subgroups. 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 before entering high school, or the big increase in dental care for all types of families. But it had no effects on education among younger students and only a few small effects on other outcomes related to health care and parents' employment. It is worth considering why the original model did not produce better results, and whether certain design modifications could make such a program more effective.

Why Didn't Family Rewards Have Larger and Broader Impacts?

Although it is impossible to know for sure, it is reasonable to question whether certain design choices help explain the program's mixed results. For example, were the right behaviors and achievements rewarded? Were they structured and operationalized appropriately? Were there too many rewards overall? Were appropriate dollar values attached to the rewards? Should case management have been included?

The Types of Rewards and How They Were Operationalized

The designers of Family Rewards had certain expectations about the potential influence of each reward within each domain. However, many choices about what activities and accomplishments to reward and how to structure and target the rewards had to be made without the benefit of a strong evidence base. The evaluation findings now available are helpful in assessing those original choices within each of the three reward domains.

Children's Education

In the education domain, it is important to distinguish the experiences of younger and older students. For elementary and middle school students, Family Rewards linked only two types of rewards to student performance: (1) attendance and (2) performance on annual standardized math and English language arts (ELA) exams. For the most part, average attendance rates generally ranged from 85 percent to 90 percent through eighth grade among control group members. As mentioned earlier, recognizing that, at these grade levels, the attendance rewards were not making a difference, the program's designers dropped them for the third and final year of program operations.

There was much more room for improvement when it came to younger students' performance on the annual standardized tests: many control group students were not scoring at proficiency levels. However, each of these tests occurred only once a year, and the rewards that were attached to them may have been too remote to have much motivational power. Young students may not have been able to appreciate fully the connection between working hard during the school year, performance on the annual tests, and the rewards that would come from doing well on those tests. Furthermore, the test rewards may have also had little salience for young students because the payments were made to the parents. Family Rewards, like most other CCT programs, relied on parents to tell their children about the incentives.² 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. In addition, parents may not have understood how to improve their children's study habits or what other concrete steps they could take to help them perform better in school.

But it is not clear that this lack of awareness really mattered. The Spark program in New York City, which operated at the same time as Family Rewards and offered monetary rewards directly to students in the fourth and seventh grades for better performance on diagnostic standardized tests that they took several times during the academic year, also did not produce much overall improvement in students' academic performance.³ It may be that individually

¹The attendance rates in the Chapter 4 tables do not distinguish excused absences from other absences. Thus, some portion of nonattendance is accounted for by excused absences for child illness in both the program and control groups.

²The decision to rely on parents for communicating with younger children about the program was done for practical reasons and because, presumably, many parents would not have wanted their young children to be given the sometimes large sums of money that the program provided.

³Fryer (2011). Fryer found more promising effects in school-based incentives experiments in which rewards were tied to "inputs" in the education production function (for example, paying second-graders to read books and answer quizzes on them, and paying middle-school students to meet various behavioral standards along with attendance) than in incentives experiments focused on "outputs," such as rewarding test scores or grades.

based monetary incentives simply have less power to motivate younger students, or that other, different kinds of behaviors would need to be rewarded.

High school is a time when attendance rates begin to fall substantially, school performance slips, and dropping out becomes a more common problem than it is in the lower grades, especially for lower-income students. By high school, low-income students are nearly three times more likely than high-income students to have repeated a grade and nearly six times more likely to drop out. Financial incentives should mean more to high school students because they have more control over their school-related efforts and their own consumption, and it was reasonable to expect that they would have a stronger desire for cash. Family Rewards thus paid most of the high school education rewards directly to the students, in whole or in part (although many parents still exercised some control over their children's access to that money). It was expected that, even if students were not very interested in school, they may attend more regularly, pay more attention in class, complete more of their homework, and study harder in order to earn the money — and that their parents would provide more encouragement, support, and reminders.

These rewards did make a difference, but their effects were limited to the subgroup of ninth-grade students who were better prepared for high school according to their scores on their eighth-grade standardized tests, and especially for those who were proficient in reading. The incentives had little effect for those ninth-graders who entered the program less prepared for high school. For those students, achieving satisfactory school performance called for a much bigger leap than it did for better-prepared students, likely requiring support and assistance that went well beyond the offer of financial incentives alone. For example, it may have required compensatory instruction or special tutoring; ways of addressing personal or family problems that were interfering with school attendance, engagement, and learning; or ways of helping students improve their study habits and focus on schoolwork.

Behavioral studies find that incentive rewards that are paid closer to the time when the desired behavior occurs may be more effective than when payments are delayed, and some school research supports that finding.⁵ Thus, one weakness of the Family Rewards education component may have been that (for administrative reasons) too much time passed between achievement of the specified outcome and payment of the reward. For example, attendance rewards were paid two months after they were earned, and payments for achieving the expected number of course credits in a year could not be made until after the school year was completed.

⁴Planty et al. (2009).

⁵Levitt, List, Neckermann, and Sadoff (2012) offer evidence that when education incentive payments are considerably delayed, they are less effective in improving student performance than those that are received with less delay (that is, closer to the behavior or outcome), reasoning that students heavily discount the value of the delayed rewards.

Similarly, payments for passing Regents exams, for students taking exams in January of a given year, would not be made until the summer, when test grades became known. So even though families received payments for whatever they earned (across all domains) every two months, the rewards for certain school achievements may have been too distant to mean very much to some students. Indeed, the evaluation's qualitative research suggests that some high school students had forgotten about the incentives for certain activities until they received a payment.

The designers of Family Rewards had originally hoped to assign rewards for report card grades, which could have been paid closer to the time when report cards were issued. However, concerned that such incentives might put pressure on teachers to grade more leniently, school department officials were wary of this approach. They also noted inconsistencies in teachers' standards across different schools. The designers had also considered providing rewards for students to complete homework assignments at a satisfactory level. 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.

Preventive Health Care Practices

During the design phase, limited data were available to guide decisions on the health component of Family Rewards. Although it was expected that many families in the program would be enrolled in Medicaid and the Children's Health Insurance Program (CHIP), it was known that failure to comply with administrative requirements to maintain consistent eligibility for public insurance was not uncommon among low-income families, leading to inconsistent coverage. It was also expected that many of the parents who might have been working in low-wage jobs and may have had the option of purchasing health insurance through their employers would not do so because of the cost. It was further expected that many of the families would not have a "medical home" and would rely heavily on emergency rooms for nonemergency care.

These concerns turned out to be largely unfounded — perhaps in large part because of the progress that New York City and New York State had made in improving access to health insurance and health services for low- and moderate-income populations. As described previously, control group rates of preventive health care visits were high, insurance rates were high, and reliance on emergency rooms for routine care was low, leaving little room to improve these outcomes. (Still, the program had a small positive effect on reducing the likelihood that families would have a spell of no insurance coverage.)

It also turned out that most parents rated their health and their children's health as good to excellent, although many of the parents were contending with various ailments, and about 44 percent were struggling with obesity. The program may have had a positive effect on self-reported health among the subgroup of parents who, when they entered the study, were in fair or

poor health (according to an exploratory and less certain analysis). But, overall, encouragement for getting annual physicals was not what the majority of families needed.

The design team (the NYC Center for Economic Opportunity, MDRC, and Seedco) had considered tailoring health incentives to participants' particular health needs, such as treatment for asthma, obesity, diabetes, or smoking. It even explored the possibility of offering incentives for healthful eating. But the team ultimately rejected such approaches, largely because it could see no viable way to monitor and verify families' compliance with individually tailored incentives on a large scale, especially in the absence of a case management component to provide families with substantial personalized attention.

Preventive dental care is another story. The consistent positive effects on regular dental checkups for adults as well as children show that those types of health-related incentives could work in the context of an overall CCT program. It is notable that the control group members were less likely to get preventive dental care in the absence of the program.

Employment and Training

The failure of Family Rewards to improve employment outcomes for this sample was clearly not a matter of "too little room" to make an improvement. By the end of the study, many adults in the program group as well as in the control group were not working, and those who were employed were largely working in low-wage jobs, many of which were part time. Although the survey indicated a small positive effect on self-reported employment rates, no gain was achieved in UI-covered jobs. It is possible that the power of an incentive for full-time employment, which has worked in other experiments, was undermined by combining it with incentives that were not conditioned on work (that is, the education and health care rewards).

Few parents in Family Rewards received the education or training rewards. Although about 42 percent took part in some form of education or training during the follow-up period (about the same as the control group rate), the fact that the reward could only be earned after an approved activity was completed may have been an important limitation.

It is difficult to conclude that it was wrong to include work incentives in the Family Rewards model. Although they did not improve employment and earnings in jobs that were covered by unemployment insurance (UI), the positive effects on full-time employment and non-UI-covered employment mean that some parents did respond positively to them. Moreover, it is possible that the reduction in employment among the more disadvantaged subgroups may have been even greater if Family Rewards had included no incentive at all for full-time work. Still, the disappointing results clearly suggest that the approach to work in the context of a comprehensive CCT program should be rethought.

The Number and Size of Rewards

Perhaps including 22 different rewards was just too much of a cognitive load — or burden on their mental resources — for families to manage. For example, the qualitative research suggests that some families may have focused most of their attention on rewards that were easiest to achieve, or on activities they were already completing without encouragement from the program, rather than striving to earn rewards from other activities on a long list.

To illustrate this point, consider a program that offers only two incentives, one for frequent attendance at school and one for performance on standardized tests. Assuming for the moment that these two behaviors are the right ones to reward, would a program have more widespread effects on education if families had only those two rewards to focus on? Findings from at least some of the more targeted incentives programs (discussed in Chapter 4) suggest that that might be the case. Conversely, such a pared-down program would not reduce current poverty and material hardship nearly as much as Family Rewards did, unless much higher dollar amounts were attached to those rewards (which could create other problems, as discussed below). With more incentives, families had a better chance to earn large cash transfers and the program had a better chance of achieving its short-term goal of an immediate reduction in poverty and hardship — a core objective of a CCT program. In addition, Family Rewards, as a comprehensive two-generation model, sought to improve a broad range of human capital outcomes, for parents as well as for children. Nonetheless, it seems reasonable, as behavioral researchers might argue, to pare down the list of 22 rewards that were included in the original model so that participants could focus their cognitive resources on a more manageable number, and this decision was made for the replication of Family Rewards (discussed in the next section), known as "Family Rewards 2.0."

Would attaching larger amounts of money for the main incentives in Family Rewards have made a difference? The program designers did not have much evidence to guide them in setting the value of the rewards that could be earned. They sought to ensure that the rewards could increase participants' incomes by roughly 25 percent, which was about the amount of money that Mexico's CCT program aimed to add to family incomes. But the designers had to balance a variety of considerations, including what was affordable to the demonstration, what amounts might be politically acceptable in an ongoing program, and what unintended negative consequences could occur if amounts were set too high (for example, for test performance among young children, which might have caused parents to put undue pressure on their children). Although extraordinarily high payments for various rewards might have boosted their motivational power, practical considerations could not be ignored.

The Absence of Case Management

The original Family Rewards design purposely did not include a case management component. The goal of the experiment was to determine whether the incentives alone could make an important difference, not only in reducing immediate hardship and poverty, but also in changing families' human capital development. Cash transfers were to be provided as long as families achieved verifiable compliance with prespecified conditions. In fact, it was possible for a family to have very little contact with program staff through the course of the three-year program while being considered "fully engaged" and earning large rewards.

Qualitative research suggests that Family Rewards may have achieved better results if it had provided families with more guidance on *how* to meet the conditions that earned rewards. Many families who were not already meeting the required conditions may not have known what steps to take to achieve them, or may have had limited capacity to meet those conditions without additional help. For example, some parents were at a loss for how to help their children perform better at school beyond giving them general encouragement. Students themselves may not have understood how to study effectively or learn material they were struggling to understand. Some parents were not quite sure how to secure a full-time job, especially during the recession, when jobs were hard to find. The incentives-only approach of Family Rewards had little to offer to address those challenges other than general information on the availability of relevant services in the community.

A Revised CCT Model: Family Rewards 2.0

With the early evidence from Opportunity NYC–Family Rewards showing some of the strengths and weaknesses of the original model, CEO and MDRC sought to try again in 2011, even though the final results from the first attempt would not be available for several years. They collaborated to design a modified version of Family Rewards and secured funding to test it with a new randomized trial. Support came from the federal Social Innovation Fund (SIF) and private funds.⁶ This time, the program would be tested in two very different locations: the Bronx, New York, and Memphis, Tennessee. It operated from 2011 through 2014.

The revised model, referred to as "Family Rewards 2.0," was notable in a number of ways. It included many fewer incentives (8 rather than 22), with some dropped after it was determined that they were not working very well based on emerging findings from the original demonstration. The revised program also targeted only families with high school students in ninth or tenth grade, since no positive effects on school outcomes had been found for elementary and middle school students. It further restricted the selection of families to those who were receiving benefits from Temporary Assistance for Needy Families (TANF) or the Supplemental

⁶See Dechausay, Miller, and Quiroz-Becerra (2014).

Nutrition Assistance Program (SNAP), as a way to focus attention on families who were among the poorest and for whom control group outcomes in the original study tended to be lower than for those who were not participating in these benefit programs. This targeting decision was also seen as a way of testing a program that had a more direct connection to two of the country's mainstream safety net programs.

Another important feature of the new model was its "family guidance" component. The decision to include this feature was based on the emerging findings from the original study suggesting that incentives by themselves would not be sufficient to produce big gains in human capital development. While participants embraced the goals of the program, many did not know what steps to take to meet the conditions that would entitle them to rewards (for example, how to perform better in school, or how to get a full-time job). In Family Rewards 2.0, each family was assigned a family advisor at their participating Neighborhood Partner Organization (NPO). The advisors developed a Family Earnings Plan with every family and sought to meet with them at least twice a year to discuss their progress toward earning the rewards. Staff also used strategic outreach to engage families who were not earning rewards, and they had access to a small "resource fund" (discretionary money) to help families invest up front in services they may have needed to help them earn the rewards, such as short-term tutoring, work uniforms, transportation to job interviews, or fees for credentialing exams.

At the same time, Family Rewards 2.0 remained *primarily* an incentives-driven intervention. Although the family guidance component would allow staff to counsel families individually on steps they might take to meet the conditions that earned rewards, and to reach out to and try to help families who were "low earners" of the rewards, staff were not expected to provide in-depth case management. For one thing, they had to contend with relatively high caseloads. Each advisor was assigned about 100 families. If each family had only one high school student, that raised the number of individuals to 200. Some families also had more than one child in high school. Furthermore, the advisors were generalists without any special expertise in education, health, or workforce services, although they were prepared to make referrals to other services in the community. Thus, it is fair to view Family Rewards 2.0 more as an incentives program with some (limited) family guidance than primarily as a case management or service program backed up with incentives.

Family Rewards 2.0 also attempted to make the reward payments more timely (and thus more salient) by disbursing payments monthly, rather than every two months. In addition, rewarding report card grades, in addition to test scores, provided a more immediate incentive for teenagers' school performance, since these rewards were tied to each report card. Students could earn \$30 for each A, \$20 for each B, and \$10 for each C for up to five

qualifying courses per report card. Families were eligible for the rewards for three years and in some cases a little longer.⁷

Whether this revised approach to a CCT program is more effective than the original incentives-only approach remains to be seen. Impact findings for Family Rewards 2.0 will be available by the end of 2016.

Conclusion

As the first test of a comprehensive CCT program in the United States, Family Rewards attempted to reduce current poverty and hardship while simultaneously encouraging families to make more investments in their human capital to reduce future and next-generation poverty. It achieved an important measure of success regarding the first goal and limited results on the second one. In some cases, the incentives led to changes in family members' efforts and accomplishments, but in most cases they did not.

It is also important to consider the program's costs. The Family Rewards cash transfers alone cost an average of roughly \$3,000 per person per year, while the costs of maintaining the payment system and marketing, monitoring, and compliance for each of the reward conditions added to that expense. Because it did not produce earnings gains that might have, in turn, reduced reliance on other social transfers (for example, TANF, SNAP, or Medicaid), Family Rewards could not have paid for itself. Moreover, its limited effects on other outcomes that are more difficult to monetize — namely, education- and health-related outcomes — do not make a compelling case for scaling up the model in its original form. At the same time, because Opportunity NYC–Family Rewards succeeded in reducing short-term poverty and material hardship, especially for the poorest families, while achieving at least some improvements in human capital outcomes, it encouraged further experimentation with a CCT approach in the United States. The findings from Family Rewards 2.0 will thus provide a broader empirical foundation for assessing the merits of such an approach in an American context.

⁷In 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. Twice as many families were recruited for the study, with half randomly assigned to a program group, who were eligible for Family Rewards, and half randomly assigned to a control group, who were 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.

⁸See Chapter 3 and Miller and Deitch (2016), available at www.mdrc.org.

References

- Aber, J. L., N. G. Bennett, D. C. Conley, and J. Li. 1997. "The Effects of Poverty on Child Health and Development." *Annual Review of Public Health* 18: 463-483.
- Angrist, Joshua, and Victor Lavy. 2009. "The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial." *American Economic Review* 99, 4: 1384-1414.
- Angrist, Joshua, Daniel Lang, and Philip Oreopoulos. 2009. "Incentives and Services for College Achievement: Evidence from a Randomized Trial." *American Economic Journal: Applied Economics* 1, 1: 136-163.
- Baez, Javier Eduardo, and Adriana Camacho. 2011. "Assessing the Long-term Effects of Conditional Cash Transfers on Human Capital: Evidence from Colombia." Policy Research Working Paper 5681. Washington, DC: The World Bank.
- Barham, Tania, Karen Macours, and John A. Maluccio. 2013. "More Schooling and More Learning? Effects of a Three-Year Conditional Cash Transfer Program in Nicaragua after 10 Years." IDB Working Paper Series No. IDB-WP-432. Washington, DC: Inter-American Development Bank, Social Protection and health Division.
- Becker, Gary. 2008. "Paying the Poor to Improve Their School Performance." *The Becker-Posner Blog.* Website: www.becker-posner-blog.com/2008/05/paying-the-poor-to-improve-their-school-performance-becker.html.
- Bettinger, Eric P. 2010. "Paying to Learn: The Effect of Financial Incentives on Elementary School Test Scores." NBER Working Paper No. 16333. Cambridge, MA: The National Bureau of Economic Research.
- Bloom, Dan. 1997. After AFDC: Welfare-to-Work Choices and Challenges for States. New York: MDRC.
- Cameron, J., and W. D. Pierce. 2002. *Rewards and Intrinsic Motivation: Resolving the Controversy*. Westport, CT: Bergin and Garvey.
- Carneiro, Pedro, and James J. Heckman. 2003. "Human Capital Policy." IZA Discussion Paper 821. Bonn, Germany: Institute for the Study of Labor.
- Center on Budget and Policy Priorities. 2016. *Policy Basics: The Earned Income Tax Credit*. Website: www.cbpp.org/sites/default/files/atoms/files/policybasics-eitc.pdf.
- Dahl, Gordon, and Lance Lochner. 2012. "The Impact of Family Income on Child Achievement: Evidence from Changes in the Earned Income Tax Credit." *American Economic Review* 102, 5 (August): 1927-1956.

- Deci, E. L., R. Koestner, and R. Ryan. 1999. "A Meta-analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation." *Psychological Bulletin* 125: 627-668.
- Dechausay Nadine, Cynthia Miller, and M. Victoria Quiroz-Becerra. 2014. *Implementing a Conditional Cash Transfer Program in Two American Cities: Early Lessons from Family Rewards 2.0.* New York: MDRC.
- Duncan, Greg J., Katherine Magnuson, and Elizabeth Votruba-Drzal. 2014. "Boosting Family Income to Promote Child Development." *The Future of Children* 24, 1 (Spring): 99-120.
- Dynarski, Susan M., Steven W. Hemelt, and Joshua M. Hyman. 2015. "The Missing Manual: Using National Student Clearinghouse Data to Track Postsecondary Outcomes." *Educational Evaluation and Policy Analysis* 37, 1 suppl (May): 53S-79S.
- Eissa, Nada, and Hilary Hoynes. 2006. "Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply." Pages 74-110 in James M. Poterba (ed.), *Tax Policy and the Economy, Volume 20*. Cambridge, MA: Massachusetts Institute of Technology Press.
- Feister, Leila. 2013. Early Warning Confirmed: A Research Update on Third-Grade Reading. Baltimore, MD: Annie E. Casey Foundation.
- Finkelstein, Amy, Sarah Tabuman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, and Katherine Baicker. 2012. "The Oregon Health Insurance Experiment: Evidence from the First Year." *The Quarterly Journal of Economics* 127, 3: 1057-1106.
- Fisher-Owens, Susan A., Judith C. Barker, Sally Adams, Lisa H. Chung, Stuart A. Gansky, Susan Hyde, and Jane A. Weintraub. 2008. "Giving Policy Some Teeth: Routes to Reducing Disparities in Oral Health." *Health Affairs* 27, 2: 404-412.
- Fiszbein, Ariel, and Norbert Schady. 2009. *Conditional Cash Transfers: Reducing Present and Future Poverty*. Washington, DC: The World Bank.
- Fryer, Jr., Roland G. 2011. *Injecting Successful Charter School Strategies into Traditional Public Schools: Early Results from an Experiment in Houston*. NBER Working Paper No. 1749. Cambridge, MA: The National Bureau of Economic Research.
- Glied, Sherry, and Matthew Neidell. 2010. "The Economic Value of Teeth." *Journal of Human Resources* 45, 2: 468-496.
- Greenberg, David M., Nadine Dechausay, and Carolyn Fraker. 2011. *Learning Together: How Families Responded to Education Incentives in New York City's Conditional Cash Transfer Program*. New York: MDRC.
- Haskins, Ron, and Isabel Sawhill. 2009. *Creating an Opportunity Society*. Washington, DC: The Brookings Institution.

- Hendra, Richard, James Riccio, Richard Dorsett, David H. Greenberg, Genevieve Knight, Joan Phillips, Philip K. Robins, Sandra Vegeris, and Johanna Walters. 2011. *Breaking the Low-Pay, No-Pay Cycle. Final Evidence from the UK Employment Retention and Advancement (ERA) Demonstration*. UK Department for Work and Pensions Research Report No. 765. Leeds, UK: Corporate Document Service.
- Holt, Steven. 2006. *The Earned Income Tax Credit at Age 30: What We Know.* Washington, DC: Brookings Institution Press.
- Hoynes, Hilary Williamson, and Diane Whitmore Schanzenbach. 2012. "Work Incentives and the Food Stamp Program." *Journal of Public Economics* 96, 1: 151-162.
- Jackson, C. Kirabo. 2010. The Effects of an Incentive-Based High-School Intervention on College Outcomes. NBER Working Paper No. 15722. Cambridge, MA: The National Bureau of Economic Research.
- Jacob, Brian A., and Jens Ludwig. 2012. "The Effects of Housing Assistance on Labor Supply: Evidence from a Voucher Lottery." *The American Economic Review* 102, 1: 272-304.
- Kane, Robert, Paul Johnson, Robert Town, and Mary Butler. 2004. *Economic Incentives for Preventive Care*. Washington, DC: Agency for Health Research and Quality, U.S. Department of Health and Human Services.
- Krueger, Alan B., and Bruce D. Meyer. 2002. "Labor Supply Effects of Social Insurance." *Handbook of Public Economics* 4: 2327-2392.
- Lagarde, Maylene, Andy Haines, and Natasha Palmer. 2007. "Conditional Cash Transfers for Improving Uptake of Health Interventions in Low- and Middle-Income Countries. A Systematic Review." *Journal of the American Medical Association* 298, 16: 1900-1910.
- Leuven, Edwin, Hessel Oosterbeek, and Bas van der Klaauw. 2010. "The Effect of Financial Rewards on Students' Achievement: Evidence from a Randomized Experiment." *Journal of the European Economic Association* 8, 6: 1243-1265.
- Levitt, Steven D., John A. List, Susanne Neckermann, and Sally Sadoff. 2012. "The Behavioralist Goes to School: Leveraging Behavioral Economics to Improve Educational Performance." NBER Working Paper No. 18165. Cambridge, MA: The National Bureau of Economics Research.
- Levy, Frank, and Richard J. Murnane. 2004. *The New Division of Labor*. New York: Russell Sage.
- Levy, Santiago. 2006. *Progress Against Poverty; Sustaining Mexico's Progresa-Oportunidades Program*. Washington, DC: Brookings Institution Press.
- Magnuson, Katherine, Kimberly Noble, Greg J. Duncan, Nathan Fox, Hirokazu Yoshikawa, Charles Nelson, and Lisa Gennetian. 2013. "Poverty Reduction and the Developing Brain." Online document. Website: www.columbia.edu.

- Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao. 2013. "Poverty Impedes Cognitive Function." Science, Vol 341 (no. 6149). pp 976-980.
- Martinson, Karin, and Richard Hendra. 2006. *The Employment Retention and Advancement Project: Results from the Texas Site*. New York: MDRC.
- Michalopoulos, Charles. 2005. Does Making Work Pay Still Pay? New York: MDRC.
- Miller, Cynthia, and Victoria Deitch. 2016. New York City's First Conditional Cash Transfer Program: What Worked, What Didn't Supplementary Data on Impacts and Costs. New York: MDRC. Website: www.mdrc.org.
- Miller, Cynthia, Aletha C. Huston, Greg J. Duncan, Vonnie C. McLoyd, and Thomas S. Weisner. 2008. New Hope for the Working Poor: Effects After Eight Years for Families and Children. New York: MDRC.
- Miller, Cynthia, James Riccio, Nandita Verma, Stephen Nunez, Nadine Dechausay, and Edith Yang. 2015. "Testing a Conditional Cash Transfer Program in the U.S.: The Effects of the Family Rewards Program in New York City." *IZA Journal of Labor Policy* 4: 11.
- Miller, Cynthia, Mark van Dok, Betsy L. Tessler, and Alexandra Pennington. 2012. Strategies to Help Low-Wage Workers Advance: Implementation and Final Impacts of the Work Advancement and Support Center (WASC) Demonstration. New York: MDRC.
- Morris, Pamela, J. Lawrence Aber, Sharon Wolf, and Juliette Berg. 2012. *Using Incentives to Change How Teenagers Spend Their Time: The Effects of New York City's Conditional Cash Transfer Program.* New York: MDRC.
- Morris, Pamela, Aletha Huston, Greg Duncan, Danielle Crosby, Johannes Bos. 2001. *How Welfare and Work Policies Affect Children: A Synthesis of Research*. New York: MDRC.
- Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: Why Having Too Little Means So Much.* New York: Macmillan.
- New York City Center for Economic Opportunity. 2006. *Increasing Opportunity and Reducing Poverty in New York*. New York: Commission for Economic Opportunity. Website: www.nyc.gov/html/ceo/downloads/pdf/ceo_report.pdf.
- New York City Office of the Mayor. 2009. "Mayor Bloomberg Speaks about the Opportunity NYC Conditional Cash Transfer Pilot Program at Launch of the Organization of American States' New Partnership to Fight Poverty with Secretary of State Clinton, OAS Secretary General José Miguel Insulza and other officials." *News from the Blue Room*. PR-412-09 (September 22). Website: www.nyc.gov.
- New York City Office of the Mayor. 2007. "Mayor Bloomberg Addresses the Brookings Center on Children and Families 'Briefing on the Census Poverty Report." *News from the Blue Room.* PR-315-07 (August 28). Website: www.nyc.gov.

- Nuñez, Stephen, Nandita Verma, and Edith Yang. 2015. Building Self-Sufficiency for Housing Voucher Recipients: Interim Findings from the Work Rewards Demonstration in New York City. New York: MDRC
- Patel, Reshma, and Timothy Rudd. 2012. Can Scholarships Alone Help Students Succeed? Lessons from Two New York City Community Colleges. New York: MDRC.
- Paxson, Christina, and Norbert Schady. 2008. "Does Money Matter? The Effects of Cash Transfers on Child Health and Development in Rural Ecuador." Unpublished manuscript. Princeton, NJ, and Washington, DC: Princeton University and The World Bank.
- Planty, Michael, William Hussar, Thomas Snyder, Grace Kena, Angelina Kewal Ramani, Jana Kemp, Kevin Bianco, and Rachel Dinkes. 2009. *The Condition of Education 2009*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.
- Polit, D. F., A. S. London, and J. F. Martinez. 2001. *The Health of Poor Urban Women: Findings from the Project on Devolution and Urban Change*. New York: MDRC.
- Riccio, James, Nadine Dechausay, David Greenberg, Cynthia Miller, Zawadi Rucks, and Nandita Verma. 2010. *Toward Reduced Poverty Across Generations: Early Findings from New York City's Conditional Cash Transfer Program*. New York: MDRC.
- Riccio, James A., Nadine Dechausay, Cynthia Miller, Stephen Nuñez, Nandita Verma, Edith Yang. 2013a. *Conditional Cash Transfers in New York City The Continuing Story of the Opportunity NYC–Family Rewards Demonstration*. New York: MDRC.
- Riccio, James, Nadine Dechausay, Cynthia Miller, Stephen Nuñez, Nandita Verma, and Edith Yang. 2013b. *Conditional Cash Transfers in New York City: The Continuing Story of the Opportunity NYC–Family Rewards Demonstration, Supplementary Appendixes*. New York: MDRC. Website: www.mdrc.org.
- Rosenberg, Tina. 2008. "A Payoff Out of Poverty?" New York Times Magazine (December 21).
- Sindelar, Jody L. 2008. "Paying for Performance: The Power of Incentives Over Habits." *Health Economics* 17, 4: 449-451.
- Slavin, Robert E. 2010. "Can Financial Incentives Enhance Educational Outcomes? Evidence from International Experiments." *Educational Research Review* 5, 1: 68-80.
- United Hospital Fund. 2009. *Improving Enrollment and Retention in Medicaid and CHIP: Federal Options for a Changing Landscape*. New York: United Hospital Fund.
- Volpp, Kevin, Scott Halpern, Benjamin French, Dylan Small, Kathryn Saulsgiver, Michael Harhay, Janet Audrain-McGovern, George Loewenstein, Troyen Brennan, and David A. Asch. 2015. "Randomized Trial of Four Financial-Incentive Programs for Smoking Cessation." New England Journal of Medicine 372: 2108-2117.

- Volpp, Kevin G., Leslie K. John, Andrea B. Troxel, Laurie Norton, Jennifer Fassbender, and George Loewenstein. 2008a. "Financial Incentive-Based Approaches for Weight Loss: A Randomized Trial." *Journal of the American Medical Association* 300, 22: 2631-2637.
- Volpp, Kevin G., George Loewenstein, Andrea B. Troxel, Jalpa Doshi, Maureen Price, Mitchell Laskin, and Stephen E. Kimmel. 2008b. "A Test of Financial Incentives to Improve Warfarin Adherence." BMC Health Services Research 8, 272. Website: www.biomedcentral.com/1472-6963/8/272.
- Volpp, Kevin G., Andrea B. Troxel, Mark V. Pauly, Henry A. Glick, Andrea Puig, David A. Asch, Robert Gavin, Jigsan Zhu, Fei Wan, Jill DeGuzman, Elizabeth Corbett, Janet Weiner, and Janet Audrain-McGovern. 2009. "A Randomized Controlled Trial of Financial Incentives for Smoking Cessation." *The New England Journal of Medicine* 306, 7: 699-709.
- Wolf, Sharon. 2014. "Mediators and Moderators of Impacts of Conditional Cash Transfer Programs: Theoretical Issues and Empirical Findings." Ph.D. dissertation, New York University.
- Zedlewski, S. R., and P. Loprest. 2001. "Will TANF Work for the Most Disadvantaged Families?" In R. Blank and R. Haskins, *The New World of Welfare*. Washington, DC: Brookings Institute Press.

EARLIER MDRC PUBLICATIONS ON THE OPPORTUNITY NYC-FAMILY REWARDS DEMONSTRATION

Conditional Cash Transfers in New York City: The Continuing Story of the Opportunity NYC–Family Rewards Demonstration

2013. James Riccio, Nadine Dechausay, Cynthia Miller, Stephen Nuñez, Nandita Verma, Edith Yang.

Using Incentives to Change How Teenagers Spend Their Time: The Effects of New York City's Conditional Cash Transfer Program

2012. Pamela Morris, J. Lawrence Aber, Sharon Wolf, Juliette Berg.

Learning Together: How Families Responded to Education Incentives in New York City's Conditional Cash Transfer Program

2011. David Greenberg, Nadine Dechausay, Carolyn Fraker.

Toward Reduced Poverty Across Generations: Early Findings from New York City's Conditional Cash Transfer Program

2010. James Riccio, Nadine Dechausay, David Greenberg, Cynthia Miller, Zawadi Rucks, Nandita Verma.

NOTE: A complete publications list is available from MDRC and on its website (www.mdrc.org), from which copies of reports can also be downloaded.

About MDRC

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

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

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

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

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