

Effects of a Modified Conditional Cash Transfer Program in Two American Cities

Findings from Family Rewards 2.0

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September 2016

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Family Rewards 2.0 is one of five evidence-based programs that were implemented as part of the Social Innovation Fund (SIF) grant to the Mayor's Fund to Advance New York City and the New York City Center for Economic Opportunity. This report is based upon work supported by the SIF, which unites public and private resources to evaluate and grow innovative community-based solutions with evidence of results. The SIF is a program of the Corporation for National and Community Service, a federal agency that engages more than 5 million Americans in service through its AmeriCorps, Senior Corps, SIF, and Volunteer Generation Fund programs, and leads the U.S. President's national call to service initiative, United We Serve.

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Overview

Family Rewards was an innovative approach to poverty reduction in the United States that was modeled on the conditional cash transfer (CCT) programs common in lower- and middle-income countries. The program offered cash assistance to poor families, contingent on their meeting certain criteria related to family health care, children’s education, and parents’ work, in the hope of reducing long-term poverty. The first version of Family Rewards was evaluated in New York City starting in 2007 and had positive effects on some outcomes. The lessons learned from that study led to the next iteration and test of the model (“Family Rewards 2.0”), the subject of this report.

Family Rewards 2.0 was launched in July 2011 in the Bronx, New York, and Memphis, Tennessee. While still offering rewards in the areas of children’s education, family health, and parents’ work, Family Rewards 2.0 offered fewer rewards in each domain, offered the education rewards only to high school students, made the rewards more timely by paying them each month, and included personalized family guidance. The addition of guidance from staff members, who actively helped families develop strategies to earn rewards, represented the biggest change to the original model.

MDRC evaluated the program through a randomized controlled trial involving about 1,200 families in each city, half of whom could participate in the program and half of whom could not. This report presents findings on the program’s effects through four years.

Key Findings

Family Rewards transferred over \$6,200, on average, to each participating family during the period in which it operated, or just over \$2,000 per program year. Through Year 4, it had produced some positive effects on some outcomes, but left many other outcomes unchanged.

- After some start-up challenges, the program was generally implemented well in both cities by Year 2. The guidance component became more intensive over time, although the amount of interaction between staff and participants was still less than envisioned, especially in Memphis.
- Family Rewards 2.0 increased income and reduced poverty during the program period, and led to improvements in parents’ reports of life satisfaction and happiness.
- The program’s primary effect in the health care area was an increase in preventive dental visits, although there is some evidence that it also improved adults’ self-reported health status, particularly for those in poorer health at study entry.
- The program led to a reduction in employment covered by the unemployment insurance system, driven largely by reductions in work in Memphis.
- The program did not affect students’ school progress through Year 4, either for the full sample of students or for the subgroup of academically proficient students.

The findings show that Family Rewards 2.0, while replicating many of the results from the first model, did not prove to be more effective. Together, however, both studies provide important lessons about the operation and effects of a comprehensive CCT strategy in the United States.

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Preface

Conditional cash transfer (CCT) programs are an innovative approach to poverty reduction. They offer cash assistance to poor families, reducing current poverty, but condition this assistance on families' efforts to get preventive health care and further their children's education, with the hope of reducing longer-term poverty. They are fairly common in low- and middle-income countries but had never been tested in the United States until several years ago, when New York City launched Opportunity NYC–Family Rewards (referred to in this report as “Family Rewards 1.0”), a three-year demonstration sponsored by the New York City Center for Economic Opportunity (CEO). MDRC helped design the initiative based on several existing international programs and conducted the implementation and impact evaluations. Low-income families in several high-poverty neighborhoods in New York City were offered cash incentives (“rewards”) for completing activities related to children's education, family preventive health care, and adults' work or training. The program had few effects on most behavioral outcomes overall, but did reduce hardship, increase receipt of dental care, and improve the educational outcomes of more academically prepared high school students. Early lessons from the implementation of that first demonstration, with its large number of incentives, together with patterns in its early impact findings suggested to CEO and MDRC that the model should be revised and tried again, this time with the support of the federal Social Innovation Fund.

The new version of Family Rewards (“Family Rewards 2.0”) reduced the number of rewards the program offered, targeted the education rewards only to high school students, and paid the rewards more frequently. Most important, it provided more proactive guidance to help families earn rewards, something that the first demonstration suggested many families needed. Family Rewards 2.0 was tested again in New York City (the Bronx) as well as in Memphis, Tennessee, providing an opportunity to study the concept in a local context very different from New York City.

The findings show that Family Rewards 2.0 replicated some of the effects found in Family Rewards 1.0, but fell short in other ways. It increased income and reduced poverty, for example, but had few effects on students' progress in school, even for more academically prepared students. Although these results are disappointing, the findings do raise important policy questions. Both iterations of Family Rewards did succeed in reducing poverty and economic hardship, in part because many families received rewards without changing their behavior — most families already used preventive medical care, for example, and many students either had high attendance or earned rewards for other education milestones. But the program did not *increase* those rates substantially. In some cases, the attendance and health insurance rates among control group families were also high, often leaving less room to make a difference. In other cases, the incentives were not enough to change the trajectories of students

with low attendance and performance. Further complicating interpretation, these tests of conditional cash transfers operated on top of the existing safety net, not as an alternative to it, as is the case for CCT programs in Mexico and other Latin American countries. Last, in the United States, income transfer programs are conditioned on work. When unemployment rates soared during the Great Recession, demonstrating the limits of an existing policy that conditions benefits on work, a strategy that conditioned benefit receipt on a broader array of behaviors had appeal.

Although the findings now available from both versions of Family Rewards provide important lessons about the use of incentives and CCTs in the United States to combat both short- and long-term intergenerational poverty, questions remain about the possible effects of a conditional cash transfer program if it were not structured as an add-on to the existing American system — specifically, whether it would lead to larger behavioral changes while still providing an adequate safety net for the most vulnerable families.

Gordon L. Berlin
President, MDRC

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Program staff members at each of the neighborhood partner organizations (NPOs) played an essential role first in recruiting the sample, and then in providing families with ongoing guidance, with support from the leaders of their organizations. We want to express our appreciation to each of these teams. At CAS in the Bronx, we thank Sandra Romero, Yazmin Kelly, Ysely Olivo, and Jessica Schachter. At BronxWorks, we thank John Weed, Julie Spitzer, Marie Edwards, Nicauly Andujar, Marlenne Rojas, Adrienne Hosein, Marilyn Pena, and Faustino De La Rosa. At Porter-Leath in Memphis, we thank Gwendolyn Price, Michella Crisp, Darrell Davis, Teresa Cathey, Veronica Thorns, Sean Lee, and Karen Harrell. At Urban Strategies Memphis HOPE, we thank Vicki Jerideau, Susan Glassman, James Franklin, Coasy Hale, Astrid Illunga, Rex Harrington, Malarie Yates, Kawanna Poe, and Debra Lamber. Temporary outreach staff members were hired at each NPO to help recruit the sample, and we appreciate their perseverance and skill as well.

We owe special thanks to our colleagues at the New York City Center for Economic Opportunity (CEO), who have nurtured each of the Social Innovation Fund (SIF) projects through management oversight, fundraising, report review, SIF Learning Network events, and general participation in technical assistance and program development. In particular, we thank Sinead Keegan, Emily Apple, and Kate Dempsey. We also acknowledge our former colleagues

at CEO, Veronica White, Kristin Morse, Allegra Blackburn-Dwyer, and Emily Firgens, who were instrumental in launching the demonstration.

As each SIF project is ultimately a city initiative that requires the support of key members of local government, we thank former Mayor Bloomberg and former Deputy Mayor Linda Gibbs in New York City, and former Mayor Wharton in Memphis. Their support opened doors for Family Rewards to accomplish its programmatic and evaluation-related goals. We received assistance in New York City from the Department of Education and the Human Resources Administration. In Memphis, we recognize Robert Lipscomb from the Memphis Housing Authority.

We appreciate the continued support of the funders of the Family Rewards 2.0 evaluation. These funders include the Corporation for National and Community Service, Bloomberg Philanthropies, Open Society Foundations, The Rockefeller Foundation, Benificus Foundation, the City of Memphis, The Kresge Foundation, New York Community Trust, W. K. Kellogg Foundation, and the Women’s Foundation of Greater Memphis.

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The Authors

Executive Summary

Family Rewards was an innovative approach to poverty reduction in the United States that was modeled on the conditional cash transfer (CCT) programs common in lower- and middle-income countries. The program offered cash assistance to low-income families, provided that they met certain conditions related to family health care, children’s education, and parents’ work.

The first version of Family Rewards, called Opportunity NYC–Family Rewards (“Family Rewards 1.0”), was evaluated in New York City beginning in 2007 using a randomized controlled trial, in which families were randomly assigned to a program group that was offered the program or a control group that was not. While the program did not lead to effects on most major outcomes, it did lead to sizable reductions in poverty while the cash assistance was being offered and increased graduation rates for a group of ninth-graders who were more academically prepared at study entry.¹ Early lessons and insights from that evaluation suggested that such an intervention might be made more effective if the model were modified in certain ways.² The lessons learned from that evaluation led to the next iteration and test of the model — “Family Rewards 2.0.”

Family Rewards 2.0, the subject of this report, was launched in July 2011 in the Bronx, New York, and Memphis, Tennessee. While still offering rewards in the areas of children’s education, family health, and parents’ work, Family Rewards 2.0 refined the original model in several ways: it offered fewer rewards in each domain, paid those rewards more frequently, offered the education rewards only to high school students, and offered proactive and personalized guidance to help families earn rewards. The addition of guidance from staff members, who actively helped families develop strategies to earn rewards, represented the biggest change from the original model.

This report examines whether those changes led to bigger impacts and whether the program had similar effects in a context different from New York City. The findings show that the new program achieved many of the same effects as the original model, but fell short in other, important ways. Family Rewards 2.0 met its short-term goals of increasing income and reducing poverty, although the effects were smaller, given that less money was transferred overall.

¹James Riccio, Nadine Dechausay, David Greenberg, Cynthia Miller, Zawadi Rucks, and Nandita Verma, *Toward Reduced Poverty Across Generations: Early Findings from New York City’s Conditional Cash Transfer Program* (New York: MDRC, 2010); James Riccio, Nadine Dechausay, Cynthia Miller, Stephen Nuñez, Nandita Verma, and Edith Yang, *Conditional Cash Transfers in New York City: The Continuing Story of the Opportunity NYC–Family Rewards Demonstration* (New York: MDRC, 2013).

²Riccio et al. (2010); Riccio et al. (2013).

(The shorter list of rewards meant that families had fewer ways of earning cash transfers.) The program also increased dental visits and adults' self-reported health status, particularly for those in poorer health at study entry. Similar to the earlier program, the new model led to reductions in work and earnings for some participants. However, the new program did not affect students' school progress through Year 4, neither for the full sample of students nor for a more academically prepared subgroup. Overall, the findings indicate that Family Rewards 2.0 did not lead to bigger or more widespread effects. In addition, the failure to replicate the positive effects on school progress for more academically prepared students suggests that the model's effects on education were not very robust.

The Social Innovation Fund of the Corporation for National and Community Service and private foundations funded the Family Rewards 2.0 demonstration, and The Mayor's Fund to Advance New York City, the New York City Center for Economic Opportunity, and MDRC managed it. The Children's Aid Society operated the program in partnership with two community-based organizations in each city (the local chapter of Children's Aid Society and Bronx-Works in the Bronx, and Memphis HOPE and Porter-Leath in Memphis). MDRC conducted the evaluation.

The Program Model: 1.0 to 2.0

Similar to its predecessor, Family Rewards 2.0 is based on the assumption that for a variety of reasons families may underinvest in their own development even though such investments can have long-term benefits. Financial incentives can help change their calculations, encouraging them to make extra investments of time and energy in certain educational, health care, and work-related efforts. Furthermore, the extra resources can help make it more feasible for low-income people to undertake such efforts in the short term, functioning not only as incentives for action but also as enabling resources.

The original Family Rewards model offered families 22 cash rewards, covering activities and outcomes in three domains. In the education domain, rewards were offered for parents' attendance at parent-teacher conferences and for children's attendance in school, satisfactory performance or better on standardized tests, completion of adequate credits per year, passing of exams required to graduate, and graduation. In the health domain, rewards were offered for maintaining health coverage and for preventive medical and dental checkups for each family member. In the work domain, parents were offered rewards for sustaining full-time work and for pursuing education or training while working. Families received payments for rewards earned every two months. Families were not offered services or counseling, since the goal was to test a pure incentives model.

During the three years that Family Rewards 1.0 operated, the average participating family earned nearly \$9,000 in rewards, or roughly \$3,000 in each year, leading to large reductions

in poverty and reductions in a number of material hardships. The program did not affect school outcomes for elementary or middle school students, but did improve outcomes for the ninth-graders in the study who were performing at a proficient level or better academically when they entered, as measured on their prior year's standardized tests, with sizable effects (for initially reading-proficient ninth-graders) on grade promotion and on graduation. In the health area, early, positive effects on visits to the doctor and health status faded, although there were continued impacts on health coverage and, especially, dental visits. Finally, the program led to a small increase in survey-reported employment, but to reductions for some participants in employment reported by the unemployment insurance (UI) system.

Family Rewards 2.0 included rewards for the following milestones (Table ES.1):

- **Education:** Students were rewarded for high attendance, good grades, satisfactory performance or better on state core exams, and taking college entrance exams.
- **Health:** Families received payments for obtaining medical and dental check-ups for each family member.
- **Work and training:** Parents received payments for full-time work and for earning General Educational Development (GED) certificates.

The program made several important modifications to the original Family Rewards model. In an effort to make the program easier to understand and focus families' attention on a limited number of outcomes, the program offered 8 rewards across the three domains, instead of 22 rewards. While all children in a family were eligible to earn health rewards, the education rewards were only offered to high school students, given that the original program had no effects for younger students. The new program made the rewards more timely, and thus more salient to families, in two ways: first, by paying families monthly for rewards earned, rather than every two months; and second, by rewarding students for passing grades. The rewards for grades were also structured in an attempt to engage less academically proficient students, with rewards offered for A, B, and C grades. All education rewards earned were also paid directly to the students' accounts, whereas in the first model parents received some portion of education rewards.

Most notably, however, the new model offered proactive and personalized guidance to help families earn rewards. In the original program, staff members were purposely restricted from engaging in "case management," so that the experiment would test the effects of the incentives offer alone. They were permitted to provide advice and referrals to participants when asked for assistance with services, but they did not carry individual caseloads, nor were they allowed to make proactive efforts to engage individual families in conversations about strategies

Table ES.1**Family Rewards 2.0 Schedule of Rewards**

Domain	Bronx	Memphis
<u>Education incentives (high school students only)</u>		
Attends 95% of scheduled school days	\$40 per month	\$40 per month
Takes an SAT or ACT exam (once during program)	\$50	\$50; must score 19 or more on the ACT if administered by Memphis City Schools ^a
Receives grades on an official report card ^b	\$30 per A (90-100); \$20 per B (80-89); \$10 per C (75-79)	\$30 per A (93-100); \$20 per B (85-92); \$10 per C (75-84)
Passes up to 5 Regents exams ^c or 7 End-of-Course exams ^d	\$500 per Regents exam for a score of 75 or above; \$400 per exam for a score of 65-74	\$200 per End-of-Course exam for a score of proficient or advanced (increased to \$300 in Year 3)
<u>Health incentives (parents and children 19 years and younger)</u>		
Annual medical checkup	\$100 per family member	\$100 per family member
Preventive dental care every 6 months (once per year for children 1-5 years)	\$100 per family member	\$100 per family member
<u>Work incentives (parents only)</u>		
Sustains full-time employment	\$150 per month	\$150 per month
Earns a GED certificate	\$400	\$400

SOURCE: Children's Aid Society's Family Rewards program materials.

NOTES: GED = General Educational Development.

^aThe ACT is scored out of 36. Memphis City Schools officials requested that the minimum score for the reward be set at 19 for students taking the test for free in class because this score is considered an indication that students are ready for college-level work.

^bIn Year 1, the amount of each reward for grades was prorated based on the number of official report cards issued by a student's school. To simplify verification in Year 2, students were paid the listed amounts for their grades regardless of the number of official report cards they received, up to a maximum of \$600 per program year.

(continued)

Table ES.1 (continued)

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

^dHigh school students (grades 9-12) in Memphis were eligible to earn rewards for the following End-of-Course exams: Algebra 1, Algebra 2, Biology, English 1, English 2, English 3, and U.S. History.

to earn rewards. Findings from the first evaluation suggested that many families needed — and wanted — more help to reach the relevant milestones. Consequently, under the new model, staff members at the community-based partner organizations were instructed to develop a “Family Earning Plan” with every family and meet with them at least twice per year to discuss their progress toward earning the rewards. Staff members were also directed to make more aggressive and frequent efforts to engage families who, according to program tracking data, were not earning many rewards. Each staff member carried a caseload of about 100 families.

Children’s Aid Society managed the operations of Family Rewards 2.0 and provided technical assistance and oversight to the four Neighborhood Partner Organizations (NPOs) selected to implement the program. The NPOs were charged with implementing core components of the program. They recruited and enrolled families into the research sample, oriented families to the program, and provided continuing guidance to help families earn rewards.

The Study Sample

Family Rewards 2.0 was evaluated using a randomized controlled trial. In each city, about 1,200 families were recruited for the study. Half were randomly assigned to a program group, offered Family Rewards, and half were assigned to a control group, not offered the program. The program targeted families with at least one child entering ninth grade or tenth grade. Once enrolled in Family Rewards 2.0, however, all of the family’s school-age children became eligible for the health-related rewards. The program also targeted recipients of benefits from Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP, or “food stamps”), in order to get resources to the neediest families and to explore how a CCT approach might interact with and complement these safety net programs.

Recruitment began in August 2011 in the Bronx and in September 2011 in Memphis, when the NPOs received lists of potentially eligible participants provided by the human services agencies and departments of education in each city. The pace of recruitment varied between the cities due to delays in receiving some lists and difficulties in reaching some potential participants. Enrollment was originally expected to conclude by October 2011, but in practice the majority of families in the study enrolled after that point. Rewards were intended to be offered

for three years, starting in September 2011. However, because many families entered the study after September 2011, the program period was extended beyond three years, to December 2014, in order to provide these late-entering families with at least three years of rewards. The evaluation tracked families for up to four years to determine the effects of the program on poverty, children's education, family health, and parents' work.

The majority of families who enrolled in the study in both cities were single-parent families, with a higher percentage in Memphis (91 percent) than in the Bronx (77 percent). A large fraction of the sample in the Bronx was Hispanic (74 percent), while nearly all participating families in Memphis were African American (98 percent). Adults in the Bronx had somewhat lower education levels when they enrolled than adults in Memphis. For example, nearly half of the adults in the Bronx did not have a high school diploma or equivalency certificate when they enrolled in the study, compared with only 31 percent of adults in Memphis. In contrast, adults in the Bronx were more likely to be working when they entered the study (57 percent) than their counterparts in Memphis (44 percent).

Findings

- **After some start-up challenges, the program was generally implemented well in both cities by Year 2. The guidance component became more intensive over time, although the amount of interaction between staff and participants was still less than envisioned, especially in Memphis.**

The biggest innovation in the design of Family Rewards 2.0 was the addition of the family guidance component, and that component evolved considerably during the first two years of the program. Designated staff, or advisors, focused mainly on building relationships in the first year. One-on-one sessions at this time were largely transactional or customer service-oriented. Recognizing that advisors needed more training to go beyond customer service and encourage behavioral change, the NPOs introduced a form of counseling called motivational interviewing at the start of Year 2. Motivational interviewing is a widely used, client-centered directive approach to counseling in which a counselor uses a set of techniques to help participants identify their goals, explore any ambivalence they may have about making changes in their lives, and resolve that ambivalence.

It took months of training for advisors to achieve a minimum level of competence in motivational interviewing, but the nature and content of family guidance sessions did change significantly from Year 1 to the end of Year 2. Participants talked more about their goals, and took the lead in creating plans for overcoming barriers to earning rewards. In addition, the advisors began conducting targeted outreach to participants with a pattern of earning the fewest rewards, a group that proved to be challenging to serve.

This change improved the quality of guidance sessions midway through the program, but these sessions did not occur in either city as often as envisioned in the model, especially in Memphis. Only one-quarter of adult participants met with their advisors more than once in Memphis, and most sessions were conducted over the phone. The families' transportation challenges in Memphis greatly impeded the ability of staff to deliver this program component effectively.

- **Nearly all families earned rewards from the program, with average earnings of just over \$2,000 per full program year, or \$6,240 for all program years combined.**

Over 98 percent of families in the program group earned at least some rewards during the program period, and about 95 percent earned rewards in a full program year. During a full program year, the average family earned over \$2,000 (\$2,300 in Year 2, for example, and \$2,000 in Year 3). Overall, families earned just about \$6,200 in rewards over the full program period.

Families earned the most, on average, from the education rewards. Over 97 percent of families earned at least one education reward and the average amount earned was just under \$3,000 over the full program period. Most families also earned at least one health reward over the period (at about 90 percent), and those that did earn health rewards earned on average just under \$2,000 over the full period. Finally, the work rewards contributed the least to the total rewards earned because fewer parents earned them. Only about 57 percent of parents earned a work or training reward over the full period, and nearly all of these rewards were for work rather than training.

- **Family Rewards 2.0 increased income and reduced poverty during the program period and led to improvements in parents' reports of life satisfaction and happiness.**

Counting the value of the reward payments, Family Rewards 2.0 increased self-reported average household income for the program group by \$138 in the month before the 24-month survey. (See Table ES.2.)³ This extra income reduced the proportion of families living at or below the federal poverty level by 5 percentage points, compared with the control group rate of 78 percent. The program also reduced the proportion of families who were living in severe poverty (that is, families with incomes less than 50 percent of the federal poverty level) by 7 percentage points (not shown). All of the poverty reductions from the program are attributable

³Unless otherwise noted, the impacts cited in this Executive Summary are statistically significant, with less than a 10 percent likelihood that they arose by chance.

Table ES.2
Summary of Family Rewards 2.0 Impacts

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
<u>Income and poverty</u>					
Average total household income in month prior to interview (including Family Rewards payments) ^a (\$)	1,636	1,498	138 ***	0.004	
Household income at or below the federal poverty level (including rewards) ^{a,b} (%)	73.5	78.3	-4.8 **	0.012	
Any savings (%)	20.5	12.0	8.5 ***	0.000	
<u>Children's education</u>					
Graduated on time (%)	63.4	63.1	0.3	0.855	
Attendance rate is 95% or higher, Year 3 ^c (%)	28.9	29.1	-0.2	0.910	
Number of credits earned, Years 1 to 3 ^d	30.1	29.9	0.2	0.651	
State core exams passed, Years 1 to 3 ^{e,f}	2.7	2.7	0.0	0.716	
<u>Family health</u>					
Parent had a health checkup (%)	88.4	87.6	0.8	0.569	
Parent had 2 or more dental checkups (%)	36.1	22.5	13.6 ***	0.000	
Parent's self-rated health (1 = poor; 5 = excellent)	3.2	3.0	0.1 ***	0.002	0.126
Child had health checkup or got shots (%)	94.9	94.4	0.5	0.614	
Child had 2 or more dental checkups (%)	62.4	46.4	16.0 ***	0.000	
<u>Parent's work and training</u>					
Has any degree, license, or certificate (%)	78.5	77.8	0.7	0.651	
Has any trade license or training certification (%)	46.6	42.7	3.9 *	0.073	
Average quarterly employment, Years 1 to 3 ^g (%)	49.6	52.2	-2.6 **	0.018	
Total earnings, Years 1 to 3 ^g (\$)	27,684	29,718	-2,034 **	0.019	
Sample size (total = 2,016)	1,025	991			

(continued)

Table ES.2 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey, Children's Aid Society's Family Rewards program data, New York City Department of Education and Shelby County Schools administrative records, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

Note that all outcomes in the table include zero values for students who were no longer enrolled. Dollar averages include zero values for sample members who were not employed.

Years 1, 2, and 3 cover the 2011-2012, 2012-2013, and 2013-2014 school years, respectively.

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying the respondent's income in the month prior to the survey interview by 12. For program group members, it includes Family Rewards payments earned during program Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2013 or 2014 Poverty Guidelines, depending on when a respondent was interviewed.

^cAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^dStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^eThe Regents exam 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.

^fThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

^gThis outcome only includes employment and earnings in jobs covered by the New York State and Tennessee UI programs. It does not include employment outside of either state, or in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

to the cash transfers that families received, rather than to increased earnings from work. As discussed later, the program did not lead to an increase in earnings, and it reduced earnings for some families.

Although the program did increase income and reduce poverty, the effects were fairly modest in size, and a fair proportion of the cash transfers were for education rewards, and thus deposited in the teenagers' accounts. As a result, the program did not notably reduce levels of material hardship affecting the whole family, such as inability to pay rent or utilities or food insecurity. Nonetheless, the extra income families received did lead to improvements in parents' sense of financial security. Parents in the program group, for example, were more likely than those in the control group to report that their financial situation was better than it was in the previous year and that they could generally afford to buy necessities. Similarly, the program led to modest improvements on several measures of psychosocial well-being. For example, parents in the program group scored higher than those in the control group on the State of Hope scale, which captures respondents' beliefs in their ability to initiate and sustain action.

Finally, Family Rewards 2.0 increased families' connection to the banking system and their savings. At the time of the survey, only about 45 percent of parents in the control group reported having a savings or checking account, compared with 66 percent of parents in the program group, an increase of 21 percentage points (not shown). Very few parents in the control group (12 percent) reported having any savings at the time of the survey. The program increased that rate to 21 percent for the program group.

- **The program's primary effect in the health area was to increase preventive dental visits, although there is some evidence that it also improved adults' self-reported health status, particularly for those in poorer health at study entry.**

Most adults and children in the control group had visited a doctor recently for a routine checkup, and the program had no effect on this outcome. In contrast, the majority of both parents and children in the control group had not visited a dentist for the recommended two dental checkups per year, and the program increased this number substantially. Among children in the control group, for example, only 46 percent of them visited a dentist twice during the year, compared with 62 percent of those in the program group, an increase of 16 percentage points. The importance of oral health has been well documented.

The program led to a small, positive effect on adults' self-reported health status, which was primarily driven by a sizable effect for those who were in poorer health at study entry. It is difficult to know what to make of this effect, given that there were no measured effects on any of the other outcomes that might have led to it, such as increased use of preventive care,

increased healthful behaviors, and so on. However, Family Rewards 1.0 led to a similar pattern of effects on health status for adults in poorer health.

- **The program led to a reduction in employment covered by the UI system, driven largely by reductions in work in Memphis.**

The research team collected and analyzed data on employment from the 24-month survey and from UI records, which include all employment covered by the UI system. While UI records include data from most employment in the United States, the UI system does not cover some jobs, such as self-employment, federal government employment, and domestic work. The UI system also misses informal (casual or irregular) jobs that are never reported to state agencies.

The findings show that Family Rewards 2.0 led to reductions in work according to data from UI records and had no effect on work reported in the survey. Whereas the reductions in UI-covered work occurred largely in Memphis, in the Bronx the program led to a reduction in work reported in the survey. The reason for the difference is unclear.

Other incentives programs that have focused solely on work have found that increasing the reward to work can lead to increased employment.⁴ However, the work incentives here were part of a larger program of rewards. It is likely that the income families received from the education and health rewards allowed some parents to reduce work or delay entry into the workforce through what is often called an “income effect.” These negative effects on work were somewhat larger for parents not working at study entry, and thus more marginally connected to work.

- **The program did not affect students’ school progress through Year 4, for either the full sample of students or the subgroup of academically proficient students.**

The impact analysis examined a range of education outcomes, including attendance, grade progression, credits earned, and college entrance exams taken. The program did not have effects on these outcomes for the full sample of entering ninth- and tenth-graders. For example,

⁴Nada Eissa and Hilary Hoynes, “Behavioral Responses to Taxes: Lessons from the EITC and Labor Supply,” in *Tax Policy and the Economy, Volume 20*, ed. James M. Poterba (Cambridge, MA: Massachusetts Institute of Technology Press, 2006), 74-110; Charles Michalopoulos, *Does Making Work Pay Still Pay?* (New York: MDRC, 2005); Richard Hendra, James Riccio, Richard Dorsett, David H. Greenberg, Genevieve Knight, Joan Phillips, Philip K. Robins, Sandra Vegeris, and Johanna Walters, *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, 2011).

63.1 percent of entering ninth- and tenth-graders in the control group had graduated on time (that is, within four years of entering ninth grade). The corresponding rate for students in the program group was 63.4 percent. When the analysis was focused only on entering ninth-graders, the program led to small increases in attendance and credits earned, although it had no effects on other outcomes, such as enrollment or graduation.

The research team also examined impacts for the subgroup of students who scored at the proficient level or higher on their eighth-grade English language arts exams, since Family Rewards 1.0 had its main effects for this group. Family Rewards 2.0 did not affect education outcomes for this subgroup. Finally, subgroup analyses suggested that the program led to a small increase in graduation rates among students in less disadvantaged families, which included families in which a parent was working at study entry or that had income above 50 percent of the poverty line at study entry.

Conclusion

Overall, the results show that the changes to the model, particularly the more intensive guidance, as it was implemented here, did not make the rewards more effective. Family Rewards 2.0 did lead to effects in certain domains that were similar to Family Rewards 1.0's effects, and these findings add to the evidence about how a CCT would work in the United States. However, the hope was that the new model would have had larger and more widespread effects. In particular, the goal was to improve school progress for all students and to help parents move into work in order to take advantage of the work rewards.

There are several possible reasons for the different effects found for Family Rewards 2.0, compared with those found for Family Rewards 1.0, since the former was not an exact replication of the latter. For example, the modified program targeted families receiving TANF or SNAP benefits, and it was tested in Memphis. There are also two differences between the models to consider. First, Family Rewards 2.0 transferred less money to families than did the first program, and there is abundant research suggesting that more income benefits low-income children. Perhaps the positive effects found for proficient students in the first program resulted from a combination of the rewards acting as incentives and the rewards providing their families with more money. Second, Family Rewards 1.0 offered more rewards that families could earn regularly, such as school attendance rewards for younger children and rewards for maintaining health insurance. While those rewards did not lead to behavioral change in those areas, they may have provided a more reliable source of income, which may have contributed to the positive effects found for more proficient students.

Chapter 1

Introduction

Family Rewards was an innovative approach to poverty reduction that was first tested in New York City in 2007. Modeled on the conditional cash transfer (CCT) programs common in lower- and middle-income countries, the program offered cash assistance to low-income families provided that they met certain conditions related to family health care, children's education, and parents' work. By providing timely cash assistance, CCT programs can reduce economic hardship in the short term. By encouraging families to invest in their own development, they have the potential to reduce poverty over the longer term, breaking the intergenerational cycle of poverty.

While research has found CCT programs in other countries to have been successful, reducing poverty and increasing the use of health care services and school enrollment,¹ a comprehensive CCT program had never been tested in a high-income country. Family Rewards was sponsored by the New York City Center for Economic Opportunity (CEO), and is one of three incentives-based programs that are known collectively as Opportunity NYC.² The first iteration of the model, or Family Rewards 1.0, was evaluated using a randomized controlled trial, in which families were randomly assigned to a program group that was offered the program or a control group that was not. While the program did not lead to effects on most of the main outcomes, it did lead to notable reductions in poverty while the rewards were being offered and increased graduation rates for a group of ninth-graders who were more academically prepared at study entry.³

The second iteration of the model, or Family Rewards 2.0, is the subject of this report. It refined Family Reward 1.0 in several ways: it offered fewer rewards in each of the three areas (children's education, family health, and parents' work) in order to make the program easier to understand and to focus families' attention on a limited number of outcomes; it offered the education rewards only to high school students, given the lack of effects found for younger students; it offered students rewards for grades earned; and it made the rewards more timely, and thus more salient to families, by paying them monthly for rewards earned, rather than every

¹Fiszbein and Schady (2009).

²The other two Opportunity NYC programs are Work Rewards, a program offering incentives for work and training to recipients of subsidized housing (see Nuñez et al., 2015), and Spark, a school-based program providing fourth- and seventh-graders with incentives for satisfactory performance or better on tests (see Fryer, 2011).

³Riccio et al. (2010); Riccio et al. (2013).

two months. Most notably, however, the new model offered guidance, in which staff members actively engaged families in conversations about strategies to earn rewards.

This report examines whether those changes led to bigger impacts and whether the program had similar effects in a context different from New York City. Enrollment for the Family Rewards 2.0 study started in July 2011 in the Bronx, New York, and Memphis, Tennessee. In each city, about 1,200 families were recruited for the study. Half were randomly assigned to a program group that was offered the program, and half were assigned to a control group that was not offered the program. Families in the program group could receive rewards from September 2011 through December 2014, giving all families three years (or a little longer, depending on their enrollment date) to earn them. The evaluation tracked participating families during the period the rewards were offered to determine the effects of the program on poverty, children's education, family health, and parents' work.

An earlier report from the project assessed the implementation of Family Rewards 2.0 over the first two years, finding that it was operating generally as envisioned in both cities by the middle of Year 2, after a few recruitment and start-up challenges.⁴ The family guidance component evolved considerably over time, becoming much more intensive during Year 2. Families also seemed to have understood the program fairly well and earned on average more than \$2,000 in rewards in Year 2. Those findings suggested that the changes to the model were a step in the right direction, leading to a good understanding of the program among participating families and higher receipt rates of available rewards.

In brief, the findings presented here indicate that the new program achieved many of the same effects as the original model, but fell short in other, important ways. First, Family Rewards 2.0 met its short-term goals of increasing income and reducing poverty, for all families and across a range of family types. The program also increased dental visits and adults' self-reported health status, particularly for those in poorer health at study entry. Similar to the earlier program, the new model led to reductions in work and earnings for some participants. However, in contrast to the original program, the new model did not affect students' school progress through Year 4, either for the full sample of students or for the subgroup of more academically prepared students.

Funded by the Social Innovation Fund of the Corporation for National and Community Service and private foundations, the Family Rewards demonstration was overseen by a collaborative, which included staff members from The Mayor's Fund to Advance New York City, CEO, and MDRC. The Mayor's Fund to Advance New York City is a grant-making institution that facilitates public-private partnerships throughout New York City. CEO, a unit in the New

⁴Dechausay, Miller, and Quiroz-Becerra (2014).

York City Mayor's Office of Operations, sponsors and manages innovative antipoverty programs and evaluations. MDRC worked in close partnership with CEO to design the Family Rewards program and led the evaluation. MDRC is a nonpartisan social policy research firm with extensive experience conducting large-scale projects using random assignment research designs to build rigorous evidence on what works to improve the well-being of low-income families.

The next section presents the results from the Family Rewards 1.0 evaluation. The remainder of the chapter describes the main elements of Family Rewards 2.0, the model, the two cities where it was tested, and the characteristics of the families who enrolled. The chapter concludes with an overview of the evaluation.

Family Rewards 1.0

Run from 2007 to 2010, the first version of Family Rewards was tested in six of New York City's highest-poverty neighborhoods. Families that were recruited for the study lived in one of these neighborhoods, were eligible for the National School Lunch program, and had at least one child entering fourth, seventh, or ninth grade. Between July and December 2007, about 4,800 families enrolled in the study.

The Theory of Change

Family Rewards 1.0 was based on the assumption that, for a variety of reasons, families may underinvest in their own development even though such investments can have long-term benefits. Financial incentives can help change their calculations while at the same time provide cash to help reduce their immediate poverty and hardship. Furthermore, if the rewards are sizable, the extra resources can help make it more feasible for low-income people to undertake certain educational, health care, and work-related efforts in the short term, by helping them cover the cost of, for example, educational materials, tutoring for children, transportation to a free dental clinic, or clothes for a job interview. For a more comprehensive discussion of the model and its theory of change, see the first Family Rewards 1.0 impact report.⁵

Beyond the direct cash payments to families, the program was expected to reduce current and future poverty through a number of avenues. First, children's school outcomes were a central focus of the program. By providing students with incentives for critical educational inputs and outcomes, Family Rewards 1.0 was expected to directly affect their school progress, as measured by attendance, grade progression, and test scores. The program designers also expected that it might indirectly affect school progress in other ways, such as increased parental

⁵Riccio et al. (2010).

engagement, if parents were encouraged to take a more active role in their children's schooling, or by increased family income. It was theorized that increased income may reduce family stress, housing instability, and food insecurity, for example, or allow parents to buy educational materials for their children.⁶

Similarly, effects on the use of health care services and the family's health status were expected to occur directly through the rewards provided for preventive care, encouraging parents and children to obtain regular medical and dental checkups, which may also increase the diagnosis and treatment of health problems. However, the designers expected that these rewards might also encourage families to maintain health insurance, which would also help them maintain a regular family physician, instead of relying on costly emergency room services for care once a health problem arises. As with school outcomes, it was thought that the use of health care services and the family's health status might also improve through increased family income, if families had the resources to maintain health insurance, for example, to follow up on needed treatments, or had adequate and nutritious food at home.

The third targeted domain of the program was parents' work and training. Family Rewards might increase family income through the direct cash transfers themselves, but only temporarily. *Sustained* reductions in child and family poverty after the payments end require that parents maintain regular employment. The program thus included a work component designed to promote steady, full-time work and the acquisition of skills to help parents qualify for better-paying jobs. It was expected that the program should directly affect employment and training through these rewards. However, it was thought that the program might indirectly affect training if parents had extra income to pay for that training, or if their increased work effort highlighted the benefits of additional training.

Finally, the effects in one domain can reinforce effects in other domains. For instance, health care rewards may promote early diagnosis and treatment of certain health and developmental problems that might otherwise make it difficult for students to sustain high attendance and perform well in school. As another example, the work rewards, by increasing parents' earnings, may lead to longer-term effects on family income, which can affect children's health and schooling.

⁶Over the last few years, scientific evidence showing that very low income, material hardship, and financial strain have causal influence on children's life trajectories has grown more convincing. Supporting the claim of causal influences are findings from longitudinal studies (Dahl and Lochner, 2012; Duncan and Brooks-Gunn, 1997; Gershoff, Aber and Raver, 2003; Mayer, 2002; McLoyd, 1998; Seccombe, 2000) and from natural and policy experiments that have effectively raised the income of poor families and evaluated the impact of those increases on children (Costello et al., 2003; Morris and Gennetian, 2003; Miller et al., 2008). Among the latter studies are evaluations of programs that offered earnings supplements and, in the case of the Milwaukee New Hope project, subsidies for child care and health insurance. These evaluations found improvements in young children's school performance, social behavior, and other developmental outcomes.

The Model and Its Effects

The program offered families 22 cash rewards. In the education area, the program offered rewards for parents' attendance at parent-teacher conferences and for children's attendance in school, satisfactory performance or better on standardized tests, completion of adequate credits per year, passing of exams required to graduate, and graduation. In the health area, it offered rewards for maintaining health coverage and for preventive medical and dental check-ups for each family member. In the work area, the program offered parents rewards for sustained full-time work and for pursuing education or training while working.⁷

A final feature of Family Rewards 1.0 is that it offered no services or active counseling. Case management and direct services were deliberately excluded from the model in order to test the effectiveness of the incentives alone. In addition, it was expected that families in New York City would have access to case management and services through other programs in the community.

During the three years the program operated, the average participating family earned nearly \$9,000 in rewards, or roughly \$3,000 in each year. The large majority of families earned at least one education reward and one health reward in each year, while just over 40 percent earned at least one work reward. The rewards increased families' incomes by 22 percent on average and reduced poverty and severe poverty by about 12 percentage points. However, the reductions in poverty and hardship began to diminish after Year 3, when the program ended.⁸

In terms of children's school progress, Family Rewards 1.0 improved outcomes for ninth-graders who were performing relatively better academically when they entered the study, with sizable effects on grade completion and graduation. In contrast, the program had no effect for lower-performing ninth-graders or for elementary and middle school students. In the health area, early positive effects on visits to the doctor and health status faded, in part because families already used preventive care at a fairly high rate, although there were continued impacts on health coverage and, especially, dental visits. Finally, the program led to modest increases in employment throughout the follow-up period, although much of this new work was in jobs not captured by the unemployment insurance system. The program also led to a reduction in unemployment insurance-covered work for the more disadvantaged adults in the study.

⁷At the end of the second year, in an effort to simplify the program and reduce its costs, several rewards were eliminated, including those for maintaining health coverage and for school attendance for elementary and middle school students.

⁸See Riccio et al. (2013) and Riccio and Miller (2016) for the full set of findings.

Family Rewards 2.0

In 2010, the Corporation for National and Community Service made its first set of Social Innovation Fund (SIF) grants.⁹ CEO and the Mayor's Fund to Advance New York City received a grant to replicate and evaluate five of CEO's most promising antipoverty programs. Family Rewards was one of those programs.

The replication made several important modifications to the original Family Rewards model, based on the early experience running the program and its emerging effects. The biggest innovation in the design of Family Rewards 2.0 was the addition of the family guidance component. Recognizing 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, Family Rewards 1.0's program designers included an information-and-referral component in which staff were expected to help educate families about relevant resources that are available in the community, through resources guides, marketing materials, and optional workshops. However, staff members would generally wait for participants to initiate contact and focus on issues directly related to earning rewards rather than reaching out to participants early on and walking them through potential strategies.

Based on findings from Family Rewards 1.0, the program designers believed that families would benefit from a regular source of support within the program. The new model would use a triage model to provide this guidance, in which all participants would receive some guidance, but those who were having the most trouble earning rewards would receive more intensive outreach and support, with staff connecting them to the resources and help they needed to earn rewards. Findings from Family Rewards 1.0 suggested that there were several types of participants who might have benefited from this additional support, such as students who started high school scoring below grade level on eighth-grade math and English exams ("non-proficient" students).

Program Delivery

A consortium ran the demonstration that included The Mayor's Fund to Advance New York City, CEO, and MDRC. This consortium set the broader design policies and provided technical assistance and oversight, largely through the lead program operator. Seedco, a New

⁹The SIF was an initiative enacted under the Edward M. Kennedy Serve America Act and designed to create and fund a catalog of proven policies that can be replicated in communities across the country. For this purpose, the SIF uses federal funds to raise additional support for evidence-based solutions to pressing social issues.

York-based nonprofit organization, served as the lead program operator until summer 2012, when Children’s Aid Society took over the role.¹⁰

Four Neighborhood Partner Organizations (NPOs) were selected to operate the program. The NPOs were selected based on the experience they had in program delivery in their local communities. In the Bronx, the NPOs were the Children’s Aid Society and Bronx-Works. In Memphis, the NPOs were Urban Strategies Memphis HOPE (Memphis HOPE) and Porter-Leath.

All NPOs were charged with implementing the program’s core components, such as recruitment, outreach, and family guidance. Each NPO had its own Family Rewards supervisor, who was responsible for multiple programs at the NPO, including Family Rewards. The supervisor directly managed three advisors, which allowed each NPO some level of autonomy in delivering the program elements. The advisors were charged with providing guidance to families about how to earn rewards.

The Rewards

Table 1.1 presents the rewards for Family Rewards 2.0. (See Appendix Table A.1 for a comparison of rewards in Family Rewards 1.0 and 2.0.) The top panel shows the education domain, in which students earned rewards for high attendance, good grades, satisfactory performance or better on state core exams, and taking college entrance exams. One addition to the list of rewards in the new program was a reward for grades, in an effort to make the rewards more timely and more strongly tied to daily performance. In addition, students in Family Rewards 2.0 received all the education rewards they earned, deposited directly in their bank accounts, in contrast to Family Rewards 1.0 in which parents received a portion of those rewards. The second panel shows rewards for health, in which families received payments for medical and dental checkups for each family member. The new program did not include the reward for maintaining health insurance, since the original study found that most families already had coverage. Finally, the program rewarded parents for maintaining full-time work and for earning a General Educational Development (GED) certificate. The original model rewarded a range of approved training courses, but few families received the training reward. For this reason, the new program focused on one outcome, the GED certificate, which was well known to participants and could serve as a stepping-stone to further training.

¹⁰CEO transferred overall management of SIF Family Rewards to Children’s Aid Society in 2012 after local and federal investigations uncovered irregularities in Seedco’s administration of workforce services unrelated to Family Rewards.

Table 1.1
Family Rewards 2.0 Schedule of Rewards

Domain	Bronx	Memphis
<u>Education incentives (high school students only)</u>		
Attends 95% of scheduled school days	\$40 per month	\$40 per month
Takes an SAT or ACT exam (once during program)	\$50	\$50; must score 19 or more on the ACT if administered by Memphis City Schools ^a
Receives grades on an official report card ^b	\$30 per A (90-100); \$20 per B (80-89); \$10 per C (75-79)	\$30 per A (93-100); \$20 per B (85-92); \$10 per C (75-84)
Passes up to 5 Regents exams ^c or 7 End-of-Course exams ^d	\$500 per Regents exam for a score of 75 or above; \$400 per exam for a score of 65-74	\$200 per End-of-Course exam for a score of proficient or advanced (increased to \$300 in Year 3)
<u>Health incentives (parents and children 19 years and younger)</u>		
Annual medical checkup	\$100 per family member	\$100 per family member
Preventive dental care every 6 months (once per year for children 1 to 5 years)	\$100 per family member	\$100 per family member
<u>Work (parents only)</u>		
Sustains full-time employment	\$150 per month	\$150 per month
Earns a GED certificate	\$400	\$400

SOURCE: Children’s Aid Society’s Family Rewards program materials.

NOTES: GED = General Educational Development.

^aThe ACT is scored out of 36. Memphis City Schools officials requested that the minimum score for the reward be set at 19 for students taking the test for free in class because this score is considered an indication that students are ready for college-level work.

^bIn Year 1, the amount of each reward for grades was prorated based on the number of official report cards issued by a student's school. To simplify verification in Year 2, students were paid the listed amounts for their grades regardless of the number of official report cards they received, up to a maximum of \$600 per program year.

(continued)

Table 1.1 (continued)

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

^dHigh school students (grades 9-12) in Memphis were eligible to earn rewards for the following End-of-Course exams: Algebra 1, Algebra 2, Biology, English 1, English 2, English 3, and U.S. History.

As in Family Rewards 1.0, families in Family Rewards 2.0 received payments for meeting reward milestones in one of two ways. The first required no action on the part of the family and applied to two of the rewards, for attendance and for performance on state core exams, which were automatically verified using school records. The second applied to all other rewards and required the family to actively claim the reward by submitting a “coupon,” verifying that the milestone has been met, to the program. For example, to claim the reward for full-time work the family had to submit a coupon along with other items of verification.

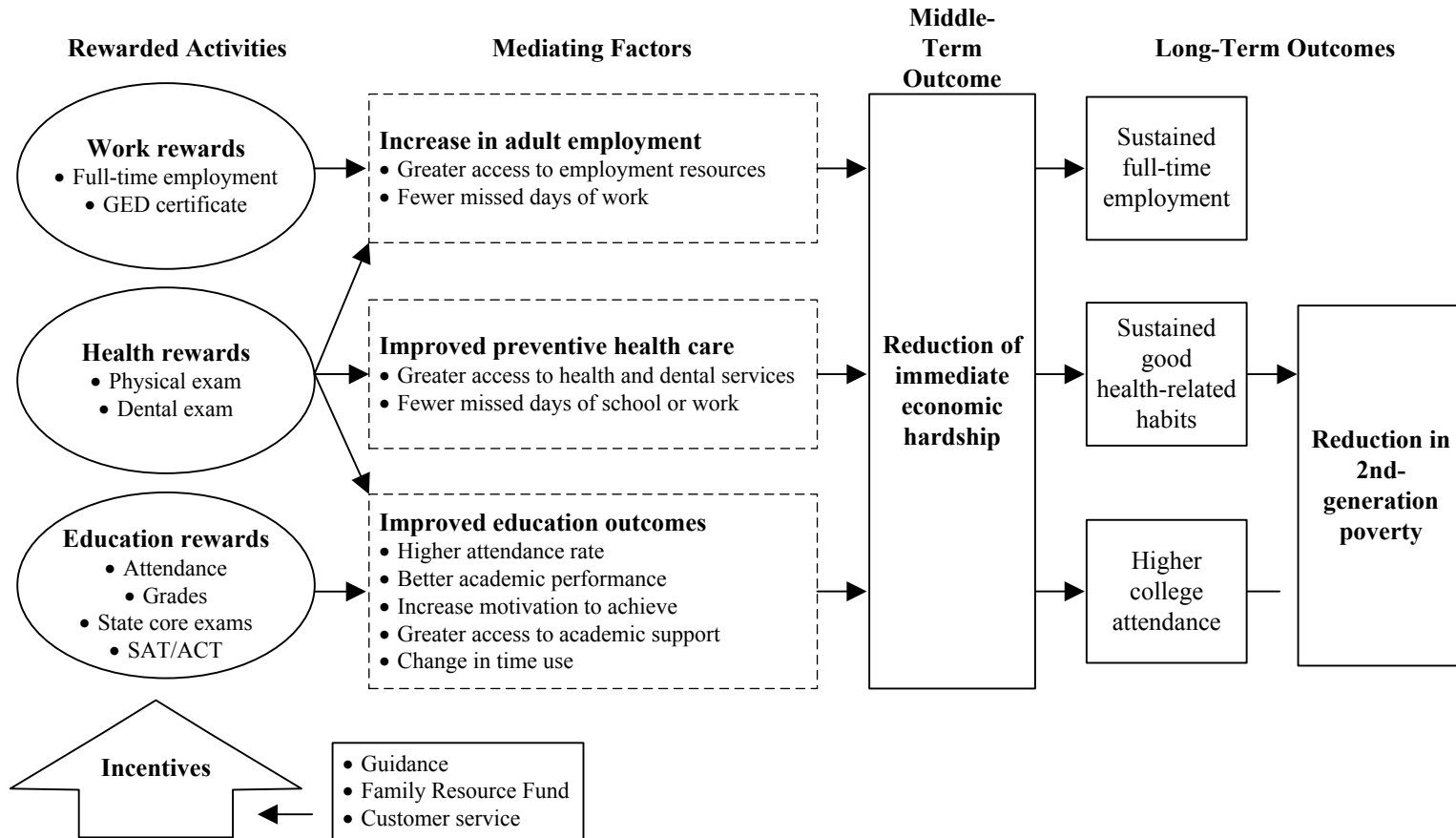
In an effort to make the rewards more timely and thus more salient, families in Family Rewards 2.0 received payments for most rewards every month, rather than every two months as did those in the original program, along with an earnings statement documenting earnings for the month and any rewards that the family was eligible for but did not earn. Finally, families were strongly encouraged to open low-fee bank accounts in order to take advantage of the direct deposit of rewards. To facilitate this process, the program invited banks that offered no-fee, savings accounts to attend orientation sessions and market directly to families.

Family Guidance

Family Rewards 2.0 offered participants active and tailored guidance from designated staff members, or advisors. In the new model, advisors at the NPOs developed a Family Earning Plan with every family and met with them at least twice a year to discuss their progress toward earning the rewards. Advisors also proactively reached out to and engaged those families who were not earning many rewards. Staff also had access to a small resource fund, to help families with services they might need to earn rewards, such as short-term tutoring, uniforms for work, transportation to job interviews, or licensing fees. As discussed in the implementation report, the strategy for family guidance shifted during Year 2, as staff members were trained in the use of motivational interviewing, a client-centered counseling method that has been found in other settings to be effective at eliciting behavioral change.

As in Family Rewards 1.0, the theory of change underlying the new model is that the rewards, in combination with the guidance, will lead to a number of effects. Figure 1.1 presents a simplified depiction of the overall logic model, showing the main processes through which the rewards and guidance were expected to reduce current and future poverty.

Figure 1.1
Theory of Change



Target Groups

Family Rewards 2.0 targeted families with at least one child entering ninth or tenth grade. Although it only offered the education rewards to students who were ninth- or tenth-graders at study entry, once enrolled in the program, all of the family's children under 20 years of age became eligible for the health-related rewards. The program also targeted families receiving Temporary Assistance for Needy Families (TANF) or Supplemental Nutritional Assistance Program (SNAP, or "food stamps") benefits, in order to direct resources to the neediest families and to explore how a CCT approach might interact with and complement these safety net programs.

The Places

Family Rewards 2.0 was tested in the Bronx, New York, and Memphis, Tennessee. The idea behind including another city in the replication effort was to make the findings, across both cities together, more relevant to the broader national population. But each city also contributed to the analysis, individually. By running the program again in New York City, the program designers expected the evaluation could answer whether the changed model works better in a similar context. By adding Memphis, they anticipated that the evaluation could also assess how the model would work outside of New York City, in a very different economic and social context. In this respect, Memphis represented a good addition to the evaluation. With its smaller population (700,000 residents in Memphis versus 1.4 million in the Bronx) and different racial and ethnic makeup, Memphis provided a very different context from the Bronx. Income levels and poverty rates were roughly similar in the two areas in early 2013, although the labor markets were fairly different. The unemployment rate was also roughly similar in both areas in 2013.¹¹ Median wages were much lower in Memphis (about \$15 per hour) than they were in the New York City area (\$21 per hour), although the cost of living is also much lower in Memphis.¹²

Finally, as noted in the implementation report, there were several differences between the two cities that might have affected program implementation and impacts. First, the state-sponsored health insurance program for low-income New Yorkers covered routine dental care, while the similar plan in Memphis (TennCare) did not. Dental care coverage may have affected the ability to earn the dental reward. Second, families and students in the Bronx had access to an extensive public transportation system, whereas families in Memphis relied heavily on cars. The

¹¹U.S. Department of Labor, Bureau of Labor Statistics (2014).

¹²U.S. Department of Labor, Bureau of Labor Statistics (2015a and 2015b). While this difference in median wages partly reflects the different mix of occupations in the two areas, median wages are also lower in Memphis for specific occupations, such as "home health aide" jobs or jobs in food preparation and service.

lack of quality public transportation made study recruitment more difficult in Memphis and also affected how families participated in the program. Finally, whereas most of the organizations and resources listed in the resource guides provided by the staff at the Bronx-based NPOs were located in the Bronx, a deliberate decision on their part, most of the organizations and resources listed in the Memphis guides were located in the downtown or midtown area, not close to where participants lived. Transportation challenges may have kept Memphis participants from accessing the services that might have helped them earn rewards. All of these differences suggest that Bronx residents had easier access to the resources that could help them earn rewards.

Program Duration

The program was intended to be offered to all participating families for three years, starting in September 2011 and ending in August 2014. Because some families entered the study after September 2011, the program designers extended the program period beyond three years, to December 2014, in order to offer these late-entering families three years of rewards. Thus, all families had access to at least three years of rewards, and families who entered the study earlier had access to rewards for somewhat longer than three years. Ninth-graders who entered the study in August 2011, for example, were eligible for rewards through the fall semester of their senior year, assuming they graduated to the next grade every year.

Sample Characteristics

Recruitment began in August 2011 in the Bronx and September 2011 in Memphis, when the NPOs received lists of potentially eligible participants provided by the human services agencies and departments of education in each city.¹³ NPO staff members were then required to call families on the lists, making multiple attempts to reach eligible families, including additional phone calls and home visits. While enrollment was originally expected to conclude by October 2011, staff faced several challenges to meeting enrollment targets, and as a result the majority of families in the study enrolled after October, and many enrolled as late as January or February 2012.

In total, Bronx NPOs enrolled 1,232 households and Memphis NPOs enrolled 1,226 households. Tables 1.2, 1.3, and 1.4 present selected characteristics of the samples. There were

¹³In the Bronx, the recruitment lists provided by the New York City Department of Education included information on families' receipt of TANF and food stamps. In Memphis, the recruitment lists did not include benefit status. Thus, program staff in Memphis determined whether enrollees were eligible for Family Rewards based on self-reported receipt of TANF or food stamps.

Table 1.2
Selected Household Characteristics at Enrollment, by City

Characteristic	Bronx	Memphis
One-parent family ^a (%)	77.1	90.5
Marital status (%)		
Single	49.8	70.8
Married	20.9	8.0
Separated/divorced/widowed	27.2	19.7
Living with partner or legal domestic partner	2.0	1.5
Average number of children in household (under 19 years old)	2.4	3.0
Primary language (%)		
English	48.2	99.1
Spanish	49.8	0.6
Currently receiving food stamps (%)	99.4	98.0
Currently receiving TANF or Safety Net Assistance (%)	5.0	30.5
Living in rental housing (%)	94.3	71.6
Living in public housing (%)	34.6	10.3
Receiving Section 8 rental assistance (%)	23.5	13.6
During the last 12 months, ever unable to pay (%):		
Rent or utility bills	49.3	64.0
Telephone bills	30.4	32.8
Food or prescription drug costs	25.1	24.2
Sample size	1,230	1,226

some differences between the city samples. As shown in Table 1.2, for example, a larger fraction of participating families were headed by a single parent in Memphis (90 percent) than those in the Bronx (77 percent). A much larger fraction of the sample in the Bronx was Hispanic than the sample in Memphis and more sample members in the Bronx spoke Spanish as their primary language than those in Memphis. In contrast, nearly all participating families in Memphis were African American. Probably reflecting the tighter housing market in New York City, more families in the Bronx lived in subsidized housing when they entered the study: 35

Table 1.3
Selected Adult Characteristics at Enrollment, by City

Characteristic	Bronx	Memphis
<u>Demographic characteristics</u>		
Female (%)	87.6	93.9
Average age (years)	42.6	39.3
Race/ethnicity (%)		
Hispanic	74.4	0.9
African American	22.9	98.1
Other	2.7	1.0
Citizenship status (%)		
U.S. citizen by birth	42.8	98.6
U.S. citizen by naturalization	31.7	0.8
Legal permanent resident	25.5	0.6
<u>Educational characteristics (%)</u>		
Highest degree received		
High school equivalency certificate	6.2	7.6
High school diploma	32.8	51.2
Technical/associate's/2-year college degree	7.3	6.2
4-year college degree or higher	5.9	4.0
None of the above	47.9	31.0
Trade license or certificate	45.0	27.6
<u>Employment characteristics</u>		
Currently employed (%)	57.1	44.1
Full time (at least 30 hours per week)	39.4	34.0
Part time	17.6	9.9
Among adults currently employed		
Average weekly wage (\$)	314	332
Has a physical problem that limits work (%)	16.0	18.3
Has an emotional or mental health problem that limits work (%)	6.5	7.9
Receives SSI or SSDI due to disability (%)	13.1	15.1

(continued)

Table 1.3 (continued)

Characteristic	Bronx	Memphis
<u>Medical coverage and care (%)</u>		
Source of health insurance coverage		
Public health insurance	85.9	81.9
Employer-provided or other health insurance	10.3	10.1
No coverage	3.8	8.0
Usual source of medical care		
Clinic or health center	73.2	49.7
Doctor's office or health maintenance organization	16.1	41.0
Hospital emergency room	3.3	7.8
Hospital outpatient department	7.2	1.0
Other	0.2	0.5
Date of last medical checkup		
Less than 12 months ago	87.4	76.5
12 months ago or longer or never had a checkup	12.6	23.5
Date of last dental checkup		
Less than 12 months ago	77.8	35.7
12 months ago or longer or never had a checkup	22.2	64.3
<u>Health status (%)</u>		
General health status		
Excellent/very good	35.3	35.8
Good	38.0	38.4
Fair/poor	26.7	25.8
Felt down, depressed, or hopeless during the past 2 weeks	22.1	23.3
<u>Financial characteristics (%)</u>		
Has a bank or credit union account	59.2	39.7
Sample size	1,311	1,256

SOURCES: MDRC calculations from baseline survey and random assignment module data.

NOTES: Percentages for some categories may not add up to 100 due to rounding or missing values.

Italics indicate measures calculated for a subset of the full sample.

SSI = Supplemental Security Income. SSDI = Social Security Disability Insurance.

Table 1.4
Selected Child Characteristics at Enrollment, by City

Characteristic	Bronx	Memphis
<u>Demographic characteristics</u>		
Female (%)	50.4	51.6
Age (%)		
0 to 5 years	10.8	9.6
6 to 13 years	31.0	36.8
14 years or older	58.2	53.6
Race/ethnicity (%)		
Hispanic	72.7	1.0
African American	23.8	97.7
Other	3.5	1.4
Born in the United States (%)	87.3	99.6
<u>Educational characteristics (%)</u>		
Expected grade level in September 2011		
Preschool	10.0	9.7
Grades 1 to 5	17.3	19.7
Grades 6 to 8	13.1	18.6
Grades 9 to 12	54.3	50.4
Not enrolled	1.4	0.9
Enrolled as an English Language Learner in the previous school year	21.6	5.5
Had an Individualized Education Program in the previous school year	16.3	13.8
Received tutoring help in the previous school year	26.5	30.0
Nonproficient on English exam ^a	75.2	85.6

(continued)

percent of families in the Bronx reported living in public housing, compared with only 10 percent of families in Memphis. In contrast, the number of families receiving TANF benefits was much higher in Memphis, at 31 percent, than the number in the Bronx, at 5 percent. The last rows of the table illustrate the material hardships faced by enrolled families. More than half of families reported being unable to pay a rent or utility bill within the previous year, and a quarter were unable to pay for food or needed medicine.

Table 1.3 shows that enrolled adults in the Bronx had somewhat lower education levels than those in Memphis, reflecting in part the fact that more of the enrolled adults in the

Table 1.4 (continued)

Characteristic	Bronx	Memphis
<u>Medical coverage and care (%)</u>		
Has public health insurance	90.2	95.7
Has employer-provided or other health insurance	8.0	3.8
Usual source of medical care		
Clinic or health center	79.8	55.3
Doctor's office or health maintenance organization	14.3	41.3
Other	5.9	3.4
Date of last medical checkup		
Less than 12 months ago	94.2	88.2
12 months ago or longer or never had a checkup	5.8	11.8
Date of last dental checkup		
Less than 12 months ago	85.8	86.3
12 months ago or longer or never had a checkup	14.2	13.7
<u>Health status (%)</u>		
General health status		
Excellent/very good	73.5	77.4
Good	23.5	19.9
Fair/poor	3.0	2.8
Has a physical problem that limits activities	4.7	5.4
Has an emotional or mental health problem that limits activities	6.0	5.5
Sample size	2,914	3,408

SOURCES: MDRC calculations from baseline survey data and random assignment module data and New York City Department of Education and Shelby County Schools administrative records.

NOTES: Percentages for some categories may not add up to 100 due to rounding or missing values.

^aProficiency level is only reported for high school students who had taken a standardized test to determine proficiency within the two years prior to enrollment. Data were available for most students who were in ninth or tenth grade at enrollment.

Bronx were immigrants.¹⁴ For example, nearly half of the adults in the Bronx sample did not have a high school diploma or equivalency certificate at the time of study enrollment, compared with only 31 percent of adults in Memphis. In contrast, adults in the Bronx sample were more likely to be working at the time of study entry (57 percent) than their counterparts in

¹⁴Foreign-born study participants in the Bronx had lower education levels than U.S.-born participants.

Memphis (44 percent). This difference is also related to immigrant status, given that foreign-born study participants in the Bronx sample were more likely to be working than their U.S.-born counterparts.

Finally, Table 1.4 presents selected characteristics of the children in participating families, including the target ninth- and tenth-graders and their siblings. Other than race and ethnicity and English-language learner status, there were no large differences between the city samples. Most children had health coverage at study entry, about 15 percent of children had participated in an Individualized Education Program (IEP),¹⁵ and most parents reported that their children were in excellent or good health.

The Evaluation

The evaluation included a comprehensive study of Family Rewards 2.0, consisting of three components.¹⁶

1. Implementation analysis. This component includes a description and assessment of how families were recruited into the study and how the CCT incentives were marketed and communicated to families. This analysis, most of which was presented in the earlier implementation report, examines, for example, how parents and youth understood the Family Rewards cash incentives, how many rewards families received, what factors were associated with reward receipt, and what strategies the NPOs used to engage families. Because of the extended study enrollment period, the first program year (September 2011 through August 2012) was a partial year for families who enrolled later in the period. Similarly, the final program period (September 2014 through December 2014) was only four months long. For this reason, the analysis of reward receipt focuses on Years 2 and 3, when all families had had a full year to earn rewards.

Data for this analysis include observations of program activities (including family guidance sessions), interviews with advisors at the NPOs and Children’s Aid Society, focus groups with adult and high school student participants, a review of all program materials, a case-file review to analyze the implementation of the Family Earning Plans, and an analysis of the management information system and payment-processing data.

2. Impact analysis. This component examines the program’s effects on a wide range of outcomes. The analysis assesses whether Family Rewards 2.0 increased family income and

¹⁵Mandated by the Individuals with Disabilities Education Act, IEPs are intended to help children with disabilities achieve their educational goals. The percentage of students participated in an IEP was similar for the high school students and their younger siblings in the sample.

¹⁶Appendix E presents more information about the data sources and method used for each of the three study components and is available on the MDRC website at www.mdrc.org.

reduced material hardship, and whether the program affected a range of outcomes both directly and indirectly related to the reward milestones, such as children’s performance in school, health care use and outcomes, and parents’ employment and earnings and participation in training. The main analysis focuses on effects across the two cities combined, in order to provide a more general assessment of the effects. However, the report also examines whether the program’s effects differed between the two cities and for different types of families.

Data sources include administrative records on students’ school performance, parents’ employment and earnings, and families’ receipt of benefits. A survey was administered to families 24 months after study entry, capturing program experiences, income and material hardship, and other outcomes.¹⁷ Finally, depending on the data source, a family’s “follow-up” year does not always align with the “program year.” The education data, for example, were aligned with the program year, since the school year began in September. Thus, for those who entered the study after September, Year 1 of education data includes several months before they were eligible for rewards. Impacts on education outcomes in Year 1 should be interpreted with this factor in mind. However, the follow-up period for all other data sources, such as unemployment insurance-covered earnings, started once a family entered the study, so that Year 1 outcomes for these sources reflected a full year of program participation.

3. Cost analysis. This component estimates the cost to administer rewards and the cost of reward payments to participants. Costs are estimated for each reward type. Cost data sources include the NPOs’ budgets and expenditure reports as well as reward payment records. The analysis shows how much money was transferred to participants in the form of rewards as well as how much it cost to administer the transfers. The analysis also explores the potential benefits to participants and how the program stands up to a benefit-cost test.

Although this report’s main goal is to present the effects of Family Rewards 2.0 after three to four years, comparisons are made throughout between these effects and those of Family Rewards 1.0. However, this comparison is not one of “apples to apples.” First, the two programs served different types of families. For example, Family Rewards 2.0 targeted families receiving TANF or SNAP benefits, whereas the original program targeted families eligible for the free lunch program. Families in the latter group therefore earned on average higher incomes. Second, the programs were tested in different places. Family Rewards 2.0 operated in the Bronx and Memphis, whereas the original program operated only in New York City neighborhoods (the Bronx, Brooklyn, and Manhattan). A more direct assessment of the new program’s added value would focus on effects for the same types of families in the same neighborhoods.

¹⁷The 24-month survey achieved response rates of 81 percent for parents in the control group and 83 percent of parents in the program group. Appendix F includes a detailed analysis of survey response and is available on the MDRC website at www.mdrc.org.

Organization of This Report

The remainder of the report is organized as follows. Chapter 2 discusses the implementation of the program across both cities and presents estimates of its costs. Chapters 3 through 6 present the program's effects in each of the main domains, for both cities combined. Chapter 3 focuses on the effects on income and poverty, and Chapters 4 through 6 present the effects on each of the three domains of education, health, and work. Chapter 7 presents effects for selected subgroups and for each city separately. Chapter 8 summarizes the report's findings and discusses some broad lessons from both Family Rewards programs.

Chapter 2

Program Implementation and Reward Payments

MDRC's earlier report on Family Rewards 2.0 described the implementation of the program during its first two years of operation, from September 1, 2011, to August 31, 2013.¹ The program continued to offer rewards and guidance into a partial fourth year, through December 2014. This chapter provides an update to that analysis, describing the delivery of the program during the final 18 months and how much money families earned in rewards overall. It gives special attention to the way the guidance component was implemented, as it was the biggest change to the program design compared with the earlier version.

Providing tailored, proactive assistance to each adult and high school student participant introduced a higher level of operational complexity to the conditional cash transfer (CCT) program, and increased the cost of delivering the program relative to Family Rewards 1.0.² In the second year of the program, significant program resources were devoted to training designated staff, or advisors, and developing an approach to providing guidance that incorporated motivational interviewing (MI) techniques. The earlier implementation report found that this shift improved the quality of advisor-participant interactions, although guidance sessions neither occurred as often as called for by the model's design (at least twice per year), nor were they consistently targeted to those earning the fewest rewards. Still, the earlier report predicted that participants would reap the benefit of these investments in program improvement in Years 3 and 4 in the form of higher reward earnings — especially in challenging categories such as adult employment — since all of the program's components were fully operational at that time. This chapter examines whether that prediction bore out.

¹Dechausay, Miller, and Quiroz-Beccera (2014).

²Few CCT programs around the world have attempted to combine individualized guidance with incentives. While there is broad recognition that families often face barriers to accessing quality services, it is more common to address this problem by facilitating peer support rather than pairing families with trained counselors. Two exceptions to this trend are the programs *Solidario* in Chile and *Bolsa Familia* in Brazil. In the Chilean model, social workers visit families frequently during the first 6 months after enrollment and intermittently for an additional 18 months (Calvo, 2011). They provide psychological support and facilitate preferential access to services in an effort to help families complete 53 conditions and graduate successfully from the program. Social workers in the Brazilian model perform the dual role of verifying that families are meeting the conditions for transfers and helping families overcome barriers. They can recommend that a family be dropped from the program for not meeting conditions (Soares et al., 2009).

Summary of Implementation Findings

The implementation analysis of Family Rewards 2.0 covered both cities and was partially conducted by Spanish-speaking researchers since some of the program activities in the Bronx took place in Spanish. The data collected included: (1) observations of program activities including guidance sessions and review of materials throughout the program; (2) annual interviews with family advisors at the NPOs and staff from Children’s Aid Society’s central office in Manhattan, New York (CAS-Central), which managed the overall program; (3) focus groups with 85 adults and 57 high school students who were members of subgroups of interest (for example, students who scored proficient or better on their eighth-grade reading exams and those who did not) or who earned a certain number of rewards in Years 1 and 2; (3) interviews with 21 adults and 18 high school students who were a mix of high and low reward-earners in Years 3 and 4; (4) analysis of all payment and case management data from CAS-Central’s management information system (MIS); and (5) participation and engagement items on the 24-month survey delivered only to program group members. The analysis of the costs of the program was based on data from the CAS-Central’s financial accounting system.

The analysis found that the guidance component evolved during the program, becoming more intense (focused on barrier identification rather than issues related to the mechanics of claiming rewards) after MI was adopted in Year 2. This shift improved the quality of guidance sessions midway through the program, though these sessions did not occur as often as envisioned in the model. In Year 3, strong distinctions emerged in the way that NPOs in the two cities delivered the guidance component. Advisors at NPOs in the Bronx found ways to increase the frequency and intensity of their interactions with participants, whereas in Memphis only one-quarter of adult participants met with their advisors more than once in Year 3 and most sessions were conducted over the phone. The transportation challenges in Memphis greatly impeded the ability of NPOs to deliver this program component effectively.

The payment processing system was well implemented and parents described it as efficient and accurate. On the other hand, many parents submitted coupons for rewards that were rejected, and reported a sense of discouragement with claiming certain incentives.³ Most enrolled families (99 percent) earned at least one reward during the program. These families received an average of \$6,241 overall, about half of which was transferred directly to high school students’ bank accounts for education rewards. Most families earned rewards in education and health, but only about 57 percent ever earned a work reward.

³As noted in the earlier implementation report, coupons for report card grades and full-time work were rejected the most frequently, often because program participants submitted inadequate documentation.

The pattern of reward receipt across the two cities was fairly similar, although families in Memphis received an average of about \$950 less than families in the Bronx. Over approximately three years, the program spent \$13,459 on the typical participating family. Nearly half of this amount (48.3 percent) was for rewards paid.

The next section highlights the main aspects of the program's operations. It is followed by more detailed descriptions of reward receipt and the guidance component and a benefit-cost analysis.

The System for Processing Payments

The CAS-Central payment processing system ensured that participants received their earned incentive payments in a timely fashion. As noted in Chapter 1, Family Rewards 2.0 offered eight rewards in three areas: education, health, and work. (See Table 1.1.) While Family Rewards 1.0 offered most of these same rewards, the new program sought to make these rewards easier to understand and claim for enrolled families. For example, program designers changed the criterion for earning the full-time work reward from demonstrating 30 hours of work per week to showing 120 hours of work per month. The reward for high school students' grades was new and turned out to be very difficult to administer.⁴

Children's Aid Society operated a central office in Manhattan, New York (CAS-Central), for all participants in the evaluation. CAS-Central received documents from participants and administrative records from the school districts to verify completion of activities, determined whether participants were eligible for payments, and deposited payments in their bank or stored value card accounts. Staff who reviewed coupons also answered the program's toll-free helpline, which parents, high school students, and advisors could call with questions about paperwork, bank account issues, or payments.

CAS-Central paid families every month for rewards earned about six weeks earlier. The lag between earning the reward and receiving payment was due to the time it took to manually verify eligibility for payments. The staff provided earnings statements in English and Spanish for each family that explained the earned rewards for which the family had been paid, as well as the rewards the family had not earned. CAS-Central staff created these statements manually and thus mailed them three to four weeks after payments were posted to participants' accounts. Program designers had hoped payments would be received closer to the conditioned behavior to amplify the reinforcing effects of the incentives, but that was not achieved because the demonstration's small scale precluded fully automating verification procedures.

⁴See Dechausay, Miller, and Quiroz-Beccera (2014) for more information.

The 24-month survey investigated parents' understanding of the conditions to earn rewards and their experiences with the payment processing system. Generally, parents demonstrated a strong understanding of the behaviors that were eligible for rewards and the cash value of the rewards, although many believed the program rewarded additional behaviors that were not eligible for rewards. (See Appendix Table B.1.) The only reward about which there was widespread confusion among participants was the one for proficient or above performance on the Tennessee End-of-Course exams for high school students. While 94.8 percent of parents in the Bronx reported that their children knew the numeric score on the equivalent New York State Regents exams they needed to obtain to qualify for the reward, only 19.7 percent of parents in Memphis reported that their children understood the level of performance they needed to demonstrate on the End-of-Course exams to qualify for it. (Students needed to receive a score of "proficient" or above to earn the reward.) The End-of-Course exams in Memphis were new at the time Family Rewards 2.0 was launched, and students' raw scores were scaled to determine proficiency. The survey findings suggest that either advisors did not succeed in explaining this reward to high school students in Memphis by the time of the survey, or the inherent uncertainty of this performance standard made it difficult for families to understand.

Parents gave the payment processing system strongly positive reviews on the survey, with about 81 percent agreeing with the statement that they received payments on time and 91 percent reporting that they understood the reasons when they did not receive a reward or payment for a behavior. The majority of survey respondents (about 88 percent) also reported that they "remember the deadline for coupons and get them filled out completely." However, despite this strong positive response among survey respondents, most families enrolled in the program had coupons rejected in Year 2. An MDRC analysis found that 90 percent of Memphis families and 62 percent of Bronx families had at least one rejected coupon that had not been resolved by the end of the year.⁵ In fact, almost every participant who submitted a coupon for full-time work had at least one rejected. There is evidence that these rejections led to discouragement. Forty-two percent of survey respondents reported that they had given up on earning rewards because "it is hard to get paid for things I do." As discussed below, most families earned rewards throughout the program, but this finding suggests that *individuals* within families may have given up on earning particular rewards entirely or for a period of time due to challenges they experienced with the paperwork or criteria.

⁵In this case, "resolved" means that the error was addressed, the family or the staff member resubmitted the coupon, and the coupon was approved.

The Rewards Families Earned

Table 2.1 presents a summary of rewards earned by families in the Bronx and Memphis in all four program years. Years 1 and 4 were partial years for most participants, while Years 2 and 3 were full years and can be directly compared. The table shows that 99 percent of families earned at least one reward, and they earned an average of 100 rewards. The high number of rewards is due to those offered for report cards, in which each qualifying grade was counted separately. In Years 2 and 3, families earned an average of just over \$2,000 per year from rewards (\$2,314 and \$2,039, respectively), with about half of this amount paid to high school students for education rewards. Reward receipt was highest in the second year of the program, largely because of the high number of students who earned the high-value rewards for state exams (about 67 percent).

To put these annual earnings in context, the national average earned income tax credit (EITC) received for the 2014 tax year was \$2,335.⁶ The EITC has been described as “one of the nation’s most effective anti-poverty programs.”⁷ The EITC and Family Rewards incentives differ in their certainty, salience, and beneficiaries. Family Rewards was less certain or predictable because the amount earned depended on which milestones families reached (and whether they made a proper claim for payment). For some milestones, particularly in education, there was a high performance standard. The reward money earned from Family Rewards was also, arguably, less salient because it was distributed each month in different amounts and intermingled with other money in the participant’s bank account. If the participant opened a special bank account to store money from the program, the deposits might have been salient because they were clearly marked, or less so if the participant often forgot to check the account or found it difficult to access the money. Lastly, Family Rewards distributed the incentives to parents and high school students, unlike the EITC, which is paid to the head of household.

The following section summarizes earnings in each of the domains, focusing on the patterns in Years 2 and 3 since these were the only years when all enrolled families were eligible for rewards for a full 12 months.

Education

- Almost all families (97 percent) earned at least one education reward due mainly to the attendance and report card rewards. In Year 2, for example, of families with students who earned an education reward, 88 percent earned at least one for attendance and 80 percent for grades. Students continued to

⁶Internal Revenue Service (2016).

⁷Kneebone and Holmes (2015).

Table 2.1
Rewards Earned by Families in Years 1 Through 4

Outcome	Year 1 ^a	Year 2	Year 3	Year 4 ^b	Years 1-4
Family earned at least 1 reward (%)	95.0	96.3	94.4	77.4	98.6
Among families who earned at least 1 reward					
<i>Average number of rewards earned</i>	23.1	36.9	35.0	10.5	100.1
<i>Average reward amount earned^c (\$)</i>	1,598	2,314	2,039	624	6,241
<u>Education rewards</u>					
Family earned at least 1 education reward (%)	91.5	93.3	88.7	57.9	97.3
Attendance	82.5	88.4	86.9	54.0	96.0
State core exam	57.3	66.5	36.3	0.0	82.1
SAT/ACT	1.0	6.6	8.9	2.8	19.0
Report card	77.7	80.2	73.7	38.9	89.9
Among families who earned at least 1 education reward					
<i>Average number of education rewards earned</i>	16.5	28.5	27.4	9.4	73.4
<i>Average education reward amount earned (\$)</i>	777	1,224	974	256	2,943
<u>Health rewards</u>					
Family earned at least 1 health reward (%)	81.0	78.8	76.8	46.6	89.8
Annual physical	70.1	70.4	68.9	32.5	86.0
Semiannual dental	71.6	70.7	68.1	34.9	84.7
Among families who earned at least 1 health reward					
<i>Average number of health rewards earned</i>	5.7	6.6	6.3	3.3	18.0
<i>Average health reward amount earned (\$)</i>	570	663	626	334	1,805
<u>Work rewards</u>					
Family earned at least 1 work reward (%)	39.6	46.3	46.1	37.6	56.9
Full-time employment (%)	39.5	45.9	46.0	37.3	56.2
High school equivalency certificate (%)	0.4	0.8	0.5	0.2	2.0
Among families who earned at least 1 work reward					
<i>Average number of work rewards earned</i>	5.8	8.1	8.4	3.1	19.5
<i>Average work reward amount earned (\$)</i>	872	1,216	1,259	475	2,926
Sample size	1,230				

(continued)

Table 2.1 (continued)

SOURCE: MDRC calculations using Children's Aid Society's Family Rewards program data.

NOTES: Sample sizes may vary because of missing values.

Year 1 covers reward activities that occurred between September 2011 and August 2012. Year 2 covers reward activities that occurred between September 2012 and August 2013. Year 3 covers reward activities that occurred between September 2013 and August 2014. Year 4 covers reward activities that occurred between September 2014 and December 2014.

Italics indicate outcomes calculated for a subset of the full sample.

^aRandom assignment occurred between September 2011 and February 2012 and prevented many participants from receiving a full year of rewards.

^bYear 4 only permitted participants to earn during four months of the program year.

^cThe lowest and highest amounts earned in Year 1 were \$20 and \$8,851. The lowest and highest amounts earned in Year 2 were \$38 and \$8,200. The lowest and highest amounts earned in Year 3 were \$40 and \$7,550. The lowest and highest amounts earned in Year 4 were \$10 and \$3,110.

qualify for the attendance reward at a high level in Year 3 but the percentage of families with students who claimed the report card reward declined to 74 percent. This reward turned out to be more difficult to administer than expected — the two cities had different grading scales, some courses were ineligible, report cards had to be distinguished from “progress reports,” and each school distributed different numbers of report cards. CAS-Central issued policy changes to address these challenges, but they may have led to some confusion or disappointment for families as they attempted to claim the reward. Further, the report card reward was meant to facilitate ongoing interaction between advisors and students as students brought in each newly issued report card to the NPO, but this interaction did not occur in most NPOs.

- More families earned the reward for passing at least one state exam in Year 2 (67 percent) than in Year 3 (36 percent).⁸ Almost half of the students entered the program in the tenth grade, and very few students took these exams during their senior year (Year 3 for entering tenth-graders).
- Few families (19 percent) ever earned the incentive for taking the SAT or ACT college entrance exams. Most of the students who earned it were in the Bronx. In Memphis, schools offered the ACT for free but students had to earn a certain score to qualify for the reward.

⁸These figures are reported among students who earned any education reward. Ninety-three percent earned an education reward in Year 2 and 89 percent in Year 3.

- In general, families in Memphis earned less in education rewards than families in the Bronx. As a group, students in Memphis families had lower grades (and the amount of the report card incentive was scaled to the grade), passed fewer state exams, and did not claim the college entrance exam reward as often.⁹

Health

- Families were highly engaged in the health domain, which offered rewards to the entire family including all children 19 years of age and under. Ninety percent of families earned at least one health reward, and very similar proportions of families claimed the reward in Years 1, 2, and 3. Because Year 4 was just four months in length, and insurance providers only pay for examinations at a certain periodicity, many participants could not claim this reward during this time.
- Memphis adults faced barriers to claiming the dental reward because these visits were not covered by the public health insurance program in Tennessee as they were in New York State. In Year 2 (data not shown), three-quarters of Memphis adults did not earn any rewards for dental visits. The family advisors made a concerted effort to build relationships with providers who offered free or low-cost cleanings, which increased access to this reward in later years.

Work

- Fifty-seven percent of families earned at least one work reward, and almost all of these rewards were for full-time employment. The proportion of families that claimed the full-time work reward was the same in Years 2 and 3 at around 46 percent. Of the families that earned it, they did so consistently, claiming the reward an average of 8 out of 12 months.
- Despite the fact that 48 percent of adults in the Bronx and 31 percent in Memphis did not have a high school diploma or equivalency certificate at the start of the study, almost no adults claimed the reward for earning the General Education Development (GED) certificate. The GED test was overhauled while the program was in operation. The advisors tried to use this

⁹It should be noted that the grading scales in the two cities were different. In Memphis, the range of scores that constituted a C was larger than in New York City, while the range of scores that constituted a B or an A was smaller. (See Table 1.1.)

overhaul to motivate adults who were close to passing it to buckle down and get it done, but this campaign was not successful.

The pattern of reward receipt shows that the earlier Family Rewards 2.0 implementation report did not accurately predict the future course of reward earnings in the program. Despite improvements to the quality of advising and other changes to outreach strategies and management techniques that will be reviewed in the next section, reward earnings did not increase. In particular, advisors were not able to increase the number of rewards participants received for full-time employment by helping more participants find employment or increase their work hours. By Year 2, a larger share of households were claiming this work reward than those in Family Rewards 1.0, but the proportion did not increase in Year 3. The next section explores how the program set out to engage families in Years 3 and 4 of the program.

The Advisor-Participant Relationship at the End of the Program

Each NPO hired three advisors to work directly with families. Most were women who shared characteristics with the majority of families in their caseloads in terms of race, ethnicity, and spoken language. Most were generalists coming from the social services or nonprofit sectors, but two were trained social workers and one was a former teacher. Each NPO had a program manager who oversaw the advisor's work on site, and CAS-Central hired a social worker and business professional to provide additional technical assistance.

Each advisor served about 100 families (with at least one parent and one high school student per family), though some worked with fewer families because they were part time or less skilled, and some had many more for periods of time because of turnover in the position. Advisors had three main responsibilities:

1. *Outreach*: advertising the incentives, planning events, and maintaining a high level of general interest in the program.
2. *Customer Service*: helping participants fill out coupons and understand program rules, and serving as an on-site liaison between staff who reviewed documentation at the payment processing center and participants. A customized salesforce application that included screens with payment decisions and notes from guidance sessions and outreach attempts facilitated this relationship.
3. *Guidance*: building personal relationships with the adults and high school students to provide a mix of emotional and instrumental support in reaching goals.

The original design model called for a triage approach, whereby advisors were to engage in these modes of interaction with all participants but offer more assistance to those who

were struggling to earn rewards. Each adult and high school student was expected to receive guidance sessions twice a year to update an action plan called a Family Earning Plan and, at the end of the year, review earnings from the past period. Advisors were to contact participants whom CAS-Central had identified as low reward-earners usually for guidance sessions and other supports.

As noted in the earlier implementation report, the nature of the advisors' work evolved significantly in the first two years of the program.¹⁰ Advisors focused mainly on building relationships in the first year, which involved advisors and clients getting to know each other and establishing trust and familiarity. One-on-one sessions at this time were largely transactional or customer service oriented. Advisors had few referral partners and did not know how to address some of the major life issues that arose, such as housing dislocation, serious health problems, domestic violence, infidelity, divorce, substance abuse, teenage pregnancy, and incarceration.

Recognizing that advisors needed more training to go beyond customer service and encourage behavioral change, CAS-Central introduced motivational interviewing (MI) in the first half of Year 2. MI is a widely used, directive approach to counseling in which the counselor uses a set of techniques to explore an individual's ambivalence about change.¹¹ Evaluations have found that MI can be an effective way of encouraging engagement with a program or improving the primary outcomes of treatment.¹² It took several months of in-service support for all advisors to develop a minimum level of proficiency in the techniques. Observations of guidance sessions that took place during the second half of Year 2 showed that the content and feel of the sessions had in fact improved. Participants talked more about their goals, and took the lead in creating plans for overcoming barriers to earning rewards.

This change was positive, but participants did not receive as much of this quality advisement as intended. Table 2.2 summarizes the proportion of adult and high school student participants who received guidance as well as the proportion of them who received different types of guidance in the Bronx and Memphis in Years 2 and 3. In Year 2, most adults had one guidance session in the Bronx and Memphis (86 and 65 percent, respectively), but only a minority of these individuals had two or more such sessions (34 and 25 percent, respectively). Smaller percentages received referrals (13 and 19 percent, respectively) or discussed barriers or next steps (33 and 25 percent, respectively) with their advisors. These last outcomes were

¹⁰Dechausay, Miller, and Quiroz-Beccera (2014).

¹¹Miller and Rollnick (2002).

¹²Hettema, Steele, and Miller (2005).

Table 2.2
Advising Received by Participants in Years 2 and 3, by City

Outcome	Bronx		Memphis	
	Year 2	Year 3	Year 2	Year 3
Adult participants (%)				
Participant had a guidance session ^a	87.3	90.8	72.4	76.4
Had at least 1 FEP review	85.7	88.7	64.8	66.4
Had 2 or more FEP reviews	33.6	64.4	25.0	26.9
Ever received a referral	13.1	62.8	18.5	38.8
Ever discussed barriers to earning rewards or next steps	32.7	29.0	24.7	12.8
Participant received customer service ^b	69.5	73.0	72.6	43.0
Participant received outreach ^c	87.9	81.2	93.7	68.8
Sample size	655	655	631	631
Student participants^d (%)				
Participant had a guidance session ^{a,e}	86.6	88.6	83.4	82.8
Had at least 1 academic/FEP review	86.6	88.0	81.7	80.4
Had 2 or more academic/FEP reviews	67.7	64.8	20.2	25.6
Ever received a referral	2.4	21.2	3.5	4.1
Ever discussed barriers to earning rewards or next steps	26.4	34.0	12.4	8.0
Participant received customer service ^{b,f}	69.4	75.2	63.8	39.7
Participant received outreach ^c	67.1	64.8	23.6	13.1
Sample size	656	656	687	687

(continued)

indicators of the intensity of the guidance, or the likelihood that the guidance would generate behavioral change in people who were not at the time on the path to earning certain rewards. Most adult participants received customer service and general outreach.

This trend in Year 2 was similar for high school participants in Memphis, with 82 percent of students having had one guidance session, but only 20 percent having had two or more. The percentage of these students that received referrals or discussed barriers and next steps in guidance session was very small (4 and 12 percent, respectively). In contrast, in the Bronx,

Table 2.2 (continued)

SOURCE: MDRC calculations using the Children's Aid Society's Family Rewards program data.

NOTES: FEP = Family Earning Plan.

Sample sizes may vary because of missing values.

Year 2 covers activities that occurred between September 2012 and August 2013. Year 3 covers activities that occurred between September 2013 and August 2014.

^aGuidance includes creating FEP, reviewing FEP, discussing next steps, discussing barriers to earning rewards, discussing public benefits, and making a referral, discussing earnings goals, receiving support from the Family Resource Fund, or discussing family finances.

^bCustomer service includes group check-ins, group workshops, discussing referral outcomes, submitting bank account information, adjusting family composition or eligibility, advisor signature for high school equivalency certificate completion, answering earnings questions, help-line calls, and coupon submission support.

^cOutreach includes program campaigning (outreach to particular participants with information or reminders), scheduling coupon book pick-up, program reengagement calls, sending e-mails, sending letters, and conducting automated calls.

^dThis category includes students enrolled in ninth or tenth grade at baseline.

^eThis category also includes report card review for students.

^fThis category also includes advisor signature for student report cards.

advisors and high school participants interacted much more. Eighty-seven percent of these students received one guidance session, while 68 percent received two or more. These sessions, however, clearly did not focus entirely on motivating behavioral change since only 3 percent of the students received a referral and 26 percent discussed barriers. That said, a stark difference began to emerge in Year 2 between the guidance students received in Memphis and the Bronx. The advisors in the Bronx found that the students' ability to travel to the NPO on their own facilitated these interactions, and though not technically required by the program, they asked students to come in every time they received a report card to ensure a high level of contact.¹³

¹³In the first year of the program, students were required to bring in the coupon for signature in order to receive payment. Program designers intended for this meeting to occur quarterly and for advisors to use the students' report cards to structure a conversation about their academic performance, and remind them about the potential reward earnings. This process did not work as well as hoped in practice because (a) many students in the Bronx received more than four report cards leading to a large number of meetings; (b) attending the in-person meetings was difficult for many families in Memphis who relied on cars, and so it was typical for parents in Memphis to bring several report cards at one time on behalf of their children; and (c) the meetings were largely transactional, appointments at which the advisor simply signed report cards and assisted with other administrative issues. In Year 2, the program designers removed the report card signature requirement because of the problems noted in the first year of the program and replaced it with a single mandatory meeting between students and advisors at the beginning of the school year. This meeting, called an "academic review," provided an opportunity for advisors to discuss students' performance in school and plan for the year. Students who struggled to earn rewards after that point would be identified in the low-earners reports, which would prompt advisors to reach out to these individuals to offer additional support. Advisors in Memphis reported a
(continued)

Overall, most participants in Year 2 received only one intensive guidance session in which the advisor might have used MI techniques to promote engagement, although a lot of outreach and customer service occurred in this period (similar to what participants in Family Rewards 1.0 received).

In Year 3, there was some improvement in indicators of the intensity of the relationship between advisors and participants in the Bronx. More adults in the Bronx received two or more guidance sessions (65 percent in Year 3, compared with 34 percent in Year 2), and many more adults received referrals (63 percent in Year 3, compared with 13 percent in Year 2). Students in the Bronx who received at least one guidance session received more referrals in Year 3 (21 percent of students in Year 3, compared with 3 percent in Year 2). This improvement was the result of a focused effort to develop referral partnerships in New York City, especially those with workforce development providers.

In contrast, advisors in Memphis did not increase contact with participating adults or students in Year 3. Advisors in Memphis reported that because the guidance sessions were not mandatory and participants had to arrange car rides to get to the NPOs, many stopped visiting the NPOs after the first year. As a result, advisors progressively shifted to delivering the majority of their guidance sessions over the phone, which they acknowledged was far from ideal. Advisors in Memphis did increase their use of referrals (39 percent of adults in Year 3, compared with 19 percent in Year 2), but these new referrals were primarily for dental services for adults. Advisors described a lack of quality workforce development providers. Advisors also reported lower rates of outreach and customer service in Year 3. This decrease may have been the result of a new performance management approach introduced in Year 3 that resulted in advisors in Memphis conducting more home visits.

In an effort to further refine the guidance component, the program designers established quarterly benchmarks that provided specific targets for advisors to meet within the education, health, and work domains. Advisors were offered small incentives to motivate them to achieve these benchmarks. Each quarter, the program designers and CAS-Central defined a target group of adults and high school students based, for the most part, on their reward earnings outcomes, as well as provided NPOs with weekly reports on each advisor's progress toward reaching the benchmarks. For example, from March to May 2014, the benchmarks directed advisors to increase the number of adults earning work rewards by five each, achieve a 30 percent increase in the number of adults earning a medical and dental health reward, and ensure that 75 percent of their student caseload had earned at least \$75 in grades rewards in Year 3. Advisors in Memphis attempted to meet the benchmarks by more aggressively reaching out to eligible

steep decline in visits to the NPO by participants after this policy change. Neither NPO in the Bronx announced this change to maintain a high level of contact with students.

participants, and, in most cases, offering to personally pick up paperwork participants had not turned in or conduct guidance sessions in participants' homes. The time that advisors spent traveling to home visits affected their ability to provide services to participants generally, but it was seen as the only way to achieve the benchmarks. In most quarters, the benchmarks were not achieved, but the advisors reported that they appreciated them because they brought greater focus to their work.

In the end, the guidance component involved a lot of operational challenges related to training advisors, making contact with participants, and targeting the right individuals at the right times. Student participants in the Bronx had more ongoing contact with advisors than student participants in Memphis, who rarely met with their advisors one-on-one. While families in the Bronx earned more in education rewards than did families in Memphis, it is impossible to conclude that this difference was due to the relationship with their advisors because of many confounding factors. At best, it seems that the intensity of the guidance that participants in the Bronx received contributed to their engagement in the program but was not transformative. Even after advisors began using MI, participants did not experience a significant, positive change in the trajectory of their reward earnings. Dosage may have played a role in this result — participants faced major life challenges and had relatively little contact with their advisors even in the best cases.

Program Costs

Over about three years, the program spent \$13,459 on the typical participating family (Table 2.3).¹⁴ The largest spending category was rewards paid to families (48.3 percent). It included the cash rewards in all three of the domains (education, health, and work), expenses associated with an enrollment incentive paid to families when they signed up for the study, and a discretionary pot of money called the Family Resource Fund that was available to advisors.

The remaining program costs (51.7 percent) were associated with the administration of the program by CAS-Central and the NPOs, including staff salaries, fringe benefits, consultants, the administration of payments and support services for participating families, and other costs. Staff salaries at CAS-Central accounted for the largest administrative cost (\$2,452 per family). The costs associated with the NPOs in New York and Tennessee were the second largest

¹⁴The direct cost estimate is based on program expenditure reports from 2011 to 2014. All dollar amounts have been converted to 2015 dollars using the Consumer Price Index for all urban consumers. As a result of this approach, the cost of “reward payments to participating families” (\$6,507) in Table 2.3 is slightly different from the “average reward amount earned” per family (\$6,241) presented in Table 2.1, which was based on individual-level MIS data and was not adjusted for inflation.

Table 2.3
Cost per Family
(in 2015 Dollars)

Cost Category	Cost (\$)	Percentage of Total (%)
Reward payments to participating families		
Education rewards	3,030	22.5
Health rewards	1,713	12.7
Work rewards	1,764	13.1
Subtotal	6,507	48.3
Non-reward costs		
Central operations		
Staff salaries	2,452	18.2
Fringe benefits	617	4.6
Consultants	396	2.9
Other costs	1,200	8.9
Local operations		
Partner organizations	2,287	17.0
Subtotal	6,952	51.7
Total cost	13,459	100.0
Non-reward cost per dollar of reward payment	1.07	
Sample size		1,230

(continued)

administrative expense (\$2,287). Fringe benefits for staff cost \$617 per family served. Consultants cost \$396 per family, or 3 percent of total costs. The notes to Table 2.3 include additional information on each spending category. Finally, the bottom row of the table indicates that for every dollar transferred to families for rewards, \$1.07 was spent on non-reward costs.

To put the costs of the cash transfer in perspective, it is important to remember that Family Rewards was a small and new program. Size and newness increase the amount of non-reward costs, especially the administrative cost of processing payments; more established and larger programs typically serve participants at a lower cost. For example, Temporary Assistance for Needy Families (TANF) spends approximately 17 cents per dollar of payment, Supplemental Nutrition Assistance Program spends 20 cents per dollar of payment, and Medicaid pays 5 cents per dollar of payment, although these programs also do not offer guidance to help families earn payments.¹⁵

¹⁵The research team obtained data on the TANF costs and payments from the financial data that states submit to the Administration for Children and Families (data reporting form ACF-196). It obtained Food Stamp Program outlays and obligations data from the Food and Nutrition Service in the U.S. Department of (continued)

Table 2.3 (continued)

SOURCES: Program expenditure reports from 2011 to 2015, MDRC calculations from management information system data, and phone interviews with program staff.

NOTES: Estimates have been adjusted for inflation and reflect discounting.

In each domain the cash transfer value from reward payments is presented as a cost. In Tables 3 and 4, an amount equal to the reward payments is presented as a benefit to participants. These amounts cancel each other and are cost and benefit neutral from the perspective of society.

Description of cost categories:

Reward payments to participating families include the conditional cash transfer payments (education, health, and work), the Family Resource Fund (a discretionary fund intended to assist each family earn certain rewards), and small incentive payments for opening a savings account. Resource fund and enrollment incentive payments were not tracked separately and therefore cannot be separated from conditional cash transfer payments.

Non-reward costs include all resources required to operate the program beyond the reward payments to participating families, such as the services to inform participants of available rewards, support participants in earning rewards, and process reward payments.

Staff salaries are remuneration paid to senior managerial staff (presidents, directors, and senior managers), programmatic staff (program associates, coordinators, assistants, advisors, and reward specialists), and administrative staff (financial and business analysts, general counsels, and information technology and database staff). Staff were responsible for the development of a payment tracking system, processing administrative records to determine if automatically verified rewards had been earned, creating coupon books for reward payments that required families to submit documents showing that they earned the reward, verifying 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, general program management, and oversight of nonprofit organizations.

Fringe benefits – Fringe benefits for central operations staff in New York and Tennessee.

Consultants – Additional administrative support for Children's Aid Society to help the sites with managing grants, advertising, supporting audits, and general temporary staffing.

Other costs – Costs other than expenditures for personnel services. These expenditures include the cost of travel associated with program staff meeting with participants near their places of residence. Other costs also include supplies, outreach materials, insurance, rent for office space, and other indirect costs.

Partner organizations – All costs associated with the four partner organizations responsible for implementing Family Rewards, including Porter-Leath and Memphis HOPE in Tennessee and Children's Aid Society and BronxWorks in New York. These costs include program orientations, refresher sessions, coupon book distribution, customer service, social events, and workshops.

Conclusion

Because few CCT programs include a guidance component, there were no direct comparisons for the program that CAS-Central and its partners delivered. Family Rewards 2.0 aimed to bring about behavioral changes in participants by rewarding them not only for behaviors in which

Agriculture. It obtained financial data on the Medicaid program from the Center for Medicare and Medicaid Quarterly Expense Report.

they regularly or periodically engaged before entering the program, but for engaging in new or sustained behaviors that would increase their human capital. Program developers reduced the number of the program's rewards relative to Family Rewards 1.0 because of initial budget constraints, but they expected that the investment in advisors would be a positive addition by helping participants create action plans to maximize their receipt of the available cash rewards and overcome barriers along the way.

CAS-Central delivered most of the incentives for Family Rewards 1.0 and made small changes to the verification rules for the new program in an effort to make the incentives easier to claim. However, the new rewards for report cards, designed to reward participants' effort and educational input rather than their performance outcomes, raised difficult practical issues and did not generate the kind of ongoing interaction between students and advisors that the program designers had expected.

The guidance component was completely new and evolved substantially over the course of the program. Transportation obstacles in Memphis impeded contact between advisors and participants, and thus the component never gained traction. Advisors in the Bronx had greater contact with participants, but the frequency of the interaction was still less than anticipated (except, perhaps, for student participants).

Most families earned rewards for education and health during the first three years, and the share of families enrolled in Family Rewards 2.0 that claimed the reward for full-time employment was greater than that of families enrolled in Family Rewards 1.0. Still, the percentage of families earning work rewards did not increase over time. This result was disappointing considering the program's many components aimed at changing the underlying behaviors in participants that would increase reward receipt, including intensive training for advisors, new targeting approaches, and the development of referral networks.

Chapter 3

Impacts on Income and Material Well-Being

In the short run, the goal of Family Rewards was to reduce current poverty and material hardship through its direct cash reward payments — or conditional cash transfers (CCTs) — and through any immediate increases it might generate in parents' earnings from employment. The previous chapter showed that families enrolled in Family Rewards 2.0 earned significant cash transfers during the program years, just over \$2,000 per year.

This chapter examines the effects of the cash transfers on a broad range of income and well-being outcomes. Focusing on Year 2, roughly midway through the program, it considers how, and to what extent, participation in Family Rewards 2.0 helped to alleviate poverty and hardship. In contrast to Family Rewards 1.0, Family Rewards 2.0 targeted families who were receiving Temporary Assistance for Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP, or “food stamps”), in order to direct resources to the neediest families, and offered fewer rewards in each of the three domains. As a result, a central question is whether the program led to comparable or even larger impacts on income and well-being for these families. The next several sections examine impacts on a range of measures of income and well-being. The chapter closes with a brief comparison of the findings from Family Rewards 1.0 and 2.0.

Summary of Impacts on Income and Well-Being

Overall, the results show that Family Rewards 2.0 achieved some of its immediate goals. Roughly two years after families enrolled in the program, positive effects on various dimensions of household income and well-being were evident. Family Rewards 2.0 increased average household income, reduced the proportion of families living in poverty, and increased the portion of families with savings. It also kept families in the program group connected to mainstream banking institutions. In addition, program group members were more likely to report higher levels of financial well-being, life satisfaction, and happiness, compared with their control group counterparts.

The general pattern of findings in this report are consistent with early results from the Family Rewards 1.0 evaluation, although the earlier program produced larger effects on income and poverty and financial well-being around 18 months of follow-up (when families were still eligible to earn rewards). However, there was no evidence that families in Family Rewards 2.0 experienced less housing-related material hardship in the initial years, an effect observed in Family Rewards 1.0. One likely reason for this difference is that Family Rewards 2.0 offered

fewer rewards and transferred less money to families. In addition, about half of the rewards that families earned were earned by — and paid to — high school students, funds that may not have contributed as directly to meeting basic family needs.

Data and Methods

The analyses presented here draw on the 24-month survey, as well as administrative records data on TANF and SNAP receipt provided by the local administrative agencies. The survey was administered to the full study sample and provides extensive data on 2,016 families — or 82 percent of the full sample.¹ The survey interviews were conducted between October 2013 and May 2014, the period roughly corresponding to Year 2. Thus, given the timing of the survey, the rewards earned in Years 1 and 2 (see Chapter 2) are most relevant for understanding the program’s effects on income and well-being while families were in the program. The chapter also draws on qualitative data obtained through in-depth interviews with a small sample of program participants.

Box 3.1 explains how to interpret the tables that show estimated program impacts that are presented throughout the remainder of this report. These tables cover a large number of impact estimates that are relevant to family poverty, hardship, and economic security and in the three domains in which the program provided rewards: children’s education, family preventive health care, and parents’ work and training. The research team calculated the estimates of program impacts controlling for a range of pre-random assignment background characteristics, such as the parents’ race or ethnicity, education level, marital status, and employment status. Appendix E provides more information on the data and analysis methods and is available on the MDRC website at www.mdrc.org.

As the number of outcomes that are examined increases, the probability of obtaining impacts that are statistically significant simply by chance also increases. In order to address this issue, the impact analysis presented in each of the chapters distinguishes between a limited number of primary outcomes in a given domain versus secondary outcomes. If the research team found that the program affected primary outcomes in a given domain (for example, income and poverty), then it assigned more weight to the effects found for secondary outcomes within that domain (material hardship, for example). In contrast, if there were no effects on a

¹The survey provides information about sample members on a broad set of topics, including participation in employment and education activities, health care status, employment and job characteristics, household composition, and child outcomes. Appendix F provides an analysis of survey response and is available on the MDRC website at www.mdrc.org.

Box 3.1

How to Read Impact Tables in This Report

In the context of this evaluation, an “impact” is a measure of how much Family Rewards 2.0 changed outcomes for program participants. All the tables in this report that show impacts use a similar format, illustrated in the table excerpt below, which presents data on a material hardship and a well-being outcome that were obtained from parents’ reports on the 24-month survey. The top row, for example, shows that 41.4 percent of respondents in the program group had not paid their rent in full or made a full mortgage payment in the 12 months before the time of the survey interview, compared with 42 percent of control group respondents.

Because families were assigned randomly either to a program group or to a control group, the effects of the program can be estimated by the difference in outcomes between the two groups. The “Difference” column in the table shows the differences between the two research groups’ outcomes — that is, the program’s estimated *impacts* on the outcomes. For example, the estimated program impact on paying full rent or mortgage can be calculated by subtracting 41.4 percent from 42.0 percent, yielding a reduction, or estimated impact, of -0.6 percentage points.

The p-value shows the probability that this difference, or impact, arose by chance. In the table below, the difference between the program and control groups in paying the full rent or mortgage has a 79 percent probability of arising as a result of chance rather than as a result of the Family Rewards program. In contrast, the difference on the measure of financial well-being (bottom row) has a 2 percent probability of having arisen by chance. For this evaluation, only differences that have a 10 percent probability or less of arising by chance are considered “statistically significant” and therefore represent true program effects. The number of asterisks indicates whether the impact is statistically significant at the 1 percent (***), 5 percent (**), or 10 percent (*) level.

The final column shows the effect size, which is presented for selected impacts. The effect size is the difference between the program and control group outcomes divided by the “standard deviation” of the outcome (a measure of its variability). Expressing an impact in standard deviation units helps to interpret its size, particularly when the outcome is in nonstandard units, such as scores on a scale, as in the second row. In contrast, effect sizes are not shown for impacts that are easier to interpret, such as impacts on dollar amounts or percentages.

**Impacts on Two Material Hardship and Well-being Outcomes,
from the 24-Month Survey**

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Did not pay full rent or mortgage (%)	41.4	42.0	-0.6	0.791	
Financial well-being (4 = low; 16 = high)	9.3	9.1	0.2**	0.021	0.103

primary outcome within a domain, the research team gave the effects on secondary outcomes less weight in the analysis.² Although this strategy helped to avoid placing undue weight on false positives, caution should be used when interpreting impacts that do not appear to be part of a larger pattern of impacts within a given set of measures. In addition, and as noted in Chapter 1, the main analysis focuses on the Bronx and Memphis sites combined (or a pooled analysis), and Chapter 7 looks at how the effects vary by city and across other subgroups.

Impacts on Income and Poverty

To estimate household income and poverty, families completing the 24-month survey were asked to list their sources of income and total household income for the calendar month before the month of their survey interview.³ As the top panel of Table 3.1 shows, the estimated average monthly household income in that month was \$1,636 for the program group (including rewards payments) and \$1,498 for the control group, representing a statistically significant gain of \$138 — or about a 9 percent increase relative to the control group members' income. On average, families in the program group earned an additional \$184 each month in reward payments in the year before the interview. If reward payments are excluded, the average monthly household income at the time of the interview was similar for the two study groups.

The next several rows present the distribution of income relative to the federal poverty line.⁴ The table shows the distribution of this poverty measure across four levels, including “severe poverty,” which is defined as income below 50 percent of the poverty threshold. The estimate, which includes reward payments in the calculation of average household income, indicates that Family Rewards 2.0 altered the distribution of families across the different levels of poverty, in particular reducing the proportion of households in severe poverty and increasing the proportion with income at or above 130 percent of the federal poverty threshold. While 33.7

²As a sensitivity test, standard errors for impact estimates for the primary outcomes were adjusted for multiple hypothesis testing. Appendix E (available on the MDRC website at www.mdrc.org) presents the results, which are generally similar to those presented in the main report.

³Respondents were instructed to exclude tax refunds and program reward payments, and to include income from all other sources such as their job(s), jobs of other household members, food stamps, child support, TANF, Supplemental Security Income, and unemployment insurance, among other sources, for everyone living together in the household. They were also asked to exclude EITC payments because of the difficulty of converting them into a monthly amount. The research team combined the reported sources of income and used them to calculate household income and poverty relative to the federal poverty threshold, using the 2013 or 2014 poverty guidelines, depending on when a respondent was interviewed. Given the particular definition, readers should be cautious comparing the poverty estimates presented here with estimates from other published sources.

⁴The research team estimated annual household income based on the one-month household income snapshot gathered at the time of the survey interview.

Table 3.1
Impacts on Income and Income Sources

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income and poverty</u>				
Average total household income in month prior to interview (excluding Family Rewards payments) ^a (\$)	1,452	1,497	-45	0.332
<i>Average monthly Family Rewards payments received during Year 2 (\$)</i>	184			
Average total household income in month prior to interview (including Family Rewards payments) ^a (\$)	1,636	1,498	138 ***	0.004
Household income at or below the federal poverty level (including rewards) ^{a,b} (%)	73.5	78.3	-4.8 **	0.012
Total household income in prior year as a percentage of the federal poverty level (including rewards) ^{a,b} (%)				
Less than 50%	26.6	33.7	-7.1 ***	0.001
50% to 100%	46.9	44.6	2.3	0.313
101% to 129%	14.1	13.2	1.0	0.539
130% or more	12.3	8.5	3.8 ***	0.006
<u>Income sources (%)</u>				
Household income source in month prior to interview				
Respondent's earnings	60.0	60.5	-0.5	0.794
Other household members' earnings	23.6	23.6	0.0	0.996
Food stamps	82.5	81.7	0.8	0.632
Child support	25.0	22.7	2.3	0.210
Temporary Assistance for Needy Families (TANF) or other cash assistance	7.4	8.2	-0.8	0.515
Unemployment insurance	4.7	5.7	-1.0	0.311
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	11.5	10.7	0.9	0.538
Heating or cooling assistance	7.4	5.8	1.6	0.153
Free or reduced-price school lunch	75.8	71.6	4.2 **	0.033
Supplemental Security Income or Social Security				
Disability Insurance	32.4	29.9	2.5	0.199
Other	4.6	4.2	0.4	0.655
Sample size (total = 2,016)	1,025	991		

(continued)

Table 3.1 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Italics indicate outcomes calculated for a subset of the full sample.

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying the respondent's income in the month prior to the survey interview by 12. For program group members, it includes Family Rewards payments earned during program Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2013 or 2014 Poverty Guidelines, depending on when a respondent was interviewed.

percent of control group members' income fell in the severe poverty category, only 26.6 percent of the program group members' income fell in that category, representing a statistically significant drop of 7.1 percentage points. Similarly, 8.5 percent of the control group members earned an income at or above 130 percent of the federal poverty threshold compared with 12.3 percent of the program group, a statistically significant gain of 3.8 percentage points. This type of effect on poverty reduction is generally expected in programs that offer cash transfers and was expected in Family Rewards 2.0. Despite being offering fewer opportunities to earn rewards than participants in the original program, the majority of families in Family Rewards 2.0 earned cash transfers, and the total annual payments per family averaged around \$2,300 during the second year of the program. Overall, the effect on poverty reduction observed in Family Rewards 2.0 is consistent with, although smaller than, the effect seen in Family Rewards 1.0.⁵

The 24-month survey also asked respondents whether they had received income or benefits in the prior month from a variety of sources, including job earnings, government benefits, and child support. Program and control group members reported similar income sources and there was no evidence that the program increased or decreased the likelihood of receiving income from particular sources.

In addition to self-reported income sources, the research team examined administrative records data to estimate the program's effects on benefits that participants received from TANF,

⁵Riccio et. al (2013).

food stamps, and Safety Net Assistance (SNA) programs in New York City. Rewards payments were not counted as income or assets when determining eligibility for these benefits.⁶ Thus, the program would have only affected benefit receipt if it had encouraged participants to move into employment or earn higher wages. As shown in Appendix Table C.1, Family Rewards 2.0 overall had no effect on TANF or SNA benefit receipt — on either the likelihood of receiving payments or the average dollar amount received.⁷ Similarly, program and control group members were equally likely to receive SNAP benefits, but program group members received higher SNAP payments than their control group counterparts, especially in Year 1 of follow-up — a statistically significant difference of \$276. Appendix Table C.2 presents these results by site, showing that the effects on SNAP receipt were concentrated in Memphis. These effects might be related to the reduction in work also observed in Memphis (described in Chapter 7).

Impacts on Banking and Financial Services

Family Rewards 2.0 made payments electronically to families who earned rewards, depositing the money into bank accounts or onto stored value cards. Program staff encouraged families to open low-fee bank accounts in order to take advantage of the direct deposit of rewards, inviting banks that offered no-fee savings accounts to attend orientation sessions and market these accounts directly to families. Many families — almost 59 percent in New York City and 40 percent in Memphis — did not have bank accounts when they entered the study and opted to open these new accounts. Direct deposit to bank accounts provided the program with an efficient mechanism for paying out cash rewards. In addition, linking families to mainstream financial institutions in this way had the potential to spur other positive effects, such as increasing savings and reducing the use of alternative services such as check cashiers or “payday loans,”⁸ often available to low-income households at very high interest rates and in ways that many experts contend mislead and exploit the poor.

Table 3.2 shows that almost 66 percent of the program group reported having a bank account at the time of the 24-month survey, compared with 44.4 percent of the control group respondents,

⁶For the Bronx sample, the SNA program provides assistance to individuals and families who do not qualify for the time-limited federal TANF program. SNA payments may take the form of direct cash aid to beneficiaries or vendor payments (for example, rent payments to landlords) made on the SNA recipients’ behalf.

⁷Recall that self-reported TANF receipt was much lower among Bronx participants than Memphis participants at study entry, even though the administrative data show similar levels of receipt during each year of follow-up for the two cities. These data are not inconsistent but indicate a higher degree of cycling onto and off of TANF rolls for the Bronx sample. This pattern is evident by the fact that quarterly TANF receipt rates were much lower than yearly receipt rates for the Bronx sample.

⁸A payday loan is a loan from a check-cashing outlet or other lending institution that must be repaid by the next payday. Payday loans are illegal in New York, but may be available through the Internet.

Table 3.2
Impacts on Banking, Savings, and Debt

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Use of banking/financial services (%)</u>				
Currently has any bank account	65.5	44.4	21.1 ***	0.000
Currently has checking account	44.2	35.2	9.0 ***	0.000
Financial transactions at least once a month				
Cash check at check casher	18.4	22.8	-4.4 **	0.017
Pay bill at check casher	26.3	27.6	-1.3	0.496
<u>Family savings and debt</u>				
Average savings (\$)	145	82	63 **	0.012
\$0 (%)	79.5	88.0	-8.5 ***	0.000
Any (%)	20.5	12.0	8.5 ***	0.000
\$1 to \$250	7.9	4.9	3.0 ***	0.007
\$251 to \$500	4.3	2.1	2.2 ***	0.006
More than \$500	6.2	3.5	2.7 ***	0.006
Average debt (\$)	7,308	7,012	295	0.636
\$0 (%)	43.6	41.5	2.1	0.344
\$1 to \$1,000 (%)	8.6	7.2	1.4	0.250
\$1,001 to \$5,000 (%)	18.0	18.1	-0.1	0.971
\$5,001 to \$15,000 (%)	14.8	20.0	-5.2 ***	0.003
More than \$15,000 (%)	14.2	11.9	2.3	0.133
Sample size (total = 2,016)	1,025	991		

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

a statistically significant difference of 21.1 percentage points. As noted in Chapter 2, more than 96 percent of families in the program group earned a reward in Year 2 and received payments through direct deposit to their bank accounts (since a very small fraction of participants opted to receive these payments via stored value cards). It is possible that some enrolled families had bank accounts that closed from time to time or changed their bank accounts during the study period, so that at any given moment a portion of the participants may have not had a functional

bank account.⁹ Program group members were also more likely (by 9 percentage points) to report having a checking account than control group members. Family Rewards 2.0 thus clearly generated a net increase in participants' connectedness to mainstream banking institutions.

Fewer program group members reported having used a check casher to cash a check in the month before the 24-month survey (18.4 percent of the program group compared with 22.8 percent of the control group), a statistically significant difference of 4.4 percentage points. As noted above, Family Rewards 2.0 had a positive effect on linking families to mainstream financial institutions, which may have reduced their reliance on high-cost financial transactions through check cashers.

Savings and Debt

Families could use the cash rewards offered through Family Rewards 2.0 as they pleased — in other words, the program did not place any restrictions on how these payments should be spent. The program designers believed that imposing restrictions (such as limiting the use of rewards for education, training, or home ownership, as some asset-building programs do, or for any other particular purpose) would have reduced the rewards' real incentive value. Consequently, an important question is whether, without such restrictions, the families used the additional income from the program to build their financial security. Previous studies suggest that resources received in large, lump sums, rather than in smaller, more regular payments, are more likely to be saved, used to pay down debt, or invested in human capital.¹⁰

At the 24-month point, about 21 percent of the program group reported having some family savings, compared with 12 percent of the control group, a statistically significant difference of 8.5 percentage points. The program also increased average savings. Program group members reported \$145 in average savings, compared with \$82 by the control group, a difference of \$63.¹¹

While the 24-month survey asked respondents if they or their spouses or partners had any money or savings, it was unclear whether the substantial earnings by student participants were contributing to family savings. Nonetheless, the in-depth qualitative interviews suggest that parents actively encouraged their children to save. One respondent, for example, said, “[y]ou know, my children need to save money, instead of spending it in one day. Save money, all

⁹A similar pattern was observed in Family Rewards 1.0.

¹⁰Chamber and Spencer (2008); Smeeding, Phillips, and O'Connor (2000).

¹¹The averages are for full program and control group samples, respectively, not just for those study group members with any savings. The impact on enrolled families' savings early in the study period was higher in Family Rewards 1.0 (\$221), but the families in that program were offered and earned more rewards.

right? Put \$5.00, leave \$5.00 in there, as much as you can. And then you'll see it, like June comes, let's see how much you saved up between now and June.”

Related to the broader question of how families used the cash rewards is the question of whether the additional money was used to pay off debt. Exploring this potential effect in Family Rewards 2.0, the 24-month survey asked respondents to indicate whether they had any debt and, if they had, the amount owed.¹² Table 3.2 shows that both study groups reported relatively high amounts of family debt, with no difference on average (\$7,308 for the program group versus \$7,012 for the control group).

Across the range of indicators that this report examines, it appears that Family Rewards 2.0 had a positive impact on families' financial security. Families in the program group were more likely to maintain bank accounts and have savings. Given that both groups reported similar levels of debt, despite the program's modest effect on savings, it is possible that families used much of their extra earnings — and potential savings — to address immediate household needs, hardships, and help improve their quality of life. The next section examines these issues.

Impacts on Material Hardship and Well-Being

An important question about Family Rewards 2.0 is whether the program's cash transfers and positive effects on household income translated into reduced hardship and improved well-being. This section examines a range of indicators that are likely to be affected by changes in household income. Given that families in Family Rewards 2.0 were offered and earned smaller amounts of money from rewards than families in the original program, and given that a significant portion of the rewards were earned by students, it is an open question whether the program led to notable effects on material well-being.

Unfortunately, there is neither a common definition of material well-being, nor is there a standard approach to its measurement. Most efforts to measure this concept include scales or indicators of various dimensions of need — or hardships — across domains such as housing and utilities, financial strain, and unmet needs. Drawing on a comprehensive set of measures, the 24-month survey examined how families were faring at the time of the interview or in the recent past.

¹²The survey questions on savings and debt were largely framed around family finances, and it is likely that respondents were reporting debt accumulated by the family rather than simply the respondents' personal debt.

The top panel of Table 3.3 focuses on housing- and utilities-related hardships that families experienced in the 12 months before the time of the survey. Family Rewards 2.0 had little effect on any of the measures used to capture housing-related hardships. Both study groups reported similar experiences with regard to the housing-related hardships that the survey measured — for example, not paying their full rent or mortgage or being evicted for not paying their rent or mortgage.¹³

Related to hardship, the survey asked respondents a series of questions related to unmet needs. Large numbers of program and control group respondents responded affirmatively to the question of whether they ever did not have enough money to buy food sometime in the past 12 months: 43.3 percent of the program group reported this hardship, compared with 47.3 percent of the control group, a statistically significant 4 percentage point reduction in this hardship for program group families. No notable differences were seen on measures of unmet health care needs, such as being unable to receive needed medical care because of cost or being unable to fill prescriptions for the same reason. As described later in this report, health coverage rates were very high for the study sample, which may have assured families' access to needed health care.

To assess respondents' perceived financial circumstances more broadly, the survey asked respondents to compare their current financial situation with what it had been a year before on a financial strain scale. Exactly 60 percent of the program group reported that their current financial situation was better than it had been the year before, compared with 51.7 percent of the control group, a statistically significant increase of 8.3 percentage points. Program group members also scored higher on a financial well-being scale than did control group members (9.3 points versus 9.1 points), indicating they had a more positive view of their financial well-being. The reader should keep in mind that the survey was conducted during Year 2, when program group families were still earning cash rewards.

The final set of measures shown in Table 3.3 captures three dimensions of psychological well-being: belief in one's ability to initiate and sustain action,¹⁴ perceived life satisfaction,

¹³On a more technical note, the survey captured the absolute presence or absence of a set of material hardships in a 12-month period and did not ask about the frequency or intensity of the hardships experienced, which the cash rewards may have affected.

¹⁴The research team used the State of Hope scale to measure “agency,” or whether or not a person feels motivated to initiate and sustain action (for example, goal-directed thinking). The team took the listed items from Snyder et al. (1996). The Hope Scale scores correlate positively with measures of dispositional optimism, self-esteem, and problem-solving ability, and correlate negatively with measures of depression and hopelessness.

Table 3.3**Impacts on Material Hardship, Financial Strain, and Psychosocial Well-Being**

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
Any housing/utilities material hardship in the past 12 months (%)	64.4	64.1	0.3	0.879	
Did not pay full rent or mortgage	41.4	42.0	-0.6	0.791	
Evicted from home for not paying rent or mortgage	5.5	5.4	0.2	0.864	
Did not pay full utility bill ^a	42.6	42.9	-0.3	0.876	
Utility was turned off ^a	13.3	11.8	1.5	0.293	
Phone service was disconnected ^b	22.0	23.6	-1.6	0.400	
Food security (1 = high; 4 = low) ^c	3.2	3.2	0.0	0.495	0.030
Insufficient food ^d (%)	25.4	26.7	-1.3	0.497	
Strongly or somewhat agree with the following (%)					
Financial situation is better than last year	60.0	51.7	8.3 ***	0.000	
Do not worry about having enough money in future	20.7	23.3	-2.6	0.160	
Can generally afford to buy needed things	70.9	66.2	4.7 **	0.023	
Sometimes have enough money to buy something or go somewhere just for fun	30.8	31.7	-0.9	0.665	
Financial well-being (4 = low; 16 = high) ^e	9.3	9.1	0.2 **	0.021	0.103
Did not have enough money to buy food sometime in the past 12 months (%)	43.3	47.3	-4.0 *	0.074	
Did not get needed medical care because of cost in past 12 months ^f (%)	11.1	11.1	-0.1	0.974	
Did not fill prescription because of cost in past 12 months (%)	18.5	19.5	-1.0	0.573	
Psychosocial well-being					
Average score on "State of Hope" scale (6 = low; 24 = high) ^g	17.8	17.6	0.2 **	0.042	0.090
How life today compares to way it was a year ago (%)					
Much or somewhat better	66.4	58.3	8.2 ***	0.000	
Level of happiness ^h (%)					
Very or pretty happy	76.2	72.2	4.0 **	0.037	
Sample size (total = 2,016)	1,025	991			

(continued)

Table 3.3 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

^aUtilities include gas, oil, and electricity.

^bThis outcome includes cellular or land service.

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

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

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

^fThis outcome excludes prescriptions.

^gThe "State of Hope" scale measures the level of ongoing goal-directed thinking. The response codes (1 to 4) of the six items for each person are summed, with lower values representing less goal-directed thinking and higher values representing more. The scale was taken from Snyder et al. (1996).

^hHappiness is measured using the U.S. General Social Survey question: "Taken all together, how would you say things are these days — would you say that you are very happy, pretty happy, or not too happy."

and a global level of happiness.¹⁵ It is possible that programs that involve regular cash transfers can reduce stress and bring about improvements in individual emotional and psychological well-being. There is well-established literature supporting a positive correlation between life-satisfaction measures and income, and one theme in the literature on happiness is the idea that life satisfaction may depend on relative rather than absolute income.¹⁶

The data show consistently positive effects on all three measures of psychosocial well-being. Program group members rated themselves higher on the State of Hope scale, were more likely to report that life was better than a year ago, and were also more likely to rate themselves as being pretty happy. Although Family Rewards 2.0 increased household income, the impacts were modest (a gain of \$138, or 9.2 percent), and despite the income gains, program and control group participants experienced similar levels of material hardship — in other words, the cash transfers allowed for some minor reductions in hardship, but did not lead to notable changes in material well-being.

¹⁵The 24-month survey used the same item that has been used on the U.S. General Social Survey.

¹⁶Lachowska (2015).

In what ways could Family Rewards 2.0 have made study participants feel happier and better about themselves? In-depth interviews conducted with a small number of program group families offer a few insights into the lives of study participants and the direct and indirect ways in which the cash transfers could have had an impact on their sense of well-being.¹⁷

At the most basic level, families enrolled in Family Rewards 2.0 felt supported in the program and viewed their advisors as a core source of support in their sometimes unpredictable lives. As one participant stated:

They're not there physically to help you, but...emotionally, they are. Yeah, and if you do need them, they're a phone call away. You understand? Like I said, and it helps me and I just love it and the people that work here that I work with is great. Every time I call, it's a great feeling. You can feel comfortable talking with them.

The in-depth interviews also revealed a perspective common among participants that the program — with its incentives — functioned as an important parenting tool, something that motivated their children to work harder and do better at school. As children performed better in school, parents may have experienced some relief and reduced stress as they had one less parenting concern. As one participant put it:

Oh hell yeah. They got him up and out of the house to school. That's my reward. But his grades improved, his attendance has improved and he's actually opening up books. The first day of high school, [I said] "where's your books?" He's like, "Oh, I leave them at school." "So how you supposed to study?" That's my reward. I don't care about the cash or anything. My reward is that my son improved in his grades and so forth, so on.

The extra money families earned from rewards allowed parents to spend more freely on themselves and their children, as they wished. The program designers had hoped that families would use the extra money in ways that align with program goals. Drawing on the 24-month survey, Table 3.4 presents parents' accounts of how they used the cash rewards they earned. Parents most commonly used the rewards they earned to cover regular expenses (such as rent, food, and utilities) and to purchase consumer goods or special treats for the family (such as eating out). With respect to the rewards that students earned, most parents reported that they used those earnings to buy little extras (such as eating out, going to a movie, or buying clothes) and student-focused investments, and not for household expenses such as rent and utilities (although about a fourth of the parents also acknowledged that they used the education rewards to help cover basic expenses). Based on their responses, it appears that parents tried to balance

¹⁷These insights are suggestive and are not meant to explain causal links.

Table 3.4
How Families Used Rewards, Parent Survey Responses
24 Months After Random Assignment

	Parent Bank Account	Child Bank Account
Use Family Rewards Payments (%)		
Help pay for regular expenses, such as rent, utilities, or food	65.6	23.8
Pay off bills, such as credit cards or medical bills	29.8	5.8
Make a major purchase, such as a house, major appliance, or car	7.9	2.4
Save for some future need, such as college tuition or retirement	15.0	23.3
Pay for health care, dental care, or health insurance	8.2	3.2
Pay for things to help children in school, such as special lessons or private schools	19.9	16.2
Pay for a few extras, such as eating out, going to a movie, or buying electronics or clothes	44.4	71.0
Help other family members or friends with expenses	6.6	5.5
Pay for college tuition or other costs for training	8.1	8.2
Sample size		1,025

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: This table excludes control group members because it pertains only to the Family Rewards program.

Sample sizes may vary because of missing values.

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

their responsibility to provide for the basic needs of their family with a desire to celebrate their achievements. For many families, this celebration took the form of a family activity such going on a trip or to a movie that would have otherwise been prohibitively expensive, especially for a large family with limited means.

Thus, across different measures, the cash rewards themselves and the supportive relationships with advisors, may have moderated and alleviated some of the stress that low-income parents commonly experience, which may have been reflected in participants' improved sense of well-being.

Conclusion

This chapter examined Family Rewards 2.0's short-term effects on household poverty and well-being. For the most part, the results support a CCT program's hypothesized effects. During the period in which enrolled families supplemented their household income with reward payments, the program produced modest gains in household income; reduced the proportion of families who were living in poverty, including severe poverty; increased the proportion of families with

household savings, and reduced reports of financial strain. It also consistently produced positive effects on multiple dimensions of perceived well-being. There is less evidence, however, that the program reduced more extreme types of hardship measured in this study, which may have required more sizeable cash transfers. Finally, the research team examined variation in impacts across a range of baseline characteristics, including poverty status at random assignment. As Chapter 7 will show, effects on income and poverty were fairly consistent across several types of families.

It is important to recall that, unlike Family Rewards 1.0, Family Rewards 2.0 targeted families receiving TANF and food stamps. This iteration of Family Rewards also offered fewer benefits (8 instead of 22), which meant the total amount that families in the program could have earned was less than the amount that families enrolled in its predecessor could have earned. However, Family Rewards 2.0 offered rewards monthly, potentially making the cash transfers more salient to families' monthly budgets and material well-being. One other design modification relevant to understanding the program's potential to affect material well-being was that the education rewards earned and paid directly to students made up a significant portion of total family earnings but were not always used toward meeting basic household needs.

Despite several important design modifications, the findings from the Family Rewards 2.0 evaluation presented in this report are largely consistent with those from Family Rewards 1.0. For example, in the short term, both interventions improved enrolled families' economic and financial well-being, reduced poverty, linked families to mainstream banking institutions, and increased average family savings. One notable difference is that unlike in Family Rewards 1.0 there was no evidence from the 24-month survey that families in Family Rewards 2.0 experienced less housing-related hardship. While the extra income from the rewards helped families in both programs improve their material well-being, Family Rewards 2.0 was less likely than Family Reward 1.0 to affect more extreme types of hardships, perhaps because families in Family Rewards 2.0 earned less than their counterparts in Family Rewards 1.0.

Chapter 4

Impacts on Education

Family Rewards aimed to improve students' school outcomes by providing students with incentives for meeting important milestones, including good grades, high attendance, and passing high school exit exams. The original program (Family Rewards 1.0) improved school performance and graduation rates for academically proficient ninth-graders. The new program (Family Rewards 2.0) targeted families with children entering ninth or tenth grade and was modified in the hopes that the changes would allow it to have effects on all students, even those struggling academically.¹ This chapter presents findings over four years on students' progress in school, for the full sample of ninth- and tenth-graders and for subgroups defined by academic proficiency. In sum, the findings show that Family Rewards 2.0 had few lasting effects on students' school outcomes, either for the full sample of students or for the more academically proficient subgroup.

The Education Rewards

Students could earn education rewards through four activities. First, they could receive \$40 per month for maintaining high attendance, defined as 95 percent or higher. Second, they could earn \$50 for taking college entrance exams, either the SAT or the ACT. In Memphis, students routinely take the ACT as part of school district policy. Thus, students earned the rewards for scoring above a minimum threshold.² Third, students could earn money for passing grades on report cards, with \$10 for each C, \$20 for each B, and \$30 for each A. Finally, students could earn substantial rewards for taking and passing high school exit exams. In the Bronx, students could earn \$500 for a score of 75 or higher (or \$400 for a score between 65 and 74) on each of the five New York State Regents exams required to graduate.³ In Memphis, they could earn \$300 for passing each of the seven End-of-Course exams administered by the school district.

Family Rewards 2.0 differed from Family Rewards 1.0 in several ways. First, as mentioned in Chapter 1, it offered fewer rewards in an effort to streamline the program and make it simpler for families to understand. In the case of education rewards, Family Rewards 2.0 did not include rewards for credits earned, for example, for graduation, or for parents to attend parent-

¹The program targeted entering ninth- or tenth-graders since they would have at least three years of exposure to the rewards.

²If they took the exam independently of the school system, any score was rewarded.

³Students are only required to pass these exams with a score of at least 65 in order to graduate. However, achieving a score of 75 or higher will exempt students from remediation at many New York colleges and is used as an admissions cutoff by some universities.

teacher conferences. Second, it structured the rewards in such a way as to make them more salient to families and children, by paying out benefits monthly rather than every two months, and by offering students rewards for grades on report cards. The program designers hoped that the rewards for grades, in particular, would be more salient and present in the minds of students as they attended and performed in class from week to week. The program also paid all of the rewards directly to students' accounts, whereas some education rewards students earned in Family Rewards 1.0 were paid to parents' accounts. During the first year, students had to visit an advisor in order to receive the grade rewards, which meant more interaction with the program.⁴ In contrast, the rewards for high school exit exams were paid automatically and did not require a meeting with an advisor. While still important, these automatic and nonrecurring rewards were forgotten by many students in Family Rewards 1.0 during the course of the year. Finally, although not specific to the education domain, a big change from the original model was the more active guidance provided to families. If a child was struggling to improve school performance, the advisor was expected to work with the family to refer the student to tutoring or other relevant services.

As described in Chapter 2, each enrolled family earned about \$1,200 in Year 2 from the education rewards, representing just over 50 percent of the total amount earned from all three domains. Over 90 percent of families earned at least one education reward, with the highest receipt rates for high attendance and report card grades of C or higher.

Summary of Impacts on School Progress

This section presents impacts for ninth- and tenth-grade students in Memphis and the Bronx combined. (As shown in Chapter 7, the findings are generally similar across both cities.) In addition, it presents impacts for ninth-graders only, in order to compare the findings more directly to those from Family Rewards 1.0. The research team obtained data on key education outcomes from administrative records provided by the New York City Department of Education (DOE) and the Memphis City Schools. These data were available for all students in the study for roughly one year before study entry, or school year 2010-2011, and for four years after study entry, or for school years 2011-2012 through 2014-2015. As noted in Chapter 1, the follow-up years do not correspond exactly to post-enrollment years, since some families entered the study well into the first school year. For example, over 30 percent of families entered the study in January or February 2012, meaning that their children could not have responded to the rewards

⁴The mandate to meet with an advisor for every report card review was lifted in Year 2, in response to difficulties students faced in getting to the NPOs. However, as noted in Chapter 2, NPOs in the Bronx thought that these face-to-face meetings were important and did not announce that this requirement was dropped in Year 2.

until the second half of that school year. Thus, the second and third school years provide a more complete account of the program's effects within a given year.

The DOE and Memphis City Schools data include enrollment status, attendance rates, credits earned, and performance on Regents exams (in the Bronx) and End-of-Course exams (in Memphis). These data do not provide information for students attending parochial schools, private schools, or schools outside of New York City or Memphis, but the survey data indicate that few students in the sample (about 5 percent) attended these other types of schools. The survey provides information on intermediate outcomes, such as parental effort (parents' interaction with their children and their children's teachers), children's engagement in extracurricular activities, and parents' ratings of their children's school performance.

In sum, Family Rewards 2.0 had few effects on important markers of school progress through Year 4. The research team examined several outcomes, all of which are predictive of high school graduation, including whether students were "on grade" in a given year, or in the grade they should have been if they had progressed each year, attendance rates, credits earned, and the number of high school exams passed. The program did not have effects on these outcomes for the full sample of entering ninth- and tenth-graders, or for the subset of students who were more academically prepared. (Recall that the main effects of Family Rewards 1.0 were for proficient ninth-graders.) When the analysis focused only on entering ninth-graders, there were small, positive effects observed on attendance and credits earned. However, these effects did not persist and did not lead to increased enrollment rates or graduation rates. The next sections present effects on these main outcomes and several secondary outcomes.

Impacts on Attendance, Credits, and High School Exams

Table 4.1 presents effects on several outcomes for students who entered the study as ninth- or tenth-graders. All of the outcomes, with the exception of graduation, cover three years, since many entering tenth-graders would not have been in school during Year 4. Graduation, in contrast, was measured through Year 4, capturing entering tenth-graders who took an extra year to finish school.

The first panel presents enrollment status. Data for the control group show that 78 percent of entering ninth- and tenth-graders were on grade in Year 3. Of those students not on grade (22 percent), most were still in school but in a lower grade (12 percent). The remaining 10 percent were no longer enrolled in either a Memphis or New York City public school. Survey data indicate that most of these students were attending other schools and had not dropped out. Family Rewards had no effects on these measures of school progress. Similarly, the program had no effect on graduation rates, as shown in the second panel.

Table 4.1
Impacts on Enrollment, Graduation, Attendance, Credits,
and Regents or End-of-Course Exams for Students in Grades 9 and 10
at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment, Year 3 (%)</u>				
On grade	79.4	78.2	1.2	0.456
Not on grade	11.7	11.8	-0.1	0.908
Not enrolled	8.9	9.9	-1.0	0.368
<u>Graduation (%)</u>				
Graduated on time	63.4	63.1	0.3	0.855
Graduated by Year 4 ^a	66.1	66.1	0.0	0.995
<u>Attendance^b (%)</u>				
Attendance rate, Year 1	86.9	87.4	-0.4	0.578
Attendance rate, Year 2	82.5	80.5	2.0 *	0.057
Attendance rate, Year 3	77.5	75.8	1.7	0.162
Attendance rate is 95% or higher, Year 1	44.3	43.5	0.8	0.685
Attendance rate is 95% or higher, Year 2	36.8	35.9	0.9	0.645
Attendance rate is 95% or higher, Year 3	28.9	29.1	-0.2	0.910
<u>Credits^c</u>				
Number of credits earned, Year 1	10.9	11.0	-0.1	0.704
Number of credits earned, Year 2	10.0	9.9	0.1	0.568
Number of credits earned, Year 3	9.1	8.9	0.2	0.415
Number of credits earned, Years 1 to 3	30.1	29.9	0.2	0.651
Earned adequate credits, Years 1 to 3 (%)	55.4	55.0	0.4	0.833
<u>Regents or End-of-Course exams^{a,c}</u>				
State core exams taken, Years 1 to 3	6.4	6.3	0.1	0.344
State core exams passed, Years 1 to 3	2.7	2.7	0.0	0.716
Sample size (total = 2,676)	1,343	1,333		

(continued)

Table 4.1 (continued)

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aStudents enrolled in tenth grade at the time of random assignment had five years to complete graduation in this measure. Students enrolled in ninth grade at the time of random assignment had four years.

^bAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^cStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

The third panel presents data on attendance. The program had no overall effect on attendance, with the exception of a small, positive impact on the attendance rate in Year 2. A minority of control group students had high attendance in any given year — only 36 percent in Year 2 and 29 percent in Year 3. As noted in the table, all outcomes shown include zero values for students who were no longer enrolled in school.

Although rewarded by the program, a high attendance rate may not give an accurate picture of students' attendance. Chronic absenteeism, for example, is typically defined as less than 90 percent attendance. Only 66 percent of students in both research groups attended 90 percent of school days in Year 1, indicating that just over a third of students were chronically absent (not reported in table). The program had no effect on the high attendance rate (as shown in Table 4.1) or on attendance of 90 percent or higher (not shown).

The fourth panel in Table 4.1 presents data on credits earned during the year — the average credits students earned and whether the student passed an adequate number of credits

to stay on track for graduation. A student passing adequate classes to stay on track would earn 11 credits per year in the Bronx and 5.5 credits in Memphis. To standardize the analysis, the research team multiplied the data on credits by two for Memphis students. The data show that although 78 percent of students were on grade in Year 3, only 55 percent of them were on track in terms of credits earned. By rewarding higher grades and attendance, Family Rewards 2.0 might have affected credits earned. However, there are no impacts on either average or on-track credits.

The final panel presents data on high school exit exams, or Regents exams in New York and End-of-Course exams in Tennessee. Students in New York must take and pass at least five Regents exams covering different subject areas (for example, math, English, science, and history) in order to graduate with a Regents diploma. They must take them before graduation, although most students take one or two each year of high school. Students in Memphis must take End-of-Course exams associated with each of seven core courses. Students typically take them after having completed the relevant course. Although it is possible to pass the course without passing the End-of-Course exam, the exam accounts for a large fraction of the final course grade. The data show that students on average had taken about six exams on average during the study period and had passed about three exams. Family Rewards 2.0 had no effect on the rate of taking or passing these exams.

Although Family Rewards 2.0 rewarded grades, with a tiered reward structure for grades of A, B, and C, the impact analysis did not examine the effects on grades for two reasons. First, although it was reasonable to expect that the program might encourage some students to improve their grades, which should translate into earning more credits, grades by themselves are ultimately not crucial measures of students' progress toward graduation. More predictive outcomes are attendance, credits earned, and grade progression. Second, using grades to calculate an overall grade point average might have provided a noisy picture of student progress, since it would have required making many assumptions about which course grades should contribute to this average and how much they should contribute.

Table 4.2 presents Family Rewards 2.0's effects on entering ninth-graders over four years. It displays impacts separately for this group, to match the analysis for Family Rewards 1.0. In addition, although it is not obvious that the program's effects would differ between ninth- and tenth-graders, ninth grade is an important transition year into high school, and these students might have been more responsive to the rewards. The findings show that the program led to small improvements in attendance and credits earned for the ninth-grade sample. Although encouraging, these effects were small and did not lead to effects on enrollment or graduation. Just over 60 percent of ninth-graders in the program group had graduated within four years, with a similar rate for ninth-graders in the control group.

Table 4.2
Impacts on Enrollment, Graduation, Attendance, Credits,
and Regents or End-of-Course Exams for Students in Grade 9
at the Time of Random Assignment

Grade Level and Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment and Graduation, Year 4 (%)</u>				
On grade	71.4	69.7	1.7	0.482
Not on grade	10.4	10.4	0.0	0.990
Not enrolled	18.2	19.9	-1.7	0.408
Graduated on time	61.7	60.7	1.0	0.701
<u>Attendance^a (%)</u>				
Attendance rate, Year 1	86.7	86.8	-0.1	0.921
Attendance rate, Year 2	82.4	79.7	2.7 **	0.041
Attendance rate, Year 3	79.2	76.1	3.1 **	0.040
Attendance rate, Year 4	61.8	58.8	3.0	0.160
Attendance rate is 95% or higher, Year 1	45.0	43.1	1.9	0.464
Attendance rate is 95% or higher, Year 2	37.0	34.9	2.1	0.409
Attendance rate is 95% or higher, Year 3	33.0	32.9	0.1	0.968
Attendance rate is 95% or higher, Year 4	17.4	17.7	-0.4	0.854
<u>Credits^b</u>				
Number of credits earned, Year 1	10.8	10.7	0.1	0.763
Number of credits earned, Year 2	10.2	9.7	0.5 *	0.071
Number of credits earned, Year 3	9.5	8.9	0.6 **	0.044
Number of credits earned, Year 4	8.6	8.3	0.3	0.279
Number of credits earned, Years 1 to 4	39.1	37.6	1.5 *	0.094
Earned adequate credits, Years 1 to 4 (%)	54.0	53.1	0.9	0.728
<u>Regents/End-of-Course exams^{c,d} (%)</u>				
State core exams taken, Years 1 to 4	7.6	7.2	0.4 *	0.098
State core exams passed, Years 1 to 4	3.1	3.1	0.0	0.976
Sample size (total = 1,471)	734	737		

(continued)

Table 4.2 (continued)

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^bStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^cThe Regents exam 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.

^dThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History. The U.S. History exam was not administered for students in Year 4.

Impacts on Parent-Child Interactions and Child Activities

Family Rewards 1.0 had hoped to increase parents' involvement in their children's education through the education rewards in general, as well as through specific rewards for attending parent-teacher meetings and checking test results. The program did lead to small increases in parents' involvement, as reported on surveys. It also led to an increase in engagement in extracurricular activities (such as sports, non-sports lessons, and tutoring) for children in middle school and high school.

Although Family Rewards 2.0 did not reward parental involvement directly, it may have led to increased parent-child interactions about schooling through the general education rewards. Table 4.3 presents the effects on these interactions, using parents' responses in the 24-month survey. Overall, the findings suggest that the program had little effect in this area, given the small number of significant differences and their small size. For example, there are

Table 4.3
Impacts on Parent-Child Interactions and
Focal Child’s Educational Outcomes and Activities,
High School Students

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
<u>Parent-child interactions in past month</u>					
Respondent has done the following (1 = never; 4 = several times per week)					
Talked with child about school	3.7	3.7	0.1 *	0.079	0.081
Helped child with homework	2.4	2.5	0.0	0.459	-0.034
Checked to see child's homework was complete	3.3	3.3	0.0	0.692	0.018
Helped child prepare for test	2.4	2.5	0.0	0.737	-0.016
Respondent discussed child's report card with child during 2012-2013 school year (%)	95.8	93.9	1.9 *	0.070	
<u>Activities since random assignment (%)</u>					
Child has done the following since random assignment					
Participated in educational programs, such as extra classes or tutoring	60.5	60.6	-0.1	0.950	
Enrolled in college exam preparation program	66.1	68.5	-2.4	0.264	
Received special education	15.9	15.2	0.8	0.572	
Prepared for the ACT or SAT	84.9	83.5	1.4	0.418	
Took the ACT or SAT	57.7	62.5	-4.9 **	0.026	
Child participated in any extracurricular activity	87.8	85.7	2.1	0.185	
Program to help with schoolwork, test preparation, or homework	59.0	59.4	-0.5	0.830	
Sports	60.5	57.2	3.3	0.141	
Non-sports lessons	42.2	42.6	-0.4	0.865	
Club or youth group	46.5	41.1	5.4 **	0.018	
Work for pay	25.8	22.6	3.2	0.107	
Sample size (total = 1,881)	976	905			

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: This table presents outcomes only for focal children who were living in the household at the time of the survey and at random assignment.

Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

two significant impacts on parent engagement (talking with children about school and reviewing report cards). However, these effects were small and in addition to fairly high levels of engagement.

The next panel presents effects on various activities, including college-preparatory and extracurricular activities. Family rewards 2.0 had no consistent effect on the five educational activities examined, with the exception of an odd negative difference for taking the ACT or SAT. Similarly, the results suggest little effect on extracurricular activities.

Impacts for Proficient Versus Non-Proficient Students

Although Family Rewards 1.0 had modest effects on ninth-graders overall, its main effects were for the subgroup of ninth-graders who were academically proficient when they entered the study. For students who were proficient in reading (or scored at the proficient level or higher on the English language arts exam), for example, the program led to sizable effects on enrollment, attendance, scores on Regents exams, and, ultimately, graduation. The program's effect on the four-year graduation rate, an 8 percentage point increase, was especially notable and similar in size to other more intensive interventions.⁵ The program designers modified the original model with the hopes that it would continue to affect school progress for proficient students but also begin to improve school outcomes for those students that were doing less well academically.

This section presents effects for students classified by proficiency status at study entry. Using each district's standards, the research team determined proficiency status by students' scores on their eighth-grade standardized English or math tests. In the Bronx, 25 percent of students were determined to be proficient in English and 43 percent were proficient in math.⁶ Among students in Memphis, proficiency rates were 14 percent in English and 7 percent in math.⁷

Table 4.4 presents Family Rewards 2.0's effects for entering ninth- and tenth-graders, by English proficiency test scores. As expected, data for the control groups show that students

⁵ A longer-term analysis found that the program increased the six-year graduation rate for this group by 9.5 percentage points (Riccio and Miller, 2016).

⁶ In Family Rewards 1.0, about 30 percent of entering ninth-graders had scored at the proficient level or higher on the English language arts (ELA) exams and 33 percent were proficient in math.

⁷ The percentage of proficient students enrolled Family Rewards 2.0 was much lower in Memphis, compared with those in the Bronx and compared with the sample in the first program. To compare findings, a separate analysis examined impacts for the students who scored in the top third for the ELA exams, compared with students who scored in the bottom two-thirds. The findings (not shown here) similarly indicate few differences in impacts between the two groups.

Table 4.4

**Impacts on Enrollment, Graduation, Attendance, Credits, and Regents or End-of-Course Exams
for Students in Grades 9 and 10 at the Time of Random Assignment, by English Proficiency Test Score**

Grade Level and Outcome	Proficient on Eighth-Grade ELA Test				Not Proficient on Eighth-Grade ELA Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment, Year 3 (%)</u>								
On grade	89.9	91.8	-2.0	0.446	80.7	78.3	2.4	0.186
Not on grade	7.5	3.3	4.1 **	0.041	12.0	13.5	-1.5	0.331 ††
Not enrolled	2.7	4.8	-2.2	0.223	7.3	8.3	-1.0	0.439
<u>Graduation (%)</u>								
Graduated on time	80.9	79.4	1.4	0.700	62.5	62.0	0.6	0.802
Graduated by Year 4 ^a	81.7	81.9	-0.2	0.966	64.9	65.0	-0.2	0.934
<u>Attendance^b (%)</u>								
Attendance rate, Year 1	90.3	88.4	1.8	0.363	87.2	88.4	-1.2	0.148
Attendance rate, Year 2	88.2	86.5	1.7	0.418	82.7	81.4	1.3	0.256
Attendance rate, Year 3	85.7	83.8	2.0	0.372	78.5	77.0	1.5	0.264
Attendance rate is 95% or higher, Year 1	57.6	54.6	3.0	0.499	42.4	42.8	-0.4	0.866
Attendance rate is 95% or higher, Year 2	49.2	48.5	0.7	0.870	35.4	34.5	0.9	0.699
Attendance rate is 95% or higher, Year 3	37.9	42.3	-4.4	0.309	28.3	27.2	1.1	0.585
<u>Credits^c</u>								
Number of credits earned, Year 1	12.3	12.3	0.0	0.935	10.8	11.0	-0.2	0.458
Number of credits earned, Year 2	11.3	11.4	0.0	0.964	10.0	9.9	0.1	0.799
Number of credits earned, Year 3	10.8	10.6	0.2	0.670	9.2	9.0	0.3	0.302

(continued)

Table 4.4 (continued)

Grade Level and Outcome	Proficient on Eighth-Grade ELA Test				Not Proficient on Eighth-Grade ELA Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
Number of credits earned, Years 1 to 3	34.5	34.3	0.2	0.858	30.0	29.8	0.2	0.762
Earned adequate credits, Years 1 to 3 (%)	71.4	70.7	0.7	0.869	54.3	53.9	0.4	0.876
Regents or End-of-Course exams^{d,e}								
Number of state core exams taken, Years 1 to 3	6.0	6.2	-0.2	0.371	6.7	6.5	0.2	0.276
Number of state core exams passed, Years 1 to 3	4.4	4.7	-0.3 *	0.098	2.4	2.3	0.1	0.473 †
Sample size (total = 2,433)	225	248			1,008	952		

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

NOTES: ELA = English language arts.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aStudents enrolled in tenth grade at the time of random assignment had five years to complete graduation in this measure. Students enrolled in ninth grade at the time of random assignment had four years.

^bAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^cStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

who were proficient on eighth-grade tests had better school outcomes than their less proficient counterparts — 92 percent of proficient students were on-grade in Year 3, for example, compared with 78 percent of non-proficient students. Similarly, proficient students had earned more credits and had passed more high school exams by the end of Year 3. The program, however, had no effects for either group of students.

Table 4.5 presents Family Rewards 2.0's effects for entering ninth-graders only, by English proficiency test scores. The table shows that the program had small, positive effects on attendance and credits earned for the less proficient group. However, these effects were not significantly different from the effects for the proficient students. In addition, the effects by proficiency status are not consistent. When the research team examined the impacts by math proficiency test scores, the results showed a pattern of more positive effects for students proficient in math, although many of the differences were not statistically significant. (See Appendix Tables D.1 and D.2.)

Conclusion

Family Rewards 2.0 had few lasting effects on school progress for the target group of ninth- and tenth-graders. There is some suggestive evidence that ninth-graders may have responded more strongly to the program than tenth-graders, but overall the program still had no effect on their enrollment or graduation rates. The results by proficiency status were not conclusive and the results depended on whether proficiency was defined by reading or math.

This finding stands in contrast to the large, positive findings for proficient ninth-graders in Family Rewards 1.0. Although it is unclear why the new program had no effects, the results suggest that the effects of this type of conditional cash transfer on school progress were not very robust. One potential reason for the different effects is that the samples of proficient students were somewhat different between the two programs. First, in 2010, New York State made several changes to its standardized tests, making the tests more difficult and redefining the cutoff required for proficiency. As a result, the percentage of students in New York City that tested proficient dropped dramatically, meaning that proficient students in Family Rewards 2.0 might have been a more select group. However, additional analysis (not shown) that used a less stringent measure of proficiency found similar results. Second, the Family Rewards 2.0 results were for students from families receiving TANF or SNAP benefits in both Memphis and the Bronx, whereas the earlier findings were just for students in New York City who were eligible for the free lunch program. However, Family Rewards 2.0 similarly produced no effects for proficient students when the sample was restricted to ninth-graders from families living in the Bronx.

Table 4.5

Impacts on Enrollment, Graduation, Attendance, Credits, and Regents or End-of-Course Exams for Students in Grade 9 at the Time of Random Assignment, by English Proficiency Test Score

Grade Level and Outcome	Proficient on Eighth-Grade ELA Test				Not Proficient on Eighth-Grade ELA Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment and Graduation, Year 4 (%)</u>								
On grade	81.4	86.7	-5.3	0.272	70.5	67.7	2.8	0.315
Not on grade	1.5	2.5	-0.9	0.610	12.4	12.4	0.0	0.996
Not enrolled	17.1	10.9	6.2	0.172	17.1	19.9	-2.8	0.230 †
Graduated on time	78.9	83.5	-4.6	0.400	60.0	57.9	2.1	0.476
<u>Attendance^a (%)</u>								
Attendance rate, Year 1	90.0	89.8	0.2	0.944	86.8	87.2	-0.4	0.699
Attendance rate, Year 2	87.9	86.2	1.7	0.590	82.6	79.9	2.7 *	0.070
Attendance rate, Year 3	86.7	85.3	1.4	0.637	79.3	75.9	3.4 *	0.051
Attendance rate, Year 4	70.6	70.0	0.6	0.902	60.9	57.4	3.5	0.153
Attendance rate is 95% or higher, Year 1	54.9	56.7	-1.9	0.759	43.9	41.2	2.7	0.353
Attendance rate is 95% or higher, Year 2	50.9	47.3	3.6	0.576	35.3	33.1	2.2	0.433
Attendance rate is 95% or higher, Year 3	42.8	49.1	-6.2	0.322	32.3	29.5	2.8	0.296
Attendance rate is 95% or higher, Year 4	23.0	23.9	-0.9	0.877	17.1	16.7	0.4	0.873
<u>Credits^b</u>								
Number of credits earned, Year 1	12.3	12.5	-0.2	0.792	10.5	10.4	0.1	0.698
Number of credits earned, Year 2	11.4	11.5	-0.1	0.942	10.1	9.5	0.6 *	0.062
Number of credits earned, Year 3	10.8	11.5	-0.7	0.309	9.4	8.6	0.8 **	0.016 ††
Number of credits earned, Year 4	9.8	10.2	-0.4	0.606	8.6	8.2	0.4	0.238

(continued)

Table 4.5 (continued)

Grade Level and Outcome	Proficient on Eighth-Grade ELA Test				Not Proficient on Eighth-Grade ELA Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
Number of credits earned, Years 1 to 4	44.3	45.6	-1.3	0.576	38.7	36.7	2.0 *	0.059
Earned adequate credits, Years 1 to 4 (%)	68.0	74.9	-6.9	0.246	52.9	50.1	2.8	0.347
<u>Regents or End-of-Course exams</u>^{c,d}								
Number of state core exams taken, Years 1 to 4	6.8	6.8	0.0	0.995	7.9	7.5	0.4	0.120
Number of state core exams passed, Years 1 to 4	5.2	5.2	0.0	0.981	2.7	2.7	0.1	0.703
Sample size (total = 1,391)	115	132			588	556		

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

NOTES: ELA = English language arts.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^bStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^cThe Regents exam 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.

^dThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History. The U.S. History exam was not administered for students in Year 4.

Chapter 5

Impacts on Health Care and Health

Conditional cash transfer programs have been an important tool used in low- and middle-income countries to improve low-income families' access to health care and preventive medical services. Historically, these programs have often featured incentives for regular checkups at health clinics, participation in health and nutrition education sessions, and engagement in other preventive health activities such as vaccinations or pre-natal care.¹ Some previous studies using health incentives have had positive effects on the receipt of health care services, as well as on certain health outcomes among poor families.² Family Rewards 2.0 incorporated these findings into its design and adapted incentives to support low-income families in the context of the health care system and public support available in the United States. The program offered rewards to low-income families for preventive medical and dental care visits. This chapter describes the health impacts of Family Rewards 2.0. In sum, the findings show that the program produced some modest effects on outcomes that are generally considered difficult to influence through social interventions.³ However, the program did not produce effects on many other important measures.

The Health Care Rewards

Each family member in Family Rewards 2.0 was eligible to earn \$300 each program year from two different rewards.⁴ Individuals could earn \$100 for completing a non-emergency check-up once per year and \$100 for completing a regular cleaning and dental check-up twice per year. Family Rewards 1.0 offered two additional rewards for maintaining health insurance and for

¹Fernald, Gertler, and Neufeld (2008); Fiszbein, Schady, and Ferreira (2009).

²Giuffrida and Torgerson (1997); Kane, Johnson, Town, and Butler (2004); Volpp et al. (2008); Volpp et al. (2009).

³The literature on the effectiveness, or the relative value, of preventive clinical interventions is vast and inconsistent. In general, the response to preventive clinical interventions is weak. In a systematic review and analysis of recent interventions, insufficient evidence was found to support the effectiveness of a variety of counseling and preventive care practices; see Maciosek et al. (2006). While some evidence suggests that health insurance alone has beneficial effects on life expectancy, these impacts are small or conclusive only for some population groups; see Muennig, Franks, and Gold (2005) and Levy and Meltzer (2008). Recent evaluations of the Oregon Health Experiment found that access to Medicaid increased use of services and improved self-reported health status, but they did not find effects on biomarkers associated with physical health; see Finkelstein et al. (2011). On the other hand, the effects of social interventions, such as improved early childhood education, have demonstrated effective ways of improving later health outcomes; see Belfield and Levin (2007). These interventions require many years to demonstrate effects.

⁴Children under 6 years of age were only eligible for one dental reward per year, making them eligible for \$200 in rewards per year.

physician-advised follow-up visits. These rewards were both discontinued during the third year of that program, and were not included in Family Rewards 2.0. Increasing access to and use of preventive health care was expected to serve two primary functions: (1) to ensure that participants received regular medical attention, which can prevent the escalation of health problems that can become more serious and costly when left untreated and (2) to decrease the use of costly medical services such as emergency rooms and hospital outpatient services by encouraging participants to establish a relationship with a primary care doctor who serves as a first responder.⁵ As described in Chapter 2, a large number of families earned health rewards, with almost 90 percent of families earning at least one health reward during the program. Families that earned at least one health reward earned \$1,805 on average in health rewards.

Summary of Impacts on Health

This section presents a summary of the effects of Family Rewards 2.0 on a variety of health-related outcomes. The research team obtained data on all outcomes from the 24-month survey and designated outcomes as primary (non-emergency medical visits, dental visits, and overall health status) or secondary (all others). The program produced impacts on several primary outcomes targeted by the program's reward incentives. Both adult and child participants experienced a statistically significant increase in the frequency of dental visits. The program marginally increased adult participants' self-rated health status by 0.1 on a 5-point scale;⁶ this impact was much larger for adults who reported poor health at random assignment (0.3). The research team observed no statistically significant effects on any other primary outcomes.

Impacts on Receipt of Health Care Services and Health Insurance Coverage

The health-related cash incentives offered in Family Rewards 2.0 were directly connected to participants' receipt of preventive medical and dental services and intended to create a direct increase in participants' frequency of preventive service visits.⁷ As a secondary effect, the program designers had hoped that an increase in preventive visits would also reduce reliance on costly services such as emergency room and hospital outpatient visits, especially for routine, non-emergency care, as participants established a relationship with a regular care

⁵See Chapter 1 and Riccio et al. (2010) for a discussion of the logic model and the pathways through which Family Rewards was expected to influence health outcomes.

⁶The research team assessed perceived health status based on an item drawn from the "Short Form 12 Health Survey," a widely used scale in national health surveys that provides a generic, multi-dimensional measure of physical and mental health; see Hays, Sherbourne, and Mazel (1995).

⁷Dechausay, Miller, and Quiroz-Becerra (2014); Riccio et al. (2010)

provider at a clinic, health center, or doctor's office.⁸ High insurance coverage rates for families left little room for Family Rewards 2.0 to improve connection to health care and preventive care practices.⁹

Table 5.1 presents outcomes for preventive care visits and health insurance coverage. Program group members did not experience a statistically significant change in annual health checkups. Parents in the program group were more likely than those in the control group to have had one or two dental checkups in the year before being interviewed (12.3 percentage points and 13.6 percentage points, respectively).¹⁰ Many dentists in the United States are private practitioners and do not participate in Medicaid programs,¹¹ which can make regular dental visits costly and difficult to arrange, particularly for adults who are not guaranteed coverage under Medicaid.¹² The dental reward in Family Rewards 2.0 offset the costs of copayments and out-of-pocket expenses that families might have otherwise incurred.¹³ A comparison of these data with reward receipt data shows that a higher percentage of participating adults reported having had both non-emergency medical and biannual dental checkups than did those who received rewards for these same activities. The process of documenting the visit and submitting a coupon to the program may have been a burden to some participants.

⁸By encouraging participants to have a regular health care provider, the program promoted the “medical home” model of health care delivery, which includes an ongoing relationship between a provider and patient and a comprehensive approach to care and coordination of care through providers and community services. Research suggests that individuals who have continuity of care with a regular practitioner are more likely to adhere to prescribed medications and to receive preventive care and well-coordinated, resource-efficient, and family-centered care, and are less likely to visit the emergency department and be hospitalized; in addition, their practitioners are more likely to recognize their problems and track their information. See Christakis et al. (2001); Christakis et al. (2002, 2003); Starfield and Shi (2004).

⁹Though Congress passed the Affordable Care Act six months before Family Rewards 2.0 began, it is unlikely that it greatly affected participants' enrollment in health coverage because many families were already enrolled in public health insurance at program enrollment. The 24-month survey also indicated high levels of enrollment in public insurance and was administered before the first public enrollment period occurred under the new law.

¹⁰Adults in the Bronx were more likely to report at least two dental checkups than adults in Memphis. This finding is consistent with reward earnings. Fewer adults in Memphis had dental insurance coverage than those in the Bronx at the start of the program, which was cited as a barrier to earning the reward because of the out-of-pocket cost of dental care. Though advisors in Memphis emphasized connecting families to low-cost or free dental services in the later years of the program, the significant difference in impacts between the two cities persisted. See Dechausay, Miller, Quiroz-Becerra (2014).

¹¹Borchgrevink, Snyder, and Gehshan (2008).

¹²As of 2007, Tennessee did not offer dental coverage for adults under Medicaid; see McGinn-Shapiro (2008). Disparities in access to oral health by income level have also been well documented; see Fisher-Owens et al. (2008).

¹³As discussed in Chapter 2, program staff also connected participants with dental practitioners who provided low-cost services or used a sliding scale for their billing. These services reduced the burden of upfront, out-of-pocket expenses.

Table 5.1
Impacts on Parents' Receipt of Services and Health Outcomes

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
<u>Health care visits in past 12 months (%)</u>					
Has seen health professional for any reason	92.7	91.7	1.0	0.397	
Had a health checkup	88.4	87.6	0.8	0.569	
Has seen dentist for any reason	71.2	61.0	10.2 ***	0.000	
Had 1 or more dental checkups	66.3	54.0	12.3 ***	0.000	
Had 2 or more dental checkups	36.1	22.5	13.6 ***	0.000	
<u>Respondent's health care use (%)</u>					
Has a usual source of health care	94.4	91.9	2.5 **	0.030	
Clinic or health center	53.9	53.4	0.5	0.836	
Doctor's office	30.6	27.9	2.6	0.181	
Hospital emergency room	5.2	5.8	-0.6	0.541	
Hospital outpatient department	4.3	4.6	-0.2	0.798	
Other	0.4	0.2	0.2	0.364	
<u>Health insurance coverage in previous month (%)</u>					
Respondent had health insurance	92.6	92.3	0.3	0.799	
<u>Unmet health needs due to cost in past 12 months (%)</u>					
Did not get needed medical care	11.1	11.2	-0.1	0.937	
Did not fill prescription	18.5	19.6	-1.1	0.544	
<u>Health status and outcomes</u>					
Smokes cigarettes (%)	15.7	18.3	-2.6	0.108	
Has any medical condition ^a (%)	52.5	54.2	-1.7	0.403	
Treated for any medical condition ^a (%)	46.3	48.5	-2.2	0.285	
Average Body Mass Index (BMI) ^b	31.2	30.7	0.4	0.167	0.061
Overweight (%)	30.7	30.6	0.1	0.962	
Obese (%)	48.3	47.8	0.5	0.808	
Average self-rated health (1 = poor; 5 = excellent)	3.2	3.0	0.1 ***	0.002	0.126
Sample size (total = 2,016)	1,025	991			

(continued)

Table 5.1 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

^aParticipants were asked about the following conditions: asthma, allergies, arthritis, back pain, bone or joint problems, cancer, diabetes, depression, digestive problems, blood pressure, high cholesterol, lung disease, sinus infections, weight conditions, or other specified problems. The four most reported conditions were asthma, diabetes, high blood pressure, and high cholesterol.

^bWeight categories are from the National Institutes of Health. Underweight is defined as having a BMI of less than 18.5. Normal weight is defined as having a BMI between 18.5 and 24.9. Overweight is defined as having a BMI between 25.0 and 29.9. Obesity is defined as having a BMI of at least 30. About 4.5 percent of the sample was excluded from this analysis because of missing data.

Rewards for preventive visits were intended to encourage other health outcomes, such as connection to health care and insurance. Though program participants did not experience a significant increase in medical checkups, the program appears to have had a small, statistically significant effect on participants' connection to a "regular source of care," an increase of 2.5 percentage points over the control group. It did not have a statistically significant impact on where program group members sought that regular source of care. It is possible that the program's overall focus on health encouraged some program members to seek out more regular health care, however this outcome is a secondary one and cannot be considered confirmatory. A very high number of both program and control group members already had a regular source of care, even relative to the general population.¹⁴

Family Rewards 2.0 did not have any significant impacts on program participants' health insurance coverage. Although many families in the program already had public health coverage, many low-income families move on and off of coverage over time. The consistency

¹⁴National estimates for this type of measure suggest that 17 percent of adults 18 years of age and over were without a usual place of health care. Of those with a usual place of care, 74 percent considered a health maintenance organization doctor's office to be their usual place of health care, 22 percent considered a clinic or health center to be their usual place of health care, and 3 percent considered a hospital emergency room or outpatient department to be their usual place of health care; see Blackwell, Lucas, and Clarke (2014). Typically, health coverage is much lower among two populations that were not eligible to enroll in the program: childless adults and undocumented immigrants.

of public coverage also varies from state to state,¹⁵ and families in Tennessee tend to move on and off of coverage more frequently than those in New York. In this case, the program might have increased the continuity of coverage by increasing the use of more regular medical visits. Overall health insurance coverage proved to be extremely high for all participants, 92.6 percent for the program group and 92.3 percent for the control group, and the program had no effect on this outcome.¹⁶

Impacts on Health Outcomes

Health incentives in Family Rewards 2.0 were intended to encourage participants to seek and strengthen their bond with a primary care provider through an annual non-emergency checkup. Program designers hoped that this result would improve participants' health status through better diagnosis and management of chronic health conditions. Program designers also hoped that a general focus on health could have “spillover” effects onto other risk-taking behavior, such as smoking and lifestyle habits that lead to obesity, both of which contribute to negative health outcomes and costly health interventions.¹⁷

Family Rewards 2.0's only impact on program participants' health was on their self-reported health status (Table 5.1). Participants were asked to rate their health on a scale from one (poor) to five (excellent). This outcome was reported as an average and was 0.1 points higher on this scale for program participants. The effect size better indicates the practical significance of this difference between the program and control group;¹⁸ effect sizes less than

¹⁵Medicaid (2015).

¹⁶Family Rewards 1.0 also collected and analyzed administrative records on Medicaid coverage for adult participants. Data were analyzed separately for parents receiving Temporary Assistance to Needy Families (TANF) or Safety Net Assistance (SNA) and indicated that a high percentage of these participants were receiving Medicaid coverage consistently throughout the study. While some families may be at risk for “churn,” or having gaps in health insurance coverage because of failure to meet administrative obligations to reenroll in Medicaid, individuals receiving TANF benefits are automatically enrolled. Additionally, no statistically significant difference between participants receiving TANF or SNA in the program and control groups was identified at any point during Family Rewards 1.0. Because receipt of TANF or Supplemental Nutrition Assistance Program (SNAP) was a condition of program enrollment in Family Rewards 2.0 and families were already well connected to health insurance, the research team did not analyze Medicaid data for Family Rewards 2.0.

¹⁷Fontaine (2003); Mokdad et al. (2003); Mokdad, Marks, Stroup, and Gerberding (2004); Must et al. (1999).

¹⁸The “Effect Size” column in the table indicates the effect size, or magnitude, of the difference between the program and control group outcomes. The research team calculated the effect size by dividing the estimate of the difference by the standard deviation for the outcome among the control group members. Because the effect size is in uniform, standard deviation units, it is possible to compare the sizes of impact estimates for different outcomes in this evaluation and to compare Family Rewards 2.0 impacts with the impacts of other programs that have been evaluated. Kazis, Anderson, and Meenan (1989).

0.20 are generally considered small in the behavioral sciences.¹⁹ The effect size for parents' self-rated health (0.126) is small by this standard, but indicates a difference worth noting given that health is difficult to influence through social interventions.²⁰ Despite positive impacts on participants' self-reported health status, Family Rewards 2.0 did not appear to impact the diagnosis or treatment of chronic health conditions. It also did not have any notable impacts on risk-related behaviors or conditions.

Impacts by Self-Rated Health Status at Baseline

The effectiveness of Family Rewards 2.0 on improving health outcomes and increasing the receipt of health care services may be related to the initial health status of its participants. If those who initially suffered from poor health were in that condition because they did not utilize access to health care services, Family Rewards 2.0 might lead to improved health outcomes for this group. Additionally, participants with poor health at study entry could have more room for improvement in certain outcomes than those with good health. Larger effects for those in poorer health were found in Family Rewards 1.0.

To examine these hypotheses, Table 5.2 presents important health outcomes by study participants' self-reported health status at random assignment. The research team placed participants who rated their health as being excellent, very good, or good in one group, and those who rated their health as fair or poor in another group. The primary purpose of this analysis is to compare whether the impact for one group (those in fair or poor health) is significantly different from the impact for another group (those in better health). If the difference between these two impacts is not statistically significant, as indicated by daggers in the right-most column of the tables, then it is not possible to conclude with confidence that the program worked any differently across the two groups.

Table 5.2 shows that Family Rewards 2.0 improved the health status of program participants more for those who had rated their health as poor or fair at random assignment than it did for those who had initially rated their health as excellent, very good, or good. The difference between the program's impact on this measure for the two subgroups is statistically significant. The program's impact on self-rated health was a 0.3 increase on a five-point scale for those with fair or poor health at random assignment, with the effect size indicating a notable improvement for this subgroup.

¹⁹Cohen (1988).

²⁰Belfield and Levin (2007); Maciosek et al. (2006).

Table 5.2

Impacts on Parents' Health Outcomes, by Self-Reported Health Status at Baseline

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size	
<u>Self-rated health status at baseline (excellent, very good, or good)</u>						
Average self-rated health (1 = poor; 5 = excellent)	3.4	3.3	0.1 *	0.092	0.086	††
Smokes cigarettes (%)	15.3	17.3	0.0	0.280		
Has any medical condition ^a (%)	43.5	44.3	-0.8	0.745		
Treated for any medical condition ^a (%)	37.8	38.3	-0.6	0.819		
Sample size (total = 1,499)	771	728				
<u>Self-rated health status at baseline (fair or poor)</u>						
Average self-rated health (1 = poor; 5 = excellent)	2.4	2.1	0.3 ***	0.000	0.329	††
Smokes cigarettes (%)	16.5	21.5	-4.9	0.154		
Has any medical condition ^a (%)	78.3	83.2	-4.9	0.152		
Treated for any medical condition ^a (%)	71.2	78.6	-7.4 **	0.044		
Sample size (total = 511)	254	257				

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Statistical significance levels for differences in impacts across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

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

^aParticipants were asked about the following conditions: asthma, allergies, arthritis, back pain, bone or joint problems, cancer, diabetes, depression, digestive problems, blood pressure, high cholesterol, lung disease, sinus infections, weight conditions, or other specified problems. The four most reported conditions were asthma, diabetes, high blood pressure, and high cholesterol.

Though the research team observed no other statistically significant differences in impacts by baseline health status, one other exploratory finding should be noted. The program led to a statistically significant decrease in the receipt of treatment for any medical condition among members of the fair or poor health subgroup. Although this impact is not statistically different from the impact for the better health subgroup, it may be associated with the positive effect on self-reported health status observed for the fair or poor health subgroup and may be worthy of future study.

Impacts on Children’s Health Care and Health

As a two-generational program, Family Rewards 2.0 extended health rewards to parents and all children in the family. Using a similar logic to the one applied to parents, program designers hoped that emphasizing preventive health services would lead to an improved connection to health care and other health outcomes for children. On the 24-month survey, parents were asked to answer questions related to these outcomes for one child in their household who was entering ninth or tenth grade at study enrollment. Table 5.3 presents outcomes for these focal children. Similar to adults, high rates of enrollment in health insurance among children in both the program and control groups left little room for Family Rewards 2.0 to improve connection to care and preventive care practices for focal children in the program group. Family Rewards 2.0 did not produce statistically significant changes in focal children’s non-emergency preventive health checkups.

The program did lead to an increase in biannual visits to the dentist among children in the year before the survey. The magnitude of the impact for a second dental checkup (16 percentage points) was much larger than just one checkup (3.8 percentage points). This effect implies that the dental reward was effective at helping children to meet the American Dental Association recommendation of maintaining more regular checkups.²¹ Access to dental care also has the potential to help children avoid more serious medical conditions later in life.²²

Across both the program and control groups, adults were much less likely to see the dentist, even once, compared with their children. The impact on seeing a dentist at least once was likely much higher for adults than their children because of this difference. Reported rates of reward receipt are consistent with this finding. Family Rewards 2.0 did not produce statistically significant changes in focal children’s source of usual care or any other health outcomes. Without an effect on the primary outcome of preventive health checkups, it is unsurprising that the program did not show effects on health status or source of care.

²¹American Dental Association (2014).

²²Glied and Neidell (2010).

Table 5.3
Impacts on Focal Child's Receipt of Services and Health Outcomes

Outcome	Program Group	Control Group	Difference (Impact)	P-Value	Effect Size
<u>Health care visits in past 12 months (%)</u>					
Has seen health professional for any reason	97.2	96.6	0.5	0.505	
Has seen personal pediatrician for any reason	74.0	74.0	0.0	0.983	
Had health checkup or got shots	94.9	94.4	0.5	0.614	
Has seen dentist for any reason	92.8	89.3	3.5 ***	0.010	
Had 1 or more dental checkups	92.3	88.5	3.8 ***	0.005	
Had 2 or more dental checkups	62.4	46.4	16.0 ***	0.000	
<u>Respondent's health care use (%)</u>					
Has usual source of care when sick	94.8	95.2	-0.4	0.706	
Clinic or health center	55.4	56.0	-0.5	0.821	
Doctor's office	32.1	31.5	0.6	0.782	
Hospital outpatient department	3.1	3.8	-0.7	0.421	
Hospital emergency room	3.6	3.6	0.1	0.936	
Other	0.5	0.3	0.2	0.570	
<u>Health insurance coverage in previous month (%)</u>					
All dependent children had health insurance ^a	95.4	94.7	0.7	0.468	
<u>Health outcomes</u>					
Child's health (1 = poor; 5 = excellent)	4.0	3.9	0.0	0.293	0.047
Child has any health condition ^b (%)	20.8	20.4	0.5	0.788	
Sample size (total = 1,881)	976	905			

(continued)

Conclusion

Similar to those in the original program, Family Rewards 2.0's health incentives were designed to connect low-income families to preventive health care resources. A high proportion of families were already covered by health insurance and were practicing preventive health care, which limited the program's ability to further improve some health care practices and connection to care. Despite this limitation, the program did produce a small number of impacts. The program increased dental visits for both adults and children. It also increased adult participants' self-rated health status, particularly for adults who reported being in poor health at study entry.

Table 5.3 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: This table presents outcomes only for focal children who were living in the household at the time of the survey interview.

Sample sizes may vary because of missing values.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

^aChild-related health insurance measures were calculated for sample members with at least one child at the time of the survey.

^bParticipants were asked about the following conditions: learning disability, attention deficit disorder or attention deficit hyperactivity disorder, autism, depression or other emotional condition, speech disorder or delay, asthma, heart problems, chronic illness, weight conditions, or other specified problem.

Family Rewards 1.0 produced similar impacts on dental visits and participants' self-rated health status. It also had some impacts that were not observed in Family Rewards 2.0, including small increases in continuous health coverage and the treatment or diagnoses of certain conditions for adults and children. It is possible that these additional impacts were not replicated in Family Rewards 2.0 because participants were already highly connected to health care. Comparing the two programs' impacts on all of these measures, it seems likely that the rewards for preventive health visits, such as dental checkups, can help connect participants to better health care resources.

Chapter 6

Impacts on Parents' Education, Training, and Work

The work incentives in Family Rewards 2.0 were part of a package of rewards intended to encourage behavioral changes in the areas of education, health, and work. The program designers expected the incentives structure to affect a family's decisions about employment in a variety of ways. If the reward for employment was large enough, parents might decide to enter employment or increase their work hours, since the reward payments could serve as a de facto boost to wages. On the other hand, since the program allowed families to earn rewards through a range of activities, effects on work and training might depend on how families decide to complete health, education, and work-related activities to earn rewards. Parents and children could focus on some activities to the exclusion of others. Similarly, additional money that families received from the education and health rewards might reduce the need to work and offset some or all of the work incentive that these rewards offer.

This chapter examines whether Family Rewards 2.0 prompted parents to pursue any further education or training and whether it affected their employment behavior during the three years the rewards were offered. It also discusses how the program's effects compare with those found for Family Rewards 1.0. In sum, the program increased participation in training but did not result in higher rates of degree or certificate receipt. It also produced small negative effects on parents' employment and earnings.

The Work and Training Rewards

Family Rewards 2.0 provided opportunities for parents to earn rewards for working or for earning a General Education Development (GED) certificate. Parents could earn \$150 a month for working full time (30 or more hours per week) by providing evidence each month that they had worked at least 120 hours for the month. Additionally, parents could earn a one-time \$400 reward for earning a GED certificate during the program period. These rewards were slightly different from those in Family Rewards 1.0. In that program, parents earned \$300 every two months for averaging 30 or more hours of work per week,¹ and they could earn rewards for taking training classes, in addition to pursuing and earning a GED certificate.

¹The Family Rewards 2.0 payment structure for work rewards made it easier for individuals with less stable employment to earn rewards for full-time work, since the rewards were paid on a monthly rather than a bimonthly schedule. With the bimonthly schedule used in Family Rewards 1.0, parents who worked full time for one month but not the other in the same payment period would not have earned a work reward for that period.

As shown in Table 2.1, families earned an average of \$2,926 in work-related rewards while enrolled in the program. Just over half of the program group families earned at least one reward payment for maintaining full-time work, and 2 percent received a reward for earning a GED certificate.

Summary of Impacts on Work and Training

The research team examined the effects of the program using data from the 24-month survey and administrative data from each state's unemployment insurance (UI) wage records. The UI data cover the full study sample for 3 years after random assignment. The survey was fielded about 2 years after random assignment, before some of the Year 3 changes were implemented. Some changes in advisements — in particular, the full implementation of motivational interviewing — began in Year 3, which ran from September 2013 through August 2014. During Year 3, advisors also more actively focused on program participants who had not received work-related rewards in the past.

The primary outcomes examined in this chapter are educational attainment, employment rates, and earnings. In sum, the program did not boost educational attainment and produced a reduction in employment and earnings. Two years after random assignment, program group members were somewhat more likely to have a trade license or training certificate than control group members, but they were no more likely to have a degree. The program produced zero to negative impacts on employment and earnings, depending on the data source. The reduction in earnings from UI data was particularly large for program group members in Memphis, as Chapter 7 discusses, although the negative effects seemed to have diminished during the second half of Year 3.

Impacts on Parents' Education and Training

This section presents the program's effects on parents' participation in education and training activities and on certificate and degree receipt. Education and training data for parents were only available on the survey, which asked respondents about current education levels as well as participation in education and training activities since random assignment.

Table 6.1 shows that at the 24-month point, about 32 percent of the control group reported participating in some education, training, or employment program activity since the time of random assignment, 43 percent reported having a trade license or training certificate, and 78 percent reported having any high school diploma or high school equivalency credential, trade license, training certificate, or college degree. Within 24 months of study entry, Family Rewards 2.0 increased participation in education and training programs by 4 percentage points and

Table 6.1
Impacts on Educational Attainment and
Participation in Educational and Employment Activities

Outcome (%)	Program Group	Control Group	Difference (Impact)	P-Value
Has any degree, license, or certificate	78.5	77.8	0.7	0.651
Has any trade license or training certification	46.6	42.7	3.9 *	0.073
Home health aide	10.1	11.6	-1.5	0.223
Nurse's aide/nurse's assistant	5.2	3.9	1.4	0.145
Child care/teaching	4.7	3.6	1.1	0.226
Medical assistant	5.0	2.9	2.1 **	0.015
Security	1.8	1.2	0.6	0.299
Other	20.0	19.2	0.8	0.668
Highest degree or diploma				
High school equivalency certificate	15.3	15.6	-0.3	0.840
High school diploma	33.8	35.2	-1.3	0.486
Associate's degree	10.8	9.1	1.7	0.189
Bachelor's degree or higher	5.7	6.4	-0.7	0.481
Ever participated in any education, training, or employment activity	36.3	32.2	4.1 **	0.049
Adult basic education, high school equivalency, or high school classes	8.5	8.7	-0.2	0.870
English as a second language classes	7.7	6.1	1.6	0.139
College courses for credit	13.6	13.1	0.5	0.759
Vocational training	10.3	9.5	0.8	0.562
Other educational, training, or employment program activities	5.9	4.6	1.3	0.183
Currently participating in any education, training, or employment activity	12.5	9.6	2.9 **	0.039
Sample size (total = 2,016)	1,025	991		

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

Rounding may cause discrepancies in calculating sums and differences.

Percentages may sum to more than the overall participation rate because sample members could list more than one response.

certificate receipt by 4 percentage points. It is possible that the reward payments families received from the other domains allowed parents to pay for training classes if they were seeking some type of certification for future employment. However, the program had no statistically significant effect on further educational attainment — including no effect on earning a GED certificate, which would have merited a reward payment.

An increase in training activities could have affected how much parents were able to work in the short term while participating in their training classes. The next section considers whether these effects on training were associated with effects on employment over the three-year follow-up period.

Impacts on Employment and Earnings

The research team calculated employment impacts from both UI and survey data. UI earnings were available quarterly for each sample member in the study, so the follow-up for most sample members covered July 2011 through March 2015. The survey asked about employment at the time of the survey and in the year before the survey was conducted for all survey respondents. The survey also provided rich information about respondents' job characteristics, such as hourly wages, and employer-provided benefits — information that was not available on UI wage records. Typically, the survey data captured more employment than UI records because some types of jobs, including “off-the-books” jobs, federal government jobs, out-of-state jobs, and self-employment, are not reported to the state UI systems.

Table 6.2 shows that about 60 percent of the control group was employed in Year 3, with just over half of them employed in each quarter. Family Rewards 2.0 reduced work in UI-covered jobs by about 4 percentage points over three years and reduced earnings from work by about \$2,000. This amount translates to about 7 percent of the earnings over three years for the average control group member.

Economists often refer to a reduction in work (to possibly spend more time in nonpaid activities) in response to an increase in household income as an “income effect.” Such an income effect was observed in Family Rewards 2.0 for the full study sample and not concentrated in a specific subgroup, as Chapter 7 discusses. Quarterly impacts on employment rates and earnings amounts indicate that the negative effects on employment and earnings persisted only through the middle of Year 3; the negative impacts were no longer statistically significant in the last two quarters of the year (not shown). These effects may have been due to implementation changes in Year 3 that focused on conducting motivational interviews with participants who were not earning the full-time work reward payments. It is also possible that families were increasing their work activities to prepare for the end of the Family Rewards 2.0 program, when the reward payments would stop.

Table 6.2
Impacts on Unemployment Insurance-Covered
Employment and Earnings, Years 1 to 3

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
Ever employed (%)				
Year 1	58.6	61.1	-2.5 *	0.057
Year 2	58.0	60.9	-2.9 *	0.053
Year 3	58.5	62.7	-4.2 ***	0.007
Years 1 to 3	68.0	71.9	-3.9 ***	0.005
Average quarterly employment (%)				
Year 1	48.8	51.5	-2.7 **	0.012
Year 2	49.5	51.9	-2.4 *	0.065
Year 3	50.6	53.2	-2.6 *	0.071
Years 1 to 3	49.6	52.2	-2.6 **	0.018
Total earnings (\$)				
Year 1	8,404	9,054	-650 ***	0.007
Year 2	9,124	10,044	-921 ***	0.006
Year 3	10,156	10,619	-463	0.244
Years 1 to 3	27,684	29,718	-2,034 **	0.019
Sample size (total = 2,565)	1,286	1,279		

SOURCES: MDRC calculations using data from New York State unemployment insurance (UI) wage records and Tennessee Department of Labor and Workforce Development UI wage records.

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

Rounding may cause slight discrepancies in calculating sums and differences.

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

This tables includes only employment and earnings in jobs covered by the New York State and Tennessee UI programs. It does not include employment outside of either state, or in jobs not covered by the UI system (for example, "off-the-books" jobs and federal government jobs).

Table 6.3 presents employment data as reported on the 24-month survey. The program had no effect on survey-reported employment, either at the time of the survey or during the previous year. According to the survey, about two-thirds of parents were employed at some time in the 12 months before they responded to the survey.

Table 6.3 also shows some characteristics of the jobs that sample members held. Employed control group members were earning, on average, \$11 an hour in their current jobs. About 43 percent of the control group, or three-quarters of those who were employed, were working full time at the time of the survey. Almost 40 percent of the control group, or two-thirds of those who said they were employed, had a regular daytime shift. A small proportion of the control group was self-employed or working for a “temp” agency at the time of the survey. The program did not have effects on any of these job characteristics, even though a larger proportion of parents in the program group reported recently looking for work. It is possible that the program increased job search efforts that did not result in actual employment.

Subgroup Impacts on Parents’ Education, Training, and Employment

This section presents subgroup impacts on education, training, and employment defined by parents’ educational level at the time of study entry. Chapter 7 discusses impacts for additional subgroups. In Family Rewards 1.0, families who were less disadvantaged — as defined by those in which parents had at least a high school diploma or equivalency certificate, or were employed when they enrolled in the study — experienced a small increase in educational attainment but no effect on earnings.

Family Rewards 2.0 had similar impacts on training. The program’s positive impacts on certificate receipt were concentrated among the parents who were more educated when they enrolled in the study, as shown in Table 6.4.² It is possible that parents who had not yet passed their GED exams before 2014 felt less inclined to take advantage of the GED reward offer because of the changes to the GED exam in 2014 that made it more difficult.³ About 60 percent of the survey respondents who were interviewed in 2014 did not have a high school diploma or equivalency certificate when they enrolled in the study.

²The difference of the impact on trade license and certificate receipt across parents with differing education levels was statistically significant. The difference of the impact on participation in training was not statistically significant, but the pattern of impacts is similar — the program effects were larger for parents who were more educated and smaller for parents without a high school diploma or equivalency certificate at the time of random assignment.

³Porter (2015).

Table 6.3
Impacts on Employment and Job Characteristics

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Employment status (%)</u>				
Employed at the time of the survey	55.9	57.1	-1.2	0.528
Employed in past year	66.4	67.4	-1.0	0.586
<u>Characteristics of current job^a</u>				
<i>Average hourly wage (\$)</i>	<i>11.31</i>	<i>11.39</i>		
Less than \$7.00 (%)	5.6	7.0	-1.4	0.195
\$7.00 to \$8.99 (%)	9.8	9.4	0.5	0.722
\$9.00 or more (%)	32.6	30.4	2.1	0.266
Not reported (%)	7.9	10.3	-2.4 *	0.055
Worked at least 30 hours per week (%)	41.9	43.2	-1.3	0.520
Average weekly earnings (\$)	193	199	-6	0.554
Usual work schedule (%)				
Regular daytime shift	37.3	39.2	-2.0	0.316
Regular evening/night shift	6.2	7.7	-1.5	0.176
Self-employed (%)	9.5	8.3	1.3	0.301
Worked for a temporary employment agency (%)	6.0	6.1	-0.1	0.910
Received any employer-provided benefit ^b (%)	37.7	38.7	-1.0	0.564
<u>Employment search (%)</u>				
Looked for work in the previous 4 weeks	34.2	30.6	3.5 *	0.081
Sample size (total = 2,016)	1,025	991		

(continued)

However, the program's effects on earnings were somewhat different. Family Rewards 1.0 reduced earnings only among parents without a high school diploma or equivalency certificate. Family Rewards 2.0, in contrast, reduced earnings among the full program group sample. A pattern of statistically significant and negative effects on earnings and employment were consistently larger for parents who were more educated at the time of random assignment, although the impact differences across the less educated and more educated subgroups were not statistically significant. While it is possible that some parents cut back on work hours to participate in training, as some program participants indicated in field interviews, a separate calcula-

Table 6.3 (continued)

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values.

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

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

Rounding may cause slight discrepancies in calculating sums and differences.

^aIf a respondent worked multiple jobs at the time of the interview, then only the characteristics of the primary job are reported. (The job at which the respondent worked the most hours is considered primary.) Respondents who were not employed at the time of the survey are included in all the current job characteristics measures, except for average hourly wage. The average hourly wage measure includes only respondents who were employed at the time of the survey.

^bThis category includes benefits that are or eventually will be offered, regardless of whether the respondent received them. Sample members were asked whether they received paid sick days, paid vacation days, paid holidays, dental benefits, retirement benefits, or health or medical insurance from their current employers.

tion of these subgroup impacts by city showed that the subgroups who experienced positive training effects were not the ones who experienced negative employment effects (not shown).⁴

The research team also estimated impacts by city (discussed more fully in Chapter 7) to assess whether the reductions in work occurred in each of the different labor markets. The findings show that reductions in UI-covered work for three years after the time of random assignment were more pronounced in Memphis, while reductions in work reported at the time of the survey were more pronounced in the Bronx. The reason for the differences across cities is not clear.

The reduction in work and earnings was likely a response to the substantial rewards that these families were earning from the program's health and education rewards. Since families were receiving reward payments, they could reduce work hours and, in some cases, stop working entirely, without lowering the amount of financial resources they had before the

⁴The analysis showed that in the Bronx the program increased training for those with less education at baseline without affecting their work behavior. Families with more educated adults cut back on work hours and did not participate in more training. In Memphis, the education subgroups showed no statistically significant movement in either training or work. While the sample sizes in this separate investigation were too small to draw conclusive findings, and differences in impacts across these subgroups were not statistically significant, the analysis does show that sample members were generally not leaving work to pursue additional training.

Table 6.4

**Impacts on Education, Training, and Employment Activities,
by Respondent's Education Level at the Time of Random Assignment**

Outcome	No High School Diploma or Equivalency Certificate				High School Diploma or Equivalency Certificate				
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value	
<u>Survey responses (%)</u>									
Has any degree, license, or certificate	49.2	49.8	-0.7	0.855	97.0	95.5	1.6	0.142	
Has any trade license or training certification	37.7	39.1	-1.4	0.674	52.5	45.1	7.5	***	0.009 ††
Ever participated in any education, training, or employment activity	32.2	29.3	2.9	0.377	39.1	33.7	5.4	**	0.047
Employed at the time of the survey	48.8	50.5	-1.8	0.542	60.4	60.7	-0.3		0.909
Worked at least 30 hours per week	36.0	36.7	-0.8	0.805	45.9	46.8	-0.9		0.735
Sample size (total = 769)	396	373			618	609			
<u>Unemployment insurance records</u>									
Employment in Years 1 to 3 (%)	59.5	62.3	-2.8	0.222	73.7	78.0	-4.3	**	0.014
Total earnings in Years 1 to 3 (\$)	20,735	21,715	-980	0.318	32,287	34,941	-2,655	**	0.040
Sample size (total = 1,005)	510	495			760	770			

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: Sample sizes vary because of missing values.

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

Rounding may cause discrepancies in calculating sums and differences.

Statistical significance levels across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

program started. Although it is possible that some parents decided to forego immediate employment opportunities to pursue education and training, very few parents who were not working when they responded to the survey listed education or training as a primary reason for not working, instead citing either their own or a family member's health issues.

Barriers to Finding and Maintaining Full-Time Work

About 40 percent of study participants were not working at the time of the survey, and about 60 percent were not working at least full time. Table 6.5 presents reasons that survey respondents in the program group reported for either not working full time or not working at all. Although the reasons do not explain why program group members cut back more on work than did the control group members, they provide some context as to why parents could not work as much as they as they might have wanted. Among program group members who were working part time at the time of the survey, about a third of them were unable to increase their hours or find a full-time job.

In field interviews, participants expressed difficulty in obtaining the minimum 120 hours per month of work that were required to earn the full-time work reward payment. One participant described the instability of her hours as a home health aide and how difficult it was for her to accrue enough hours to earn the reward:

[T]his year has been very bad for me, very bad, because I missed three months' worth of \$150.00. Three months. And they called me, "What happened? You know, you're not sending in your pay stubs"... I said, "I didn't work a week, and then I had to wait another week, and then I only had like 18 hours." I mean, it was really frustrating. But as home care attendants, if you're not working, you're not getting paid, you don't have any hours. So it messes you up.

Program advisors, despite encouraging families in the program to increase their work hours so that they could earn the full-time work reward, indicated that they felt limited in providing concrete guidance to individuals on how to do so:

We have ... so many people who come so close. You know, they're in between 100 and 119 ... so they're working, you know, they're working part time, but they're working consistently, but they're not meeting the 120 ... It's hard for people to hit the 120. We talked to people about ... talking to your employer about getting more hours, or we've had some people getting second jobs."

About 12 percent of program group respondents working part-time reported that their caretaking responsibilities at home limited their ability to work full time. Interviews with participants reflected this reality — one participant had to spend a lot of time taking care of her sick mother; another participant had to care for a grandmother whose leg was amputated.

Table 6.5
Respondents Not Working Full Time

Outcome (%)	Program Group
<u>Among respondents working part time at the time of the survey</u>	
Main reason for not working full time	
Inability to find full time job or work more hours	31.2
Need to take care of home or family	11.6
Attendance at school or training	4.4
Respondent's illness or disability	4.4
Someone else's illness or disability	2.9
Inability to find adequate child care	2.9
Pregnancy	0.7
Other	35.5
Sample size	138
<u>Among respondents who were not working at the time of the survey</u>	
Main reason for not working	
Respondent's illness or disability	40.8
Inability to find work	18.7
Need to take care of home or family	8.6
Someone else's illness or disability	3.5
Being temporarily laid off or on temporary leave	2.8
Inability to find adequate child care	4.2
Attendance at school or training	3.3
A criminal record that makes finding work hard	0.9
Pregnancy	0.7
Retirement or aging	0.2
Other	16.3
Average wage that respondents would consider before taking a job offer	
Less than \$7.00	4.5
\$7.00 to \$8.99	10.0
\$9.00 or more	44.7
Not reported	40.8
Sample size	441

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: Sample sizes may vary because of missing values. Statistical tests were not performed.

Program group respondents who were not employed at the time of the survey most frequently reported that the reason for not working was the respondents' illness or disability; about 41 percent of nonworking respondents reported this reason as the main one. About one-fifth of nonworking respondents also reported that they were unable to find work.

Conclusion

Through its first two years, Family Rewards 2.0 increased the proportion of parents who earned a trade license or training certificate and the proportion of parents who participated in an education or training activity. The education and training impacts were concentrated primarily among adults who already had a high school diploma or equivalency certificate when they enrolled in the study. The program reduced UI-covered work and did not produce statistically significant impacts on survey-reported work. The average program group adult earned about \$2,000 less from working than the average control group member over three years, which is about one-third of what each family earned in reward payments, on average, over the full program period. The reduction in work may have had additional implications for families, including a possible reduction in Earned Income Tax Credit benefits.

These findings are similar to those in Family Rewards 1.0, which produced a small increase in college course participation and a small increase in getting a trade license or training certification. Family Rewards 1.0 also increased employment, mostly in jobs that were not reported to the UI system. However, it led to reductions in UI-covered work for the less “work-ready,”⁵ with no or small positive effects on survey-reported employment.⁶

Even though the reductions in work among families enrolled in Family Rewards 2.0 were not completely unexpected based on findings from the earlier program, it is not immediately clear why this replication program would have produced a broader income effect than did Family Rewards 1.0, given the smaller amount of other rewards that families earned. However, all sample members in the Family Rewards 2.0 evaluation had to be receiving food stamps or Temporary Assistance for Needy Families to be eligible, which was not a requirement for Family Rewards 1.0. Thus, the broader income effect on a more disadvantaged population makes sense in this context. The finding, however, is a concern, particularly since employment and training incentives have been shown to work in other places. Earlier studies have found that

⁵The research team defined the subgroups that were less “work-ready” by (1) parents who did not have a high school diploma or equivalency certificate when they enrolled in the program, and (2) parents who were not working when they enrolled in the program.

⁶Riccio et al. (2013).

providing work and training incentives in the absence of the other incentives can increase work and, in some cases, training.⁷

A reduction in work, particularly among more disadvantaged families, has now been observed in Family Rewards 1.0 and replicated in Family Rewards 2.0. This finding suggests that work and training incentives may be more effective in employment-focused programs rather than packaged with other incentives that target family or child well-being. It also serves as a general caution for conditional cash transfer (CCT) programs with generous incentives structures that may improve education and health outcomes for participants who earn the incentives — although there is little evidence that CCT programs in developing countries reduce work.⁸ Program designers and administrators interested in developing and structuring large-scale CCT programs should weigh the benefits of education and health improvements against the decisions that low-income families might make about work. Without the work incentives, however, the program might have produced even larger negative employment effects.

⁷Riccio et al. (2008); Martinson and Hendra (2006); Michalopoulos et al. (2002).

⁸Fiszbein and Schady (2009).

Chapter 7

Impacts by City and for Subgroups

Earlier chapters of this report provided some evidence that Family Rewards 2.0's effects vary across different types of families. The program's effects on health outcomes, for example, varied by participants' health status at study entry. It is reasonable to expect that a program such as Family Rewards 2.0 might have varying effects for different types of families, particularly as defined by their level of disadvantage or ability to meet the milestones to earn the rewards. Varying effects were also found to some extent in Family Rewards 1.0.

This chapter presents Family Rewards 2.0's effects for several subgroups of families, those defined by family income, parents' education level, and parent's work status at study entry. Although the earlier chapters present effects in certain domains for a few of these groups, this chapter presents effects across outcomes in all domains, to provide a fuller picture of the program's effects.

The chapter also presents effects by city. The report has presented overall effects for both cities combined, in order to provide a more generalizable assessment of the program's effects. However, effects might have varied by city because of differences in the types of participants across the two areas and differences in the context. The implementation findings also suggest that the program's effects might have varied by city. Transportation, for example, posed a challenge for Memphis participants in meeting with their advisors. In addition, families earned on average more from the rewards in the Bronx than in Memphis, indicating that the program may have led to bigger changes in behavior for the former group.

In sum, the findings show that the program had fairly similar effects across the two cities. In both cities, the program reduced poverty, improved health status, and led to more dental visits. Also in both cities, the program had little overall effect on children's progress in school and led to some reductions in parents' work. The results also suggest that the program had broadly consistent effects across more versus less disadvantaged families, with a few exceptions. The program seemed to work the least well for families without an employed parent, with those families earning the least from the program and seeing relatively large reductions in work and earnings during the follow-up period. In addition, there is some suggestion that the program increased graduation rates among students in the study's more advantaged families, or those whose families had higher incomes or whose parents were working at study entry.

Defining Subgroups and Estimating Impacts

The research team specified the subgroups — defined by city, family income, parents’ educational level, and parents’ work status — before conducting the analysis. The team selected them based on the understanding that measures of well-being vary greatly across groups defined by socioeconomic characteristics and that groups defined by those characteristics might have differential responses to the program’s cash incentives. In other words, different capacities or starting points might affect how individuals respond to the incentives. For example, the more “advantaged” participants — those with higher income or those who were employed or who had higher levels of education at study entry — may have been more likely to earn rewards and thus experience greater improvements in income, poverty, and material well-being. Alternatively, these same participants might have been more likely to have already met the conditions necessary to earn rewards, so that they earned rewards with little change in behavior. Descriptive analyses presented in the implementation report show that families who earned more in rewards differed substantially from those who earned much less. Among other distinguishing characteristics, the top earning families were more likely to have been employed at baseline and to have held a high school diploma or equivalency certificate. This chapter examines whether the program had bigger effects on their education, health, and work outcomes.

The research team conducted the analysis by estimating impacts separately for each subgroup and then assessing the differences in effects. In general, impacts were expected to vary to some extent across subgroups, simply as a result of natural variation around the average impact for the full sample. This chapter assesses whether that variation in impacts across subgroups is statistically significant, or beyond what would be expected to occur naturally. For that reason, the focus is not on whether a given impact for, say, the less-educated subgroup is statistically significant, but whether the difference between that impact and the impact for the more educated subgroup is statistically significant (indicated by daggers in the rightmost column of the tables). If the difference between these two impacts is not statistically significant, the results suggest that the effects observed for the full sample generally held across both groups being compared. However, differences that are notable but not statistically significant may be highlighted in the text that follows as exploratory and worthy of further analysis. Finally, because subgroup samples tended to be smaller and because the test for the difference between two impacts required more statistical power than a test of one impact, it is important to keep in mind that differences in impacts between any two subgroups needed to be fairly large in order to be found statistically significant.

Impacts by City

Table 7.1 presents effects separately for the Bronx and Memphis. As shown in the bottom panel, families in Memphis earned on average \$5,765 from the program over the full period, while families in the Bronx earned an average of \$6,719. The reason for this difference is due largely to lower education rewards earned among Memphis families.

Overall, as indicated by the daggers, the main differences in effects are in the area of work and training. As mentioned briefly in Chapter 6, the program led to a reduction in employment reported on the survey in the Bronx, with no effects on this measure in Memphis. In contrast, the program led to a reduction in employment and earnings covered by unemployment insurance (UI) in Memphis, with less of an effect in the Bronx. The reason for this difference is not clear. The program's positive effects on training, found for the full sample, were also driven entirely by positive effects in the Bronx.

The remainder of the table suggests that the program's effects in the other domains were fairly consistent across cities, although there are differences in the size of the effects. For example, the program led to a smaller reduction in poverty in Memphis than in the Bronx, which is probably related to the lower rewards earned on average for families in Memphis. The program reduced severe poverty (or the percentage of families below 50 percent of the federal poverty line) by similar amounts in both cities (not shown).

Impacts by Poverty Level

Table 7.2 presents effects separately for families who entered the study with income below 50 percent of the federal poverty line versus families with income above that threshold. Lower-income families earned substantially less in rewards (\$5,328 on average) than higher-income families (\$7,103 on average), due to lower reward payments in education and work. Nonetheless, the program's effects on poverty reduction were roughly the same for both types of families.

Even though lower-income families earned less in rewards, the program might nonetheless have had larger effects on their behavior. For these families, the rewards represented a larger potential fraction of their current income and thus may have been more salient and powerful incentives. The table also presents effects on education, health, and work. Overall, there are few significant differences, with the exception of the health domain. The program increased health coverage for lower-income families, but had smaller effects for this group on two or more dental visits. Finally, there is a difference in impacts on graduation rates, with a 4.3 percentage point increase in graduation rates for students in the higher income group.

Table 7.1
Summary Program Impacts, by City

Outcome	Bronx				Memphis			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income, poverty, and well-being (%)</u>								
Household income at or below the federal poverty level (including rewards) ^{a,b}	71.0	78.8	-7.8 ***	0.005	76.1	77.9	-1.8	0.492
Any savings	18.3	11.6	6.7 ***	0.003	22.8	12.5	10.3 ***	0.000
Any housing/utilities material hardship in the past 12 months	59.7	60.1	-0.5	0.88	69.1	67.9	1.2	0.678
Did not have enough money to buy food sometime in the past 12 months	45.0	50.2	-5.2	0.101	41.8	44.3	-2.5	0.417
Very or pretty happy ^c	72.3	67.1	5.2 *	0.075	80.2	77.3	2.9	0.261
<u>Education</u>								
Number of state core exams passed, Years 1 to 3 ^{d,e}	3.7	3.7	0.0	0.867	1.8	1.7	0.1	0.106
Attendance rate is 95% or higher, Year 3 ^f (%)	25.6	26.8	-1.2	0.630	32.7	30.6	2.1	0.412
Graduated on time (%)	61.4	57.2	4.2	0.122	66.4	67.5	-1.1	0.660
<u>Health</u>								
All dependent children had health insurance ^g (%)	94.3	94.6	-0.3	0.823	96.5	94.8	1.7	0.190
Parents' average self-rated health (1 = poor; 5 = excellent)	3.1	3.0	0.1	0.154	3.2	3.0	0.2 ***	0.003
Focal child had 2 or more dental checkups in past 12 months (%)	60.5	42.7	17.8 ***	0.000	64.3	50.0	14.3 ***	0.000

(continued)

Table 7.1 (continued)

Outcome	Bronx				Memphis				
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value	
Work									
Ever participated in any education, training, or employment activity (%)	40.0	32.3	7.7 **	0.011	32.5	32.2	0.3	0.920	†
Currently employed at the time of the survey (%)	58.1	63.0	-4.9 **	0.048	53.8	51.3	2.5	0.360	††
Unemployment insurance-covered employment earnings, Years 1 to 3 (\$)	31,270	32,427	-1,157	0.354	23,933	26,893	-2,960 **	0.013	
Reward participation, Years 1 to 4 (\$)									
Among families who earned at least one reward									
<i>Average reward amount earned^h</i>	6,719	—	—	—	5,765	—	—	—	
<i>Average reward amount earned, by domain</i>									
<i>Education</i>	3,344	—	—	—	2,554	—	—	—	
<i>Health</i>	1,728	—	—	—	1,885	—	—	—	
<i>Work</i>	3,022	—	—	—	2,818	—	—	—	
Sample size (total = 2,016)	516	491			509	500			

(continued)

Table 7.1 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 24-month survey, Children's Aid Society's Family Rewards program data, New York City Department of Education and Shelby County Schools administrative records, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: This table presents survey outcomes only for focal children who were living in the household at the time of the interview and at random assignment.

Sample sizes may vary because of missing values.

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. 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.

Statistical significance levels across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Education measures include all students who were enrolled in ninth or tenth grade at baseline (2,676 sample members). Employment measures calculated from unemployment administrative records include all enrolled parents (2,565 sample members).

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cHappiness was measured using the U.S. General Social Survey question: "Taken all together, how would you say things are these days — would you say that you are very happy, pretty happy, or not too happy?"

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

^fAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^gChild-related health insurance measures were calculated for sample members with at least one child at the time of the survey.

^hThe lowest and highest amounts earned in in all years combined were \$40 and \$19,521 in the Bronx and \$40 and \$18,400 in Memphis.

Table 7.2

Summary Program Impacts, by Poverty Level at Random Assignment

Outcome	<u>Income Less Than 50% of FPL at Baseline</u>				<u>Income at or Above 50% of FPL at Baseline</u>			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income, poverty, and well-being (%)</u>								
Household income at or below the federal poverty level (including rewards) ^{a,b}	79.4	83.4	-4.1	0.110	68.0	73.3	-5.3 *	0.065
Any savings	16.6	10.3	6.4 ***	0.004	24.3	13.8	10.5 ***	0.000
Any housing/utilities material hardship in the past 12 months	62.5	64.5	-2.0	0.516	66.2	63.5	2.7	0.371
Did not have enough money to buy food sometime in the past 12 months	41.9	48.1	-6.2 *	0.052	44.8	46.4	-1.7	0.590
Very or pretty happy ^c	75.9	69.5	6.3 **	0.026	76.6	74.7	1.9	0.468
<u>Education</u>								
Number of state core exams passed, Years 1 to 3 ^{d,e}	2.3	2.4	-0.1	0.329	3.0	2.9	0.1	0.522
Attendance rate is 95% or higher, Year 3 (%) ^f	26.2	27.5	-1.3	0.604	31.4	30.7	0.7	0.787
Graduated on time (%)	57.9	61.5	-3.5	0.192	68.8	64.6	4.3 *	0.098 ††
<u>Health</u>								
All dependent children had health insurance ^g (%)	97.6	94.7	2.8 **	0.024	93.1	94.9	-1.9	0.213 ††
Parents' average self-rated health (1 = poor; 5 = excellent)	3.0	2.9	0.1 *	0.093	3.3	3.1	0.2 **	0.010
Focal child had 2 or more dental checkups in past 12 months (%)	60.2	48.0	12.2 ***	0.000	65.2	44.2	21.0 ***	0.000 †

(continued)

Table 7.2 (continued)

Outcome	<u>Income Less Than 50% of FPL at Baseline</u>				<u>Income at or Above 50% of FPL at Baseline</u>			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Work</u>								
Ever participated in any education, training, or employment activity (%)	33.5	31.9	1.6	0.590	39.1	32.2	6.9 **	0.021
Currently employed at the time of the survey (%)	36.9	37.6	-0.7	0.799	74.1	75.8	-1.7	0.497
Unemployment insurance-covered employment earnings, Years 1 to 3 (\$)	8,239	11,323	-3,083 ***	0.003	45,955	47,185	-1,230	0.360
<u>Reward participation, Years 1 to 4 (\$)</u>								
Among families who earned at least one reward								
<i>Average reward amount earned^h</i>	5,328	—	—	—	7,103	—	—	—
<i>Average reward amount earned, by domain</i>								
<i>Education</i>	2,767	—	—	—	3,111	—	—	—
<i>Health</i>	1,907	—	—	—	1,713	—	—	—
<i>Work</i>	2,515	—	—	—	3,101	—	—	—
Sample size (total = 2,016)	497	490			528	501		

(continued)

Table 7.2 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 24-month survey, Children's Aid Society's Family Rewards program data, New York City Department of Education and Shelby County Schools administrative records, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: FPL = federal poverty level.

This table presents survey outcomes only for focal children who were living in the household at the time of the interview and at random assignment. Sample sizes may vary because of missing values.

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. 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.

Statistical significance levels across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Education measures include all students who were enrolled in ninth or tenth grade at baseline (2,676 sample members). Employment measures calculated from unemployment administrative records include all enrolled parents (2,565 sample members).

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cHappiness was measured using the U.S. General Social Survey question: "Taken all together, how would you say things are these days — would you say that you are very happy, pretty happy, or not too happy?"

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

^fAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^gChild-related health insurance measures were calculated for sample members with at least one child at the time of the survey.

^hThe lowest and highest amounts earned in in all years combined were \$40 and \$20,700 for families with income less than 50 percent of the federal

Impacts by Parents' Education Level

Table 7.3 presents effects by parents' educational level, or by whether at least one parent had a high school diploma or equivalency certificate or higher at study entry. Families with more educated parents earned more than those with less educated parents (\$6,515 versus \$5,819), with the difference due to higher reward payments in the education and work domains.

The rates for the control groups show that educational level is a strong predictor of many of the outcomes shown. More educated parents had much lower poverty rates, their children did better in school, they were more likely to work, and they reported somewhat better health. Overall, Family Rewards 2.0 had very similar effects across the two types of families. The program led to a larger reduction in UI-covered earnings for the more educated group, but the difference between the two impacts is not statistically significant.

Impacts by Parents' Employment Status

Table 7.4 presents effects by parents' employment status, or whether they were working at study entry. The research team defined two-parent families as employed if either parent was working at study entry. The table shows that employment status is an important predictor of how much families earn from the program. Families with employed parents earned over \$7,500 on average from the program, compared with only \$4,800 for other families. This difference is due largely to earnings from work rewards. However, families with employed parents also earned more in education rewards than those with unemployed parents (\$3,180 and \$2,685, respectively).

Consistent with the higher reward earnings, the program led to a large reduction in poverty for the employed group (reducing the rate by 9 percentage points) and had little effect on this outcome for the unemployed group. (Although not shown, the program similarly had no effect on average household income for the unemployed group.) Another difference in effects is that the program led to larger effects on children's health coverage for the unemployed group. This pattern matches the positive effects for the low-income group shown in Table 7.2. In the education domain, the program led to a small, positive effect on graduation rates for the employed group, similar to the positive effects on this outcome for the higher-income group shown in Table 7.2. These two impacts were related, given the substantial overlap between the higher-income group and the employed group at study entry.¹ Finally, effects on work were roughly similar, with a pattern of reductions in UI-covered earnings for both groups.

¹For example, over 75 percent of higher-income group members were also employed at study entry.

Table 7.3
Summary Program Impacts, by Adult Education at Baseline

Outcome	No High School Diploma or Equivalency Certificate				High School Diploma or Equivalency Certificate			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income, poverty, and well-being (%)</u>								
Household income at or below the federal poverty level (including rewards) ^{a,b}	80.9	86.7	-5.8 **	0.032	68.5	73.0	-4.5 *	0.086
Any savings	15.2	9.0	6.2 ***	0.009	24.3	14.1	10.2 ***	0.000
Any housing/utilities material hardship in the past 12 months	59.0	64.1	-5.1	0.151	67.6	64.2	3.5	0.204 †
Did not have enough money to buy food sometime in the past 12 months	42.4	53.7	-11.3 ***	0.002	44.2	43.5	0.7	0.817 †††
Very or pretty happy ^c	72.8	67.7	5.1	0.123	78.4	74.9	3.5	0.142
<u>Education</u>								
Number of state core exams passed, Years 1 to 3 ^{d,e}	2.5	2.4	0.1	0.479	2.7	2.8	-0.1	0.211
Attendance rate is 95% or higher, Year 3 ^f (%)	24.4	23.5	0.8	0.765	31.4	32.4	-1.1	0.654
Graduated on time (%)	57.8	59.0	-1.2	0.703	66.8	65.7	1.1	0.640
<u>Health</u>								
All dependent children had health insurance ^g (%)	95.8	95.6	0.2	0.881	95.2	93.8	1.4	0.296
Parents' average self-rated health (1 = poor; 5 = excellent)	3.0	2.9	0.2 **	0.041	3.2	3.1	0.1 **	0.025
Focal child had 2 or more dental checkups in past 12 months (%)	61.9	47.0	14.9 ***	0.000	62.9	45.7	17.2 ***	0.000

(continued)

Table 7.3 (continued)

Outcome	No High School Diploma or Equivalency Certificate				High School Diploma or Equivalency Certificate			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Work</u>								
Ever participated in any education, training, or employment activity (%)	32.2	29.3	2.9	0.377	39.1	33.7	5.4 **	0.047
Currently employed at the time of the survey (%)	48.8	50.5	-1.8	0.542	60.4	60.7	-0.3	0.909
Unemployment Insurance-covered employment earnings, Years 1 to 3 (\$)	20,735	21,715	-980	0.318	32,287	34,941	-2,655 **	0.040
<u>Reward participation, Years 1 to 4 (\$)</u>								
Among families who earned at least one reward								
<i>Average reward amount earned^h</i>	5,819	—	—	—	6,515	—	—	—
<i>Average reward amount earned, by domain</i>								
<i>Education</i>	2,789	—	—	—	3,021	—	—	—
<i>Health</i>	1,858	—	—	—	1,776	—	—	—
<i>Work</i>	2,734	—	—	—	3,033	—	—	—
Sample size (total = 1,996)	396	373			618	609		

(continued)

Table 7.3 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 24-month survey, Children's Aid Society's Family Rewards program data, New York City Department of Education and Shelby County Schools administrative records, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: This table presents survey outcomes only for focal children who were living in the household at the time of the interview and at random assignment. For students with two parents in the household, no high school diploma or equivalency certificate is defined as having no adults in the household with a degree.

Sample sizes may vary because of missing values.

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. 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.

Statistical significance levels across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Education measures include all students who were enrolled in ninth or tenth grade at baseline (2,676 sample members). Employment measures calculated from unemployment administrative records include all enrolled parents (2,565 sample members).

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cHappiness was measured using the U.S. General Social Survey question: "Taken all together, how would you say things are these days — would you say that you are very happy, pretty happy, or not too happy?"

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

^fAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^gChild-related health insurance measures were calculated for sample members with at least one child at the time of the survey.

^hThe lowest and highest amounts earned in in all years combined were \$40 and \$20,700 for families with no adults with a high school diploma or equivalency certificate at baseline and \$40 and \$22,185 for families who had at least one adult with a high school diploma or equivalency certificate at baseline.

Table 7.4

Summary Program Impacts, by Adult Employment at Baseline

Outcome	Not Employed at Baseline				Employed at Baseline			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Income, poverty, and well-being (%)</u>								
Household income at or below the federal poverty level (including rewards) ^{a,b}	82.1	82.3	-0.2	0.932	65.6	74.7	-9.0 ***	0.002 ††
Any savings	16.7	8.9	7.9 ***	0	24.1	15.2	8.9 ***	0.000
Any housing/utilities material hardship in the past 12 months	62.7	64.9	-2.2	0.48	65.4	63.1	2.3	0.449
Did not have enough money to buy food sometime in the past 12 months	41.3	46.4	-5.1	0.105	45.6	47.7	-2.1	0.503
Very or pretty happy ^c	74.7	69.6	5.2 *	0.072	77.6	74.5	3.2	0.224
<u>Education</u>								
Number of state core exams passed, Years 1 to 3 ^{d,e}	2.2	2.3	-0.1	0.405	3.1	3.0	0.1	0.348
Attendance rate is 95% or higher, Year 3 ^f (%)	24.8	24.8	0.0	0.994	32.6	33.0	-0.4	0.862
Graduated on time (%)	58.3	62.0	-3.8	0.172	68.9	63.9	5.0 *	0.052 ††
<u>Health</u>								
All dependent children had health insurance ^g (%)	96.9	94.6	2.3 *	0.078	94.2	95.1	-1.0	0.494 †
Parents' average self-rated health (1 = poor; 5 = excellent)	3.0	2.9	0.1	0.153	3.3	3.1	0.2 ***	0.005
Focal child had 2 or more dental checkups in past 12 months (%)	58.4	43.6	14.8 ***	0.000	66.3	48.7	17.6 ***	0.000

(continued)

Table 7.4 (continued)

Outcome	Not Employed at Baseline				Employed at Baseline			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
Work								
Ever participated in any education, training, or employment activity (%)	32.8	32.3	0.5	0.875	39.3	32.4	6.9 **	0.021
Currently employed at the time of the survey (%)	30.0	29.1	0.9	0.758	80.4	83.2	-2.8	0.249
Unemployment Insurance-covered employment earnings, Years 1 to 3 (\$)	10,055	13,304	-3,249 ***	0.003	44,918	45,477	-559	0.667
Reward participation, Years 1 to 4 (\$)								
Among families who earned at least one reward								
<i>Average reward amount earned^h</i>	4,839	—	—	—	7,517	—	—	—
<i>Average reward amount earned, by domain</i>								
<i>Education</i>	2,685	—	—	—	3,180	—	—	—
<i>Health</i>	1,822	—	—	—	1,795	—	—	—
<i>Work</i>	1,888	—	—	—	3,282	—	—	—
Sample size (total = 2,006)	479	493			541	493		

(continued)

Table 7.4 (continued)

SOURCES: MDRC calculations using data from the Family Rewards 24-month survey, Children's Aid Society's Family Rewards program data, New York City Department of Education and Shelby County Schools administrative records, New York State unemployment insurance (UI) wage records, and Tennessee Department of Labor and Workforce Development UI wage records.

NOTES: This table presents survey outcomes only for focal children who were living in the household at the time of the interview and at random assignment. For students with two parents in the household, not employed at baseline is defined as neither adult being employed at baseline.

Sample sizes may vary because of missing values.

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. 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.

Statistical significance levels across subgroups are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Education measures include all students who were enrolled in ninth or tenth grade at baseline (2,676 sample members). Employment measures calculated from unemployment administrative records include all enrolled parents (2,565 sample members).

^aMonthly household income amounts equal to or greater than \$10,000 were excluded from this calculation. About 4.9 percent of the sample was excluded from the income measures because respondents did not know or refused to provide the information. An additional 0.2 percent of the sample was excluded because the income provided was over \$10,000.

^bAnnual household income was calculated by multiplying by 12 the respondent's income in the month prior to the survey interview. For program group members, it includes Family Rewards payments earned during Years 2 and 3. The federal poverty level was calculated based on annual income (monthly income multiplied by 12) and the household size at the time of the survey. The poverty threshold was measured according to the 2011 Poverty Guidelines, depending on when a respondent was interviewed.

^cHappiness was measured using the U.S. General Social Survey question: "Taken all together, how would you say things are these days — would you say that you are very happy, pretty happy, or not too happy?"

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

^fAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^gChild-related health insurance measures were calculated for sample members with at least one child at the time of the survey.

^hThe lowest and highest amounts earned in all years combined were \$40 and \$16,1400 for families with no adults employed at baseline and \$40 and \$22,185 for families who had at least one adult employed at baseline.

Conclusion

The results indicate that overall the program had similar effects across the two cities, reducing poverty, improving health status and increasing dental visits, and having little effect on school progress. The program led to slight reductions in work in both cities, although only in survey-reported work in the Bronx and only in UI-covered work in Memphis.

The results also suggest that the program had broadly consistent effects across more versus less disadvantaged families, with a few differences. For most groups, the program increased incomes and reduced poverty. And for all groups, the program increased health status and health care use, primarily dental visits. Although the effects on health were fairly similar, findings presented in Chapter 5 suggest that the program may have had larger positive effects on health for parents who entered the study in poorer health.

The most notable difference found in the subgroup analysis was the one between employed and unemployed parents at study entry. Families without a working parent earned substantially less from the program than other families, from both work and education rewards. If a main goal of the program is poverty reduction, these parents in particular may need additional assistance to earn rewards. Finally, there is some suggestion that the program increased graduation rates for a subset of students from more advantaged families.

Chapter 8

Conclusion

In the ongoing effort to determine what works to help improve the lives of low-income families in the United States, conditional cash transfer (CCT) programs represented an exciting and innovative approach. The model has had success in lower- and middle-income countries. But until 2007, when Family Rewards 1.0 was launched, no comprehensive CCT program had been attempted in a higher-income country. Modeled on the programs in other countries, and tested in six of New York City's highest-poverty neighborhoods, Family Rewards 1.0 provided cash assistance to low-income families if they met certain conditions related to family health care, children's education, and parents' work. While the program left the most important outcomes unchanged, it did lead to notable reductions in poverty in the short term and increased graduation rates for a group of ninth-graders who were more academically prepared at study entry.

The early findings from the Family Rewards 1.0 evaluation — about how families experienced the program, which types of families earned rewards, and which types of families and students benefited — suggested ways in which the model could be modified to be more effective. Family Rewards 2.0 was the next iteration of the model. The new model offered fewer rewards in each of the three areas of children's education, family health, and parents' work (8 rewards total, instead of 22), in order to make the program easier to understand and to focus families' attention on a limited number of outcomes. It offered the education rewards only to high school students, given the lack of effects found for younger students, and it made the rewards more timely, and thus more salient to families, by paying them monthly for rewards earned, rather than every two months, and by rewarding students for grades earned. The biggest change, however, was that the new model offered guidance, in which staff members actively engaged families in conversations about strategies to earn rewards.

In short, the model moved from one with a large set of incentives but little guidance to one with a smaller set of rewards, that were paid on a timelier basis, and that combined the rewards with family guidance. To assess whether this new approach was more effective, the program was implemented and tested in the Bronx, New York, and Memphis, Tennessee in July 2011. Among the group of low-income families who were recruited for and volunteered to participate in the study, a randomly chosen subset was offered the new program for three years. This report presents the effects on families for three to four years after study entry.

Summary of Findings

After some recruitment and start-up challenges in Year 1, the program was operating generally as envisioned in both cities by the middle of Year 2. The family guidance component changed the most over time, starting out as fairly modest and transactional during Year 1 and becoming more intensive during Year 2, with the introduction of motivational interviewing. In addition, the advisors began targeting low-earning participants to provide them with more guidance sessions in the second half of Year 2. Reaching out to these participants involved a tremendous amount of effort from advisors.¹

Further changes during Year 3 included a greater push to have advisors make referrals. It was anticipated at the outset that advisors would function as “resource experts” who developed a knowledge of the services available in their communities and connected participants to appropriate agencies, when such services might help participants meet the conditions to earn rewards. However, through Year 2, the fraction of guidance sessions that included referrals remained quite low. After the increased effort, referrals increased dramatically in the Bronx in Year 3, but remained low in Memphis.

Overall, participants reported good relationships with their advisors, suggesting that the quality of advisement improved over the three years. However, the frequency of advisement was not as high as program designers had hoped, particularly in Memphis. Across both cities, for example, most participants did not attend the anticipated two formal guidance sessions in Year 2 or 3, with rates of just over 60 percent in the Bronx and less than 25 percent in Memphis. Finally, interviews suggest that most families understood the program fairly well. Reward earnings rates by different types of families also suggest that the outreach later in the program targeting low reward-earners did lead to increased reward receipt among more disadvantaged families, something with which administrators in the first program struggled. Families earned on average more than \$2,000 per year in rewards in Years 2 and 3.

In terms of effects, the findings show that the new program achieved many of the same effects as the original model, but fell short in other, important ways. Family Rewards 2.0 met its short-term goals of increasing income and reducing poverty for all families and across a range of family types. It also increased dental visits and adults’ self-reported health status, particularly for those in poorer health at study entry. Similar to Family Rewards 1.0, the new model led to reductions in work and earnings for some participants. However, in contrast to the original program, it did not affect students’ school progress through Year 4, either for the full sample of students or for the subgroup of academically proficient students. Although there were some

¹See Dechausay et al. (2014) for more details about program implementation during the first two years.

small, positive effects on attendance and credits for the ninth-graders, these effects did not persist or lead to lasting effects on enrollment or graduation.

The addition of Memphis as a site in the study also provided information on how the program might work in a different context, since the original program had been tested only in New York City. In general, the program was successfully implemented in both cities and had similar effects on participating families' poverty, health, education, and work. However, the context did matter for how the program was implemented and how families experienced it. In some cases, the differences were due to specific policies. For example, students in the Bronx were less likely to earn rewards for attendance during the first two years because New York City public schools count tardiness toward absences, and program staff followed that convention until Year 3. In contrast, more students in the Bronx earned the high-value reward for passing the state core exams because they were well informed about the exams and took practice tests in class as preparation. In Memphis, these exams were relatively new. As another example, fewer adults claimed the reward for dental checkups in Memphis than in the Bronx, largely because the public health insurance program in Tennessee does not cover dental cleanings, as it does in New York State.

While the program might have been easily adjusted for these types of local differences, what proved to be more challenging in Memphis was transportation. In that city, the lack of good public transit was an important barrier to participation in the guidance component. Staff members adapted by conducting guidance sessions over the phone or by making home visits, but they did not have much direct contact with students. Participants in Memphis tended to feel that they were not as close to their advisors as did participants in the Bronx. While the findings suggest that these differences in the quality and quantity of advisement did not lead to different effects, it is nonetheless an important issue to consider in a model in which guidance is a central component.

Finally, an analysis of program expenditures found that the program cost just under \$13,500 per family over the full program period. Reward payments accounted for about half of this amount, and the costs of operating the program, which included administering the payments and providing the advisement component, accounted for the other half. As noted in Chapter 2, these administrative costs were undoubtedly higher than what such costs would have been had the program been operated on a much larger scale and not as part of a relatively small demonstration project.

Lessons from Family Rewards

Although a somewhat modified replication of the original model that targeted different types of families, Family Rewards 2.0 adds to the evidence about how a CCT program might work in

the United States. By comparing the findings from the two Family Rewards evaluations, it is possible to draw some general conclusions about this type of holistic CCT program.

Most families earn rewards, especially in education and health. In terms of reward receipt, nearly all enrolled families earned at least some rewards in both programs, and most of their earnings came from the education and health domains. For example, over 97 percent of families in each program earned at least one education reward, about 98 percent in the first program and 90 percent in the second program earned at least one health reward, and just over 50 percent in each program earned at least one work reward. Family Rewards 2.0 did not include rewards for maintaining health insurance, so the relatively high receipt rate in that domain is encouraging.

More disadvantaged families earn less than other families. One of the goals of the targeted outreach strategy in Family Rewards 2.0, in which staff reached out to families whose reward earnings were low, was to increase reward receipt among the types of families who had earned less in Family Rewards 1.0. Comparing the receipt rates of similar rewards across both programs, the data on reward earnings suggest that this outreach succeeded. However, the general pattern that more advantaged families earned substantially more in rewards than their disadvantaged counterparts still held in both programs. Parents of families that earned more rewards, for example, had higher education levels, were more likely to be working, and were more likely to be married than those of families that earned less.

Family Rewards reduces poverty and material hardship and increases savings while the rewards are offered. But a program with fewer rewards transfers less cash to families and leads to smaller effects. Family Rewards 2.0 included fewer rewards in order to make the program easier to understand and focus families' effort on key milestones. The qualitative data suggest that families understood the more streamlined program more easily, although the result of offering fewer rewards was that families earned on average much less per year (just over \$2,000 per year in Family Rewards 2.0, compared with about \$3,000 per year in Family Rewards 1.0). Not surprisingly, the program reduced poverty by lesser a degree (by 5 percentage points in Family Rewards 2.0 compared with 12 percentage points in Family Rewards 1.0) and had fewer effects on several measures of material hardship.

Family Rewards increases dental visits and seems to improve some parents' health status. The two programs had fairly similar effects on health. Both had the largest and most consistent effects on dental visits, with both parents and children much more likely to have completed the two recommended visits per year. Both programs also seemed to improve parents' self-rated health status. Family Rewards 1.0 had a marginally significant effect on this outcome for the full sample, but a statistically significant effect for those in poor health at study

entry. Family Rewards 2.0 replicated this finding. Neither program led to changes in health coverage or preventive medical visits.

Family Rewards leads to modest reductions in work, particularly among more disadvantaged groups. Although other work incentives programs have had positive effects on work, there was a concern about Family Rewards from the outset that families' reward earnings in the other two domains might create an "income effect" and lead to reductions in work. An income effect was observed to some extent in both programs, although in somewhat different ways. The first program led to a modest increase in employment for the sample as a whole, but largely in work not captured by the unemployment insurance (UI) system. It also led to notable reductions in UI-covered work and earnings for parents without a high school diploma and those with no recent work experience. The second program led to reductions in UI-covered earnings for the full sample, although negative effects in Memphis largely drove this change. The reasons for the differences across the two cities are not entirely clear, but the findings add to the evidence that CCT programs with generous incentives have the unintended effect of reducing work to some extent. This reduction in work conflicts with the intent of CCT programs to increase longer-term self-sufficiency.

Family Rewards can sometimes improve school outcomes. The original program led to notable increases in school progress and graduation rates for ninth-graders who entered the study already proficient in English language arts. The hope with the modified model, particularly through its rewards for grades and the addition of family guidance, was that it would lead to similar effects, but for all students, including those who were struggling academically. With the exception of some small effects for entering ninth-graders, Family Rewards 2.0 did not generally affect school progress for the full group of students and was not able to replicate the positive effect for proficient students.

Although the students in Family Rewards 2.0 were from different types of families (for instance, they were from families receiving Temporary Assistance for Needy Families or Supplemental Nutrition Assistance Program benefits and from families living in Memphis in addition to the Bronx), these differences did not seem to account for the lack of effects. Another way in which students in the two programs differed is that students in the Family Rewards 2.0 study were doing better in school in the absence of the program, with higher rates of attendance and grade-to-grade retention. By the end of Year 2, for example, only 44 percent of the ninth-graders in the Family Rewards 1.0 control group had earned enough credits to stay on track for an on-time graduation, compared with 60 percent of ninth-graders in Family Rewards 2.0 control group. (A later paper will present a more formal analysis of the differences between the two programs.) Nonetheless, the findings across both programs show that a CCT program of this design, with or without guidance, does not have robust and consistent effects on students' school outcomes.

Adding more intensive guidance to the model is challenging and does not necessarily lead to bigger effects. Not surprisingly, providing more intensive guidance to families about how to earn rewards was the most challenging part of the program. Although advisors built relationships with participants during Year 1, they largely relied on a light-touch and transactional method of guidance, reporting that they often felt unqualified to address some of the personal issues that families brought up. In Year 2, the advisors received training in motivational interviewing and were pushed to provide more intensive guidance and extra outreach to the lowest-earning families. Overall, they succeeded on both fronts, although it required significant time and effort on their part. The more intensive advisement contributed to higher program costs. One way to measure program costs is to calculate how much every dollar of reward payments transferred to families cost each program. That cost was \$0.47 in Family Rewards 1.0 and \$1.07 in Family Rewards 2.0.

However, a comparison of effects across both programs suggests that the more intensive guidance and advising did not lead to bigger or more widespread effects. This result was found in Memphis, where transportation barriers prevented advisors from meeting with families as often as hoped, but also in the Bronx, where advisors met with parents and students more frequently.

Next Steps

Evidence from the two Family Rewards programs points to what a CCT model can and cannot do for families in the United States. A CCT program can transfer significant sums of money to low-income families and reduce poverty. And it can increase dental visits and parents' health status. In terms of the other domains, an important question is: are there any modifications to the current model that might lead to stronger and more consistent effects on students' schooling or that might reduce the incentives it creates for parents to reduce their work effort?

In terms of work, the answer is not necessarily to remove the work rewards, since the reductions in work might have been even larger in their absence. Should all or some fraction of the rewards (in all domains) be conditional upon work? Doing so might minimize the reductions in work, but it would also decrease the income transfer going to the most disadvantaged families. Or, is the answer to provide more support for families who want to work? The value of more guidance seems to be less clear, given that Family Rewards 2.0 provided it and that many families, especially in Memphis, had a hard time taking advantage of it.

More guidance might be one answer to making the education rewards more effective. But the issue of participation remains, since many students would probably still have trouble attending guidance sessions. If more guidance is the answer, and it is not clear that it is, then one option might be to make the program school based. If the program were offered to an entire

school, the incentives themselves might be more salient (through group and classroom dynamics), and students who needed tutoring or other assistance might be more likely to get it (assuming the school has the resources). However, enrolling an entire school in a holistic CCT program — with rewards for reaching milestones in education, health, and work milestones — might mean offering rewards to some families who are not low income. This prospect would limit the program’s ability to reduce short-term poverty, which is a primary program goal.

Finding effective ways to invest in families and break the cycle of poverty is critical, and the results presented in this report indicate that perhaps Family Rewards is not part of the answer. Nonetheless, the benefits of making even small improvements in health and education suggest that the continued search is worth the effort.

Appendix A

Rewards Offered in Family Rewards 1.0 and 2.0

Appendix Table A.1

Comparison of Rewards Offered by Family Rewards 1.0 and 2.0

Reward Type	Family Rewards 1.0	Family Rewards 2.0	
		Bronx	Memphis
<u>Education incentives</u>			
Elementary and middle school students (paid to parent)			
Attends 95% of scheduled school days every month	\$25 per month (discontinued after Year 2)	Not offered	Not offered
Scores at proficiency level or improves on annual math and English tests			
Elementary school students	\$300 per math test; \$300 per English test	Not offered	Not offered
Middle school students	\$350 per math test; \$350 per English test	Not offered	Not offered
Parent reviews low-stakes interim tests up to 5 times per year	\$25 for parents to download, print, and review results (discontinued after Year 1)	Not offered	Not offered
Parent discusses up to 2 annual math and English test results with teachers	\$25 (discontinued after Year 2)	Not offered	Not offered
High school students ^a			
Takes up to 2 PSAT tests	\$50 per test	Not offered	Not offered
Accumulates 11 course credits per year	\$600	Not offered	Not offered
Graduates from high school	\$400	Not offered	Not offered
Attends 95% of scheduled school days	\$50 per month	\$40 per month	\$40 per month
Takes an SAT or ACT exam (once during program)	Not offered	\$50	\$50; must score 19 or better on the ACT if administered by MCS ^b

(continued)

Appendix Table A.1 (continued)

Reward Type	Family Rewards 1.0	Family Rewards 2.0	
		Bronx	Memphis
<u>Education incentives (continued)</u>			
Receives grades on an official report card	Not offered	\$30 per A (90-100); \$20 per B (80-89); \$10 per C (75-79)	\$30 per A (93-100); \$20 per B (85-92); \$10 per C (75-84) ^c
Passes up to 5 Regents exams ^d or 7 End-of-Course exams ^e	\$600 per Regents exam	\$500 per Regents exam for a score of 75 or above; \$400 per exam for a score of 65-74	\$200 per End-of-Course exam for a score of proficient or advanced (increased to \$300 in Year 2)
All grades			
Parent attends parent-teacher conferences up to 2 times per year	\$25 per conference	Not offered	Not offered
Child obtains library card	\$50 once during program (discontinued after Year 2)	Not offered	Not offered
<u>Health incentives</u>			
Maintaining public or private health insurance		Not offered	Not offered
For each parent covered	Per month: \$20 (public); \$50 (private)		
If all children are covered	Per month: \$20 (public); \$50 (private) (discontinued after Year 2)		
Annual medical checkup	\$200 per family member	\$100 per family member	\$100 per family member
A doctor-recommended follow-up visit	\$100 per family member (discontinued after Year 2)	Not offered	Not offered

(continued)

Appendix Table A.1 (continued)

Reward Type	Family Rewards 1.0	Family Rewards 2.0	
		Bronx	Memphis
Early intervention evaluation for child under 30 months old, if advised by pediatrician	\$200 per child	Not offered	Not offered
Preventive dental care every 6 months (once per year for children 1-5 years old)	\$100 per family member	\$100 per family member	\$100 per family member
<u>Adult work efforts</u>			
Sustained full-time employment	\$150 per month	\$150 per month	\$150 per month
Education and training while employed at least 10 hours per week	Amount varied by length of course, up to a maximum of \$3,000 over 3 years (employment requirement discontinued after Year 2)	Not offered	Not offered
GED certificate	Not offered	\$400 for successful completion	\$400 for successful completion

SOURCE: Children’s Aid Society’s Family Rewards 2.0 program materials and Seedco’s Family Rewards 1.0 program materials.

NOTES: MCS = Memphis City Schools; GED = General Education Development.

^aIn Family Rewards 1.0, the following education rewards were paid entirely to students: taking up to two PSAT Tests (\$50), passing five Regents exams (\$600 per exam), and obtaining a library card (\$50). The following education rewards were split between parents and students: accumulating 11 course credits per year (\$600) and attending 95 percent of scheduled school days. In Family Rewards 2.0, all education rewards were paid entirely to students.

^bThe ACT is scored out of 36. Memphis City Schools officials requested that the minimum score for the reward be set at 19 for students taking the test for free in class because this score is considered an indication that students are ready for college-level work.

^cIn Year 1, the amount of each reward for grades was prorated based on the number of official report cards issued by a student’s school. To simplify verification in Year 2, students were paid the listed amounts for their grades regardless of the number of official report cards they received, up to a maximum of \$600 per program year.

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

^eHigh school students (grades 9-12) in Memphis were eligible to earn rewards for the following End-of-Course exams: Algebra 1, Algebra 2, Biology, English 1, English 2, English 3, and U.S. History.

Appendix B

**Parents' Understanding of and Experience with
Family Rewards**

Appendix Table B.1

Parents' Understanding of and Experience with the Family Rewards Incentives and Procedures

Outcome (%)	Program Group
<u>Across all domains</u> ^a	
Average proportion of rewarded activities that respondents correctly identified as eligible for rewards ^{b,c}	89.4
Average proportion of unrewarded activities that respondents correctly identified as not eligible for rewards ^d	35.3
<u>Payment process</u>	
Agreed or strongly agreed with the following statements	
My payments from the program are always on time	81.2
I have given up trying to earn certain rewards because it is hard to get paid for things I do	41.6
I remember the deadlines for the coupons and get them filled out completely	87.9
When I don't earn a reward for an activity, I understand why	91.1
Sample size	1,025

SOURCE: MDRC calculations using data from the Family Rewards 24-month survey.

NOTES: This table excludes control group members because it pertains only to the Family Rewards program.

Sample sizes may vary because of missing values.

^aResponses of "don't know" are considered a wrong answer.

^bThis measure refers to the average number of correctly identified items divided by the total number of items and multiplied by 100.

^cThere are eight rewarded activities that respondents could identify as eligible.

^dThere are three unrewarded activities that respondents could identify as not eligible.

Appendix C

Impacts on Public Benefit Receipt

Appendix Table C.1**Impacts on Temporary Assistance for Needy Families (TANF) or Safety Net Assistance (SNA) and Food Stamp Receipt and Payments, Years 1 to 2**

Outcome	Program Group	Control Group	Difference (Impact)	P-Value
<u>Ever received TANF/SNA (%)</u>				
Years 1 to 2	22.8	23.0	-0.2	0.880
Year 1	18.1	17.6	0.5	0.729
Year 2	14.6	13.9	0.7	0.601
<u>Amount of TANF/SNA received (\$)</u>				
Years 1 to 2	897	834	64	0.562
Year 1	449	414	35	0.525
Year 2	448	420	28	0.658
<u>Ever received food stamps (%)</u>				
Years 1 to 2	95.8	95.9	-0.2	0.835
Year 1	91.2	91.5	-0.3	0.777
Year 2	90.1	89.1	1.0	0.389
<u>Amount of food stamps received (\$)</u>				
Years 1 to 2	9,993	9,589	404 *	0.068
Year 1	5,292	5,016	276 **	0.018
Year 2	4,700	4,573	128	0.273
Sample size (total = 2,456)	1,230	1,226		

SOURCE: MDRC calculations using administrative records data from the New York City and Memphis human resources administrations.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Dollar averages include zero values for sample members who were not receiving TANF or SNA benefits or food stamps.

Appendix Table C.2

Impacts on Temporary Assistance for Needy Families (TANF) or Safety Net Assistance (SNA) and Food Stamp Receipt and Payments, Years 1 to 2 by City

	Bronx				Memphis			
	Program	Control	Difference	P-Value	Program	Control	Difference	P-Value
<u>Ever received TANF/SNA (%)</u>								
Years 1 to 2	22.1	21.3	0.9	0.684	23.6	24.7	-1.1	0.600
Year 1	14.6	13.2	1.3	0.440	21.6	21.9	-0.3	0.876
Year 2	17.0	17.2	-0.2	0.926	12.2	10.5	1.7	0.313
<u>Amount of TANF/SNA received (\$)</u>								
Years 1 to 2	1,290	1,205	86	0.675	506	459	47	0.437
Year 1	559	521	39	0.698	338	307	31	0.429
Year 2	731	684	47	0.701	168	152	16	0.597
<u>Ever received food stamps (%)</u>								
Years 1 to 2	98.3	98.3	0.0	1.000	93.3	93.5	-0.2	0.879
Year 1	90.3	90.2	0.0	0.995	92.1	92.7	-0.6	0.700
Year 2	90.9	92.4	-1.5	0.329	89.3	85.7	3.6 *	0.053 ††
<u>Amount of food stamps received (\$)</u>								
Years 1 to 2	9,479	9,290	190	0.498	10,489	9,908	581 *	0.085
Year 1	5,015	4,845	169	0.269	5,561	5,198	363 **	0.036
Year 2	4,465	4,444	21	0.890	4,929	4,710	219	0.220
Sample size (total = 2,456)	617	613			613	613		

SOURCE: MDRC calculations using administrative records data from the New York City and Memphis human resources administrations.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Appendix D

Impacts on Education Outcomes, by Math Proficiency

Appendix Table D.1

Impacts on Enrollment, Graduation, Attendance, Credits, and Regents or End-of-Course Exams for Students in Grades 9 and 10 at the Time of Random Assignment, by Math Proficiency Test Score

Grade Level and Outcome	Proficient on Eighth-Grade Math Test				Not Proficient on Eighth-Grade Math Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment, Year 3 (%)</u>								
On grade	91.1	85.5	5.5 **	0.035	79.5	79.6	-0.1	0.952 †
Not on grade	6.1	9.6	-3.5	0.115	12.8	11.9	0.9	0.530 †
Not enrolled	2.8	4.9	-2.1	0.201	7.7	8.5	-0.8	0.518
<u>Graduation (%)</u>								
Graduated on time	77.9	74.6	3.3	0.350	61.9	62.2	-0.3	0.881
Graduated by Year 4 ^a	78.6	76.2	2.4	0.491	64.6	65.7	-1.2	0.599
<u>Attendance^b (%)</u>								
Attendance rate, Year 1	89.3	86.6	2.7	0.204	87.4	88.9	-1.5 **	0.042 †
Attendance rate, Year 2	87.6	83.6	4.0 *	0.070	82.7	82.1	0.7	0.546
Attendance rate, Year 3	84.3	80.1	4.1 *	0.078	78.4	77.7	0.7	0.595
Attendance rate is 95% or higher, Year 1	60.1	52.0	8.1 *	0.050	41.0	42.8	-1.9	0.428 ††
Attendance rate is 95% or higher, Year 2	48.7	47.9	0.8	0.837	34.8	33.8	1.0	0.650
Attendance rate is 95% or higher, Year 3	36.8	40.1	-3.3	0.404	28.0	27.0	1.1	0.612
<u>Credits^c</u>								
Number of credits earned, Year 1	12.3	11.7	0.5	0.203	10.7	11.1	-0.3	0.123 †
Number of credits earned, Year 2	11.4	11.3	0.1	0.858	9.9	9.8	0.1	0.837
Number of credits earned, Year 3	10.7	10.1	0.6	0.202	9.2	9.1	0.1	0.679
Number of credits earned, Years 1 to 3	34.3	33.1	1.2	0.308	29.8	30.0	-0.2	0.785
Earned adequate credits, Years 1 to 3 (%)	73.5	68.9	4.6	0.224	52.5	53.4	-0.9	0.715

(continued)

Appendix Table D.1 (continued)

Grade Level and Outcome	Proficient on Eighth-Grade Math Test				Not Proficient on Eighth-Grade Math Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
Regents or End-of-Course exams^{d,e}								
State core exams taken, Years 1 to 3	7.5	7.1	0.4	0.108	6.3	6.3	-0.1	0.760
State core exams passed, Years 1 to 3	5.0	4.9	0.1	0.452	2.0	2.1	0.0	0.728
Sample size (total = 2,450)	284	308			955	903		

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aStudents enrolled in tenth grade at the time of random assignment had five years to complete graduation in this measure. Students enrolled in ninth grade at the time of random assignment had four years.

^bAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^cStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^dThe Regents exam 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.

^eThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History.

Appendix Table D.2

**Impacts on Enrollment, Graduation, Attendance, Credits, and Regents or End-of-Course Exams
for Students in Grade 9 at the Time of Random Assignment, by Math Proficiency Test Score**

Grade Level and Outcome	Proficient on Eighth-Grade Math Test				Not Proficient on Eighth-Grade Math Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
<u>Enrollment and Graduation, Year 4 (%)</u>								
On grade	84.2	76.9	7.3 *	0.082	68.7	69.1	-0.4	0.896
Not on grade	5.1	11.2	-6.2 **	0.028	12.5	10.4	2.1	0.274 ††
Not enrolled	10.8	11.9	-1.1	0.749	18.8	20.5	-1.7	0.490
Graduated on time	74.1	72.8	1.3	0.786	59.4	58.8	0.5	0.863
<u>Attendance^a (%)</u>								
Attendance rate, Year 1	90.0	87.8	2.2	0.367	86.5	87.6	-1.2	0.284
Attendance rate, Year 2	86.7	83.6	3.1	0.248	82.5	80.3	2.2	0.142
Attendance rate, Year 3	83.9	80.1	3.8	0.196	79.4	76.8	2.6	0.139
Attendance rate, Year 4	72.5	65.7	6.7 *	0.097	59.7	57.6	2.1	0.423
Attendance rate is 95% or higher, Year 1	60.9	52.6	8.2	0.116	41.1	41.1	0.0	0.989
Attendance rate is 95% or higher, Year 2	46.7	47.5	-0.8	0.883	35.0	31.7	3.3	0.270
Attendance rate is 95% or higher, Year 3	37.0	43.0	-6.0	0.228	32.8	29.9	3.0	0.294
Attendance rate is 95% or higher, Year 4	27.5	21.1	6.4	0.154	15.0	16.8	-1.8	0.454
<u>Credits^b</u>								
Number of credits earned, Year 1	12.5	11.7	0.8	0.136	10.3	10.5	-0.2	0.459 †
Number of credits earned, Year 2	11.3	11.2	0.1	0.862	10.0	9.4	0.6 *	0.076
Number of credits earned, Year 3	10.9	10.3	0.5	0.360	9.2	8.8	0.5	0.194
Number of credits earned, Year 4	9.4	9.0	0.3	0.559	8.7	8.4	0.3	0.437
Number of credits earned, Years 1 to 4	44.0	42.3	1.8	0.348	38.3	37.1	1.2	0.286
Earned adequate credits, Years 1 to 4 (%)	70.8	67.4	3.4	0.479	50.7	50.4	0.4	0.912

(continued)

Appendix Table D.2 (continued)

Grade Level and Outcome	Proficient on Eighth-Grade Math Test				Not Proficient on Eighth-Grade Math Test			
	Program Group	Control Group	Difference (Impact)	P-Value	Program Group	Control Group	Difference (Impact)	P-Value
Regents or End-of-Course exams^{c,d}								
State core exams taken, Years 1 to 4	8.8	8.0	0.8 **	0.044	7.4	7.2	0.2	0.594
State core exams passed, Years 1 to 4	5.8	5.5	0.3	0.341	2.3	2.3	0.0	0.961
Sample size (total = 1,400)	171	190			534	505		

SOURCES: MDRC calculations using data from New York City Department of Education and Shelby County Schools administrative records.

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

Rounding may cause slight discrepancies in calculating sums and differences.

Note that all outcomes in the table include zero values for students who were no longer enrolled.

Years 1, 2, 3, and 4 cover the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years, respectively.

^aAttendance was calculated as a percentage of total days present divided by total days enrolled according to district records. Records provided for students in New York City include enrollment for the regular school year. Records for students in Memphis include enrollment during the regular school year, alternative education programs, and summer school.

^bStudents in New York City earn 1 credit per course per semester completed. Students in Memphis earn 0.5 credits per course per semester. Credits for students in Memphis were multiplied by two to create a standard scale for comparison. To be considered on time to graduate, students in New York City must earn an average of 11 credits per school year and students in Memphis must earn an average of 5.5 credits per school year.

^cThe Regents exam 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.

^dThe End-of-Course exam measures in this table include the following exams: English 1, English, 2, English 3, Biology, Algebra 1, Algebra 2, and U.S. History. The U.S. History exam was not administered for students in Year 4.

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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.

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- 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.