ENCOURAGING NONRETIREMENT SAVINGS AT TAX TIME

Final Impact Findings from the SaveUSA Evaluation

Gilda Azurdia
Stephen Freedman

January 2016

mdrc
BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

Encouraging Nonretirement Savings at Tax Time

Final Impact Findings from the SaveUSA Evaluation

Gilda Azurdia
Stephen Freedman

January 2016

SaveUSA 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. The SIF is a federal program administered by the Corporation for National and Community Service (CNCS). It catalyzes a unique public-private funding model in which each federal dollar must be matched by private and local contributions. Matching funds required by the SIF for SaveUSA were provided by several foundations and organizations: Bloomberg Philanthropies, Open Society Foundations, The Rockefeller Foundation, The Annie E. Casey Foundation, The Ford Foundation, MetLife Foundation, George Kaiser Family Foundation, Tulsa Community Foundation, and United Way of San Antonio and Bexar County.

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

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

This material is based upon work supported by CNCS's Social Innovation Fund under Grant No. 10SIHNY002. Opinions or points of view expressed in this document are those of the authors and do not necessarily reflect the official position of, or a position that is endorsed by, CNCS or the Social Innovation Fund.

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

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

Overview

Launched in 2011, SaveUSA encourages low- and moderate-income individuals to set aside money from their tax refund for savings. Tax filers at participating Volunteer Income Tax Assistance (VITA) sites can directly deposit all or a portion of their tax refund into a special savings account, set up by a bank or credit union, and pledge to save between $200 and $1,000 of their deposit for about a year. Money can be withdrawn from the accounts at any time and for any purpose, but only those who maintain their initially pledged savings amount throughout a full year receive a 50 percent match on that amount. Account holders, irrespective of match receipt, can deposit tax refund dollars in subsequent years and become eligible to receive additional savings matches on their new tax refund deposits.

This report presents findings on SaveUSA's implementation in four cities — New York City, Tulsa, Newark, and San Antonio — and on its longer-term effects on savings and other financial outcomes in two cities, New York City and Tulsa. In these latter cities, tax filers interested in SaveUSA in 2011 were randomly selected either to a group whose members were offered the opportunity to open a special savings account (the "SaveUSA group") or to a group that could not do so (the "Regular Tax Filers" group). The report compares the savings and other financial behaviors of these two groups over time to estimate SaveUSA's effects. Its findings thus suggest the effects that savings policies structured similarly to SaveUSA's might have.

SaveUSA's operation and evaluation were supported by the Social Innovation Fund (SIF), a program of the Corporation for National and Community Service (CNCS). This particular SIF project has been led by the Mayor's Fund to Advance New York City and the New York City Center for Economic Opportunity (CEO) in collaboration with MDRC. CEO and the New York City Department of Consumer Affairs Office of Financial Empowerment led SaveUSA program operations, and MDRC conducted the program's evaluation.

Key Findings

- SaveUSA was successfully implemented in all four cities. About two-thirds of the SaveUSA group received at least one savings match during the three program years. Across the whole SaveUSA group, total match dollars averaged $365 over the three program years.

- As of the 42-month follow-up point, SaveUSA had increased the percentage of individuals with any nonretirement savings by almost 8 percentage points and had increased the average total amount of savings held by $522, or 30 percent, above the average for the group that did not have access to a SaveUSA account. These effects were present even after most of the SaveUSA group no longer had access to a 50 percent match on savings.

- The program led to improvements in some measures of financial security, such as having more cash available to pay for normal household expenses or for emergency or unexpected expenses, that were directly related to (and reflected) the program's savings increases. SaveUSA had no positive or negative effects on general indicators of financial security, including debt, financial net worth, and incidence of financial hardship.

Contents

List of Exhibits

Table

Table

Table

Figure

Box

Preface

In recent years, many policymakers and providers of social services have advocated for programs that encourage low- and moderate-income families to increase their savings. Having savings on hand has been linked with better financial outcomes, such as the ability to weather sudden losses of income or sudden increases in expenses without resorting to "payday" loans, credit cards, or other high-cost sources of credit.

The SaveUSA initiative helps low- and moderate-income tax filers build up short-term nonretirement savings by encouraging filers to pledge to save a portion of their tax refund in a special account. Tax filers who maintain their pledged savings amount for a year earn a 50 percent match on that amount, which they can use for any purpose. In the period covered by this study, individuals could pledge to save annually at least three times and be eligible to receive savings matches.

Although other asset-building programs have been studied, the effects of SaveUSA are noteworthy because they were measured using a randomized controlled trial. The SaveUSA evaluation also examines effects beyond the short term. A previous report from this evaluation found that in the first 18 months of follow-up, SaveUSA increased the percentage of tax filers with short-term nonretirement savings, compared with what would have occurred without the program. Longer-term effects, measured about four years after study entry, are presented in this final report. The results show that SaveUSA continued to produce gains in nonretirement savings and increased the likelihood that low- and moderate-income families would have cash available to pay for normal household expenses or for emergency or unexpected expenses. No positive or negative effects were found on study participants' debt, material hardship, or other aspects of financial security, such as use of high-cost sources of credit.

The SaveUSA evaluation provides strong evidence that low- and moderate-income families can accumulate short-term savings and that using tax refund dollars is a viable strategy to accomplish this aim. We are confident that the results of the SaveUSA evaluation will inform future policymaking and research on asset-building strategies for low- and moderate-income families.

Gordon L. Berlin
President, MDRC

Acknowledgments

This report reflects the generous contributions and support of many people. We are especially grateful to the individuals participating in the SaveUSA evaluation, who have allowed us to learn from their experiences. The report also would not have been possible without the work and dedication of the participating partners. One group of partners consists of the nonprofit agencies that operated SaveUSA in New York City, Tulsa, Newark, and San Antonio. Past and present staff at these agencies helped us understand their efforts in implementing the program and supplied us with essential data. In particular, for assistance with this report, we would like to thank Irene Baldwin at Ariva in New York City; Janae Bradford and Brandy Holleyman at CAP Tulsa; German Tejeda, Arlene Sabdull, and Andy Nieto at Food Bank For New York City; Victor Silva at Newark Now; and Anna Weaver and Toni Van Buren at United Way of San Antonio and Bexar County. Another essential group of partners is made up of the financial institutions that volunteered to provide SaveUSA accounts. Individuals in these institutions facilitated the opening and ongoing maintenance of the accounts and shared periodic data files with MDRC. We thus express gratitude to Derek Martin at the Bank of Oklahoma; Mariadelle del Priest and Jamie Lutton at Capital One Bank; Doug Lindsey at Carver Federal Savings Bank; Juan Solis III and Patricio Lobos, formerly at Citibank; Tammie Zacharie and Priscilla Mendez at Select Federal Credit Union; and Brian Blake and Angel Fuentes at Spring Bank.

We owe special gratitude to our colleagues at the New York City Center for Economic Opportunity (CEO) and the New York City Department of Consumer Affairs Office of Financial Empowerment (OFE), who led the operations of SaveUSA. In particular, for help with this report, we thank Sinead Keegan, Emily Firgens, Emily Apple, Brigit Beyea, and Monica Copeland.

In addition, we appreciate the continuing support of the funders of the SaveUSA evaluation. The report is based upon work supported by the Corporation for National and Community Service's Social Innovation Fund under Grant No. 10SIHNY002. Additional funders included Bloomberg Philanthropies, Open Society Foundations, The Rockefeller Foundation, The Annie E. Casey Foundation, The Ford Foundation, MetLife Foundation, George Kaiser Family Foundation, Tulsa Community Foundation, and United Way of San Antonio and Bexar County.

Special thanks are also due to external reviewers who carefully reviewed an early draft of the report and offered valuable comments: In addition to the above-named CEO and OFE staff members, Jonathan Mintz and Tamara Lindsay at the Cities for Financial Empowerment Fund, Inc., Amy Brown at The Ford Foundation, and Cathie Mahon at the National Federation of Community Development Credit Unions were very generous with their time and provided insights on the findings. Appreciated comments and reactions were also provided by a group of

asset-building researchers, including Rachel Black, Ray Boshara, Michael Collins, Jessica Dorrance, Lucy Gorham, Justin King, Signe-Mary McKernan, and Ida Rademacher.

At MDRC, Gayle Hamilton provided general oversight of SaveUSA evaluation activities, and Caroline Schultz oversaw SaveUSA program operations. Joshua Vermette and Paul Veldman assisted with the recent acquisition, processing, and analysis of all quantitative data. Jo Anna Hunter helped manage the survey of sample members, which was administered by Decision Information Resources, Inc. (DIR); Ron Bass helped design the survey instrument and monitored its fielding.

For this report, Gordon Berlin, James Riccio, Dan Bloom, Cynthia Miller, Joshua Malbin, and Jennie Kaufman provided valuable internal feedback on drafts. Crystal Ganges-Reid coordinated the production of the report, and Diane Singer helped with the production of the exhibits. Jennie Kaufman edited the report and Stephanie Cowell and Carolyn Thomas prepared it for publication.

The Authors

Executive Summary

Launched in 2011, SaveUSA is a voluntary tax-time savings program that offers low- and moderate-income families the opportunity to directly deposit all or a portion of their tax refund into a special savings account and pledge to save a specific amount for about a year. As an incentive to continue saving, account holders who maintain their pledged savings amount throughout the year earn a 50 percent match on that amount. SaveUSA replicated an earlier program, called $aveNYC, that was designed and managed by the New York City Department of Consumer Affairs Office of Financial Empowerment (OFE). SaveUSA's goal is to encourage low- and moderate-income households to accumulate unrestricted savings to meet financial emergencies, pay bills or debts, or make necessary purchases, in order to strengthen their overall financial well-being.

This is the final report in a multiyear evaluation of SaveUSA. The evaluation broke new ground by using a randomized controlled trial to examine the effects (or impacts) of SaveUSA in two cities — New York City and Tulsa — on a wide range of outcome measures. Most outcomes analyzed in this report were measured using responses to a survey administered about 42 months (or three and a half years) after study entry. The report also analyzes the implementation of SaveUSA in four cities — New York City, Tulsa, San Antonio, and Newark — over three years of operation.

The evaluation sought to answer a range of primary questions: Can this type of program be implemented in different settings, and to whom and to what extent does it appeal? Does access to a SaveUSA account increase short-term nonretirement savings beyond what low- and moderate-income tax filers would have accumulated on their own? And, if so, are these increases large enough to improve households' overall financial security?

SaveUSA's implementation and its evaluation were supported by the Social Innovation Fund (SIF), a program of the Corporation for National and Community Service (CNCS). This particular SIF project has been led by the Mayor's Fund to Advance New York City and the New York City Center for Economic Opportunity (CEO) in collaboration with MDRC. A number of foundations and organizations provided matching funds for the effort, as required by the SIF. CEO and OFE led (and continue to lead) SaveUSA program operations, and MDRC conducted the program's evaluation.

The results show that a majority (68 percent) of the "SaveUSA group" — sample members who had access to a SaveUSA savings account — received at least one savings match during the three program years, and about 40 percent of SaveUSA group members deposited tax refund dollars into their SaveUSA accounts more than once across the three program years. They accumulated an average of $365 in match dollars ($540 per match recipient).

As of the 42-month follow-up point, the program had increased the percentage of SaveUSA group members with nonretirement savings (of any type) by 8 percentage points and had increased the total average amount of savings held by $522, compared with savings levels for the "Regular Tax Filers" group, who did not have access to a SaveUSA account. The program led to improvements on some measures of financial security, such as having more cash available to pay for normal household expenses or for emergency or unexpected expenses, that were directly related to the program's savings increases. SaveUSA had no positive or negative effects on more general indicators of financial security, including debt, financial net worth, and incidence of financial hardship.

The SaveUSA Program Model

SaveUSA, offered during the tax return preparation seasons of 2011 through 2013, built on the free tax preparation services provided by a total of 18 Volunteer Income Tax Assistance (VITA) sites across the four cities. To be eligible for SaveUSA, tax filers had to be at least 18 years old and meet certain annual income requirements ($50,000 or less for filers with dependents, and generally $25,000 or less for filers without dependents). When preparing their tax returns, both single filers and couples filing jointly could open a SaveUSA account with a local financial institution participating in the program or redeposit into a SaveUSA account they established in a prior year. On their tax returns, SaveUSA participants instructed the Internal Revenue Service (IRS) or state taxing agency to deposit at least $200 from their tax refunds directly into their SaveUSA account. Participants also pledged to keep a certain amount of their initial deposit, from $200 to $1,000, in the account until January 31 of the following year. On February 1, participants who fulfilled this pledge received a 50 percent savings match, up to $500, on their pledged savings amount. Account holders whose balance fell below their pledged amount at an earlier date lost their eligibility for the savings match but did not incur any further penalty for withdrawing funds. Regardless of whether they received a match, individuals could pledge to save part or all of their tax refunds in subsequent years and again be eligible for eventual matches.

SaveUSA focused on tax-time saving because tax refunds, supported by the Earned Income Tax Credit (EITC) and other credits, typically constitute the largest source of cash that low- and moderate-income individuals receive at any one time. In addition, SaveUSA's design was intended to influence federal tax policy, possibly leading to the creation of a federal program enabling low- and moderate-income households to directly deposit tax refund dollars in unrestricted savings accounts and receive tax credits.

The SaveUSA Evaluation

In New York City and Tulsa, eligible tax filers who were interested in opening a SaveUSA account and willing to enter the study were randomly assigned in 2011 to either a SaveUSA group (eligible to open a SaveUSA account) or a Regular Tax Filers group (not eligible to do so but with access to other savings products normally offered at tax sites). Random assignment ensured that, on average, the characteristics of the tax filers — such as income, refund amounts, and motivation to save — were similar for the SaveUSA and Regular Tax Filers groups at the start of the study. By tracking both groups over time and comparing their outcomes, MDRC can determine the impact or "value added" of the SaveUSA program. Random assignment was not conducted in Newark and San Antonio, where all eligible tax filers interested in SaveUSA could open SaveUSA accounts. Program implementation was studied by MDRC in all four cities.

Study Sample

During the 2011 tax return preparation season, about 28,000 tax filers in participating VITA sites were determined to be eligible for SaveUSA, and nearly 2,500 were interested in and enrolled in the study. The SaveUSA take-up rates, which ranged between 6 percent and 13 percent across the four cities, were comparable to take-up rates found for other tax-time asset-building initiatives, including the predecessor $aveNYC program.

Study enrollees on average received larger refunds than nonenrollees, some supported by the EITC, and had slightly higher adjusted gross incomes. (An informal survey of a subsample of nonenrollees suggested that many had already earmarked all of their anticipated refund to pay bills or reduce debt.) Even so, SaveUSA study enrollees faced significant barriers to initiating or increasing savings: About half of all enrollees were single filers with at least one dependent child; their average income during 2010 was about $18,000, with a quarter having an income of less than $10,000; and a significant share of enrollees reported that they did not have enough money to make ends meet and/or had sizable debt.

SaveUSA Implementation

- **SaveUSA was consistently marketed and successfully integrated into the normal VITA tax return preparation process.**

In all four cities where SaveUSA was offered, VITA program operators marketed SaveUSA before and during the tax filing season. The VITA staff also conducted SaveUSA eligibility screening and study enrollment, coordinated the opening of SaveUSA accounts, and assisted tax return preparers in arranging for direct deposit of tax refund dollars into the ac-

counts. As Table ES.1 shows, about 98 percent of all SaveUSA group members were successful in opening a SaveUSA account during the study enrollment period in 2011.

In 2013, the last year MDRC tracked direct deposits to SaveUSA accounts, SaveUSA operations remained strong, except in Newark, where program operators ceased opening new SaveUSA accounts but allowed individuals with existing accounts to deposit tax dollars through a new process. According to survey responses from New York City and Tulsa, the vast majority of SaveUSA group members were aware that they could participate in SaveUSA in 2013, the final program year for the study period.

SaveUSA Pledge Amounts, Match Eligibility, and Use of Account Monies

- **Over three years of program operation, SaveUSA group members pursued different savings strategies. About two-thirds received at least one savings match, and about 40 percent pledged to save tax refund dollars in their SaveUSA accounts in more than one year.**

Despite their modest income, individuals pledged to save a significant portion of their refunds — on average 14 percent of their refund in Year 1. During the first year, when almost all sample members participated in SaveUSA, 30 percent pledged to save $1,000, the maximum amount allowed to be matched, and 37 percent pledged to save $200, the minimum amount (Table ES.1).

Participation declined after the first program year, and just 23 percent of SaveUSA group members pledged to save during all three years (not shown). According to survey responses in New York City and Tulsa, among SaveUSA group members who did not pledge again in the second year, over half reported that they were not able to do so because they received no refund or their refund was not big enough, or they needed to use their refund to pay debts or bills or make expenditures. Similar reasons for not pledging to save again were provided regarding the final program year for the study period.

A majority of SaveUSA group members — 68 percent — received at least one savings match over the three program years (Table ES.1). Among all members, the SaveUSA group averaged a total of $365 in match dollars over this period (a $540 average among only those who received a match). Recipients of two or more savings matches were more likely to have pledged the maximum of $1,000 in any given program year. They also tended to be older and have higher adjusted gross incomes (that is, between $20,000 and $50,000), compared with other SaveUSA group members. Conversely, those who received only one or no savings match during the three program years had very low incomes (that is, less than $10,000); were more

The SaveUSA Evaluation

Table ES.1

SaveUSA Account Activity, by Program Year, in All Four Cities

Outcome	Year 1	Year 2	Year 3	All Years
SaveUSA account opened or pledged (%)	97.5	39.1	28.8	97.9
Distribution of pledged deposit[a] (%)				
$0	0.0	60.8	71.2	0.0
$1 - $200	36.7	8.4	5.0	25.0
$201 - $999	33.3	15.1	9.7	31.3
$1,000	30.0	15.7	14.2	43.8
Average initial deposit amount[b] ($)	506	293	244	1,042
Distribution of initial deposit[b] (%)				
$0	10.0	62.6	72.2	8.7
$1 - $200	32.0	7.4	4.0	21.4
$201 - $999	29.8	14.2	9.1	27.7
$1,000 or more	28.3	15.9	14.7	42.2
Received savings match (%)	65.5	27.5	20.5	67.5
Average amount of savings match ($)	191	96	78	365
Average savings match, among those who received the savings match ($)	291	348	383	540
Distribution of savings match (%)				
$0	34.5	72.5	79.5	32.5
$1 - $100	20.1	4.3	1.7	14.0
$101 - $499	22.1	10.0	7.1	19.8
$500	23.3	13.2	11.6	33.7
Sample size				1,554

SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

NOTES: The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.
Rounding may cause slight discrepancies in calculating sums.

[a]The pledged deposit refers to the amount of tax refund dollars that individuals committed to savings at the time of study entry.

[b]The initial deposit refers to the tax refund amount directly deposited into the SaveUSA account by the Internal Revenue Service.

likely to pledge to save smaller amounts and thus received a smaller match if they did receive one; and were less likely to pledge to save again in subsequent years. By city, savings match rates over the three program years ranged from 52 percent to almost 80 percent.

- **Most recipients of savings matches withdrew their pledged savings amount plus their savings match within several weeks of receiving the match.**

When surveyed, most match recipients reported that they used their savings match either for expenditures — such as a big purchase, usual household expenses, travel or a family event, or education — or to pay bills or debts. Typically, SaveUSA group members who did not receive a savings match withdrew some or all of their pledged savings within three months after pledging to save. During survey interviews, they reported most often that they used the funds to cover an emergency expense, to pay bills or debts, or to buy necessities.

SaveUSA's Effects on Savings

SaveUSA's effects (or impacts) are defined as the differences between the SaveUSA group and the Regular Tax Filers group in financial outcomes or in attitudes toward saving. Impacts in this report are estimated primarily from surveys administered to both research groups at about 18 months and 42 months after random assignment.

- **At the 42-month follow-up point, SaveUSA group members had more nonretirement savings than members of the Regular Tax Filers group.**

When interviewed at 42 months, 80 percent of SaveUSA group members reported having at least $1 in nonretirement savings, an increase of 8 percentage points above the level reported by members of the Regular Tax Filers group. As Table ES.2 shows, on average, SaveUSA group respondents reported having a total of $2,281 in nonretirement savings, an increase of $522, or 30 percent, above the average for the Regular Tax Filers group. SaveUSA's impact on total nonretirement savings resulted in part from the program's turning some nonsavers into savers (as represented by the impact on the proportion with any nonretirement savings). In addition, when only respondents with nonretirement savings are considered, the SaveUSA group savers averaged about $400 more in nonretirement savings than their counterparts in the Regular Tax Filers group. As expected, SaveUSA did not affect sample members' accumulation of longer-term retirement savings.

- **On average, SaveUSA group members saved more consistently during the follow-up period than members of the Regular Tax Filers group — even as their savings patterns changed over time.**

The SaveUSA Evaluation

Table ES.2

Impacts on Selected Outcomes as of 42-Month Interview

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Nonretirement savings				
Has savings (%)	80.0	72.4	7.6 ***	0.002
Total savings ($)	2,281	1,758	522 **	0.024
Total savings (%)				
$0	20.0	27.6	-7.6 ***	0.002
$1 - $500	31.2	28.7	2.6	0.340
$501 - $1,000	9.1	11.5	-2.4	0.175
$1,001 - $2,000	12.1	12.3	-0.2	0.929
$2,001 - $5,000	15.1	12.0	3.1	0.117
$5,001 - $10,000	9.1	5.1	4.0 ***	0.008
More than $10,000	3.4	2.8	0.5	0.603
Savings goals and attitudes				
Has a current savings goal (%)	78.2	71.6	6.6 ***	0.007
Thinks it very important to have money in a savings account (%)	78.6	76.1	2.5	0.304
Financial security				
Used high-interest credit since the 18-month interview (%)	24.1	27.5	-3.3	0.186
Total non-housing-related debt ($)	9,733	10,309	-576	0.542
Has liquid net worth greater than zero (%)	36.2	34.7	1.4	0.620
Had financial hardship since the 18-month interview (%)	60.7	60.1	0.6	0.827
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City and Tulsa who were ages 18 to 64 at their time of random assignment.

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

SaveUSA's impacts on nonretirement savings as of 42 months of follow-up closely resemble the program's effects measured two years previously, when most SaveUSA group members had recently received a savings match and many were saving for another match the following year. Nonetheless, SaveUSA group members' savings patterns changed over time, which affected the program's impacts on nonretirement savings in other ways. At 18 months, SaveUSA led to an extremely large impact on the incidence of directly depositing tax refund dollars into nonretirement savings and also to smaller but consistent increases above the Regular Tax Filers group in responses to questions about their views on the importance of savings. In contrast, two years later, the SaveUSA group's incidence of directly depositing tax refund dollars into savings, and the program's impact on this measure, had decreased substantially. Moreover, at their 42-month interview, respondents from both research groups voiced similar support for saving. The main exception to this finding was that SaveUSA group members were more likely to report that they had a specific savings goal.

These trends in program impacts suggest that SaveUSA group members were using a greater variety of savings strategies. They were relying less on tax-time savings and more on other savings products, most likely ones paying relatively low interest. This transition to a broader set of strategies may be interpreted as a notable achievement of the program.

- **SaveUSA group members attained some gains in financial security compared with members of the Regular Tax Filers group — in outcomes that were directly related to (and reflected) the program's savings increases.**

Proponents of programs that encourage nonretirement savings among low- and moderate-income households have often posited that even modest increases in savings can have the positive effect of helping households avoid financial hardship and increase their financial well-being. The evidence from the SaveUSA evaluation is mixed on this perspective.

A primary reason why low- and moderate-income households with a certain level of savings can experience greater financial security is that household members can use savings or current income to pay for normal or unexpected expenses. In fact, at 42 months of follow-up, SaveUSA group members were more likely than members of the Regular Tax Filers group to report having the equivalent of cash on hand to pay expenses for at least one month. SaveUSA also led to an increase in the proportion of respondents who reported a preference for relying on savings or current income to pay for emergency or unexpected expenses, as opposed to increasing their debt. Furthermore, as a result of SaveUSA's impact on nonretirement savings, the program led to a reduction of 6 percentage points in the incidence of "liquid-asset poverty" (defined as having insufficient liquid assets to subsist at the poverty level for three months in the

absence of income). These findings suggest that SaveUSA produced some modest gains in financial security.

- **At 42 months, SaveUSA had no positive or negative effects on more general indicators of financial security, including debt, financial net worth, and incidence of financial hardship.**

Findings indicate that SaveUSA did not positively or negatively affect other measures of financial security: Similar proportions of SaveUSA and Regular Tax Filers group members reported that they had used a high-cost source of credit, such as a cash advance with a credit card or overdrawing a checking account, in the previous two years. SaveUSA also did not affect non-housing-related debt levels, which averaged about $10,000 for both research groups, and did not increase the incidence of having positive "liquid net worth" (liquid assets that exceed non-housing-related debt). Similarly, about the same proportion of both research groups reported that their debt levels had decreased in the previous two years.

SaveUSA also did not affect the incidence of financial hardship among survey respondents. About 60 percent of both research groups reported that they had experienced at least one type of financial hardship in the past two years, such as an inability to pay housing or utility costs, food insecurity, or forgone use of medical care or prescription drugs. Finally, SaveUSA and Regular Tax Filers group members expressed similar sentiments about having made progress financially since their 18-month interview and in their views of their future financial prospects.

The above findings are similar to the results reported as of 18 months of follow-up.[1]

- **In general, SaveUSA's effects were consistent across subgroups.**

SaveUSA could have worked differently for different types of people or depending on the enrollment city. For example, the effects of SaveUSA could have differed depending on tax filers' circumstances when they entered the study. Certain characteristics, such as having a very low income or having children, could make it harder for individuals to save. The findings, however, show that SaveUSA led to savings increases that were consistent across subgroups defined by city of residence, age, income level, educational attainment, and tax filing status. Similar to the results for the full sample, no effects were found on general indicators of financial security for any of these subgroups.

[1]Gilda Azurdia, Stephen Freedman, Gayle Hamilton, and Caroline Schultz, *Encouraging Low- and Moderate-Income Tax Filers to Save: Implementation and Interim Impact Findings from the SaveUSA Evaluation* (New York: MDRC, 2014).

Discussion

SaveUSA was designed as a possible precursor to a federal tax-time savings incentive for low- and moderate-income households. The program embodies one of several strategies that policymakers think might increase nonretirement savings, and it is best evaluated as one candidate for inclusion among a potential "toolkit" of types of savings programs — each varying in appeal and possibly leading to benefits for different segments of the low- and moderate-income population.

Results from this evaluation show that SaveUSA was successfully implemented over several years at VITA sites in a variety of settings and that the program maintained the active support of a number of financial institutions. Two-thirds of SaveUSA group members received at least one savings match, but the program experienced sustained involvement by less than a quarter of SaveUSA group members, disproportionately those with higher incomes (between $20,000 and $50,000) at the start of the study. Different types of savings interventions, however, can be expected to engage different people. Programs that use lotteries, prizes, or carefully targeted marketing as savings incentives, for example, likely appeal to certain types of savers as well. From the standpoint of assembling a toolkit of savings options for low- and moderate-income households, the SaveUSA model should be considered as a viable option.

The impact results show that opening a SaveUSA account had positive behavioral effects. SaveUSA increased nonretirement savings without increasing debt and engendered greater longer-term support for having a savings goal. On average, SaveUSA group members demonstrated a stronger commitment to save, using a variety of savings strategies. Tax refund dollars and the SaveUSA match provided opportunities to save, but SaveUSA group members made use of other savings products, such as personal savings and checking accounts, as well. Moreover, the impacts on nonretirement savings at 42 months after random assignment showed that SaveUSA could sustain savings increases above the level for members of the Regular Tax Filers group even after most SaveUSA group members no longer had access to a 50 percent match on savings.

Although generally positive, the longer-term findings from the SaveUSA evaluation also demonstrate the limitations of programs that focus solely on helping low- and moderate-income households increase their nonretirement savings. Three and a half years after random assignment, members of the SaveUSA group did not report better outcomes than Regular Tax Filers on a series of general indicators of financial security, including accumulated levels of debt, liquid net worth, and incidence of experiencing financial hardship. It could be that SaveUSA's savings increase of $522, while of a magnitude *associated* in past studies with increased financial security, was not enough to markedly improve the financial situations of a significant portion of study sample members who already had some savings at study entry. Possibly, SaveUSA could have had greater positive effects on financial security if it could have been

targeted only to individuals who did not have any savings. However, individuals with very low incomes, who likely had little or no savings, were the least likely to participate in SaveUSA and receive savings matches.

It should also be noted that the financial situations of sample members as of the 42-month follow-up point were very precarious — with average non-housing-related debt of around $10,000, well in excess of their accumulated savings, and an average household income of less than $2,000 per month (including public assistance). In order to improve their financial security, savings increases may need to be much larger, or other interventions may need to be tried — alone or coupled with SaveUSA-like programs. For example, additional rigorous research could be conducted on programs that give incentives to save and also seek to increase income through skills training or other means, or that combine savings incentives with other services, such as financial coaching on debt reduction or financial management strategies. Research on savings interventions is still at an early stage, and the findings from the SaveUSA evaluation represent just a single piece of the puzzle.

Chapter 1

Introduction

Many U.S. households do not have enough savings to help them manage temporary losses of income or increased expenditures from unexpected events.[1] Particularly for low- and moderate-income families, who may resort to high-cost loans or miss monthly housing payments in the face of financial shocks, increased savings might strengthen financial stability.[2] Although many low- and moderate-income individuals recognize the importance of saving, they may have barriers to achieving it; they may not have enough income to save or may lack access to financial products that would make saving easier.[3] Some experts have proposed encouraging low- and moderate-income individuals to save part of their tax refund, capitalizing on the large, annual influx of cash.[4] Some past research suggests that this approach may be promising; other research indicates that many low- and moderate-income individuals need their refunds to pay bills or reduce debt.

In 2008, the New York City (NYC) Department of Consumer Affairs Office of Financial Empowerment (OFE) developed $aveNYC, a tax-time matched savings program that encouraged emergency savings for low- and moderate-income tax filers. From 2011 through 2014, the program was replicated by the NYC Center for Economic Opportunity (CEO), OFE, and nonprofit partners under the name of "SaveUSA" in four cities: New York City, Tulsa, Newark, and San Antonio.[5] SaveUSA encouraged low- and moderate-income tax filers to directly deposit a portion of their tax refund into a special matched savings account that they could later use to pay for unexpected or emergency expenses or for any other purpose. Individuals who left their money untouched for about a year were eligible to earn a 50 percent matching incentive (hereafter referred to as the "savings match"). The program thus sought to increase individuals' unrestricted-use savings, capitalizing on the moment when individuals learn the size of their tax refunds.

MDRC conducted a randomized controlled trial to measure the effects of SaveUSA in New York City and in Tulsa. Individuals who met SaveUSA eligibility criteria were assigned, at random, to a "SaveUSA group" or to a control group (called the "Regular Tax Filers" group). Those in the SaveUSA group were eligible to open a special savings account (or "SaveUSA

[1]Pew Charitable Trusts (2015).

[2]Cramer, King, and Schreur (2015); Hannagan and Morduch (2015); Abbi (2012).

[3]Edin and Lein (1997); Collins and Gjertson (2013); Abbi (2012); Brobeck (2008a).

[4]Edin, Greene, Halpern-Meekin, and Levin (2015); Rothstein and Black (2013).

[5]The last year during which individuals in all four cities were eligible to receive the SaveUSA savings match was 2014. With some modifications, the program continued in New York City and San Antonio through the 2015 tax season, with final matching funds delivered in 2016.

account") and receive the savings match, while those in the Regular Tax Filers group were not eligible to open the special savings account but could open other savings accounts offered at the tax sites. The evaluation shows whether short-term incentivized tax-time savings can encourage participants to save more than they normally would have without the program and lead to longer-term savings habits, reduce material hardships, result in accrued assets, and improve the overall financial well-being of participants.

The SaveUSA program and its evaluation were funded through the federal Social Innovation Fund (SIF), a program of the Corporation for National and Community Service (CNCS). The Social Innovation Fund combines public and private resources to increase the impact of innovative, community-based solutions that have compelling evidence of improving the lives of people in low-income communities throughout the United States. This particular SIF project has been led by the Mayor's Fund to Advance New York City and the NYC Center for Economic Opportunity in collaboration with MDRC and OFE. (Box 1.1 lists the local nonprofit organizations, financial institutions, and funding partners that have been involved in the project.)

This report presents the final findings from the SaveUSA evaluation. It builds on an interim report that showed that SaveUSA was successfully implemented in all four cities.[6] At the interim point — about a year and a half after enrollment — the majority of SaveUSA group members had received a first savings match, and 39 percent deposited part of their tax refund again in the program's second year. The 18-month effectiveness, or "impact," findings presented in that report showed that the SaveUSA program increased the percentage of individuals with short-term, nonretirement savings and their total amount of savings beyond what would have occurred in the absence of the program. As of the 18-month follow-up period, the program had also increased the percentage of individuals with pro-savings attitudes. These were the program designers' primary short-term goals for the program.

This report discusses implementation findings for the third, and final, program evaluation year and presents impact findings covering a much longer follow-up period — 42 months after individuals entered the study. The report provides a complete assessment of whether SaveUSA was able to sustain the savings increases observed at the 18-month point and examines whether the program was able to improve various aspects of individuals' overall financial well-being.

The final results show that SaveUSA was marketed and implemented as intended during each program year. The majority (68 percent) of the SaveUSA group received at least one savings match during at least one of the three program years during the study period. On average, SaveUSA group members received a total of $365 in savings matches over the three

[6]Azurdia, Freedman, Hamilton, and Schultz (2014).

Box 1.1

SaveUSA Partners

Nonprofit Agencies

- Ariva
- CAP Tulsa (formerly known as Community Action Project of Tulsa County)
- Food Bank For New York City
- Newark Now
- United Way of San Antonio and Bexar County

Financial Institutions

- Bank of Oklahoma
- Capital One Bank
- Carver Federal Savings Bank
- Citibank
- Select Federal Credit Union
- Spring Bank (formerly known as CheckSpring Bank)

SaveUSA Funders

- Corporation for National and Community Service
- Bloomberg Philanthropies
- Open Society Foundations
- The Rockefeller Foundation
- The Annie E. Casey Foundation
- Ford Foundation
- George Kaiser Family Foundation
- MetLife Foundation
- Tulsa Community Foundation
- United Way of San Antonio and Bexar County

program years (including zeros for those who did not get a match). About 40 percent of SaveUSA group members deposited part of their tax refund into their SaveUSA accounts more than once. As of the 42-month follow-up point, SaveUSA had increased the percentage of SaveUSA group members with nonretirement savings, by 8 percentage points, and had increased the total amount of savings they held, by $522, compared with savings levels for the Regular Tax Filers group. The program led to improvements in some measures of financial security, such as having more cash available to pay for normal household expenses or for emergency or unexpected expenses, that were directly related to (and reflected) the program's sav-

ings increases. SaveUSA had no positive or negative effects on more general indicators of financial security, including debt, financial net worth, and incidence of financial hardship.

Policy Context and Background

Many U.S. households do not save enough money to smooth consumption throughout their lifetime and to weather economic storms.[7] Before the Great Recession of 2007-2009, Americans saved, on average, less than 2 percent of their disposable income.[8] While savings rates increased during the recession, and generally have hovered near 5 percent since early 2013, saving has not translated into greater household wealth during the recovery.[9] Lower-income and middle-income families alike failed to recover from the roughly 40 percent decline in wealth that they experienced during the recession. Meanwhile, racial and ethnic wealth disparities have persisted, and young households have seen only small increases in net worth.[10]

Consumer survey data indicate that among households earning less than $50,000 per year, holding even small amounts of unrestricted "emergency savings" — as little as $500 — is *associated* with a lower incidence of unfavorable financial events, such as overdrawing a checking account, initiating high-cost loans, or failing to meet monthly bills, such as rent and minimum credit card payments.[11] Thus it is possible that building a cushion of accessible savings may help families manage temporary losses of income or increased expenditures from unexpected events — such as illness, job loss, or death.[12] Some research has also found that the accumulation of savings can help individuals in the lowest income brackets move up the income ladder. For example, in one study, people with $10,000 in liquid savings were 6.5 times more likely to have moved up in income and 5.5 times more likely to have made it to at least a middle income bracket over at least a 25-year period, compared with people who started with only $1,000 in liquid savings.[13]

---

[7]Pew Charitable Trusts (2015); McKernan and Ratcliffe (2008); Brobeck (2008b).

[8]McCully (2011).

[9]U.S. Bureau of Economic Analysis, National Income and Product Accounts tables, December 2007 through June 2015. The personal savings rate is expressed in terms of savings as a percentage of disposable personal income.

[10]Wolff (2014); Fry and Kochhar (2014).

[11]Brobeck (2008b); Lopez-Fernandini (2010). This association does not necessarily mean that holding unrestricted savings of at least $500 was the cause of this lower incidence of unfavorable financial events. The overall financial circumstances of people who have and do not have emergency savings are likely to be quite different.

[12]In addition, research suggests that asset accumulation leads to benefits ranging from improved financial stability to better health and education outcomes for families and children. Asset accumulation may also have a positive effect on children's wage-earning potential and the likelihood of their building savings into adulthood (Lopez-Fernandini, 2010; McKernan, Ratcliffe, and Vinopal, 2009; Rank, 2008; Lerman and McKernan, 2008; Chase, Gjertson, and Collins, 2011).

[13]Pew Charitable Trusts (2013).

Although many low- and moderate-income individuals recognize the importance of saving, many have barriers to building or increasing their savings, such as not having enough income to save and a lack of access to financial products that would make it easy to save.[14] Furthermore, even among individuals who save, many underestimate how much they need to save. One study found that among households in the lowest income quintile, people perceived their annual emergency savings needs at about $1,500, even though their typical annual unexpected expense was around $2,000.[15]

Current federal policies support families in building certain assets, such as retirement savings and home equity, but policies that help families build unrestricted savings do not exist. Given the growing policy interest in encouraging individuals to increase their savings, there have been efforts by some to introduce federal legislation to Congress that would modify the tax code to enable the creation of matched savings accounts funded with tax refund dollars, with disbursement of a savings match as a tax credit.[16]

Past Programs and Research

Various types of interventions designed to increase saving by low- and moderate-income families have been tried. These interventions have varied on several dimensions, including (1) the savings goal (for a specific purpose or any purpose); (2) how deposits were made; (3) when savers could access their accounts; and (4) whether additional savings incentives were offered.

One type of savings intervention focuses on saving for specific assets. For example, the American Dream Demonstration (ADD) and select Temporary Assistance to Needy Families (TANF)-funded initiatives have offered Individual Development Account (IDA) programs, which pair financial education with matched savings incentives for making home purchases, educational payments, or business investments.[17] As of 2010, about 80,000 people participated in IDA programs, of which 34,000 made expenditures from their IDA accounts that triggered a savings match.[18] The ADD evaluation found that access to an IDA program with incentives increased asset holdings, particularly among subgroups of low- and moderate-income participants, including African-Americans, those not on public assistance, and those who did not initially have a checking or savings account.[19] However, IDAs have been costly to administer and seem to require considerable commitment and long-term planning by low-income households. An analysis of an IDA program previously implemented showed that cumulative administrative

[14]Edin and Lein (1997); Collins and Gjertson (2013); Abbi (2012); Brobeck (2008a).
[15]Brobeck (2008b).
[16]Black and Cramer (2011); Weller and Unger (2013).
[17]Authorized withdrawals were matched at 2:1 for home purchase and at 1:1 for all other allowable uses.
[18]U.S. Department of Health and Human Services (2012).
[19]Mills, Patterson, Orr, and DeMarco (2004).

costs exceeded the total amount of savings match dollars paid to program participants.[20] In short, IDA programs may be too expensive to bring to a large scale and, moreover, they are focused on saving for specific assets — not on saving for any use, including emergency use.

Other programs focus on increasing retirement savings. For example, Save More Tomorrow (or the SMarT program) encouraged people to commit in advance to allocating a portion of their future salary increases toward retirement savings. A nonexperimental study found that 78 percent of those offered the program joined and the average savings rates for program participants increased from 3.5 percent to 13.6 percent over the course of 40 months.[21] A study by HelloWallet suggests, however, that some households may be better off postponing saving toward retirement until an emergency fund has been established. The study found that one out of four households withdrew early from their retirement accounts to pay day-to-day expenses, many because they lacked access to liquid savings.[22]

Other interventions attempt to increase unrestricted savings. One strategy encourages individuals to regularly set aside small amounts. An example of this strategy was the AutoSave model, piloted beginning in 2009, which automatically diverted, through payroll deduction, a small portion of low- and moderate-income workers' wages into a savings account. These savings were fully liquid and available both to cover short-term needs and, potentially, to increase attachment to mainstream financial services or to serve as building blocks to longer-term asset accumulation.[23]

Some savings interventions are embedded within programs that offer multiple services to enhance the financial security of low- and moderate-income families. An example of this strategy is the U.S. Department of Housing and Urban Development's Family Self-Sufficiency (FSS) program, which provides case management services to Housing Choice (Section 8) Voucher recipients to increase employment and has an asset-building component. Voucher recipients generally pay 30 percent of their income in rent (with the government making up the balance); as their earnings rise, so does their rent. FSS allows families to build savings by diverting these rent increases into interest-bearing "escrow accounts" maintained by their local housing authority and paid to participants after several years when they complete the program.[24] A study showed that 18 months after enrollment in FSS, about 29 percent of the households had accumulated some savings in FSS escrow savings accounts. In addition, among households with any escrow savings, those in a group subject to normal FSS procedures saved an average

[20]Schreiner (2005).
[21]Thaler and Benartzi (2004).
[22]Fellowes and Willemin (2013).
[23]Lopez-Fernandini and Schultz (2010).
[24]U.S. Department of Housing and Urban Development (2014).

of $1,112, while those in a group that received special incentives, which paid to encourage sustained full-time employment or educational training, accrued $1,312.[25]

Among the savings interventions previously tried is a group of programs that leverage the tax-time moment to encourage savings, because tax refunds, supported by the Earned Income Tax Credit (EITC) and other credits, typically constitute the largest source of cash that low- and-moderate income individuals receive at any one time. Some theories of tax refund use suggest that individuals are more willing to save when receiving money in a lump sum.[26] In fact, one study found that over a quarter of EITC recipients were planning to save part of their EITC.[27] At the same time, one study of post-filing and post-refund household consumption found that spending corresponded strongly to the *moment of receiving* refunds rather than the *anticipation* of refunds, suggesting that diverting a portion of an anticipated refund at the time of filing may be an effective way to avoid spending down the entire refund once it is received.[28] Some tax-time interventions have focused on increasing the use of tax refund dollars to purchase U.S. savings bonds or invest in Individual Retirement Accounts (IRAs). The take-up rates for these interventions have ranged between 3 percent and 14 percent.[29] Other interventions, like the $aveNYC program in New York City (described below), encourage low- and moderate-income tax filers to deposit tax refund dollars into an unrestricted savings account.

Many of the interventions that encourage savings have focused on financial incentives. As noted earlier, the ADD evaluation found that providing incentives increased asset holdings. Similarly, a small tax-time pilot study found significant increases in participation rates and initial savings amounts among tax filers who were offered the opportunity to open an IRA with a savings match, compared with those who were not offered a match.[30] Another strategy to help motivate individuals to save involves prize-linked savings (PLS) products. For example, in Michigan the D2D (Doorways to Dreams) Fund ran a pilot nonexperimental study called "Save to Win" whereby credit unions offered a prize-linked account that gave individuals the opportunity to win a $10,000 annual jackpot and a range of regularly awarded smaller prizes. Results from the pilot show that 80 percent of Save to Win accounts that were opened in December 2011 were still open a year later.[31] Finally, a study of the $aveNYC program found that offering

[25]Verma et al. (2012).
[26]Shefrin and Thaler (1988); Mendenhall et al. (2012).
[27]Smeeding (2000).
[28]Baugh, Ben-David, and Park (2014).
[29]Bronchetti, Dee, Huffman, and Magenheim (2011); Duflo et al. (2006); Doorways to Dreams Fund (2012).
[30]Duflo et al. (2006).
[31]Duch (2013).

the savings match incentive increased participation and the likelihood of maintaining savings for about a year.[32]

Even without monetary incentives, the application of behavioral economics concepts has illustrated the power of certain lower-touch interventions to influence saving behavior. For example, participation by low-wage workers in employer-sponsored retirement plans can be doubled or tripled by structuring enrollment and periodic contribution increases as automatic — these are referred to as "opt-out" plans.[33] Similar interventions have been tested that suggest that saving might be increased via techniques such as simplifying the array of savings options that individuals must choose from; presenting "default" choices for individuals who are indecisive about selecting from among saving options; and streamlining the amount of time and effort required to initiate a savings habit. A recent large random assignment study tested electronic messages embedded in Turbo Tax software, informed by behavioral economics, to encourage economically vulnerable households to save part of their refund.[34] The study found that the messages significantly increased the percentage of individuals who saved at the time of tax filing, but the increases were modest. Average savings increased from $197 to $224. The likelihood of having some amount of savings six months later increased from 25 percent to 30 percent.

Among the asset-building programs for lower-income individuals that have been previously tried, only a limited number have sought to help individuals save for emergencies or for uses that are not restricted — and random assignment studies of the effects of such unrestricted, short-term savings programs on savings and financial stability are rare. The SaveUSA program and evaluation thus broke new ground in determining the extent to which such programs can be implemented at tax time in different settings and can appeal to low- and moderate-income households. The study is particularly important in showing whether such programs can result in people saving more than they normally would save and can improve participants' overall financial situation over the short term and the longer term.

SaveUSA Model

SaveUSA replicated the $aveNYC program, which had shown promising results in recent studies of the program's implementation and outcomes.[35] $aveNYC was developed by the New York City Department of Consumer Affairs Office of Financial Empowerment (OFE). Piloted

[32]The study evaluated $aveNYC by using a quasi-experimental design. The study identified a comparison group meant to be similar, in terms of demographic and financial characteristics, to those who took up the offer to open $aveNYC accounts (Key, Grinstein-Weiss, Tucker, and Holub, 2013). $aveNYC study participants were not randomly assigned to program and control groups, as is being done in the SaveUSA evaluation, and the two $aveNYC study groups' comparative baseline levels of motivation to save are unknown.

[33]Thaler and Benartzi (2004).

[34]Grinstein-Weiss et al. (2014).

[35]Manturuk, Gorham, and Dorrance (2013).

in selected Volunteer Income Tax Assistance (VITA) organizations in New York City between 2008 and 2010, $aveNYC offered tax filers the opportunity to open a savings account with their tax refund at a participating financial institution and receive a 50 percent match on their initial deposit if they kept their initial deposit for about a year.[36] $aveNYC participants could use their savings and match for any purpose. During 2009 and 2010, $aveNYC's primary years of operation, the program enrolled an average of 1,255 tax filers per year.[37] Over 90 percent of enrollees deposited tax refund dollars in their $aveNYC savings account and nearly three-quarters of enrollees (or 80 percent of depositors) maintained their deposits for about a year and received the savings match. The $aveNYC study conducted by the Center for Community Capital at the University of North Carolina found that 31 percent of $aveNYC participants did not have a bank account (that is, were "unbanked") and 36 percent reported having no savings when they entered the program.

$aveNYC's administrators and funders, and the researchers who studied the program, concluded that $aveNYC met several requirements for making the program a potential model for implementation on a larger scale. These included: (1) successful integration with other tax preparation services offered by VITA organizations; (2) enrollment of large numbers of low- and moderate-income families; (3) ongoing participation of financial institutions; and (4) relatively high rates of receipt of the savings match. Creation of the SaveUSA program and running a randomized controlled trial (RCT) to test its effects represented logical next steps.

SaveUSA builds on the free tax preparation services provided by participating VITA organizations in four cities: New York City, Tulsa, Newark, and San Antonio.[38] During the 2011 tax season, SaveUSA offered both single filers and couples who filed jointly the opportunity to open a SaveUSA account at a local financial institution by directly depositing a portion of their tax refund into it and to earn a matching incentive by leaving their savings untouched for about one year.[39] The SaveUSA account was designed to minimize risks and to facilitate the maintenance of small savings by account holders. Thus, by design, the accounts were intended

[36]In 2011, $aveNYC was offered to a limited number of former participants.

[37]Manturuk, Gorham, and Dorrance (2013).

[38]VITA sites offer free tax return preparation to low- and moderate-income individuals. Internal Revenue Service-certified volunteers provide basic income tax return preparation with electronic filing to qualified individuals in local communities and inform taxpayers about special tax credits for which they may qualify, such as the EITC. VITA sites are typically located at community and neighborhood centers, libraries, schools, and other convenient locations. Across the United States in 2012, about 1.6 million returns were completed at more than 6,000 VITA sites, according to the National Community Tax Coalition. Other types of tax-time savings strategies, currently in use or proposed, rely on other providers or would be available to individuals who file their taxes on their own.

[39]"Single filers" include any tax filer who was unmarried or who did not file jointly with his or her spouse at study entry.

to have no automated teller machine (ATM) card, no minimum deposit requirement, no fees for withdrawals of funds, and no dormant account fees.[40]

When preparing their tax returns, SaveUSA participants instructed the VITA tax preparer to fill out forms that would result in the Internal Revenue Service (IRS) or state taxing agency directly depositing at least $200 from their tax refund into the SaveUSA account, described above. In each of the three years the program was offered, participants could pledge to keep a certain amount of their initial deposit, from $200 to $1,000, in their account for approximately one year. Participants who fulfilled this pledge would receive a 50 percent savings match, up to $500, about a year later. After receipt of the savings match, participants could use their accumulated savings and savings match dollars for any purpose or could continue to save at the market rate of interest (typically about 1 percent or less).

Account holders who withdrew any funds below their pledge amount at any time during the follow-up year would lose their eligibility for a savings match, even if they subsequently replaced the funds. However, the program design specified that they would incur no further penalty for withdrawing the funds. Regardless of whether they withdrew funds or received a savings match, account holders could pledge to save again the following year if they had their tax returns prepared at a SaveUSA-participating VITA site.

The model applied design principles suggested by prior behavioral economics research — simplified options to save, a separate account for savings, electronic deposit into the account, incentives (high match rate) to maintain savings and disincentives (ineligibility for the match) to removing even small amounts of savings — to a tax-linked savings program for low- and moderate-income families.

Finally, some features of the SaveUSA model were designed with federal policy reform proposals in mind. These features were meant to mimic tax-time savings credit proposals being developed at the time for low- and moderate-income tax filers. The results of the SaveUSA research were intended to inform possible changes in federal tax policy.

Research Design

The SaveUSA evaluation measured the program's effects, or "impacts," through a randomized controlled trial (RCT) conducted by MDRC in New York City and Tulsa.[41] In these two cities,

[40]See Azurdia, Freedman, Hamilton, and Schultz (2014) for details about the intended account features and how, in the course of implementation, the account features varied from what was intended and across the SaveUSA-involved financial institutions.

[41]In Newark and San Antonio, random assignment was not conducted because the enrollment numbers were expected to be small.

eligible tax filers who were interested in opening a SaveUSA account and who volunteered to enter the study in 2011 were randomly assigned into one of two groups:

- **The SaveUSA group.** Members of the SaveUSA group were offered a 50 percent match, up to $500, if they deposited at least $200 of their tax refund into a SaveUSA account and maintained their initial deposit for approximately one year. In 2012 and 2013, SaveUSA group members were again eligible to deposit money from their tax refunds into their SaveUSA account and be eligible to receive the 50 percent match. Their savings matches could be received in 2012, 2013, and 2014.[42]

- **The Regular Tax Filers group.** Regular Tax Filers were offered the opportunity to deposit money in any other savings product that the VITA organization made available to tax filers who receive a tax refund. However, Regular Tax Filers were not offered the special matched-refund SaveUSA account in 2011, 2012, or 2013.[43]

The random assignment design produced very reliable estimates of the effectiveness of the SaveUSA program. It ensured that there were no systematic differences in the characteristics, both measured and unmeasured, of sample members in the two research groups. Thus, any differences between the two groups that emerged over time — for example, in savings or financial stability — can be attributed to the SaveUSA program. These differences in outcomes are known as *impacts.*

Random assignment was not conducted in Newark and San Antonio, where all eligible tax filers who volunteered to enter the study could open a SaveUSA account.

Expected Effects and Timing

At the start of the study, SaveUSA was hypothesized to produce a number of different intended effects at different points in time — all of which are being investigated in the SaveUSA evaluation. The intended longer-term effects are discussed in this section to provide background on the types of outcomes examined in the evaluation.

Over the three years *following account opening,* SaveUSA account holders, especially those who made yearly repeated deposits of tax refund dollars into their SaveUSA accounts, might receive additional benefits. (Account holders who deposited the maximum match-

[42]SaveUSA participants in New York City and San Antonio were still eligible to receive savings matches in early 2015 and 2016.

[43]Members of the Regular Tax Filers group were eligible to pledge to save in SaveUSA accounts in New York City during the 2014 tax season. Only a small number of them (21) did so.

eligible amount each year from 2011 to 2013 theoretically could have ended up accumulating up to $4,500 in individual savings — $3,000 in direct deposits and $1,500 in possible match payments.) Account holders who repeatedly received a match and then used their funds soon after might be able to lower their debt by paying it down at set yearly intervals and by making purchases and payments while minimizing the use of high-interest loans or credit cards. Other account holders who maintained their savings longer might have been able to afford larger purchases with less debt three to four years after random assignment. Moreover, it was hypothesized that account holders might become accustomed to saving, in part encouraged by their accumulation of savings and match dollars. These individuals would perhaps contribute additional dollars to savings for several years — beyond those they pledged to save from their tax refunds — and thereby realize additional purchasing power, lower debt, and, perhaps, higher credit scores.

Over time, SaveUSA account holders might also develop a greater sense of financial security and greater confidence in their ability to manage their family's finances and, if necessary, be better able to weather financial crises.

Under some circumstances, having a SaveUSA account was expected to have additional related effects. For example, having an account might contribute to greater employment stability for account holders, if they used their accumulated savings and match dollars to support more reliable transportation or child care or to deal with family issues that might otherwise have required time off from work to address.

At the study's outset, there also were several hypotheses suggesting reasons why SaveUSA might not lead to positive effects. First, there was the possibility that the SaveUSA account and savings match would simply provide a "windfall" for people who were already inclined to save. If so, the program would not encourage more people to save or cause people to increase the amount they would otherwise have saved.[44]

Second, while it is generally assumed that increased savings are beneficial, SaveUSA's requirement that people forgo use of their savings for about a year in order to qualify for an eventual match could have motivated some people to incur more debt or incur penalties from postponing paying off debt.

Third, while there is a growing consensus among researchers and policymakers that even small savings amounts can help low-income families weather short-term financial emergencies or prevent small debts from spiraling out of control, it was not clear whether SaveUSA

[44] A "windfall" effect from the SaveUSA match may be interpreted by some policymakers as a reasonable way to increase the income of low- and moderate-income tax filers by several hundred dollars annually. However, it could be argued that other strategies, such as increasing the Earned Income Tax Credit, could achieve the same goal more efficiently and at lower cost.

would boost savings *enough* to produce these effects, and whether these effects would continue in the longer term.

Research Questions

The SaveUSA evaluation included three major components: (1) an implementation analysis, which studied how the program was operated in four cities; (2) a participation analysis, which examined the savings patterns of study participants with access to a SaveUSA account; and (3) an impact analysis, which examined a series of financial outcomes and assessed what difference the SaveUSA program made relative to what would have happened in the absence of the program.

This final report focuses on the following questions about SaveUSA's implementation, participation, and impacts:[45]

Implementation and Participation

- How successful were the VITA organizations in adding the SaveUSA program to their other services for low- and moderate-income individuals?
- Was it possible to engage financial institutions in marketing, opening, and administering SaveUSA accounts?
- What proportion of tax filers eligible for SaveUSA were interested in opening such accounts? How do their characteristics differ from those of tax filers who were eligible but were not interested in opening a SaveUSA account?
- What are the patterns of saving over the three years that SaveUSA was offered in the study period, for tax filers who opened SaveUSA accounts in 2011?
- How much on average did filers initially deposit?
- What proportion of SaveUSA account holders received a savings match during the three years following their program entry?
- How often, and when, did SaveUSA account holders withdraw the savings and the match, if they received one, in their accounts?

[45]See Azurdia, Freedman, Hamilton, and Schultz (2014) for a thorough discussion of how the program was implemented during the first year of program operations, including detailed answers to some of the implementation questions listed below.

- What were the characteristics of repeat savers and repeat match recipients, and how did their characteristics differ from those of SaveUSA account holders who did not attain these outcomes?

Impacts

- Did SaveUSA increase eligible tax filers' accumulated savings and other financial assets, over a 42-month follow-up period, relative to what would have happened in the absence of the program (represented by the experiences of Regular Tax Filers)?
- Did SaveUSA increase eligible tax filers' financial well-being, ability to maintain control over family finances, and/or ability to weather financial emergencies, over a 42-month follow-up period, relative to what would have happened in the absence of the program (represented by the experiences of Regular Tax Filers)?
- Did SaveUSA decrease eligible tax filers' total debt, reliance on high-interest credits and loans, and material hardship over a 42-month follow-up period?
- Did any effects vary by city or for certain subgroups of tax filers?

Data Sources

The data sources examined for each type of analysis are described below:

Baseline Data

At the time of random assignment, the program staff recorded some tax return data and baseline data in an MDRC database used to enroll individuals into the study. MDRC also collected additional demographic characteristics from the VITA sites' intake surveys, which individuals completed on the day of study enrollment.

Financial Institution Data

SaveUSA account activity and balance information were collected from the six financial institutions participating in the study (see Box 1.1). These data were used by MDRC to determine who was eligible for the savings match and the savings match amount.[46]

[46]See Appendix E for more information on how the financial institution data were collected, checked, organized, and analyzed.

SaveUSA 18-Month and 42-Month Survey Data

MDRC conducted two waves of survey interviews of SaveUSA and Regular Tax Filers group members in New York City and Tulsa. The first wave was about 18 months after each sample member's date of random assignment; the second wave was about 42 months after study entry. The first survey wave explored what members of both research groups did with their tax refunds after the 2011 tax season. It also measured the amount of savings, income, assets, and debt these individuals had at the time of their follow-up interview, as well as their financial stability and material hardship throughout the follow-up period. Among SaveUSA group members, the survey also examined their experience with the SaveUSA program, and among those who received the first savings match, it examined what individuals did with their savings match amount and individuals' reasons for participating or not participating in subsequent years. The 42-month survey was nearly identical to the previous wave, except that the reference periods were different. For example, the second survey collected data for the 2013 tax season, and sample members who had also completed the 18-month survey were asked about their experiences since that time. High response rates (80 percent) were achieved for both survey waves.[47]

Tax Return Data

Collected from tax year 2010 returns for study sample members in all cities except San Antonio, these data included information on tax filers' adjusted gross income, total refund amount, and how individuals allocated their refunds (to paper checks, checking accounts, and savings accounts). These data were analyzed in the interim SaveUSA report, but they are also used in this report to check for possible bias in survey response results and are shown in Appendix E.

Aggregate Data

Where available, VITA partners provided aggregate reports of the demographic characteristics of tax filers at VITA organizations who were eligible for SaveUSA. These reports were used to compare the characteristics of SaveUSA study participants with those of eligible tax filers who declined to participate.

Nonparticipant Survey Data

These data include responses from a survey conducted on a few selected days during the tax return preparation season in 2011, which asked eligible tax filers at the VITA sites the main reasons why they did not enroll in the study.

[47]See Appendix B and Appendix E for additional information on the survey efforts and analysis of possible bias in the response results.

Sample Intake

In January 2011, enrollment in the SaveUSA study began in select Volunteer Income Tax Assistance (VITA) sites in New York City, Tulsa, Newark, and San Antonio. In addition to providing tax return preparation services to hundreds of low- to moderate-income clients per week, VITA staff members marketed the SaveUSA account, enrolled individuals in the study, and helped SaveUSA group members open their SaveUSA accounts. The program was voluntary, but anyone meeting the program's eligibility requirements and interested in opening a SaveUSA account had to agree to participate in the study to be eligible to open an account.

To be eligible for the SaveUSA program, tax filers had to be at least 18 years old and meet income eligibility requirements ($50,000 or less for filers with dependent children and $25,000 or less for filers without dependents). In most cities, the study's income requirement followed the VITA income requirement to receive free tax preparation services.[48] Prospective study participants also had to anticipate at least a $200 tax refund to meet the minimum deposit requirement for opening a SaveUSA account. This rule added a level of complexity to the enrollment process, since neither VITA staff nor prospective participants knew the exact refund amount that would be recorded on the tax return, and thus who was eligible for SaveUSA, until the last stages of the tax preparation process.

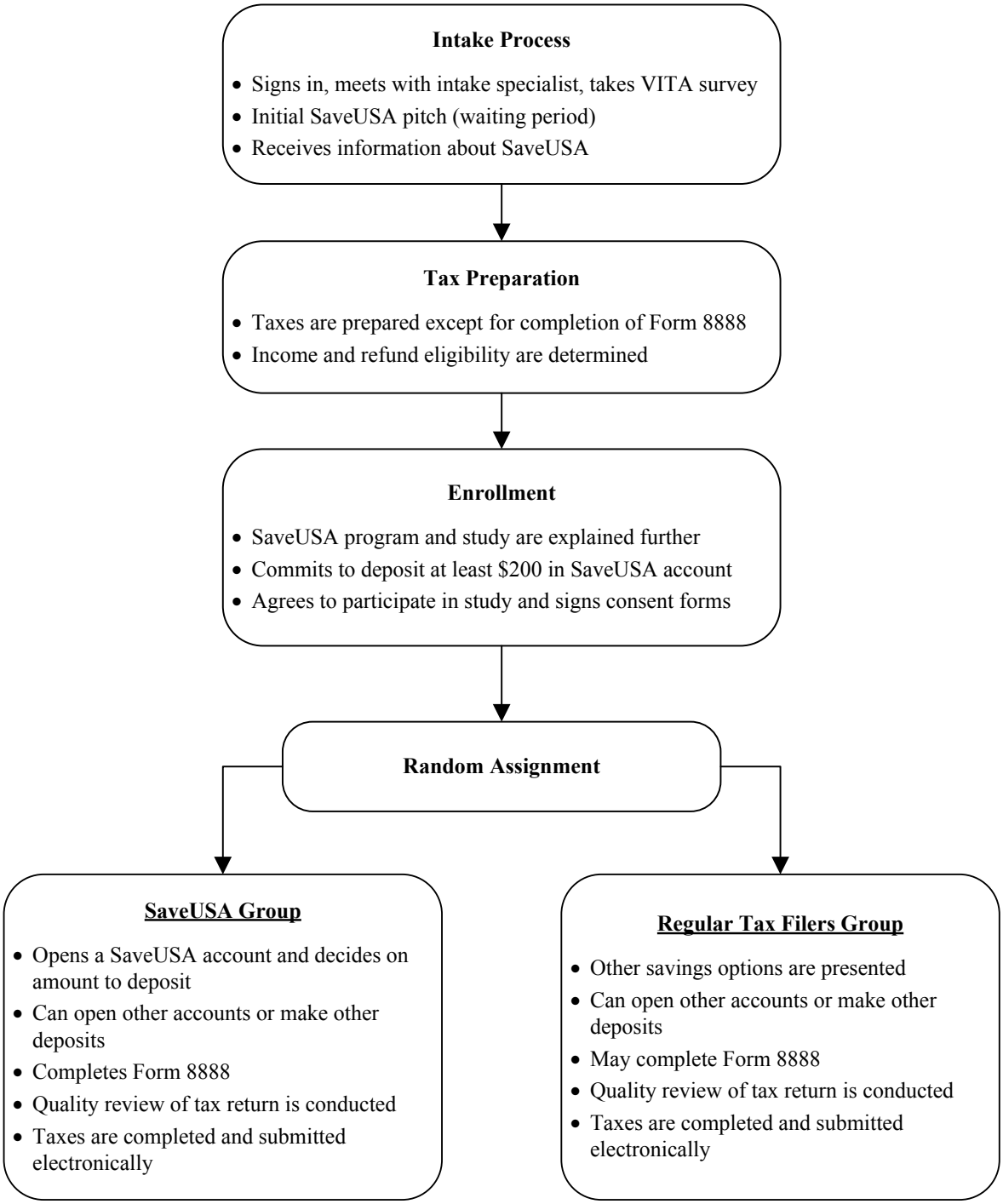
Figure 1.1 illustrates the enrollment flow and research design of the SaveUSA program. SaveUSA was marketed, using a combination of publicity and direct outreach, to existing customers before and during the tax season, but most prospective participants learned about the SaveUSA program at the tax sites. SaveUSA flyers and handouts listing "frequently asked questions" were distributed to each filer as part of the VITA intake process. On-site recruitment was then conducted primarily by dedicated SaveUSA staff — called "asset specialists" — who worked in the VITA sites. While filers waited for their taxes to be prepared, these staff members made announcements about SaveUSA in customer waiting areas and then approached individual filers to explain the program in more detail and to ask whether the filers were interested in it.

VITA staff members had to take several steps before study enrollment occurred. As a first step, tax preparers began filling out tax returns through the regular VITA process. Once it was determined that a tax filer was eligible for SaveUSA, the VITA staff members explained the SaveUSA program, the features of the SaveUSA account, and the SaveUSA study. In New York City and Tulsa, the 50 percent chance of being randomly assigned to the Regular Tax Filers (control) group was also described. Tax filers interested in opening a SaveUSA account and in taking part in the SaveUSA study subsequently signed a series of informed consent forms

[48] In New York City, filers without dependent children (filing as single or married/jointly) needed to have an Adjusted Gross Income (AGI) of $18,000 or less to qualify for VITA services.

Figure 1.1

Recruitment and Random Assignment Process



that authorized MDRC to collect data on filers from tax returns, financial institution records, and survey responses.

VITA staff members then entered information on study participants into a database designed by MDRC to enroll individuals in the study. Immediately following data entry, tax filers in the two RCT cities, New York City and Tulsa, were randomly assigned to the SaveUSA group or to the Regular Tax Filers group. Tax filers in the two non-RCT cities, Newark and San Antonio, enrolled in the study in a similar way, except that MDRC's random assignment application assigned every eligible and interested tax filer to the SaveUSA group. Those assigned to the SaveUSA group subsequently continued with the account opening procedures. The random assignment process worked as expected.[49] As Figure 1.2 shows, about 2,500 individuals were enrolled in the study in 2011 across all cities.[50]

In New York City and Tulsa, individuals assigned to the Regular Tax Filers group were not allowed to open a SaveUSA account but were offered other savings products normally offered by the VITA site. It is important to note that all Regular Tax Filers (as well as all those in the SaveUSA group) were intending to save before random assignment, either because that was their original goal for their tax refund or because the VITA site staff convinced them that saving some of their tax refund and participating in the program was a good idea.

Sample Characteristics

Table 1.1 presents selected demographic and tax return characteristics of sample members between ages 18 and 64 at the point they entered the study, for the 2011 sample pooled across cities.[51] At their time of study entry, the average age of enrollees was 39 years old, about three-quarters were female, and 62 percent had children. Except in Tulsa, the majority of sample members were either black or Hispanic. The majority had at least a high school diploma or

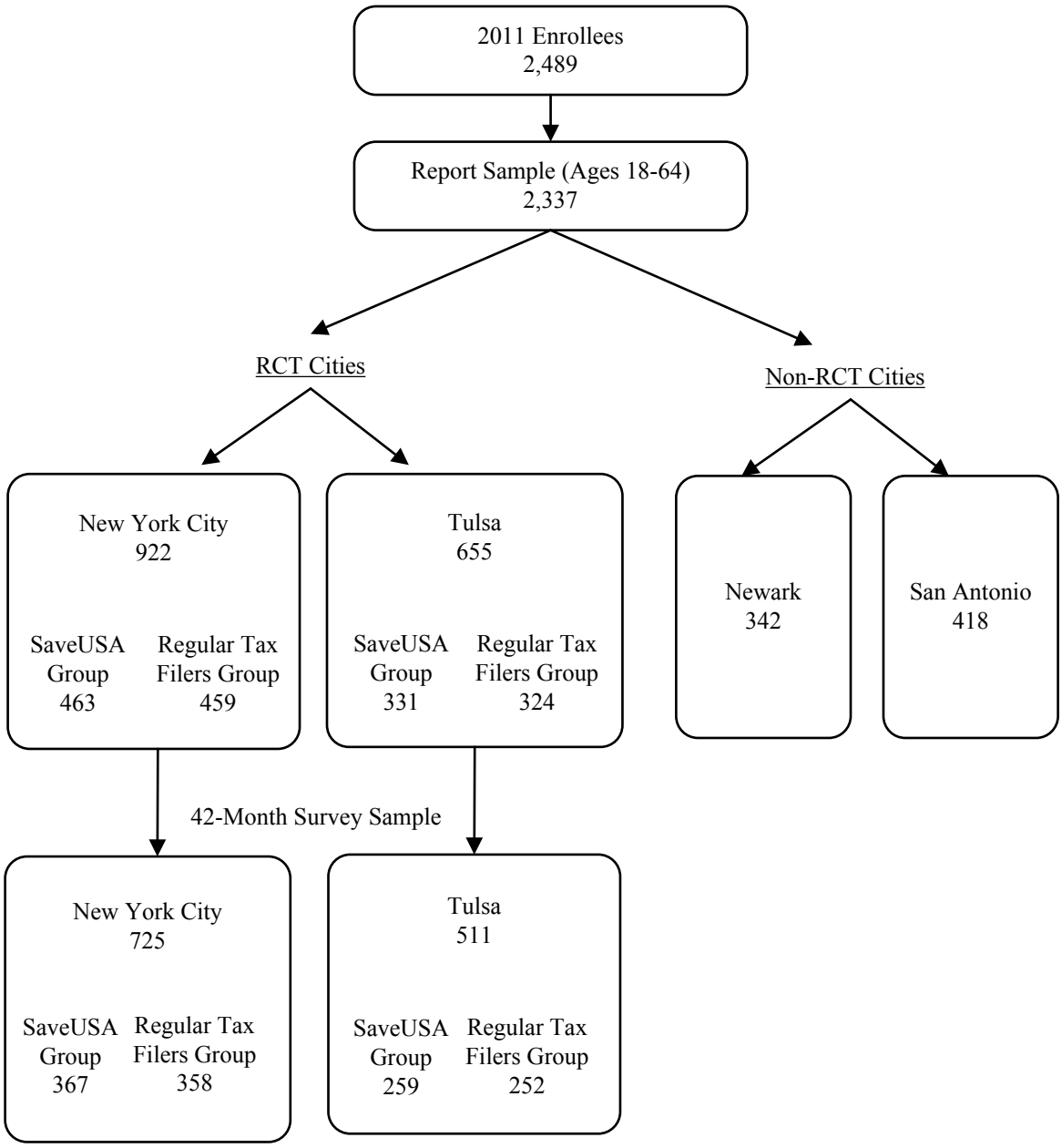
[49]A total of 11 of these individuals (8 SaveUSA group members and 3 Regular Tax Filers group members) later withdrew from the study. For additional information on the random assignment process, see Appendix E.

[50]SaveUSA account opening occurred in all four cities from 2011 through 2013, and accounts continued to be offered past 2013 in some cities. From 2011 to 2013, about 7,500 individuals enrolled in SaveUSA, and MDRC tracked account information for all of these individuals over the three years to determine savings match eligibility. MDRC tracked only the 2011 cohort, however, for in-depth research purposes.

[51]As shown in Figure 1.2, almost 2,500 tax filers were enrolled in the study in 2011 across all four cities. However, this report focuses on the 2,337 tax filers who were between the ages of 18 and 64 at the time of study enrollment. This decision was made because the characteristics (and expected savings behavior) of those 65 years and older are very different from the rest of the enrollees (see Appendix Table A.3). For example, most of the older sample members were filers without tax dependents. Therefore, most did *not* receive the Earned Income Tax Credit (only 17 percent did, compared with 70 percent for those between 18 and 64). In addition, the average anticipated tax refund amount and average adjusted gross income for the older adults are much lower than for the younger adults.

Figure 1.2

SaveUSA Study Samples Enrolled in 2011



The SaveUSA Evaluation

Table 1.1

Selected Baseline Characteristics of Sample Members Enrolled in 2011

Characteristic	All Cities
Demographic characteristic	
Average age (years)	39
Age (%)	
18-24	14.2
25-34	25.5
35-44	22.6
45-59	33.0
60-64	4.7
Gender[a] (%)	
Male	26.9
Female	73.1
Number of children[a,b] (%)	
0	37.8
1	32.6
2	21.0
3 or more	8.7
Race/ethnicity[a] (%)	
Hispanic/Latino	27.8
White	17.7
Black/African-American	46.3
Other	8.2
Highest educational credential[a] (%)	
GED certificate	3.7
High school diploma	59.6
Technical credential or associate's degree	14.3
4-year college degree or higher	10.8
None of the above	11.6
Tax filing information	
Number of tax filers (%)	
1	88.0
2	12.0
Tax filing status (%)	
Single filer without children	32.0
Single filer with children	56.0
Joint filer without children	1.9
Joint filer with children	10.1
Average adjusted gross income ($)	18,029
Adjusted gross income amount (%)	
$0 - $9,999	26.0
$10,000 - $19,999	35.8
$20,000 or more	38.3

(continued)

Table 1.1 (continued)

Characteristic	All Cities
Average total tax refund amount ($)	3,894
Average federal tax refund ($)	3,288
Average state and city tax refund[c] ($)	606
Received federal Earned Income Tax Credit (EITC) (%)	69.3
Among those who received the EITC, average amount[d] ($)	2,245
Month of study entry (%)	
January 2011	10.7
February 2011	38.7
March 2011	32.6
April 2011	18.0
Sample size	2,337

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's gender, number of children, race/ethnicity, and highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Survey for respondents with missing data at baseline. The survey responses for these indicators are available only for participants from New York City and Tulsa.

The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

[a]Information on gender, number of children, and ethnicity was not available for San Antonio. The highest educational credential indicator is missing for both San Antonio and Newark.

[b]This refers to the number of dependents claimed in 2010 tax return records.

[c]Only New York City has a city income tax. Texas does not have a state income tax.

[d]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

GED certificate; only 12 percent did not have any educational credential, and an almost equal percentage had a four-year college degree or higher.[52]

[52]Data for educational attainment are available only for New York City and Tulsa.

The vast majority (88 percent) of enrollees were single tax filers. Over half the enrollees were single tax filers with at least one tax dependent (56 percent), and the majority (69 percent) received the Earned Income Tax Credit (EITC).

As expected, all study participants reported low or moderate levels of income. The average enrollee reported an adjusted gross income of $18,029 on his or her federal tax return.[53] About a quarter of the sample (26 percent) had an income of less than $10,000, and 38 percent had an income of $20,000 or more.[54] The average tax refund anticipated in 2011 was $3,894.

The majority of enrollees were "banked," meaning they already had a checking or savings account. Evidence for this finding derives from tax return data collected in New York City and Tulsa that show that, among Regular Tax Filers, 85 percent in Tulsa and 69 percent in New York City directed their refunds into a checking or savings account.[55] These percentages are higher than what has been found among the general population at similar income levels.[56]

As noted earlier, all individuals enrolled in the study had volunteered, which indicates that they were all interested in saving. Therefore, it is not surprising that many of the individuals in the sample appeared to have been saving prior to study enrollment. According to VITA survey data, 61 percent of the Newark sample had savings at the time of study enrollment, and 47 percent of the Tulsa sample were planning to use part of their tax refund for savings (not shown).[57] These results also suggest that SaveUSA may have induced some individuals who were *not* planning to save their tax refund to open a SaveUSA account.

Although many may have been predisposed to save, SaveUSA study sample members faced significant barriers to doing so, given their low average income and that many were single parents. Furthermore, as indicated by data available in only certain cities, 27 percent of the Tulsa and Newark samples reported not having enough money to make ends meet, and about half of the New York City sample and the majority of the Tulsa and Newark samples reported hav-

[53]"Adjusted gross income" is defined as gross income minus adjustments to income. Adjustments include but are not limited to deductions for student loans and contributions to individual retirement accounts (IRAs). If there are no deductions, adjusted gross income is the same as total income.

[54]According to the Census Bureau in 2011, the average household income received by the lowest quintile (where households are ranked by income) was $11,239.

[55]See Azurdia, Freedman, Hamilton, and Schultz (2014), Table 7.2 and Chapter 7, for the precise figures and for more discussion of this point.

[56]For example, the proportion of households "fully banked" ranges from about 48 percent for households with annual incomes under $15,000 to 60 percent for households with annual incomes between $15,000 and $30,000 and to about 69 percent for households with annual incomes between $30,000 and $50,000. Fully banked households are those that have a bank account of any kind and have not recently relied on any "alternative financial services," including nonbank check-cashing places, payday loans, and nonbank money orders (Federal Deposit Insurance Corporation, 2012).

[57]Comparable data for enrollees in the other two cities are not available.

ing debt (not shown). Among the sample from Tulsa that reported having debt, over half noted having a debt amount of $3,000 or more (not shown).

The baseline characteristics for individuals enrolled in New York City and Tulsa were examined by research group (see Appendix Table A.4) and, as expected given random assignment, only small differences were found between the research groups.[58]

SaveUSA Study Take-Up Rate

SaveUSA was a voluntary program, so anyone eligible and interested in opening a SaveUSA account could enroll. Across all four cities, between 6 percent and 13 percent of tax filers eligible for SaveUSA expressed interest in opening a SaveUSA account and enrolled in the study in 2011. These take-up rates are comparable to (and in some cases, higher than) the take-up rates in other similar tax-time asset-building studies. For example, the $aveNYC take-up rate ranged between 6 percent and 10 percent during program operating years 2008, 2009, and 2010. Savings bond participation rates reported in several studies done by the D2D Fund ranged from 5 percent to 9 percent, following extensive marketing campaigns.[59]

To shed some light on why the majority of individuals eligible for SaveUSA did not take up the program, MDRC conducted two analyses. The first analysis compared study enrollees' characteristics with the characteristics of individuals who were eligible for the SaveUSA study but declined to enroll. The second analysis examined the responses to a nonparticipant survey given to individuals who declined to participate in SaveUSA on the day that they completed their tax return at the VITA sites.

The first analysis, a comparison of available characteristics data for study participants and nonenrollees, suggests that enrollees were more likely to be female and to have dependent children, and therefore more likely to receive the EITC than nonenrollees. (See Appendix Table A.5.) Although both groups had low or moderate incomes from employment or other sources, enrollees were better positioned to save than nonenrollees because they had more resources available for savings: They reported somewhat higher average adjusted gross incomes and had larger tax refunds.

The second analysis examined data collected over several days mid-tax season. On these days, MDRC asked SaveUSA staff to administer an informal survey to customers who were eligible to sign up for SaveUSA but declined to do so.[60] This helped the project team to

[58]Appendix Table A.1 shows the characteristics of the 2011 sample broken down by city.

[59]New York City Department of Consumer Affairs, Office of Financial Empowerment (2010); Doorways to Dreams Fund (2009, 2011, 2012); Bronchetti, Dee, Huffman, and Magenheim (2011).

[60]Across the four cities, about 700 VITA tax filers were asked in this informal survey why they were not interested in SaveUSA.

better understand the factors that influenced customers' decisions about enrolling in SaveUSA, and helped the VITA sites to refine their marketing and recruitment efforts. Among the filers who appeared to be eligible and gave reasons for why they were not interested in SaveUSA, most indicated that they had already earmarked all of their anticipated refund to spend on bills or pay off debts. Others reported that they were not interested in saving or that they already had savings accounts and did not want to open an additional account. A small number reported that they did not trust banks in general, or they did not like the particular financial institution that was offering the SaveUSA account.[61] These findings are consistent with past studies.[62]

Evaluation Follow-Up Periods

For this final report, follow-up periods vary in length for the different parts of the analysis that use different data sources. Figure 1.3 shows the random assignment and report follow-up periods. As noted earlier, random assignment took place during the tax year 2010 filing season, from January to April 2011. The follow-up period is then divided into "program years." A *program year* is defined as the months between the start of the tax filing season and the date when SaveUSA account holders who maintained their pledge amount qualified to receive the savings match. For example, the first program year starts in January 2011 and ends on January 31, 2012. Account holders who qualified for a savings match received the money on February 1, 2012.

This report examines program enrollment data and account activity data through the end of June 2014 for enrollees in all four cities. Therefore, results from all three savings match distributions are included. The report also presents final findings on the program's effects, or "impacts," over the 42 months after study enrollment in two cities (New York City and Tulsa). Hence, the impact findings show the effects of SaveUSA about 6 months after SaveUSA group members could have received their final savings match.

Structure of This Report

Chapter 2 focuses on the implementation of SaveUSA in the final program year: the percentage of individuals who received the savings match in 2012, 2013, and/or 2014, the savings match amounts individuals received at the end of all three program years, the factors associated with receiving a savings match, and SaveUSA account savings patterns. Chapter 3 reports on

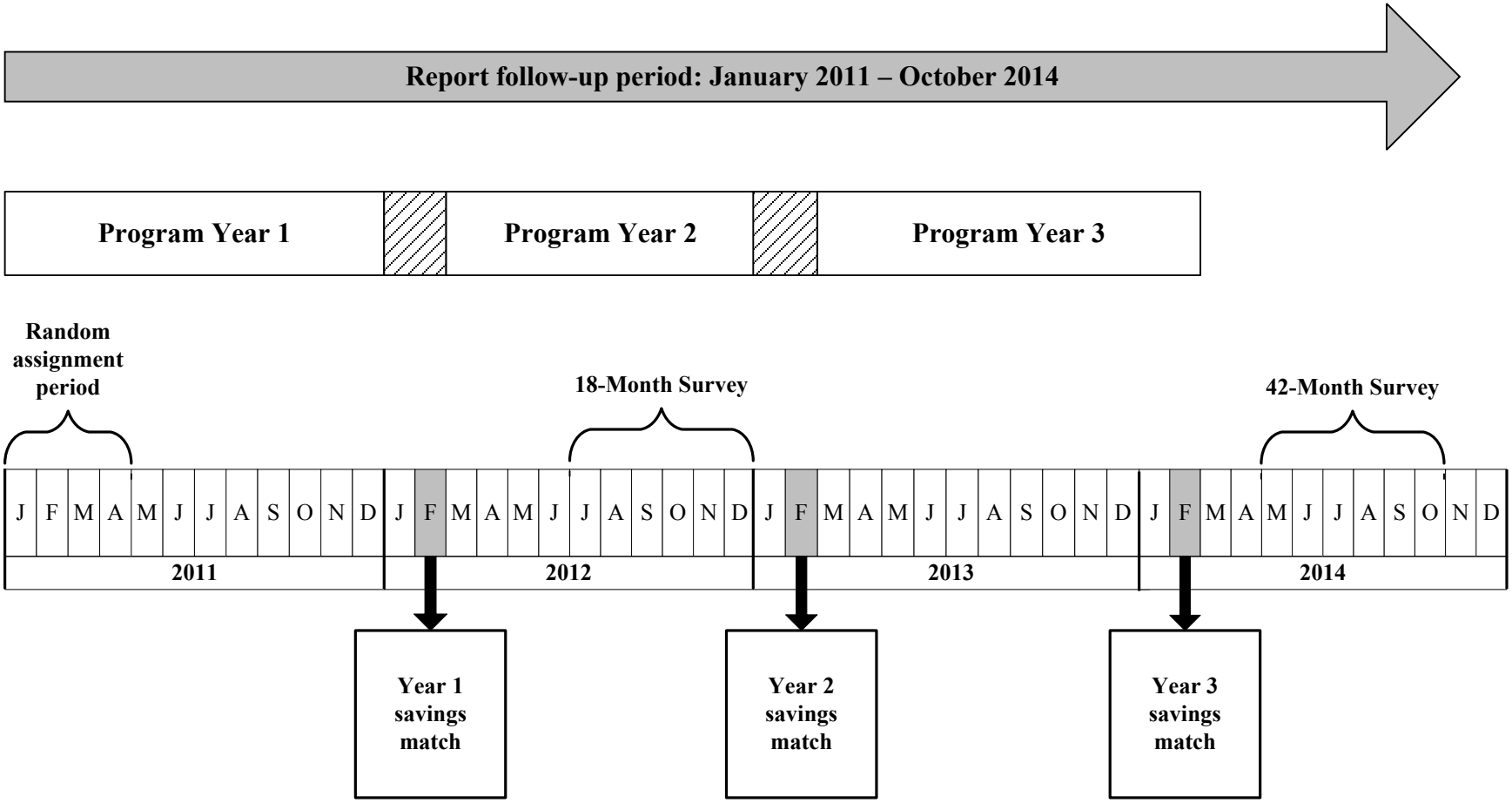
[61]Very few individuals mentioned the study enrollment procedures or random assignment process as a reason they did not want to sign up for SaveUSA.

[62]Mendenhall et al. (2012); Smeeding (2000); Bronchetti, Dee, Huffman, and Magenheim (2011).

The SaveUSA Evaluation

Figure 1.3

Random Assignment and Follow-Up Periods



SaveUSA's impacts on tax refund allocations and on the levels of nonretirement savings, retirement savings, and liquid assets that SaveUSA group members and Regular Tax Filers accumulated over a 42-month follow-up period. Chapter 4 examines SaveUSA's effects over a 42-month period on measures of financial well-being. Chapter 5 examines SaveUSA's effects for several key subgroups, and Chapter 6 conveys some conclusions.

Chapter 2

SaveUSA Implementation and Participation

The SaveUSA program enrolled about 2,500 tax filers during the 2011 tax season. Enrollees during this year who were randomly assigned to the SaveUSA group were encouraged to set aside tax refund dollars and have them directly deposited into SaveUSA accounts, and to do so for three consecutive years, from 2011 to 2013. This chapter discusses the implementation of SaveUSA during this three-year evaluation period, focusing on any changes to the program in Year 3, the last year of program operations for the evaluation. The chapter also focuses on the extent to which SaveUSA group members took advantage of the program, by examining the percentage of sample members who deposited money into SaveUSA accounts and received savings matches, as well as the amount of savings accumulated in SaveUSA accounts, over a 39-month follow-up period, through June 2014.

Many questions about the program's implementation were answered in the interim SaveUSA report.[1] This report recaps the answers to some of these questions and extends them into the third program year. The interim report, for example, discussed how SaveUSA was integrated into the Volunteer Income Tax Assistance (VITA) tax return preparation process and the roles various SaveUSA partners played. The interim report showed that most SaveUSA group members opened a SaveUSA account and nearly two-thirds received the savings match in the first program year. More than a third (39 percent) of sample members deposited into accounts again in the second year, and 27 percent of sample members received the savings match. The savings patterns from the SaveUSA accounts during the first two program years showed that individuals withdrew their savings from their accounts soon after receiving a savings match, suggesting that the SaveUSA accounts were mainly used to obtain the match.

Data used in this chapter come from field observations, 42-month survey responses, and financial institution records.[2] Reference is also made, where appropriate, to data that were collected from the 18-month survey.

[1] Azurdia, Freedman, Hamilton, and Schultz (2014), Chapter 3.

[2] An analysis of survey response bias was conducted for the 42-month survey. The results show that the survey is reliable and the results for the survey respondent sample can be generalized to the report sample. (See Appendix B.)

Main Findings

- SaveUSA was consistently marketed and successfully implemented for three years during the study period. Program operations during the last program year remained strong in most sites.
- About a third of SaveUSA group members pledged to save tax refund dollars again in Year 3, and about one in five individuals received a savings match at the end of Year 3.
- A majority of SaveUSA group members — 68 percent — received at least one savings match at some point over the three program years. Including those who never received a match, the SaveUSA group received, on average, a total of $365 in matches over this period.
- Overall, those who received the savings match during two or more years appear to have been in a better position to save. In contrast, SaveUSA group members with especially low incomes or who pledged the minimum amount of $200 were the least likely to ever receive a savings match.
- Similar to patterns found in previous years, SaveUSA group members mainly used the SaveUSA account to obtain the savings match, not for general saving.

Program Implementation

SaveUSA implementation was led by organizations that operate Volunteer Income Tax Assistance programs, which provide free tax preparation to income-tax filers. These organizations managed SaveUSA with assistance from participating financial institutions, MDRC, the New York City Center for Economic Opportunity (CEO), and the New York City Office of Financial Empowerment (OFE).

- **The SaveUSA program was implemented as designed. VITA operators were able to integrate the program into the normal VITA tax return preparation process.**

VITA operators were responsible for marketing SaveUSA; screening and enrollment into the study; coordinating the opening of SaveUSA savings accounts; and designating, on each SaveUSA enrollee's tax return form, the tax refund amount to be deposited into the SaveUSA account. Participating financial institutions offered the SaveUSA accounts, which in most cases were financial products with features designed specifically for the SaveUSA program. Financial institutions also provided quarterly electronic account activity data to MDRC,

which analyzed and used these data to determine savings match eligibility and payment information. Table 2.1 shows the VITA site locations, lead agencies, and local partner organizations in each city.

During the first year, most SaveUSA group members in each city were successful in opening a SaveUSA account. VITA operators were able to conduct enrollment into the study, open the accounts, and complete tax returns for the SaveUSA group members. Some bottlenecks were identified in the first year during the account-opening procedures, which mostly reflected start-up issues and which occurred less frequently during subsequent years. The main problems at this stage involved errors made by VITA or financial institution staff members in opening or correctly designating SaveUSA accounts on tax day, or a financial institution rejecting an individual's account application after random assignment.[3] Overall, the issues affected a small percentage of the sample, and they did not have a considerable influence on the SaveUSA account-opening or savings match rates in most cities. These issues did add to the administrative costs in running the program during the first year. (In 2012 and 2013, those who successfully opened an account during the first year could continue using the same account.) Later in this chapter, SaveUSA account activity is discussed in detail.[4]

Program Implementation in the Final Year of the Study

A key component of the SaveUSA intervention was to encourage participation in multiple years so that participants could accumulate a substantial amount of combined savings and match dollars and develop a habit of saving, which could result in additional benefits to participants over the follow-up period. This section examines the efforts that VITA staff made to encourage participation in Year 3, which was the last year MDRC tracked financial institution data for the study. SaveUSA program group members had the opportunity to deposit tax refund dollars into a SaveUSA account in 2013 and receive a savings match in February 2014.[5]

[3]Most financial institutions report negative account activity (including overdrawing an account, bouncing checks, and fraud) to industrywide databases, the most common of which is called ChexSystems. When processing applications for SaveUSA accounts, most financial institutions ran the applicants' names through one of these databases. Some financial institutions may deny everyone whose name appears in one of these databases, while others may deny only people with certain types of reported activity. SaveUSA group members were expected to receive less-stringent-than-normal eligibility screening from ChexSystems or similar banking history reviews, but some participants nevertheless were rejected through this process.

[4]See Azurdia, Freedman, Hamilton, and Schultz (2014), Chapter 3, for further discussion of implementing SaveUSA; see also Appendix E of the present report for additional information on financial institution data processing and collection.

[5]As discussed in this report, SaveUSA continued to operate beyond the evaluation period in New York City and San Antonio, allowing savings pledges in 2014 and onward, but MDRC did not track participation for these subsequent program years.

The SaveUSA Evaluation

Table 2.1

SaveUSA Sites in 2011

City	Lead Agency	VITA Site Hosts and Locations	Financial Institution Partners
New York City	Food Bank For New York City	Ariva, South Bronx	Spring Bank (formerly CheckSpring)
		BronxWorks Morris Senior Center, South Bronx	Spring Bank
		St. Mark's AME Church, Jackson Heights, Queens	Spring Bank
		Capital One Bank branch, Downtown Brooklyn	Capital One
		Carver Financial Literacy Center, Harlem	Carver Federal Savings Bank
Tulsa	CAP Tulsa (formerly Community Action Project of Tulsa)	CAP headquarters, Southeast Tulsa	Bank of Oklahoma
		Bank of Oklahoma branch, North Tulsa	Bank of Oklahoma
		McClure Early Childhood Center, South Tulsa	Bank of Oklahoma
San Antonio	United Way of San Antonio and Bexar County	ACTN @ Claude Black Community Center, East Side	Select Federal Credit Union
		Guadalupe Community Center, West Side	Select Federal Credit Union
		The Neighborhood Place, West Side	Citibank
		YWCA, West Side	Citibank
Newark	Newark Now	Essex County College, Central Newark	Spring Bank
		Financial Empowerment Center, North Central Newark	Spring Bank
		Newark City Hall	Spring Bank
		South Ward	Spring Bank

NOTES: In Newark, the South Ward site was replaced with the Essex County College site in late February 2011.
In New York City, the BronxWorks site was added in March 2011.
In 2012 and 2013, additional sites were added or dropped. In total, 18 VITA sites offered SaveUSA in 2011, 2012, and/or 2013.
Not included in this table are Transfiguration of Christ Church (New York City, 2012 and 2013) and St. Philips College (San Antonio, 2013).

- **During the last program year, SaveUSA continued to be consistently marketed and offered in all cities except Newark.**

Two or three rounds of outreach were conducted in each city before the Year 3 tax return preparation season, January through mid-April of 2013, to all SaveUSA program group members to encourage participation. In addition, SaveUSA was marketed, with posters and flyers, during the tax season at participating VITA sites. Finally, for everyone who showed up at a SaveUSA VITA site, staff members attempted to look up personal identification information on a study sample list to determine whether the individual was a SaveUSA group member; if so, the staff encouraged him or her to participate in SaveUSA again.

Program operations for Tulsa, New York City, and San Antonio remained mostly unchanged in the final year relative to the previous year, with a few exceptions. San Antonio added an additional site (St. Philips College). The Community Action Project (CAP) of Tulsa continued to offer SaveUSA in 2013 but began to scale back its community-wide tax preparation services as part of a strategic shift to limit tax services to certain targeted groups of clients. This may have resulted in some confusion to participants about whether they could have their tax returns prepared at CAP.

In 2013, Newark Now ceased providing VITA tax services. Therefore, Newark stopped assisting people in opening new SaveUSA accounts. However, SaveUSA program group members in Newark were given the opportunity to participate if they still had a SaveUSA account. They were required to submit a form to Newark Now or MDRC specifying the amount they wanted to save over the year, and the deposit still had to derive from their tax refund. Only a small number of Newark program group members took advantage of this offer.

The SaveUSA study stopped tracking savings pledges, matches, and account balances in mid-2014. As part of the study, program group members were eligible to directly deposit tax refund dollars into SaveUSA accounts in only three years (2011, 2012, and 2013) and to receive the matches in the three corresponding years (2012, 2013, and 2014). However, New York City and San Antonio continued offering SaveUSA to study participants and others past these dates — including, in New York, members of the "Regular Tax Filers" group, who had not been allowed to open SaveUSA accounts during the evaluation. A data match between the records of Food Bank For New York City (which continued to offer SaveUSA in 2014 and 2015) and financial institutions indicated that the percentage of 2011 SaveUSA and Regular Tax Filers group members who made a pledge to save in 2014 was very small. (A total of 21 Regular Tax Filers and 27 SaveUSA group members, representing 3 percent of the SaveUSA evaluation sample, pledged to save tax refund dollars in 2014.) Given that only 48 people pledged to save and the fact that not all of them would have earned the savings match in early 2015, the study was not compromised by this.

Opening SaveUSA Accounts and Rates of Savings Match Receipt

During the first year of program implementation in 2011, everyone in the SaveUSA group was required to open a SaveUSA account in order to participate in the program. In the subsequent program years, VITA site staff members continued to encourage individuals to deposit again, regardless of whether they earned the match during their first year.

- **Most SaveUSA group members opened a SaveUSA account during the first program year. Individuals who didn't pledge to save tax refund dollars in the second program year were very unlikely to do so in the third year.**

Table 2.2 shows the SaveUSA account activity for each program year in all cities. As discussed earlier in this chapter, although there were some issues when opening a bank account, most individuals successfully opened an account during the study period. As shown, rates of depositing tax refund money into the accounts after the first year declined: 97.5 percent designated money to go into their accounts in Year 1, 39.1 percent did so in Year 2, and only 28.8 percent did so in Year 3.

Declines in participation from Year 2 to Year 3 were particularly striking in Newark: Fewer than half of Newark SaveUSA account holders who participated in Year 2 participated again in Year 3 (not shown). Some of this decline may have reflected the reduction in program operations in Newark. The process that Newark SaveUSA account holders had to follow in order to take advantage of the program in Year 3, described above, may have been too onerous for some people.

Responses to the 42-month survey, given in New York City and Tulsa as part of the randomized controlled trial, offer reasons why individuals did not pledge to save as part of SaveUSA during subsequent years. In order for individuals to participate in SaveUSA, (1) they needed to be aware that they could participate, (2) they had to return to a SaveUSA VITA site to have their taxes prepared, and (3) they had to be receiving a tax refund of at least $200. Even if their income increased, SaveUSA group members were still eligible to participate in the program if they met these other three criteria.

According to the survey, about 90 percent of all SaveUSA group members in New York City and Tulsa were aware that they could deposit tax refund dollars into a SaveUSA account in Year 3 (or 2013) (not shown). The 18-month survey showed that 79 percent of SaveUSA group members in 2012 returned to the same VITA site where they enrolled in 2011 (not shown). In 2013, the number of sample members returning to their 2011 VITA site declined. Among the New York City sample, only 55 percent returned to the same VITA

The SaveUSA Evaluation

Table 2.2

SaveUSA Account Activity, by Program Year, in All Four Cities

Outcome	Year 1	Year 2	Year 3	All Years
SaveUSA account opened or pledged (%)	97.5	39.1	28.8	97.9
Distribution of pledged deposit[a] (%)				
$0	0.0	60.8	71.2	0.0
$1 - $200	36.7	8.4	5.0	25.0
$201 - $999	33.3	15.1	9.7	31.3
$1,000	30.0	15.7	14.2	43.8
Average initial deposit amount[b] ($)	506	293	244	1,042
Distribution of initial deposit[b] (%)				
$0	10.0	62.6	72.2	8.7
$1 - $200	32.0	7.4	4.0	21.4
$201 - $999	29.8	14.2	9.1	27.7
$1,000 or more	28.3	15.9	14.7	42.2
Received savings match (%)	65.5	27.5	20.5	67.5
Average amount of savings match ($)	191	96	78	365
Average savings match, among those who received the savings match ($)	291	348	383	540
Distribution of savings match (%)				
$0	34.5	72.5	79.5	32.5
$1 - $100	20.1	4.3	1.7	14.0
$101 - $499	22.1	10.0	7.1	19.8
$500	23.3	13.2	11.6	33.7
Sample size				1,554

SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

NOTES: The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.
Rounding may cause slight discrepancies in calculating sums.

[a]The pledged deposit refers to the amount of tax refund dollars that individuals committed to savings at the time of study entry.

[b]The initial deposit refers to the tax refund amount directly deposited into the SaveUSA account by the Internal Revenue Service.

site.[6] In Tulsa, about three-quarters of the sample did their taxes on their own or used a paid tax preparer like H&R Block or an accountant in 2013.

The 42-month follow-up survey asked respondents who did not pledge to save as part of SaveUSA in Year 3 to list the main reason they did not (see Appendix Table D.1). Among the 74 percent of the sample members who did not participate in Year 3, about a third did not receive a refund or felt that their refund was not big enough to participate,[7] and 23 percent felt that they needed their refund to pay expenses. Fourteen percent reported being unaware that they were eligible to participate again in Year 3 — suggesting that additional marketing would have been beneficial. A further 13 percent encountered problems when filing their taxes, which included filing taxes late or getting wrong information from the VITA site staff on the availability of SaveUSA. Finally, about 17 percent did not participate because they were unprepared when filing taxes or just had no interest in the program. Taking into account all these reasons, the results suggest that participation could not have been much higher in Year 3. Among those who did not participate in Year 3, all but 14 percent were aware that they could pledge again, but many decided not to.

- **The majority of SaveUSA group members received at least one savings match over the three program years. Across all SaveUSA group members, including those who did not get matches, an average of $365 in savings matches was received. Those who pledged to save $1,000 were more likely to receive a savings match.**

Table 2.2 shows that the pledged deposits varied by program year. In Year 1, 37 percent pledged the minimum amount of $200 and 30 percent pledged the maximum amount of $1,000. In subsequent years, those who participated again were more likely to pledge the maximum amount of $1,000. Those who pledged $200 in Year 1 were less likely to pledge again in subsequent years (not shown).

The 42-month survey asked all New York City and Tulsa SaveUSA group respondents whether they had any savings goals and, if so, what their main savings goals were (see Appendix Table D.2). Most SaveUSA group members had a savings goal (78.4 percent): About 21 percent of group members were saving for a big purchase, 13 percent were saving for education, and 20 percent were saving for a variety of reasons, including investments, travel, and household expenses. Only about 11 percent were saving for emergencies.

[6]Note that even if sample members did not return to the same VITA site, they still could have had their tax return prepared at a different SaveUSA-participating VITA location.

[7]According to the 18-month survey, about 10 percent of the SaveUSA group members did not receive a tax refund in 2012 (see Azurdia, Freedman, Hamilton, and Schultz, 2014, Table 5.2, pp. 64-65). According to the 42-month survey, 18 percent of SaveUSA group members did not receive a tax refund in 2014 (see Table 3.2). It is likely that the percentage of individuals without a refund in 2013 is between these two statistics.

As Table 2.2 indicates, the majority of sample members (67.5 percent) received at least one savings match over the three program years. On average, SaveUSA group members received a total of $365 in savings matches over the three program years (including zeros for those who did not get a match). Among those who obtained at least one savings match, the average amount of match dollars received over the three years was $540. The amount of money received varied widely; about a third of the sample received no savings match, a third received between $1 and $499, and a third received $500 or more in savings matches over the three-year period.[8]

Not shown, those who initially pledged $200 in Year 1 were less likely to receive the savings match. Conversely, those who pledged the maximum amount were more likely to receive a savings match. Receiving the savings match in Year 1 predicted whether someone would participate in subsequent years. Only 6 percent of the sample members who did not receive a savings match in Year 1 received a savings match in subsequent years (not shown).

Over half the SaveUSA group members who did not receive a savings match withdrew some or all of their pledged savings within three months after pledging to save (not shown). During the 18-month survey interviews, they reported most often that they used the funds to cover an emergency expense, to pay bills or debts, or to buy necessities.

Differences in Characteristics of Savings Match Recipients and Nonrecipients

This section examines the characteristics of repeat match recipients, and how their characteristics differed from those who never received a savings match or received only one savings match during the evaluation period.

- **About a third of the SaveUSA group members received two or more savings matches. These individuals appeared to have been in a better position to save, in terms of their age, income, and high savings pledge amounts. Individuals who had especially low incomes (including those who received an Earned Income Tax Credit at study entry) or who pledged the minimum amount of $200 were the least likely to ever receive a savings match.**

Table 2.3 shows the baseline characteristics of SaveUSA group members in all four cities who never received the savings match (33 percent), who received the savings match once (37 percent), and who received the savings match in two years or more (31 percent).

[8]Although the minimum SaveUSA pledge was $200, initial deposits were sometimes less when the IRS adjusted or withheld a portion of the anticipated refund amount.

The SaveUSA Evaluation

Table 2.3

Selected Baseline Characteristics of SaveUSA Group Members, by Savings Match Receipt Status, in All Four Cities

Characteristic	Received Savings Match in 0 Years	1 Year	2 or More Years		P-Value
Average age (years)	38	38	43	***	0.000
Age (%)				***	0.000
18-24	18.2	16.3	10.1		
25-34	27.9	29.9	16.1		
35-44	21.2	20.1	26.0		
45-59	29.5	28.8	40.7		
60-64	3.2	4.9	7.1		
Savings pledge amount in 2011 (%)				***	0.000
$200	49.9	37.6	21.8		
$201 - $999	31.3	34.6	33.8		
$1,000	18.8	27.8	44.4		
Tax filing status[a] (%)				**	0.029
With children	62.8	63.8	70.2		
Without children	37.2	36.2	29.8		
Adjusted gross income amount (%)				***	0.000
$1 - $9,999	34.0	24.0	17.6		
$10,000 - $19,999	37.8	33.7	33.3		
$20,000 or more	28.2	42.3	49.1		
Average total tax refund amount ($)	3,603	3,700	3,907		0.208
Received federal Earned Income Tax Credit[b] (%)	74.7	64.2	65.6	***	0.000
Month of random assignment (%)				**	0.037
January 2011	13.3	9.6	8.2		
February 2011	40.6	36.0	41.1		
March 2011	30.7	34.8	31.4		
April 2011	15.4	19.6	19.3		
City (%)				***	0.000
New York City	31.1	26.7	32.1		
Tulsa	31.3	16.4	16.6		
Newark	13.7	32.9	17.8		
San Antonio	24.0	24.0	33.5		
Sample size (total = 1,554)	505	572	477		

(continued)

Table 2.3 (continued)

SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

NOTES: The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.
Tax filing information and refund amounts refer to 2010, the tax year prior to random assignment.
Demographic characteristics data were collected for one tax filer when couples filed jointly.
Rounding may cause slight discrepancies in calculating sums.
Sample sizes for specific measures may vary because of missing values.
A chi-square test for categorical variables and an F-test for continuous variables were run to determine whether there is a difference in the distribution of the characteristics across the years that the savings match was received. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.
[a]This includes single and joint filers.
[b]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

Overall, those who received a savings match in two or more years appeared to have been in a better position to save. They tended to be older, had more income, and were more likely to have pledged the maximum allowed amount of $1,000, compared with other SaveUSA group members. SaveUSA group members with especially low incomes or who pledged the minimum amount of $200 were the least likely to ever receive a savings match. Those who received the savings match for two or more years were also more likely to have dependent children, compared with those who never received a savings match. Differences were also found based on the city in which individuals enrolled. Refund amount, however, was not found to be related to receiving the savings match.

A separate analysis (Appendix Table D.3) was conducted to examine the associations between the characteristics of study sample members and the likelihood of receiving a savings match. Using a logistic regression model, the effect of each characteristic was regressed on the likelihood of receiving a savings match, while holding the value of all other characteristics constant. The findings confirm the results from Table 2.3, with some differences: Filing status (for example, having dependent children) does not significantly predict receiving a savings match, but whether one received the Earned Income Tax Credit (EITC) does. Those who received the EITC at study enrollment were less likely to get the savings match than those who did not receive the EITC. In a separate analysis (not shown), it was found that those who received the EITC at study entry had the lowest incomes and relied more on their refund as a source of income than did other study sample members, which may have made it harder for them to keep their pledged deposit untouched for a full year.

Among those who received the savings match in two or more years, about half received the savings match in all three years (not shown). The average total dollars they received in savings matches over the three years was $881 (not shown). This group of individuals took ad-

vantage of the program the most. These repeat savers likely would have continued to participate in SaveUSA if the program had still been available to them. In fact, the majority of New York City program group members who participated again in Year 4, when the program was offered outside of the evaluation period, came from this group of people who had already received at least two matches (18 out of the 27).

Note that the above discussion should not be interpreted as implying that SaveUSA's *effects* were larger for some groups of individuals than for others. In order to determine the impact of SaveUSA on different groups of individuals, the behavior of individuals in the Regular Tax Filers group needs to be taken into account. SaveUSA may not have had large effects for the subgroups that had high savings match rates if their Regular Tax Filers group counterparts were saving at the same level. Conversely, subgroups with low match rates may show large benefits from SaveUSA if their Regular Tax Filers group counterparts saved little or not at all. SaveUSA's effects for different subgroups of study sample members are examined in Chapter 5.

SaveUSA Account Savings Patterns

Although individuals could withdraw their initial deposit at any time, for any reason, without penalties or fees, the program was designed to encourage participants to keep their initial deposit in the SaveUSA account long enough to receive the savings match. Individuals were also encouraged to participate in multiple years so that they could build up savings.

- **The vast majority of SaveUSA group members placed some tax refund dollars in the SaveUSA accounts at the start of the first program year. At the end of the follow-up period, only 29 percent of the SaveUSA accounts had a balance. In general, SaveUSA group members did not use their SaveUSA accounts for general saving.**

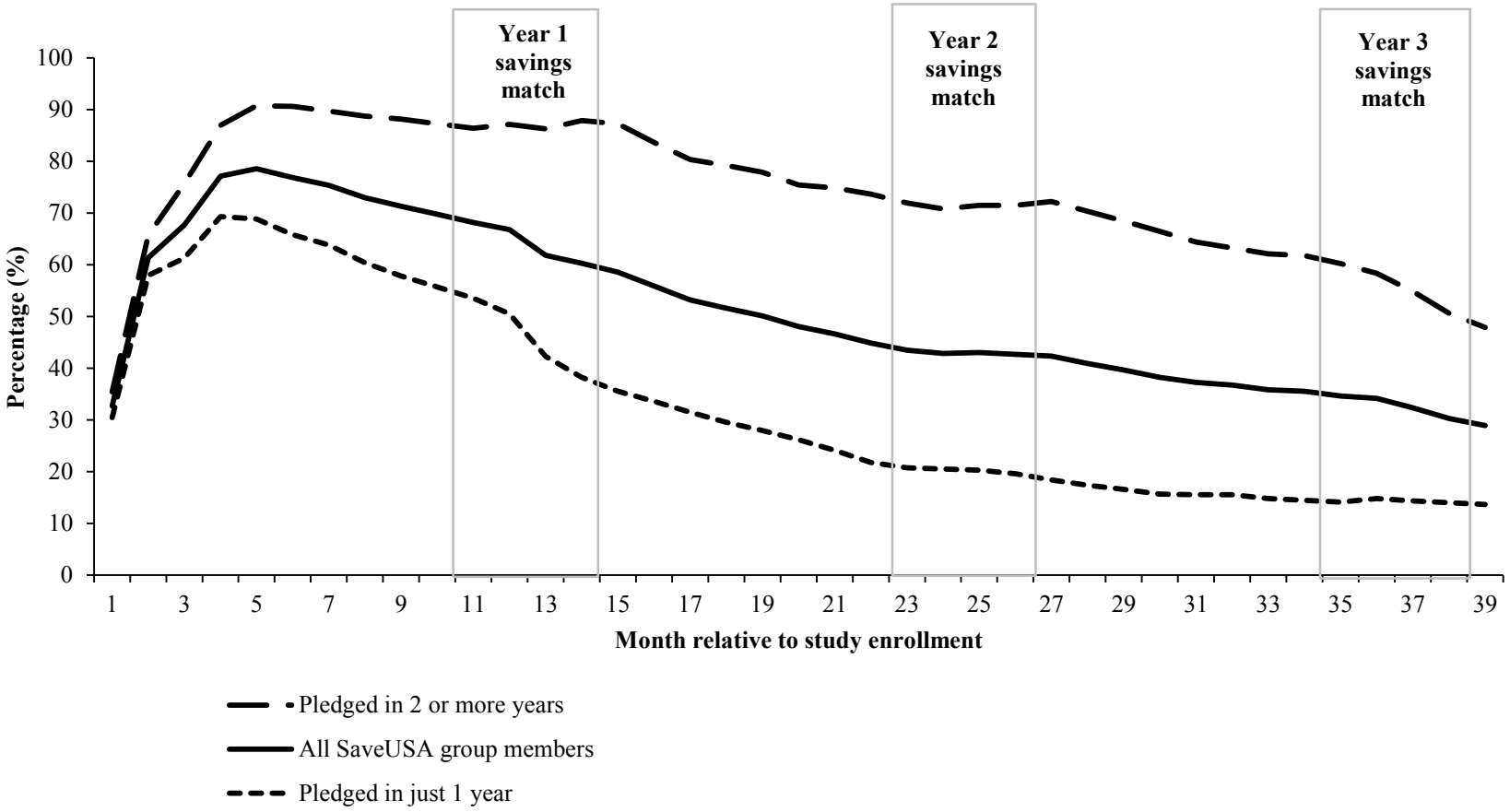
Figure 2.1 shows the percentage of SaveUSA accounts with a balance greater than $10 for all four cities during the follow-up period. It also shows the results for those who pledged during two or more program years and for those who pledged only once.[9]

As shown, the percentage of SaveUSA group members with a balance in their SaveUSA account declined steadily over 39 months in all four cities. It peaked at 79 percent in Month 5 and gradually declined to 29 percent at the end of the follow-up period. Note that the percentage of individuals with a balance above zero was never expected to reach 100 percent,

[9]This latter group also includes a small percentage of individuals that never pledged (2 percent) during the follow-up period.

Figure 2.1

Percentage of SaveUSA Accounts with a Balance Greater Than $10, by Month of Follow-Up, in All Four Cities



SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

since about 10 percent of the SaveUSA accounts never received an initial deposit from the IRS, either because of the account-opening issues described earlier or because the IRS withheld the refund from participants.

Repeat savers maintained their account balances most consistently. As shown, those who pledged to save in two or more years maintained some savings in their accounts throughout the follow-up period. Among this group, the percentage with a balance in their accounts peaked at 91 percent in Month 5. After the second savings match, a total of 72 percent still had a balance in the account. A large decline is observed for this group after the third savings match, as the study ended. Only 48 percent had a balance in their account at the end of the follow-up period.

Among those who pledged in only one year, the percentage with a balance peaked at 69 percent in Month 5 and gradually declined as many individuals withdrew all their money from their accounts. Only about 14 percent had a balance at the end of the 39-month follow-up period. As mentioned earlier, those who did not pledge to save tax refund dollars in the second program year were not likely to participate in subsequent years.

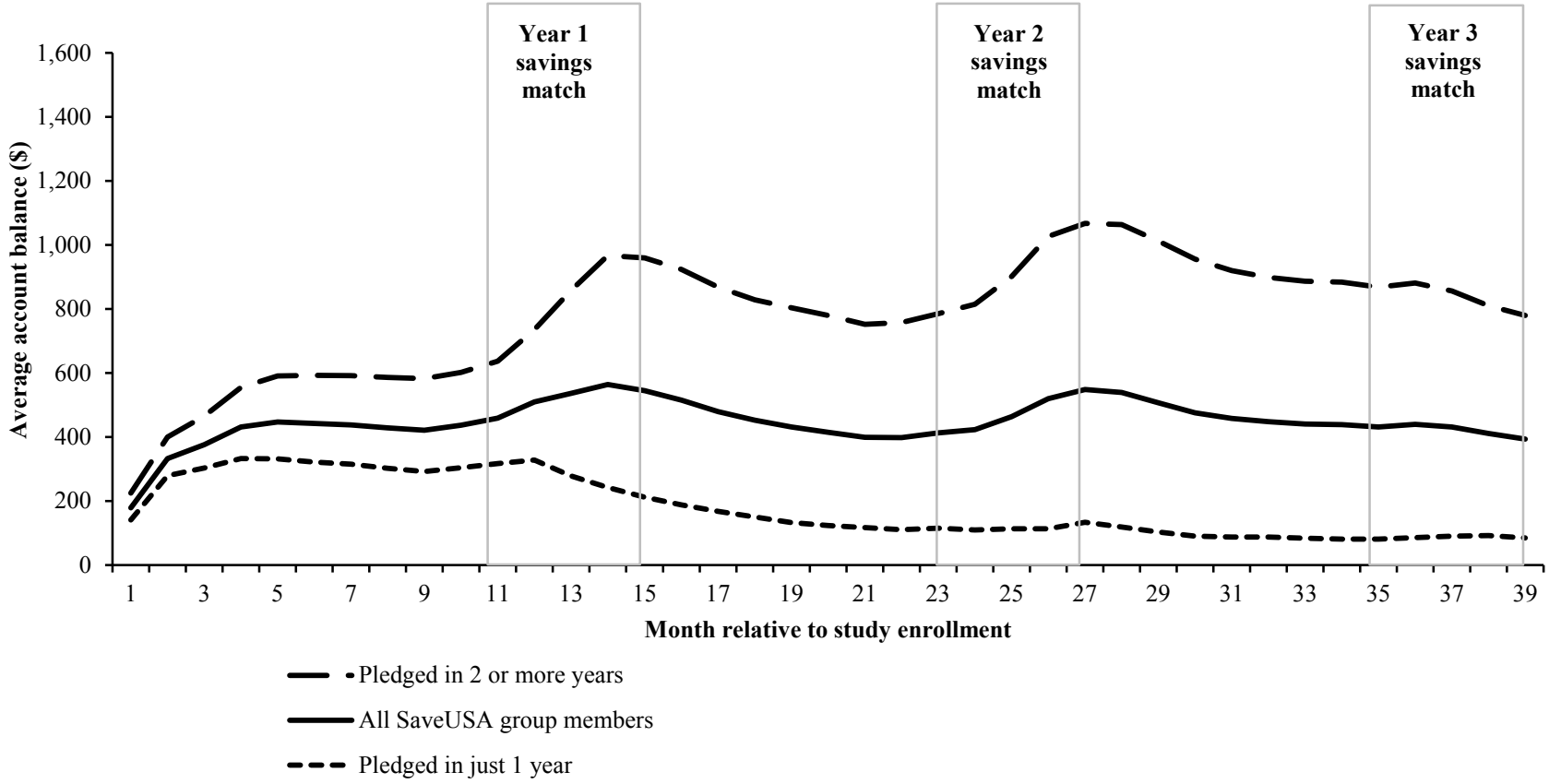
- **Most individuals withdrew their initial deposit and savings match from their SaveUSA accounts immediately after the savings match was placed into their accounts. This pattern was observed after the match distribution in each program year.**

Over the follow-up period, individuals' average balance in their SaveUSA accounts ranged from $179 to about $600 in any given month. As Figure 2.2 indicates, the average balance went up after individuals initially enrolled in SaveUSA and as deposits from the IRS were put into the accounts. The average balance peaked after the savings match was deposited in February 2012 (between Months 11 and 14) and another match was deposited in February 2013 (between Months 23 and 26). As shown, the savings balances increased slightly after the third savings match was deposited but not thereafter; individuals did not make subsequent deposits into the accounts, because the program ended for most participants. The balance decreased for most sample members after the final savings match was given, as individuals withdrew money from their accounts.

The patterns of average account balances are different for those who participated in multiple years. As shown in the graph, the average balances increased as the Year 1 savings matches were deposited in 2012 and as the accounts received the IRS deposits from the new Year 2 pledges. The average balances gradually decreased over the course of Year 2 as individuals withdrew their Year 1 savings and as some withdrew all or part of their Year 2 deposits as well. The balances peaked again as the accounts received the Year 2 savings matches in 2013. In Year 3, the balances increased, but not at the same level as in the previous year. This reflects

Figure 2.2

Average Balance of SaveUSA Accounts, by Month of Follow-Up, in All Four Cities



SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

the decline in Year 3 participation. Among those who pledged only once, the account balances diminished as individuals withdrew their savings from their accounts.

As Figure 2.2 illustrates, after receiving a savings match, most individuals withdrew the savings (initial deposit and savings match) from their SaveUSA accounts. This pattern is observed in each program year after each savings match distribution and for those who frequently pledged as well as for those who pledged only once. Again, this suggests that SaveUSA group members mainly used their SaveUSA accounts to obtain the savings match and did not continue to use the accounts for general saving.

How Did Individuals Use the Savings Match?

- **The savings match money was mainly used to pay debts and bills, and for other expenditures. Very few individuals used the money for emergency expenses or big purchases.**

Unlike in the Individual Development Account (IDA) model discussed in Chapter 1, SaveUSA group members could use their initial deposit and savings match for any purpose. Data from the 18-month survey showed that among those who received the first savings match in 2012 and reported withdrawing money from the account, 40 percent used their money to pay debts or bills. Over half (53 percent) used their money for some type of expenditure (other than paying debts and bills), and only about 7 percent used it for further savings.[10]

Since a sizable percentage of SaveUSA group members received at least two savings matches, the ways in which match money was used could have changed from what they reported at the 18-month follow-up point to what they reported at the 42-month follow-up point, as some individuals accumulated more savings over time. However, results from the 42-month survey are very similar to the ones from the 18-month survey. As reported by respondents to the later survey who received the savings match, about 44 percent used the match to pay debts or bills, and over half used their savings match for some other type of expenditure. (See Appendix Table D.2.) Only a small percentage of SaveUSA group members used the match for a big purchase or for emergency expenses.

SaveUSA Participation by City

This section examines the variation in participation rates for the four cities in the SaveUSA study. As noted in previous chapters, the characteristics of the sample members and account features varied for each city, which may have resulted in different experiences.

[10] Azurdia, Freedman, Hamilton, and Schultz (2014), Appendix Table D.4, p. 157.

- **Savings match rates ranged from 52 percent to almost 80 percent across the four cities.**

Table 2.4 shows the average initial savings pledge in Year 1 and participation statistics over the three program years for each of the four cities. As shown, the three-year savings match rates varied by city, ranging from 52 percent in Tulsa to almost 80 percent in Newark. These results are interesting given that Newark ceased most of its SaveUSA operation in Year 3. This suggests that three-year participation results are mostly driven by the Year 1 results, when almost all of the SaveUSA group members opened SaveUSA accounts.

Several factors could have resulted in the participation differences by city, and it appears that multiple factors did contribute. First, as noted earlier in this chapter, some individual characteristics were associated with the likelihood of receiving a savings match: age, income, and pledged deposit amount. If the individuals who enrolled in a particular city differed significantly on these characteristics from those who enrolled in other cities, the participation results by city may reflect these differences rather than other city factors. But, as shown in Table 2.4, the savings pledge amount in Year 1 was very similar across the cities. And although the baseline characteristics of individuals in each city are somewhat different (see Appendix Table A.1), the differences are not large. The most notable difference is that, on average, San Antonio's sample members were older and had slightly higher incomes compared with sample members from other cities.

Second, the organizational structures in each city varied. In Tulsa and Newark, SaveUSA was staffed by a single agency in each city; in New York and San Antonio, a lead agency collaborated with one or more community partners. Furthermore, as discussed earlier in this chapter, the lead agency in Newark partly dismantled its program in Year 3, affecting the percentage of individuals who were able to deposit money into the accounts.

Third, the financial institutions providing the SaveUSA accounts were different in each city, which resulted in differences in account-opening procedures and features. For example, withdrawing money before the savings match from the financial institution in the Newark program was difficult, because the bank was located in New York City and no ATM cards were provided. In contrast, Tulsa's and New York City's financial partners included large banks with many branches. Furthermore, two financial institutions, in Tulsa and in New York City, had more stringent background checks, which resulted in a higher percentage of individuals unable to open SaveUSA accounts during the enrollment period.

Finally, a factor that contributed to city differences was that tax filers in Newark and San Antonio, which were not part of the randomized controlled trial (RCT), typically opened accounts before study enrollment, while tax filers in New York City and Tulsa opened the accounts after study entry. Therefore, individuals in Newark and San Antonio who changed their

Table 2.4

SaveUSA Year 1 Pledge and Initial Deposit, and Savings Match Outcomes over Three Program Years, by City

	Year 1		Years 1 to 3		
City	Average Pledge Amount ($)	Average Initial Deposit ($)[a]	Received Savings Match (%)	Average Savings Match ($)	Sample Size
New York City	523	1,181	66.1	370	463
Tulsa	498	973	52.3	294	331
Newark	508	791	79.8	320	342
San Antonio	590	1,147	71.1	452	418
Sample size					1,554

SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

NOTES: The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.

[a]The initial deposit refers to the tax refund amount directly deposited into the SaveUSA account by the Internal Revenue Service.

mind or failed the financial institution's background check were not enrolled in the study, resulting in a larger percentage of individuals in those two cities being eligible for the savings match from the beginning of the study. When combined, the savings match rate for San Antonio and Newark is 75 percent for the full follow-up period, compared with 60 percent for New York City and Tulsa (Appendix Table D.4). However, as noted earlier, the vast majority of SaveUSA group members in all cities were able to open a SaveUSA account. Therefore, although the timing of account opening was a contributing factor to differences in match rates by city, it was not the main one.

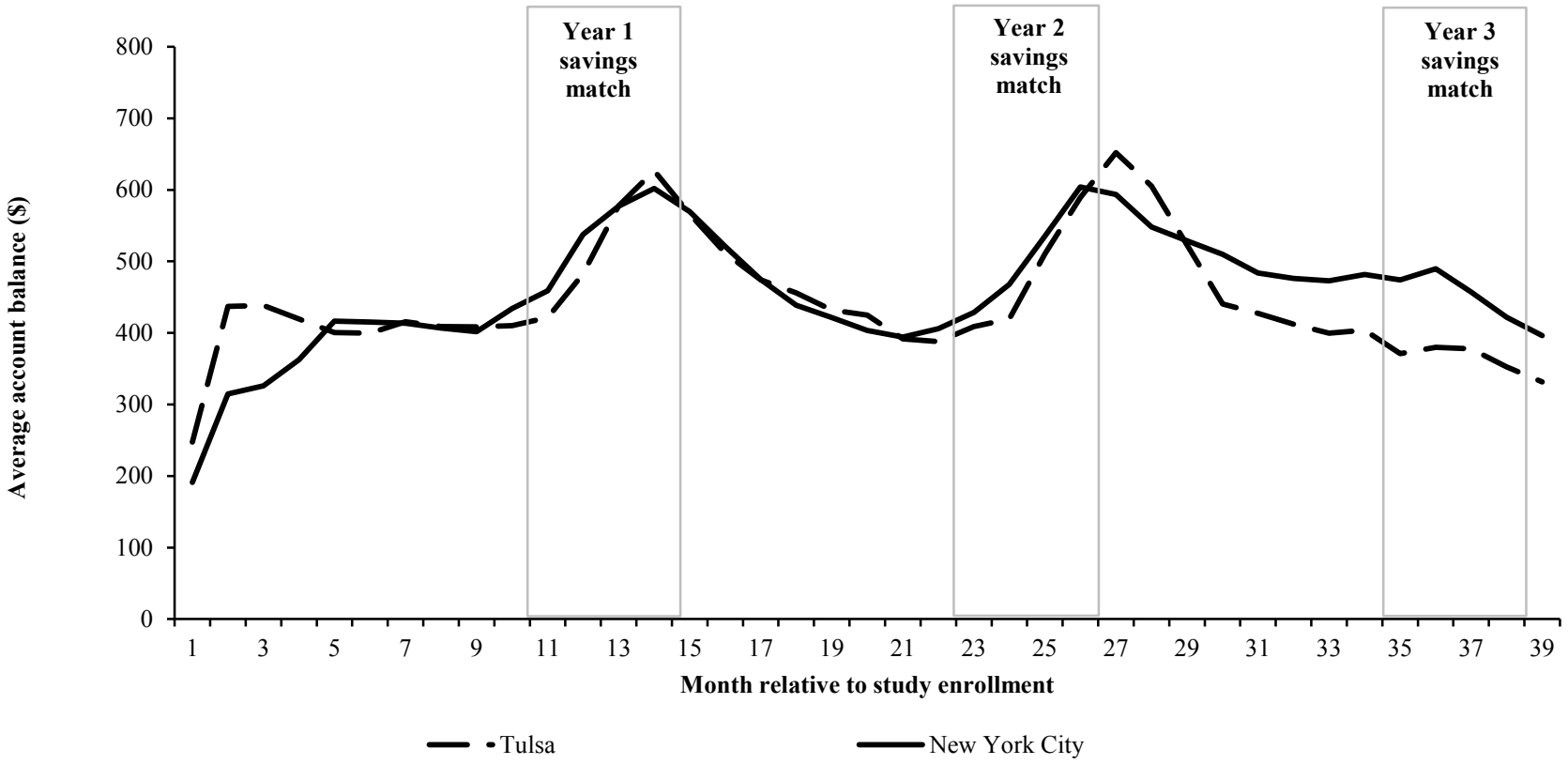
Comparing the two random assignment cities, New York City sample members were more likely than Tulsa sample members to receive a savings match (Table 2.4). This difference can be mainly attributed to the differences in account eligibility and account-opening procedures between the cities. As Figure 2.3 shows, however, overall savings patterns were similar between the two cities.

Conclusion

Results in this chapter show that the majority of SaveUSA group members participated in SaveUSA by successfully opening an account, and the majority of SaveUSA group members

Figure 2.3

Average Balance of SaveUSA Accounts, by Month of Follow-Up, in New York City and Tulsa



SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

received at least one savings match during the three program years. Those who received the savings match in the first year were more likely to participate in subsequent years.

Participation was the highest during the first year, when almost all SaveUSA group members opened SaveUSA accounts. During subsequent years, the majority did not participate, due to various factors. Some sample members did not receive a tax refund, and thus were unable to participate. The majority, however, did receive a refund but chose not to save it, for a variety of reasons.

Repeat participation was concentrated among a third of the sample who appeared to be in a better position to save. This group was more likely to be older, to have pledged to save the maximum amount, and to have a higher income. Those who never received a savings match were more likely to have lower incomes and were more likely to have pledged to save the minimum amount of $200.

SaveUSA account activity suggests that program group members mainly used their accounts to get the savings matches and not as regular savings accounts. Most SaveUSA group members who did not pledge to save part of their tax refund in the second program year ceased using their accounts. Similarly, the majority of SaveUSA group members who received a savings match withdrew their initial deposit and savings match from their accounts shortly after receiving the match.

In the next chapter of this report, the SaveUSA group's overall savings activities (not just the activity in their SaveUSA accounts) will be compared with those of the Regular Tax Filers group. This analysis will indicate whether the SaveUSA program had an effect on individuals' propensity to save and on how much they saved.

Chapter 3

Impacts on Savings and Liquid Assets

Introduction

This chapter begins the analysis of the estimated effects (or impacts) of SaveUSA for study participants in New York City and Tulsa. As discussed in previous chapters, SaveUSA encourages accumulation of short-term nonretirement savings that can be used to protect households from financial hardship due to unforeseen expenses or sudden decreases in income or for other purposes. Accordingly, the analysis focuses primarily on whether the program increased SaveUSA group members' nonretirement savings above the levels (as represented by the Regular Tax Filers group) that low- and moderate-income tax filers with a strong interest in saving would be expected to accumulate without access to a SaveUSA account and savings match. The chapter then explores SaveUSA's possible effects on longer-term retirement savings (which were not expected from the program model) and total savings, also referred to as liquid assets.[1]

The chapter analyzes SaveUSA's impacts on nonretirement savings cumulatively and at different points during the 42-month follow-up period. (The analysis of trends in SaveUSA's effects is based on findings for a large subgroup of respondents who were interviewed at 18 months and again at 42 months.) As discussed in the previous SaveUSA report, at 18 months of follow-up, SaveUSA led to a 7 percentage point increase above the level for the Regular Tax Filers group in the incidence of having nonretirement savings and an average increase of $512 in total dollars saved. In addition, a larger proportion of SaveUSA group members reported savings-oriented responses on questions concerning attitudes toward savings.[2] Over the next 24 months of follow-up — the time period included in the follow-up for this report — impacts on savings could have changed, for several reasons. Direct effects of SaveUSA could be expected to diminish because of the year-by-year decreases in deposits to SaveUSA accounts and in receipt of a savings match. (See Chapter 2.) Alternatively, the program could still realize impacts on nonretirement savings from a combination of the continued use of SaveUSA accounts by some SaveUSA group members and from SaveUSA group members making greater use of other savings products than members of the Regular Tax Filers group.

[1]While there are different definitions of "liquid assets," this analysis adopts the one used by the Corporation for Enterprise Development (CFED): "Liquid assets are those that are held in cash or can be liquidated quickly: bank accounts and other interest-earning assets; and equity in stocks, mutual funds and retirement accounts (IRAs, 401(k)s and KEOGH accounts). Liquid assets exclude equity in businesses, vehicles, homes and other real estate" (Corporation for Enterprise Development, 2013).

[2]Azurdia, Freedman, Hamilton, and Schultz (2014), Chapter 5, pp. 59-79. SaveUSA did not affect levels of retirement savings at the 18-month follow-up point.

Gauging the possibility of longer-term effects on savings, the chapter also explores whether SaveUSA group members, when surveyed, expressed a greater confidence in their ability to save, compared with members of the Regular Tax Filers group. Finally, the chapter considers whether SaveUSA may have encouraged some low- and moderate-income households to shift the target of their savings from longer-term retirement savings to nonretirement savings without affecting the total amount that they saved.

Main Findings

- As of the 42-month follow-up point, SaveUSA had increased short-term, nonretirement savings above levels for the Regular Tax Filers group. SaveUSA led to impacts on the incidence of having nonretirement savings and on total dollars saved.
- As expected, relatively few study participants in either research group invested in longer-term retirement savings. SaveUSA did not increase or decrease retirement savings compared with the Regular Tax Filers group.
- SaveUSA led to impacts on "consistent saving," defined as having nonretirement savings at both 18 months and 42 months of follow-up.
- Unlike at 18 months, SaveUSA did not lead to consistent increases in expressions of confidence in saving.

The impacts on nonretirement savings at 42 months after random assignment are important, because they show that SaveUSA could sustain savings increases above the level for the Regular Tax Filers group even after SaveUSA group members no longer had access to a 50 percent match on savings.

Data Sources and Estimation Procedures

All outcomes included in the impact analyses for this report were calculated from responses to the SaveUSA 18-month and 42-month surveys. Survey response rates were high for all measures discussed below, which increases confidence that findings for respondents can be generalized to the full research sample. As is common with survey data, some respondents' recall error, exaggeration, or reluctance to divulge sensitive information decreases the precision of specific estimates for each research group. Nevertheless, these issues affected both research groups equally and response bias analyses showed that the findings on program effects presented below can be considered reliable and unbiased. (See Appendixes B, C, and E for further details.) To improve precision, when estimating program effects on dollar-value measures, such as

total nonretirement savings, values above the 99th percentile were identified as outliers and excluded from the calculations.

The analysis uses ordinary least squares (OLS) regression to estimate the values for each research group. The regression model controls for randomly occurring differences in study participant characteristics recorded at baseline (such as highest educational credential, adjusted gross income, and total refund amount) that could affect a participant's savings, debt, or other financial outcomes during the follow-up. Averages for the Regular Tax Filers group represent expected levels of savings and other financial outcomes for low- and moderate-income tax filers with a strong interest in accumulating savings (as evidenced by their enrollment in the SaveUSA study). These averages serve as benchmarks for estimating program effects, and for that reason, the impact analyses presented below start with a summary of financial outcomes for the Regular Tax Filers group. The impact of SaveUSA is estimated by calculating the difference in average outcomes for the SaveUSA group and the Regular Tax Filers group. Differences with a statistical significance of 10 percent or lower are considered to be impacts of SaveUSA and not the result of chance. (See Box 3.1 for further details.) Estimates for SaveUSA group members and members of the Regular Tax Filers group combine results for the research samples in New York City and Tulsa, the two RCT sites. (See Chapter 5 for a discussion of impact results for each city.) No special weighting was used to control for possible differences in program effects by city (and, as discussed in Chapter 5, such differences were few and small).

Impacts on Nonretirement Savings as Measured at the Time of the 42-Month Survey

- **At 42 months, SaveUSA continued to lead to impacts on measures of current accumulation of nonretirement savings that were of similar magnitude to the impacts recorded at 18 months.**

As noted above, results for the Regular Tax Filers group on savings and other outcomes represent the benchmarks by which to estimate the effects, or impacts, of the SaveUSA program. After 42 months of follow-up, most members of the Regular Tax Filers group had accumulated nonretirement savings but, on average, had only a small amount of savings on hand. As Table 3.1 shows, about 72 percent of respondents in the Regular Tax Filers group reported having some type of short-term, nonretirement savings. Most often, members of the Regular Tax Filers group maintained a savings account or kept a minimum balance in their

Box 3.1

How to Read the Impact Tables in the SaveUSA Report

Most impact tables in this report use a similar format, illustrated below. The data show survey responses by SaveUSA group members and members of the Regular Tax Filers group concerning how they received their 2013 federal tax refund. For example, the table shows that about 47 (46.5) percent of the SaveUSA group and about 41 (41.1) percent of Regular Tax Filers group members had the IRS directly deposit all or part of their refund into a savings account.

Because individuals were assigned randomly either to the SaveUSA group or to the Regular Tax Filers group, the effects of the program can be estimated by the difference in outcomes between the two groups. The "Difference (Impact)" column in the table shows the differences between the two research groups' rates — that is, the program's *impacts* on a particular way of directly depositing tax refund dollars. For example, the impact on the incidence of directly depositing tax refund dollars into a savings account can be calculated by subtracting 41.1 percent from 46.5 percent, yielding 5.4 percentage points.

Differences marked with asterisks are described as "statistically significant" and are considered to be true program effects. For each measure, the number of asterisks indicates whether the impact is statistically significant at the 1 percent (***), 5 percent (**), or 10 percent (*) level, meaning that there is only a 1, 5, or 10 percent probability, respectively, that the impact arose by chance. The p-value shows the exact level of statistical significance of the difference in decimal form, as a number that ranges from 0.000 (near zero percent probability of having occurred by chance) to 0.999 (near 100 percent probability). By convention, one asterisk is used for any p-value less than 0.1 but greater than 0.05, and the difference is described as being statistically significant at the 10 percent level. For example, as shown below, the SaveUSA group had a statistically significant impact of 5.4 percentage points at the 10 percent level on the outcome of directly depositing tax refund dollars into a savings account.

Impacts on Allocation of 2013 Federal Tax Refund

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)		P-Value
How refund was received (%)					
Direct deposit into savings account	46.5	41.1	5.4	*	0.054
Purchase U.S. savings bonds	2.7	1.1	1.6	**	0.042
Direct deposit into checking account	62.0	64.4	-2.5		0.361

The SaveUSA Evaluation

Table 3.1

Impacts on Savings as of the 42-Month Survey

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Nonretirement savings				
Has nonretirement savings (%)	80.0	72.4	7.6 ***	0.002
Nonretirement savings type (%)				
Savings account	67.1	58.8	8.3 ***	0.002
Certificate of deposit	7.2	5.1	2.1	0.126
U.S. savings bond	6.3	3.9	2.3 *	0.067
Stocks, bonds, or mutual funds	10.0	6.3	3.7 **	0.017
Education savings plan	3.2	2.7	0.5	0.580
Whole-life insurance policy	28.8	29.7	-0.9	0.725
Individual Development Account	1.4	1.1	0.3	0.672
Cash, jewelry, or gold	36.1	29.8	6.3 **	0.018
Money loaned with expectation of repayment	15.7	14.5	1.2	0.573
Money in some other place	9.7	9.6	0.1	0.936
Maintain minimum balance in checking account	55.7	51.3	4.4	0.127
Total nonretirement savings ($)	2,281	1,758	522 **	0.024
Total nonretirement savings (%)				
$0	20.0	27.6	-7.6 ***	0.002
$1 - $500	31.2	28.7	2.6	0.340
$501 - $1,000	9.1	11.5	-2.4	0.175
$1,001 - $2,000	12.1	12.3	-0.2	0.929
$2,001 - $5,000	15.1	12.0	3.1	0.117
$5,001 - $10,000	9.1	5.1	4.0 ***	0.008
More than $10,000	3.4	2.8	0.5	0.603
Retirement savings				
Has retirement savings (%)	31.1	30.3	0.8	0.760
Total retirement savings ($)	3,326	3,512	-186	0.731
Total retirement savings (%)				
$0	68.9	69.7	-0.8	0.760
$1 - $2,000	10.4	8.7	1.7	0.337
$2,001 - $5,000	5.0	6.2	-1.2	0.389
$5,001 - $10,000	7.6	6.6	1.0	0.495
$10,001 - $30,000	5.7	6.2	-0.6	0.669
More than $30,000	2.4	2.5	-0.2	0.855
Liquid assets: Nonretirement + retirement savings				
Has liquid assets (%)	83.1	75.6	7.6 ***	0.001
Total liquid assets ($)	5,030	4,458	572	0.272

(continued)

Table 3.1 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Total liquid assets (%)				
$0	16.9	24.4	-7.6 ***	0.001
$1 - $2,000	43.5	41.0	2.5	0.397
$2,001 - $5,000	14.0	12.9	1.2	0.560
$5,001 - $10,000	11.7	8.2	3.5 **	0.049
$10,001 - $25,000	9.2	9.0	0.3	0.875
More than $25,000	4.7	4.5	0.1	0.908
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

checking account. The Regular Tax Filers group averaged $1,758 in nonretirement savings, although more than half had less than $500 or none at all.[3]

SaveUSA led to increases over levels for the Regular Tax Filers group on several measures of nonretirement savings as of 42 months of follow-up. About 80 percent of SaveUSA group members reported that they currently had nonretirement savings, a gain of 8 percentage points over the Regular Tax Filers group. Having access to the SaveUSA account (for at least part of the follow-up period) led to greater use of savings accounts overall by SaveUSA group respondents (an impact of 8 percentage points) and to smaller positive, statistically significant

[3]About 4 percent of respondents in the Regular Tax Filers group reported that they had exactly $500 in nonretirement savings (not shown but included in the "$1-$500" category in Table 3.1). Results at 18 months were similar for the Regular Tax Filers group (Azurdia, Freedman, Hamilton, and Schultz, 2014, Table 5.3, pp. 67-68). The savings levels reported by the Regular Tax Filers group may be considered "only a small amount" compared with $2,000, the level of savings reported by low- and moderate-income respondents in a national survey as most likely to provide protection against sudden increases in expenses or losses of income (Bricker, Kennickell, Moore, and Sabelhaus, 2012, Table 3.1, p.16).

impacts in having cash, jewelry, or gold on hand; having stocks, bonds, or mutual funds; and having U.S. savings bonds.[4]

The typical SaveUSA group respondent reported having a total of $2,281 in nonretirement savings, an increase of $522, or 30 percent, above the average for the Regular Tax Filers group. SaveUSA's impact on total nonretirement savings resulted in part from the program turning some nonsavers into savers, as represented by the impact on the proportion with any nonretirement savings. In addition, when only respondents with nonretirement savings are considered, the SaveUSA group savers averaged about $400 more in nonretirement savings than their counterparts in the Regular Tax Filers group.[5]

When estimating SaveUSA's effect on nonretirement savings, it is also important to consider whether the increase in dollars saved included study participants at different savings levels or was concentrated among particular types of savers. As shown in Table 3.1, a larger proportion of SaveUSA group members reported having more than $2,000 in nonretirement savings.[6] This finding is important because $2,000 is a level of savings reported by low- and moderate-level income respondents in a national survey as most likely to provide protection against sudden increases in expenses or losses of income.[7]

These impact findings demonstrate that SaveUSA continued to achieve its primary goal of increasing nonretirement savings beyond expected levels for low- and moderate-income households that expressed a strong interest in saving (as evidenced by their enrollment in the SaveUSA study). Nonetheless, like their counterparts among the Regular Tax Filers group, most SaveUSA group members reported maintaining a relatively small amount of nonretirement savings at the time of their 42-month interview. At least two-thirds of both groups had savings below $2,000.[8]

- **Different savings strategies contributed to SaveUSA's overall impact on nonretirement savings at 42 months.**

In several respects, the longer-term findings on nonretirement savings closely resemble results measured at 18 months of follow-up. During both interviews, SaveUSA group members reported having an average of about $2,250 in nonretirement savings, which exceeded the aver-

[4]As shown in Table 3.1, increases in the proportion of respondents who reported owning a certificate of deposit and or maintaining a minimum balance in a checking account were slightly above the 10 percent level of statistical significance.

[5]Based on data displayed in Table 3.1, the average savings for SaveUSA group savers is $2,850 ($2,281/0.800), whereas the average savings for Regular Tax Filers group savers is $2,428 ($1,758/0.724).

[6]The difference is statistically significant at the 1 percent level (p-value = 0.002).

[7]Bricker, Kennickell, Moore, and Sabelhaus (2012), Table 3.1, p. 16.

[8]About 5 percent of respondents in each research group reported that they had exactly $2,000 in nonretirement savings (not shown but included in the "$1,001-$2,000" category in Table 3.1).

age for the Regular Tax Filers group by a little more than $500.[9] Other findings from financial records (for SaveUSA group members) and from survey responses suggest that savings patterns for both research groups changed over time. By Month 42 of follow-up, SaveUSA's impacts on nonretirement savings appear to have resulted from SaveUSA group members' greater use of different kinds of savings strategies (such as keeping money in a low-interest savings account or keeping cash at home), rather than from SaveUSA group members' access to a SaveUSA account and 50 percent savings match. Put differently, having access to a SaveUSA account appears to have encouraged low- and moderate-income households to develop a stronger commitment to accumulate short-term nonretirement savings, even at very low interest rates. This transition to a broader set of savings strategies may be seen as a positive effect of SaveUSA.

Impacts on Deposits of Tax Refund Dollars to Savings

- **The direct effect of the SaveUSA savings account on nonretirement savings diminished over time.**

As noted in Chapter 2, the typical SaveUSA group member received about $365 in savings match dollars during the three years in which he or she was eligible to participate in the program (Table 2.2). This average represents about 70 percent of the impact of SaveUSA on nonretirement savings as measured at 42 months. Most SaveUSA group members experienced a "direct effect" of adding the savings match to their nonretirement savings during the first two years of follow-up and little or no effect thereafter. Most often, SaveUSA group members who received a savings match withdrew their match dollars and a large portion of their SaveUSA deposits within six months of receiving the match. Moreover, relatively few SaveUSA group members directly deposited tax refund dollars in a SaveUSA account after Year 1. For the SaveUSA group to have reported a similar average in nonretirement savings at 42 months as they had reported two years previously (and recorded a similar impact), many group members must have replenished their nonretirement savings over time using funds from other sources.

- **During the 2014 tax season (Year 4 of follow-up), SaveUSA increased the incidence of the direct deposit of tax refund dollars into savings, but the impact was smaller at 42 months after random assignment than when recorded at 18 months.**

Tax refund dollars continued to be an important source of savings for both groups during the last year of the follow-up period. As Table 3.2 indicates, according to survey data, in Year 4 (2014), the first year after SaveUSA ended in Tulsa, about 47 percent of SaveUSA

[9]See Table 3.1 above and Azurdia, Freedman, Hamilton, and Schultz (2014), Table 5.3, pp. 67-68.

The SaveUSA Evaluation

Table 3.2

Impacts on Tax Refund Receipt and Use During Year 4 (2014)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Filed a tax return (%)	88.7	88.5	0.3	0.882
Received a tax refund (%)	82.4	81.5	0.9	0.666
Total tax refund ($)	2,786	2,558	228 *	0.084
Total tax refund (%)				
$0	18.0	19.3	-1.3	0.568
$1 - $500	10.3	11.6	-1.3	0.455
$501 - $1,000	9.7	13.0	-3.3 *	0.067
$1,001 - $2,000	15.8	13.9	1.8	0.367
$2,001 - $5,000	26.2	24.8	1.4	0.571
$5,001 - $10,000	19.4	16.7	2.8	0.167
More than $10,000	0.6	0.7	-0.2	0.713
How refund was received (%)				
Direct deposit into savings account	46.5	41.1	5.4 *	0.054
Purchase U.S. savings bonds	2.7	1.1	1.6 **	0.042
Direct deposit into checking account	62.0	64.4	-2.5	0.361
Prepaid debit card	11.1	9.0	2.1	0.237
Refund check in the mail	15.2	12.9	2.3	0.247
Had plan to save all or part of tax refund (%)	47.8	39.1	8.7 ***	0.002
Amount of tax refund currently saved (%)				
All	6.3	3.2	3.1 **	0.013
More than half	5.8	3.5	2.2 *	0.063
About half	9.1	7.0	2.0	0.199
Less than half	22.8	18.2	4.6 **	0.047
None	56.1	68.0	-11.9 ***	0.000
Primary use of tax refund (%)				
No refund	18.1	19.0	-0.9	0.685
Savings	21.5	14.0	7.6 ***	0.001
Pay bills, debts, or taxes owed	35.2	36.9	-1.7	0.536
Expenditures	25.2	30.1	-4.9 *	0.056
Pay for emergency expenses	1.3	1.3	0.0	0.972
Pay for housing costs and household expenses	6.5	9.0	-2.5	0.100
Pay for clothing and other items for family members	1.9	1.4	0.5	0.515
Pay for work- or business-related expenses	0.1	0.8	-0.7 *	0.087
Pay for education	2.8	2.4	0.4	0.677
Pay for a major purchase	5.6	6.6	-0.9	0.503
Give to a family member	1.8	3.3	-1.5	0.105
Pay for dining out, entertainment, vacation, or travel	1.8	2.5	-0.6	0.455
Other uses	3.2	2.7	0.5	0.628
Sample size (total = 1,236)	626	610		

(continued)

Table 3.2 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

group members directly deposited tax refund dollars into savings accounts at a bank or credit union, an increase of about 5 percentage points above the level for the Regular Tax Filers group. SaveUSA also led to somewhat larger gains above the Regular Tax Filers group in the likelihood of having had a plan to save tax refund dollars and in saving at least part of the tax refund until the time of their 42-month interview.

Nonetheless, both the SaveUSA group's incidence of directly depositing tax refund dollars into savings and the impact on this measure decreased substantially between Years 2 and 4.[10] This decrease was partly the result of fewer SaveUSA group members receiving a tax refund in Year 4 and partly because fewer SaveUSA group members had planned to use some of their tax refund for savings.[11] Thus, SaveUSA group members' use of tax refund dollars contributed to the program's overall impact on nonretirement savings at 42 months, but to a lesser extent than when measured at 18 months.

Impacts on Measures of Nonretirement Savings Since the First Interview at 18 Months or Measured as Change over Time

- **SaveUSA led to impacts on longer-term trends in nonretirement savings, when savings patterns between Months 18 and 42 are considered.**

[10]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 5.2, pp. 64-65. In 2012 (Year 2) about 61 percent of SaveUSA group members reported that they had directly deposited tax refund dollars into savings, about 26 percentage points above the level for the Regular Tax Filers group.

[11]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 5.2, pp. 64-65. In 2012 (Year 2) about 90 percent of SaveUSA group members reported receiving a tax refund and 57 percent reported having had a plan to save all or part of their tax refund.

Survey respondents were asked a series of questions about changes in their savings behavior over time. Responses for the large majority of study participants who answered both surveys cover the two years following their 18-month interview, whereas respondents to only the 42-month survey reported on their savings behavior during the entire 42-month follow-up period.[12]

When interviewed at 42 months, relatively large majorities of survey respondents in both research groups reported that they had maintained savings for at least part of the time during the previous two years. As Table 3.3 shows, about 78 percent of Regular Tax Filers group members reported that they had kept money in nonretirement savings at some point since their 18-month interview, and a slightly smaller proportion (71 percent) had maintained a savings account for at least part of the time. Most members of the Regular Tax Filers group recalled having deposited money into nonretirement savings at least once or twice since Month 18.

Between Months 18 and 42 of follow-up, SaveUSA led to an 8 percentage point increase above the level for the Regular Tax Filers group in ever having a savings account and a 7 percentage point gain in ever having nonretirement savings. By a margin of 7 percentage points, a larger proportion of SaveUSA group members reported having deposited money in their nonretirement savings at least once since Month 18.

It is also possible to assess SaveUSA's effects on changes in nonretirement savings by comparing each respondent's reported savings at the time of the 42-month interview with his or her reported savings at the time of the 18-month interview. By necessity, this analysis is limited to the large subsample of respondents who answered both surveys. Using these responses, the analysis identifies groups of respondents who demonstrated more positive (from the standpoint of accumulating nonretirement savings) changes in savings behavior. The groups include respondents with savings at both interviews; respondents who reported having more savings at the 42-month interview than previously at the 18-month interview, and especially those whose increase exceeded $1,000;[13] and "most committed savers," who reported having nonretirement savings at both interviews and increased their nonretirement savings over time. The analysis also identifies respondents who reported a decrease in nonretirement savings, based on a comparison of their reported current savings at their 18-month and 42-month interviews. Assessing further SaveUSA's longer-term impacts on nonretirement savings, the analysis next considers whether a larger proportion of SaveUSA group members reported positive changes in their nonretirement savings behavior and a smaller proportion reported negative changes compared with

[12]To simplify the description of changes over time, in this section and elsewhere in the report, the analysis will refer to the 18-month interview as the initial point in time for all survey respondents.

[13]This group includes survey respondents who reported having nonretirement savings at the 42-month interview but no savings at the 18-month interview.

The SaveUSA Evaluation

Table 3.3

Impacts on Savings Between the 18-Month and 42-Month Interviews

Outcome (%)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Nonretirement savings				
Ever had savings account	79.1	71.2	7.9 ***	0.001
Had at least $1 in nonretirement savings	85.1	78.0	7.1 ***	0.002
How often added money to savings				
At least once per month	36.7	34.9	1.8	0.501
A few times per year	13.8	10.1	3.7 **	0.048
Once or twice	12.7	11.0	1.8	0.343
Never	36.7	44.1	-7.4 ***	0.008
Have automatic system for adding money to savings	23.7	19.3	4.4 *	0.058
Direct deposit from employer	16.7	13.7	3.0	0.150
Automatic transfer from checking account	10.8	9.8	1.1	0.541
Automatic transfer from other account	1.3	1.4	-0.1	0.841
How often withdraw money from savings				
Every week	9.6	8.9	0.7	0.658
Once or twice per month	21.0	20.2	0.8	0.747
A few times per year	17.7	13.7	4.1 *	0.054
Once or twice	16.4	12.4	4.0 **	0.047
Never	20.7	23.2	-2.5	0.296
No savings at any time	14.6	21.7	-7.1 ***	0.001
Wanted to withdraw money from savings but did not	40.3	34.6	5.7 **	0.045
Change in total nonretirement savings				
Increased	27.0	26.7	0.3	0.914
No change	33.8	41.5	-7.7 ***	0.006
Decreased	39.3	31.8	7.4 ***	0.007
Retirement savings				
Change in total retirement savings				
Increased	21.8	22.0	-0.2	0.932
No change	66.2	69.1	-2.9	0.261
Decreased	12.0	8.9	3.1 *	0.080
Sample size (total = 1,236)	626	610		

(continued)

Table 3.3 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

Regular Tax Filers group members. Finally, a *nonexperimental* analysis identifies subgroups of survey respondents who reported the same type of change in their nonretirement savings and then examines whether SaveUSA group members in each subgroup averaged greater nonretirement savings at 42 months than their counterparts in the Regular Tax Filers group.

As shown in Table 3.4, study participants in both research groups reported different patterns of change in their nonretirement savings. Most Regular Tax Filers group members (60 percent) reported having nonretirement savings at both interviews. A somewhat smaller proportion (46 percent) increased their nonretirement savings, and nearly one-third of the Regular Tax Filers group met the criteria for being "most committed savers."

Overall, SaveUSA group members demonstrated a greater commitment to saving over time than members of the Regular Tax Filers group. SaveUSA led to a relatively large (11 percentage point) increase in having savings at both interviews. Despite this impact, SaveUSA did not produce a statistically significant difference in the proportion of respondents who increased their savings over time or a statistically significant difference in the likelihood of becoming "most committed savers" (Table 3.4). Nonetheless, it appears that SaveUSA did have some effect on indicators of positive changes in nonretirement savings. By a margin of nearly 6 percentage points, a larger proportion of SaveUSA group members increased their nonretirement savings by more than $1,000 between the 18-month and 42-month interviews. In addition (not shown), when only "most committed savers" are considered, SaveUSA group members on average reported having nearly $500 more in nonretirement savings at 42 months than their counterparts among the Regular Tax Filers

Table 3.4

Impacts on Changes in Nonretirement Savings, Retirement Savings, and Liquid Assets Between the 18-Month and 42-Month Interviews

Outcome (%)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Nonretirement savings				
Had nonretirement savings				
At 18-month and 42-month interviews	71.1	60.0	11.0 ***	0.000
At 42-month interview only	10.7	13.5	-2.8	0.173
At 18-month interview only	8.4	11.6	-3.2 *	0.092
At neither interview	9.8	14.9	-5.1 **	0.013
Change in total savings between interviews				
Increased	47.7	46.2	1.5	0.634
By more than $1,000	23.5	17.6	5.8 **	0.020
No change	17.2	19.6	-2.3	0.338
Decreased	35.1	34.2	0.8	0.780
By more than $1,000	14.6	13.3	1.3	0.539
Retirement savings				
Had retirement savings				
At 18-month and 42-month interviews	22.7	22.0	0.7	0.786
At 42-month interview only	9.2	8.0	1.2	0.485
At 18-month interview only	10.5	5.7	4.8 ***	0.005
At neither interview	57.6	64.3	-6.7 **	0.017
Change in total savings between interviews				
Increased	24.6	22.8	1.8	0.477
By more than $1,000	18.4	15.8	2.6	0.256
No change	58.5	65.9	-7.5 ***	0.008
Decreased	16.9	11.3	5.6 ***	0.008
By more than $1,000	12.3	8.8	3.5 *	0.064
Liquid assets[a]				
Had liquid assets (%)				
At 18-month and 42-month interviews	76.3	64.4	11.9 ***	0.000
At 42-month interview only	8.6	12.1	-3.4 *	0.074
At 18-month interview only	5.8	10.2	-4.4 **	0.011
At neither interview	9.3	13.4	-4.0 **	0.044
Change in liquid assets between interviews				
Increased	53.1	50.4	2.7	0.398
By more than $1,000	31.8	26.3	5.5 *	0.051
No change	13.4	16.7	-3.2	0.152
Decreased	33.5	33.0	0.6	0.854
By more than $1,000	19.3	15.9	3.5	0.154
Sample size (total = 1,108)	552	556		

(continued)

Table 3.4 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: The sample includes respondents from New York City (N = 650) and Tulsa (N = 458).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

[a]"Liquid assets" are calculated as total nonretirement savings + total retirement savings.

group.[14] These findings imply that SaveUSA increased nonretirement savings at 42 months in large part by increasing savings among the most savings-oriented study participants.

To a lesser extent, SaveUSA also appears to have increased nonretirement savings among study participants with less positive savings experiences. These are respondents who also reported having nonretirement savings at both interviews, but whose savings were lower at 42 months than at 18 months. This outcome group includes about 27 percent of SaveUSA group respondents and 23 percent of the Regular Tax Filers group. (The difference is not statistically significant.) Within this outcome group, SaveUSA group members reported about $270 more in savings than their counterparts among the Regular Tax Filers group.[15] This difference supports the finding that SaveUSA increased consistency of savings commitment over time.

[14]See Table 3.4. To obtain the percentage of "most committed savers" for each research group, calculate the difference between two measures, those who increased nonretirement savings between interviews (second panel) and those who had nonretirement savings at the 42-month interview only (first panel). Thus, the percentage of "most committed savers" for SaveUSA group members equals 47.7 percent − 10.7 percent = 37.0 percent and for members of the Regular Tax Filers group equals 46.2 percent − 13.5 percent = 32.7 percent. The difference between the research groups of 4.2 percentage points (with rounding) is not statistically significant (p-value = 0.149). Not shown, SaveUSA group members in the "most committed savers" group reported an average of $4,465 in nonretirement savings at their 42-month interview, compared with an average of $3,979 for their counterparts in the Regular Tax Filers group—a difference of $485 (with rounding).

[15]See Table 3.4. To obtain the percentage of survey respondents with nonretirement savings that were lower at their 42-month interview than at their 18-month interview, calculate the difference between two measures, those who "decreased nonretirement savings between interviews" (second panel) and those who "had nonretirement savings at the 18-month interview only" (first panel). Among these survey respondents with less nonretirement savings, members of the SaveUSA group averaged $1,575 in nonretirement savings, compared with $1,305 for the Regular Tax Filers group.

Impacts on Retirement Savings

SaveUSA was not expected to affect the amount of money that study participants deposited into longer-term retirement savings. Nonetheless, it is important to determine whether either research group accumulated more retirement savings than the other group during the follow-up period. Given that the only difference between the SaveUSA group and the Regular Tax Filers group was access to a SaveUSA account, a higher average for SaveUSA group members would suggest that SaveUSA inspired a more general commitment to save than anticipated. Alternatively, if retirement savings decreased for SaveUSA group members more than for Regular Tax Filers group members, it would suggest that SaveUSA led to a shifting of savings from long-term to short-term accounts among low- and moderate-income households that would have saved anyway.[16]

- **As expected, SaveUSA led to no positive or negative impacts on retirement savings.**

Similar to the findings at 18 months, only about 30 percent of the Regular Tax Filers group reported having retirement savings at their 42-month interview.[17] As Table 3.1 shows, members of the Regular Tax Filers group averaged $3,512 in retirement savings, including zeros for nonsavers. (The average was $11,596 among those with retirement savings.) Most Regular Tax Filers group members with retirement savings at 42 months also reported savings at 18 months (Table 3.4). There was no recent trend toward starting to accumulate retirement savings among members of the Regular Tax Filers group.

As expected, SaveUSA had no impact on the incidence of having retirement savings at the 42-month interview, nor on total retirement savings (Table 3.1). Analysis of trends in retirement savings suggests that the persistence of SaveUSA's impacts on nonretirement savings did not come about because SaveUSA group members were more likely to shift savings from retirement savings to nonretirement savings. Most SaveUSA group members who increased their nonretirement savings between the 18- and 42-month interviews either increased their retirement savings as well or reported about the same amount of retirement savings in both interviews (mostly, no retirement savings at both interviews). In addition, only 6 percent of SaveUSA group members increased their nonretirement savings between Months 18 and 42 of follow-up and also decreased their retirement savings (not shown).

[16]Retirement savings typically carry penalties for withdrawals made before age 59½, making these savings less desirable than nonretirement savings as a source of emergency cash.

[17]Among members of the Regular Tax Filers group, the incidence of having retirement savings at 18 months was 28 percent. See Azurdia, Freedman, Hamilton, and Schultz (2014), Table 5.3, pp. 67-68. Some Regular Tax Filers group members began (or resumed) investing in retirement savings after Month 18 and others no longer maintained retirement savings by Month 42 (Table 3.4).

Impacts on Liquid Assets as of the 42-Month Interview

To respond to a large emergency or unexpected expense or to a sustained loss of income, households may need to draw upon financial resources beyond their nonretirement savings. For this study, respondents' total liquid assets, defined as the sum of nonretirement and retirement savings, represent the maximum financial resources that they have on hand.[18]

- **At 42 months, SaveUSA increased the incidence of having at least $1 in financial assets above the level for the Regular Tax Filers group, which was entirely driven by the increase in nonretirement savings discussed above.**

As Table 3.1 indicates, at their 42-month interview, about three-quarters of Regular Tax Filers group survey respondents reported having some type of liquid asset. The typical member of the Regular Tax Filers group owned $4,458 in liquid assets (including zeros for Regular Tax Filers group members without liquid assets). SaveUSA led to an increase of 8 percentage points in the proportion of respondents with liquid assets — another indication that SaveUSA turned some nonsavers into savers. SaveUSA group members averaged more in liquid assets, but the difference was not statistically significant.[19]

Impacts on Attitudes Toward Saving

Respondents to the 42-month survey answered a series of questions that gauged their level of confidence in their ability to save at present and in the future. When previously surveyed at 18 months, SaveUSA respondents expressed stronger and more consistent support for savings compared with respondents in the Regular Tax Filers group. These results were cited in the previous report as important reasons for expecting that impacts on savings and financial assets would continue in future years.

- **Over time, the two research groups became more similar in their level of support for savings.**

When interviewed at 42 months, as shown in Table 3.5, a somewhat larger proportion of Regular Tax Filers group members reported statements supportive of savings than when previously surveyed at 18 months. For example, by 6 percentage points, a larger proportion of members of the Regular Tax Filers group (29 percent) reported that they had increased the

[18]Home equity would be another potential source of cash to meet emergencies, but, as discussed in Chapter 4 (Table 4.1), a large majority of study participants rented their place of residence.

[19]SaveUSA led to a statistically significant increase in the proportion of respondents who reported having more than $2,000 in liquid assets (not shown).

The SaveUSA Evaluation

Table 3.5

Impacts on Savings Attitudes and Behaviors

Outcome (%)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has a current savings goal	78.2	71.6	6.6 ***	0.007
Importance of having money in a savings account				
Very important	78.6	76.1	2.5	0.304
Somewhat important	15.8	17.4	-1.6	0.462
Not that important	5.6	6.5	-0.9	0.511
Changes in financial decisions since the 18-month interview				
Amount of money in savings or investments				
More	33.2	29.2	4.1	0.118
No change	37.1	45.1	-8.0 ***	0.004
Less	29.7	25.7	4.0	0.127
Amount of tax refund used for savings or investments				
More	21.6	19.4	2.2	0.333
No change	46.5	56.3	-9.8 ***	0.001
Less	31.9	24.3	7.6 ***	0.004
Length of time that money is saved or invested				
Keep longer	32.8	28.8	3.9	0.138
No change	46.8	51.4	-4.6	0.110
Withdraw sooner	20.4	19.7	0.7	0.771
Amount of planning for the future				
More	54.5	50.8	3.7	0.184
No change	35.2	39.6	-4.5	0.105
Less	10.3	9.6	0.7	0.674
Likelihood of keeping money in a bank				
More likely	30.0	26.4	3.6	0.159
No change	57.8	62.1	-4.3	0.121
Less likely	12.2	11.5	0.7	0.709
How closely bank account balances are checked				
More closely	42.5	36.4	6.2 **	0.028
No change	53.2	57.1	-4.0	0.165
Less closely	4.3	6.5	-2.2 *	0.091
Sample size (total = 1,236)	626	610		

(continued)

Table 3.5 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

amount of money that they were keeping in savings or investments than had been reported two years previously. In addition, Regular Tax Filers group members were more likely to assess that they were using more money from their tax refund for savings and investments, were keeping money in savings longer, and were more likely to keep money in a bank than when previously surveyed.[20] As a result, at 42 months, savings attitudes expressed by members of the Regular Tax Filers group more closely resembled attitudes reported by SaveUSA group members. The primary exception to this finding concerns one question about having a savings goal. About 78 percent of SaveUSA group members stated that they had a savings goal, an impact of 7 percentage points above the level for the Regular Tax Filers group.

Possibly, the absence of consistent impacts on attitudes toward savings means that SaveUSA's impacts on nonretirement savings will decrease in future years. Yet SaveUSA's ongoing increases in nonretirement savings provide stronger evidence that these impacts will persist.

Conclusion

At the 42-month follow-up point, SaveUSA continued to increase nonretirement savings above the level for the Regular Tax Filers group, even after the immediate incentive of attaining a savings match was no longer available to many SaveUSA group members. With the use of SaveUSA accounts having decreased over time, SaveUSA group members' savings patterns became more varied, and impacts on nonretirement savings reflected their greater use of other savings products. These changes may be viewed as positive effects of the program. The experience of saving tax refund dollars had strengthened some low- and moderate-income tax filers'

[20]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 5.6, pp. 78-79.

overall commitment to savings. Tempering this finding, there is some evidence that study participants with the least propensity to save did not experience positive effects on accumulating nonretirement savings. This issue will be explored further in the subgroup analysis of SaveUSA's effects presented in Chapter 5.

Chapter 4

Impacts on Household Expenditures, Debt, and Material Well-Being

Introduction

This chapter analyzes whether SaveUSA led to additional, longer-term positive effects on household finances beyond the greater accumulation of nonretirement savings reported in the previous chapter. Based on study participants' responses to the 42-month survey, it considers whether SaveUSA group members were better able than members of the Regular Tax Filers group to (1) pay household expenses and meet financial emergencies with savings or current income; (2) forgo reliance on high-cost nontraditional lending sources; (3) manage debt; and (4) avoid financial hardship. The chapter also analyzes whether SaveUSA group members, on average, reported a greater sense of control over life decisions and more optimism for the future.[1]

As noted in Chapter 3, at the 42-month follow-up point SaveUSA group members had accumulated an average of $522 more in nonretirement savings than members of the Regular Tax Filers group. Some proponents of programs that encourage nonretirement savings among low- and moderate-income households have posited that even modest increases in savings (of similar magnitude to the impact for SaveUSA) can help households avoid financial hardship and attain other positive outcomes.[2] Other proponents have posited more limited effects of having additional savings and advocate for combining savings initiatives with financial counseling and programs that increase income from employment, tax credits, and benefits.[3] For the SaveUSA evaluation, each hypothesis will be tested for the SaveUSA sample: low- and moderate-income tax filers with a strong savings orientation. The analysis also considers other possible results. For example, under some circumstances, effects on financial well-being could be negative if a large proportion of SaveUSA group members maintained their savings by increasing their debt or delaying payment on existing bills or debts.

The analysis presented below is similar in content to the findings presented in the previous report that covered the first 18 months of follow-up. The additional two years of follow-up covered in this report provide a fairer test of any possible broader effects of offering matched

[1]In this chapter, the terms "material well-being," "financial well-being," and "financial security" are used interchangeably.

[2]See, for example, Collins and Gjertson (2013); Abbi (2012); Lopez-Fernandini (2010); McKernan, Ratcliffe, and Vinopal (2009).

[3]New York City Department of Consumer Affairs, Office of Financial Empowerment (2013), p.17. The report describes OFE's efforts to integrate asset-building initiatives like SaveUSA with expanding low- and moderate-income families' access to financial education and counseling, enhanced consumer protection, and social services.

savings accounts to low- and moderate-income tax filers with a strong interest in saving. At 42 months, the second interview took place after SaveUSA group members could have received up to three possible savings matches and after the SaveUSA program had ended in Tulsa.

Main Findings

- At 42 months, most SaveUSA group members and members of the Regular Tax Filers group reported being in relatively precarious economic situations, characterized by their high incidence of having experienced either a sudden loss of income or an emergency or unexpected expense and by accumulating more total non-housing-related debt than savings.

- Some SaveUSA group members' higher average nonretirement savings provided them with a modest "financial cushion." They were more likely than Regular Tax Filers group members to report having savings equivalent to cash on hand to pay expenses for at least one month. SaveUSA group members were also more likely to report using savings or current income to pay for emergency or unexpected expenses, rather than accumulate debt.

- SaveUSA led to a slightly higher incidence of having a savings or checking account at a bank or credit union as of the 42-month interview. These institutions are generally credited with providing greater security and lower fees for conducting financial transactions than nontraditional financial institutions like check-cashing or payday loan establishments or pawn shops.

- SaveUSA did not affect, positively or negatively, survey respondents' accumulation of debt from unpaid medical bills, credit or store cards, car loans, student loans, or other types of non-housing-related debt.

- SaveUSA did not increase or decrease the likelihood that survey respondents would report having "positive liquid net worth," meaning that their total nonretirement and retirement savings exceeded their total debts.

- As of 42 months, SaveUSA had not shown positive effects on other indicators of financial security, such as having a good credit rating or avoiding experiences of serious financial hardship (for example, being unable to pay for food or to pay rent, mortgage, or utility bills, or postponing medical care or prescription drug purchases because of cost).

Background: Survey Respondents' Financial Situation as of the 42-Month Interview

Although the impact analysis focuses on the possible "spillover" effects of increasing non-retirement savings, other factors could affect study participants' financial situation, such as their employment, household income, access to health coverage, and housing status.[4]

When surveyed, members of the Regular Tax Filers group often described themselves as encountering difficulties maintaining a steady income. Table 4.1 shows that, as of their 42-month interview, about two-thirds of them were working for pay, but fewer than half were working full-time hours, defined as 35 or more hours of work per week.[5] About half of the Regular Tax Filers group indicated that they had experienced at least one month of joblessness since the 18-month interview, and 36 percent reported having no employment for six months or more. Regular Tax Filers group members earned $293 per week on average (including zeros for survey respondents without employment), equivalent to a little more than $15,000 per year or a little less than $23,000 for those currently employed.

The typical member of the Regular Tax Filers group reported that his or her household had received $1,990 per month, equivalent to about $24,000 per year, in income from employment or other sources during the month before the interview. Most Regular Tax Filers group members received some type of publicly funded benefit, most often SNAP (food stamps, not shown). A little less than half of the Regular Tax Filers group reported having experienced at least one month of zero or unusually low household income since the 18-month interview, with more than 30 percent of the group reporting three or more months of "income shock."[6]

Table 4.1 also indicates that at their 42-month interview, most members of the Regular Tax Filers group had health coverage, either privately or publicly funded; about 22 percent (with rounding) did not. Coverage levels were higher for the children of Regular Tax Filers group members (85 percent among respondents with dependent children) — similar to coverage

[4]In theory, impacts on savings could lead to longer-term gains in employment or income, if, for example, a larger proportion of SaveUSA group members than Regular Tax Filers group members could use their savings to pay for reliable transportation to jobs, reliable child care, or health insurance premiums. Additionally, if having access to a matched savings account enhances households' ability to manage debt, SaveUSA group members could eventually receive better credit ratings than members of the Regular Tax Filers group. These, in turn, could lower the cost of credit and improve job applicants' prospects of finding a job among the substantial number of employers who check applicants' credit reports.

[5]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 6.1, pp. 84-85. Employment levels and average earnings were slightly lower than those reported at 18 months.

[6]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 6.1, pp. 84-85. Average monthly income for members of the Regular Tax Filers group was slightly higher at 42 months than at 18 months ($1,836).

The SaveUSA Evaluation

Table 4.1

Impacts on Employment, Income, Health Coverage, and Housing Status

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Employment				
Employed since the 18-month interview (%)	75.8	78.5	-2.6	0.274
Currently employed (%)	63.7	66.6	-2.9	0.284
Works full-time hours	44.6	45.6	-1.0	0.707
Weekly earnings at current job ($)	290	293	-3	0.865
Receives employee benefits (%)				
Sick days with full pay	39.0	43.0	-4.1	0.153
Vacation days with full pay	43.0	44.6	-1.6	0.583
Enrolled in retirement plan	26.5	25.5	1.0	0.699
Enrolled in health insurance plan	30.8	32.3	-1.6	0.559
Number of months without employment since the 18-month interview (%)				
0	46.5	47.1	-0.6	0.829
Less than 1	3.4	2.1	1.3	0.174
1-2	3.9	5.2	-1.3	0.281
3-5	6.7	9.2	-2.5	0.107
6 or more	39.5	36.4	3.1	0.262
Income				
Income sources in prior month (%)				
Respondent employment	73.9	75.9	-2.0	0.414
Employment of other household members	33.2	39.0	-5.8 **	0.034
Public assistance and other government benefits	58.0	59.0	-1.0	0.701
Child support or alimony	10.3	10.8	-0.5	0.779
Pension or retirement plan	6.4	4.3	2.1 *	0.091
Total household income in prior month ($)	1,923	1,990	-67	0.395
Number of months with unusually low or no income since the 18-month interview (%)				
0	51.2	53.2	-1.9	0.508
1-2	15.6	15.8	-0.2	0.937
3 or more	33.1	31.1	2.1	0.444
Health coverage				
Currently has coverage (%)				
Respondent	77.5	77.5	-0.1	0.982
All of respondent's children[a]	85.7	85.4	0.3	0.911

(continued)

Table 4.1 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Housing				
Current housing situation (%)				
Own home or apartment	20.0	18.6	1.4	0.472
Rent home or apartment	62.0	62.8	-0.9	0.738
Live with family or friends and pay part of rent or mortgage	10.6	11.1	-0.6	0.746
Live with family or friends and do not pay rent or mortgage	4.0	4.4	-0.4	0.705
Live in a group shelter	1.1	0.4	0.7	0.144
Other	2.4	2.7	-0.2	0.800
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.
[a]Percentages shown are for respondents with dependent children.

levels at 18 months. Fewer than one in five members of the Regular Tax Filers group owned their own home.[7]

As expected, as of their 42-month interview, SaveUSA group members reported levels similar to those of Regular Tax Filers group members on most outcomes discussed above, including current employment, weekly earnings, monthly household income, health coverage, and likelihood of owning their own home. In addition, respondents in the two research groups reported a similar incidence of unemployment for at least six months between Months 18 and 42 of follow-up.

[7]Azurdia, Freedman, Hamilton, and Schultz (2014), Table 6.1, pp. 84-85. Therefore, most members of the Regular Tax Filers group lacked home equity as an asset and mortgage debt as a liability. The same is true for SaveUSA group members (Table 4.1). These findings are important when analyzing possible effects of SaveUSA on respondents' overall net worth, discussed later in the chapter.

Impacts on Managing Expenses with Savings and Current Income

- **SaveUSA led to positive effects on some measures of using current income or savings to pay for routine and emergency expenses.**

As discussed previously, SaveUSA was intended to boost low- and moderate-income households' nonretirement short-term savings to help them pay for emergency or unexpected expenses or to meet basic household expenses during times of unusually low income. Because SaveUSA led to an increase in nonretirement savings above the level for the Regular Tax Filers group, it would be expected that SaveUSA group members would demonstrate greater capacity to manage expenses with savings or current income and without increasing debt. To explore this issue, the analysis begins by comparing (as a ratio) the reported value of each household's nonretirement savings with the value of its total monthly household expenses. The ratio of savings to expenses shows the number of months a study participant could pay his or her regular expenses from nonretirement savings alone should household income cease. This measure may be calculated in different ways, and for that reason the impact estimates discussed below, and shown in Table 4.2, are presented as a range of possible effects.

According to survey data, members of the Regular Tax Filers group incurred an average of about $1,632 in household expenses per month.[8] Using their nonretirement savings alone, Regular Tax Filers group members could cover their household expenses for about 1.5 months (with rounding). A large majority of Regular Tax Filers group members (70 percent) reported having nonretirement savings that would cover less than one month of household expenses.[9] About 63 percent of the Regular Tax Filers group reported using a spending plan or budget to manage their household expenses, but only about a quarter of group members stated that they usually had money left over at the end of the month — a potential source of savings.

On average, SaveUSA group members reported having a level of monthly household expenses similar to that of their counterparts in the Regular Tax Filers group. Averaged across the entire group, their greater nonretirement savings would pay expenses for less than one week

[8]Interviewers asked respondents to include expenses for housing, food, clothing, transportation, child care, phone, utilities, medical care, medical insurance premiums, and prescription drugs when estimating their typical household expenses. This monthly household expense amount was similar to the average reported by a national sample of low-income households. See U.S. Department of Labor, Bureau of Labor Statistics (2013), Table 1101. Households in the lowest income quintile averaged about $1,526 in total monthly expenditures (not counting expenditures for cash contributions, education, entertainment, insurance or pension contributions, or vehicle purchases).

[9]Respondents were also asked to estimate how long they could pay for bills and living expenses with money saved, if their income suddenly stopped (not shown). About 38 percent of the Regular Tax Filers group reported having savings that would pay for expenses for less than one month.

The SaveUSA Evaluation

Table 4.2

Impacts on Managing Monthly Household Expenses and Emergency Expenses

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Monthly household expenses				
Total household expenses in prior month ($)	1,638	1,632	6	0.918
Ratio of nonretirement savings to monthly household expenses	1.59	1.45	0.14	0.514
Ratio of nonretirement savings to monthly household expenses (%)				
0.00 - 0.99	61.3	69.9	-8.6 ***	0.002
1.00 - 1.99	13.2	13.6	-0.4	0.847
2.00 - 2.99	9.4	4.3	5.1 ***	0.001
3.00 or more	16.1	12.2	3.9 *	0.059
Uses a spending plan or budget to manage expenses (%)	66.1	62.8	3.2	0.244
Usually has money left over at the end of the month (%)	26.2	25.3	0.9	0.709
Emergency or unexpected expenses				
Had emergency or unexpected expense since the 18-month interview (%)	48.4	46.8	1.6	0.576
Total emergency or unexpected expenses since the 18-month interview ($)	1,255	1,320	-66	0.634
Total emergency or unexpected expenses since the 18-month interview (%)				
$0	53.0	54.3	-1.3	0.657
$1 - $500	6.8	6.8	0.0	0.980
$501 - $1,000	9.6	9.4	0.3	0.879
$1,001 - $2,000	10.2	10.1	0.1	0.947
$2,001 - $5,000	16.2	13.8	2.4	0.247
$5,001 - $10,000	3.1	4.3	-1.1	0.302
$10,001 - $20,000	1.0	1.4	-0.4	0.510
Primary method of paying for emergency or unexpected expenses[a] (%)				
Use money on hand or current income	54.9	47.9	7.0 **	0.021
To pay for previously incurred expenses	28.2	21.5	6.7 **	0.011
To pay for future expenses	26.6	26.4	0.3	0.917
Increase debt	37.0	44.0	-7.0 **	0.019
To pay for previously incurred expenses	19.9	23.8	-4.0	0.114
To pay for future expenses	17.2	20.2	-3.0	0.196

(continued)

Table 4.2 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Primary method of paying for emergency or unexpected expenses[a] (%) (continued)				
Get help from family, friends, government agency, or organization	5.9	7.1	-1.2	0.406
To pay for previously incurred expenses	3.2	3.8	-0.5	0.627
To pay for future expenses	2.6	3.3	-0.7	0.501
Does not know how he or she would pay for future expenses	2.2	1.0	1.3	0.101
Is liquid-asset poor[b] (%)	71.8	77.6	-5.8 **	0.018
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

[a]Methods of paying for emergency or unexpected expenses are mutually exclusive. Respondents who reported having incurred at least one emergency or unexpected expense since the 18-month interview answered follow-up questions on how they had paid for their previously incurred expenses. Other respondents who reported having incurred no emergency or unexpected expense since the 18-month interview answered alternative questions on how they would pay for a future expense of $500 or more.

[b]"Liquid-asset poor" is defined as having insufficient liquid assets (total nonretirement savings + total retirement savings) to subsist at the poverty level for three months in the absence of income.

more, compared with the Regular Tax Filers group.[10] More positive effects were found when comparing the groups' *distribution of values* for the ratio of nonretirement savings to monthly

[10]The savings-to-expense ratios displayed in Table 4.2 were calculated in multiple steps. First, a ratio of nonretirement savings to monthly household expenditures was calculated for each respondent with non-missing data on both measures. Next, a regression-adjusted mean of these ratios was calculated for each research group. Finally, the difference in the research group means was calculated and presented as the impact of SaveUSA. Although the adjusted means for each research group are relatively low, values may be inflated in either of two ways. First, some respondents may report unusually high savings. Second, other respondents may report unusually low expenses. As a sensitivity test, two alternative ways of estimating respondents' ability to use nonretirement savings to cover household expenses were tried. Similar to results displayed in Table 4.2,

expenses. SaveUSA increased by 9 percentage points the proportion of respondents who reported an amount of nonretirement savings that could cover their household expenses for at least one month. Although this effect is positive, it should be kept in mind that only about 40 percent of SaveUSA group members reported having this level of savings. As also occurred for members of the Regular Tax Filers group, the more typical experience for SaveUSA group members was to have savings on hand that covered less than one month of household expenses.[11]

SaveUSA did not increase the likelihood of using a budget or spending plan to manage household expenses; nor did the program change the proportion of low- and moderate-income respondents who reported having money left over at the end of each month. These last two measures may be seen as more general indicators of financial stability (Table 4.2).

Respondents to the 42-month survey answered a series of questions concerning their preferred method of paying for emergency or unexpected expenses. Those who reported having incurred such expenses since their 18-month interview were then asked how they had dealt with them. Examples included paying the expense out of savings or out of current income, using a credit card or another type of loan, getting help from others, or forgoing payment. Respondents who reported having incurred no emergency or unexpected expense since Month 18 were asked how they would likely pay for a sudden expense of $500 or more, if it should occur.

A little less than half of survey respondents in the Regular Tax Filers group (47 percent) reported that they had incurred an emergency or unexpected expense since their 18-month interview (Table 4.2). Including all respondents, Regular Tax Filers group members averaged about $1,320 in emergency or unexpected expenses since that time — or about $2,820 among only those respondents who reported that they had incurred such an expense.[12] Among all sur-

---

each method yields a small difference between the research groups. One way uses research group averages only. It constructs a ratio of the SaveUSA group's adjusted mean for nonretirement savings shown in Table 3.1 to the group's adjusted mean for household expenses, shown in Table 4.2 ($2,281 / $1,638 = 1.39), and a similar ratio for the Regular Tax Filers group ($1,758 / $1,632 = 1.08). The resulting difference between the research groups is 0.32 month (with rounding; statistical significance is not applicable). Another calculation method creates a ratio for each respondent, similar to the method used to calculate results shown in Table 4.2, but it drops from the calculations respondents with the highest 1 percent of ratio values. This calculation method yields a difference in adjusted means of 0.22 month (not statistically significant).

[11]Impacts on this ratio are consistent with respondents' assessments of the number of months they could pay bills and household expenses without income (not shown). A larger proportion of SaveUSA group members than Regular Tax Filers group members reported that they could continue to pay bills and expenses for at least two months in the absence of income.

[12]In comparison, see Abbi (2012), p. 3. Abbi analyzed responses to a national survey of households with annual incomes of between $20,000 and $60,000 and found that 62 percent of respondents reported having experienced at least one financial shock in the previous 12 months. As another comparison, see Brobeck (2008b), p. 4. Brobeck found that low-income respondents to a national survey reported incurring an average of $2,000 in emergency or unexpected expenses; moderate-income respondents reported a similar average. For a final comparison, see Bricker, Kennickell, Moore, and Sabelhaus (2012), Table 3.1, p. 16. Based on calculations from the Federal Reserve 2010 Survey of Consumer Finances, the authors found that respondents in the

vey respondents, about 48 percent of the Regular Tax Filers group expressed a preference to use savings or current income to pay for emergency or unexpected expenses, either actual or hypothetical, whereas 44 percent indicated that they would borrow the money to pay for the expense or allow the expense to go unpaid.

A similar proportion of SaveUSA group respondents reported that they had incurred an emergency or unexpected expense since Month 18, compared with the Regular Tax Filers group. The research groups also averaged about the same amount in total expenses of this type. But unlike their counterparts in the Regular Tax Filers group, SaveUSA group members expressed a clear preference for paying for emergency or unexpected expenses, either actual or hypothetical, with savings or current income, rather than by borrowing the money or delaying payment. The program led to a 7 percentage point increase above the level for the Regular Tax Filers group in reported *actual* use of money on hand or current income to pay for emergency or unexpected expenses.[13]

- **SaveUSA reduced the incidence of "liquid-asset poverty."**

To respond to a large emergency or unexpected expense or to a sustained loss of income, households may need to draw upon financial resources beyond their nonretirement savings. A useful measure for estimating the potential of each low- and moderate-income household to respond to a financial emergency (loss of income or unexpected expense) is called "liquid-asset poverty." Households are considered to be liquid-asset poor if they lack sufficient liquid assets, either nonretirement savings or retirement savings, to subsist at the poverty level for three months in the absence of income.[14] For example, using Census Bureau poverty thresholds for 2014, a household with one parent and two children and with liquid assets that totaled less than $4,768 would experience liquid-asset poverty.[15]

As of their 42-month interview, 78 percent of respondents in the Regular Tax Filers group had total liquid assets below this poverty threshold. As a result of SaveUSA's impact on nonretirement savings, the program also led to a reduction of 6 percentage points in the incidence of liquid-asset poverty (Table 4.2).

---

lowest income quintile reported a median desired savings level to meet emergencies ("precautionary savings") of $2,000.

[13]The impact was realized for the group that had reported incurring emergency or unexpected expenses since the 18-month interview, not for the group that answered the question hypothetically.

[14]Corporation for Enterprise Development (2013) estimates that nearly 44 percent of households in the United States are liquid-asset poor.

[15]Calculated from DeNavas-Walt and Proctor (2015), data displayed in unnumbered table, "Poverty Thresholds for 2014 by Size of Family and Number of Related Children Under 18 Years," p. 43.

Impacts on Connection to Traditional Financial Institutions and Sources of Credit

- **At 42 months, SaveUSA increased the likelihood of owning a savings account but did not affect use of nontraditional financial institutions.**

Having a savings, money market, or checking account at a bank or credit union and using these institutions to cash checks or as a source of credit can often protect households from paying high fees and high interest rates. It would be expected that having access to the SaveUSA account would lead to increases above levels for the Regular Tax Filers group in the use of financial products offered by traditional financial institutions. The effect on this outcome would likely be small because members of the two research groups entered the study having a relatively strong orientation to saving and a high incidence of already owning a savings or checking account.

As of their 42-month interview, as Table 4.3 shows, an overwhelming majority of the Regular Tax Filers group (84 percent) reported that they currently had a checking or savings account, or both.[16] Although four out of five Regular Tax Filers group members had a checking account, a substantial proportion of the group reported using a nontraditional financial institution, such as a payday loan establishment, check casher, or pawn shop, either to cash checks or pay bills (32 percent) or to take out a loan (27 percent, with rounding).

SaveUSA led to a small increase (of 4 percentage points) above the level for the Regular Tax Filers group in the proportion of study participants who reported currently having a savings or checking account. As expected, the program produced gains (of 8 percentage points) in the likelihood of owning a savings account, and a small and statistically insignificant difference in the likelihood of owning a checking account. The two research groups reported a similar incidence of using check-cashing services to cash checks or pay bills at least once per month.[17] SaveUSA also had no effect on the incidence of using nontraditional lending sources.[18]

[16]Based on responses to the Federal Reserve 2010 Survey of Consumer Finances, 76 percent of households in the lowest income quintile reported having a transaction (savings or checking) account (Bricker, Kennickell, Moore, and Sabelhaus, 2012, Table 6.B, p. 28).

[17]Some respondents in both research groups may also have used check-cashing services to send money to relatives or friends in other countries. The 42-month survey did not ask about use of these services.

[18]Neither survey asked about use of prepaid debit cards, except as a way to receive a tax refund. As shown in Table 4.4, in response to questions about their current sources of debt, a slightly smaller proportion of SaveUSA group members reported that they currently had debt from a payday loan. Use of payday lenders was extremely rare for both groups.

The SaveUSA Evaluation

Table 4.3

Impacts on Use of Financial Services

Outcome (%)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has checking or savings account at interview	87.9	84.3	3.7 *	0.059
Checking account	82.7	79.3	3.4	0.117
Savings account	67.1	58.8	8.3 ***	0.002
Uses check-cashing service at least once per month	31.7	31.8	-0.1	0.961
To cash check	20.0	17.1	2.9	0.194
To pay bills	20.9	22.9	-2.0	0.399
Used high-interest credit since the 18-month interview	24.1	27.5	-3.3	0.186
Got a cash advance on a credit card	9.9	8.4	1.6	0.334
Got a payday loan	4.5	6.0	-1.5	0.229
Wrote a check for more money than was in account	8.2	9.7	-1.5	0.374
Borrowed or withdrew money from retirement or insurance plan	5.3	6.6	-1.3	0.330
Got a loan from a pawn shop	2.2	2.5	-0.4	0.675
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

Impacts on Non-Housing-Related Debt

- **After 42 months of follow-up, SaveUSA did not affect study participants' average levels of non-housing-related debt.**

Although some use of credit can help individuals establish good credit scores, minimizing debt — especially high-interest credit card debt — usually increases households' financial

security. By encouraging low- and moderate-income households to accumulate nonretirement savings, SaveUSA was expected to lead to reductions in debt when individuals used some of their savings to pay down expensive debt.[19]

As Table 4.4 indicates, nearly all respondents in the Regular Tax Filers group (83 percent) reported that they were currently carrying some type of non-housing-related debt—most often from credit cards (47 percent), but also from student loans (38 percent) or unpaid medical bills (35 percent). On average, Regular Tax Filers group members owed a substantial amount of debt, about $10,300 (including zeros), with nearly one-quarter reporting non-housing-related debt levels that exceeded $10,000.[20] Average debt levels for the Regular Tax Filers group members appear to have increased since their 18-month interview.[21] Moreover, a greater proportion of group members reported that they had increased their amount of debt since Month 18 of follow-up (41 percent) than reported that their level had decreased (34 percent).

As of 42 months of follow-up, it does not appear that SaveUSA group members had become better able than members of the Regular Tax Filers group to use accumulated savings to finance both present consumption and debt reduction. SaveUSA group members reported having incurred a slightly lower level of debt ($9,700) than members of the Regular Tax Filers group, but the difference was not statistically significant. SaveUSA had almost no effect on the proportion of respondents with relatively high or low levels of debt, except for a small reduction in the proportion of respondents with the highest level of debt (more than $50,000). SaveUSA group members were just as likely as their counterparts in the Regular Tax Filers group to report that their debt levels had decreased or increased since their 18-month interview (Table 4.4).

Impacts on Measures of Financial Security and Material Well-Being

- **As of 42 months of follow-up, SaveUSA had not realized positive effects on several general indicators of financial security.**

[19]The analysis of debt excludes mortgage or home-equity loans. As noted above, relatively few study participants owned their home.

[20]About 57 percent of survey respondents in the Regular Tax Filers group reported having total debt in excess of three times the value of their total nonretirement savings (not shown). Bricker, Kennickell, Moore, and Sabelhaus (2012), Table 13.B, p. 63, shows similar levels of non-housing-related debt for respondents in the lowest quintile, with median values of debt, by source, as follows: from installment loans ($7,600); credit cards ($1,000); lines of credit, not secured by real estate ($1,000); and other, not secured by real estate ($2,000).

[21]Members of the Regular Tax Filers group reported an average of about $9,300 in non-housing-related debt when interviewed at 18 months (Azurdia, Freedman, Hamilton, and Schultz, 2014, Table 6.4, p. 93).

The SaveUSA Evaluation

Table 4.4

Impacts on Non-Housing-Related Debt

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has debt at interview (%)	82.2	82.9	-0.7	0.738
Car loan	21.9	23.3	-1.4	0.535
Student loan	38.0	38.4	-0.4	0.888
Hospital or medical bill	35.4	34.8	0.6	0.827
Credit card bill	48.6	47.4	1.2	0.672
Store bill	21.6	19.9	1.7	0.460
Unpaid child support	3.1	2.7	0.4	0.686
Unpaid rent	10.8	8.8	2.0	0.244
Payday loan	3.2	6.4	-3.2 ***	0.009
Loan from a pawn shop	2.2	2.5	-0.4	0.675
Loan from family members or friends	16.4	16.5	-0.1	0.962
Other loan	4.7	4.4	0.2	0.839
Total debt at interview ($)	9,733	10,309	-576	0.542
Total debt at interview (%)				
$0	17.0	19.5	-2.5	0.260
$1 - $500	10.4	10.2	0.2	0.908
$501 - $1,000	10.6	8.7	1.8	0.298
$1,001 - $2,000	9.3	9.9	-0.6	0.723
$2,001 - $5,000	15.1	15.6	-0.5	0.799
$5,001 - $10,000	12.1	11.7	0.3	0.866
$10,001 - $50,000	22.7	19.2	3.4	0.144
More than $50,000	3.0	5.1	-2.1 *	0.067
Change in total debt since the 18-month interview (%)				
Increased	41.8	41.1	0.6	0.833
No change	22.7	24.7	-2.0	0.427
Decreased	35.5	34.2	1.4	0.623
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

Ultimately, savings programs and other types of financial interventions aim to increase the financial security of low- and moderate-income households by helping them avoid financial hardships and exercise greater control over their financial decisions.[22]

As Table 4.5 shows, when surveyed at 42 months, a relatively large proportion of the Regular Tax Filers group reported experiencing some type of financial insecurity or material hardship since their 18-month interview. Nearly two-thirds of group members reported having negative "liquid net worth" as of their 42-month interview, owing, on average, nearly $6,000 more in non-housing-related debt than they could cover with the liquid assets that they owned. A larger proportion (70 percent) of the Regular Tax Filers group reported that they had experienced a financial shock since their 18-month interview — either a sudden loss of income or an emergency or unexpected expenditure. About 60 percent of respondents in the group reported having experienced at least one type of financial hardship, such as an inability to pay housing or utilities costs, food insecurity, or forgone use of medical care or prescription drugs. Finally, only one-third of Regular Tax Filers group members reported that their credit rating was "good."[23]

As of 42 months of follow-up, SaveUSA had not produced positive effects on these measures of financial security. A similar proportion of respondents in both research groups reported having experienced a financial shock since their 18-month interview. On average, SaveUSA group members reported higher liquid net worth than members of the Regular Tax Filers group, but the difference, although substantial, was not statistically significant. In addition, SaveUSA group members were about equally as likely as their counterparts in the Regular Tax Filers group to have liquid net worth greater than zero. Finally, SaveUSA did not affect the incidence of experiencing any financial hardship since the 18-month interview.

- **SaveUSA did not affect survey respondents' assessments of their level of financial security.**

In addition to providing quantitative data on their household finances, respondents to the 42-month survey assessed their financial situation in more personal terms. They described their sense of control over their financial situation and related whether their household was doing better financially at the time of their 42-month interview than when interviewed at 18 months. These outcomes could reflect possible secondary effects of savings gains, such as reduced anxiety and stress, and offer clues about respondents' possible future financial behavior.

[22]Collins and Gjertson (2013), p.13. As one example of longer-term research on financial well-being, the authors cite studies that conclude that accumulating savings can help low- and moderate-income households experience upward mobility within two decades or in the next generation.

[23]Only one-third of respondents in the Regular Tax Filers group reported working full-time (35 hours or more) per week at both their 18-month and 42-month interviews (not shown). Furthermore, 42 percent of respondents in the Regular Tax Filers group reported lower monthly income at 42 months than at 18 months.

The SaveUSA Evaluation

Table 4.5

Impacts on Indicators of Financial Security

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)		P-Value
Managing credit and debt					
Average liquid net worth[a] ($)	-4,756	-5,940	1,184		0.294
Has liquid net worth greater than zero (%)	36.2	34.7	1.4		0.620
Current credit rating (self-reported) (%)					
Good	34.8	33.5	1.3		0.622
Average	37.6	37.6	0.0		0.992
Bad	27.6	28.9	-1.3		0.621
Experiencing financial shocks and hardships					
Experienced financial shock[b] (%)	72.1	70.4	1.7		0.514
Had financial hardship since the 18-month interview (%)	60.7	60.1	0.6		0.827
Unable to pay rent, mortgage, or utility bills	36.1	33.0	3.1		0.255
Had phone service disconnected due to late payment	27.8	25.3	2.5		0.330
Did not have enough money to buy food	24.6	26.9	-2.3		0.359
Postponed seeing a doctor because of cost	33.5	37.2	-3.7		0.168
Used fewer prescription medications because of cost	29.0	29.8	-0.8		0.757
Lives in at-risk housing[c] (%)	7.5	7.4	0.1		0.971
Respondent's assessment of level of financial security					
Agrees with the following statement (%)					
My financial situation is better than it was at the 18-month interview	62.8	59.1	3.7		0.189
I don't worry about having enough money in the future	24.4	22.2	2.1		0.389
These days I can generally afford the things I need	72.8	68.0	4.8	*	0.069
The way I manage money today will affect my future	90.1	90.4	-0.4		0.820
There sometimes is enough money to buy something or go somewhere just for fun	28.6	33.5	-4.8	*	0.066
I feel confident making decisions about money	86.5	87.3	-0.8		0.688
How often felt unable to control important things in life since the 18-month interview (%)					
Very often or often	26.2	24.0	2.3		0.368
Sometimes	32.8	36.4	-3.5		0.202
Never or rarely	41.0	39.7	1.3		0.652
Sample size (total = 1,236)	626	610			

(continued)

Table 4.5 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

[a]"Liquid net worth" is calculated as total nonretirement savings + total retirement savings − total non-housing-related debt.

[b]"Financial shock" includes experiencing one or more months of unusually low or no income or incurring an emergency or unexpected expense since the 18-month interview.

[c]"At-risk housing" includes living alone or with family or friends and not paying rent or mortgage; living in a shelter, institutional setting, or other temporary housing situation; or being homeless.

For example, it would be expected that savers who feel confident about their financial decisions will continue to save.

Despite experiencing financial challenges, respondents in the Regular Tax Filers group often described their current financial situation in fairly upbeat ways (Table 4.5). About 59 percent of group members reported that their financial situation had improved since their 18-month interview, and larger majorities described themselves as being generally able to afford needed items and feeling confident in their ability to make financial decisions. But members of the Regular Tax Filers group also expressed anxiety about their household finances. About 60 percent reported that they felt unable to control important things in life at least part of the time, and a larger proportion of the group indicated concern about having enough money in the future.

For the most part, SaveUSA group members expressed similar sentiments about having made progress financially since their 18-month interview but feeling uncertain about their household's future financial security. They did not assess their present financial situation or future prospects more positively than the Regular Tax Filers group. By about 5 percentage points, SaveUSA group members were more likely to report that they could generally afford to buy the things that they need, but by the same margin they were less likely to report that they had enough money to buy something or go somewhere just for fun.

Finally, Table 4.6 shows that SaveUSA did not lead to positive effects for the SaveUSA group on measures of change over time in financial security among study participants who were interviewed at 18 months and again at 42 months. More than 70 percent of each research group reported having non-housing-related debt at each interview, and only about 20 percent of both groups reported having positive liquid net worth at both 18 and 42 months. In addition, for both research groups, the largest subgroup of survey respondents (about 50 percent of SaveUSA group members and 46 percent of members of the Regular Tax Filers group) reported higher debt levels at their 42-month interview than at 18 months. Finally, only about 20 percent of both groups assessed their credit rating more positively at their 42-month interview than at their 18-month interview.

Conclusion

On average, as of 42 months of follow-up, SaveUSA group members had attained some gains in financial security compared with members of the Regular Tax Filers group on measures that were a direct outgrowth of the savings impacts of the program. Specifically, the program led to the following impacts:

- An increase in the proportion of respondents with nonretirement savings who could pay for household expenses for at least one month
- An increase in the proportion of respondents who reported a preference for relying on money on hand or current income to pay for emergency or unexpected expenses, as opposed to increasing their debt
- A decrease in liquid-asset poverty

The longer-term impact findings also demonstrate the limitations of programs aimed solely at increasing nonretirement savings for alleviating poverty and helping low- and moderate-income households attain greater financial security.

- SaveUSA produced no positive effects on broader quantitative measures of financial security, such as reduction in debt or higher liquid net worth.
- The program did not reduce the incidence of self-reported financial hardship.
- The program did not improve study participants' self-assessed levels of financial security.

The SaveUSA Evaluation

Table 4.6

Impacts on Changes in Selected Indicators of Financial Security Between the 18-Month and 42-Month Follow-Up Interviews

Outcome (%)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Non-housing-related debt				
Had non-housing-related debt				
At 18-month and 42-month interviews	75.1	71.5	3.6	0.181
At 42-month interview only	9.6	10.0	-0.3	0.853
At 18-month interview only	9.0	10.6	-1.5	0.409
At neither interview	6.3	8.0	-1.7	0.281
Change in total non-housing-related debt between interviews				
Increased	50.4	45.8	4.5	0.150
By more than $1,000	37.3	32.8	4.5	0.133
No change	9.5	12.8	-3.3 *	0.093
Decreased	40.1	41.4	-1.2	0.696
By more than $1,000	27.9	31.5	-3.6	0.218
Liquid net worth[a]				
Had liquid net worth greater than zero				
At 18-month and 42-month interviews	21.2	21.0	0.2	0.937
At 42-month interview only	14.4	14.5	-0.1	0.974
At 18-month interview only	12.9	10.9	1.9	0.369
At neither interview	51.5	53.6	-2.1	0.530
Change in total liquid net worth between interviews				
Increased	49.8	51.0	-1.2	0.720
By more than $1,000	40.4	40.7	-0.3	0.923
No change	1.7	1.7	0.0	0.969
Decreased	48.5	47.3	1.2	0.712
By more than $1,000	39.7	37.9	1.8	0.564
Credit rating[b]				
Change in self-reported credit rating between interviews				
Improved	21.6	21.9	-0.3	0.911
No change	60.1	59.0	1.1	0.727
Worsened	18.2	19.0	-0.8	0.749
Sample size (total = 1,108)	552	556		

(continued)

Table 4.6 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: The sample includes respondents from New York City (N = 650) and Tulsa (N = 458).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

[a]"Liquid net worth" is calculated as total nonretirement savings + total retirement savings − total non-housing-related debt. About 15 percent of the sample is excluded from this measure because of missing values.

[b]An improvement in credit rating would involve a self-reported change from a "bad" or lower credit rating at the 18-month interview to an "about average" or higher credit rating at the 42-month interview; or from an "about average" credit rating at the 18-month interview to a "good" or higher credit rating at the 42-month interview. A worsening in credit rating would involve the opposite changes in self-reported credit ratings.

Thus, increasing savings can contribute to some aspects of financial security, but other positive financial developments, such as increases in steady or higher-paying employment, increases in income, and reductions in debt, may matter more for the financial security of low- and moderate-income households. The broader implications of the findings outlined in this chapter will be discussed in the report's conclusion.

Chapter 5

Impacts on Savings and Financial Stability for Selected Subgroups

The results presented so far show that the SaveUSA program continued to increase nonretirement savings from the 18-month follow-up point to the 42-month point. They also show that the SaveUSA program did not produce effects on measures of financial security, such as debt and material well-being. However, the presence or absence of impacts for the full report sample may mask effects for certain groups that may have had different exposure and/or responses to the SaveUSA program. This chapter presents the effects of SaveUSA for key subgroups, defined by city, income, age, education, and tax filing status.[1]

The earlier SaveUSA report found that SaveUSA's effects were consistent across all subgroups, with only one notable exception: SaveUSA increased the percentage of sample members with nonretirement savings among those age 35 or older, but it did not have this effect for those younger than 35.[2] This chapter updates the earlier report's effects for key subgroups using data from the 42-month survey.

It is easy to imagine why the effects of SaveUSA might have varied across subgroups — for example, the effects for the New York City and Tulsa samples. First, as discussed earlier in this report, New York City had experience running the program for several years under $aveNYC (the previous version of the program being evaluated). Second, the characteristics of the sample members in each city varied, and differences between the cities in labor and housing markets could also affect the results. Finally, as shown in Chapter 2, the proportion of participants receiving the savings match differed by city.

The effects of SaveUSA also may have differed depending on tax filers' circumstances when they entered the study. Certain characteristics, such as having a very low income or having children, may make it harder for individuals to save. Furthermore, past research has found that certain characteristics are associated with being more financially stable. For example, higher income, education, and number of children have been found to be associated with being banked.[3] In addition, one study found asset differences by age, race, and family struc-

[1] In randomized controlled trials, it is reasonable to estimate impacts for any subgroup, as long as the subgroups are defined according to characteristics measured before random assignment. The outcomes for SaveUSA members in each subgroup are compared with the outcomes for Regular Tax Filers group members in that same subgroup, applying the same regression-adjustment procedures and tests of statistical significance that were used for the full report sample.

[2] Azurdia, Freedman, Hamilton, and Schultz (2014).

[3] Berry (2004); Chan (2011).

ture.[4] Therefore, this chapter also considers variation in impacts by age, adjusted gross income, highest educational attainment, and tax filing status. In theory, SaveUSA's effects could be stronger for individuals facing greater challenges to save *or* for individuals with greater ability to save, or the program may have the same effects for both groups.

Main Findings

- As of 42 months of follow-up, SaveUSA continued to increase nonretirement savings across all key subgroups.
- On measures of financial security, including debt and material well-being, SaveUSA did not produce effects for any of the subgroups.

The key focus of subgroup analysis is not on the impacts for a given subgroup, but on whether the differences in impacts across the subgroups are statistically significant (as indicated by the daggers in the tables).[5] However, the sample sizes for some of these subgroups are fairly small, meaning that differences in impacts between subgroups are less likely to be statistically significant. The limitation of small sample sizes should be kept in mind when interpreting the results.

Participation Results for All Subgroups

- **Easy access to the SaveUSA account deposits and reliance on tax refunds as a source of income seem to have been the main factors contributing to high match rates for different subgroups.**

Different groups of individuals may have had an easier or harder time keeping their pledged savings amounts in the SaveUSA account for the full year. Among the SaveUSA group members enrolled in 2011, this section examines the savings match rates for the entire study period. As a reminder, during the study period, individuals had three chances of getting a savings match, in 2012, 2013, and 2014, as long as they deposited tax refund dollars in their SaveUSA account and kept the pledged savings amount in the account for about a year. The goal of this analysis is to provide context, before examining the subgroup differences in impacts on savings and other outcomes shown later in this chapter.

Table 5.1 shows selected participation outcomes for selected subgroups. With the exception of the subgroup defined by city, the results pool all cities together, including the San

[4]McKernan and Ratcliffe (2008).

[5]For each measure, a separate statistical test was performed on the difference in impacts for related subgroups.

The SaveUSA Evaluation

Table 5.1

Baseline Characteristics and Savings Match Outcomes Across All Program Years, for Selected Subgroups

	At Study Entry			Years 1 to 3		
Outcome	Average Adjusted Gross Income ($)	Average Refund Amount ($)	Average Initial Deposit ($)[a]	Received Savings Match (%)	Average Savings Match ($)	Sample Size
City						
New York City	16,509	3,915	1,181	66.1	370	463
Tulsa	17,790	3,464	973	52.3	294	331
Newark	18,659	3,859	791	79.8	320	342
San Antonio	20,504	3,606	1,147	71.1	452	418
Age						
18-34	15,554	3,591	832	62.5	265	622
35-64	20,182	3,813	1,182	70.8	432	932
Adjusted gross income						
$1 - $9,999	6,327	2,174	745	56.4	235	392
$10,000 - $19,999	14,831	4,000	1,080	64.9	356	542
$20,000 - $50,000	29,071	4,472	1,195	77.0	456	618
Filing status[b]						
Single filer with dependents	19,938	4,975	1,189	67.8	397	859
Single filer without dependents	12,598	1,247	715	65.2	271	508
Educational attainment[c]						
High school diploma or GED certificate	16,382	3,640	983	57.8	295	462
At least some college	20,033	3,768	1,411	68.1	443	216
Sample size						1,554

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys, and financial institution data.

NOTES: Tax filing information and refund amounts refer to 2010, the tax year prior to random assignment.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.

Indicators of respondent's highest educational credential were recorded from responses to the 18-Month or 42-Month Follow-Up Survey for respondents with missing data at baseline. The survey responses for these indicators are available only for participants from New York City and Tulsa. Educational credential information was not available for sample members in Newark and San Antonio.

Sample sizes for specific measures may vary because of missing values.

[a]The initial deposit refers to the tax refund amount directly deposited into the SaveUSA account by the Internal Revenue Service.

[b]This excludes joint tax filers because of small sample sizes.

[c]This excludes study participants with no high school diploma or GED certificate because of small sample sizes.

Antonio and Newark samples. It shows that at least half the sample members in each subgroup received at least one savings match during the follow-up period. The savings match rates vary from 52 percent for SaveUSA group members in Tulsa to almost 80 percent for SaveUSA group members in Newark.

The results are consistent with the interim report findings and the results shown in Chapter 2 of this report. The Newark sample had the highest savings match rate across all the cities, followed by San Antonio. As discussed earlier, withdrawing money from the financial institution used in the Newark site was difficult because the bank was located in New York City and individuals were not given ATM cards.

Older sample members were also more likely than younger people to receive the savings match. In addition, the subgroup with adjusted gross incomes between $20,000 and $50,000 was more likely than the subgroup with lower incomes to receive the savings match. Finally, those with at least some college were also more likely to receive the savings match, compared with those with only a high school diploma or General Educational Development (GED) certificate.

As shown, many of the subgroups with the highest savings match rates were ones with larger incomes and larger refund amounts, compared with their subgroup counterparts. This suggests that individuals in the subgroups with higher savings match rates were less reliant on their tax refunds as a source of income, which may have made it easier for them to keep their pledged savings amounts in the SaveUSA accounts. The next section will examine whether having higher savings match rates translates into greater effects on savings, material hardship, or financial security.

Impacts by Random Assignment City

- **SaveUSA effects were consistent between New York City and Tulsa. SaveUSA increased nonretirement savings in the short and longer terms in both cities, but there were no effects on overall finances or financial security in either city.**

Based on responses to the 42-month survey, outcomes for the Regular Tax Filers groups in the two cities were generally similar, and only a few city differences were found. As Table 5.2 shows, almost three-quarters (74 percent) of the Regular Tax Filers group in Tulsa no longer had any of their 2014 tax refund saved at the time of the survey interview, compared with 63 percent of the Regular Tax Filers group in New York City. But Tulsa had a larger percentage of Regular Tax Filers group members with retirement savings (39 percent in Tulsa

The SaveUSA Evaluation

Table 5.2

Impacts on Selected Outcomes, by City

Outcome	New York City SaveUSA Group	New York City Regular Tax Filers	New York City Difference (Impact)	New York City P-Value	Tulsa SaveUSA Group	Tulsa Regular Tax Filers	Tulsa Difference (Impact)	Tulsa P-Value	
Year 4 (2014) (%)									
How refund was received									
Direct deposit into savings account	51.7	43.8	7.9 **	0.034	38.7	37.8	0.9	0.831	
Purchased U.S. savings bonds	3.3	1.4	2.0 *	0.084	1.6	0.7	0.9	0.337	
Direct deposit into checking account	61.6	64.5	-2.9	0.425	62.0	64.8	-2.9	0.492	
Prepaid debit card	11.6	9.4	2.2	0.340	10.3	8.5	1.8	0.486	
Refund check in the mail	20.6	16.6	3.9	0.182	7.6	7.7	-0.2	0.946	
Had plan to save all or part of tax refund	51.3	41.7	9.5 **	0.010	42.5	35.8	6.7	0.114	
Amount of tax refund currently saved									
All	6.3	3.4	2.9 *	0.074	6.3	3.0	3.3 *	0.079	
More than half	7.0	4.7	2.3	0.192	4.1	1.8	2.3	0.135	
About half	12.2	7.3	4.9 **	0.028	4.4	7.0	-2.6	0.222	††
Less than half	24.1	21.6	2.6	0.413	20.0	14.4	5.6 *	0.096	
None	50.4	63.1	-12.7 ***	0.001	65.2	73.8	-8.6 **	0.037	
At 42-month interview									
Has liquid assets (%)	82.3	76.0	6.3 **	0.040	83.6	75.8	7.8 **	0.032	
Has nonretirement savings	79.1	73.4	5.7 *	0.073	80.4	71.9	8.5 **	0.026	
Has retirement savings	26.4	24.5	2.0	0.534	36.9	39.2	-2.3	0.586	
Total liquid assets ($)	4,406	3,971	435	0.474	5,753	5,326	427	0.639	
Total nonretirement savings	2,243	1,850	393	0.165	2,274	1,691	583	0.126	
Total retirement savings	2,708	2,351	358	0.542	4,138	5,220	-1,081	0.287	
Has checking or savings account (%)	86.1	82.8	3.3	0.215	90.1	86.7	3.4	0.215	
Usually has money left over at the end of the month (%)	21.9	21.8	0.1	0.974	32.0	30.3	1.8	0.672	

(continued)

Table 5.2 (continued)

Outcome	New York City SaveUSA Group	New York City Regular Tax Filers	New York City Difference (Impact)	New York City P-Value	Tulsa SaveUSA Group	Tulsa Regular Tax Filers	Tulsa Difference (Impact)	Tulsa P-Value
Since the 18-month interview (%)								
Change in total nonretirement savings								
Increased	26.6	25.5	1.2	0.724	26.8	29.0	-2.3	0.568
No change	34.3	41.6	-7.3 **	0.043	33.5	40.8	-7.3 *	0.094
Decreased	39.1	32.9	6.2 *	0.086	39.7	30.2	9.5 **	0.026
Change in total retirement savings								
Increased	18.0	17.2	0.8	0.760	26.7	29.3	-2.6	0.509
No change	70.7	74.6	-3.8	0.236	60.5	60.6	-0.1	0.980
Decreased	11.2	8.2	3.0	0.182	12.8	10.2	2.7	0.354
Change in total non-housing-related debt								
Increased	41.2	37.8	3.4	0.365	43.4	44.8	-1.4	0.763
No change	21.3	26.7	-5.4 *	0.097	24.3	22.4	1.9	0.619
Decreased	37.5	35.5	2.0	0.582	32.3	32.9	-0.5	0.897
Experienced financial shock[a]	69.9	68.9	1.0	0.778	75.4	72.4	3.0	0.454
Had financial hardship	57.2	61.0	-3.7	0.308	64.8	59.4	5.4	0.216
Sample size (total = 1,236)	367	358			259	252		

(continued)

Table 5.2 (continued)

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline.

The table excludes study participants with no high school diploma or GED certificate from comparisons of impacts by level of education and excludes joint tax filers from comparisons of impact by tax filing status because of insufficient sample sizes for these subgroups.

The sample includes respondents from New York City (N = 725) and Tulsa (N = 511). Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

Sample sizes for specific outcomes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

The H-statistic is used to assess whether the difference in impacts between sites or subgroups is statistically significant. Statistical significance levels are indicated as follows: † = 10 percent; †† = 5 percent; ††† = 1 percent.

[a]"Financial shock" includes experiencing one or more months of unusually low or no income or incurring an emergency or unexpected expense since random assignment.

compared with 24 percent in New York City, with rounding). Outcomes related to financial hardship, such as debt or financial shocks, were similar between cities. For example, about 60 percent of the Regular Tax Filers group members in both cities had experienced some financial hardship since the 18-month interview.

SaveUSA's effects were consistent between the cities. In New York City, the SaveUSA program increased the percentage of SaveUSA group members with nonretirement savings by 5.7 percentage points above the Regular Tax Filers group level; in Tulsa, the increase was 8.5 percentage points. SaveUSA did not produce effects on other outcomes for either city. For example, the program had no effect on the percentage of individuals who experienced a financial shock or had a financial hardship in either city.

Impacts on Selected Survey Outcomes for Other Subgroups

- **SaveUSA's effects on nonretirement savings were consistent across subgroups defined by age, adjusted gross income, educational attainment, and tax filing status. SaveUSA increased nonretirement savings for many different groups of people but did not produce effects for any subgroups on any measures of financial security, including debt and material well-being.**

The financial situations of Regular Tax Filers group members at the 42-month follow-up point varied by subgroup. As Table 5.3 indicates, the majority of Regular Tax Filers group members had nonretirement savings at the time of the 42-month survey interview. Savings amounts for the Regular Tax Filers subgroups at that point averaged between $1,006 and $2,792. The percentage with nonretirement savings was similar across subgroups, except for those defined by educational status and adjusted gross income. Among those with a postsecondary degree or some college, almost 81 percent had nonretirement savings, compared with only 71 percent of those with a high school diploma or GED certificate. Among the subgroups defined by adjusted gross income, the lowest income bracket had a lower percentage of individuals with nonretirement savings (65 percent) compared with the higher income brackets (73 percent and 77 percent). As would be expected, subgroups with the highest adjusted incomes at the time of random assignment also had, on average, larger amounts of nonretirement savings.

Overall, SaveUSA's effects on nonretirement savings were consistent across subgroups based on age, adjusted gross income, education, and tax filing status (Table 5.3). SaveUSA's impacts on nonretirement savings for all subgroups were all in a positive direction, although some were not statistically significant. No large differences in the impacts between subgroups were found. This suggests that SaveUSA increased nonretirement savings for many different groups of people.

The SaveUSA Evaluation

Table 5.3

Impacts on Selected Outcomes, by Selected Baseline Characteristics

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has nonretirement savings (%)				
City				
New York City	79.1	73.4	5.7 *	0.073
Tulsa	80.4	71.9	8.5 **	0.026
Age				
18-34	81.8	74.9	6.9 *	0.059
35-64	78.8	70.5	8.3 **	0.012
Adjusted gross income				
$1 - $9,999	68.3	65.1	3.2	0.537
$10,000 - $19,999	85.7	73.0	12.7 ***	0.002
$20,000 - $50,000	84.0	77.3	6.7 *	0.084
Highest educational attainment				
High school diploma or GED certificate	78.2	71.2	7.0 **	0.033
Postsecondary degree or some college	86.3	80.7	5.6	0.191
Tax filing status				
Single filer, no dependent children	78.6	73.5	5.2	0.227
Single filer with dependent children	80.5	70.8	9.7 ***	0.004
Total nonretirement savings ($)				
City				
New York City	2,243	1,850	393	0.165
Tulsa	2,274	1,691	583	0.126
Age				
18-34	2,178	1,808	370	0.277
35-64	2,348	1,744	605 *	0.056
Adjusted gross income				
$1 - $9,999	1,859	1,006	853 **	0.041
$10,000 - $19,999	2,163	1,577	586 *	0.062
$20,000 - $50,000	2,736	2,537	199	0.676
Highest educational attainment				
High school diploma or GED certificate	2,215	1,407	807 ***	0.004
Postsecondary degree or some college	2,997	2,792	205	0.718
Tax filing status				
Single filer, no dependent children	2,275	1,925	350	0.449
Single filer with dependent children	2,316	1,484	832 ***	0.002

(continued)

Table 5.3 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has retirement savings (%)				
City				
New York City	26.4	24.5	2.0	0.534
Tulsa	36.9	39.2	-2.3	0.586
Age				
18-34	26.3	30.2	-3.9	0.312
35-64	34.7	30.6	4.1	0.232
Adjusted gross income				
$1 - $9,999	13.9	14.2	-0.3	0.939
$10,000 - $19,999	25.3	27.0	-1.7	0.689
$20,000 - $50,000	51.0	47.5	3.5	0.476
Highest educational attainment				
High school diploma or GED certificate	28.8	26.6	2.2	0.507
Postsecondary degree or some college	44.9	45.5	-0.6	0.916
Tax filing status				
Single filer, no dependent children	28.1	26.3	1.8	0.683
Single filer with dependent children	33.7	31.8	1.9	0.582
Total retirement savings ($)				
City				
New York City	2,708	2,351	358	0.542
Tulsa	4,138	5,220	-1,081	0.287
Age				
18-34	1,923	1,997	-74	0.889
35-64	4,352	4,648	-296	0.731
Adjusted gross income				
$1 - $9,999	904	942	-38	0.948
$10,000 - $19,999	1,708	1,442	266	0.570
$20,000 - $50,000	7,069	7,865	-796	0.576
Highest educational attainment				
High school diploma or GED certificate	2,712	3,145	-433	0.530
Postsecondary degree or some college	6,217	5,270	947	0.473
Tax filing status				
Single filer, no dependent children	3,074	1,735	1,339	0.122
Single filer with dependent children	3,541	3,716	-175	0.800

(continued)

Table 5.3 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Had financial hardship since the 18-month interview (%)				
City				
New York City	57.2	61.0	-3.7	0.308
Tulsa	64.8	59.4	5.4	0.216
Age				
18-34	57.8	53.1	4.7	0.291
35-64	62.7	64.9	-2.2	0.541
Adjusted gross income				
$1 - $9,999	64.6	65.8	-1.2	0.819
$10,000 - $19,999	56.2	57.2	-1.0	0.831
$20,000 - $50,000	60.4	59.9	0.5	0.916
Highest educational attainment				
High school diploma or GED certificate	60.4	59.6	0.8	0.817
Postsecondary degree or some college	56.5	58.2	-1.7	0.764
Tax filing status				
Single filer, no dependent children	57.5	59.3	-1.9	0.712
Single filer with dependent children	61.7	60.4	1.3	0.718

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline.

The table excludes study participants with no high school diploma or GED certificate from comparisons of impacts by level of education and excludes joint tax filers from comparisons of impact by tax filing status because of insufficient sample sizes for these subgroups.

Sample sizes for subgroups are as follows: New York City = 725; Tulsa = 511; age 18-34 = 521; age 35-64 = 715; AGI $1 - $9,999 = 349; AGI $10,000 - $19,000 = 447; AGI $20,000 or higher = 439; high school diploma or GED certificate = 736; postsecondary degree or some college = 341; single filer, no dependent children = 395; single filer with dependent children = 713.

The sample includes respondents from New York City and Tulsa who were ages 18 to 64 at their time of random assignment.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

Sample sizes for specific outcomes may vary because of missing values.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

The H-statistic is used to assess whether the difference in impacts between cities or subgroups is statistically significant. Statistical significance levels are indicated as follows: † = 10 percent; †† = 5 percent; ††† = 1 percent.

The interim (18-month) results had shown differences in impacts for the subgroups based on age: SaveUSA significantly increased the percentage of sample members with nonretirement savings among those age 35 or older, but it did not have this effect for those younger than 35. This result is no longer apparent in the longer-term follow-up. As shown in Table 5.3, SaveUSA had similar effects on nonretirement savings for those in different age brackets.

Similar to previous results, SaveUSA did not produce positive or negative effects for any subgroups on any measures of financial security, including debt and material well-being.

Conclusion

This chapter examined SaveUSA's participation results and longer-term effects for key subgroups defined by city, age, income, educational attainment, and tax filing status at the time of study entry. The results show that subgroups with the highest income, who appeared less reliant on their tax refund as a source of income, were more likely to receive a savings match. However, subgroups with the highest rates of receiving the savings match did not experience greater impacts on savings amounts or financial security than did other subgroups. In other words, even for subgroups with higher savings match rates, statistically significant impacts on financial security did not materialize. Overall, SaveUSA's effects on nonretirement savings as of the 42-month follow-up point continued (relative to the 18-month follow-up point) to be consistent across a range of subgroups. Furthermore, SaveUSA did not produce effects on measures of financial security or financial hardship for any subgroups.

Chapter 6

Conclusion

The SaveUSA program encouraged low- and moderate-income tax filers to deposit a portion of their tax refund into a matched savings account. SaveUSA was designed to take advantage of once-a-year, relatively large tax refunds as a source for savings. Since low- and moderate-income families often lack access to financial products, the SaveUSA program provided access to a special account with features that encouraged saving, such as no minimum balance fees or ATM cards. The main goal of SaveUSA was to increase families' short-term unrestricted savings, which could then potentially be used to manage emergencies and strengthen their overall finances.[1]

SaveUSA was designed as a possible precursor to a federal tax-time savings incentive for low- and moderate-income households. The program embodies one of several strategies that policymakers think might increase nonretirement savings, and it is best evaluated as one candidate for inclusion among a potential "toolkit" of types of savings programs — each with its own appeal and possibly leading to benefits for different segments of the low- and moderate-income population.

Results from this evaluation show that SaveUSA was successfully implemented over several years at Volunteer Income Tax Assistance (VITA) sites in a variety of settings, and also that the program maintained the active support of a number of financial institutions. During 2011, the interest in SaveUSA on the part of eligible tax filers (about 1 in 10 enrolled in the study) was comparable to interest shown in other tax-time savings programs. Enrollment patterns demonstrated that many low- and moderate-income individuals and families are willing to try different savings strategies given the right opportunities. SaveUSA mostly appealed to the tax filers who were in a somewhat better position to save or to put aside tax dollars for an extended period of time. Many were already using tax refunds as a source of short-term savings. Those with especially low incomes were least able to take advantage of SaveUSA — they were least likely to enroll in the study and, if enrolled, to receive a savings match or to take advantage of the program for more than one year. As other studies found, individuals had already made plans for spending their refund.[2] According to the SaveUSA survey responses, many individuals who were eligible to take advantage of the program, but did not, reported that they could not afford to set aside money — even as little as $200 in savings for a year — because they needed their refunds to pay bills or pay off debts.

[1]City of New York (2012).
[2]Beverly, Schneider, and Tufano (2006).

About two-thirds of SaveUSA group members received at least one savings match, a notable achievement. Yet the program experienced sustained involvement by less than a quarter of SaveUSA group members, disproportionately those with higher incomes (between $20,000 and $50,000) at the start of the study. Different types of savings interventions likely engage different groups of people, reflecting the fact that people save in a variety of ways. Programs that use lotteries, prizes, or carefully targeted marketing as savings incentives, for example, likely appeal to certain types of savers as well. From the standpoint of assembling a toolkit of savings choices for low- and moderate-income households, the SaveUSA model should be considered as a viable option.

The impact results show that opening a SaveUSA account had positive behavioral effects. SaveUSA increased nonretirement savings without increasing debt, and it engendered greater longer-term support for having a savings goal. On average, SaveUSA group members demonstrated a stronger commitment to save, using a variety of savings strategies. Tax refund dollars and the SaveUSA savings match provided opportunities to save, but SaveUSA group members made use of other savings products, such as personal savings and checking accounts, as well. Moreover, the impacts on nonretirement savings at 42 months after random assignment showed that SaveUSA could sustain savings increases above the level for members of the Regular Tax Filers group even after SaveUSA group members no longer had access to a 50 percent match. Finally, given that SaveUSA provided an average of $365 in match money over the 42-month follow-up period, the program's impact on total nonretirement savings of $522 per study participant shows that the program produced a savings effect that went beyond the worth of the matches.

A primary reason why low- and moderate-income households with a certain level of savings can experience greater financial security is that household members can use savings or current income to pay for normal or unexpected expenses. And in fact, at 42 months of follow-up, SaveUSA group members were more likely than members of the Regular Tax Filers group to report having the equivalent of cash on hand to pay expenses for at least one month. SaveUSA also led to an increase in the proportion of survey respondents who reported a preference for relying on savings or current income to pay for emergency or unexpected expenses, as opposed to increasing their debt. Furthermore, as a result of SaveUSA's impact on nonretirement savings, the program led to a reduction of 6 percentage points in the incidence of liquid-asset poverty (defined as having insufficient liquid assets to subsist at the poverty level for three months in the absence of income). These findings suggest that SaveUSA produced some modest gains in financial security.

The longer-term findings from the SaveUSA evaluation, while showing that the program did increase savings, also demonstrate the limitations of programs that focus solely on increasing savings. SaveUSA did not lead to better outcomes on other measures of financial

security. Three and a half years after random assignment, members of the SaveUSA group did not report better outcomes than Regular Tax Filers group members on a series of indicators of financial security, including accumulated levels of debt, liquid net worth, use of high-cost credit, and incidence of experiencing financial hardship, such as being unable to pay rent or a utility bill. Thus the program did not help individuals avoid financial situations that can lead to greater financial hardships. It could be that the SaveUSA-produced savings increase of $522, while of a magnitude associated in past studies with increased financial security, was not enough to markedly improve the financial situation of the significant portion of study sample members who already had some savings at study entry. Possibly, SaveUSA could have had greater positive effects on financial security if it could have been exclusively targeted to individuals who did not have any savings when they were offered SaveUSA. However, individuals with very low incomes, who probably had little or no savings, were the least likely to participate in SaveUSA and receive savings matches.

It should also be noted that the financial situations of sample members as of the 42-month follow-up point were very precarious — with average non-housing-related debt of around $10,000, well in excess of their accumulated savings, and an average household income of less than $2,000 per month (including public assistance). In order to improve their financial security, savings increases may need to be much larger, or other interventions may need to be tried — alone or coupled with SaveUSA-like programs. For example, additional rigorous research could be conducted on programs that not only provide savings incentives but also seek to increase income through skills training or other means, or provide services such as financial coaching on debt reduction or financial management strategies. Research on savings interventions is still at an early stage, and the findings from the SaveUSA evaluation represent just a single piece of the puzzle.

Appendix A

Selected Characteristics of Study Sample Members and SaveUSA-Eligible Nonparticipants

The SaveUSA Evaluation

Appendix Table A.1

Selected Baseline Characteristics of Sample Members Enrolled in 2011, by City

Characteristic	New York City	Tulsa	Newark	San Antonio	All Cities
Demographic characteristic					
Average age (years)	39	39	38	43	39
Age (%)					
18-24	15.0	15.3	17.8	8.1	14.2
25-34	26.9	26.1	28.1	19.1	25.5
35-44	22.5	20.9	21.6	26.1	22.6
45-59	32.5	32.2	29.2	38.5	33.0
60-64	3.1	5.5	3.2	8.1	4.7
Gender (%)					
Male	24.7	29.0	29.2	NA	26.9
Female	75.3	71.0	70.8	NA	73.1
Number of children[a] (%)					
0	39.0	35.4	39.1	NA	37.8
1	33.4	32.5	30.3	NA	32.6
2	19.9	21.9	22.2	NA	21.0
3 or more	7.7	10.1	8.4	NA	8.7
Race/ethnicity (%)					
Hispanic/Latino	39.8	9.2	31.6	NA	27.8
White	3.2	44.5	3.9	NA	17.7
Black/African-American	49.9	37.1	54.9	NA	46.3
Other	7.0	9.2	9.5	NA	8.2
Highest educational credential (%)					
GED certificate	5.1	3.4	NA	NA	3.7
High school diploma	51.3	62.4	NA	NA	59.6
Technical credential or associate's degree	10.7	26.1	NA	NA	14.3
4-year college degree or higher	15.8	2.2	NA	NA	10.8
None of the above	17.2	5.9	NA	NA	11.6
Tax filing information					
Number of tax filers (%)					
1	92.4	84.1	92.4	80.6	88.0
2	7.6	15.9	7.6	19.4	12.0
Tax filing status (%)					
Single filer without children	36.6	30.2	32.7	24.2	32.0
Single filer with children	55.9	53.9	59.6	56.5	56.0
Joint filer without children	0.8	3.2	1.2	3.1	1.9
Joint filer with children	6.8	12.7	6.4	16.3	10.1

(continued)

Appendix Table A.1 (continued)

Characteristic	New York City	Tulsa	Newark	San Antonio	All Cities
Average adjusted gross income ($)	16,353	18,480	18,659	20,504	18,029
Adjusted gross income amount (%)					
$0 - $9,999	30.6	26.3	22.2	18.4	26.0
$10,000 - $19,999	39.2	32.5	36.5	32.8	35.8
$20,000 or more	30.3	41.2	41.2	48.8	38.3
Average total tax refund amount ($)	4,198	3,648	3,862	3,637	3,894
Average federal tax refund ($)	3,076	3,291	3,432	3,637	3,288
Average state and city tax refund[b] ($)	1,122	357	429	0	606
Received federal Earned Income Tax Credit (EITC) (%)	68.9	72.2	67.3	67.5	69.3
Among those who received the EITC, average amount[c] ($)	2,162	2,182	2,231	2,548	2,245
Month of study entry (%)					
January 2011	7.3	16.9	12.3	7.2	10.7
February 2011	40.5	35.7	37.7	40.4	38.7
March 2011	31.5	33.4	36.3	30.9	32.6
April 2011	20.8	13.9	13.7	21.5	18.0
Sample size	922	655	342	418	2,337

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's gender, number of children, race/ethnicity, and highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline. The survey responses for these indicators are available only for participants from New York City and Tulsa.

The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.
Demographic characteristics data were collected for one tax filer when couples filed jointly.
Rounding may cause slight discrepancies in calculating sums.
Sample sizes for specific measures may vary because of missing values.
No statistical significance tests were performed on differences across the cities.
"NA" refers to data that are not available.
[a]This refers to the number of dependents claimed in 2010 tax return records.
[b]Only New York City has a city income tax. Texas does not have a state income tax.
[c]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

The SaveUSA Evaluation

Appendix Table A.2

Selected Baseline Characteristics, by Year of Program Enrollment

Characteristic	2011	2012	2013	All Years
Demographic characteristic				
Average age (years)	41	41	41	41
Age (%)				
18-24	13.4	12.7	14.3	13.4
25-34	23.9	23.5	22.8	23.4
35-44	21.2	23.0	21.3	21.9
45-59	31.0	30.9	30.7	30.9
60-64	10.5	9.9	10.9	10.4
Tax filing information				
Number of tax filers (%)				
1	87.1	87.4	86.5	87.0
2	12.9	12.6	13.5	13.0
Tax filing status (%)				
Single filer without children	33.6	22.9	29.2	28.4
Single filer with children	53.5	64.5	57.3	58.6
Joint filer without children	2.8	2.1	1.7	2.2
Joint filer with children	10.2	10.5	11.8	10.8
Average adjusted gross income ($)	17,929	18,364	18,258	18,186
Adjusted gross income amount (%)				
$0 - $4,999	7.5	5.5	7.4	6.7
$5,000 - $9,999	18.3	18.0	17.4	17.9
$10,000 - $14,999	19.1	19.3	19.5	19.3
$15,000 - $19,999	17.3	18.9	17.6	18.0
$20,000 - $24,999	15.0	15.3	14.0	14.8
$25,000 - $29,999	9.5	8.6	8.8	9.0
$30,000 - $39,999	9.7	10.6	11.2	10.5
$40,000 - $49,999	3.5	3.7	4.1	3.7
$50,000 or higher	0.2	0.2	0.0	0.1
Average total tax refund amount ($)	3,763	4,354	3,950	4,031
Total tax refund (%)				
$1 - $499	4.2	4.2	5.5	4.6
$500 - $999	14.3	13.2	13.8	13.8
$1,000 - $1,499	17.3	11.7	15.1	14.7
$1,500 - $1,999	7.8	7.2	7.8	7.6
$2,000 - $2,999	11.1	9.6	9.9	10.2
$3,000 - $3,999	9.1	10.2	7.8	9.0
$4,000 - $4,999	11.8	12.0	10.6	11.5
$5,000 - $7,499	21.2	27.6	25.6	24.8
$7,500 or more	3.2	4.4	3.8	3.8

(continued)

Appendix Table A.2 (continued)

Characteristic	2011	2012	2013	All Years
Average federal tax refund ($)	3,181	3,589	3,253	3,347
Average state and city tax refund[a] ($)	582	766	697	683
Received federal Earned Income Tax Credit (EITC) (%)	66.3	71.8	68.6	69.0
Among those who received the EITC, average amount[b] ($)	1,485	1,891	1,694	1,694
Federal Earned Income Tax Credit amount (%)				
$0	33.7	28.2	31.4	31.0
$1 - $499	15.4	10.7	12.6	12.9
$500 - $999	3.8	3.7	3.5	3.7
$1,000 - $1,499	4.6	4.6	5.2	4.8
$1,500 - $1,999	6.2	5.5	6.0	5.9
$2,000 - $2,999	13.3	14.9	12.9	13.7
$3,000 - $3,999	12.8	16.6	16.0	15.1
$4,000 - $4,999	5.3	9.3	6.2	7.0
$5,000 or more[b]	4.8	6.5	6.3	5.9
Sample size	2,489	2,644	2,365	7,498

SOURCE: MDRC calculations from MDRC baseline data, tax data, and VITA survey data.

NOTES: All four cities' combined tax filing information and refund amounts refer to 2010, 2011, and 2012, the tax years prior to study enrollment.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

No statistical significance tests were performed on differences across the years.

[a]Only New York City has a city income tax. Texas does not have a state income tax.

[b]The maximum possible federal Earned Income Tax Credit was $5,666 in tax year 2010, $5,751 in tax year 2011, and $5,891 in tax year 2012.

The SaveUSA Evaluation

Appendix Table A.3

Selected Baseline Characteristics, by Age Group, New York City and Tulsa Only

Characteristic	Ages 18-64	Age 65+	All Ages	
Demographic characteristic				
Gender (%)				
Male	26.5	30.1	26.7	
Female	73.5	69.9	73.3	
Number of children[a] (%)				***
0	37.5	88.2	40.1	
1	33.1	7.1	31.7	
2	20.7	2.4	19.8	
3 or more	8.7	2.4	8.4	
Race/ethnicity (%)				***
Hispanic/Latino	27.1	19.5	26.7	
White	20.4	45.1	21.6	
Black/African-American	44.6	26.8	43.7	
Other	7.9	8.5	7.9	
Highest educational credential (%)				
GED certificate	4.4	4.9	4.4	
High school diploma	55.9	57.3	56.0	
Technical credential or associate's degree	17.1	20.7	17.3	
4-year college degree or higher	10.1	3.7	9.8	
None of the above	12.5	13.4	12.5	
Tax filing information				
Number of tax filers (%)				**
1	89.0	81.4	88.6	
2	11.0	18.6	11.4	
Tax filing status (%)				***
Single filer without children	33.9	68.6	35.7	
Single filer with children	55.0	12.8	52.9	
Joint filer without children	1.8	14.0	2.4	
Joint filer with children	9.3	4.7	9.0	
Average adjusted gross income ($)	17,237	14,382	17,089	***
Adjusted gross income amount (%)				
$0 - $9,999	28.8	31.4	28.9	
$10,000 - $19,999	36.4	44.2	36.8	
$20,000 or more	34.8	24.4	34.3	

(continued)

Appendix Table A.3 (continued)

Characteristic	Ages 18-64	Age 65+	All Ages	
Average total tax refund amount ($)	3,970	1,601	3,847	***
Average federal tax refund ($)	3,165	1,271	3,067	***
Average state and city tax refund[b] ($)	804	330	780	***
Received federal Earned Income Tax Credit (EITC) (%)	70.3	17.4	67.5	***
Among those who received the EITC, average amount[c] ($)	2,170	1,622	2,163	
Month of random assignment (%)				***
January 2011	11.3	1.2	10.8	
February 2011	38.5	18.6	37.5	
March 2011	32.3	64.0	33.9	
April 2011	17.9	16.3	17.9	
Sample size	1,577	86	1,663	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's gender, number of children, race/ethnicity, and highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

A chi-square test for categorical variables and a t-test for continuous variables were run to determine whether there is a difference in the distribution of the characteristics by age group. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

[a]This refers to the number of dependents claimed in 2010 tax return records.

[b]Only New York City has a city income tax.

[c]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

The SaveUSA Evaluation

Appendix Table A.4

Selected Baseline Characteristics of 2011 Sample Members, by Research Group, New York City and Tulsa Only

Characteristic	SaveUSA Group	Regular Tax Filers	All	
Demographic characteristic				
Average age (years)	40	41	41	
Age (%)				**
18-24	16.5	12.1	14.3	
25-34	25.4	25.0	25.2	
35-44	19.5	21.9	20.7	
45-59	29.5	32.0	30.7	
60 or older	9.2	9.0	9.1	
Gender (%)				
Male	26.4	26.9	26.7	
Female	73.6	73.1	73.3	
Number of children[a] (%)				***
0	42.6	37.6	40.1	
1	32.6	30.9	31.7	
2	18.3	21.3	19.8	
3 or more	6.6	10.2	8.4	
Race/ethnicity (%)				
Hispanic/Latino	28.2	25.2	26.7	
White	22.2	21.0	21.6	
Black/African-American	42.2	45.2	43.7	
Other	7.4	8.5	7.9	
Highest educational credential (%)				
GED certificate	4.3	4.5	4.4	
High school diploma	55.9	56.2	56.0	
Technical credential or associate's degree	17.5	17.1	17.3	
4-year college degree or higher	10.5	9.1	9.8	
None of the above	11.8	13.2	12.5	
Tax filing information				
Number of tax filers (%)				
1	89.3	87.9	88.6	
2	10.7	12.1	11.4	

(continued)

Appendix Table A.4 (continued)

Characteristic	SaveUSA Group	Regular Tax Filers	All	
Tax filing status (%)				
Single filer without children	38.5	32.8	35.7	
Single filer with children	50.7	55.0	52.9	
Joint filer without children	2.4	2.4	2.4	
Joint filer with children	8.4	9.7	9.0	
Average adjusted gross income ($)	16,911	17,270	17,089	
Adjusted gross income amount (%)				
$0 - $9,999	30.2	27.6	28.9	
$10,000 - $19,999	36.0	37.6	36.8	
$20,000 or more	33.8	34.8	34.3	
Average total tax refund amount ($)	3,620	4,077	3,847	***
Average federal tax refund ($)	2,899	3,237	3,067	***
Average state and city tax refund[b] ($)	721	840	780	***
Received federal Earned Income Tax Credit (EITC) (%)	66.0	69.1	67.5	
Among those who received the EITC, average amount[c] ($)	2,050	2,272	2,163	
Month of random assignment (%)				
January 2011	10.6	10.9	10.8	
February 2011	37.7	37.2	37.5	
March 2011	33.8	34.1	33.9	
April 2011	17.9	17.8	17.9	
Sample size	838	825	1,663	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's gender, number of children, race/ethnicity, and highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

A chi-square test for categorical variables and a t-test for continuous variables were run to determine whether there is a difference in the distribution of the characteristics by research group. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

[a]This refers to the number of dependents claimed in 2010 tax return records.

[b]Only New York City has a city income tax.

[c]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

The SaveUSA Evaluation

Appendix Table A.5

Selected Characteristics of SaveUSA-Eligible Individuals Who Declined to Participate in the Study and of Sample Members Who Enrolled in the Study

Characteristic	SaveUSA-Eligible and Declined to Participate	SaveUSA Study Sample		P-Value
Demographic characteristic[a] (%)				
Gender[b]			***	0.000
Male	39.8	27.4		
Female	60.2	72.6		
Age			***	0.000
18-24	14.3	14.8		
25-44[c]	40.6	46.2		
45 or older	45.0	39.0		
Highest educational attainment[b]			***	0.000
Less than 2-year college degree	78.4	72.4		
2-year college degree or higher	21.6	27.6		
Tax filing information				
Number of tax filers in 2010 (%)			***	0.003
1	85.3	87.8		
2	14.7	12.2		
Tax filing status (%)			***	0.000
Single filer without children	47.3	35.9		
Single filer with children	38.0	52.1		
Joint filer without children	4.7	3.2		
Joint filer with children	10.0	8.9		
Average adjusted gross income ($)	16,784	17,903	***	0.001
Adjusted gross income amount (%)			***	0.000
$1 - $4,999	13.7	7.9		
$5,000 - $9,999	19.4	20.1		
$10,000 - $14,999	19.8	20.2		
$15,000 - $19,999	16.3	17.2		
$20,000 - $24,999	12.7	14.3		
$25,000 - $29,999	6.5	8.7		
$30,000 - $39,999	8.3	8.9		
$40,000 - $49,999	3.4	2.8		

(continued)

Appendix Table A.5 (continued)

Characteristic	SaveUSA-Eligible and Declined to Participate	SaveUSA Study Sample		P-Value
Total federal refund amount (%)			***	0.000
$1 - $499	14.9	6.6		
$500 - $999	22.6	16.3		
$1,000 - $1,499	15.9	15.1		
$1,500 - $1,999	6.3	6.0		
$2,000 - $2,999	8.3	11.3		
$3,000 - $3,999	6.8	10.5		
$4,000 - $4,999	7.4	11.3		
$5,000 - $7,499	12.0	17.5		
$7,500 - $9,999	4.6	5.4		
$10,000 or more	1.3	0.1		
Received federal Earned Income Tax Credit (EITC) (%)	54.6	68.3	***	0.000
Federal Earned Income Tax Credit amount[d] (%)			***	0.000
$1 - $499	32.3	23.3		
$500 - $999	6.9	6.9		
$1,000 - $1,499	7.9	6.2		
$1,500 - $1,999	8.4	9.9		
$2,000 - $2,999	17.1	22.5		
$3,000 - $3,999	15.0	17.9		
$4,000 - $4,999	7.2	7.7		
$5,000 - $7,499	5.1	5.7		
Sample size	19,094	2,021		

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, and TaxWise data.

NOTES: Data were collected for New York City, Tulsa, and Newark but were unavailable for San Antonio.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

A chi-square test for categorical variables and a t-test for continuous variables were run to determine whether there is a difference in the distribution of the characteristics by study participation. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

[a]Demographic characteristics data were collected for one tax filer when couples filed jointly.

[b]Gender and educational attainment are not available for Newark.

[c]The age category includes 24-year-olds from Tulsa.

[d]Earned Income Tax Credit information is not available for New York City study-eligible individuals.

Appendix B

SaveUSA 42-Month Survey Response Analysis

Most estimates of SaveUSA's effects on financial outcomes were calculated using responses to the SaveUSA 42-Month Follow-Up Survey. The report also shows impact estimates for a group of sample members who completed both the 18-month and 42-month surveys. When only a subset of the sample completes a survey, potential issues can arise about the reliability of results estimated for survey respondents and, also, whether results for respondents can be generalized to all study participants.

This appendix summarizes the results of tests of the reliability and generalizability of impact estimates calculated with survey responses. First, the appendix assesses whether research group differences in financial outcomes are unbiased (and therefore reliable) indicators of SaveUSA's effects. Survey results are considered to be unbiased if a large proportion of each research group responded to the survey and if respondents in both research groups closely resemble each other in characteristics, such as educational attainment or adjusted gross income, that would be likely to affect members' ability to save, forgo debt, or attain financial security after study entry.

Second, this appendix considers whether impact results estimated for survey respondents may be generalized to all study participants. Survey results are considered to be generalizable if it can be inferred with confidence that the analysis would have reached similar conclusions about SaveUSA's effects on financial outcomes had every study participant completed a 42-month survey interview.

Overall, the results show that the survey is reliable and that results for the survey respondent samples (42-month survey respondents and 18- and 42-month survey respondent samples) can be generalized to the larger report sample, which includes nonrespondents.

Main Findings

- A high response rate was achieved: About 80 percent of sample members of each research group responded to the 42-month survey.
- Among 42-month survey respondents, characteristics at baseline were similar for the two research groups. No systematic differences between the groups were found.
- A comparison of survey respondents and nonrespondents shows few statistically significant differences in pre-random assignment characteristics.
- SaveUSA's impacts on tax return and survey outcomes among respondents are similar to the impacts for the report sample and the survey-eligible samples, which include nonrespondents.

Survey Sample Selection

As noted in Chapter 1, the *research sample* includes about 2,500 sample members who were enrolled in 2011 in all four cities. The *report sample* in this appendix comprises 1,577 sample members who were randomly assigned in New York City and Tulsa in 2011 who were 18 to 64 years of age at the time of random assignment. (Sample members in Newark and San Antonio were not included in the survey efforts since those cities did not conduct random assignment.) Nearly all study participants from New York City and Tulsa were eligible to respond to the SaveUSA 42-Month Follow-Up Survey. A few study participants were excluded because of death, incarceration, or lack of fluency in English or Spanish. The remaining study participants are referred to as the *fielded sample,* which totaled 1,547 sample members.[1] From May 12, 2014, through November 2, 2014, the survey firm for the study, Decision Information Resources (DIR), attempted to interview everyone in the fielded sample.

Survey Response Rates

Sample members who were interviewed for the 42-month survey are referred to as "survey respondents" or the *respondent sample,* while sample members who were not interviewed are known as "nonrespondents" or the *nonrespondent sample.* As Figure 1.2 and Appendix Table B.1 show, a total of 1,236 sample members, or almost 80 percent of the fielded sample, completed the survey. The majority of the nonrespondent sample either refused to be interviewed or could not be located. The response rates by city were very similar. The response rates by research group were also similar: About 80 percent of both the SaveUSA group and the Regular Tax Filers group completed the 42-month survey.

As shown in Appendix Table B.1, the response rate among the 18-month survey sample was also 80 percent. About 72 percent of the 42-month fielded sample completed both an 18-month and a 42-month survey interview. Rates by research group and by city are very similar.

Although the overall response rates are high, whenever the response rate is lower than 100 percent, *nonresponse bias* may occur. Differences may exist between the respondent sample and the larger, fielded sample, owing to differences between the sample members who completed a survey and those who did not. Furthermore, the estimates may be biased if background characteristics differ between the research groups in the respondent sample.

[1]During the fielding periods for the two surveys, Decision Information Resources (DIR) discovered that 30 members of the report sample were ineligible to be interviewed — 11 during the fielding period for the 18-month survey and an additional 19 during the fielding period for the 42-month survey. Per DIR's recommendation, MDRC dropped all 30 of these sample members from the fielded sample for the 42-month survey. In addition, one sample member withdrew from the study four months after the start of the fielding period for the 42-month survey. This former sample member has been excluded from all samples discussed in this report.

The SaveUSA Evaluation

Appendix Table B.1

SaveUSA 18- and 42-Month Follow-Up Survey Response Rates, by City and Research Group

Survey Respondent (%)	SaveUSA Group	Regular Tax Filers	Total
18-month survey	80.1	80.5	80.3
New York City	80.6	79.5	80.0
Tulsa	79.3	81.9	80.6
Sample size	788	779	1,567
42-month survey	80.7	79.1	79.9
New York City	80.8	78.9	79.8
Tulsa	80.4	79.5	80.0
Sample size	776	771	1,547
18-month and 42-month surveys	71.1	72.1	71.6
New York City	71.4	71.8	71.6
Tulsa	70.8	72.6	71.7
Sample size	776	771	1,547

SOURCES: MDRC calculations from MDRC baseline data and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Rounding may cause slight discrepancies in calculating average response rates.

Chi-square tests were run to determine whether there are differences in the response rates by research groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

No asterisks are shown for any variable because all differences by research group were determined to be above the 10 percent level of statistical significance.

Comparison of Respondents and Nonrespondents Within the Fielded Survey Sample

In order to examine whether there are systematic differences between those who responded to the survey and those who did not, a (0/1) indicator of survey respondent status was created (in which survey respondents receive a 1 and nonrespondents receive a 0), and then logistic

regression analysis was used to identify whether any pre-random assignment characteristics were significantly related to the indicator.

Appendix Table B.2 shows the estimated regression coefficients for the probability of being a respondent. As can be noted from this table, besides background characteristics such as race, age, and number of children, a (0/1) indicator of membership in the SaveUSA group was included in the model. This procedure tests for differences in characteristics likely to affect financial outcomes. The second column of the table provides the parameter estimates that indicate the effect of each variable on the probability of completing the survey. The p-values show the level of statistical significance of this relationship.

The results show that there were a few characteristics that were statistically significant in predicting whether or not someone would complete a 42-month interview. Members of the fielded sample with larger tax refunds were less likely to respond than those who received smaller refunds.[2] Younger adults were more likely to respond to the survey.[3] Fielded sample members who are black or female or who received the Earned Income Tax Credit (EITC) also had a greater likelihood of responding to the survey. Finally, fielded sample members randomly assigned earlier in 2011 were more likely to respond than those from the later months of random assignment.

The p-values for the entire model displayed at the bottom of Table B.2 show that the differences in sample member characteristics between the survey respondents and the survey nonrespondents are statistically significant. Nonetheless, the R-square value (a summary indicator of the predictive power of the effects) of 0.029 is very low, which suggests that sample member characteristics have a very small effect on the likelihood of responding to the 42-month survey. Furthermore, results from this test show that membership in the SaveUSA group did not predict whether someone would complete the survey. This finding implies that the survey results are unbiased.

The same analysis described above was performed to examine whether there were systematic differences between those who responded to both survey waves and those who did not (not shown). Except for gender and month of random assignment, the results show no statistically significant characteristics in predicting whether someone would complete both the 18- and 42-month surveys.

[2]Not shown because of rounding in Appendix Table B.2, the value of the coefficient associated with each additional dollar of tax refund is -0.00007.

[3]The reference group for comparisons by age includes sample members ages 18 to 24.

The SaveUSA Evaluation

Appendix Table B.2

Estimated Regression Coefficients for the Probability of Being a Respondent to the SaveUSA 42-Month Survey

	Fielded Sample	
Variable	Parameter Estimate	P-Value
Baseline measure		
Month of random assignment	-0.142	0.065
Capital One Bank	-0.104	0.548
Ariva Tax Assistance Center	-0.011	0.947
Carver Financial Literacy Center	-0.073	0.651
St. Mark's AME Church	0.182	0.412
Fordham Road	0.207	0.468
Pine and Lewis	-0.130	0.414
Exchange Center	-0.158	0.353
Assigned to SaveUSA Group	0.096	0.464
Female	0.551	0.000
Hispanic	-0.161	0.429
Black	0.322	0.073
Age 25-34	-0.573	0.013
Age 35-44	-0.559	0.026
Age 45-59	-0.487	0.034
Age 60 or older	-0.317	0.396
No educational degree	-0.094	0.651
AA/BA/BS/Grad school degree	0.070	0.652
Number of children	0.164	0.142
Adjusted gross income	0.000	0.782
Adjusted gross income, squared	0.000	0.907
Received federal Earned Income Tax Credit	0.420	0.016
Total tax refund amount (sum of federal, state, and city)	0.000	0.080
Likelihood ratio	46.2	0.003
Wald statistic	44.5	0.005
R-square (.0294)		
Sample size	1,547	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTE: Capital One Bank, Ariva Tax Assistance Center, Carver Financial Literacy Center, St. Mark's AME Church, Fordham Road, Pine and Lewis, and Exchange Center are SaveUSA sites.

Comparison of the Research Groups in the Survey Respondent Sample

Random assignment designs minimize the possibility of potential biases in the results. Although the response rates were similarly high in both research groups, there is still the possibility that different types of sample members within each research group responded to the survey. If so, the impact estimates for the respondent sample may be biased.

Appendix Table B.3 shows baseline characteristics of the SaveUSA and Regular Tax Filers group members among the respondent sample. The differences between the groups are relatively small and few are statistically significant. In addition, a logistic regression analysis was performed to further test for associations between sample member characteristics and research group membership. A (0/1) indicator of membership in the SaveUSA group was regressed on pre-random assignment characteristics. As shown in Appendix Table B.4, only one baseline characteristic, random assignment at the St. Mark's AME Church Volunteer Income Tax Assistance (VITA) site in Queens, New York, was found to be significantly related to research group membership. These results support the finding that survey results are unbiased.

Comparison of Survey Respondents with the Report Sample

Using administrative records data from tax year 2010 federal tax returns, SaveUSA account participation data, 18-month survey data, and 42-month survey data, this section discusses whether the survey respondents' impacts can be generalized to the report sample.

Appendix Table B.5 shows SaveUSA account participation results for SaveUSA group members in the fielded sample and in two different respondent samples: the 42-month respondent sample and the 18- and 42-month survey respondent sample. As shown, the participation results are very similar across the samples on different measures.

A second test of generalizability uses data on tax returns that sample members completed immediately following random assignment. For this test, estimates of SaveUSA's impacts on allocation of tax refund dollars to savings and other financial options were compared across the 42-month fielded sample and the respondent samples. Appendix Table B.6 shows that the impacts were very similar across samples. The direction, significance, and impact levels are almost identical.

For a third test of generalizability, Appendix Table B.7 compares impacts on a series of financial outcomes measured at 18 months for all members of the 18-month survey respondent sample and for the sample members who completed both the 18-month and the 42-month

The SaveUSA Evaluation

Appendix Table B.3

Selected Baseline Characteristics of 42-Month Survey Respondents, by Research Group

Characteristic	SaveUSA Group	Regular Tax Filers	All	
Demographic characteristic				
Average age (years)	38	39	39	
Age (%)				*
18-24	17.7	13.9	15.9	
25-34	27.0	25.6	26.3	
35-44	20.1	23.4	21.8	
45-59	31.0	33.4	32.2	
60-64	4.2	3.6	3.9	
Gender (%)				
Male	23.5	24.3	23.9	
Female	76.5	75.7	76.1	
Number of children[a] (%)				**
0	38.0	32.8	35.4	
1	34.8	32.8	33.8	
2	19.6	23.9	21.8	
3 or more	7.5	10.5	9.0	
Race/ethnicity (%)				
Hispanic/Latino	27.5	24.5	26.0	
White	20.7	19.7	20.2	
Black/African-American	45.7	47.5	46.6	
Other	6.1	8.2	7.2	
Highest educational credential (%)				
GED certificate	4.5	5.3	4.9	
High school diploma	54.7	55.2	54.9	
Technical credential or associate's degree	17.8	16.1	17.0	
4-year college degree or higher	11.1	10.3	10.7	
None of the above	11.9	13.1	12.5	

(continued)

Appendix Table B.3 (continued)

Characteristic	SaveUSA Group	Regular Tax Filers	All	
Tax filing information				
Number of tax filers (%)				
1	90.6	88.7	89.6	
2	9.4	11.3	10.4	
Tax filing status (%)				
Single filer without children	35.1	28.7	32.0	
Single filer with children	55.4	60.0	57.7	
Joint filer without children	1.4	1.6	1.5	
Joint filer with children	8.0	9.7	8.8	
Average adjusted gross income ($)	17,373	17,422	17,397	
Adjusted gross income amount (%)				
$1 - $9,999	28.6	27.9	28.3	
$10,000 - $19,999	35.5	36.9	36.2	
$20,000 or more	35.8	35.2	35.5	
Average total tax refund amount ($)	3,837	4,235	4,033	**
Average federal tax refund ($)	3,075	3,378	3,224	**
Average state and city tax refund[b] ($)	762	857	809	**
Received federal Earned Income Tax Credit (EITC) (%)	69.3	73.9	71.6	*
Among those who received the EITC, average amount[c] ($)	2,078	2,264	2,173	
Month of random assignment (%)				
January 2011	12.1	11.8	12.0	
February 2011	39.6	38.5	39.1	
March 2011	30.7	32.6	31.6	
April 2011	17.6	17.0	17.3	
Sample size	626	610	1,236	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Indicators of respondent's gender, number of children, race/ethnicity, and highest educational credential were recorded from responses to the 18-Month and 42-Month Follow-Up Surveys for respondents with missing data at baseline.

Demographic characteristics data were collected for one tax filer when couples filed jointly.

Rounding may cause slight discrepancies in calculating sums.

Sample sizes for specific measures may vary because of missing values.

A chi-square test for categorical variables and a t-test for continuous variables were run to determine whether there is a difference in the distribution of the characteristics by research group. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

[a]This refers to the number of dependents claimed in 2010 tax return records.

[b]Only New York City has a city income tax.

[c]The maximum possible Earned Income Tax Credit was $5,666 in tax year 2010.

The SaveUSA Evaluation

Appendix Table B.4

Estimated Regression Coefficients for the Probability of Being a SaveUSA Group Member, Among 42-Month Survey Respondents

	Respondent Sample	
Variable	Parameter Estimate	P-Value
Baseline measure		
Month of random assignment	-0.053	0.441
Capital One Bank	-0.137	0.368
Ariva Tax Assistance Center	-0.011	0.945
Carver Financial Literacy Center	-0.087	0.542
St. Mark's AME Church	-0.505	0.016
Fordham Road	0.257	0.308
Pine and Lewis	-0.189	0.185
Exchange Center	-0.059	0.698
Female	0.092	0.512
Hispanic	0.292	0.130
Black	0.038	0.808
Age 25-34	-0.135	0.494
Age 35-44	-0.294	0.167
Age 45-59	-0.249	0.197
Age 60 or older	-0.107	0.750
No educational degree	0.006	0.976
AA/BA/BS/Grad school degree	0.146	0.286
Number of children	-0.141	0.151
Adjusted gross income	0.000	0.758
Adjusted gross income, squared	0.000	0.987
Received federal Earned Income Tax Credit	-0.045	0.776
Total tax refund amount (sum of federal, state, and city)	0.000	0.577
Likelihood ratio	32.9	0.064
Wald statistic	31.2	0.092
R-square (.0262)		
Sample size	1,236	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTE: Capital One Bank, Ariva Tax Assistance Center, Carver Financial Literacy Center, St. Mark's AME Church, Fordham Road, Pine and Lewis, and Exchange Center are SaveUSA sites.

The SaveUSA Evaluation

Appendix Table B.5

Comparison of Participation Outcomes Across All Program Years for the 42-Month Fielded Sample, 42-Month Survey Respondent Sample, and 18- and 42-Month Survey Respondent Sample

Outcome	All Years
SaveUSA account opened or pledged (%)	
42-month fielded sample	96.0
42-month survey respondent sample	96.0
18- and 42-month survey respondent sample	96.2
Received savings match (%)	
42-month fielded sample	60.4
42-month survey respondent sample	61.7
18- and 42-month survey respondent sample	63.4
Average amount of savings match ($)	
42-month fielded sample	338
42-month survey respondent sample	356
18- and 42-month survey respondent sample	372
Sample size	
42-month fielded sample	776
42-month survey respondent sample	626
18- and 42-month survey respondent sample	552

SOURCES: MDRC calculations from financial institution data, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTE: The samples include SaveUSA group members who were ages 18 to 64 at their time of random assignment and who were eligible to participate in the 42-Month Follow-Up Survey. The fielded sample includes nonrespondents.

The SaveUSA Evaluation

Appendix Table B.6

Comparison of Impacts on Allocation of 2010 Federal Tax Refund for the 42-Month Fielded Sample, 42-Month Survey Respondent Sample, and 18- and 42-Month Survey Respondent Sample

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Deposited money in any bank account (%)				
42-month fielded sample	98.3	75.7	22.5 ***	0.000
42-month survey respondent sample	98.4	77.1	21.3 ***	0.000
18- and 42-month survey respondent sample	98.1	78.0	20.1 ***	0.000
Deposited money in savings account (%)				
42-month fielded sample	93.2	14.5	78.6 ***	0.000
42-month survey respondent sample	92.9	15.2	77.7 ***	0.000
18- and 42-month survey respondent sample	92.4	14.8	77.6 ***	0.000
Deposited money in checking account (%)				
42-month fielded sample	70.8	68.5	2.3	0.300
42-month survey respondent sample	70.6	69.9	0.7	0.782
18- and 42-month survey respondent sample	70.9	70.6	0.4	0.889
Received a tax refund check (%)				
42-month fielded sample	18.6	25.1	-6.5 ***	0.001
42-month survey respondent sample	17.9	23.7	-5.8 **	0.011
18- and 42-month survey respondent sample	17.4	22.8	-5.4 **	0.021
Total amount deposited in any bank account ($)				
42-month fielded sample	3,322	3,062	259 ***	0.004
42-month survey respondent sample	3,378	3,174	204 **	0.032
18- and 42-month survey respondent sample	3,405	3,223	181 *	0.067
Total amount deposited in savings account ($)				
42-month fielded sample	693	227	466 ***	0.000
42-month survey respondent sample	728	258	470 ***	0.000
18- and 42-month survey respondent sample	719	269	449 ***	0.000
Total amount deposited in checking account ($)				
42-month fielded sample	2,628	2,835	-207 **	0.039
42-month survey respondent sample	2,650	2,917	-266 **	0.014
18- and 42-month survey respondent sample	2,686	2,954	-268 **	0.019
Total amount received in tax refund check ($)				
42-month fielded sample	521	758	-237 ***	0.007
42-month survey respondent sample	490	684	-194 **	0.035
18- and 42-month survey respondent sample	479	644	-165 *	0.082

(continued)

Appendix Table B.6 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Percentage of tax refund deposited in any bank account				
42-month fielded sample	85.3	75.1	10.2 ***	0.000
42-month survey respondent sample	85.7	76.4	9.3 ***	0.000
18- and 42-month survey respondent sample	85.8	77.3	8.6 ***	0.000
Percentage of tax refund deposited in savings account				
42-month fielded sample	28.7	8.3	20.4 ***	0.000
42-month survey respondent sample	29.0	8.4	20.6 ***	0.000
18- and 42-month survey respondent sample	28.9	8.4	20.5 ***	0.000
Percentage of tax refund deposited in checking account				
42-month fielded sample	56.6	66.8	-10.1 ***	0.000
42-month survey respondent sample	56.7	68.0	-11.3 ***	0.000
18- and 42-month survey respondent sample	57.0	68.9	-11.9 ***	0.000
Percentage of tax refund received in refund check				
42-month fielded sample	14.3	24.7	-10.4 ***	0.000
42-month survey respondent sample	13.8	23.3	-9.5 ***	0.000
18- and 42-month survey respondent sample	13.6	22.4	-8.8 ***	0.000
Sample sizes				
42-month fielded sample	776	771		
42-month survey respondent sample	626	610		
18- and 42-month survey respondent sample	552	556		

SOURCES: MDRC calculations from MDRC baseline data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: The samples include tax filers in New York City and Tulsa who were ages 18 to 64 at their time of random assignment and who were eligible to participate in the 42-Month Follow-Up Survey. The fielded sample includes nonrespondents.

A small number of sample members allocated tax refund dollars for the purchase of U.S. savings bonds (not shown).

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

The SaveUSA Evaluation

Appendix Table B.7

Comparison of 18-Month Impacts Between the 18-Month Survey Respondent Sample and the 18- and 42-Month Survey Respondent Sample

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has nonretirement savings (%)				
18-month survey respondent sample	79.4	71.9	7.5 ***	0.002
18- and 42-month survey respondent sample	79.8	71.8	8.1 ***	0.002
Total nonretirement savings ($)				
18-month survey respondent sample	2,241	1,730	512 *	0.052
18- and 42-month survey respondent sample	2,216	1,753	463 *	0.090
Has retirement savings (%)				
18-month survey respondent sample	32.5	28.4	4.0	0.101
18- and 42-month survey respondent sample	33.9	28.6	5.3 **	0.043
Total retirement savings ($)				
18-month survey respondent sample	2,582	3,279	-697	0.146
18- and 42-month survey respondent sample	2,644	3,131	-487	0.317
Has liquid assets (%)				
18-month survey respondent sample	81.8	75.3	6.5 ***	0.006
18- and 42-month survey respondent sample	82.5	75.3	7.2 ***	0.003
Total liquid assets ($)				
18-month survey respondent sample	4,114	4,265	-151	0.750
18- and 42-month survey respondent sample	4,206	4,331	-126	0.804
Has non-housing-related debt (%)				
18-month survey respondent sample	84.2	81.8	2.4	0.249
18- and 42-month survey respondent sample	84.1	82.3	1.8	0.429
Total non-housing-related debt ($)				
18-month survey respondent sample	9,695	9,276	419	0.632
18- and 42-month survey respondent sample	9,794	9,363	431	0.649

(continued)

Appendix Table B.7 (continued)

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Ratio of nonretirement savings to monthly household expenses				
18-month survey respondent sample	2.4	1.3	1.1 ***	0.009
18- and 42-month survey respondent sample	2.5	1.3	1.2 **	0.011
Sample sizes				
18-month survey respondent sample	631	627		
18- and 42-month survey respondent sample	552	556		

SOURCES: MDRC calculations from responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to response to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

surveys. As shown, the impact results for the two samples are very similar in magnitude and level of statistical significance, which would be expected given the relatively high response rate for both surveys.

MDRC conducted a final test of generalizability for five key outcomes from the 42-month survey. For this test, MDRC compared the magnitude, direction, and statistical significance of impacts that were estimated from survey responses with a second series of estimates that included predicted values for the more than 300 nonrespondents in the 42-month fielded sample. Appendix Table B.8 displays the results of these tests. As shown, the magnitude and direction of impact estimates are similar in the two panels. The impacts for the fielded sample (with predicted values for nonrespondents included) are statistically significant for two additional outcomes, probably because of its larger sample size. Overall, these results provide additional evidence that the impacts estimated for survey respondents are generalizable to the report sample.

The SaveUSA Evaluation

Appendix Table B.8

Impacts for the Respondent Sample and Fielded Sample, Including Predicted Outcomes for Nonrespondents

	Respondent Sample				Fielded Sample			
Outcome ($)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Total nonretirement savings	2,296	1,742	554 **	0.017	2,307	1,759	548 ***	0.000
Total retirement savings	3,347	3,490	-143	0.802	3,425	3,586	-161	0.405
Total liquid assets	5,095	4,391	704	0.198	5,161	4,515	645 ***	0.000
Total non-housing-related debt	10,009	10,023	-14	0.988	9,984	10,091	-106	0.674
Liquid net worth[a]	-4,995	-5,687	692	0.542	-4,923	-5,677	754 ***	0.001
Sample size	626	610		1,236	776	771		1,547

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The fielded sample includes sample members ages 18 to 64 from New York City (N = 908) and Tulsa (N = 639) who were eligible to participate in the 42-Month Follow-Up Survey. The respondent sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

[a]"Liquid net worth" is calculated as total nonretirement savings + total retirement savings – total non-housing-related debt.

Appendix C

Additional Impact Comparisons

The SaveUSA Evaluation

Appendix Table C.1

Comparison of SaveUSA Account Activity, by Data Source

Outcome (%)	SaveUSA Group
Pledged to participate in 2013	
According to neither survey nor financial institution records	59.1
According to both survey and financial institution records	20.8
According to survey only	4.9
According to financial institution records only	15.2
Received savings match in 2014[a]	
According to neither survey nor financial institution records	74.9
According to both survey and financial institution records	12.1
According to the survey only	4.0
According to financial institution records only	9.1
Savings match amount	
$1 - $100	0.8
$101 - $499	3.4
$500 or more	4.9
Had SaveUSA account balance at the time of interview[b]	
According to neither survey nor financial institution records	72.8
According to both survey and financial institution records	8.8
According to survey only	8.2
According to financial institution data only	10.3
Account balance amount	
$10 - $100	3.4
$101 - $300	1.1
$301 - $500	1.1
$501 - $999	1.3
$1,000 or more	3.2
Sample size	605

SOURCES: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey and financial institution data.

NOTES: [a]Includes respondents whose SaveUSA account was at a bank that provided MDRC with transaction-level data.

[b]SaveUSA accounts were deemed to have a balance if the financial institution data showed an amount of $10 or more at the end of the month of the survey interview.

The SaveUSA Evaluation

Appendix Table C.2

Comparison of Impacts on Total Nonretirement Savings, by Wording of Survey Question

Survey Question ($)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
All respondents who were asked to report the total amount of their nonretirement savings	2,281	1,758	522 **	0.024
SaveUSA group respondents who later were asked if their reported total had included the current balance of their SaveUSA account. The SaveUSA account balance was added to the total if previously excluded.	2,312	1,758	554 **	0.016
All respondents who were asked to report their total monthly household expenses and the number of months that expenses could be covered by current savings alone	3,423	3,002	421 *	0.082
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511) who were ages 18 to 64 at their time of random assignment.

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

The SaveUSA Evaluation

Appendix Table C.3

Comparison of Indicators of Savings and Debt, by Level of Exclusion of Outlier Values

Outcome at Interview ($)	Number (N)	Mean	Standard Deviation	Minimum	Median	95th Percentile	99th Percentile	Maximum
Total nonretirement savings								
Including all responses	1,204	2,749	8,591	0	500	10,000	35,000	99,997
Excluding top 1 percent	1,192	2,023	4,016	0	500	9,000	20,000	35,000
Excluding top 5 percent	1,155	1,466	2,239	0	400	7,000	10,000	10,000
Total retirement savings								
Including all responses	1,204	4,261	13,205	0	0	25,000	80,000	99,997
Excluding top 1 percent	1,193	3,417	9,890	0	0	20,000	56,301	80,000
Excluding top 5 percent	1,150	1,798	4,413	0	0	10,000	20,000	25,000
Total non-housing-related debt								
Including all responses	1,193	11,920	20,922	0	3,000	60,000	99,997	122,767
Excluding top 1 percent	1,168	10,016	16,535	0	2,500	50,000	80,000	98,000
Excluding top 5 percent	1,138	8,292	12,779	0	2,500	40,000	60,000	60,000

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes all respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of exclusion of outliers and missing values.

The SaveUSA Evaluation

Appendix Table C.4

Comparison of Impacts on Savings and Debt, by Level of Exclusion of Outlier Values

Outcome at Interview ($)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Total nonretirement savings				
Including all responses	3,006	2,487	519	0.297
Excluding top 1 percent	2,281	1,758	522 **	0.024
Excluding top 5 percent	1,692	1,236	455 ***	0.001
Total retirement savings				
Including all responses	3,852	4,679	-827	0.253
Excluding top 1 percent	3,326	3,512	-186	0.731
Excluding top 5 percent	1,785	1,812	-27	0.913
Total non-housing-related debt				
Including all responses	11,463	12,392	-929	0.432
Excluding top 1 percent	9,733	10,309	-576	0.542
Excluding top 5 percent	8,117	8,473	-356	0.632
Sample size (total = 1,236)	626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511) who were ages 18 to 64 at their time of random assignment.

Sample sizes for specific outcomes may vary because of exclusion of outliers and missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

Appendix D

Supplementary Tables to Chapter 2

The SaveUSA Evaluation

Appendix Table D.1

SaveUSA Account Activity
(Self-Reported from Survey Responses)

Outcome (%)	Total
Year 3 (2013)	
Received savings match	16.6
Deposited tax refund dollars in SaveUSA account	25.9
Did not deposit tax refund dollars in SaveUSA account	74.1
Among those who did not deposit tax refund dollars	
No refund or refund too small	32.5
Used refund to pay debts or bills or for expenditures	23.0
No interest in SaveUSA program	8.6
Did not know about Year 3 eligibility to deposit	14.1
Encountered problems when filing taxes	13.0
Forgot or was unprepared to deposit	8.9
Sample size	698

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes SaveUSA group respondents from New York City (N = 410) and Tulsa (N = 288) who were ages 18 to 64 at their time of random assignment.
Sample sizes for specific outcomes may vary because of missing values.
Rounding may cause slight discrepancies in calculating sums.

The SaveUSA Evaluation

Appendix Table D.2

Additional Findings on Use of SaveUSA Account (Self-Reported from Survey Responses)

Outcome (%)	Total
Has savings goal	78.4
Main savings goal	
Emergency expenses	10.6
Retirement	9.1
Education	12.7
Big purchase	20.9
Pay debts/bills	5.5
Other[a]	19.7
Main use of savings	
No match	84.1
Never withdrew	5.7
Received savings match and withdrew money	10.2
Among those who received any savings match and withdrew money	
Other savings	1.6
Pay debts/bills	44.4
Expenditures	54.0
Emergency expenses	3.2
Usual household expenses	9.5
Other household needs	1.6
Education	4.8
Big purchase	9.5
Spend on family member(s)	6.4
Travel, entertainment, family event	6.4
Miscellaneous	11.1
Work-related expenses	1.6
Sample size	626

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes SaveUSA group respondents from New York City (N = 367) and Tulsa (N = 259) who were ages 18 to 64 at their time of random assignment.

Sample sizes for specific outcomes may vary because of missing values.

Rounding may cause slight discrepancies in calculating sums.

[a]Other savings goals include investments, spending on family members, travel, entertainment, family event, miscellaneous, usual household expenses, other household needs, and work-related expenses.

The SaveUSA Evaluation

Appendix Table D.3

Factors Associated with Receiving the Savings Match in Only One Year or in Two or More Years

Characteristic	Odds Ratios and Statistical Significance: For Receiving a Match in Only 1 Year vs. Never Receiving a Match	Odds Ratios and Statistical Significance: For Receiving a Match in 2 or More Years vs. Never Receiving a Match
Age		
18-24 (omitted group)	1.000	1.000
25-34	1.189	0.940
35-44	0.961	1.642 *
45-59	1.039	2.234 *
60-64	1.809	3.249 *
Savings pledge amount in 2011		
$200	0.679 *	0.351 *
$201 - $999 (omitted group)	1.000	1.000
$1,000	1.283	2.081 *
Adjusted gross income amount in 2010		
$1 - $9,999	0.553 *	0.556 *
$10,000 - $19,999	0.560 *	0.633 *
$20,000 or more (omitted group)	1.000	1.000
Tax filing status		
With children	0.997	1.205
Without children (omitted group)	1.000	1.000
Average total tax refund amount	1.000	1.000
Received federal Earned Income Tax Credit	0.589 *	0.499 *
Month of study enrollment	1.178 *	1.139
City		
New York City	0.360 *	0.831
Tulsa	0.223 *	0.433 *
Newark (omitted group)	1.000	1.000
San Antonio	0.379 *	0.820
Sample size (total = 1,554)	1,077	982

SOURCES: MDRC calculations from MDRC baseline data, tax data, and financial institution data.

NOTES: Demographic characteristics data were collected for one tax filer when couples filed jointly.
An asterisk (*) indicates that the difference in values is statistically significant at the 10 percent level or less.

The SaveUSA Evaluation

Appendix Table D.4

SaveUSA Account Activity, by Program Year

Outcome	Year 1	Year 2	Year 3	All Years
RCT cities (New York City and Tulsa)				
SaveUSA account opened or pledged (%)	95.3	43.3	32.4	96.1
Distribution of pledged deposit (%)				
$0	0.0	56.7	67.6	0.0
$1 - $200	38.5	11.0	7.3	24.3
$201 - $999	33.8	16.6	11.5	33.3
$1,000	27.7	15.7	13.6	42.4
Average initial deposit amount ($)	490	329	275	1,095
Distribution of initial deposit (%)				
$0	13.0	58.8	69.4	10.8
$1 - $200	32.0	9.3	5.4	20.0
$201 - $999	29.5	15.5	11.0	28.6
$1,000 or more	25.6	16.4	14.2	40.6
Received savings match (%)	57.6	27.1	19.4	60.3
Average amount of savings match ($)	169	95	74	338
Average savings match, among those who received the savings match ($)	294	351	383	561
Distribution of savings match (%)				
$0	42.4	72.9	80.6	39.7
$1 - $100	17.1	4.0	1.6	11.5
$101 - $499	19.8	9.7	7.1	18.0
$500	20.7	13.4	10.7	30.9
Non-RCT cities (Newark and San Antonio)				
SaveUSA account opened or pledged (%)	99.7	34.7	25.0	99.7
Distribution of pledged deposit (%)				
$0	0.0	65.1	75.0	0.0
$1 - $200	34.9	5.8	2.5	25.7
$201 - $999	32.8	13.4	7.8	29.2
$1,000	32.4	15.7	14.7	45.1
Average initial deposit amount ($)	522	254	211	986

(continued)

Appendix Table D.4 (continued)

	Year 1	Year 2	Year 3	All Years
Distribution of initial deposit (%)				
$0	6.8	66.5	75.1	6.5
$1 - $200	32.0	5.4	2.5	22.9
$201 - $999	30.1	12.8	7.2	26.8
$1,000 or more	31.1	15.4	15.1	43.8
Received savings match (%)	73.8	27.9	21.6	75.0
Average amount of savings match ($)	214	96	83	392
Average savings match, among those who received the savings match ($)	289	345	384	523
Distribution of savings match (%)				
$0	26.2	72.1	78.4	25.0
$1 - $100	23.2	4.5	1.8	16.7
$101 - $499	24.6	10.4	7.2	21.7
$500	26.1	13.0	12.5	36.6
Sample size	1,554	1,554	1,554	1,554

SOURCES: MDRC calculations from MDRC baseline data and financial institution data.

NOTES: RCT = randomized controlled trial. The sample includes SaveUSA group members who were ages 18 to 64 at their time of study entry.

Rounding may cause slight discrepancies in calculating sums.

The pledged deposit refers to the amount of tax refund dollars that individuals committed to savings at the time of study entry.

The initial deposit refers to the tax refund amount directly deposited into the SaveUSA account by the Internal Revenue Service.

Appendix E

Background Information on Conducting Random Assignment, Collecting Data, and Estimating Program Impacts

Random Assignment Process

This section describes the procedures that Volunteer Income Tax Assistance (VITA) organization staff members performed when enrolling tax filers into the SaveUSA study and helping MDRC conduct random assignment to the SaveUSA group or Regular Tax Filers group. Random assignment occurred after each tax filer had nearly completed his or her tax return, except for Internal Revenue Service (IRS) Form 8888, which records how a filer chooses to allocate his or her tax refund.

The first step in the process of study enrollment and random assignment was to market SaveUSA and encourage individuals to participate. If a tax filer showed interest in SaveUSA, an assigned asset specialist described the SaveUSA program, using scripts and talking points prepared by MDRC and the VITA organization. Additionally, in New York City, VITA staff members checked whether prospective study participants had participated (as members of the program group) in the evaluation of $aveNYC, the predecessor to SaveUSA. VITA staff members used a database provided by Food Bank For New York City, which had previously served as the $aveNYC VITA organization, to perform this check. Staff members excluded any $aveNYC participants from the SaveUSA study.

When interested tax filers were deemed eligible for SaveUSA, VITA staff members explained to them in detail the goals of the study, the random assignment process, the data that the research team would collect, and the benefits and risks of participation. Next, prospective study participants received a SaveUSA research document packet that contained the research-related forms: (1) SaveUSA Evaluation Informed Consent Form; (2) IRS Consent to Use Form; and (3) IRS Consent to Disclose Form. Prospective study participants also received a verbal explanation from VITA staff members about the contents of each form. According to evaluation requirements, study participants needed to sign all three consent forms and undergo random assignment to have a chance at opening a SaveUSA account.

Once the consent forms were signed, a VITA staff member logged into MDRC's online random assignment application and entered the study participant's identifying information and selected measures about the participant's tax return. Key identifiers (like name and Social Security number) were entered twice into the database. The application recognized discrepancies in data entry of these fields and required the VITA staff member to correct one or both versions before submitting the record. For study participants in New York City and Tulsa, the application then randomly assigned the study participant to either the SaveUSA group or the Regular Tax Filers group. All study participants in Newark and San Antonio were automatically assigned to the SaveUSA group.

Immediately following random assignment, SaveUSA group members met with VITA staff members, who explained to them the features and conditions of the SaveUSA savings account, including how depositors could earn a savings match if they maintained their initial deposit for about 12 months. VITA staff members then helped each SaveUSA group member open a SaveUSA account (involving a financial institution representative, if needed). Next, SaveUSA group members completed IRS Form 8888 to direct part or all of their refund to the SaveUSA account. They also filled out a form documenting the amount that they pledged to save for one year.[1]

Regular Tax Filers group members also completed their tax returns after random assignment but could not open a SaveUSA account. However, other savings opportunities were explained to them. For example, Regular Tax Filers group members could directly deposit tax refund dollars in other savings accounts or use them to purchase U.S. savings bonds.

Thus, the random assignment process worked as expected in 2011, when the study sample was enrolled. The treatment (access to a SaveUSA account) and counterfactual (no access) conditions were implemented as originally intended by the designers of the evaluation.

As discussed in this report, during subsequent years, SaveUSA continued enrolling new participants and offering existing SaveUSA group members the chance to make subsequent deposits into their SaveUSA account. In 2012 and 2013, VITA organizations in New York City and Tulsa continued to use MDRC's random assignment application to determine which eligible tax filers could open a SaveUSA account. During these years, MDRC made available to VITA organizations in these cities a searchable online database with identifying information on all tax filers who had previously been randomly assigned to the SaveUSA or Regular Tax Filers groups. VITA staff members used these data to verify that each prospective study participant had not previously enrolled in the SaveUSA evaluation. This procedure helped the research team to limit access to the SaveUSA account until 2014, when the embargo on opening a SaveUSA account ended for all members of the Regular Tax Filers group and for participants in the previous $aveNYC study.[2] As noted in previous chapters, only 21 members of the Regular Tax Filers group in New York City who were randomly assigned in 2011 opened a SaveUSA account in 2014.

[1]A small percentage of SaveUSA group members were unable to open a SaveUSA account after random assignment. SaveUSA group members were expected to receive less-stringent-than-normal eligibility screening from ChexSystems or similar banking systems, but some participants were rejected through this process. Rejection rates varied by financial institution (ranging from zero to 3 percent in 2011).

[2]The program model did not change from the original design during the first year of enrollment or subsequent years.

Data Collection

Baseline Data

As noted above, at the time of random assignment, MDRC collected a limited amount of demographic and tax-related information on each study participant. No prospective study participant could proceed with random assignment without providing this information. Baseline data collection and random assignment both ended on the last day of the 2011 tax season in mid-April, as expected.

Except for study participants in San Antonio, MDRC collected additional demographic characteristics from the VITA agencies' intake surveys, which tax filers completed on site while waiting to prepare their tax return.[3] The VITA agencies created their own intake surveys and included questions on demographic characteristics, such as race/ethnicity and gender, as well as information on participant needs for additional services (such as child care assistance) that the agency provided. Completion of these VITA agency surveys was voluntary, and the quality and completeness of these data varied by site. Questions on study participants' current employment and earnings, household income, savings, and debt had relatively high rates of nonresponse and were therefore not used in the research. (See below for additional discussion of missing values for data on demographic characteristics.)

Financial Institution Data

Five banks and one credit union offered SaveUSA matched savings accounts, but other organizations and agencies — MDRC, the VITA organizations, the Mayor's Fund to Advance New York City, the New York City Center for Economic Opportunity (CEO), and the New York City Department of Consumer Affairs Office of Financial Empowerment (OFE) — helped administer these accounts. MDRC assumed primary responsibility for monitoring each account's deposits and withdrawals, determining which accounts became eligible to receive the SaveUSA savings match, and addressing account holders' inquiries and complaints. VITA organizations assisted financial institutions in opening SaveUSA accounts, assisted MDRC in troubleshooting account holders' problems, and worked with financial institutions to distribute savings match funds.

As a third-party administrator of SaveUSA accounts, MDRC needed to negotiate separate data-sharing agreements with each financial institution. MDRC also needed to work with financial institutions' database administrators to develop protocols for extracting account data

[3]In Newark, MDRC also created a short questionnaire that was used to collect additional baseline measures.

and transmitting them to MDRC. Given the complexity of the project, MDRC designed several databases to ensure the smooth implementation of the program, and, most important, to prevent individuals assigned to the Regular Tax Filers group from opening a SaveUSA account. To facilitate the tracking of SaveUSA accounts, MDRC worked with the VITA organizations to collect each SaveUSA group member's financial institution name, account number, and pledge amount at enrollment. MDRC maintained this information in a separate database and used these data to check the completeness and accuracy of account data extracted from financial institutions' systems.

Creating the account data files frequently required considerable work on the part of financial institution staff members, in excess of their normal day-to-day account management for customers. After gathering the account data for SaveUSA participants, financial institutions sent quarterly data files in one of two formats: at the transaction level or as "snapshot balances."

In tracking SaveUSA account activity, MDRC encountered several difficulties. While most issues were fixed before the match distribution, some data issues were not resolved until after the savings match had been distributed, at which time some SaveUSA participants noticed that they had received either an incorrect match amount or no match at all. These specific errors in determining the savings match were remedied by the VITA sites, financial institutions, and MDRC as soon as possible. Listed below are examples of these issues and how they were corrected.[4]

Account-Opening Issues at the Time of Study Entry

- **VITA or financial institution staff did not open or designate some SaveUSA accounts correctly on tax day.** Participants who intended to open an account, but for whom an error prevented it from being opened, were contacted to resolve the situation. These participants were usually given another chance to open a SaveUSA account. Other account opening or identification problems were resolved by working with the financial institution. For example, the SaveUSA deposit was occasionally directed to an existing account with the financial institution, instead of a newly opened SaveUSA account.

[4]For additional information on program implementation and a complete description of the financial institution processing and challenges, see Chapter 3 and Appendix E from the SaveUSA interim report (Azurdia, Freedman, Hamilton, and Schultz, 2014).

Initial-Deposit Issues

A critical task in the early stages of data processing was identifying the correct initial tax refund deposit amount. This amount was important, as it was used as the benchmark balance for determining savings match eligibility, in conjunction with the specified intended pledge amount. MDRC assumed the benchmark balance to be the pledged amount or the actual initial deposit — whichever was lower.

- **In some cases, the pledged deposit did not match the initial deposit in the SaveUSA account.** For example, federal and state refund amounts could be deposited at separate times. Some SaveUSA group members, who did not realize that only part of their refund had been deposited, withdrew funds from their account. These individuals would lose their eligibility to receive a savings match if the organization monitoring the accounts did not make allowances for the delay in receipt of the entire tax refund. Where necessary, MDRC "backdated" all tax refund deposits to a date before the account holder's first withdrawal to maintain account holders' eligibility for the match.

Fees and Erroneous Transactions

When processing SaveUSA account transaction data, MDRC tracked eligibility for the savings match by keeping a running account balance based on transactions. If the account balance fell below the pledge amount (or the actual initial SaveUSA deposit, if lower than the pledge amount), the participant was deemed ineligible for the savings match.

- **Transaction fees were levied on SaveUSA accounts that should not have been applied.** The SaveUSA accounts were not intended to have any fees charged to them. Some of the financial institutions, however, did charge fees, which appeared as deductions from the account and could be mistaken as withdrawals by the account holder. In the calculation of the match, MDRC needed to identify these fees, notify financial institutions, and then disregard the deductions. Some of the fees were later reimbursed by the financial institutions.

Tax Return Data

MDRC used data from tax returns to analyze how study participants allocated their 2010 federal tax refund. MDRC received access to tax data for one year only, based on provisions of the data-sharing agreements between the IRS and participating VITA organizations. MDRC followed security standards required by the IRS when working with tax records. The IRS consent forms described above followed the IRS protocols for requesting consent and included standard language provided by the IRS. MDRC also followed other IRS security

standards when managing data, such as keeping the tax return data encrypted while stored on MDRC's network server.

After the end of the 2011 tax season, or when study enrollment ended, MDRC received electronic tax data files from Food Bank For New York City, Ariva, Community Action Project of Tulsa, and Newark Now. Since the data reflected information from before study entry, these data were used as baseline indicators, to compare characteristics between those who enrolled in the study and those who did not enroll in the study.

Data on allocation of tax refunds were also used to confirm that members of the Regular Tax Filers group did not open a SaveUSA account. MDRC was able to collect account numbers from the tax records to confirm that only SaveUSA group members opened a SaveUSA account. The 2011 (Year 1) results, shown in Appendix Table E.1, indicate that nearly all SaveUSA group members asked the IRS to directly deposit all or part of their tax refund into a savings account, compared with only 15 percent for the Regular Tax Filers group. Although not eligible to open a SaveUSA account, members of the Regular Tax Filers group, when filing their taxes, could also directly deposit tax refund dollars into one or more savings products. As shown, the majority of Regular Tax Filers group members did not.

18- and 42-Month Surveys

MDRC contracted with Decision Information Resources (DIR) to design and administer the SaveUSA 18- and 42-Month Follow-Up Surveys. MDRC has worked with DIR on surveys for other studies, including evaluations of asset-building initiatives for low- and moderate-income individuals and households. DIR used its Computer-Assisted Telephone Interviewing (CATI) call center and database system to conduct all interviews. Per agreement with MDRC, DIR sought to interview at least 80 percent of members of the SaveUSA and Regular Tax Filers groups in New York City and Tulsa and to attain this response rate for both research groups in each city. DIR successfully met these goals for both surveys. (See Appendix B for further details.)

Efforts to attain consistently high response rates included:

- **Respondent location efforts.** MDRC worked with administrators of the VITA organizations to collect and transmit to DIR updated contact information for study participants in both research groups. This effort was relatively successful because study participants typically returned to the same VITA organization each year to file their taxes. DIR also used standard locator databases to find additional contact information.

The SaveUSA Evaluation

Appendix Table E.1

Impacts on Allocation of 2010 Federal Tax Refund

Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Allocation of tax refund (%)				
To any bank account	98.2	75.6	22.6 ***	0.000
Savings account	93.1	14.6	78.5 ***	0.000
Checking account	71.0	68.3	2.7	0.234
To tax refund check	18.6	25.2	-6.6 ***	0.001
Amount allocated ($)				
To any bank account	3,297	3,029	269 ***	0.003
Savings account	686	226	460 ***	0.000
Checking account	2,611	2,803	-191 *	0.052
To tax refund check	511	758	-246 ***	0.004
Percentage of total refund allocated (%)				
To any bank account	85.4	75.0	10.4 ***	0.000
Savings account	28.7	8.4	20.3 ***	0.000
Checking account	56.7	66.5	-9.8 ***	0.000
To tax refund check	14.2	24.8	-10.6 ***	0.000
Sample size (total = 1,577)	794	783		

SOURCE: MDRC calculations from 2010 tax return records.

NOTES: Calculations include sample members from New York City (N = 922) and Tulsa (N = 655) who were ages 18 to 64 at their time of random assignment.

A small number of sample members allocated tax refund dollars for the purchase of U.S. savings bonds (not shown).

Sample sizes for specific outcomes may vary because of missing values.

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.

The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.

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

- **Marketing efforts.** MDRC worked with administrators of the VITA organizations and with members of the DIR survey team to create marketing materials (including letters, postcards, email messages, website postings, and refrigerator magnets) and scripts for marketing phone calls to encourage participants to complete survey interviews.

- **Financial incentives.** Respondents received a gift card after completing an interview. Notice of the gift cards was included in marketing materials. During each fielding period, MDRC and DIR team members monitored survey response rates, and at strategic points in time (when response rates had dropped for several weeks in a row) increased the value of the gift card. For the 42-month survey, about 74 percent of respondents received a $30 gift card, 16 percent received a $60 gift card, and 10 percent received a $100 gift card.

- **Field locators.** DIR employed and trained a group of field locators and assigned them to personally contact study participants who had not yet completed an interview. Field locators set up appointments for interviews with DIR's call center but did not interview respondents on site. DIR monitored the success rate of each field locator weekly. In some instances locators were reassigned to different VITA organization catchment areas to boost response rates. DIR also replaced locators who were not successful in contacting study participants.

- **Monitoring responses.** During the fielding period, DIR prepared and shared with MDRC weekly reports on survey response rates, organized by city, VITA organization catchment area, and research group. Members of the DIR and MDRC teams reviewed these reports weekly and made adjustments to fielding efforts within VITA organization catchment areas (for example, allocation of field locators) in response to identification of low response rates or relatively large differences in response rates by research group.

Efforts to increase *item* response rates included:

- **Survey design.** Questions concerning dollar amounts followed one or more lead-in yes/no questions concerning the outcome. In addition, respondents who expressed difficulty answering or reluctance to report a specific dollar amount were then asked a series of follow-up questions by which they could approximate the dollar amount within a specific range.

- **Monitoring responses.** During the fielding period, DIR circulated weekly reports on item response rates of key dollar amount outcomes. Reports were reviewed during weekly meetings.

- **MDRC programming.** When creating continuous outcome measures with dollar amounts, MDRC transformed the range values of dollar amounts into specific values for respondents who chose to report a range value. For each of these respondents, MDRC randomly selected a value within the range. MDRC included these imputed values in checks for outliers and dropped respondents from calculations of outcomes and impacts if their imputed value exceeded the 99 percent cutoff level.

As a result of these strategies, item response rates were high for both research groups, as shown in Appendix Table E.2.

The SaveUSA Evaluation

Appendix Table E.2

SaveUSA 42-Month Follow-Up Survey Response Rates for Selected Outcomes

Outcome	SaveUSA Group	Regular Tax Filers
Total nonretirement savings	96.3	96.6
Total retirement savings	96.8	96.2
Total liquid assets	93.8	92.6
Total household expenses in prior month	94.9	95.1
Total non-housing-related debt	95.0	93.9
Average liquid net worth	90.3	87.5
Sample size (total = 1,236)	626	610

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTE: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).

Efforts to increase the completeness and accuracy of responses included:

- **Survey design.** Survey respondents answered nearly identical questionnaires at 18 and 42 months. Most questions included in the survey had been used in previous surveys on household finances, including surveys administered by DIR for previous MDRC studies. The survey questionnaire was reviewed by a team that included experts in survey design and researchers in asset-building initiatives. DIR prepared a Spanish-language version of the survey instrument, which was reviewed by a

member of the MDRC research team and by an administrator from a VITA organization, both of whom are fluent in Spanish.

- **CATI system testing.** Before fielding the surveys, members of MDRC's research team and corporate Survey Unit and the DIR survey team tested the programming of DIR's CATI system, using 1,000 randomly generated responses and additional mock interviews. Team members reviewed technical issues in the CATI system weekly and modified the questionnaire and CATI system as needed before fielding the surveys.

- **Monitoring interviewer training.** Before fielding the surveys, members of MDRC's research team and corporate Survey Unit reviewed DIR's interviewer training materials and scripts and attended a training session for interviewers.

- **Identifying survey respondents.** MDRC shared with DIR each respondent's date of birth and the last four digits of his or her Social Security number. At the start of each interview, respondents were asked to provide this information to the interviewer to verify their identity. No proxy interviews by third parties were allowed.

- **Interviewing respondents.** All interviews were conducted by phone with interviewers at DIR's call center. Field locators did not interview respondents.

- **DIR review of survey responses.** DIR recorded all survey interviews and made the recordings available for review. For a sample of respondents, DIR supervisors monitored interviews in real time. In addition, DIR conducted verification calls on 10 percent of each CATI interviewer's completed interviews and on 10 percent of each field locator's completed contacts that led to an interview. Finally, for a sample of respondents, DIR supervisors reviewed every recorded response and compared the response with the value recorded in the CATI system.

- **MDRC review of survey responses.** During the first months of survey fielding, DIR transmitted to MDRC two test files of survey responses. Members of MDRC's research team processed the data in these test files and ran quality control checks on the data. Team members checked item response rates and skip patterns and identified missing and outlier responses and responses that appeared to be inconsistent with responses to related questions. MDRC performed quality control checks on individual items and composite measures (for example, total weekly earnings at interview). MDRC shared examples of problem responses with DIR. DIR team members then reviewed each issue and, where necessary, reviewed the recorded verbal response to determine whether the interviewer had entered the response incorrectly in DIR's CATI system. MDRC and DIR repeated these procedures fol-

lowing transmission to MDRC of the final version of the survey file. DIR corrected responses as needed based on these reviews.

Estimating Effects of SaveUSA

Appendix Table E.3 presents full regression impact results for two primary outcomes as of the 42-month survey interview: "Has nonretirement savings" (binary, 0/1) and "Total nonretirement savings" (continuous). MDRC estimated adjusted means and differences (impacts) for binary (0/1) and continuous outcomes using ordinary least squares (OLS) regression.[5] Regression adjustment can increase the statistical precision of the estimated effects, helping to distinguish normal variation in outcomes from the effects of SaveUSA group members' exclusive access to the SaveUSA account and savings match. Following is a list of the baseline characteristics that MDRC used as covariates in the regression model:

Random assignment month
SaveUSA site
Gender
Race/ethnicity
Age
Educational attainment
Number of children
Adjusted gross income
Received the federal Earned Income Tax Credit (EITC)
Total tax refund

To test the sensitivity of the regression adjustment, MDRC compared the adjusted and unadjusted research group means and differences (impacts) for key outcome measures. As Appendix Table E.4 shows, the adjusted and unadjusted estimates are very similar. These findings help confirm that the random assignment process resulted in creation of research groups with similar characteristics and that the effort to field the 42-month survey did not bias the results.

[5]As sensitivity tests for several previous studies, MDRC estimated outcomes and impacts on binary (0/1) measures using OLS regression and again using logistic regression. MDRC found that the results were nearly identical for each regression procedure.

The SaveUSA Evaluation

Appendix Table E.3

Regression Coefficients for Estimated Impacts on Nonretirement Savings After 42 Months of Follow-Up

	Has Nonretirement Savings (%)		Total Nonretirement Savings ($)	
Variable	Parameter Estimate	P-Value	Parameter Estimate	P-Value
Intercept	0.554	<.0001	813	0.321
Assigned to SaveUSA Group (impact)	0.076	0.002	522	0.024
Covariates				
Month of random assignment	0.037	0.010	185	0.176
Capital One Bank	0.096	0.153	719	0.257
Ariva Tax Assistance Center	-0.039	0.563	658	0.303
Carver Financial Literacy Center	0.041	0.536	529	0.397
St. Mark's AME Church	0.102	0.180	945	0.191
Fordham Road	-0.024	0.777	1,098	0.165
Pine and Lewis	-0.009	0.888	311	0.605
Exchange Center	0.064	0.314	284	0.635
Female	0.014	0.622	-170	0.542
Hispanic	-0.037	0.353	-662	0.081
Black	-0.020	0.539	-799	0.011
Age 25-34	-0.081	0.049	-67	0.863
Age 35-44	-0.088	0.048	-461	0.272
Age 45-59	-0.136	0.001	-153	0.690
Age 60 or older	-0.146	0.040	-235	0.727
No educational degree	-0.028	0.472	-497	0.181
AA/BA/BS/Grad school degree	0.077	0.007	943	0.001
Number of dependent children	-0.005	0.791	-231	0.238
Adjusted gross income	0.000	0.004	0	0.782
Adjusted gross income, squared	0.000	0.037	0	0.311
Received federal Earned Income Tax Credit	-0.037	0.267	-95	0.766
Total tax refund amount (sum of federal, state, and city)	0.000	0.709	0	0.311
R-square	0.066		0.057	
Sample size	1,192		1,192	

SOURCES: MDRC calculations from MDRC baseline data, VITA survey data, 2010 tax return records, and responses to the SaveUSA 18-Month and 42-Month Follow-Up Surveys.

NOTES: The sample includes respondents to the 42-Month Follow-up Survey in New York City (N = 696) and Tulsa (N = 496).

Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.

Capital One Bank, Ariva Tax Assistance Center, Carver Financial Literacy Center, St. Mark's AME Church, Fordham Road, Pine and Lewis, and Exchange Center are SaveUSA sites.

The SaveUSA Evaluation

Appendix Table E.4

Adjusted and Unadjusted Impacts on Selected 42-Month Survey Outcomes

	Adjusted Impacts				Unadjusted Impacts			
Outcome	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Has nonretirement savings (%)	80.0	72.4	7.6 ***	0.002	80.1	72.3	7.8 ***	0.002
Total nonretirement savings ($)	2,281	1,758	522 **	0.024	2,296	1,742	554 **	0.017
Total retirement savings ($)	3,326	3,512	-186	0.731	3,347	3,490	-143	0.802
Total liquid assets ($)	5,030	4,458	572	0.272	5,095	4,391	704	0.198
Total non-housing-related debt ($)	9,733	10,309	-576	0.542	10,009	10,023	-14	0.988
Had financial hardship since the 18-month interview (%)	60.7	60.1	0.6	0.827	59.9	60.8	-0.9	0.750
Sample size (total = 1,236)	626	610			626	610		

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Regression-adjusted estimates used ordinary least squares, controlling for pre-random assignment characteristics of sample members. Unadjusted estimates used ordinary least squares with no covariates. No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.

Missing Data

Covariates

Sixteen of the 22 covariates in the regression model for estimating program impacts (see Appendix Table E.3) had nonmissing values for all study participants. The other six measures were collected primarily from responses to VITA organizations' intake surveys, which, as noted above, had some issues with completeness and accuracy of responses. These measures concern study participants' gender, race/ethnicity, educational attainment, and number of dependent children. Among respondents to the 42-month survey, the proportion of missing responses for these measures ranged from about 5 percent (for number of dependent children) to about 18 percent (for educational attainment).

In response, MDRC recorded values for these measures in two ways. Where available, MDRC copied values of related measures from the study participant's responses to the 18-month survey or, if unavailable, from the 42-month survey.[6] This procedure reduced the number of study participants with missing values for these measures to near zero. The remaining missing values for covariates were imputed using the research group's mean.

Outcomes

Sample members with missing values for dependent variables (outcomes) were excluded from the impact estimates. As discussed above in this appendix, for a few outcome measures, such as total current nonretirement savings, where respondents did not report a specific dollar amount, but instead provided a range, MDRC randomly assigned a value to the outcome variable that fell between the minimum and maximum value of the range provided. As a sensitivity check, Appendix Table E.5 shows the estimates for the main outcomes that used these imputations. The table shows that the impact estimates are similar for outcomes with and without imputed values. These findings may be interpreted to mean that the imputation procedure did not bias the results.

Effect Sizes of Program Impacts and Assessment of Possible Effects of Multiple Comparisons

Appendix Table E.6 displays statistical data on MDRC's impact estimates of savings-related outcomes. As discussed in Chapters 3 and 4, MDRC determined that these impacts are

[6]MDRC assumed that values would be more accurate when collected from post-random assignment survey responses for the study participant than from an imputation procedure based on averages for the research group — although more so for gender and race/ethnicity than for educational attainment and number of children.

The SaveUSA Evaluation

Appendix Table E.5

Effects of Imputing Missing Values on Selected 42-Month Survey Outcomes and Impacts

	With Imputed Values				Without Imputed Values			
Outcome ($)	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value	SaveUSA Group	Regular Tax Filers	Difference (Impact)	P-Value
Total nonretirement savings	2,281	1,758	522 **	0.024	2,310	1,712	598 **	0.014
Total retirement savings	3,326	3,512	-186	0.731	3,116	3,302	-186	0.723
Total non-housing-related debt	9,733	10,309	-576	0.542	9,869	10,082	-213	0.823
Total emergency expenditures	1,255	1,320	-66	0.634	1,168	1,279	-112	0.392
Sample size (varies)[a]								

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members.
No special weights were applied to responses to adjust for differences in sample size by site.
Rounding may cause slight discrepancies in calculating sums and differences.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; and *** = 1 percent.
[a]Sample sizes for specific outcomes vary because of missing values. Imputations increase sample sizes by 14 to 36 respondents, depending on the outcome measure and research group.

The SaveUSA Evaluation

Appendix Table E.6

Statistical Data on Savings-Related Outcomes and Impacts

Outcome	Difference (Impact)	P-Value	Adjusted P-Value[a]	R^2	Standard Deviation[b]	Effect Size[c]
Primary outcomes						
As of 42-month interview						
Has nonretirement savings (%)	7.6	0.002	0.004	0.066	42.6	0.178
Total nonretirement savings ($)	522	0.024	0.029	0.057	4,016	0.130
Has liquid assets (%)	7.6	0.001	0.004	0.082	40.4	0.187
Has savings or checking account (%)	3.7	0.059	0.063	0.078	34.6	0.106
Has a current savings goal (%)	6.6	0.007	0.014	0.075	43.3	0.152
Never deposited money in savings since 18-month interview (%)	-7.4	0.008	0.012	0.077	49.1	-0.150
Additional outcomes						
As of 42-month interview (%)						
Has more than $2,000 in nonretirement savings	7.6	0.002	0.004	0.061	42.6	0.179
Has more than $2,000 in liquid assets	5.1	0.061	0.061	0.129	48.3	0.106
Nonretirement savings would cover at least 1 month of household expenses	8.6	0.002	0.005	0.064	47.5	0.182
Is liquid-asset poor	-5.8	0.018	0.024	0.130	43.5	-0.134
Can generally afford the things needed	4.8	0.069	0.069	0.051	45.6	0.104
There is sometimes enough money for fun	-4.8	0.066	0.088	0.052	46.3	-0.105
Between date of filing taxes during 2014 and 42-month interview (%)						
Directly deposited tax refund into savings account	5.4	0.054	0.061	0.058	49.6	0.109
Primarily used tax refund for savings	7.6	0.001	0.003	0.053	38.3	0.198
Had plan to save all or part of tax refund	8.7	0.002	0.008	0.057	49.6	0.176
None of tax refund currently saved	-11.9	0.000	0.000	0.065	48.6	-0.245
Between 18-month and 42-month interview (%)						
Ever had savings account	7.9	0.001	0.003	0.070	43.2	0.184
Had at least $1 in nonretirement savings	7.1	0.002	0.003	0.060	38.8	0.182
Had savings at 18- and 42-month interviews	11.0	0.000	0.000	0.088	47.6	0.232
Had liquid assets at 18- and 42-month interviews	11.9	0.000	0.000	0.128	45.7	0.260
Used savings or current income to pay for emergency expenses	6.7	0.011	0.016	0.038	43.3	0.155
Sample size (total = 1,236)	626	610				

(continued)

Appendix Table E.6 (continued)

SOURCE: MDRC calculations from responses to the SaveUSA 42-Month Follow-Up Survey.

NOTES: The sample includes respondents from New York City (N = 725) and Tulsa (N = 511).
Sample sizes for specific outcomes may vary because of missing values.
Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. No special weights were applied to responses to adjust for differences in sample size by site.
A two-tailed t-test was applied to differences between outcomes for the SaveUSA group and Regular Tax Filers.
The p-value indicates the likelihood that the difference between the SaveUSA group and Regular Tax Filers arose by chance. The table displays statistical data for differences with p-values of 0.1 or below.
[a]Adjusted p-values were calculated based on the Benjamini-Hochberg procedure. For the SaveUSA evaluation, this procedure tests for possible erroneous findings of statistically significant impacts at the 10 percent level or below due to multiple comparisons of related outcomes. Adjusted p-values of 0.1 or below confirm impact estimates as true effects of SaveUSA.
[b]Standard deviations were calculated for the combined sample of respondents from both research groups.
[c]Effect sizes were calculated by dividing the difference by the standard deviation.

likely to represent true effects of the SaveUSA program at the 10 percent level of statistical significance or below. For each measure, the first two columns of the table show the value of the program impact and level of statistical significance (p-value), using the results shown in tables in Chapters 3 and 4. The rightmost two columns display the "pooled" standard deviations (calculated for all respondents from both research groups) for each outcome and the "effect sizes" of each impact. For any given outcome, the effect size is calculated by dividing the impact by the pooled standard deviation. Effect sizes standardize impact estimates for comparison with impacts estimated by other studies. As shown in Appendix Table E.6, the absolute values of effect sizes vary from 0.104 to 0.260 standard deviations. In the statistical literature on effect sizes, these values are often considered to denote small to moderate-sized impacts, but standards vary based on domains. Placing effect sizes in their true context requires the comparison of impacts for SaveUSA with effects from other randomized controlled trials of asset-building initiatives for low- and moderate-income adults and households.[7] At present, there are few such studies available for comparison.

For savings-related outcomes, MDRC also tested for possible errors in inference that could have resulted from conducting multiple comparisons of related outcomes. For the outcome measures displayed in Appendix Table E.6, MDRC ran two Benjamini-Hochberg tests to

[7]See Hill, Bloom, Black, and Lipsey (2007) for further discussion on placing effect sizes in the context of related studies.

estimate the likelihood that MDRC erroneously rejected the null hypothesis (of no difference or impact), when the impact was calculated to have a 10 percent level of statistical significance or below. The first test included 17 savings-related outcomes with statistically significant differences, and the second test included 4 measures of attitudes about saving that have statistically significant differences. For each test, MDRC sorted the measures in ascending order based on the p-value of the impact. Once the measures are sorted in this way, the Benjamini-Hochberg test uses the position or rank of each measure to calculate an adjusted p-value, which is then used to determine whether the researcher can continue to consider the estimated impact to be a true effect of the intervention.

Appendix Table E.6 displays the results of the Benjamini-Hochberg tests, using a variation of the formula for calculating adjusted p-values: (original p-value $\times N / j$), where N represents the total number of measures included in the test (17 and 4, respectively) and j represents the position or rank of the measure (1, 2, 3, …, N) after sorting.[8] Thus for the first savings measure the adjusted p-value equals the original p-value multiplied by (17 / 1 = 17); for the second savings measure, the adjusted p-value equals the original p-value multiplied by (17 / 2 = 8.5); and so on. For each measure, if the adjusted p-value is below 0.1, the maximum level of statistical significance used in this report, the impact may continue to be viewed as a true effect of SaveUSA.

As shown in Appendix Table E.6, all impact estimates have adjusted p-values below 0.1. These results affirm that SaveUSA's impacts on nonretirement savings and on attitudes toward savings, where found, are real effects of the program.[9]

[8]In Appendix Table E.6, the measures are displayed in an order similar to how they appear in report tables and text. The adjusted p-values associated with each measure were calculated when the measures were sorted in ascending order based on p-value.

[9]Another way to run the Benjamini-Hochberg test is to compare each original p-value with a "threshold value" that is calculated as $(j / N) \times \alpha$, where α is the maximum level of statistical significance (here, 0.1). For both tests, each original p-value is below its corresponding threshold value, which again indicates that the impacts on nonretirement savings and attitudes toward saving may be considered as true effects of SaveUSA.

References

Abbi, Sarika. 2012. "A Need for Product Innovation to Help LMI Consumers Manage Financial Emergencies." Allston, MA: Doorways to Dreams Fund.

Azurdia, Gilda, Stephen Freedman, Gayle Hamilton, and Caroline Schultz. 2014. *Encouraging Low- and Moderate-Income Tax Filers to Save: Implementation and Interim Impact Findings from the SaveUSA Evaluation.* New York: MDRC.

Baugh, Brian, Itzhak Ben-David, and Hoonsuk Park. 2014. "Disentangling Financial Constraints, Precautionary Savings, and Myopia: Household Behavior Surrounding Federal Tax Returns." National Bureau of Economic Research Working Paper No. 19783.

Berry, Christopher. 2004. "To Bank or Not to Bank: A Survey of Low-Income Households." Working Paper BABC 04-3. Cambridge, MA: Harvard University, Joint Center for Housing Studies.

Beverly, Sondra, Daniel Schneider, and Peter Tufano. 2006. "Splitting Tax Refunds and Building Savings: An Empirical Test." Pages 111-162 in James Poterba (ed.), *Tax Policy and the Economy*, vol. 20. Cambridge, MA: National Bureau of Economic Research and MIT Press.

Black, Rachel, and Reid Cramer. 2011. "Incentivizing Savings at Tax Time: $aveNYC and the Saver's Bonus." Washington, DC: New America Foundation.

Bricker, Jesse, Arthur B. Kennickell, Kevin B. Moore, and John Sabelhaus. 2012. "Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin* 98, 2: 1-80.

Brobeck, Stephen. 2008a. "The Essential Role of Banks and Credit Unions in Facilitating Lower-Income Household Saving for Emergencies." Washington, DC: Consumer Federation of America. Website: www.consumerfed.org.

Brobeck, Stephen. 2008b. "Understanding the Emergency Savings Needs of Low- and Moderate-Income Households: A Survey-Based Analysis of Impacts, Causes, and Remedies." Washington, DC: Consumer Federation of America. Website: www.consumerfed.org.

Bronchetti, Erin Todd, Thomas S. Dee, David B. Huffman, and Ellen Magenheim. 2011. "When a Nudge Isn't Enough: Defaults and Savings Among Low-Income Tax Filers." Working Paper 16887. Cambridge, MA: National Bureau of Economic Research.

Chan, Pamela. 2011. "Beyond Barriers: Designing Attractive Savings Accounts for Lower-Income Consumers." Working paper. Washington, DC: New America Foundation.

Chase, Stephanie, Leah Gjertson, and J. Michael Collins. 2011. "Coming Up with Cash in a Pinch: Emergency Savings and Its Alternatives." CFS Issue Brief 6.1. Madison: University of Wisconsin-Madison, Center for Financial Security.

City of New York. 2012. *SaveUSA: Program Implementation: Insights from the Field*. New York: New York City Department of Consumer Affairs, Office of Financial Empowerment, and Center for Economic Opportunity.

Collins, J. Michael, and Leah Gjertson. 2013. "Emergency Savings for Low-Income Consumers." *Focus* 30, 1: 12-17. University of Wisconsin-Madison, Institute for Research on Poverty.

Corporation for Enterprise Development (CFED). 2013. "Assets and Opportunity Scorecard: Liquid Asset Poverty Rate." Washington, DC: Corporation for Enterprise Development. Website: http://scorecard.assetsandopportunity.org/2013/measure/liquid-asset-poverty-rate.

Cramer, Reid, Justin King, and Elliot Schreur. 2015. *Flexible Savings: The Missing Foundation for Financial Security and Economic Mobility*. Washington, DC: New America Foundation.

DeNavas-Walt, Carmen, and Bernadette D. Proctor. 2015. *Income and Poverty in the United States: 2014*. U.S. Census Bureau, Current Population Reports, P60-252. Washington, DC: U.S. Government Printing Office.

Doorways to Dreams Fund. 2009. *Yes We Can: Inclusive Saving at Tax Time*. Allston, MA: Doorways to Dreams Fund. Website: www.d2dfund.org.

Doorways to Dreams Fund. 2011. *2011 Savings Bond Report: Saving Is ~~Impossible Complex Confusing~~ Hard. Bonds Make It Easy.* Allston, MA: Doorways to Dreams Fund. Website: www.d2dfund.org.

Doorways to Dreams Fund. 2012. *2012 Savings Bond Report: Keep Bonds Easy. Preserving Universal Access Through Advocacy, Awareness and Action*. Allston, MA: Doorways to Dreams Fund. Website: www.d2dfund.org.

Duch, Melanie Kwon. 2013. "Save to Win: Highlights from Michigan 2012." Allston, MA: Doorways to Dreams Fund. Website: www.d2dfund.org.

Duflo, Esther, William Gale, Jeffrey Liebman, Peter Orszag, and Emmanuel Saez. 2006. "Saving Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block." *Quarterly Journal of Economics* 121, 4: 1311-1346.

Edin, Kathryn, Sara S. Greene, Sarah Halpern-Meekin, and Ezra Levin. 2015. "The Rainy Day EITC: A Reform to Boost Financial Security by Helping Low-Wage Workers Build Emergency Savings." Federal policy proposal. Washington, DC: Corporation for Enterprise Development.

Edin, Kathryn, and Laura Lein. 1997. "Work, Welfare, and Single Mothers' Economic Survival Strategies." *American Sociological Review* 62, 2: 253-266.

Federal Deposit Insurance Corporation (FDIC). 2012. *2011 FDIC National Survey of Unbanked and Underbanked Households*. Washington, DC: Federal Deposit Insurance Corporation.

Fellowes, Matt, and Katy Willemin. 2013. *The Retirement Breach in Defined Contribution Plans: Size, Causes, and Solutions*. Washington, DC: Hello Wallet.

Fry, Richard, and Rakesh Kochhar. 2014. "America's Wealth Gap Between Middle-Income and Upper-Income Families Is Widest on Record." Pew Research Center. Website: http://www.pewresearch.org.

Grinstein-Weiss, Michal, Krista Comer, Blair Russell, Clinton Key, Dana C. Perantie, and Dan Ariely. 2014. *Refund to Savings: 2013 Evidence of Tax-Time Saving in a National Randomized Control Trial* (CSD Research Report 14-03). St. Louis: Washington University, Center for Social Development.

Hannagan, Anthony, and Jonathan Morduch. 2015. "Income Gains and Month-to-Month Income Volatility: Household Evidence from the U.S. Financial Diaries." NYU Wagner Research Paper 2659883.

Hill, Carolyn J., Howard S. Bloom, Alison Rebeck Black, and Mark W. Lipsey. 2007. *Empirical Benchmarks for Interpreting Effect Sizes in Research*. New York: MDRC.

Key, Clinton C., Michal Grinstein-Weiss, Jenna N. Tucker, and Krista Holub. 2013. "Savings at Tax Time: The Effects of $aveNYC on Savings in Low-Income Households." Working paper. Chapel Hill: University of North Carolina, UNC Center for Community Capital.

Lerman, Robert, and Signe-Mary McKernan. 2008. *The Effects of Holding Assets on Social and Economic Outcomes of Families: A Review of Theory and Evidence.* Washington, DC: Urban Institute.

Lopez-Fernandini, Alejandra. 2010. "Unrestricted Savings: Their Role in Household Economic Security and the Case for Policy Action." Working paper. Washington, DC: New America Foundation.

Lopez-Fernandini, Alejandra, and Caroline Schultz. 2010. "Automating Savings in the Workplace: Insights from the AutoSave Pilot." Washington, DC: New America Foundation.

Manturuk, Kim, Lucy S. Gorham, and Jessica Dorrance. 2013. "The Importance of Tax Time for Building Emergency Savings: Major Findings from $aveNYC." Chapel Hill: University of North Carolina, UNC Center for Community Capital. Website: www.ccc.unc.edu.

McCully, Clinton P. 2011. "Trends in Consumer Spending and Personal Saving, 1959-2009." *Survey of Current Business* 91, 6: 14-23. Website: https://www.bea.gov/scb/pdf/2011/06%20June/0611_pce.pdf.

McKernan, Signe-Mary, and Caroline Ratcliffe. 2008. "Enabling Families to Weather Emergencies and Develop: The Role of Assets." New Safety Net Paper 7. Washington, DC: Urban Institute.

McKernan, Signe-Mary, Caroline Ratcliffe, and Katie Vinopal. 2009. "Do Assets Help Families Cope with Adverse Events?" Brief 10. Washington, DC: Urban Institute.

Mendenhall, Ruby, Kathryn Edin, Susan Crowley, Jennifer Sykes, Laura Tach, Katrin Kriz, and Jeffrey R. Kling. 2012. "The Role of Earned Income Tax Credit in the Budgets of Low-Income Households." *Social Service Review* 86, 3: 367-400.

Mills, Gregory, Rhiannon Patterson, Larry Orr, and Donna DeMarco. 2004. *Evaluation of the American Dream Demonstration: Final Evaluation Report*. Cambridge, MA: Abt Associates Inc.

New York City Department of Consumer Affairs, Office of Financial Empowerment (OFE). 2010. "The $aveNYC Account: Innovation in Asset Building — Research update." New York: New York City Department of Consumer Affairs, Office of Financial Empowerment.

New York City Department of Consumer Affairs, Office of Financial Empowerment (OFE). 2013. *Municipal Financial Empowerment: A Supervitamin for Public Programs. Strategy #5: Integrating Asset Building*. New York: New York City Department of Consumer Affairs, Office of Financial Empowerment.

Pew Charitable Trusts. 2013. *Moving On Up: Why Do Some Americans Leave the Bottom of the Economic Ladder, but Not Others?* Washington, DC: Pew Charitable Trusts.

Pew Charitable Trusts. 2015. *The Precarious State of Family Balance Sheets*. Washington, DC: Pew Charitable Trusts.

Rank, Mark R. 2008. *Asset Building Over the Life Course: Final Report.* Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (DHHS/ASPE).

Rothstein, David, and Rachel Black. 2013. "Making Tax Time the Financial Management Moment." Pages 227-241 in Reid Cramer and Trina R. Williams Shanks (eds.), *The Asset Perspective: The Rise of Asset Building and its Impact on Social Policy.* New York: St. Martin's Press.

Schreiner, Mark. 2005. *What Does an IDA Cost? Some Measures from ADD*. Center for Social Development Research Report 05-38. St Louis: Washington University, George Warren Brown School of Social Work, Center for Social Development.

Shefrin, Hersh M., and Richard H. Thaler. 1988. "The Behavioral Life-Cycle Hypothesis." *Economic Inquiry* 26: 609-643.

Smeeding, Timothy M. 2000. "The EITC and USAs/IDAs: Maybe a Marriage Made in Heaven?" Working paper commissioned for the Inclusion in Asset Building: Research and Policy Symposium. St Louis: Washington University, George Warren Brown School of Social Work, Center for Social Development.

Thaler, Richard H., and Shlomo Benartzi. 2004. "Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving." *Journal of Political Economy* 112, 1: S164-S187.

U.S. Department of Health and Human Services, Administration for Children and Families, Office of Community Services. 2012. *Assets for Independence Program: Status at the Conclusion of the Eleventh Year, Results Through September 30, 2010*. Report to Congress. Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Housing and Urban Development, Office of Public Housing and Voucher Programs and Office of Public Housing Investments. 2014. "Fact Sheet: Family Self-Sufficiency (FSS) Program." Website: http://portal.hud.gov/huddoc/fssfactsheet.pdf.

U.S. Department of Labor, Bureau of Labor Statistics. 2013. "Table 1101: Quintiles of Income Before Taxes: Annual Expenditure Means, Shares, Standard Errors, and Coefficient of Variation, Consumer Expenditure Survey, 2012." Consumer Expenditure Survey data tables. Website: http://www.bls.gov/cex/#tables.

Verma, Nandita, Betsy Tessler, Cynthia Miller, James A. Riccio, Zawadi Rucks, and Edith Yang. 2012. *Working Toward Self-Sufficiency: Early Findings from a Program for Housing Voucher Recipients in New York City*. New York: MDRC.

Weller, Christian, and Sam Unger. 2013. *The Universal Savings Credit*. Washington, DC: Center for American Progress.

Wolff, Edward N. 2014. "Household Wealth Trends in the United States, 1962-2013: What Happened over the Great Recession?" Working Paper 20733. Cambridge, MA: National Bureau of Economic Research.

About MDRC

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

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

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

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

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