

CSD Research Report

The Effect of Health Insurance on Savings Outcomes in Individual Development Accounts

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CSD Research Report 05-29

2005



Center for Social Development



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ACKNOWLEDGEMENTS: The MIS IDA data from the “American Dream Demonstration” (ADD) used in this research was collected and prepared for analysis by the Center for Social Development at Washington University in Saint Louis with the key involvement of Mark Schreiner, Michael Sherraden, Margaret Clancy, and Lissa Johnson and support from twelve foundations that have funded ADD. They are the Ford Foundation, Charles Stewart Mott Foundation, Joyce Foundation, F.B. Heron Foundation, John Dr. and Catherine T. MacArthur Foundation, Citigroup Foundation, Fannie Mae Foundation, Levi Strauss Foundation, Ewing Marion Kauffman Foundation, Rockefeller Foundation, Metropolitan Life Foundation, and Moriah Fund.

A special thanks to my Practicum Advisor, Alison Aughinbaugh, for her guidance and advice throughout the year.

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Abstract

This practicum explores the role of health insurance coverage for Individual Development Account (IDA) participants. Health insurance operates as a significant mediator for savings and asset accumulation, increasing the likelihood of success by 10% to 20% depending on the savings outcome and altering the likelihood of success by 26% to 75% depending on the outcome for certain participant sub-groups. Specifically, participants with health insurance are more likely to be savers (save \$100 or more); make higher average monthly net deposits and cumulative deposits throughout program participation; are less likely to drop out of the IDA program prior to making a matched withdrawal; and more likely to make an asset purchase with their IDA savings and matching funds. In addition, medical debt is a savings barrier for IDA participants and has a statistically significant detrimental effect on each of six IDA savings outcomes, decreasing the likelihood of success by 11% to 34% depending on the outcome. Both IDA program administrators and policymakers can use these findings to improve and expand upon the current IDA policy model and ensure participant success.

Introduction

Asset poverty, low net worth, and lacking health insurance coverage are major problems for many Americans. The Survey of Consumer Finances (SCF) in 1998 reported that a disturbing quarter (25%) of American households had less than \$10,000 in net worth.¹ Asset poverty is two to four times more persistent than income poverty.² Asset poverty affects certain demographic groups at disproportionately higher rates than the rest of the population. The asset poor, those who live in households that lack the financial resources to support themselves at the poverty level for three months during a suspension of income, tend to be younger, nonwhite, non-elderly with children, female-headed households with children, renters, and less educated.³ A startling 47 percent of all American children live in households with no net financial assets.⁴

Despite the importance of having health insurance for both health and financial outcomes, the number of Americans in the United States who lacked coverage rose to 45 million, or 15.6%, in 2003.⁵ The percentage of uninsured people who are in low-income families (with annual incomes below \$25,000) was 24.2% in 2003.⁶ This is problematic because uninsured people have less access to quality, affordable care than those with coverage and their health suffers as a result.⁷ They are also more likely to avoid or delay needed care because they cannot afford it, which may lead to unnecessary illness or even death, as well as to inefficient and expensive use of emergency room or hospital care for preventable health conditions.⁸

¹ Hogarth, Beverly, and Hilgert. *Patterns of Financial Behaviors*, p. 3.

² Caner and Wolff. *Asset Poverty in the United States*, p. 5.

³ Caner and Wolff. *Asset Poverty in the United States*, p. 6.

⁴ *AFI Project Builder*.

⁵ *Number of Americans without Insurance Reaches Highest Level on Record*, p. 1.

⁶ *Number of Americans without Insurance Reaches Highest Level on Record*, p. 3.

⁷ Weil et al. *Improving the Federal System of Health Care Coverage*, p. 401.

⁸ Ku and Cohen Ross. *Staying Covered*, p. 7.

Individual Development Accounts (IDAs) are matched savings accounts in which accountholders make regular contributions of earned income and then receive a match to their savings to ultimately purchase an asset, such as education or vocational training, a down payment on a home, or for microbusiness expenses. IDAs have been established as a successful policy instrument for alleviating the asset poverty of low-income individuals described above. This practicum further explores IDAs, focusing on whether having health insurance is a mediator of savings. I hypothesize that IDA participants who have health insurance will have better saving outcomes compared to their counterparts without health insurance. Specifically, participants with health insurance have a higher likelihood of being savers;⁹ contribute higher average monthly net deposits and cumulative deposits into their IDA over the duration of their participation; are less likely to drop out of the program; are more likely to successfully finish the IDA program; and are more likely make an asset purchase with their matched withdrawal.

The rationale for this hypothesis is that health insurance will enable participants to overcome the savings barrier of medical expenses if they were to experience a health shock while enrolled in an IDA program without having to alter their behavior in response. For example, they will not reduce their savings or drop out of the program – or worse, choose between attending to their medical needs and expenses versus sacrificing their health status in order to continue saving regularly. Meanwhile, their counterparts without insurance might need to sacrifice their health needs, save less, or drop out of the program entirely in order to pay for their medical expenses. In addition, those who pay for their own health insurance premiums on a regular basis will be better prepared for the required savings behavior of making regular deposits into their IDA, leading them to be more successful in maintaining their IDA and reaching their asset goal than their counterparts lacking this essential experience.

⁹ “Savers” are those participants who have saved \$100 or more in their Individual Development Account.

If my research shows that health insurance is positively correlated with savings outcomes for IDA participants, then this finding will contribute to the evolving field of IDA research and advise policymakers and program administrators of how to improve upon the current IDA model. For example, federal eligibility policies could be better coordinated to ensure IDA participants do not lose their health insurance if they save an amount in their IDA past the asset limit for Medicaid. Additionally, program administrators and staff could accommodate their program design and case management practices accordingly to maximize participant success.

Limitations of Current Body of Research

Due to the fact that the Individual Development Account field is a relatively new one, there has been a limited quantity of research conducted thus far.¹⁰ Previous qualitative and quantitative analyses of IDA programs and participants have revealed that IDAs are a feasible and successful anti-poverty strategy. Additionally, research has provided great insight into numerous participant and program characteristics that are significantly correlated with savings outcomes in IDAs. However, the specific role of health insurance in IDAs has only been minimally explored in previous quantitative research. Furthermore, the studies of data from two IDA demonstrations¹¹ that referenced health insurance only commented on two dependent variables – the probability of being a saver and the average monthly net deposit of IDA participants. In addition to the desire to determine the effects of health insurance on other savings behaviors and outcomes of interest, such as program attrition and asset purchase rates, neither of these studies examined the potential varying effect of health insurance on sub-groups of participants. Moreover, since the population of interest in the FAIM study was limited to rural

¹⁰ Michael Sherraden introduced his concept of IDAs in his book *Assets and the Poor* in 1991.

¹¹ Family Assets for Independence in Minnesota (FAIM) Pilot and the American Dream Demonstration (ADD).

individuals, the findings might not be generalizable to participants in other communities. In addition, the number of participants in this sample was relatively small (n=173).¹² Thus, due to the limited sample examined in this study, its finding regarding health insurance might differ in other samples. This study is also now outdated since the data used was current as of March 31, 2001, whereas my data includes observations through November 2003.

Thus, this practicum fulfills the gaps in the existing body of research on IDA program and participants. First, it satisfies the need for a more current analysis of the effect of having health insurance on asset building by using a larger and more diverse sample.¹³ Whereas previous research only examined the effect of having health insurance on one dependent variable each and/or for one specific sub-group of participants, this practicum also analyzes whether health insurance has an impact on multiple dependent variables, including probability of being a saver, average monthly net deposit, cumulative amount of savings, reason for exit from the program (i.e. drop out or finished), and probability of making an asset purchase. Most importantly, this is the first quantitative analysis study dedicated entirely to the effect of health insurance for IDA participants. To that end, I have the opportunity to explore numerous models and specifications to determine the impact of health insurance, as well as whether health insurance has unique effects for any sub-groups of participants.

Hypotheses

In my analysis of health insurance as a potential mediator of savings, I continue to build upon prior quantitative research as well as qualitative surveys of IDA participants. Specifically, I advance upon the qualitative evidence that reveals participants postpone doctor's visits and

¹² Grinstein-Weiss and Curley. *Individual Development Accounts for Rural Communities*, p. 6.

¹³ In my research n=1855 compared to n=173 in the FAIM research.

medical bills as a saving strategy and find illnesses and health care payments to be savings barriers. As is shown in my Conceptual Model (see Figure 1), I focus on the independent variable of health insurance, meanwhile controlling for key participant and program factors previously found to be relevant for participant outcomes. I hypothesize that IDA participants who have health insurance will have more successful savings and asset accumulation outcomes, including: higher likelihood of being a saver, larger average monthly net deposits and cumulative deposits, successful completion of the IDA program, and higher probability of making an asset purchase compared to their uninsured counterparts.

My rationale for these hypotheses is that health insurance will operate as a savings mediator by contributing to better health outcomes, allowing participants to work more, take less time off, and thus have more earned income to deposit in their IDA. Additionally, without concerns of late medical bills, sacrificing one's health needs, and paying high prices out-of-pocket for medical emergencies and expenses that might arise, those with health insurance – whether they pay for it, receive it as an employee benefit, or receive public assistance – will be able to continue saving without having to reallocate their income or save less than their goal in order to pay for these expenses. Finally, those participants who pay for their own health insurance premiums, similar to those who own cars and/or houses, have had substantial experience with saving in order to make regular monthly payments for their insurance premiums (or are potentially intrinsically better savers, an unobservable characteristic) and should thus be well prepared for the savings behaviors necessary to successfully maintain an IDA.¹⁴ On the other hand, there is always the possibility that the need to pay for health insurance premiums and related expenses out-of-pocket would mean that participants had little, if any money, remaining

¹⁴ I base this hypothesis on previous research that revealed that those who have already saved in the past – as signaled by the possession of a checking account, a passbook balance, a checking balance, a home, or a car – also tend to be more successful saving in IDAs. Clancy et al. *Financial Education and Savings Outcomes*, p. 6.

to save. Ideally, my rationales for increased savings outcomes will override this potential re-allocation of savings towards insurance premiums and significant findings will be determined.

Figure 1: Conceptual Model

Independent Variables	Mediating Functions	Savings Outcomes
Health insurance	Better health outcomes	Probability of Being a Saver
Medical Debt	More hours of work	Average Monthly Net Deposits
Participant Demographics	Higher earnings	Cumulative Deposits
Assets and Liabilities	Pay less out of pocket	Drop Out of IDA program
Income and Public Assistance	Less costly medical expenses	Finish IDA program
Account Structure	More experience with savings*	Make Asset Purchase
Program Design		
Prior Relationship with Program		

**If participant pays health insurance premium.*

Background on IDAs

In this section, background is provided regarding the importance of assets and health insurance for health and financial outcomes, the savings and asset ownership status of low-income individuals, and an overview about Individual Development Accounts and their success as an anti-poverty strategy. Additionally, previous research analyses of the participant characteristics and program dynamics that affect participant outcomes in Individual Development Accounts are reported.

Asset-building opportunities are essential to help families gain financial skills, acquire assets, improve their health status, and become self-sufficient. Acquiring assets can determine whether a family and their future generations will “remain trapped in poverty or achieve the

wherewithal the escape.”¹⁵ Besides the obvious financial gains of building assets, research reveals that low-income individuals may experience improved health and well-being, as well as improved housing stability, increased civic and community involvement, decreases in marriage dissolution, and lower transfer rates of poverty to the next generation.¹⁶ In general, research has shown that homeownership, microenterprise, and post-secondary education – the most common asset goals of IDAs – are able to alleviate asset poverty. Specifically, changes in homeownership and business ownership status are correlated with the transition probabilities of moving in or out of asset poverty.¹⁷ Similarly, more schooling reduces the chance of being asset poor.¹⁸ Overall, IDA participants contribute to the public good through their local and national economies by increasing the rates of savings, education, homeownership, and new businesses.

Health insurance is also a protective mechanism for low-income people to ensure successful health and financial outcomes. Health insurance is especially crucial for low-income adults who tend to be worse off than higher-income adults for common access and health status indicators. Even brief gaps in health insurance coverage can contribute to problems in accessing care, obtaining prescriptions, and paying medical bills, as well as maintaining continuous relationships with health care providers, which improves use of preventative and primary care.¹⁹ Uninsured individuals also pay higher costs out-of-pocket and a larger proportion of their income for medical expenses than those with coverage. Low-income individuals may spend between 5 to 40% of their income on medical costs compared to middle-income adults who spent an average of 0.5% of income on out-of-pocket medical costs in 1999.²⁰ The uninsured also pay for

¹⁵ Venner, et al. *State investments in Income and Asset Development for Poor Families*, p. 1.

¹⁶ *AFI Project Builder*, p. 3.

¹⁷ Caner and Wolff. *Asset Poverty in the United States*, p. 6.

¹⁸ Caner and Wolff. *Asset Poverty in the United States*, p. 24.

¹⁹ Ku and Ross. *Staying Covered*, p. vii.

²⁰ Ku, Leighton. *Charging the Poor More for Health Care: Cost-Sharing In Medicaid*.

a higher share of their total medical expenses out of pocket (43%) than people with private (20%) or public insurance (7%).²¹ As a result, many of those without coverage report serious financial consequences, such as being contacted by a collection agency for unpaid bills, depleting their savings, or borrowing money in order to pay their medical bills.²²

People with low incomes are also more vulnerable than those with higher incomes and have trouble gaining or maintaining insurance because they are prone to more changes in family structure and employment status and are less likely to have employee-covered insurance. For example, a survey of employers with large numbers of entry level jobs reported less than half of the employers offered health benefits, and only 6% provided coverage immediately; even among those companies that offered health benefits, one-quarter covered 50% or less of the cost.²³ To further compound this problem, low-income people often have trouble obtaining – and remaining eligible for – public funded coverage, such as through Medicaid and the Children’s Health Insurance Program, due to restrictive income and asset eligibility limits and other procedural barriers.²⁴ Thus, low-income workers are stuck between a rock and a hard place – by working in low-wage jobs, they are less likely to have health benefits and typically cannot afford private coverage, yet they may have income and assets above the allowed levels for public assistance.

Despite the importance of assets, low-income families, who often live from one paycheck to the next, have enough difficulty satisfying their immediate needs with their limited incomes, let alone having enough to save for the future. Furthermore, many low-income people lack access to traditional financial services. About 9% of all U.S. families were “unbanked” in

²¹ Machlin, Steven et al. *Health Care Expenses in the Community*.

²² Ku and Cohen Ross. *Staying Covered*, p. 7.

²³ Venner et al. *State investments in Income and Asset Development for Poor Families*, p. 5.

²⁴ Ku and Cohen Ross. *Staying Covered*, p. vii.

2001,²⁵ meaning that they have never had a bank account; this percentage is much higher for low-income, younger, non-white or Hispanic families.²⁶ While there are ways the U.S. government subsidizes savings and assets through tax incentives to save for retirement, invest in college, or buy a home, it is rare that low-income people can take advantage of these opportunities in the same way that middle-class and wealthier Americans do because they are in too low income brackets to qualify for these incentives. For example, recent data on defined-contribution savings (i.e. 401(k)s and IRAs) show that lower-income workers have significantly lower participation rates, contribution rates, and levels of retirement savings compared to their wealthier counterparts.²⁷

Individual Development Accounts are a policy instrument designed to alleviate this problem by providing opportunities for the poor to save and accumulate assets. Accountholders make regular contributions of earned income into savings accounts and receive a match from the IDA program for their savings with the goal of ultimately purchasing a long-term asset. IDA programs create and monitor these savings accounts, as well as provide case management, support services, financial literacy training, and asset-specific training for eligible low-income individuals and families. Programs are typically operated by nonprofit social service agencies and financial institutions and are funded by foundations, corporations, and government entities.

Since the concept of the IDA was introduced just over a decade ago, this innovative anti-poverty strategy has increasingly gained the recognition of policymakers and social service providers across the country. Since 1993, thirty-four states, the District of Columbia, and Puerto Rico have passed IDA legislation.²⁸ It is estimated that about 20,000²⁹ IDA accounts and at least

²⁵ Caner and Wolff. *Asset Poverty in the United States*, p. 5.

²⁶ Hogarth, Beverly, and Hilgert. *Patterns of Financial Behaviors*, p. 3.

²⁷ Boshara, et al. *Policy Options to Encourage Savings and Asset Building by Low-Income Americans*, p. 3.

²⁸ Edwards and Mason. *State Policy Trends for Individual Development Accounts*, p. 1.

500 community-based IDA programs have been established throughout the United States.³⁰ The “Assets for Independence Act” was passed in 1998 to establish a federal demonstration project to support IDA programs.³¹ Two other federal policies – Temporary Assistance for Needy Families and Community Development Block Grant – approve uses of these funds for IDAs, including the match funding. Additionally, two national policies related to IDAs were recently proposed – the ASPIRE Act” and “Savings for Working Families Act.”³²

In addition to the creation of policies and programs utilizing the IDA tool, several research evaluations and studies have been conducted to further explore program and participant outcomes – the American Dream Demonstration (ADD),³³ Family Assets for Independence in Minnesota (FAIM),³⁴ Michigan IDA Partnership (MIDAP),³⁵ North Carolina Individual Development Account Evaluation,³⁶ Native American Savings and Asset Accumulation in Individual Development Accounts,³⁷ and the Assets for Independence Act Evaluation (final report forthcoming).³⁸

The American Dream Demonstration is the first and largest systematic study of Individual Development Account programs. In the ADD, the approximately 56% of participants

²⁹ While gratifying, this number represents well below one percent of the eligible population. Boshara, et al. *Policy Options for Achieving an Ownership Society for All Americans*, p. 7.

³⁰ Edwards and Mason. *State Policy Trends for Individual Development Accounts*, p. 1.

³¹ Assets for Independence (AFI) within the U.S. Department of Health and Human Services has provided over 300 grants to nonprofits and state, local, and tribal government agencies to implement an IDA program.

³² The ASPIRE Act, which would provide every child with an account at birth that would be endowed with \$500 and supported with progressive, targeted savings incentives until age 18, was introduced in July 2004 and is scheduled for reintroduction early in the 109th Congress. The Savings for Working Families proposal, which in the past had been stand-alone bi-partisan legislation, would authorize tax credits to financial institutions that set-up and matched the IDAs of 300,000 persons over a seven-year period, is now part of the CARE Act, which will not include the IDA tax credit. Boshara, et al. *Policy Options for Achieving an Ownership Society for All Americans*, pp. 3, 7.

³³ Schreiner, Mark, et al. *Saving Performance in the American Dream Demonstration: Final Report*.

³⁴ Grinstein-Weiss, Michal, et al. *Family Assets for Independence in Minnesota Research Report*.

³⁵ Losby and Robinson. *Michigan IDA Partnership Year Three Program Evaluation Report*.

³⁶ Gorham, Lucy, et al. *Low-Income Families Building Assets: Individual Development Account Programs*.

³⁷ Burke, Carey. *Native American Savings and Asset Accumulation in Individual Development Accounts*.

³⁸ Mills, Greg, et al. *Assets for Independence Act Evaluation: Interim Evaluation Report*.

with net deposits of \$100 or more were designated as “savers.”³⁹ The average participant had total net deposits of \$528 and total net deposits plus match averaged \$1543 compared to non-IDA savers whose savings account balance was an average of \$269 and checking account balance of \$281. The average participant had average monthly net deposits of \$19.07.

As mentioned above in the “Limitations of Previous Research” section, participant health insurance and health care needs have only been marginally examined in previous evaluations of IDAs. The results of those studies are provided here. First, in the American Dream Demonstration, people with health insurance are almost 9 percentage points more likely to be “savers” than are people without health insurance; this is a substantively and statistically significant effect, increasing the saver rate from 56% to 65%.⁴⁰ The ADD researchers hypothesized this effect could be because people with insurance need not self-insure by keeping a stash of ready cash available in case they have to go to the emergency room and can instead allow people to save in illiquid forms such as IDAs.⁴¹ Also using ADD data to research the effect of IDA program match rates, Schreiner shows that the “probability of being a saver” increased by 6.4 percentage points for those with health insurance.⁴² However, this finding was not statistically significant at conventional levels with a p-value of 0.16.⁴³ Another study, the Family Assets for Independence in Minnesota (FAIM) pilot project, explored the effects of IDAs in rural communities. In this analysis, researchers noted that having health insurance was statistically associated with \$5.18 higher average monthly net deposits ($p=.029$) and hypothesized that the explanation for this finding is that “those participants who do not have

³⁹ Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 3.

⁴⁰ Schreiner, Mark, et al. *Saving Performance in the American Dream Demonstration: Final Report*, pp. 44-45.

⁴¹ Schreiner, Mark, et al. *Saving Performance in the American Dream Demonstration: Final Report*, pp. 44-45.

⁴² Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, p. 34.

⁴³ Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, p. 34.

health insurance may have less money to save because of out-of-pocket health expenditures.”⁴⁴

ADD researchers comment that health insurance coverage also has a positive effect (\$2.30) on AMND, but the effect was not statistically significant (71% confidence).⁴⁵

Also related to health care, there is qualitative and quantitative evidence that access, quality, and affordability of medical care can be hardships for IDA participants. In particular, medical emergencies, expenses, and prior medical debt are significant barriers to successful savings outcomes. First, using ADD data to examine the effect of IDA program match rates, Schreiner reports that 18% of participants had late medical bills; the effect of each \$1 in overdue medical bills debt decreased the net deposits made per month by \$2.98.⁴⁶ Next, when 100 former Michigan IDA Partnership (MIDAP) participants were asked if they were struggling to have medical care, more non-graduates than graduates from IDA programs rated access to medical care as a problem – 46% of non-graduates found it to be a problem, while only 30% of graduates felt the same way.⁴⁷ When asked about the quality of health care they can afford, 68% of graduates were satisfied, while 32% were dissatisfied. Of non-graduates, 78% were satisfied, and 22% dissatisfied, though this finding was not statistically significant.⁴⁸ Similarly, in the North Carolina Individual Development Account Evaluation, when former participants were asked to rate the importance of various factors in their leaving the program before completing their goals, illness was rated as very important by 37% and as somewhat important by 42% of the drop-outs; only 11% viewed this factor as not important in their decision.⁴⁹ The fact that graduates of IDA programs rated health care access, quality, and medical problems as less

⁴⁴ Grinstein-Weiss and Curley. *Individual Development Accounts for Rural Communities*, p. 7.

⁴⁵ Schreiner, Mark, et al. *Saving Performance in the American Dream Demonstration: Final Report*, pp. 44-45.

⁴⁶ Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, pp. 20, 33.

⁴⁷ Losby and Robinson. *Michigan IDA Partnership Year Three Program Evaluation Report*, p. 12.

⁴⁸ Losby and Robinson. *Michigan IDA Partnership Year Three Program Evaluation Report*, p. 14.

⁴⁹ *Low-Income Families Building Assets: Individual Development Account Programs*, p. 47.

problematic than non-graduates indicates that they were perhaps better able to handle their medical needs and expenses and could thus successfully complete the program. On the other hand, both difficulties accessing quality health care and illness were savings obstacles and determinants of attrition for non-graduates.

Even more disturbing than the evidence that IDA participants struggle to access affordable, quality health care and experience late medical bills is the finding that IDA participants postpone going to a doctor as a savings strategy. About 17% of respondents of a cross-sectional survey (n=318) of current and former ADD participants and nearly one quarter of both graduates and non-graduates in the MIDAP interview sample (n=100) said that they postponed doctor or dental visits in order to save in their IDA.⁵⁰ These findings show that obtaining quality health care can be a hindrance to IDA participants, especially those who remain in the program and find they have to spend less on medical expenses in order to do so (i.e. purchase lesser quality health care and/or lower quantity of health care by postponing doctor's visits). Clearly, individuals should not have to sacrifice their health – or choose between medical expenses and saving in an IDA – in order to build assets.

Previous evaluations have more extensively explored the role of key participant characteristics, such as income, assets, liabilities, and exogenous traits, in determining IDA savings outcomes. In the ADD, income is not associated with being a saver or net deposits in IDAs, indicating that even those with very low incomes save as successfully as others.⁵¹ Moreover, drop out depends more on previous debt than on income. In fact, very-low-income participants save at a higher rate relative to their income.⁵² Those with existing assets, including

⁵⁰ Moore et al., *Saving, IDA Programs, and Effects of IDAs: A Survey of Participants*, p. 17; Losby and Robinson. *Michigan IDA Partnership Year Three Program Evaluation Report*, p. vii.

⁵¹ Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 4.

⁵² Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 4.

home ownership, car ownership, land or property ownership, and financial investments were more likely to be “savers” and have higher net deposits, especially if they were debt-free.⁵³

These findings could signal that participants are shifting other assets into IDAs, or that those who are already successful savers for the aforementioned assets are also better at IDA saving.⁵⁴ In contrast, those participants with debt were more likely to drop out, potentially because these participants had greater pressure on cash flows and/or had fewer savings to shift into IDAs.⁵⁵

Other participant characteristics, such as marital status, education status, race/ethnicity, age, location, rural/urban residence, and prior relationship with host organization were also correlated with savings outcomes. ADD researchers also note that unobserved participant characteristics, such as having a high “propensity to save,” may also affect savings outcomes, although they attempted to control for these unobserved factors.⁵⁶ In addition, previous research has revealed that certain IDA program features appear to improve savings outcomes, including higher match rates, monthly savings goals or targets, the number of hours of financial education (up to a point), and a structured program with incentives, information, and facilitation.⁵⁷

Data and Sample

The data that is used in this study was collected from programs that participated in the American Dream Demonstration (ADD) pilot program.⁵⁸ ADD is a demonstration of IDAs in fourteen programs across the United States. It ran for four years (1997-2001) and the data were

⁵³ Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 4.

⁵⁴ Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 4.

⁵⁵ Schreiner and Sherraden. *Drop-out From Individual Development Accounts*, p. 6.

⁵⁶ Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, p. 2.

⁵⁷ Sherraden, Michael. *Individual Development Accounts: Summary of Research*, p. 3.

⁵⁸ The Corporation for Enterprise Development (CFED) in Washington, D.C., designed and guided the ADD. The Center for Social Development (CSD) at Washington University in St. Louis designed the research and the MIS IDA management information system for data collection.

collected over the course of seven years (1997-2003).⁵⁹ I used the most recent enrollment data available that contains updates current through November 2003. Program staff in ADD collected data with a software package designed to help them manage IDAs. The system recorded account-structure parameters at start-up, participant demographic and economic data at enrollment, and IDA cash flows in each month. The cash flow data come from bank records.

From 1997 to 2003, the American Dream Demonstration had 2,350 participants enrolled in fourteen IDA programs. In order to examine only those participants who answered the question regarding health insurance status, I first dropped each observation that did not respond to this question; thus, my data sample includes 1855 participants. Additionally, I created “missing” indicator variables for independent variables when numerous observations were missing to take advantage of each of the 1855 participants that answered this question.

Those individuals with household income under 200% of poverty were eligible to participate in the ADD.⁶⁰ All programs provided matches for home purchase, post-secondary education, and small business, and some also provided matches for job training, home repair, and retirement saving.⁶¹ The mean (and median) match rate is about 2:1, with a low of 1:1 (27% of participants); six percent of participants in ADD have a match rate between 4:1 and 7:1.⁶² ADD participants held their IDAs as passbooks accounts in banks or credit unions. Participants were also required to attend financial education classes.

In Table 1, I present descriptive statistics on the health insurance status, income, and asset levels of participants in my ADD sample in order to show the disadvantaged status of this

⁵⁹ Schreiner, et al. *Saving Performance in the American Dream Demonstration: Final Report*, p. iii.

⁶⁰ Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, p. 18.

⁶¹ Schreiner, Mark. *Match Rates, Individual Development Accounts, and Saving by the Poor*, pp. 5-6.

⁶² The match rate is the number of dollars disbursed by the IDA program to a vendor for each dollar withdrawn in a matched withdrawal. The match rate may vary among participants in a given program, so the average match rate is taken not across programs but across participants. Schreiner, Mark, et al. *Saving Performance in the American Dream Demonstration, Final Report*, p. 3.

sample and the importance of creating a bank account, saving, and acquiring an asset through an IDA for improving participants' economic security. The high level of liabilities, especially medical debt, indicates that this population has costly health care needs and clearly struggles to purchase this care. Approximately 66% of participants in this sample had health insurance. The average monthly household income of participants was about \$1,514 with a standard deviation of \$897. The average total assets for participants in the sample were \$19,662 with a standard deviation of \$37,640; the average net worth was \$4,994 with a standard deviation of \$25,123. At enrollment, 22% of participants owned a home, a significantly lower rate than both the national homeownership rate of 68% and the minority homeownership rate of 49%.⁶³ Thirteen percent reported small-business assets or self-employment income. Compared to almost 90% of all U.S. households, only 70% of my sample had a checking account.⁶⁴

Also shown in Table 1 is information about participant liabilities. Seventy-seven percent of the IDA participants in my sample had some type of previous debt. The mean amount of total debt was \$14,690 with a maximum of \$272,700. Specifically, 26% of this sample had medical debt or loans, a higher percentage than for any other category of debt; the average amount of debt for these individuals was \$568 with a standard deviation of \$4,382. The maximum amount of medical debt by any participant was \$150,000, which was second largest category of debt after homeownership debt. After medical debt, the next two most frequently experienced categories of debt were education and home debt – two of the most typical asset goals. Twenty percent of the sample experienced education (student loans) debt, followed closely by 18% of participants with home debt. About 2% of participants reported business debt obligations.

⁶³ Both homeownership rates were all-time highs in 2004. *Department of Housing and Urban Development Overview*.

⁶⁴ Board of Governors of the Federal Reserve System.

Table 1: Participant Insurance, Assets, and Liabilities

	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Min.</i>	<i>Max.</i>
<i>Insurance Status</i>						
Health insurance	1855	0.66	0.47	1	0	1
<i>Income and Assets</i>						
Total assets	1855	196.62	376.40	35.00	0	4270.00
Total monthly income	1855	15.14	8.97	13.940	0	67.60
Net worth	1784	49.94	251.23	6	-2305.50	3490.00
Have checking account	1855	0.69	0.46	1	0	1
Homeowners	1855	0.22	0.42	0	0	1
Small business owners	1855	0.13	0.34	0	0	1
<i>Presence of Debt</i>						
Medical debt	1855	0.26	0.44	0	0	1
Home mortgage debt	1852	0.18	0.38	0	0	1
Student loans	1854	0.20	0.40	0	0	1
Business debt	1852	0.02	0.15	0	0	1
Total with any debt	1822	0.77	0.42	1	0	1
<i>Amount of Debt</i>						
Medical debt	1855	5.98	43.82	0	0	1500.00
Home mortgage debt	1853	80.94	217.19	0	0	1850.00
Student loans	1852	21.93	88.29	0	0	1400.00
Business debt	1852	2.85	43.26	0	0	1300.00
Total amount of debt	1855	146.91	264.45	38.00	0	2727.00

Table 2 provides information for the six dependent variables explored to see the baseline of IDA participant outcomes in this sample. Sixty-two percent this ADD sample saved \$100 or more and are thus designated as “savers.” The average monthly net deposit was \$18.12, while the average cumulative deposit amount over the duration of program involvement was \$624. Thirty-four percent of participants exited the IDA program due to drop out and 24% successfully finished it. Additionally, 40% made an asset purchase with their IDA savings and match.

Table 2: Dependent Variables

	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Min.</i>	<i>Max.</i>
Saver	1855	0.62	0.49	1	0	1
Average monthly net deposit	1855	18.12	20.06	12.50	-3.91	153.85
Gross deposits in IDA	1855	624.01	747.24	411.66	-140.76	6000.00
Drop out of IDA program	1855	0.34	0.47	0	0	1
Finished IDA program	1855	0.24	0.43	0	0	1
Made asset purchase	1855	0.40	0.49	0	0	1

In Table 3, I present the descriptive statistics for each key dependent variable by health insurance status. Of those who achieved successful outcomes by being savers, finishing the program, and making an asset purchase, the majority – about 67-68% – had health insurance. However, of those who dropped out, fewer participants – 62% – had health coverage. These discrepancies of IDA outcomes by health insurance status perhaps indicate that insurance operates as a savings mediator and regression analysis is necessary to further explore this relationship.

Table 3: Cross Tab of Dependent Variables by Health Insurance Status

	Frequency Row Percent	<i>N</i>	<i>Without Health Insurance</i>	<i>With Health Insurance</i>
Saver		1148	363 31.62	785 68.38
Drop out of IDA Program		637	243 38.15	394 61.85
Finished IDA Program		441	146 33.11	295 66.89
Made asset purchase		741	235 31.71	506 68.29

In Table 4, I show the rates of insurance coverage for IDA participant sub-groups in order to discern whether some groups have better likelihoods of having coverage versus which ones might be more prone to being uninsured. This also serves as an indicator for which sub-groups the impact of health insurance might vary during regression analysis. Females are more likely than males to have insurance in this sample. Asian American participants have the highest coverage rates in the sample, followed by Caucasians and African Americans; Native Americans, Latinos, and other ethnicities are the most likely to lack insurance. Divorced/separated and married participants have higher coverage rates than those who are single and widowed, perhaps because the latter lack the support of a second income. Rural participants are more likely to have

insurance than their urban counterparts. Medical debt is problematic for both those participants who are insured and uninsured.

Table 4: Cross Tab of Key Independent Variables by Health Insurance Status

Frequency Row Percent	<i>N</i>	<i>Without Health Insurance</i>	<i>With Health Insurance</i>
Male	372	145 38.98	227 61.02
Female	1483	481 32.43	1002 67.57
Caucasian	682	220 32.26	462 67.74
African American	895	290 32.40	605 67.60
Asian American	37	9 24.32	28 75.68
Latino	143	63 44.06	80 55.94
Native American	49	21 42.86	28 57.14
Other	49	23 46.94	26 53.06
Single	883	323 36.58	560 63.42
Married	417	134 32.13	283 67.87
Divorced/Separated	505	150 29.70	355 70.30
Widowed	41	17 41.46	24 58.54
Non-rural	1609	572 35.55	1037 64.45
Rural (pop. 2,500 or less)	246	54 21.95	192 78.05
Have medical debt	484	183 37.81	301 62.19

Methodology Section

I estimate the six dependent variables as functions of participant and program characteristics using SAS to test my hypotheses; I use STATA to calculate the marginal effects for coefficient estimates of probit models. For my first outcome, I use the probit technique to examine the “probability of being a saver” where the dependent variable indicates whether the participant saved above or below \$100.⁶⁵ The second dependent variable, “average monthly net deposits” (AMND), tracks all net deposits up to the match cap and represents the average amount a participant made into his or her Individual Development Account during each month of participation. I use the OLS regression technique to test the hypothesis in this model. For my third dependent variable, I again use the OLS technique to estimate “gross deposits,” which represents the cumulative amount deposited into one’s IDA plus interest, but not including fees, unmatched withdrawals, and excess balances. For outcomes 4 and 5, two indicator variables reveal the reasons IDA participants leave the program – either due to dropping out or finishing.⁶⁶ Participants, who exited without having made a matched withdrawal because they lost interest, were unable to save, or violated program rules, were marked as “drop out.” If they met their IDA savings goal and made a matched withdrawal, they were coded as “finished,” even if they also had unmatched withdrawals. If participation has yet to end, then all the indicators are coded as zero. I run two separate probit regressions for each these exit possibilities. For outcome 6, I create an indicator variable, “asset purchase,” that indicates whether participants successfully made an asset purchase with their savings and match funds. Those who made any number or type of asset purchase(s) as indicated by the “uses of withdrawal” variables are coded as a “1”

⁶⁵ Sherraden labels those IDA participants with net deposits of \$100 or more as “savers.” *Individual Development Accounts: Summary of Research*, p. 3.

⁶⁶ A third indicator variable, “ineligible,” represents an alternative reason for exiting the program; however, none of the 2,350 participants in the ADD demonstration were coded as ineligible.

whereas those who did not make any withdrawals for an asset purchase were assigned a “0.” My analytical technique for outcome 6 is probit.

I estimate separate regressions for each of the six savings outcomes: Probability of Being a Saver, AMND, Gross Deposits, Drop Out from IDA Program, Finished IDA Program, and Asset Purchase. For each outcome, I estimate five model specifications and add additional categories of independent variables until I build the following “complete regression model” (see Figure 2) and test the hypothesis that $\beta_1 \text{Health insurance} \neq 0$.

Figure 2: Complete Regression Model

$$\text{Savings Outcome} = \beta_0 + \beta_1 \text{Health Insurance} + \text{Exogenous Participant Demographics} \beta_2 + \text{Key Program Characteristics} \beta_3 + \beta_4 \text{Medical Debt} + \text{Endogenous Participant Characteristics \& Other Program Features} \beta_6 + \mu$$

Specification A is a simple regression testing the impact of health insurance on each dependent variable. Specification B includes health insurance and the exogenous participant characteristics: gender, age, urban/rural residence, race/ethnicity, marital status, highest education completed, employment status, number of adults in household, and number of children in household. Then, in Specification C, I additionally include key program characteristics, including the amounts of financial and asset-specific education completed by a participant, direct deposit, match rate, match cap amount, presence of a lifetime match cap, and time cap in months. In Specification D, I add the presence of medical liabilities to Specification C; “Medical Debt” is

an indicator variable expressing whether a participant has overdue medical bills.⁶⁷ My “complete regression model” is Specification E, in which I add the remaining key participant and program features to the model that are potentially endogenous and may be determined jointly with health insurance status, including education, employment status, total monthly income, total assets, total liabilities, former TANF or AFDC status, current TANF status, current food-stamp status, and current SSI/SSDI status, and life insurance, and whether the participant was an employee of the organization that operated the IDA program, had a prior relationship with the host organization, or was referred to the program through a partner organization (see Figure 2).

Also, I estimate five additional specifications (F through K) to determine whether the impact of health insurance on savings outcomes varies for participant sub-groups. For these specifications, I start with Specification D and separately include categories of interaction variables between health insurance and the following exogenous characteristics: gender in Specification F; age in Specification G; rural residence in Specification H; various marital statuses in Specification I; household structure – the number of adults and the number of kids that live with the IDA participant in Specification J; ethnicity/race in Specification K.

⁶⁷ Medical debt also serves as a proxy for the participant having trouble meeting their healthcare needs and costs since there is no variable for health status or out-of-pocket medical expenses in the ADD data set.

Results Section

Consistent with my hypotheses, health insurance operates as a mediator for IDA savings outcomes. Participants with health insurance are more likely to be savers; make higher average monthly net deposits and cumulative deposits throughout program participation; are less likely to drop out of the IDA program prior to completion; and are more likely to make an asset purchase.

Although I test ten specifications for each of the six outcomes, I only present the results for the first five specifications (A through E) in their respective tables below and instead comment only on the statistically significant estimates found in Specifications F through K. This discussion focuses on the coefficient estimates and marginal effects calculated in Specification D for each outcome, which controls for health insurance, medical liabilities, exogenous participant characteristics, and key program characteristics because it is the most complete model that consistently yields statistically significant results.⁶⁸ In each box, the coefficient estimate is the top number, followed by the p-value. For the binary dependent variables – saver, drop out, finished, and asset purchase (outcomes 1, 4, 5, and 6) – in which the probit technique is utilized, I additionally calculate and present the marginal effects for each estimate to show the percentage point change in the probability of being a saver that results from a change in health insurance status, i.e. having insurance versus not having it. In these cases, the top and bottom numbers in each box remain the coefficient estimate and the p-value, respectively; the middle number reports the marginal effect. A gray-shaded box indicates the coefficient estimate is statistically significant at any of the three conventional levels: 90%, 95%, or 99%. A 90% confidence level ($p \leq .10$) for the coefficient estimate is indicated by a single asterisk (*); a 95% confidence level ($p \leq .05$) by two asterisks (**); and a 99% confidence level ($p \leq .01$) by three asterisks (***)

⁶⁸ Perhaps the most “complete regression model” (Specification E) over-controls by including so many variables and thus does not produce statistically significant results.

Outcome 1 – Probability of Being a Saver

Table 5 presents the estimates of the probability of being a saver in an Individual Development Account. In each instance in which the coefficient estimate for health insurance is statistically significant, the sign of the estimate is positive, revealing that insurance increases the probability of being a saver. In Specifications A through D, the coefficient estimate for health insurance is positive and statistically significant. In Specification D, a change in coverage status increases the probability of being a saver 6 percentage points from the mean of 62% to 68%. However, in Specification E, which controls for all key program and participant characteristics, the coefficient estimate decreases in magnitude and is no longer statistically significant.

Table 5: Outcome 1 – Probability of Being a Saver (Probit)

Coefficient estimate Marginal effect P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	0.20 ***p<.0001	-0.23 p=0.1745	-0.55 **p=0.0349	-0.48 *p=0.0660	-0.99 ***p=0.0042
<i>Health insurance</i>	0.15 ME=0.06 **p=0.0138	0.19 ME=0.07 ***p=0.0034	0.17 ME=0.07 **p=0.0121	0.1656 ME=0.06 ***p=0.0167	0.07 ME=0.03 p=0.3690
<i>Medical loans/debt</i>	–	–	–	-0.1828 ME=-0.07 ***p=0.0131	-0.1521 ME=-0.06 **p=0.0476
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program Characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Log likelihood</i>	-1229.83	-1162.15	-1067.68	-1064.61	-998.59
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Outcome 2 – Average Monthly Net Deposit

Table 6 presents the results of examining whether having health insurance is correlated with the dollar amount of a participant’s average monthly net deposit (AMND) into his or her Individual Development Account. In Specification A through E, each of the coefficient estimates for health insurance is statistically significant at the 95% or 99% confidence levels. In Specification D, the results reveal that participants with health insurance have an average monthly net deposit that is \$2.54 larger than those without health insurance, an increase of 14% above the mean AMND of \$18.12.

Table 6: Outcome 2 – Average Monthly Net Deposit (OLS)

Coefficient estimate P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	16.57 ***p<.0001	17.11 ***p<.0001	20.51 ***p<.0001	21.85 ***p<.0001	15.47 ***p<.0001
<i>Health insurance</i>	2.34 **p=0.0178	3.09 ***p=0.0010	2.66 ***p=0.0018	2.54 ***p=0.0028	1.75 **p=0.0515
<i>Medical loans/debt</i>	–	–	–	-3.47 ***p=0.0001	-2.66 ***p=0.0028
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Model F</i>	5.63 **p=0.0178	20.32 ***p<.0001	36.56 ***p<.0001	35.91 ***p<.0001	22.13 ***p<.0001
<i>R²</i>	0.01	0.14	0.32	0.32	0.38
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Outcome 3 – Gross Deposits in IDA over Duration of Program

In Table 7, I present the estimates of whether having health insurance is correlated with the total dollar amount a participant deposits in his or her Individual Development Account throughout the duration of the IDA program. The coefficient estimate for health insurance is statistically significant at the 95% or 99% confidence levels in each of the Specifications A through E. In Specification D, those participants with health insurance contribute \$94.51 more than their counterparts without such insurance, increasing 15% above the mean cumulative deposit amount, \$624, to \$718.51.

Table 7: Outcome 3 – Gross Deposits in IDA over Duration of Program (OLS)

Coefficient estimate P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	564.41 ***p<.0001	555.92 ***p<.0001	82.33 p=0.4621	131.31 p=0.2421	-93.91 p=0.4963
<i>Health insurance</i>	89.96 ***p=0.0142	119.97 ***p=0.0006	98.98 ***p=0.0011	94.51 ***p=0.0017	73.49 **p=0.0216
<i>Medical loans/debt</i>	–	–	–	-126.46 ***p<.0001	-93.88 ***p=0.0031
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Model F</i>	6.03 ***p=0.0142	20.33 ***p<.0001	47.61 ***p<.0001	46.61 ***p<.0001	27.69 ***p<.0001
<i>R²</i>	0.01	0.13	0.37	0.38	0.43
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Outcome 4 – Probability of Drop Out from IDA Program

In Table 8, I present the results of examining the probability of drop out from an IDA Program before making a matched withdrawal for an asset purchase. Since the sign of each specification’s health insurance coefficient estimate is negative, participants with health insurance are *less* likely to drop out from the IDA program prior to completion than those without insurance. Each coefficient estimate for health insurance is statistically significant at the 99% confidence level in Specifications A through D. In Specification D, having health insurance as a support mechanism is correlated with a 7 percentage point or 20% decrease in the probability of drop out, decreasing the average attrition rate from 34% to 27%. However, in Specification E, which controls for all relevant program and participant characteristics, the coefficient estimate decreases in magnitude and is no longer statistically significant.

Table 8: Outcome 4 – Probability of Drop Out from IDA Program (Probit)

Coefficient estimate Marginal effect P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	-0.2841 ***p<.0001	0.14 p=0.3945	0.33 p=0.2130	0.28 p=0.2933	0.83 **p=0.0175
<i>Health insurance</i>	-0.18 ME=-0.07 ***p=0.0039	-0.21 ME=-0.08 ***p=0.0013	-0.20 ME=-0.07 ***p=0.0037	-0.19 ME=-0.07 ***p=0.0050	-0.07 ME=-0.02 p=0.3915
<i>Medical loans/debt</i>	–	–	–	0.14 ME=0.05 *p=0.0607	0.14 ME=0.04 p=0.1432
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Log likelihood</i>	-1189.09	-1129.13	-1047.87	-1046.12	-975.24
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Outcome 5 – Probability of Finishing IDA Program

Outcome 5 tests whether having health insurance is correlated with the probability of finishing an IDA program. The coefficient estimates for health insurance are not statistically significant in any of the Specifications A through E because the magnitudes of the estimates are very small (see Table 9). Thus, it is not clear whether insured participants are *more* or *less* or *equally* likely to finish their participation than those lacking insurance. Alternatively, health insurance might not be statistically related to completing the IDA program at all. A potential reason for inconclusive findings is the insufficient number of “finished” observations to analyze – only 23% of the sample had already finished. However, that this outcome is inconclusive is not disturbing because the alternative reason for exit – drop out – is statistically significant. This variable could be explored further when more complete data is available and to determine if there are other key variables that have been omitted from my model that are biasing the results.

Table 9: Outcome 5 – Probability of Finishing IDA Program (Probit)

Coefficient estimate Marginal effect P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	-0.73 ***p<.0001	-0.73 ***p<.0001	-0.43 *p=0.1095	-0.31 p=0.2494	-0.24 p=0.7405
<i>Health insurance</i>	0.02 p=0.7446	0.04 p=0.5356	0.02 p=0.7405	0.01 p=0.8508	-0.08 p=0.3500
<i>Medical loans/debt</i>	–	–	–	-0.2883 ME=-0.08 ***p=0.0004	-0.27 ME=-0.07 ***p=0.0017
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program Characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Log likelihood</i>	-1017.33	-969.64	-919.94	-913.62	-851.52
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Outcome 6 – Probability of Making an Asset Purchase

I present the results of examining the probability of making an asset purchase with one's IDA savings and match funds in Table 10. In each instance in which the coefficient estimate for health insurance is statistically significant, the sign of the estimate is positive, indicating that health coverage increases the probability of achieving one's asset goal. Although the coefficient estimate for health insurance is only nearly statistically significant in the simplest regression I calculated in Specification A, the estimate for health insurance is statistically significant in the multivariate regressions in Specifications B, C, and D. This change in significance is a result of the increase in the coefficient estimate from a very small magnitude in Specification A to more substantial magnitudes in Specifications B, C, and D. In Specification D, there is almost a 5 percentage point increase in the probability of asset purchase for participants with health insurance. As a result of this positive effect, the average probability of making an asset purchase is raised from 40% to 45% when a participant has health insurance. However, in Specification E, which controls for all key program and participant characteristics, the coefficient estimate for health insurance is again very small in magnitude and is no longer statistically significant.

Table 10: Outcome 6 – Probability of Making an Asset Purchase (Probit)

Coefficient estimate Marginal effect P-value	<i>Specification A</i>	<i>Specification B</i>	<i>Specification C</i>	<i>Specification D</i>	<i>Specification E</i>
<i>Intercept</i>	-0.32 ***p=<.0001	-0.42 ***p=0.0123	-0.64 ***p=0.0127	-0.58 **p=0.0268	-0.94 ***p=0.0066
<i>Health insurance</i>	0.09 ME=0.04 p=0.1306	0.13 ME=0.05 **p=0.0447	0.12 ME=0.05 *p=0.0728	0.12 ME=0.05 *p=0.0875	-0.002 ME=-0.01 p=0.9798
<i>Medical loans/debt</i>	–	–	–	-0.18 ME=-0.07 ***p=0.0177	-0.15 ME=-0.06 **p=0.0569
<i>Exogenous participant characteristics</i>	–	Yes	Yes	Yes	Yes
<i>Key IDA program characteristics</i>	–	–	Yes	Yes	Yes
<i>Other key variables</i>	–	–	–	–	Yes
<i>Log likelihood</i>	-1246.89	-1160.50	-1055.82	-1052.99	-975.29
<i>N</i>	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Effect of Health Insurance on Savings Outcomes for Participant Sub-groups

In addition to calculating the impact of health insurance status on savings outcomes, I explored whether this effect varies by participant characteristics. Overall, it appears that the role of health insurance does not affect different participants in diverse ways. However, for some sub-groups, health insurance status does play a statistically unique role in their IDA outcomes, altering the likelihood of success by 26% to 75% depending on the outcome and sub-group. Potential explanations for this variation are that certain sub-groups are more vulnerable due to life circumstances, making them more likely than those more advantaged to experience savings barriers, have poor health outcomes, and/or lack extra unobservable support mechanisms. For some sub-groups, health insurance is enough of a savings mediator to boost their performance, while others are still too disadvantaged to have insurance significantly improve their outcomes.

Specifically, I find that compared to non-rural IDA participants, rural participants with health insurance have a 16 percentage point or 26% decrease in the probability of being a saver (outcome 1) from 62% to 46%. For AMND, gross deposits, and asset purchase (outcomes 2, 3, and 6), widowed participants benefit more from having insurance compared to their single counterparts – they have \$10.97 or 61% higher average monthly net deposits, make \$402.84 or 65% larger cumulative deposits, and are 30 percentage points or 75% more likely to make an asset purchase than single participants with insurance, showing that health insurance can be an significant support for this sub-group. Of those with insurance, females are nearly 11 percentage points or 32% more likely to drop out (outcome 4) than males (23% compared to 34%). Finally, divorced or separated participants with insurance are 8 percentage points or 33% less likely to finish (outcome 5) than single participants (16% compared to 24%), indicating that this group might face savings barriers for which health insurance cannot compensate.

Effect of Medical Loans and Debt on Savings Outcomes

A related variable of interest, indicating whether a participant has any medical loans and debt, is significantly correlated with each of the savings outcomes that I explore. Not surprisingly, medical loans and debt have a negative influence on success rates for IDA participants. First, there is a 7 percentage point or 11% decrease in the probability of a participant being a saver with respect to a change in medical debt status from 62% to 55% (see Table 5). In addition, those with medical loans have an average monthly net deposit that is \$3.47 or 19% lower than those IDA participants without medical debt (see Table 6). Participants with medical debt deposit \$127 or 20% less than the average cumulative amount deposited (\$624) by their counterparts without this type of debt (see Table 7). Those with medical debt are also approximately 5 percentage points more likely (39% compared to the average drop out rate of

34%) to drop out of an IDA program and about 8 percentage points less likely (16% compared to an average completion rate of 24%) to finish than those without this savings barrier (see Tables 8 and 9 respectively). Furthermore, participants with this type of debt are 7 percentage points or almost 18% less likely (34% compared to an average asset purchase rate of 40%) to make asset purchases with their IDA savings and match funds (see Table 10). The large effect of medical debt on these savings outcomes should be addressed to prevent this barrier from interfering with participants IDA goals and success rates.

Effect of Other Key Variables on Savings Outcomes

During my analysis of whether health insurance impacts savings behaviors and outcomes in Individual Development Accounts, I also explored the role of other key factors on participant success. Table 11 presents the coefficient estimates for other variables of interest from Specification E for each outcome. Many of these estimates are consistent with previous research findings. For example, participant characteristics, such as gender, marital status, education status, race/ethnicity, age, location, rural residence, income, assets, and public assistance status were also correlated with savings outcomes. Of particular interest to IDA administrators are findings regarding program structure and features; match rate, match cap, direct deposit opportunities, and general financial and asset-specific education provided by the IDA programs were confirmed to yield positive results for participants.

Table 11: Complete Regression Model – Key Variables for each Savings Outcome

Coefficient estimate P-value	<i>Outcome 1: Saver</i>	<i>Outcome 2: AMND</i>	<i>Outcome 3: Gross Deposits</i>	<i>Outcome 4: Drop Out</i>	<i>Outcome 5: Finished</i>	<i>Outcome 6: Asset Purchase</i>
<i>Intercept</i>	-0.99 ***p=0.0042	15.47 ***p=<.0001	-93.91 p=0.4963	0.83 **p=0.0175	-0.24 p=0.7405	-0.94 ***p=0.0066
<i>Health insurance</i>	0.07 p=0.3690	1.75 **p=0.0515	73.49 **p=0.0216	-0.07 p=0.3915	-0.08 p=0.3500	-0.01 p=0.9798
<i>Medical loans/debt</i>	-0.15 **p=0.0476	-2.66 ***p=0.0028	-93.88 ***p=0.0031	0.11 p=0.1432	-0.27 ***p=0.0017	-0.15 **p=0.0569
<i>Female</i>	0.04 p=0.6397	-1.83 *p=0.0833	-67.93 *p=0.0708	-0.07 p=0.4621	-0.02 p=0.8022	-0.08 p=0.3866
<i>Age</i>	0.01 ***0.0133	0.13 ***p=0.0032	4.36 ***p=0.0040	-0.01 *p=0.0789	0.01 p=0.5489	0.01 p=0.2709
<i>Rural</i>	0.13 p=0.2719	-0.48 p=0.7139	-6.59 p=0.8871	-0.35 ***p=0.0031	0.05 p=0.6814	0.04 p=0.6998
<i>Married</i>	0.19 *p=0.0914	1.33 p=0.2861	22.21 p=0.6161	-0.24 **p=0.0299	0.23 **p=0.0440	0.21 **p=0.0525
<i>Latino</i>	0.19 p=0.1935	-0.83 p=0.6021	-13.67 p=0.8088	-0.42 ***p=0.0049	-0.45 ***p=0.0026	-0.23 *p=0.0859
<i>Native American</i>	-0.38 *p=0.0640	-8.26 ***p=0.0007	-302.22 ***p=0.0005	0.18 p=0.3809	-0.22 p=0.3244	-0.40 **p=0.0489
<i>Asian</i>	0.80 ***p=0.0106	7.43 ***p=0.0081	193.79 **p=0.0519	-0.79 ***p=0.0127	0.49 **p=0.0283	0.21 p=0.3819
<i>African American</i>	-0.19 **p=0.0209	-6.79 ***p=<.0001	-218.78 ***p=<.0001	0.00 p=0.9838	-0.40 ***p=<.0001	-0.41 ***p=<.0001
<i>Other ethnicity</i>	0.49 **p=0.0340	3.74 p=0.1253	145.46 *p=0.0940	-0.97 ***p=0.0004	0.03 p=0.8724	0.31 p=0.1347
<i>4-Year college graduate</i>	0.71 ***p=<.0001	7.63 ***p=<.0001	280.55 ***p=<.0001	-0.88 ***p=<.0001	0.20 p=0.1812	0.59 ***p=<.0001
<i>Total income</i>	0.01 p=0.2517	0.17 ***p=0.0009	5.42 ***p=0.0033	-0.01 p=0.4773	0.01 ***p=0.0041	0.01 ***p=0.0165
<i>Total assets</i>	0.01 ***p=<.0001	0.01 ***p=<.0001	0.28 ***p=<.0001	-0.01 ***p=0.0021	0.01 ***p=0.0156	0.01 ***p=0.0003
<i>TANF recipient</i>	0.18 p=0.1780	2.99 **p=0.0524	115.79 **p=0.0350	-0.09 p=0.4751	-0.17 p=0.2824	0.05 p=0.7200
<i>Asset-specific education</i>	0.01 *p=0.0619	0.01 p=0.7834	0.14 p=0.9318	-0.01 **p=0.0544	0.01 p=0.1210	0.01 *p=0.0774
<i>General financial education</i>	0.02 ***p=<.0001	0.21 ***p=0.0002	7.42 ***p=0.0001	-0.02 ***p=0.0003	0.02 ***p=0.0005	0.02 ***p=0.0020
<i>Match rate</i>	0.09 **p=0.0242	-0.02 p=0.9710	-17.19 p=0.3003	-0.10 ***p=0.0187	-0.01 p=0.8984	0.07 p=0.1108
<i>Match cap</i>	0.01 **p=0.0242	0.97 ***p=<.0001	0.42 ***p=<.0001	-0.01 **p=0.0202	-0.01 ***p=0.0117	0.00 p=0.7921
<i>Direct deposit</i>	0.18 p=0.2038	2.14 p=0.1592	69.29 ***p=0.19	-0.14 p=0.3138	-0.01 p=0.9279	0.15 p=0.2479
<i>Log likelihood or R²</i>	LL=-998.59	R ² =0.38	R ² =0.43	LL=-975.24	LL=-851.52	LL= -975.29
<i>N</i>	1855	1855	1855	1855	1855	1855

* = significant at 90% confidence level (p ≤ .10)

** = significant at 95% confidence level (p ≤ .05)

*** = significant at 99% confidence level (p ≤ .01)

☐ = if shaded, significant at any of these three confidence levels

Results Summary

In exploring the role of health insurance for Individual Development Account participants, I find that insurance operates as a significant mediator for savings and asset accumulation, increasing the likelihood of success by 10% to 20% depending on the outcome. Medical loans and debt, a related variable of interest, is also significantly correlated with each of the six savings outcomes, decreasing the likelihood of success by 11% to 34% depending on the outcome. Coefficient estimates and marginal effects from Specification D of each outcome are reported in Table 12. This knowledge that health insurance and medical debt significantly affects savings outcomes is critical for ensuring IDA participant success.

Table 12: Results Summary for each Savings Outcome

Coefficient estimate Marginal effect P-value	<i>Outcome 1: Saver</i>	<i>Outcome 2: AMND</i>	<i>Outcome 3: Gross Deposits</i>	<i>Outcome 4: Drop Out</i>	<i>Outcome 5: Finished</i>	<i>Outcome 6: Asset Purchase</i>
<i>Regression technique</i>	Probit	OLS	OLS	Probit	Probit	Probit
<i>Mean</i>	0.62	18.12	624.00	0.34	0.24	0.40
<i>Intercept</i>	-0.48 *p=0.0660	21.85 ***p=<.0001	131.31 p=0.2421	0.28 p=0.2933	-0.31 p=0.2494	-0.58 **p=0.0268
<i>Health insurance</i>	0.17 ME=.06 ***p=0.0167	2.54 ***p=0.0028	94.51 ***p=0.0017	-0.19 ME=-0.07 ***p=0.0050	0.01 ME=0.01 p=0.8508	0.12 ME=0.05 *p=0.0875
<i>Medical loans/debt</i>	-0.18 ME=-0.07 ***p=0.0131	-3.47 ***p=0.0001	-126.46 ***p=<.0001	0.14 ME=0.05 *p=0.0607	-0.29 ME=-0.08 ***p=0.0004	-0.18 ME=-0.07 ***p=0.0177
<i>Exogenous participant characteristics</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Key IDA program characteristics</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Other key variables</i>	-	-	-	-	-	-
<i>Model F</i>	-	35.91 ***p=<.0001	46.61 ***p=<.0001	-	-	-
<i>Log likelihood or R²</i>	-1064.61	0.32	0.38	-1046.12	-913.62	-1052.99
<i>N</i>	1855	1855	1855	1855	1855	1855

* = significant at 90% confidence level ($p \leq .10$)

** = significant at 95% confidence level ($p \leq .05$)

*** = significant at 99% confidence level ($p \leq .01$)

☐ = if shaded, significant at any of these three confidence levels

Discussion Section and Conclusions

Prior research has revealed that both health insurance and asset accumulation are correlated with positive or improved health outcomes. Now, this practicum shows that health insurance improves success rates for low-income individuals who wish to save and build assets in order to achieve economic self-sufficiency. As a result, policymakers and program administrators can use this knowledge about the importance of health insurance as a mediator – and medical debt as a hindrance – to better meet the needs of Individual Development Account holders and ensure both positive health and savings outcomes.

Policy and Program Implications

A primary policy concern is that the application of low asset limits for many federal and state public assistance programs serves as a disincentive for saving. Currently, participants of IDAs funded through the Assets for Independence Act (AFIA) or state-run programs funded through Temporary Assistance for Needy Families (TANF) will not lose their benefits. However, these legislative exceptions do *not* apply to other federally and privately funded IDAs.⁶⁹ In comparison, retirement savings in pension plans are universally excluded from consideration, while 401(k)s are excluded by some programs.⁷⁰ Once an individual reaches the designated asset limit, he/she will lose eligibility for that public service.⁷¹ For example, \$1,000 per household is the maximum asset amount allowed for Medicaid and the State Children's Health Insurance Program (SCHIP) in most states and \$2,000 is the federal maximum amount of assets allowed in order to qualify for food stamps.⁷² Assuming a participant had no prior assets,

⁶⁹ Frank, Vikki et al. *IDA Participation and Public Benefits Eligibility*, p. 1.

⁷⁰ Boshara et al. *Policy Options for Achieving an Ownership Society for All Americans*, p. 11.

⁷¹ Boshara, et al. *Policy Options to Encourage Savings and Asset Building by Low-Income Americans*, p. 4.

⁷² *State Policy Choices: Assets and Access to Public Assistance*, p. 2.

saves \$500, and receives a \$500 match in a program with a \$1 to \$1 match, he will have already exceeded the \$1,000 asset limit for public health benefits.⁷³ An even worse scenario could result for those who already have assets prior to starting their IDA; they would have a disincentive from enrolling at all because they would lose crucial support by doing so. Yet, public assistance is vital for many low-income individuals to maintain a respectable standard of living and is correlated with increased savings deposits in this sample. The majority (70-75%)⁷⁴ of participants who previously or currently had some form of public assistance (TANF, SSI, or food stamps) also had health insurance coverage.⁷⁵ A case in point: current TANF recipients have AMNDs that are statistically \$3.00 or 17% higher than the mean AMND and gross deposits that are \$116 or 19% higher than the mean.⁷⁶

Thus, policies that are intended to help low-income families actually penalize those who try to accumulate assets – both in terms of savings and health outcomes.⁷⁷ Since states have flexibility in setting asset criteria in public health insurance plans for children under Medicaid and SCHIP, future legislation should raise or eliminate the asset limits to be more realistic for contemporary needs,⁷⁸ as well as specify that any savings in any IDA (along with any matching deposits and interest) shall be disregarded in determining eligibility for means-tested programs.⁷⁹

Similarly, restrictive rules for recipients of Supplemental Security Income (SSI), a population with intense health care needs and costs that likely far exceed those of this sample,

⁷³ Remember the average total net deposits plus match for IDA participants in the ADD was \$1,543.

⁷⁴ See Appendix Table E for health insurance coverage rates by public assistance status.

⁷⁵ This is likely because these participants also qualified for public health insurance through Medicaid or Medicare.

⁷⁶ See Table 11 for the effect of current TANF status on savings outcomes 2 and 3. This is perhaps because these participants have a stable and constant amount of income from which to make deposits.

⁷⁷ *State Policy Choices: Assets and Access to Public Assistance*, p. 1.

⁷⁸ While many assistance programs index income limits for eligibility, asset limits have failed to keep pace with rising costs and could be indexed for inflation as some states have already done. Boshara, et al. *Policy Options for Achieving an Ownership Society for All Americans*, p. 11.

⁷⁹ Boshara, et al. *Policy Options to Encourage Savings and Asset Building by Low-Income Americans*, p. 4; *State Policy Choices: Assets and Access to Public Assistance*, p. 2.

should be modified. Currently, federal IDA policy requires that deposits into IDAs consist only of “earned income,” yet since SSI recipients cannot work and do not have earned income, they are unable to save in an IDA. To alleviate this inequity, the “earned income” qualification could be waived for this population. This update on earned income policies will lead to both better savings and health outcomes for IDA participants and other affected low-income individuals.

Another noteworthy finding of this study is the severity and frequency of prior participant debt – especially medical debt – as a savings barrier.⁸⁰ Unfortunately, this is not an area that is typically addressed by most IDA policies and programs. To resolve this critical problem, IDA policymakers and program administrators could consider offering health care-related expenses as allowable asset purchases in addition to the three most frequently approved asset goals – education, homeownership, and microenterprise. Potential health care assets could include premiums for health insurance, surgery, prescription drugs, or health care equipment. While not a traditional, tangible asset, this form of human capital is a necessary and worthwhile long-term investment to ensure one’s future employment, earnings, assets, and family.

Meanwhile awaiting potential policy changes in the future, IDA administrators and staff can begin to incorporate these research findings into their programs immediately. Since having health insurance is positively correlated with more successful savings outcomes for IDA participants, IDA programs could encourage potential and current IDA participants to enroll in health insurance programs or help them obtain public health assistance so that medical bills and emergencies will not interfere with their savings efforts. Another strategy would be to help participants seek means for minimizing medical bills and receiving affordable health care, such

⁸⁰ The amount of medical debt in this sample is the second largest type of debt and the highest proportion of participants struggle to afford their health care needs above any other costs.

as utilizing prescription plans or free health clinics. This may improve both personal financial and health conditions for participants, as well as ensure more successful IDA outcomes.

With this knowledge about the importance of health insurance, IDA program administrators can better design their programs to ensure IDA participant success. First, they can promote health insurance coverage and its importance to their clients at enrollment, orientations, and as part of the IDA training sessions. If participants do not already have employer-sponsored health insurance, public assistance, or private coverage, program administrators can attempt to connect IDA savers to health insurance coverage, such as by encouraging participants to seek employment that would provide health insurance coverage or by determining if they are eligible for public assistance. If participants already receive this public benefit through Medicaid or Medicare, staff must ensure that they retain this coverage. Occasionally, other public agencies are not aware that certain IDAs are exempt from asset limits. As a result, program staff must advocate on behalf of their participants to inform other agencies of these IDA exemptions to be sure that their new savings does not penalize them from receiving this crucial health care assistance. Knowing that some IDA participants tend to postpone doctor's visits in order to save money, program administrators can also ensure that their participants maintain their health care needs throughout the duration of their IDA and do not sacrifice their health in order to meet their savings goals. Instead, they can continue to promote other savings strategies that do not require personal hardship, such as creating budgets or using coupons.

Finally, while IDA programs offer a plethora of other valuable services and case management assistance, many are not helping with this crucial need. As some organizations already do, more IDA programs should provide participants medical services to both relieve medical concerns and prevent further debt accumulation. Admittedly, this is an expensive

benefit for organizations to offer in-house, especially considering how costly and labor-intensive IDA programs already are to operate. At minimum, program staff could refer their participants to quality convenient and health care resources that are available to the public for no or low-cost.

Caveats and Limitations

Admittedly, my research has its own limitations. Due to the fact that the data set I utilize for this research was non-experimental, the sample and assignment to the treatment of health insurance was not chosen at random. In fact, the participants were both self-selected and program-selected into their respective IDA programs. Perhaps an indication of this selection bias is that participants in the ADD were disproportionately female, African American, not married, more likely at enrollment to be employed or to be students, and to have attended or graduated from college compared to low-income people in general. As a result of the fact my sample is better off than the broader low-income population, it is possible that my results are biased downward and that similar tests on the effect of health insurance conducted for a more disadvantaged sample of low-income people would yield even larger effects.

Longitudinal data would have been better suited than cross-sectional to explore this topic. Knowing whether participants had health insurance throughout the whole program; when and for how long respondents have insurance rather than status at a certain point would permit us to see if a change in insurance status or medical shock directly coincides with negative savings outcomes, as well as whether this change in savings behavior is a short-term, recoverable shock or a permanent result.

Another caveat is that the participants in the American Dream Demonstrations were only asked a simple “yes” or “no” question regarding their health insurance status. As a result, it is

not possible to discern with this data *which type* of health insurance participants had – public assistance, employer-sponsored, or private health insurance – let alone *how much* participants paid for their health insurance coverage, premiums, co-pays, prescription drugs, or other medical expenses out-of-pocket, which would likely vary depending on their coverage type. Finally, in any study, there is the risk that omitted variables, especially those that are unobservable, will bias the results. For example, perhaps some participants have a natural “propensity to save” that I am unable to capture in my regression analysis.

Directions for Future Research

Since this research revealed the correlation between health insurance coverage and five positive savings behaviors and outcomes in IDAs, future research could explore whether any specific type of health insurance coverage is correlated with these same dependent variables or any other key IDA outcome. Another interesting question would be whether participants have less medical debt with certain coverage types; if participants spent less money overall and a smaller percent of their income on their health care needs and out-of-pocket expenses, they would have more disposable income available to save in their IDA as a result.

Appendix Tables

Table A: Participant Demographics

<i>Independent Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Minimum</i>	<i>Maximum</i>
Female	1855	0.79	0.40	1	0	1
Age	1855	36.25	10.33	36	13	72
Rural (pop. 2,500 or less)	1855	0.13	0.34	0	0	1
Caucasian	1855	0.37	0.48	0	0	1
African American	1855	0.48	0.49	0	0	1
Asian American	1855	0.02	0.14	0	0	1
Latino	1855	0.08	0.27	0	0	1
Native American	1855	0.03	0.16	0	0	1
Other Ethnicity	1855	0.03	0.16	0	0	1
Single	1855	0.48	0.50	0	0	1
Married	1855	0.22	0.42	0	0	1
Divorced/Separated	1855	0.27	0.45	0	0	1
Widowed	1855	0.02	0.15	0	0	1
Did not complete high school	1855	0.14	0.35	0	0	1
High school graduate or GED	1855	0.22	0.41	0	0	1
Some college	1855	0.39	0.49	0	0	1
2-year college graduate	1855	0.07	0.25	0	0	1
4-year college graduate	1855	0.11	0.31	0	0	1
College graduate*	1855	0.07	0.25	0	0	1
Unemployed	1855	0.06	0.24	0	0	1
Not working	1855	0.04	0.20	0	0	1
Student, not working	1855	0.05	0.21	0	0	1
Student, working	1855	0.05	0.23	0	0	1
Employed part-time	1855	0.19	0.39	0	0	1
Employed full-time	1855	0.60	0.49	0	0	1
Number of adults in household	1855	1.51	0.73	1	0	6
Number of kids in household	1855	1.73	1.51	2	0	9

*= 2- or 4- year college unknown

Table B: Participant Income, Assets, Public Assistance, and Insurance Status

<i>Independent Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Minimum</i>	<i>Maximum</i>
Total assets	1855	196.62	376.40	35.00	0	4270.00
Missing total assets*	1855	0.03	0.16	0	0	1
Total monthly income	1855	15.14	8.97	13.94	0	67.60
Missing monthly income*	1855	0.02	0.13	0	0	1
Formerly received TANF	1855	0.42	0.49	0	0	1
Currently receive TANF	1855	0.10	0.30	0	0	1
Receive food stamps	1855	0.16	0.37	0	0	1
Missing food stamps*	1855	0.01	0.10	0	0	1
Receive SSI/SSDI	1855	0.11	0.31	0	0	1
Life insurance	1855	0.42	0.49	0	0	1

* = Indicator variable for those observations that were missing for independent variable of interest.

Table C: Program Account Structure and Design

<i>Independent Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Minimum</i>	<i>Maximum</i>
Use of direct deposit	1855	0.07	0.25	0	0	1
Match rate (\$X : \$I)	1855	2.07	1.07	2	1	7
Match cap (\$)	1855	1376.54	836.09	1000.00	250.00	6000.00
Lifetime match cap	1855	0.48	0.49	0	0	1
Time cap (months)	1855	32.87	7.83	36	4	54
General financial education completed (hours)	1855	10.39	8.11	10	0	60
Missing general financial education*	1855	0.07	0.26	0	0	1
Asset-specific education completed (hours)	1855	3.36	10.21	0	0	100
Missing asset-specific financial education*	1855	0.67	0.47	1	0	1

* = Indicator variable for those observations that were missing for independent variable of interest.

Table D: Participant Relationship with Organization

<i>Independent Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Minimum</i>	<i>Maximum</i>
Employee of host organization	1855	0.03	0.17	0	0	1
Existing relationship with host organization	1855	0.41	0.49	0	0	1
Missing existing relationship with host organization	1855	0.013	0.11	0	0	1
Referral from partner organization	1855	0.26	0.44	0	0	1
Missing referral from partner organization	1855	0.15	0.35	0	0	1

* = Indicator variable for those observations that were missing for independent variable of interest.

Table E: Cross Tab of Participant Demographics by Health Insurance

Frequency Row Percent	<i>N</i>	<i>Without Health Insurance</i>	<i>With Health Insurance</i>
Did not complete high school	260	96 36.92	164 63.08
Completed high school or GED	407	145 35.63	262 64.37
Some college	726	245 33.75	481 66.25
Graduated 2-year college	129	36 27.91	93 72.09
Graduated college (2- or 4- year unknown)	129	41 31.78	88 68.22
Graduated 4-year college	204	63 30.88	141 69.12
Unemployed	117	58 49.57	59 50.43
Homemaker, retired, or disabled (not working)	79	27 34.18	52 65.82
Student, not working	88	31 35.23	57 64.77
Student, working	101	40 39.60	61 60.40
Employed part-time	357	151 42.30	206 57.70
Employed full-time	1112	319 28.69	793 71.31
Formerly received TANF	783	222 28.35	561 71.65
Currently receive TANF	185	46 24.86	139 75.14
Receive food stamps	304	89 29.28	215 70.72
Receive SSI/SSDI	205	53 25.85	152 74.15

Table F: Interactions with Participant Demographics and Health Insurance

<i>Interaction Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Median</i>	<i>Min.</i>	<i>Max</i>
Health Insurance * Female	1855	0.54	0.49	1	0	1
Health Insurance * Age	1855	23.87	18.95	29	0	72
Health Insurance * Rural	1855	0.10	0.30	0	0	1
Health Insurance * Caucasian	1855	0.25	0.43	0	0	1
Health Insurance * African American	1855	0.33	0.47	0	0	1
Health Insurance * Asian American	1855	0.02	0.12	0	0	1
Health Insurance * Latino	1855	0.04	0.20	0	0	1
Health Insurance * Native American	1855	0.02	0.12	0	0	1
Health Insurance * Other Ethnicity	1855	0.01	0.12	0	0	1
Health Insurance * Single	1855	1.01	0.94	1	0	6
Health Insurance * Married	1855	0.15	0.36	0	0	1
Health Insurance * Divorced/Separated	1855	0.19	0.39	0	0	1
Health Insurance * Widowed	1855	0.01	0.11	0	0	1
Health Insurance * Number of Adults	1855	1.01	0.94	1	0	6
Health Insurance * Number of Kids	1855	1.23	1.49	1	0	9

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