CSD Working Paper

Institutions and Savings in Low-Income Households

Jami Curley, Fred Ssewamala and Michael Sherraden

CSD Working Paper No. 05-13

2005

Center for Social Development

Washington
WASHINGTON · UNIVERSITY · IN · ST · LOUIS
George Warren Brown School of Social Work

Institutions and Savings in Low-Income Households

Jami Curley
Faculty Associate, St Louis University
curleyjc@slu.edu

Fred Ssewamala
Faculty Associate, Columbia University
Fs2114@columbia.edu

Michael Sherraden
Benjamin E. Youngdahl Professor of Social Development
Director, Center for Social Development
Washington University in St. Louis
sherrad@wustl.edu

CSD Working Paper No. 05-13

2005

Center for Social Development
George Warren Brown School of Social Work
Washington University
One Brookings Drive
Campus Box 1196
St. Louis, MO 63130
tel 314-935-7433
fax 314-935-8661
e-mail: csd@gwbmail.wustl.edu
www.gwbweb.wustl.edu/csd

ACKNOWLEDGEMENT: *Support for this study came from a consortium of Organizations that funded the American Dream Demonstration (ADD). They are the Ford Foundation, Charles Stewart Mott Foundation, Joyce Foundation, F.B. Heron Foundation, John D. and Catherine T. MacArthur Foundation, Citigroup Foundation, Fannie Mae Foundation, Levi Strauss Foundation, Ewing Marion Kauffman Foundation, Rockefeller Foundation, Moriah Fund, and Metropolitan Life Foundation. We thank the Corporation for Enterprise Development for Implementing ADD, and all of the ADD research sites. We are grateful to the Center for Social Development staff who have worked over several years on ADD research, especially Lissa Johnson, who managed the ADD research; Margaret Clancy, who guided monitoring data collection and data quality; and Mark Schreiner, who prepared the monitoring data for analysis. We thank Jane Waldfogel for extensive comments and suggestions on earlier drafts.*

INTRODUCTION

The United States has never been a world leader in social policy initiatives, and assistance to the poor is no exception. This regard of the U.S. government evolves, in part, from America's historical values of limited government and personal responsibility (Belz, 1992). Social policy for the poor in the United States has traditionally relied on less than generous income maintenance programs accompanied by asset limits.

Nevertheless, social policy proposals in the last decade have witnessed the emergence of more investment–oriented policy strategies. For example, Sherraden's (1991) work on asset-based welfare proposes policy that aids and encourages saving and asset accumulation among the poor, under the assumption that acquisition and ownership of assets improve economic, psychological, and social well-being.

Although current welfare programs serve as a partial safety net by providing for the immediate needs of the poor, they are intended only for short-term maintenance and are not designed to lift people out of poverty. In order to rise out of poverty and keep from falling back in, poor people have to achieve and maintain long-term financial security. Asset-based welfare is a developmental approach that may keep people from becoming impoverished as well as providing an opportunity out of poverty by offering mechanisms that help poor people save and build assets. Moreover, because assets can be passed on to children and other family members, the financial security of future generations may be improved. Approximately one-half of wealth first reaches its owners through intergenerational transfers, but almost none of this wealth reaches poor households (Wilhelm, 2001). Some researchers claim that the percentage of wealth accumulation due to intergenerational transfers—specifically in the form of inheritance

and gifts—is close to 80 percent (see Olive and Shapiro, 1997). The amount of asset accumulation in households also varies depending on several individual characteristics including age, earnings, family size and composition, race and one's level of education.

Another important influence in individual asset accumulation may be formal institutions. However, the study of institutions as a predictor of asset accumulation is only starting to emerge. Although a larger body of institutional theory exists that focuses on the influence of societal institutions on individual behaviors and outcomes (e.g., Gordon, 1980; Green, 1991; Neale, 1987), there is very little research that explicitly connects institutions to individual asset or wealth accumulation. Yet, according to Neale (1987), "motives lead people to engage in particular activities, but what they do and how they do it depend upon the structure of institutions" (p.1188). In essence, people make choices based on their own preferences, but their choices are shaped by the rules and norms of institutions.

This paper contributes to the emerging research on the role of institutions in individual asset and wealth accumulation. It provides a closer examination of the institutional theory of saving as an important framework that may help explain the saving performance and asset accumulation of low-income households in the United States. Specifically, the paper answers the following key question: Controlling for income and several measurable individual characteristics, do institutions matter in influencing the saving behavior and asset accumulation of low-income households?

BACKGROUND

The institutional theory of saving suggests that institutional factors greatly influence individual's ability to save. According to this theory, saving and asset

accumulation are primarily a result of institutional arrangements that involve explicit connections, rules, incentives and subsidies (Sherraden, 1991). Several theorists maintain that institutions matter in shaping and influencing opportunities and behaviors (see Neale 1987; North 1990; Sherraden, 1991; Weaver and Rockman 1993; Beverly and Sherraden 1999; Peters, 1999). This suggested link between institutions and financial well-being may have important implications in social policy. For example, Sherraden (1991) observes, the middle-class "participates in retirement pension systems … not [as] a matter of making superior choices. Instead, a priori choices are made by social policy, and individuals walk into the pattern than has been established" (p.127). Given the premise of institutional theory, this paper posits that low-income households are not able to save and accumulate assets primarily because they do not have the same institutional opportunities that higher-income households receive. Otherwise, provided with access to the same institutional frameworks that their higher-income counterparts utilize, low-income households might be in position to save and accumulate assets. It is against this background that the institutional question in this paper is being addressed.

The answer to the above institutional question is important for at least two reasons: First, one would be justified to argue that because saving is hard for most people, it is even harder for those with low incomes. Therefore, the ability to clarify the role of formal institutions in facilitating the saving performance and asset accumulation of low-income households would be a step in the right direction. This clarification may help initiate the move toward more inclusive social policy and program proposals which could provide low-income households with the same opportunities to participate in saving and asset accumulation programs as their higher-income counterparts. Second,

given the on-going discussion in the policy arena about an ownership society, which includes low-income households (Boshara, R., Cramer, R., & Parrish, L., 2005), results from this study may contribute to the debate by providing knowledge on how programs and policies toward an ownership society could be structured, tested and implemented.

THEORETICAL FRAMEWORK

Traditional Theories of Saving

Two of the more recognized economic theories of saving are: (1) the life-cycle hypothesis (LHC) (Ando & Modigliani, 1963; Modigliani & Ando, 1957; Modigliani & Brumberg, 1954) and, (2) the permanent-income hypothesis (Friedman, 1957). These theories view savings as a way of balancing the fluctuation of household resources for consumption throughout a lifetime, suggesting that when income is greater than consumption, individuals save, and when income is less than consumption, individuals dissave. The LHC, for example, assumes that consumption and saving patterns reflect an individual's age or stage within the life cycle, with a significant amount of saving occurring in the middle years.

In addition to the economic theories mentioned above, there are the socio-psychological theories of saving (Cohen, 1994; Duesenberry, 1949; Katona, 1975). These theories posit that individual's preferences change in response to economic and social variations.

Although there is reason to believe that saving is an attribute of individual traits, preferences and income relative to consumption, studies have begun to arise explicitly acknowledging the role of formal institutional mechanisms in influencing the saving performance of individuals. In other words, individual attributes and income may not be

enough in explaining the saving behavior of individuals. Institutions—in the form of policies and programs—may be equally important. [1]

The Role of Institutions in the United States

Values and beliefs are often incorporated into institutions that guide societies along certain economic, political, and ideological paths (Hall & Taylor, 1996). Because formal institutions in the public sector are governed by the political structures within a nation, institutional choices play a critical role in the welfare of a nation's citizens, particularly their financial well-being. In the United States, the guiding principles are based on a democratic-capitalist government that has traditionally supported financial growth through personal ownership and open competition (Hill & Hill, 2001). The idea of financial security through the investment and growth of personal assets is an established and familiar concept in the United States.

Throughout U.S. history, the government has played an active role in encouraging citizens to accumulate assets, most often by offering incentives through the tax system. For example, the Homestead Act of 1852 was one of the first major asset-building policies in the United States. Under minimal conditions, this Act provided 160 acres of land to citizens of the United States. In 1913 as part of the establishment of income taxes, deductions for home mortgage interest and property taxes were established. In recent years, tax subsidies have been offered for pension plan contributions such as the exclusion of employment-sponsored pension plan contributions and earnings and the deferment of Individual Retirement Accounts (IRAs) and Keogh Plans. Consequently,

[1] In this paper, the term "institution" is used in a particular sense of formal policy and program arrangements. The usage does not include informal social arrangements or social norms. We take this focus because it has direct public policy implications. That is the purpose of this applied research. Thus, our theoretical perspective is purposefully selected for both intellectual and applied reasons.

the influence of institutions in public policy has the ability to make considerable changes in the well-being of individuals. And although the poor are not deliberately excluded from these benefits, their access is limited, greatly narrowing their participation opportunities (Howard, 1997; Sherraden, 1991, 2001; Seidman, 2001).

Institutional Theory of Saving

The institutional theory of saving recognizes the important role that institutions play in savings. It advances five institutional constructs as being instrumental in predicting individual saving and asset accumulation, particularly among low-income households: 1) access, 2) information, 3) incentives, 4) facilitation, and 5) expectations (Sherraden, 1991; Beverly and Sherraden, 1999; Sherraden, 1999; Sherraden et al., 2003).

Access. Access to institutional mechanisms that make the depositing process more available may have an impact on asset accumulation. When access to these means is permitted, savings rates are likely to be higher. Some researchers (Cagan, 1965; Carroll & Summers, 1987) suggest that the availability of institutionalized saving opportunities encourages savings because it brings about an awareness of the need for and benefits of saving.

Information. Another important institutional determinant of saving is financial information, normally offered through financial education. The assertion here is that when people are made more aware of their saving options and outcomes, savings will be higher. Often financial education is provided to employees whose companies offer pension plans. Studies report that when financial education is offered to employees,

participation levels, as well as contribution levels in some cases, are higher (Bayer, Bernheim, & Scholz, 1996; Bernheim & Garrett, 1996).

Incentives. Incentives are inducements to motivate higher savings. Interest rates and rates of return on investments are the most familiar. Although empirical evidence concerning the effects of incentives is inconsistent (see Engen, Gale & Scholz, 1996; Hubbard & Skinner, 1996; Poterba, Venti & Wise, 1996), the proposition is that, generally, an increase in the rate of return will cause an increase in savings.

Facilitation. These are institutional arrangements that provide mechanisms that make saving more manageable and convenient. Empirical evidence on facilitation is limited at this time. But overall, the proposition is that these arrangements will more likely increase individual savings. One study on 401(k) participation finds participation and contributions rates to be higher after the employer started automatically enrolling employees into the 401(k) plans (Madrian & Shea, 2000).

Expectations. Expectations, as an institutional determinant of saving, refer to the specific saving goals, targets and rules communicated to participants by the programs. Individuals with specific saving expectations are more likely to save more than individuals with no saving expectations.

Based on this theory, Individual Development Accounts (IDAs) were developed as a policy initiative that could help provide poor people with the opportunity to save money (Sherraden, 1990; 1991). These programs—in line with institutional theory—offer matched savings for participants with specific asset goals in mind including homewonership, education, and small business development. In addition, financial

education is offered to help participants gain more knowledge about available financial resources and to help them reach their asset goals.

DATA

Beginning in 1997, a national demonstration, known as the American Dream Demonstration (ADD) was initiated to test the IDA model. ADD was the first large-scale test of IDAs and provides the most comprehensive data on IDAs to date. It involved 14 programs selected through a competitive process to design, implement, and run IDA programs (see Table 1).

The study followed over 2,000 low-income (200 percent of poverty or less) participants across the United States for eight years (1997-2005). Each program site operated their programs for four years with an additional four years of post-program research. Participant enrollment began in July of 1997 and continued throughout the program. Participants were defined as enrollees if they had an account statement in the data management program, Management Information System for Individual Development Accounts (MIS IDA) and included those individuals who exited the program without a matched withdrawal (Schreiner et al., 2002). Program staff collected monitoring data with MIS IDA, which incorporated a quality control component (Johnson et al., 2001). Savings data came from monthly passbook savings account records from depository institutions. The socio-economic and demographic information used in this study was gathered at time of enrollment. Participants were allowed to use their accumulated savings for home purchases, home improvements, micro-enterprise, retirement and education.

[INSERT TABLE 1 ABOUT HERE]

ADD used an extensive multi-method research design to gather as much information as possible concerning the effectiveness of the programs in terms of the communities, participants and administration in order to inform IDA policy and program development outside of ADD (Sherraden et al., 2000). The largest program site, located in Oklahoma, used an experimental design and was the only site with a control group. However, because this particular study looks at institutional effects within IDA programs, all the ADD programs are utilized.

For this study, two data sources both originating from ADD are used. The first source comes from the data set described above. The second source is a more detailed collection of program information obtained through an additional survey conducted on the 14 ADD programs. The survey was administered using a combination of face-to-face and telephone interviews with personnel from the ADD programs. The interview questions were derived based on the institutional constructs suggested in Sherraden (1991) and Beverly & Sherraden's (1999) institutional theory of saving. The survey consisted of both open-and closed-ended questions. The open-ended questions were designed to help clarify some of the closed-ended questions. Once completed, the program survey data was merged with the ADD participant data. The total participant sample size for this study is 2,211.

Dependent Variable: Saving Performance

Saving may be measured in a variety of ways depending on which aspect of the process is of interest. In this study, we use *average monthly net deposit (AMND)*, as the measure of saving performance. This measure is consistent with measures used in prior

research on ADD (see Sherraden et al., 2000; Schreiner et al., 2001; Schreiner et al, 2002; Ssewamala & Sherraden, 2004).

AMND measures the specific dollar amount of a participant's average monthly deposit. It is net deposit divided by the number of participation months, thus controlling for length of participation in an IDA program. Higher AMND implies higher savings.

$$\text{AMND} = \frac{\text{Deposit + Interest-Unmatched withdrawals-Unmatchable deposits}}{\text{Total number of months of participation}}$$

The variable *net deposit*, used to calculate AMND, is defined as deposits plus earned interest minus unmatched withdrawals. Net deposit includes matched withdrawals, but excludes unmatchable deposits in excess of the match cap [2] or after the time cap period. [3] Deposits over the match cap and after the time cap are excluded because, although the extra deposited amounts are considered savings, they are not considered IDA savings. Given that participants may have other types of savings that are not included in the saving measure for this study, adding in the extra IDA savings might bias the results. The average AMND for this study population is $18.44.

Independent Variables: Participant Demographic and Financial Characteristics

Participant demographic and financial characteristics are used as controls in this analysis. They include age (a one joint spline dividing participants who are 40 years of age and younger, and those participants who are 41 years of age or older), gender, dependency ratio, race/ethnicity, education level, employment, marital status, rural residency, car ownership, home ownership, business ownership, ownership of checking or savings account, net worth and never on TANF (public assistance use) (see Table 2 for

[2] Match cap is the ceiling on the matchable deposits possible for a designated time period.
[3] Time cap is the number of months after opening an account that participants are allowed matchable deposits.

details). As mentioned earlier, all of these variables are measured at the time of enrollment.

[INSERT TABLE 2 ABOUT HERE]

As indicate in Table 2, eighty percent of participants in ADD are female, 44 percent are African American, 40 percent are Caucasian, and 9 percent are Hispanic. In addition, 22 percent of ADD participants are married while 47 percent have never married and 28 percent are divorced or separated. Fifty-eight percent of participants were employed full-time at baseline, 24 percent were employed part-time and 10 percent were unemployed. In regard to education, 15 percent of participants do not have a high school diploma, 25 percent have a high school diploma, 37 percent have attended some college and 23 percent have a college degree. Overall, compared to the U.S. low-income population, ADD participants are more likely to be female, African American, single, and employed as well as more educated.

Independent Variables: Institutional Characteristics

Access. *Number of deposit locations* is used to measure this concept. It is a continuous variable that identifies the number of deposit locations that were available to participants. The hypothesis: the greater the number of deposit locations, the greater the saving performance.

Information. *Hours of financial education* and *peer mentoring group* are the two variables used to measure information. Financial education for participants was provided by each program individually. Because several different options were available in each program, hours taken varied between the participants; therefore, hours of financial education is a continuous variable that provides the number of financial education hours

taken by each participant. A multi-joint spline is used creating 3 different financial education segments: 1 to 6 hours, 7-12 hours, 13 or more hours. In addition, a dummy variable was created for people with no hours of financial education. Peer mentoring groups is a dichotomous variable that determines whether a program offered peer group mentoring programs to IDA participants in addition to financial education. The hypotheses: (1) the greater the number of financial education hours attended, the greater the saving performance and (2) the more peer modeling and information sharing, the greater the saving performance.

Incentives. In this study, *match rate* is used as the measure for incentives. Match rate is a continuous variable that describes the match rates offered to participants in the IDA programs. The match rates ranged from 1:1 to 6:1. For the purpose of this study, dummy variables are created to examine the influence of each level of match rate. The variables are 1:1, 2:1, 3:1+. The 3:1+ variable represents the match rates of 3:1 and above. The hypothesis: the higher the match rate, the greater the saving performance.

Facilitation. This construct is measured by *direct deposit*, a dichotomous variable. It identifies whether a program offers direct deposit to IDA participants for their IDA accounts. The hypothesis: the more automatic the system (such as automatic deposit), the greater the saving performance.

Expectations. Expectations is measured by *monthly savings target*. Monthly savings target is a continuous variable that represents the ratio of total match cap to the time cap. The target is a program feature set by the programs for the participants. The hypothesis: the higher the monthly savings target, the greater the saving performance. The institutional variables are shown in Table 3.

[INSTERT TABLE 3 ABOUT HERE]

STATISTICAL ANALYSIS

To address the research question guiding this paper, a hierarchical multivariate analysis is utilized. This analysis procedure examines the incremental changes of R^2 in a regression model due to the addition of individual variables or blocks of variables introduced in a specified hierarchy at certain points in the regression (Cohen & Cohen, 1983). Specifically, the measure of saving performance, AMND, is regressed on three blocks of independent variables. The first block (model 1) consists of the individual participant characteristics and is entered into the model to determine the variance explained in AMND without the institutional variables added. The measurable institutional variables block is introduced in the second model (model 2) to determine the influence of each of these characteristics on saving performance as well as their unique contribution as a block to the incremental changes in the variance explained in AMND when controlling for participant characteristics. In the third block (model 3), program dummies, which are unmeasured institutional characteristics, are entered to determine their unique contribution to variance explained in AMND.

The specified hierarchy of this regression model is guided by the theoretical framework of this study. Based on the institutional explanation of saving behavior, when institutionalized mechanisms for saving are made available to low-income households, saving performance will increase in these households. Therefore, it is presumed that when institutional characteristics are added to the model as a second block, the proportion

of variance explained will increase significantly from the first block containing only participant characteristics.

RESULTS AND DISCUSSION

Univariate Analysis

Descriptive statistics were calculated on participant demographic and financial characteristics as well as institutional characteristics. The full results are reported in Table 2 and Table 3 above.

Multivariate Analysis

As noted earlier, traditional theories of saving do not specifically address saving in low-income households nor do they stress the role institutions play in influencing saving and asset accumulation. Using institutional theory, this paper seeks to contribute to the emerging research on the role of institutions in individual asset accumulation. In particular, this paper seeks to specify and test the institutional mechanisms that affect saving performance in low-income households in IDA programs. In identifying an institutional approach to saving, each of the existing theories might be integrated into a coherent theory that also helps explain saving in low-income households.

Consistent with the institutional theory of saving the results suggest that institutional characteristics are important in the saving behavior of low-income households. Below is a discussion of the major findings. The results begin with the individual participant and institutional characteristics and then report on the institutional block results. The institutional variables entered into the model as a block provide a better understanding of the variance explained—in saving performance—by institutional characteristics as a whole.

Participant Demographic Characteristics

Gender, age, marital status, and dependency ratio are not significantly associated with saving performance (see Table 4 for complete regression results).

[INSERT TABLE 4 ABOUT HERE]

Race/ethnicity. Three categories of race have a significant association with saving performance. Holding other variables in the model constant, compared with Caucasians, AMND is $3.33 lower for African Americans (b= -3.33, p≤ 0.01) and $6.78 lower for Native Americans (b= -6.78, p≤ 0.01); whereas AMND for Asians is $14.08 higher (b= 14.08, p≤ 0.01). This finding may partly be a reflection of the institutional discrimination based on race or other differences. In any case, although some racial groups are saving less than others, the main idea here is that all racial groups are saving and would even probably do better given more institutional opportunities. Thus, enforcing inclusive policies like the community reinvestment act (12 U.S.C. 2901, implemented by regulations 12 CFR parts 25; 228; 345, and 563e) may be helpful in ensuring that racial minorities more access to institutional forms of saving and asset accumulation.

Education. Education is significantly related to saving performance. Compared to those participants who have a college degree (2-year, 4-year, or unspecified), all other categories are linked with a statistically significant lower AMND. For example, participants without a high school diploma save $4.45 less than participants with a college degree (b= -4.45, p≤ 0.01), participants with a high school diploma or GED save $4.65 less than participants with a college degree (b= -4.65, p≤ 0.01), and participants

with some college save $4.00 less than participants with a college degree (b= -4.00, p≤ 0.01). This relationship may exist because either more education increases financial sophistication or that increased education as a form of human capital demonstrates future orientation.

Employment. Only one employment category is significantly associated with saving performance. Students are linked with a $5.99 increase in AMND compared to participants who are unemployed (b= 5.99, p≤ 0.01). One explanation for this occurrence could be that students may use part of their grant money or student loans to deposit into their IDAs in lump sums. There may also be some unobserved characteristics related to students that predispose them more to saving than other groups of people. For example, students may be more focused toward the future and more savvy about saving. There are no significant differences on saving performance between unemployed participants (the reference group) and those employed full time, or those employed part-time.

Rural residency. Rural residency has a significant relationship with saving performance. AMND was $5.11 less for participants residing in rural areas compared to participants living in urban areas (b= -5.11, p≤ 0.01). Grinstein-Weiss and Curley (2003) report two main challenges that may influence saving outcomes in rural areas. First, because of the lack of infrastructure in many rural areas, fewer resources are available to participants in terms of the availability, quality, and flexibility of options, services, and staff connected with IDAs. Second, distance is an issue. For participants who live outside of town, attending financial education classes is sometimes a problem because they either lack transportation or do not have enough time to get from work to

class because of the distance. Moreover, the transaction costs involved in depositing may be higher for rural participants because of the distance issue.

Participant Financial Characteristics

Never on TANF, business ownership, income and net worth are all not significantly related to saving performance (see Tables 4 for complete regression results).

Car ownership. Car ownership is significantly linked to saving performance. Car owners were linked with a $2.27 higher AMND compared to participants who were not car owners ($b= 2.27$, $p\leq 0.05$).

Home ownership. Owning a home has a significant and positive relationship with saving performance. Homeowners show a $7.22 higher AMND than those participants who do not own their own homes ($b= 7.22$, $p\leq 0.01$).

Checking or Savings Account. Having either a checking or savings account or both is significantly related to saving performance. Participants with either a checking account, savings account or both were associated with over $3 higher in AMND ($b=3.40$, $p\leq 0.01$) than participants who had neither account.

The findings in this study indicate that owning certain forms of assets may be predictive of saving performance in IDAs. As Sherraden (1991) observes, owning assets may, "create a cognitive and emotional orientation towards the future and stimulate the development of other assets" (p.181). Under these assumptions, the initial possession of assets helps provide a foundation that may encourage greater asset accumulation in the future. It may also be that ownership of other assets is a proxy for successful financial functioning that is long-standing.

Institutional Characteristics

IDAs are formal institutions that are purposely designed to encourage and facilitate saving and asset accumulation in low-income households. Therefore, the characteristics that comprise the structure of these institutions should demonstrate a significant relationship to participants' saving outcomes. Results of this study, in part, support this postulation. Table 4 presents the detailed regression results for the institutional characteristics. Below is a summary of those results.

Access. The findings do not support the hypothesis related to access: the greater the number of deposit locations, the greater the saving performance. Number of deposit locations is not significantly related to saving performance.

Information. The findings support both hypotheses related to information: (1) the more peer modeling and information sharing, the greater the saving performance; and (2) the greater the number of financial education hours attended, the greater the saving performance. For those participants who are in programs that offer peer mentoring groups, AMND is $8.19 higher than for participants in programs that do not have peer mentoring groups ($b= 8.19$, $p\leq 0.01$). The positive association with peer mentoring groups is an indication that peer encouragement, support, and sharing the challenges and experiences of the saving process with other participants may be useful. These findings are consistent with Ssewamala and Sherraden (2004) and with the survey of rural IDA programs (Grinstein-Weiss & Curley, 2003).

Moreover, the amount of financial education hours attended by participants is significantly associated with saving performance in two categories. Having attended between 1 and 6 hours of financial education and having attended between 7 and 12 hours of financial education is significantly associated with AMND. Specifically, for

each additional hour attended between 1 and 6, AMND increases by $1.23 (b= 1.23, p≤ 0.05). For each additional hour between 7 and 12, AMND increases by $1.76 (b= 1.76, p≤ 0.01). On the other hand, having 13 or more hours of financial education is not significantly linked to saving performance. These findings support earlier research on financial education in ADD (Schreiner et al., 2001; Schreiner et al., 2002; Ssewamala & Sherraden, 2004). Thus, programs should design financial education requirements accordingly. For example, to maximize the benefits for participants and minimize their own costs, programs could provide a combination of formal financial education up to approximately12 hours and establish peer mentoring programs. With this alternative, participants could receive factual financial information from the classes and emotional support and encouragement from the peer mentoring programs.

Incentives. The results do not support the incentive hypothesis: the higher the match rate, the greater the saving performance. The measure of incentives used in this study, match rates, is not significantly associated with AMND.

Based on these findings, the idea that, according to economic theory, higher match rates are an incentive to save more is not substantiated. One explanation could be that programs in ADD set match rates based on how they think participants will save. For example, programs may set match rates higher if they think participants may save less. With this approach, participants can still reach their total asset goal because the higher match rates allows them a higher match amount and, thus, higher total accumulation. Another explanation is the income effect. Participants might set an end goal and if the match rate is higher they can save less and still reach their goal. In general, empirical evidence concerning the effects of incentives is inconsistent (Engen,

Gale & Scholz, 1996; Hubbard & Skinner, 1996; Poterba, Venti & Wise, 1996). Perhaps IDA programs should implement additional education to help participants understand the benefits connected to higher match rates with increased deposits. Another alternative could be to establish moderate match rates in programs, thus freeing up funds that could be used more efficiently in other areas of the program, such as allowing for additional account holders or increasing match caps.

Facilitation. The hypothesis related to facilitation is not supported: the more automatic the system (such as automatic deposit), the greater the saving performance. The measure of facilitation used here, direct deposit, is not significantly associated with saving performance.

Expectation. The expectation hypothesis is supported: the higher the monthly savings target, the greater the saving performance. For every additional $1 in monthly savings target, AMND increases by $0.25 ($b= 0.25$, $p\leq 0.01$).

These results support institutional theory which suggests that higher match caps may be associated with higher saving performance because participants mentally convert match caps into goals (see Schreiner et al., 2001). Using this knowledge, program administrators may want to emphasize specific objectives and guidelines in their programs to provide some assistance in maintaining saving goals for participants. Policymakers and program administrators should concentrate on the right mixture of conventions to help shape and support participants saving, not mandate it.

Estimated "Block" Contributions to Changes in R^2

The results of the hierarchical analysis which regress the dependent variable on the three blocks of independent variables are presented below (see Table 5).

[INSERT TABLE 5 ABOUT HERE]

As indicated in Table 5, when the block of participant characteristics only are entered into the first model (model 1), the variance explained in AMND is 16 percent (R^2 = 0.16). After the institutional characteristic block is introduced (model 2), the variance explained increases to 28 percent (R^2 = 0.28), indicating a change in R^2 of 0.12 or 12 percent. This change is the unique contribution of the measurable institutional characteristics to the overall model. The change is statistically significant ($p \leq 0.01$). These results suggest that institutions are important. Furthermore, when program dummies (unmeasured program characteristics) are added, R^2 significantly increases by another 3 percent. This change is also statistically significant ($p \leq 0.01$), indicating that unobserved program variables are related to saving outcomes, which are most likely aspects of the IDA programs. These variables might include strong leadership, staff commitment, staff skill, and other factors. The total variance explained by all three blocks of independent variables in model 3 is 31 percent (R^2 = 0.31).

LIMITATIONS

The following limitations are worth highlighting. Institutional designs of the IDA programs were not randomly assigned which meant that programs could select their own design plan, based in part on how they perceived participants' behavior. In addition, participants were not randomly chosen to participate. Most of the IDA programs targeted certain populations; Therefore, the results do not reflect the overall low-income population. Another limitation is that the socio-economic and participant characteristics used in this study were collected at enrollment and some of them may have changed during the course of the program. Again, as mentioned earlier, no comparison group was

available for all sites. The absence of a comparable control group in this study makes it impossible to say with confidence that study results are due to IDAs or that IDAs represent new saving for the household. Lastly, this analysis is based on a short-term study period. We cannot determine long-term effects without a longer study period.

CONCLUSION

Evidence from ADD indicates that the poor can save. Sufficient evidence exists to support the creation of institutional mechanisms to encourage the poor to save. In fact, because of the institutional aspects of ADD, many low-income households were given the opportunity to save. However, it is not known how many will continue to save once the program has ended and the saving mechanisms are gone. Looking at the same situation in a different perspective the question could be asked of higher-income households: How many upper-income households would save if no institutional mechanisms for saving opportunities existed for them? In other words, how many people could or would accumulate savings if there were no 401k plans or IRAs available to them?

Since the enactment of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (the "welfare reform" law), which gave states the option to use funds from their block grants for matched saving accounts for the poor without counting the savings toward means-tested programs asset limits, IDAs have grown considerably. Over 40 US states have adopted some type of IDA policy (Edwards and Mason, 2003). The Corporation for Enterprise Development [CFED] (2002) estimates that by 2002, there were more than 500 IDA programs throughout the United States.

Results from this study can help policymakers understand the role of institutions, and create more successful programs to promote saving and asset accumulation among populations that generally do not have access to institutionalized saving mechanisms. Tax incentives are already in place to encourage small businesses to locate in economically distressed areas and promote economic development. These types of incentives are designed to build assets within low-income communities by creating affordable housing and stimulating job growth in these regions. Additional incentives could help support asset development at the individual level. For example, policy initiatives could be introduced to increase funding for IDAs or provide stronger tax incentives to businesses that match pension accounts for low-income workers.

Results could also enable policymakers to make more informed decisions regarding mechanisms to encourage saving under different circumstances, such as in different population groups or different geographical locations. The ethnicity findings in this study may represent unobserved characteristics associated with race rather than race itself. More research should be conducted to determine the specific predictors for each group so that policymakers can provide the appropriate policy and program designs to enable each group the opportunity to save more efficiently. For example, incentives might be given to organizations that target a particular low-income minority group.

Similar to the results with race, findings that point to unique predictors among different geographic groups can help policymakers design policy and incentives directed purposely at these specific groups to encourage savings. For example, special tax incentives could be given to organizations that participate in IDA programs in rural areas in order to increase funding opportunities in these regions.

Lastly, empirical evidence provided by studies of this nature may foster interest and awareness in existing tax policies that are regressive in nature. Policymakers could make these policies more inclusive so that low-income households could benefit from them. More refundable tax credits for low-income households would be one mechanism that could help. This type of policy would avoid the social stigma associated with programs that are targeted specifically to the poor.

In summary, institutional constructs appear to affect saving performance in IDA programs. These results, drawaing on institutional theories of saving, have direct implications for policy as well as practice. IDAs and similar policies and practices can probably be improved based on this growing body of evidence. Much more remains to be done in both theoretical development and empirical research for inclusive saving and asset accumulation to reach its potential.

REFERENCES

Ando, A. & Modigliani, F. (1963). The life-cycle hypothesis of saving: Aggregate implications and tests. American Economic Review, 53(1), 5-84.

Bayer, P. J., Bernheim, B. D., & Scholz, J. K. (1996). The effects of financial education in the workplace: Evidence from a survey of employers. NBER Report No. 5655. Cambridge, MA: National Bureau of Economic Research.

Belz, H. (1992). Introduction. In H. Belz, R. Hoffman, & P. J. Albert (Eds.), To form a more perfect union: The critical ideas of the constitution. Charlottesville,VA: The University Press of Virginia.

Bernheim, B. D. & Garrett, D. M. (1996). The determinants and consequences of financial education in the workplace: Evidence from a survey of households. NBER Report No. 5667. Cambridge, MA: National Bureau of Economic Research.

Beverly, S. G. & Sherraden, M. (1999). Institutional determinants of saving: Implications for low-income households and public policy. Journal of Socio-Economics, 28, 457-473.

Boshara, R., Cramer, R., & Parrish, L. (2005). Policy options for achieving an ownership society for all Americans. Issue Brief No. 8. Washington D. C.: New American Foundation.

Cagan, P. (1965). The effect of pension plans on aggregate savings: Evidence from a sample survey. NBER Report No. 95. New York, NY: National Bureau of Economic Research.

Carroll, C. & Summers, L. H. (1987). Why have private savings rates in the United States and Canada diverged? Journal of Monetary Economics, 20, 249-279.

Cohen, J. & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, S. (1994). Consumer socialization: Children's saving and spending. Child Education, 70, 244-246.

Duesenberry, J. S. (1949). Income, saving and the theory of consumer behavior. Cambridge, MA: Harvard University Press.

Edwards, K., & Mason, L.M. (2003). State policy trends for individual development accounts in the United States, 1993-2003. Social Development Issues, 25(1&2), 118-129.

Engen, E. M., Gale, W. G., & Scholz, J. K. (1996). The illusory effects of saving incentives on saving. Journal of Economic Perspectives, 10, 113-138.

Friedman, M. (1957). A theory of the consumption function. Princeton, NJ: Princeton University Press.

Gordon, W. (1980). Institutional economics. Austin, TX: University of Texas.

Green, F. (1991). Institutional and other unconventional theories of saving. Journal of Economic Issues, 25, 93-112.

Grinstein-Weiss, M. & Curley, J. (2003). Individual development accounts in rural communities: Implications for research. In T. L. Scales & C. L. Streeter (Eds.), Building assets to sustain rural communities: A resource for the social work classroom. Pacific Grove, CA: Brooks/Cole.

Hall, P. A. & Taylor, R. C. (1996). Political science and the three new institutionalisms. Political Studies, XLIV, 936-957.

Hill, K. T. & Hill, G. N. (2001). The facts on file: Dictionary of American politics (2nd ed.). New York, NY: Checkmark Books.

Howard, C. (1997). The hidden welfare state. Princeton, NJ: Princeton University Press.

Hubbard, R. G. & Skinner, J. (1996). Assessing the effectiveness of saving incentives. Journal of Economic Perspectives, 10, 73-90.

Johnson, L., et al. (2001). Management information system for IDAs: A feasibility study. CSD Report. St. Louis: Center for Social Development, Washington University.

Katona, G. (1975). Psychological economics. New York, NY: Elsevier.

Madrian, B. C. & Shea, D. F. (2000). The power of suggestion: Inertia in 401(k) participation and savings behavior. NBER Report No. 7682. Cambridge, MA: National Bureau of Economic Research.

Modigliani, F. & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. In K. Kurihara (Ed.), Post-Keynesian economics. New Brunswick, NJ: Rutgers University Press.

Modigliani, F. & Ando, A. (1957). Tests of life-cycle hypothesis of saving. Bull Oxford Institute Stat 19, 99-124.

Neale, W. (1987). Institutions. Journal of Economic Issues, 21, 1177-1206.

North, D. C. (1990). Institutions, Institutional Change, and Economic Performance. Cambridge, MA: Cambridge University Press.

Oliver, M. L. & Shapiro, T. M. (1997). Black wealth, White wealth: A new perspective on racial inequality. New York, NY: Rutledge.

Peters, B. G. (1999). Institutional theory in political science: The 'new institutionalism'. New York: Wellington House.

Poterba, J. M., Venti, S. F., & Wise, D. A. (1996). How retirement saving programs increase saving. Journal of Economic Perspectives, 10, 91-112.

Schreiner, M., Clancy, M., & Sherraden, M. (2002). Final report: Saving performance in the American Dream Demonstration. St. Louis, MO: Center for Social Development, Washington University.

Schreiner, M., Sherraden, M., Clancy, M., Johnson, L., Curley, J., Grinstein-Weiss, M., et al. (2001). Savings and asset accumulation in individual development accounts. CSD Report. St. Louis: Center for Social Development, Washington University.

Seidman, L. S. (2001). Assets and the Tax Code. In T. M. Shapiro & E. N. Wolff (Eds.), Assets for the poor: The benefits of spreading Asset ownership. New York, NY: Russell Sage Foundation.

Sherraden, M. (1991). Assets and the poor. Armonk, NY: M. E. Sharpe, Inc.

Sherraden, M. (1999). Key questions in asset building research, revised. St. Louis, MO: Center for Social Development, Washington University.

Sherraden, M. (2001). Assets and the poor: Implications for individual accounts and Social Security: invited testimony to the President's Commission on Social Security. CSD Perspective. St. Louis: Washington University, Center for Social Development.

Sherraden, M., Johnson, L., Clancy, M., Beverly, S. G., Schreiner, M., Zhan, M., et al. (2000). Savings patterns in IDA programs. CSD Report. St. Louis, MO: Center for Social Development, Washington University.

Sherraden, M., Schreiner, M., & Beverly, S. G. (2003). Income, institutions, and saving performance in development accounts. Economic Development Quarterly, *17,* 95-112.

Ssewamala, F. & Sherraden, M. (2004). Integrating savings into microenterprise programs for the poor: Do institutions matter? Social Service Review, 78 (3), pp. 404-428.

Weaver, R. & Rockman, B. (1993). Do Institutions Matter? Washington, D.C.: The Brookings Institution.

Wilhelm, M. O. (2001). The role of intergenerational transfers. In T.M. Shapiro & E. N. Wolff (Eds.), Assets for the poor: The benefits for spreading asset ownership. New York, NY: The Russell Sage Foundation.

Table 1. Host organizations in ADD.

Host Organization	Location	Type of Organization	Targeted Participants for IDAs
ADVOCAP	Fond du Lac, WI	Community action agency	Former AFDC/TANF recipients; the working poor
Alternatives Federal Credit Union	Ithaca, NY	Community development credit union	Single parents; youth
Bay Area IDA Collaborative (formerly EBALDC)	Oakland, CA	Collaborative of 13 community-based organizations	Low-income Asian Americans; African Americans; Hispanics
Capital Area Asset Building Corporation (CAAB)	Washington, D.C.	Collaborative of 8 community-based organizations	TANF recipients; youth; African Americans; Hispanics; Asian Americans
Foundation Communities (formerly Central Texas Mutual Housing)	Austin, TX	Not-for-profit housing organization	Rental property residents; youth
Central Vermont Community Action Council (CVCAC)	Barre, VT	Community action agency and community development corporation	TANF recipients; youth
Community Action Project of Tulsa County (CAPTC)	Tulsa, OK	Community-based anti-poverty organization	Small-scale: Working families with children at or below 200% of poverty. Large-scale: at or below 150% of
Heart of America Family Services	Kansas City, MO	Community-based family-services agency	Hispanics; African Americans
Mercy Corps (formerly Human Solutions)	Portland, OR	Social-service organization	Rental property residents
MACED/Owsley County Action Team	Berea, KY	Association of community development organizations	Rental property residents; the working poor
Near Eastside IDA Program	Indianapolis, IN	Social-service organization / Community development credit union	Neighborhood residents; youth
Shorebank Corporation	Chicago, IL	Community development bank with not-for-profit affiliate	Rental property residents; Shorebank customers
Women's Self-Employment Project (WSEP)	Chicago, IL	Microenterprise development organization	Low-income, self-employed women; public-housing residents

Table 2. ADD participant characteristics.

Characteristics	Mean (St. Dev.)	Percentage
Demographics		
Gender		
Female		80%
Male		20%
Age	36 (10)	
13 to 19		4%
20s		26%
30s		36%
40s		25%
50s		7%
60 to 72		2%
Race/Ethnicity		
African American		44%
Asian-American or Pacific Islander		2%
Caucasian		40%
Hispanic		9%
Native American		3%
Other		3%
Marital Status		
Never Married		47%
Married		22%
Divorced or Separated		28%
Widowed		2%
Education		
No High School Diploma		15%
High School Diploma or GED		25%
Attended Some College		37%
College Degree		23%
Employment		
Employed Full-time		58%
Employed Part-time		24%
Student		8%
Unemployed		10%

Table 2. ADD participant characteristics continued.

Characteristics	Mean (St. Dev.)	Percentage
Household		
Household Type		
One Adult with Children		45%
One Adult without Children		15%
Two or more Adults with Children		30%
Two or more Adults/No Children		9%
Dependency Ratio	2.3 (1.24)	
Rural Residency		14%
Financial		
Car Ownership		67%
Home Ownership		17%
Business Ownership		11%
Either Checking or Savings Account		77%
Never Used TANF		61%
Monthly Income	$1,364 (7.01)	
Income to Poverty Ratio	105 (.68)	
0 to 49		20%
50 to 74		13%
75 to 99		16%
100 to 124		14%
125 to 149		12%
150 to 174		9%
175 to 199		6%
200 to 327		8%
Net Worth	$3,136 (194)	
N	2,211	

Table 3. ADD institutional characteristics.

Institutional Characteristics	Mean (St. Dev.)	Percentage
Access		
Number of Deposit Locations	17 (21.56)	
Information		
Peer Mentoring Groups		34%
Hours of Financial Education Attended	10 (7.57)	
0 Hours		9%
1-6 Hours		15%
7-12 Hours		50%
Over 13 Hours		24%
Incentives		
Match Rate	2 (.91)	
1:1		27%
2:1		51%
3:1 and Over		21%
Facilitation		
Program Offered Direct Deposit		80%
Expectations		
Monthly Savings Target	$42.14 (20.47)	
N	2,211	

Table 4. Hierarchical regression analysis: Individual and institutional Characteristics and Average Monthly Net Deposit (AMND).

	Model 1		Model 2	
Independent Variables	**b**	**se**	**b**	**se**
Intercept	#### **	3.80	#### *	5.00
Participant Characteristics: Demographics				
Female	-1.20	1.23	-1.09	1.16
Age				
40 or under	0.17 *	0.08	0.06	0.08
Over 40	0.09	0.11	0.09	0.10
Race/Ethnicity				
Caucasian (reference group)				
African American	-7.13 **	1.12	-3.33 **	1.12
Hispanic	2.78	1.76	4.51	1.68
Asian-American or Pacific Islander	#### **	3.24	14.08 **	3.03
Native American	-6.82 *	2.78	-6.78 **	2.59
Other Ethnicity	2.93	2.76	5.08	2.59
Education				
Completed a Degree (reference group)				
No High School Diploma	-7.28 **	1.62	-4.45 **	1.52
High School Diploma or GED	-6.86 **	1.35	-4.65 **	1.27
Attended Some College	-5.13 **	1.22	-4.00 **	1.14
Employment				
Unemployed (reference group)				
Employed Full-time	1.36	1.61	-0.78	1.54
Employed Part-time	2.87	1.70	0.78	1.60
Student	5.03 *	2.15	5.99 **	2.01
Marital				
Married (reference group)				
Single - Never Married	-1.27	1.32	-0.86	1.24
Divorced, Separated, or Widowed	0.02	1.39	0.30	1.30
Dependency Ratio	-0.49	0.42	-0.66	0.39
Rural Residency	-4.16 **	1.41	-5.11 **	1.43

Table 4. Hierarchical regression analysis: Individual and institutional Characteristics and Average Monthly Net Deposit (AMND) continued.

	Model 1		Model 2	
Independent Variables	**b**	**se**	**b**	**se**
Participant Characteristics: Financial				
Asset Ownership				
Car	3.61 **	1.07	2.27 *	1.01
Home	6.30 **	1.46	7.22 **	1.41
Business	1.90	1.48	0.79	1.41
Checking or Savings Account	6.24 **	1.16	3.40 **	1.10
Never on TANF	-0.12	1.02	0.44	0.96
Monthly Income	0.14	0.07	0.14	0.07
Net Worth	-2.08	1.39	0.00	0.00
Institutional Characteristics				
Number of Deposit Locations (access)			0.03	0.03
Peer Mentoring Groups (information)			8.19 **	1.16
Financial Education (information)				
0 Education Hours			-0.15	3.28
1 to 6 Education Hours			1.23 *	0.56
7 to 12 Education Hours			1.76 **	0.26
13 or more Education Hours			0.01	0.09
Match Rate (incentives)				
1:1 (reference group)				
2:1			-1.67	1.18
3:1 and Higher			-2.06	1.63
Direct Deposit (facilitation)			0.64	1.40
Monthly Savings Target (expectations)			0.25 **	0.03
R^2	0.16		0.28	
N	####		####	

*p≤ .05 **p≤ .01

b = unstandardized coefficient

se = standard error

Table 5. Hierarchical regression results: Influence of institutional characteristics on Average Monthly Net Deposit (AMND).

Model	R^2	Adjusted R^2	$R^2 \Delta$
Model 1: ***Individual Characteristics*** Gender, age, race, education, employment, marital status, dependency ratio, residency, asset ownership, banking experience, TANF use, monthly income, and net worth.	0.16	0.15	
Model 2: ***Individual Characteristics + Institutional Charateristics*** # of deposit locations, peer mentoring groups, financial education attended, match rate, direct deposit offered, monthly savings target	0.28	0.27	0.12 **
Model 3: ***Individual Characteristics + Institutional Charateristics + Program Dummies*** ADVOCAP, Alternative federal Credit Union, Bay Area IDA Collaborative, Central Vermont Community Action Council, Community Action Project of Tulsa, OK, Foundation Communities, Heart of America Family Services, Mercy Corps, MACED, Near Eastside IDA Program, Shorebank Corporation, Women's Self-Employment Project.	0.31	0.29	0.03 **
N		2,211	

**p≤ .01