

Working Papers

Integrating Savings Into Microenterprise Programs for the Poor: Do Institutions Matter?

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Abstract

Numerous theoretical frameworks have been used to explain factors that influence outcomes of poor families engaged in self-employment. Theories related to human capital, social capital, and financial assets have guided most studies. Using data from fourteen institutions promoting self-employment among the poor, and drawing on the institutional theory, this study finds that theories related to individual influences do not adequately explain all the phenomenon. Controlling for a wide range of individual characteristics, there is a statistically significant association between institutional influences and participants' outcomes. Policy makers should consider a range of institutional characteristics when designing policies and programs aimed at promoting self-employment among poor families.

Policy makers are exploring and experimenting with new anti-poverty strategies to improve the well-being of the poor. Strategies that combine economic growth with more job opportunities seem to be at the forefront (see United Nations Development Program [UNDP], 1993). Although no single comprehensive strategy has yet emerged, one of the many strategies being explored is the promotion of self-employment for the poor mainly through microenterprise programs (MEPs).

MEPs aim at providing micro-loans, business advice, training assistance--and in some cases saving services--to the poor, welfare recipients and the unemployed intending to start and/or grow an existing small family business. Simply stated, MEPs help the poor to afford resources and opportunities--notably, small loans, grants, savings, training and technical assistance--for the start up, maintenance and/or expansion of their own very small enterprises, referred to as microenterprises¹ The theory behind MEPs is simple: if poor people who have a propensity to self-employment could be helped to access affordable small business loans, grants, small business training, saving services and support, they would be able to start, expand and/or strengthen their micro businesses and eventually move out of poverty. For those who are barely above the poverty line, the strategy is seen as something that would reduce their vulnerability to sliding back and forth into and out of poverty. Indeed, to their supporters, promoting microenterprise represents “nothing less than the most promising instrument available for reducing the extent and severity of global poverty” (Snodgrass, 1997, p.1).

The strategy of promoting small businesses among the poor began in the developing countries of Africa, Asia and Latin America (see Adams and Von Pischke, 1992; Counts, 1996; Rahman, 1999; Rhyne and Otero, 1994; Schreiner, 1999; Servon, 1999; World Bank, 1975). Microenterprise programs such as the Grameen Bank in Bangladesh, the Self-Employed Women’s Association (SEWA) in India, and ACCION International in Latin America are often cited as the programs that pioneered the experimentation of promoting MEPs as an alternative anti-poverty strategy. Indeed, it is believed that throughout the developing world, MEPs are serving hundreds of thousands of poor families and they (MEPs) constitute one of the fastest growing anti-poverty strategies in these poor developing countries. According to the Microcredit campaign summit of 1996, the strategy could reach 100 million of the World’s poorest families by 2005 (Microcredit Summit, 1996).

In the United States, support for promoting MEPs as an anti-poverty initiative has steadily increased among federal, state and private community development organizations and philanthropic foundations. For example, while in 1970 there were only a few dozen MEPs in the United States (Raheim, Alter and Yarbrough, 1996), Dallinger (2001) estimates the number to have reached at least 700 MEPs across the United States.

On the political arena, the microenterprise development strategy has been able to sustain its support because each side of the political aisle feels the strategy speaks to its values. For example, the conservatives favor it because they think it speaks to individual self-reliance and hard work, while the liberals praise it for its goal of reaching the poor and the philosophy that anyone is capable of owning a successful business (Bornstein, 1995).²

Generally, the majority of formal MEPs tend to focus either on credit alone, identifying themselves as credit led-programs; or on training alone, identifying themselves as training-led programs. However, having recently realized that neither credit alone nor training alone would be sufficient enough to propel most poor microentrepreneurs out of poverty, a considerable number of MEPs in the United States are moving toward a multidimensional approach integrating saving, training and credit services into one program design— a “one-stop shop”. This approach is not new. According to the World Bank (2001), some programs in the developing countries, notably Bank Rakyat in Indonesia and SafeSave in Bangladesh, already have a saving component in their program designs. However, the majority of the programs in the United States using this multidimensional approach are designing their programs based on Sherraden’s proposal for Individual Development Accounts (IDAs) for microenterprise (Sherraden, 1991). These programs are integrating a savings requirement for their program participants. We are calling these IDAs for microenterprise.³ These programs are the focus of this study.

Unlike credit-led programs and training-led programs, which have received extensive scholarly research (e.g., Adams and Ladman, 1979; Adams and Von Pischke, 1992; Anthony, 1999; Balkin, 1993; Barnes and Keogh, 1999; Clark and Kays, 1999; Dumas, 1999; Edcomb, Klein and Clark; 1996; Raheim, 1996; Schreiner, 1999; Servon, 1999; Sherraden, Sanders and Sherraden, 1998), IDAs for microenterprise are relatively new and have hardly received any attention in scholarly microenterprise research. Yet, given the ongoing proliferation of IDA programs across the United States, there is a need to undertake an empirical study to explore and understand the best practice question, especially in regards to program design. In other words, what is the best way of integrating IDAs and other saving strategies into MEPs that would optimize participants’ outcomes? This study is a first step of understanding how best to integrate IDAs into MEPs.

Integrating IDAs into Microenterprise Programs

The idea of IDA for microenterprises first appeared in Sherraden (1991), who proposed that individual saving accounts be “open to anyone eighteen years of age and over, with the restriction that the money be used as seed capital to start a business venture” (p.256). In putting this suggestion forward, Sherraden was building on his idea of an asset-based theory of wellbeing, which first appeared under the title “Rethinking social welfare: toward assets” (1988). Within this asset-based theoretical framework, he proposed IDA programs as a strategy aimed at helping poor families build and accumulate assets for socio-economic empowerment and to reach important life goals.

Participants in IDA programs receive general financial educational classes on how to save small amounts of money with a formal financial institution, and these small savings are then matched over time to enable a participant invest in homeownership, education or a microenterprise. The accounts are in some ways similar to other defined contribution plans, such as 401(k) retirement plans. Just like 401(k) retirement plans, IDAs offer a monetary incentive for participation. Every dollar saved by an IDA participant—in an IDA account—is matched by funds from a private source (e.g., charitable organizations or foundations) or from a public source. Although programs may vary, participants usually receive general financial education and “goal” specific training. For example, an account holder saving for a micro-business receives general basic

instruction on financial management and consumption, including balancing a checkbook. In addition he or she receives micro-business specific training such as business-plan writing and marketing. The Corporation for Enterprise Development [CFED] (2002) estimates that by 2002, there were more than 500 IDA programs throughout the United States. The 1996 “welfare reform” law included IDAs as a state option, and a federal IDA demonstration created by the Assets for Independence Act began in 1998.

IDAs for microenterprise puts an emphasis on savings by program participants. Indeed it is mandatory for a participant to have a savings account. Otherwise, he or she will not be allowed to participate in the program. There are several probable reasons why some MEPs in the United States have embraced the idea of integrating IDAs and/or savings into their programs.

First, introducing poor microentrepreneurs to formal financial institutions is an important step that may allow some of them to establish credit that they may eventually need to support their businesses or to deal with a family financial crisis without disrupting business operation.⁴ As the World Bank (2001) observes, MEPs should move towards the direction of incorporating savings into their program designs “so that clients would not have to take out loans to cope with illness or death” (p.157). Moreover, just like any other financial savings, money in the IDA represents a form of self-insurance that can be drawn upon to buffer cash flow shortfalls and/or financial shocks of an IDA participant.

Second, money in IDA accounts, whether matched or not, could be used to supplement the ‘very tiny loans’ associated with credit-led MEPs (for a review of the size of the loans disbursed by credit-led MEPs, see Bates and Servon, 1996). It is worth noting that several empirical studies have found a positive association between the amount of starting capital and micro-business performance (see Koop, de Reu and Frese, 2000; Servon and Bates, 1998).

Third, IDA matches may provide the participants a chance to turn their tiny savings into relatively large lump sums that could easily enable them to take advantage of investment opportunities when they present themselves. Moreover, even without the match, the participants’ savings in the IDAs could eventually turn into lump-sums that could be used for larger acquisitions.

Fourth, developing an equity source (IDA funds + match funds) of business financing may increase business stability, leverage loans for participating entrepreneurs, and mitigate lender risk.

Fifth, developing a pattern of saving behavior and regular account deposits may improve credit status, by demonstrating the ability to re-pay a loan (see Glackin and Mahony, 2002).

The Study

The idea of promoting IDAs for MEPs has been put to the test in over 40 states across the United States of America as one of the strategies intended to address poverty and promote development. The poor are being encouraged to save and their deposits are being matched. However, since this is a relatively new program design in the MEP field, and because MEPs were originally

established to provide credit as opposed to saving services, there are many questions to be explored regarding how best to connect savings and MEPs. The goal of this study is to identify individual and institutional factors that can help explain outcomes of poor microentrepreneurs in savings led-MEPs in the United States.

Theory

Many microenterprise studies attribute observable outcomes to the microentrepreneur's individual resources. Factors like social, human and financial capital are usually highlighted as the key determinants (e.g., see Else and Gallagher, 2001; Servon and Bates, 1998; Also see Hulme and Mosley, 1996). A few studies (e.g., see Jorgensen, Hafsi, and Kiggundu , 1986; Sebstad and Cohen, 2000; Sherraden, Ssewamala and Sanders, forthcoming) have commented on the external environment, including macro-economic conditions, the legal system, and business infrastructure, as important in influencing the performance of microentrepreneurs.

However, institutional characteristics of the MEPs themselves are rarely included as part of the explanation or discussion. In fact, in cases where the micro-businesses have failed, critics have typically debated and questioned the skills, determination, and ingenuity of poor people (see Nelson, 2000 for details). This probably explains why theories related to human capital, social capital, and financial assets have guided most studies on microenterprise performance. Yet, while these theories may provide part of the explanation, they do not adequately explain all the phenomenon pertaining to microentrepreneur performance. Theorists have observed that institutions matter in shaping and influencing opportunities, behaviors, and individual performance (see, e.g., Beverly and Sherraden, 1999; Neale, 1987; North, 1990; Peters, 1999; Sherraden, 1991; Weaver and Rockman, 1993). For example, Guy Peters, in his book *Institutional theory in political science: the new institutionalism* (1999), writes that one cannot fully explain individual opportunities, actions and outcomes without being “aware of institutional influences” (1999, p.2). Sherraden (1991) has argued that 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 that has been established” (p.127). Against that background, we propose to take a closer look at institutional theory as an important theoretical framework that can explain the outcomes of microentrepreneurs.

The use and application of the term “institution” calls for clarification. According to Walter C. Neale (1987), although the term *institution* is widely used in all the social sciences, it has no well-defined meaning, whether across the social sciences or within any one of them. In this study, the term “institution” is used to refer to the characteristics of the programs implementing IDAs for MEPs. As mentioned earlier, the programs promoting IDAs for microenterprises are a diverse group of community development corporations, social service agencies, and for-profit and not-for profit organizations. Each program offers somewhat different opportunities, constraints, and consequences. It would be logical to assume that the diversity of these programs, in terms of institutional characteristics, has a lot to do with the outcomes of the participants. This is the basis for applying an institutional theoretical framework to this study. The core proposition to which most institutional theorists subscribe is that institutions modify behavior, opportunities and outcomes (see Neale, 1987). Indeed, Peters (1999) cautions

academicians not to consider individuals as fully autonomous actors, but take into consideration the influence of institutions. Sherraden (1991) maintains, “the middle class accumulates its wealth, not so much through superior individual investment, but through structured, institutionalized arrangements that are in many respects difficult to miss... these institutionalized arrangements provide tremendous access and incentives to accumulate assets” (p.127).

Beverly and Sherraden (1999) and Sherraden, Schreiner and Beverly (2003) identify key institutional constructs which they consider to increase individual savings and asset accumulation, especially among low income households: These institutional constructs are: access, incentives, information, facilitation and expectations.⁵ Sherraden, Schreiner and Beverly (2003) observe that access, incentives and information are constructs usually discussed in the institutional literature. Facilitation, which describes institutional arrangements that offer some form of assistance to the individual in the depositing process (for example through automatic payroll deduction) was added because it is a key feature of most contractual saving systems. Expectation as a construct was proposed based on qualitative research on IDAs. According to the qualitative data, many IDA participants explicitly say they are trying to save the “expected” amount each month, or that they are trying to reach a monthly saving target to “fulfill the staff expectation” (see Sherraden, Schreiner and Beverly, 2003, p.97-98). This implies that expectations—fostered through institutional arrangements—may cause low-income people to save more than would otherwise be anticipated.

Specific to an emerging institutional theory of savings Beverly and Sherraden (1999) advance the following hypotheses:

Incentives:

1. The higher the matching deposits, the greater the participation and savings.
2. The higher the earnings on savings, the greater the participation and savings.

Information:

1. The more the program outreach, the greater the participation and savings.
2. The more educational programming and “economic literacy,” the greater the participation and savings

Access:

1. The closer the proximity of the savings program, the greater the participation and savings.
2. The more the use of electronic deposits, the greater the participation and savings.

Facilitation:

1. The more involved the program and staff in assisting with saving, the greater the participation and savings
2. The more automatic the system (especially automatic deposits), the greater the participation and savings.

Research Questions and Hypotheses

Drawing on the institutional theoretical frameworks (discussed above) and applying it to 14 savings-led MEPs, this study attempts through quantitative empirical evidence to answer the following questions: (1) What individual characteristics are associated with saving outcomes of

a microentrepreneur associated with an IDA program? (2) What institutional characteristics are associated with saving outcomes of a microentrepreneur associated with an IDA program?

These two questions are important for a number of reasons, but three predominate: First, to the best of our knowledge, this would be the first time that such questions, as they relate to savings-led MEPs in general and IDAs in particular, have been posed and empirically tested. Thus, answers to these questions will contribute to the current body of microenterprise knowledge. Second, results will inform programs and policies designed to connect IDAs and MEPs. More broadly, results will have implications for savings as a component in microenterprise programs and policies. Third, since this is a pioneering study in this field, the findings will inform, guide, and shape future research.

Measurement

Dependent Variable

Consistent with existing studies on IDA programs (see Schreiner, et al., 2001; 2002), this study uses Average Monthly Net Deposit (AMND) as the measure of “participation and saving” among the microentrepreneurs in IDA programs.

AMND is defined as net deposits per month of participation. The measure controls for the length of time that a participant has had the opportunity to save in an IDA program. Higher AMND implies higher savings.

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

The variable “net deposit”, which is used to calculate AMND, is defined as deposits plus interest minus unmatched withdrawals. Net deposit includes matched withdrawals, but excludes unmatchable deposits in excess of the match cap⁶, or after the time cap⁷ period. Higher net deposits imply higher savings.

Independent Variables

Institutional Characteristics

Incentives.

Incentives constitute mechanisms provided by programs to encourage higher participant savings. The following survey item is used to measure incentives for microenterprise participants.

1. What was the match rate offered to the IDA participants saving for microenterprises? It is hypothesized that the higher the earnings on savings (exemplified by a higher match rate), the greater the participation and savings.

Information.

This construct is specified as the training provided by the program related to IDAs. In this study, the following items are used to measure information.

1. How much financial education (in hours) was offered to each participant? It is hypothesized that the more financial education (in hours) offered to the participant, the greater the participation and savings.

2. What was the format of the classes used during financial education classes? (i.e., was it small group, seminar or other?). It is hypothesized that the more peer modeling and information sharing (through small groups), the greater the participation and savings.

Facilitation.

This construct describes institutional arrangements that make depositing for the participant easier. It includes arrangements whereby depositing is actually done for the participant, as in automatic payroll deduction, or occurs with some other form of assistance. According to Sherraden, Schreiner and Beverly (2003), this construct is a key feature of most contractual saving systems. For this study, the following item is used to measure facilitation:

1. Was automatic direct deposit offered to participants? It is hypothesized that the more automatic the system, the greater the participation and savings.

Access.

This construct describes institutional mechanisms that make the saving process by the participant convenient. The following items are used:

1. How many deposit locations were available to participants? It is hypothesized that the more the number of saving deposit locations, the greater the participation and savings.
2. Were there penalties if minimum saving requirements were not met?
3. Were the penalties enforced? For items 2 and 3, it is hypothesized that the more flexible the program rules and staff, the greater the participation and savings.

Expectations.

Expectations constitute what programs expected from participants. The following item is used:

1. Did participants have a minimum required monthly savings amount? If yes, what was the amount? It is hypothesized that the higher the minimum required monthly savings amount, the greater the participation and saving.

Entrepreneur's socio-demographic characteristics

The socio-demographic characteristics included in this study are gender, age, race or ethnicity, marital status, education, employment status⁸, total household income, receipt of TANF or AFDC (measured using the following items: have you ever been a recipient of TANF or AFDC?; are you presently a TANF recipient?); car ownership, homeownership, micro-business ownership, household status of participant (measured using the following two items: how many adults, 18 years and older, currently live in participant's household?; how many children, under 18 years, currently live in participant's household?).

Data and Methods

Data Set

The study uses data from the "American Dream Demonstration (ADD)." ADD is the first and most extensive study of IDAs. Starting in 1997, ADD followed over 2,000 low-income participants at 14 community-based program sites (hosted within 13 programs) across the United States (.). ADD ran for four years (1997-2001). The Corporation for Enterprise Development (CFED) in Washington, DC, designed and guided ADD, while the Center for Social Development (CSD) at Washington University designed and conducted much of the research.

The research design is an extensive multi-methods design comprising both qualitative and quantitative methods.

Two primary datasets are used in this study. One is the ADD monitoring data, collected through MIS IDA. MIS IDA, designed by CSD for this research purpose, tracks program characteristics, participant characteristics (both socio-demographic and financial), and all IDA saving transactions for all ADD participants (N=2,351) at all 14 ADD program sites.⁹ The saving transaction data come from financial institutions and as such are highly accurate. This is the most detailed existing data set on saving behavior in a matched saving program and probably the most detailed existing data set on saving behavior by a low-income population. Data used in this study cover saving transactions of the ADD participants through December 31, 2001.

MIS IDA data are supplemented with more extensive data on IDA programs from a survey conducted across the 14 ADD programs. The program survey data were collected using a combination of face-to-face and telephone interviews with personnel from the 14 IDA programs sites in ADD. The interview questions were designed based on the constructs proposed in the institutional theory of saving (Beverly and Sherraden, 1999; Sherraden, Schreiner and Beverly, 2003). The interviews were conducted in fall of 2002. Because ADD was initially set up as a national demonstration for IDAs, program administrators/directors were committed to participating in studies until 2003.

From MIS IDA data, we purposefully extract all the microentrepreneurs, defined as all IDA program participants who have used their IDA savings for microenterprise, or those participants who identified their intended saving goal as microenterprise. The final sample for the study includes 457 participants.

Table 1. The 13 Host Organizations in ADD

Host Organization	Location	Type of Community	Type of Organization	Targeted Participants for IDAs
ADVOCAP	Fond du Lac, WI	Small town and rural area	Community action agency	Former AFDC/TANF recipients; working poor people
Alternatives Federal Credit Union	Ithaca, NY	Small city and rural area	Community development credit union	Single parents; youth
Bay Area IDA Collaborative	Oakland, CA	Urban	Collaborative of 13 community-based organizations	Low-income Asian Americans; African Americans; Latinos
CAAB Corporation	Washington, DC	Urban	Collaborative of 8 community-based organizations	TANF recipients; youth; African Americans; Latinos; Asian Americans
Central Texas Mutual Housing Association	Austin, TX	Urban	Not-for-profit housing organization	Rental property residents; youth
Central Vermont Community Action Council	Barre, VT	Small towns and rural areas	Community action agency and community development corporation	TANF recipients; youth
Community Action Project of Tulsa County	Tulsa, OK	Urban	Community-based anti-poverty organization	Program 1: Working families with children at or below 200% of poverty. Program 2: at or below 150% of poverty.
Heart of America Family Services	Kansas City, MO	Urban	Community-based family-services agency	Latinos; African Americans
Human Solutions	Portland, OR	Urban	Not-for-profit housing organization	Rental property residents
MACED	Berea, KY	Small towns and rural areas	Association of community development organizations	African Americans; rental property residents; working poor
Near Eastside IDA Program	Indianapolis, IN	Urban	Social-service organization / Community development credit union	Neighborhood residents; youth
Shorebank Corporation	Chicago, IL	Urban	Community development bank with not-for-profit affiliate	Rental property residents; Shorebank customers
Women's Self-Employment Project	Chicago, IL	Urban	Microenterprise-development organization	Low-income, self-employed women; public housing residents

Source: Sherraden, et al. (2000)

Analyses

As indicated above, this study focuses on the ADD participants saving for microenterprises (n=457). On the dependent variable measuring participation and saving, a hierarchical multiple regression model is carried out. In the first step of the regression, the dependent variable is regressed on microentrepreneurs' individual characteristics. This is an exploratory multiple regression model asking the question: what individual characteristics influence the saving performance of a microentrepreneur? The second step of the hierarchical regression asks two questions: (1) Controlling for the effects of individual characteristics, what program characteristics are associated with saving performance? (2) Controlling for the effects of individual characteristics, do institutional characteristics (as a block) influence the saving performance of a microentrepreneur? Based on the theoretical framework guiding this study, it is hypothesized that the variance explained in the original model (which includes only individual characteristics) would significantly increase when institutional characteristics are entered into the regression.

Results

Descriptive Statistics

As indicated in Table 2, the majority of the participants are female (79 percent) and the average age is 39 years. About 49 percent are African American, 35 percent are Caucasian, 8 percent are Latino, 2 percent Native Americans and 2 percent are Asian. About 3 percent of the participants identify themselves as "other" ethnicities. Slightly under half of the participants (48 percent) are single (never married), 20 percent are married, 29 percent are divorced/separated while 3 percent are widowed.

At least 51 percent of the participants work full time (35 hours per week or more), while 25 percent worked part-time. Sixteen percent were unemployed or not working while 7 percent were students. About 12 percent have not completed high school, 21 percent completed high school or have a GED, 37 percent attended some college but did not graduate, and 29 percent have a college degree (2-year/4-year and above).

About 34 percent reported having used AFDC/TANF (formerly and/or presently). Slightly above 90 percent (91%) live in households with incomes below 200 percent of the poverty line, and about 54 percent are below the poverty line. About 22 percent own a home and 29 percent own a micro-business (see Table 2).

Table 2. Characteristics of the Sample [N=457]

Variables	Percentage; Mean
<i>Gender</i>	
Female	79%
Male	21%
<i>Age</i>	
	39
<i>Race/Ethnicity</i>	
African American	49%
Hispanic/Latino	8%
Asian	2%
Native American	2%
Caucasian	35%
Other	3%
<i>Marital Status</i>	
Married	20%
Divorced/separated	29%
Widowed	3%
Never Married	48%
<i>Household Composition</i>	
Adults (18yrs or older)	1.5
Children (17 yrs or younger)	1.4
<i>Employment Status</i>	
Full-time (>35 hrs per week)	51%
Part-time (<35 hrs per week)	25%
Not working	16%
Student	7%
<i>Education</i>	
High school grad - no	12%
High school grad or GED - yes	21%
Attended some college (didn't graduate)	37%
Graduated (2 year/4 year college +)	29%
<i>Welfare use</i>	
TANF or AFDC never	66%
TANF or AFDC used/using	34%
<i>Poverty levels</i>	
At or below 50 percent	26%
At or below 100 percent	54%
At or below 150 percent	79%
At or below 200 percent	91%
<i>Assets ownership</i>	
Own a car	66%
Own a home	22%
Own a micro-business	29%

Institutional Characteristics

About 22 percent of the ADD participants saving for microenterprises have received or will receive a 1:1 match rate on their savings to start and/or capitalize their existing businesses. Slightly above half of the participants (51 percent) have received or will receive a 2:1 match rate; and 27 percent have received or will receive a 2.5:1 to 6:1 match rate (see Table 3). The average monthly target is \$32.16 and the average hours of general financial education is 13.15. Forty-seven percent of all the participants saving for microenterprises are in programs which have a peer-group mentoring system, and on average, participants can make in each program an IDA deposit at 12.6 saving deposit locations. Forty-six percent are in programs which identified themselves as being “strict” with enforcing program rules and penalties. Fifty-eight percent of the participants saving for microenterprises are in programs associated with financial institutions which encourage direct deposit for the IDA deposits.

Table 3. Institutional Characteristics [N=457]

Variables	Percentage; Mean
<i>Match Rates</i>	
1:1	22%
2:1	51%
2.5:1 to 6:1	27%
<i>Match Cap(Monthly Target)</i>	32.16
<i>Hours of General Financial Education</i>	13.15
<i>Peer Group Meetings</i>	
Yes	47%
No	53%
<i>Number of Saving Deposit Locations</i>	12.6
<i>Program rules enforced (penalties enforced)</i>	
Strict	46%
Not strict	54%
<i>Program Encourages Direct Deposit</i>	
Yes	58%
No	42%

Individual and Institutional Characteristics

In this section, we present results from two OLS multivariate models that are executed to establish the association between: (1) participant characteristics and IDA participation and saving, and (2) institutional characteristics and IDA participation and saving.

First, we present OLS regression model when the measure of participation and saving (AMND) is regressed on the independent variables (individual and institutional characteristics). Next, using hierarchical regression, we assess the contribution of institutional characteristics, as a block, when the effects of individual characteristics are controlled for. The results are presented in Tables 4 and 5.

OLS Regression Models

Relationships of individual characteristics, institutional characteristics, and average monthly net deposit (AMND)

The results of the model when AMND is regressed on individual characteristics and institutional factors (see Table 4), indicate that the overall model is significant [F (30, 394)=7.04, p<.01)], and explains 35 percent of the variance in the dependent variable (R²=.35, Adjusted R²=.30).

Table 4. Regression Analysis: Individual Characteristics, Institutional Characteristics and Average Monthly Net Deposit [n=457]

Independent Variables	b	se	t	p-value
Intercept	-19.96	9.66	-2.07	0.04*
<i>Individual Characteristics</i>				
Gender				
Female	1.84	2.71	0.68	0.50
Male (reference group)				
Race/ethnicity				
African American	-2.44	2.90	-0.84	0.40
Hispanic/Latino	3.79	4.26	0.89	0.37
Other ethnicities	0.04	4.17	0.01	0.99
Caucasian (reference group)				
Age	-0.11	0.10	-1.07	0.28
Marital status				
Single	3.79	2.88	1.32	0.19
Married (reference group)				
Household composition				
Adults [18 years or older]	1.54	1.57	0.98	0.33
Children [17 years or younger]	0.18	0.78	0.23	0.82
Employment status				
Employed full-time [>35 hrs/week] (ref. group)				
Employed part-time [<35 hrs per week]	2.25	2.52	0.89	0.37
Unemployed/not working	0.68	3.19	0.21	0.83
Student	1.61	4.07	0.40	0.69
Education				
Did not graduate from high school	-11.32	3.62	-3.13	0.002**
Completed high school or earned GED	-0.88	2.94	-0.30	0.77
Attended college but didn't graduate	-6.53	2.52	-2.59	0.01**
Graduated [2yr/4yr-college+] (ref. group)				

(continued)

Table 4 (continued)

Independent Variables	b	se	t	p-value
Welfare use				
TANF or AFDC using now/used formerly	2.01	2.44	0.82	0.41
TANF or AFDC never (reference group)				
Income to poverty ratio	4.93	1.64	3.00	0.003**
Assets ownership				
Own a car	-0.92	2.35	-0.39	0.70
Own a home	11.60	2.70	4.30	0.000**
Own a micro-business	7.13	2.39	2.99	0.003**
<i>Institutional Characteristics</i>				
Match rate				
1:1	-13.19	4.49	-2.94	0.003**
2:1	1.35	2.74	0.49	0.62
2.5:1 to 6:1 (reference group)				
Match cap (monthly savings target)	0.29	0.12	2.45	0.02*
Hours of general financial educ (spline)				
1 to 6	2.79	0.76	3.66	0.000**
7 to 12	-0.41	0.67	-0.61	0.55
13 or more	0.01	0.14	0.09	0.93
Peer Group Meetings	9.53	2.63	3.62	0.000**
Yes				
No				
Penalty enforcement				
Not strict	9.66	3.45	2.80	0.003**
Strict				
Number of Savings Deposit Locations	0.20	0.07	2.98	0.005**
Direct Deposit Encouraged				
Yes	2.34	3.13	0.75	0.45
No				
R ²	.35			
Adjusted R ²	.30			
F	7.04			
df	30			

*p ≤ .05 ** p ≤ .01

Notes: b= Unstandardized regression coefficients; se= Standard error

Individual Characteristics Associated with Participation and Saving

We turn now to a closer look of regression results for saving performance and individual characteristics. To begin, we note non significant results for gender, race or ethnicity, age, marital status, employment status (participants working part-time, the unemployed/not working, and students are not statistically different on participation and saving, from participants employed full time which is the reference group), household composition, and welfare use (current or former receipt of TANF/AFDC is not associated with participation and saving in

IDA, which may imply that controlling for other factors, welfare recipients saving for microenterprise in IDA may fair just as well or just as bad as non-welfare recipients. In other words, if connected to the institutions of saving, welfare recipients may perform as well as others, and may be able to capitalize a micro-business). (See Table 4).

Education

Compared to the reference education group (college graduates, 2-year or 4-year and above), participants with no high school diploma save significantly less (\$11.32 less) in average monthly net deposit [AMND] ($b=-11.32$, $p<.01$) (see Table 4). Moreover, compared to the reference education group, having some college (but no degree) is associated with \$6.52 less in average monthly net deposit. This is a statistically significant difference ($b=-6.52$, $p\leq.05$). (See Table 4). This finding is consistent with human capital theory, which identifies capital invested in human beings as “the most valuable of all capital” (Alfred Marshall, cited by Becker, 1993, p.27). Educational attainment is often used as a proxy to represent human capital. Based on the premises of human capital theory, it would be logical to suggest that microentrepreneurs with higher educational achievements would participate and save better. Even with the financial education provided by the IDA programs, microentrepreneurs who come to the program with higher education levels may be more likely to learn from such training. They may also be more likely to understand issues regarding financial management. Therefore, higher saving performance might be expected. However, these conclusions on human capital are tentative. It is not clear why there was no statistical difference between the participants who completed high school or earned a GED and those who graduated from a 2-year or 4-year college. Additional research would be helpful.

Income to poverty ratio

Income-to-poverty ratio is positively associated with AMND ($b=4.9$, $p<.01$), meaning that compared to a participant with an income-to-poverty ratio of 100 percent, a participant with an income-to-poverty ratio of 200 has an expected AMND that is \$4.90 higher (see Table 4). Indeed, such a finding could be expected because, less income may translate into a struggle for saving regardless of how much a participant may want to participate and save. As economic theory predicts, people with greater incomes may save more.

Asset ownership

Asset ownership (specifically owning a micro-business and owning a home) is strongly associated with participation and saving in an IDA program. Participants who already own a micro-business, controlling for other factors, save \$7.13 more in AMND and this effect is statistically significant ($b=7.13$, $p<.01$) (see Table 4). Similarly, participants who own a home, controlling for other factors, save \$11.60 more in AMND and this effect is statistically significant ($b=11.60$, $p<.01$).

This finding is consistent with asset theory, which suggests multiple positive effects of asset ownership. For example, in addition to their ability to improve household stability and create interest in the future, assets may stimulate development of other assets (Sherraden, 1991). From this perspective, it is not surprising that, in this study, microentrepreneurs with assets participated and saved significantly more than those without.

On the other hand, asset ownership may be a proxy for: (1) unobserved financial management and resource allocation skills that would increase participation and saving; (2) unobserved future orientation; (3) a presence of resources (social, political, financial, and psychological) that, in case of an emergency, can be drawn upon (Schreiner et al., 2001). From this perspective, assets would not be causing other positive outcomes, but rather representing greater capacity overall.

There is, however, no significant association between owning a car and participation and saving in an IDA program (see Table 4).

Institutional Characteristics Associated with Participation and Saving

Incentives

Hypothesis 1: The higher the match rate, the greater the participation and saving.

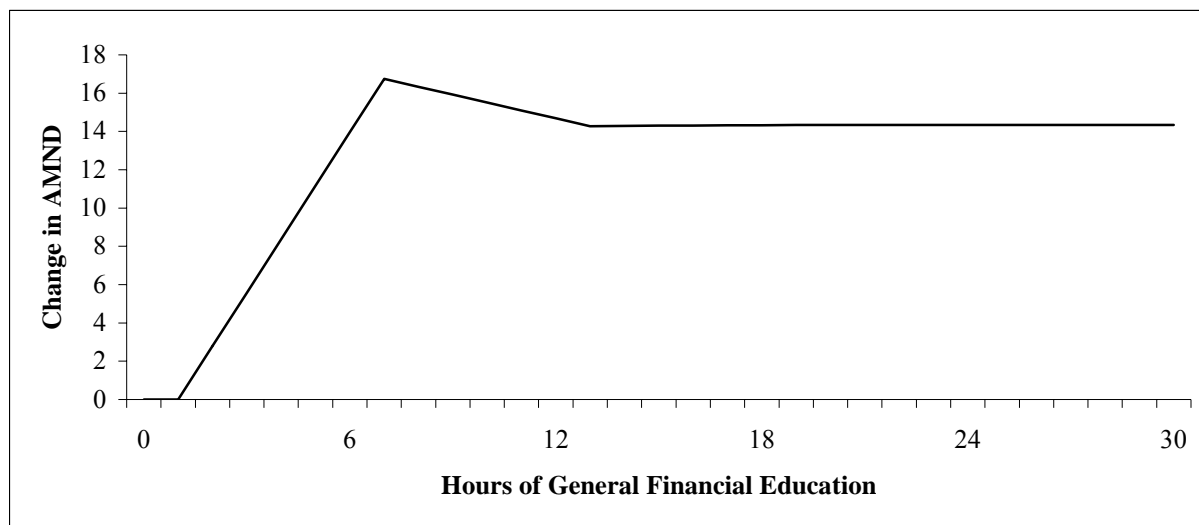
There are significant associations between match rate and participation and saving in an IDA program. Compared to the reference group (participants with a 2.5:1 to 6:1 match rate), participants in programs which provide a match rate of 1:1 (matching a dollar to a dollar) are associated with less savings in AMND (\$13.19 less)($b=-13.19$, $p<.01$). (See Table 4). However, there is no significant difference in AMND between the reference group and those with a match rate of 2:1 ($b=1.35$, $p=0.62$).

Information

Hypothesis 2: The more economic education (in hours), the greater the participation and savings.

There is a significant association between hours of general financial education and participation and saving in an IDA program. Between 1 to 6 hours of general financial education (or for the first six hours of general financial education), AMND increases by \$2.79 dollars per an additional hour ($b=2.79$, $p<.01$). However, after the sixth hour, the relationship between general financial education and AMND becomes statistically insignificant (Table 4 and Figure 1).

Figure 1. Effect of Hours of General Financial Education on Average Monthly Net Deposit



As indicated in Figure 1, the slope is steepest between 1 to 6 hours meaning that a small amount of general financial education (1 to 6 hours) is associated with a significant increase in participation and saving, but after six hours, additional hours do not have a significant link with participation and saving.

Hypothesis 3: Participants in programs with peer group meetings (which allow for information sharing) have greater participation and savings.

Peer group meetings are significantly associated with participation and saving. Participants in programs which have peer group meetings, on average, are associated with a significantly higher AMND (\$9.53 more) than participants in programs that do not have peer group meetings ($b=9.53$, $p<.01$) (see Table 4). In other words, programs which provide peer group meeting save an average of \$9.53 more.

Access

Hypothesis 4: The more the number of saving deposit locations, the greater the participation and savings.

Number of saving deposit locations is significantly associated with participation and saving. As indicated in Table 4, there is a positive association between number of saving deposit locations and AMND ($b=0.20$, $p<.01$). Each additional deposit location would be associated with \$0.20 increase in AMND.

Hypothesis 5: The more flexible the program rules and staff, the greater the participation and savings.

Flexibility of programs rules and staff is significantly associated with participation and saving. Table 4 indicates that, on average, participants in programs which identified themselves as “not strict” with enforcing program rules saved significantly more in AMND (\$9.66 more) than participants in programs which identified themselves as “strict” with enforcing program rules ($b=9.66$, $p<.01$).

Facilitation

Hypothesis 6. The more automatic the system (especially automatic deposit), the greater the participation and savings.

Direct deposit is not statistically associated with participation and saving (see Tables 4). ($b=2.34$, $p=.45$). Thus, in this study, the hypothesis that the more automatic the system, the greater the participation was not supported.

Expectation

Hypothesis 7. The higher the match cap, the greater the participation and savings.

Expectation, measured by monthly saving target, is statistically associated with participation and saving ($b=.29$, $p\leq.05$), meaning that each additional dollar (\$1) in monthly savings target is significantly associated with an additional 29 cents in AMND.

Institutional Characteristics as a “Block”

Institutional theorists point out that we cannot expect individual factors to explain all phenomena. In order to assess the extent to which institutional characteristics can account for the outcomes of a microentrepreneur in an IDA program, hierarchical regression was used. The individual factors, as a block, were entered in the multiple regression model first and the variance explained in the dependent variables noted.

Next, if there is a significant increment in the regression model when measured institutional characteristics as a block are added, then the institutional theorists' argument that institutions matter would be supported. Tables 5 shows that, controlling for individual characteristics, institutional characteristics as a block significantly increase the variance explained in participation and saving in an IDA among the microenterprise group.

Table 5 indicates that individual characteristics as a block account for 23 percent of the variance in participation and saving in an IDA program ($R^2=.23$). However, when measured institutional characteristics are entered into the model as a block, controlling for individual characteristics, the variance explained in participation and saving increases to 35 percent. This is a change in R^2 of .12 and this change is statistically significant ($p<.01$). Moreover, when program dummies (unobserved factors linked with programs) are included in the model, the variance explained in the overall model increases by another 10 percent, resulting in the overall variance explained in model 3 (individual characteristics + measured institutional characteristics + program dummies) to 45 percent ($R^2=.45$). This change is also statistically significant ($p<.01$).¹⁰

Table 5. Hierarchical Regression: Influence of Individual and Institutional Characteristics on Average Monthly Net Deposit

Model	R^2	Adjusted R^2	Change in R^2
Model 1: <i>Individual Characteristics:</i> [gender, race/ethnicity, age, marital status, household composition, employment status, education, welfare use, income to poverty ratio, asset ownership, date of enrollment]	.23	.19	
Model 2: <i>Measured Institutional Characteristics</i> [match rate, match cap, hours of general financial educ, peer group meetings, penalty enforcement, number of savings deposit locations, direct deposit]	.35	.30	.12**
Model 3: <i>Unobserved Factors Linked with Programs</i> [ADVOCAP, Alternative Federal Credit Union, Bay Area IDA Collaborative, Central Texas Mutual Housing, Community Action Project of Tulsa, OK., Heart of America Family Services, Human Solutions, MACED, Near Eastside IDA Program, Shorebank Corporation, Women's Self-Employment Project]	.45	.39	.10**

**p<.01

Notes: See Table 1 for descriptions of programs.

Overall, increments in the variance explained when measured institutional characteristics and program dummies (representing unobserved factors linked with IDA programs) were entered into the regression model, controlling for the effects of individual characteristics, support the view of institutional theorists that institutions modify saving behavior and outcomes. In other words, we cannot fully understand participation and saving in a program by focusing exclusively on individual traits. And, if we want to boost savings, factors of institutional design matter.

Discussion and Implications

Overall, the findings of this study support existing studies that have explicitly or implicitly shown that some microentrepreneurs can save (see Anthony, 1999; FINCA, 2002; Rutherford, 2000). The average monthly net deposit (AMND) for the microentrepreneurs in this study is \$18.70. Given the average match rate of 2:1, the microentrepreneurs in this study on average accumulated \$56.10 per month (savings + match), or \$673.20 a year. Thus, participants in the IDA programs who are saving for microenterprise can more readily capitalize their businesses. While this amount of capital may seem small to some observers, an infusion of even a few hundred dollars for a piece of equipment or supplies can be crucial for very small businesses. We do not know from the current study, however, how the businesses actually performed.

Institutional Characteristics and IDA Participation and Saving

First, this study supports the view that institutions matter in influencing opportunities and outcomes. The significant increments in variance explained when both measured institutional characteristics and program dummies (representing unobserved factors with IDA programs) were entered into the regression models, controlling for the effects of individual characteristics, lend support to the view that institutions matter. Results support the argument espoused by institutional theorists that institutions modify opportunities, behavior, and outcomes. If this is so, then there may be a positive role for policy and programs designed to promote and subsidize saving for microenterprise.

Second, consistent with earlier studies on ADD (Schreiner, et al. 2001; 2002), this study finds that general financial education may increase participation and saving up to a point. Thus, in order to cut down on program costs, IDA programs, which require more than 12 hours of general financial education should re-evaluate that requirement and perhaps reduce on the number of hours of financial education.

Third, the study finds that expectations for saving may increase participation and saving performance. These findings are consistent with Schreiner et al. (2001) who have argued that higher savings targets would be associated with higher participation and saving because “participants change caps into targets in their minds” (p.66). This implies that setting a higher match cap may cause microentrepreneurs in IDA programs to take advantage of the higher match caps and more substantially capitalize their businesses.

Fourth, the study finds that programs that are more flexible with enforcing rules are associated with more positive participation and saving. This is not to suggest that programs should not enforce rules, but perhaps they should be mindful of the fact that a considerable number of the IDA participants, however much they may want to participate and save, have constraints making it difficult to do so.

Fifth, results indicate that the number of saving deposit locations is positively associated with participation and saving among the microenterprise group in ADD. This would be expected because of the convenience and reduced transaction costs associated with more saving deposit locations.

Sixth, regarding match rate, the results indicate that participants who receive a match rate of 1:1 participate and save less compared to participants who receive a match rate of 2:1 (the reference group). However, there is no significant difference between participants who receive a match rate of 2.5:1 to 6:1 and participants who receive a match rate of 2:1. This suggests that financial incentives, up to a point, may provide motivation to save.

Seventh, IDA programs that use peer group meetings register higher levels of participation and saving. Thus, programs may want to consider incorporating peer group meetings within their program designs.

Lastly, this study finds that direct deposit is not statistically associated with participation and saving, although examples from in-depth interviews (not presented here) suggest that, where direct deposit is available, participants appreciate it. Also, Sherraden, Schreiner and Beverly (2003) find that direct deposit may be a positive feature of IDA programs.

Three limitations of this study should be highlighted. First, the IDA participants are not a random sample. They are both self-selected and program selected. As Schreiner et al., (2001) observe, IDA programs target certain people, and the eligibles in the target group who expect the greatest net benefits are the ones most likely to enroll. Therefore, results of this study may not be representative of how the poor overall would perform in an IDA program. Second, the individual characteristics analyzed in this study were recorded at enrollment. There is a possibility for some characteristics, which may have a direct influence on saving outcomes, to change. However, we do not know whether some characteristics changed, or how they changed. Third, lack of control in the data used in this study makes it difficult to establish the effects of institutions on participants' outcomes. It is not possible to say how these participants would have performed if they had not interacted with ADD programs. One of the ways of ascertaining this would be use a control group. In ADD, one of the study methods is an experiment with a control group. However, these data are not yet available.

Implications

A number of policy, practice, and research implications follow from this study. These include the following:

First, incorporating savings into MEPs may be desirable. This study has documented that poor microentrepreneurs can save in IDAs. Moreover, money in the IDA represents a form of readily available self-insurance that can be drawn upon to buffer cash flow shortfalls and/or financial shocks of a poor microentrepreneur in an IDA program. Thus, public policy should consider IDAs for microenterprise.

Second, IDA programs that intend to integrate savings into microenterprise should focus not simply on individual characteristics, but on institutional characteristics as well. The programs' implementation plans should focus not simply on changing individual traits but also on creating institutional structures and incentives that facilitate participation and saving. It is likely that microentrepreneurs in ADD are responding to institutional structures and incentives. When these are removed, saving will probably decline. To illustrate, how many middle class workers would save for retirement if their 401(k) programs no longer existed?

Third, although the "size" of the match rate beyond 2:1 may not be important, some degree of incentives matters. The results indicate that participants who receive a match rate of 1:1 participate and save significantly less compared to participants who receive a match rate of 2:1. However, there is no significant difference between participants who receive a match rate 2.5:1 to 6:1 and participants who receive a match rate of 2:1. This finding is consistent with several studies on savings patterns in 401(k) plans (see Engen, Gale and Scholz, 1996; Kusko, Poterba and Wilcox, 1994; Papke, 1995). For example, using plan level data from Internal Revenue Services form 5500 filings, Papke (1995) finds that participation increases substantially when an

“employer moves from a zero to a small or moderatory sized match; but that at higher match rates employee contributions fall” (p.311). Similarly, a study by Kusko, Poterba and Wilcox (1994) regarding participation and contribution by employees in a 401(k) plan, finds little effect on either participation or contribution, by the plan participants, at higher match rates. One plausible explanation for these results is that a positive match is necessary to get people to participate and save, but the total effect of this incentive occurs at modest levels of match. Another possible explanation is that at higher match rates, the income effect begins to counter the incentives effect, perhaps even overwhelming it. This latter explanation is consistent with the findings of Papke (1995, see above).

However, an alternative explanation, specifically for IDAs (which are targeted to low-income families), is that low-income families have, in most cases, fixed incomes and/or financial resources that they can transfer or shift into savings accounts to maximize on the rate of return. Indeed, everything being equal, these families can only save “so much” at any one given time, given the financial resources and assets available to them. In other words, although participants who receive a higher match rate may be willing to save more to maximize the rate of return on their savings, they may not be able to do so because they have limited financial resources.

Match rate has other important purposes besides incentivizing savings. With higher match rates, assets accumulate faster, and this may be a legitimate policy objective. As Sherraden (1991) observes, current policy already provides substantial subsidies for asset accumulation for the non-poor, so why not do the same for low income families?

Fourth, we find that general financial education, up to a point, is positively associated with participation and saving in IDAs. Thus, financial education, at least up to six hours, should be considered as part of programs offering IDAs for microenterprise. As indicated in the discussion section, this finding is important because of the cost of running IDAs. If IDA programs are to go to full scale, costs must be contained. Why provide 12 financial education sessions when six or perhaps less would be sufficient to produce the desired results in IDA participation and saving?

Fifth, the study finds that peer group meetings among participants may encourage information sharing, and may increase participation and saving. In microenterprise practice, the idea of promoting peer groups is not new. In fact, a considerable number of microenterprise programs in developing countries (such as the Grameen Bank in Bangladesh; Uganda Women’s Finance Trust; FINCA in Latin America) use peer groups in extending loans and related services such as training to microentrepreneurs. It is believed that the group members, who usually have similar social and economic backgrounds, act as a source of support, networking, and training for each other. However, in the United States, the support for using peer groups as a way of promoting microentrepreneurship has been mixed. There are claims that peer groups would not be successful in the U.S. because the poor in the United States “are relatively impoverished in social capital” (Balkin, 1993, p. 253-4). Results of this study indicate that, when integrating savings into microenterprise programs, some form of peer groups may be desirable.

Finally, more research is needed on institutional effects on saving performance. This study suggests that some variance attributable to the institutional characteristics was not captured by

measured institutional characteristics. It will be very important to learn more about what institutional characteristics affect saving performance.

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Notes

¹ The terms *microenterprise*, *micro-business* and *small business* are often used interchangeably, even though their meanings can be distinct. Nevertheless, because some of the studies reviewed here do not make a distinction between these concepts, the concepts will be used interchangeably in this study to mean a small business that has fewer than 5 employees (including the owner or "microentrepreneur"), and that generally lacks access to conventional loans, equity, or other banking services (United States Small Business Administration, 2002).

² Current United States Federal government agencies supporting microenterprise development include: Department of Treasury: Small business administration community development financial institutions fund; Department of Commerce: the economic development administration; Department of Agriculture; Department of Health and Human Services: the office of community services and office of refugee resettlement; Department of Housing and Urban Development: community development block grants; and Department of Labor (SBA, 2002).

³ An alternative phrase might be savings-led microenterprise programs. IDAs for microenterprise have a somewhat different meaning because IDAs are matched (or subsidized) savings.

⁴ For those financial lending institutions which consider savings before making a lending decision, savings in an IDA may be used as one of the indicators of the financial discipline of a potential borrower.

⁵ Each of these constructs has been defined in the description section of the independent variables.

⁶ Match cap is the limit on the amount of matchable deposits possible during a specified period of time. For example, in an *annual match-cap structure*, participants face a match cap in each participation-year.

⁷ Time cap is the number of months after opening an account in which a participant may make matchable deposits.

⁸ Participants are asked to choose from a list of employment statuses. The list includes: Employed more than full-time (overtime, or working more than one job); Employed full-time (35-40 hours); Employed part-time (up to 35 hours); Working and in school; Laid off, waiting for a call back; Currently seeking employment; Currently in school or job training program; Homemaker, not seeking employment; Disabled, not seeking employment; Retired, not seeking employment; Unknown. These groups are later condensed into four main groups: (1) employed full-time (>35 hours per week), (2) employed part-time (<35 hours per week); (3) unemployed/not working; (4) student

⁹ MIS IDA generates a comprehensive database on program characteristics and participant characteristics. IDA staff record five types of data in MIS IDA: account-structure parameters at the start of the program, socio-economic data on participants at enrollment, monthly cash-flow data from account statements, monthly inputs and expenses, and intermittent events such as class attendance and exit (Schreiner et al, 2001. Also see Johnson, Hinterlong, and Sherraden, 2000).

¹⁰ In order to avoid a multi-collinearity problem with other variables in the regression, program dummies (unobserved factors linked with programs) were used only in the hierarchical regression testing for the increment in the variance explained. They were excluded when analyzing the influence of each independent variable. If not addressed, multi-collinearity may affect the precision of estimation (although not necessarily its correctness).