

Working Papers

Savings Outcomes of Single Mothers in Individual Development Accounts

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Working Paper No. 03-07

2003



Center for Social Development



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George Warren Brown School of Social Work

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Min Zhan
Assistant Professor
University of Illinois at Urbana-Champaign
School of Social Work
1207 W. Oregon
Urbana, IL 61801
Ph: (217) 244-5252
Fax: (217) 244-5220
Email: mzhan@uiuc.edu

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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
<http://gwbweb.wustl.edu/csd>

Abstract: *This study examines savings outcomes of single mothers in Individual Development Accounts (IDAs), a structured savings program for the poor. Results indicate that low-income single mothers can save in IDAs. Results also show that participant characteristics, in general, have little impact on savings outcomes. Program variables such as monthly savings target and financial education are linked with savings. Policy implications are discussed.*

Keywords: individual development account, single mothers, financial education, savings

Background

Mother-only families have increased rapidly in the past four decades, and these families are much more likely to live in poverty than two-parent families (Furstenberg, 1990; Garfinkel & McLanahan, 1986; United States Bureau of the Census, 2001). As such, previous studies have examined reasons for the economic hardship of single mothers, and indicated that contributing factors include their low earning capacity, low job opportunities in economically depressed areas, lack of child support, and meager public benefits (McLanahan & Booth, 1989; McLanahan & Sandefur, 1994; Nichols-Casebolt & Krysik, 1997; Rocha, 1997). Another important factor, lack of accumulation in assets, has been increasingly recognized in recent years. Studies show that increasing asset inequality has become much more prominent than income inequality (Oliver & Shapiro, 1995; Wolff, 1995). Compared to middle class and higher income Americans, low-income single mothers save much lower portions of their income and accumulate fewer assets (Bernheim & Scholz, 1993; Carney & Gale, 1999). Lack of asset accumulation may not only contribute to the low economic status of single mothers but, more importantly, restrict their economic mobility (Sherraden, 1991).

It is, therefore, necessary to examine whether low-income single mothers can save and under what circumstances. In this study, drawing on a general research report (Schriener et al., 2001), savings patterns of single mothers are examined in a structured savings program for the poor—Individual Development Accounts (IDAs). IDA programs provide matched savings to low-income people who save for designated purposes, such as a home, post-secondary education, or microenterprise, that may promote their long-term well-being.

Motivation

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) has focused on moving welfare recipients from welfare to work (United States Congress, 1996). State-operated Temporary Assistance to Needy Families (TANF) has ended cash entitlements, established lifetime time limits on welfare receipt, and imposed strict work requirements. How to help welfare recipients enhance their economic self-sufficiency has, thus, been addressed in the policy debate. Asset-based welfare policy (Sherraden, 1988; 1991), which focuses on social and human capital investment in the poor, is an important line of policy development in this respect. The theoretical foundation of asset-based policy and IDAs highlights the importance of assets beyond income and consumption. Sherraden suggests that, in addition to bringing economic security to families, assets may have a wide range of positive personal and social effects such as greater future orientation and increased social influence. These effects can help the poor invest in self and enhance life chances. Existing empirical evidence is generally supportive of this argument (Scanlon & Page-Adams, 2001; Cheng, 1995; Cho, 1999; Page-Adams & Sherraden, 1997; Rocha, 1997; Zhan & Sherraden, 2002).

IDAs have been included as a state option in the 1996 federal welfare reform law. Some states have included IDAs as part of their state welfare reform plans and allow TANF funds to be used for IDAs. At present, at least 29 states have passed IDAs or related legislation to enable low-income residents to save (Edwards & Gunn, 2002). As these programs develop, it is important to know if they are effective and what factors may help single mothers successfully save in these

programs. Based on the institutional perspective of savings, this study examines whether single mothers can save in IDAs, and how various institutional and participant factors affect their savings.

Theoretical Framework

Economic theory predicts that savings will increase with income (Deaton, 1992). Therefore, low savings of the poor may partially result from their limited income. However, failure of public policies to provide savings incentives for the poor also undermines savings efforts. Beverly and Sherraden (1999) posit that “institutional factors” other than income and preferences may play an important role in promoting savings. Specifically, they propose four institutional determinants of savings: institutionalized saving mechanisms (e.g., employer-provided pension plans), targeted financial education, attractive saving incentives (e.g., matched savings), and facilitation (e.g., payroll deduction). From this perspective, one of the major barriers to savings faced by low-income households is the lack of access to incentives or institutions that promote and subsidize asset accumulation (Howard, 1997; Sherraden, 1991; 2001). For example, the non-poor can save for retirement through institutionalized mechanisms with tax benefits; the poor, on the other hand, are much less likely to have jobs with pension benefits, their savings benefits are, thus, limited.

Although further empirical evidence is needed, results from a number of studies support the propositions of the institutional view of savings. For example, studies found that employer-based financial education increased both participation rates and amount of contribution to retirement plans (Bayer, Bernheim & Scholz, 1996; Bernheim & Garret, 1996). Studies also indicated that financial education could improve financial knowledge and practices of low-income populations (Caskey, 2001; Clancy, Grinstein-Weiss, & Schreiner 2001; Hirad & Zorn, 2001; Shelton & Hill, 1995). Anderson (1998) further noted that lack of knowledge was one of the important reasons for the underutilization of public financial services and benefits among low-income persons.

In support of the institutional perspective of savings, studies also find that individuals save less due to saving disincentives. For example, researchers documented that asset limits associated with means-tested welfare programs served to decrease savings of participants or potential participants (Carney & Gale, 1999; Hubbard, Skinner, & Zeldes, 1994; 1995; Hurst & Ziliak, 2001; Powers, 1998; Ziliak, 1999). These studies also indicated that the poor saved more in response to an increase in asset limits of these programs.

Data and Methods

Data and Sample

The data for this study came from the American Dream Demonstration (ADD), which is the first national demonstration of IDAs for low-income households. All 14 IDA programs in ADD were run by 13 private, not-for-profit host organizations, which included community development organizations, social service agencies, credit unions, and housing organizations. These programs used a variety of ways to market IDAs to potential participants who were then “self-selected” to participate in these programs. ADD ran for four years from 1997 to 2001. As of June 30, 2000, 2,378 participants opened an IDA in ADD (Schreiner et al., 2001). The sample for this study

included 1,215 female participants who were unmarried, 18 years old or older and had at least one dependent child under 18 years old living in the household.

Table 1 shows important characteristics of the sample in comparison to low-income single mothers in general. Comparison statistics were obtained through analyses of the National Longitudinal Survey of Youth (NLSY) (interview year 2000), and the sample included single mothers whose household income was at or below 200 percent of the family-size adjusted poverty threshold. Compared to general low-income single mothers, a higher percentage of ADD participants had postsecondary education (59 percent vs. 30 percent) and were employed (85 percent vs. 66 percent). Single mothers in ADD were also more likely to have a bank account (77 percent vs. 42 percent) and less likely to have received welfare (45 percent vs. 68 percent). These differences may be partly due to the fact that most ADD programs target “working poor”. On the other hand, single mothers in ADD were younger (35 years vs. 39 years old), more likely to be never married (60 percent vs. 34 percent) and to be non-white (69 percent vs. 62 percent). Overall, these comparisons suggest that ADD has somewhat more demographically disadvantaged working single mothers.

Table 1. Characteristics of the Sample in Comparison with Low-Income Single Mothers in General

Variables	ADD sample (N=1,215)	NLSY Sample (N=850)
<u>Continuous Variables</u>		
	<u>Mean (std. dev)</u>	<u>Mean (std. dev)</u>
Age	35 (8.3)	39 (2.2)
Number of adults	1.2 (0.6)	1.5 (1.3)
Number of children under 18	2.1 (1.2)	2.1 (1.1)
<u>Categorical Variables</u>		
	<u>Percents</u>	<u>Percents</u>
Race		
White	31	38
African American	56	54
Others	13	8
Marital status		
Never married	60	34
Divorced or separated	38	63
Widowed	2	3
Employment status		
Employed (full-time or part-time)	85	66
Unemployed		
Not in labor force	5	8
	10	26
Educational status		
Less than High School	14	20
High School Graduates	27	50
Postsecondary Ed.	59	30
Owner of checking and /or Savings account		
	77	42
Home owner		
	10	30
Receipt of AFDC/TANF		
	45	68

Measurements

The dependent variable in this study included four measures of different aspects of savings and asset accumulation of single mothers. The first measure, Average Monthly Net Deposits (AMND), was defined as deposits plus interest minus unmatched withdrawals (withdrawals used for non-designated purposes in ADD), divided by the number of months of participation. AMND measures net deposits and controls for the length of time that a participant has saved. All else constant, greater AMND implies greater saving and asset accumulation in IDAs.

The second measure, the savings rate, was defined as the ratio of AMND to gross monthly household income as measured at enrollment in the IDA program. It measures the rate at which resource inflows are converted into IDA deposits. This measure is important because it shows how much participants save relative to their current income.

Deposit frequency was defined as the number of months with a deposit (excluding deposits of interest) divided by the number of months of participation. It shows how steadily a participant saves through time

The fourth measure, net deposit as a percentage of the pro-rated match cap, was defined as the ratio of AMND to monthly savings target. The monthly savings target is the total match cap (i.e., the limit on the amount of deposits that can be matched) divided by the time cap (i.e., the number of months after opening an account in which a participant may make matchable deposits). If a participant deposited the monthly savings target each month and did not remove any of it as an unmatched withdrawal, this level of savings would lead to net deposits equal to the lifetime match cap by the end of participation. Therefore, this measure indicates the closeness of actual saving behavior to that which would take full advantage of match incentives.

The independent variables of this study included both program related factors (institutional factors) and participant characteristics. Program and administrative factors included match rates, monthly savings targets, financial education, and measures of program inputs. Participant characteristics included their demographic characteristics, education and employment status, household income, assets, and whether they were in receipt of AFDC/TANF or not.

Analysis

Descriptive analyses were conducted to first derive descriptive information of the savings outcomes of single mothers. Several multiple regression models were then conducted in which each of these dependent variables was regressed on independent variables. Because we are particularly interested in how institutional factors influence savings outcomes, the dependent variables were first regressed on participant characteristics and then on program characteristics.

Results and Discussion

Descriptive statistics

Table 2 presents mean values of the four savings measures for single mothers and for all ADD participants. On average, single mothers had AMND of \$23.2, and this represented 2.2 percent of

their average monthly income. They saved on average 61 percent of their savings target, and the mean of deposit frequency was 56 percent (about 7 months out of 12). Compared to ADD participants as a whole, single mothers had lower AMND, deposit frequency and net deposit as a percentage of the pro-rated match cap, but their savings rate was the same as other participants.

Table 2. Savings Outcomes and Intended Use of Savings of Single Mothers in ADD

	Single Mothers in ADD (N=1,215)	All ADD Participants (N=2,378)
Average Monthly Net Deposit (\$)	23.2	25.4
Savings rate (%)	2.2	2.2
Deposit frequency (%)	56	58
Net deposit as a percentage of the pro-matched savings cap (%)	61	67
Intended use of savings (%)		
Home Purchase	62	53
Postsecondary Ed.	13	16
Microenterprise	15	19
Home Repair	5	6
Retirement	3	4
Job Training	2	2

Table 2 also presents the intended use of matched withdrawals. Over half of single mothers (62 percent) reported that they intended to buy a home. Other important intended uses included microenterprise (15 percent) and postsecondary education (13 percent). Compared to ADD participants as a whole, single mothers were more likely to use matched withdrawals for home purchases (62 percent vs. 53 percent) than for all other designated purposes. This may be because only 10 percent of single mothers in ADD were homeowners.

Results from Regression Analyses

Tables 3.1 through 3.3 display the results from the regression analysis on the savings outcomes of single mothers. Although presented in three separate tables, for each savings outcome, all the results come from a single regression. All these four regression models were statistically significant. Independent variables explained 52 percent of the variance in AMND, 47 percent in savings rate, 48 percent in deposit frequency, and 66 percent in net deposit as a percentage of the pro-rated match cap. In terms of cross-sectional regression analysis, the R^2 s are quite respectable. It should also be noted that institutional variables alone explained most of the variance in these models (36 percent, 26 percent, 32 percent, and 53 percent of the variance in the four savings outcomes respectively). In the following, important findings regarding the relationship between independent variables and savings outcomes are discussed.

Table 3.1. Institutional Characteristics and Savings Outcomes

	Average Monthly Net Deposits (AMND)	Savings Rate	Deposit Frequency	Net deposit as a percentage of pro-rated match cap
	Coefficients	Coefficients	Coefficients	Coefficients
Match rate				
1:1	0.05	0.32	-0.32*	0.18
2:1	0.30	0.33	-0.34*	0.21
3:1	1.90	2.38	-0.22	0.31
4:1 to 7:1				
Monthly savings target	0.72*	0.06	0.008**	-0.01*
Hours of financial education				
General				
None	-13.0	-0.71	-0.64**	-1.05 *
1 to 6	0.86	0.10	0.008	0.04
7 to 12	2.83**	0.24	0.01	0.05*
13 to 18	0.006	0.12	-0.02	0.02
19 or more	-0.83	0.08	0.004	-0.03
Asset-specific				
1 to 6	3.64**	0.23	0.02*	0.06*
7 to 12	-1.57	-0.02	-0.005	-0.05
13 to 18	-1.18	-0.23	0.007	-0.009
19 or more	-0.14	-0.05	-0.001	-0.006
Program inputs per participant per month				
Salaried IDA staff (hours)	-1.74	-0.99	0.03	-0.08
Partner Staff (hours)	5.61	-0.07	0.08*	0.06
Volunteer Staff (hours)	4.38	0.48	0.06	0.008
Salary expenses (\$)	0.09	0.06	-0.003	0.007
Non-salary expenses (\$)	-0.49*	-0.03	-0.003	-0.01*

*p<0.05; **p<0.01; ***p<0.001

Match rate

Institutional theory of savings suggests that match rates are a possible incentive to save (Sherraden, Schreiner & Beverly, 2003). Match rates for single mothers varied from 1:1 to 7:1, with 2:1 being the most common one (52 percent). Results indicated that single mothers with match rates ranging from 4:1 to 7:1 saved more frequently than those with match rates 1:1 or 2:1. This shows that higher match rates increase saving efforts.

However, match rates were not associated with the other three savings outcomes. Based on the report by Schreiner et al. (2001), there are two possible explanations. First, programs may assign higher match rates if they expect their participants to save less. Second, higher match rates are also possibly linked with lower match caps in some programs in order to reach a given goal of total savings with matches. All these factors may weaken the relationship between match rates and amounts of deposits.

Monthly savings target

Monthly savings target could be a proxy for savings goals (Schreiner et al., 2001). In ADD, monthly savings target for single mothers ranged from \$11 to \$167. Institutional theory suggests that higher savings goals may provide incentives for more savings. Monthly savings target was positively related to AMND and deposit frequency. For example, a \$1 increase in the monthly savings target was linked with an increase in AMND of \$0.72. It needs to be noted, however, that the positive link may be spurious because programs may have set higher targets if they expected their participants would save more. Monthly savings target was negatively associated to net deposit as a percentage of the pro-rated match cap.

Financial education

A special feature of IDA programs compared to other subsidized-savings programs is that IDA programs require financial education. Financial education in ADD includes financial education in general and asset-specific education. The results indicated that each additional hour, in the range of 7 to 12 hours, was associated with \$2.83 increase in AMND. In the same hours range, more hours of education was also positively related to net deposit as a percentage of pro-rated match cap. However, general financial education in the range of one to six hours, or above 12 hours was not linked with savings outcomes.

How can we explain this? The curvilinear relationship between financial education and savings outcomes indicates that financial education needs to reach certain hours (7 hours) in order to affect the saving behavior of participants. However, more hours (above 12) of education may be associated with more complicated content, which participants find difficult to use in the real world.

For asset specific education, each additional hour in the range of one to six hours was associated with \$3.64 increase in AMND. In the same range, more hours of education was also positively related to deposit frequency and net deposit as a percentage of pro-rated match cap.

Program inputs

Program inputs included both staff hours (salaried employees, volunteers and staff in partner organizations) and expenses (salary expenses and non-salary expenses). Staff hours were measured as average monthly work hours of staff for each participant. The results suggest that additional hours worked by partner staff increased the deposit frequency of single mothers. This may imply that staff from partner organizations are more familiar with particular issues related to savings of single mothers.

Salary (or non-salary) expenses were the average monthly salary (or non-salary and non-match) expenses for an IDA program per participant. Results indicate that salary expenses had no

statistically significant link with savings performance of single mothers. A \$1 increase in non-salary expenses, however, was linked with a decrease in AMND of \$0.49. Non-salary expenses were also negatively associated with net deposit as a percentage of the pro-rated match cap. From ADD data, we do not know what exactly these expenses were, and further information is needed to solve this puzzle.

Table 3.2. Participant Characteristics and Savings Outcomes

	Average Monthly Net Deposits (AMND)	Savings Rate	Deposit Frequency	Net deposit as a percentage of pro-rated match cap
	Coefficients	Coefficients	Coefficients	Coefficients
Age				
0 to 40 years	0.42	0.05	0.0005	0.007
40 years or more	0.20	0.08	0.004	0.01
Location of residence				
Population 2,500 or more				
Population less than 2,500	-5.70*	-0.68*	-0.15	-0.65**
Marital status				
Widowed	0.71	-0.94	-0.008	0.40
Divorced or separated	1.97	0.46	-0.08	-0.0006
Never-married				
Household composition				
Adults (18 or older)	3.15	0.17	0.02	0.21**
Children (17 or younger)	0.11	-0.13	0.03	0.0006
Race/ethnicity				
Native American	8.83	0.65	0.02	0.14
African-American	-6.87	-0.50	-0.04	-0.06
Caucasian				
Other	1.74	-0.12	0.02	0.04
Hispanic	-3.15	-0.81	-0.10	-0.04
Asian-American	-3.17	1.16	0.02	-0.03
Education				
Less than high school				
High school graduates or earned GED	-7.61	-0.90	0.06	-0.20
Attended college	-9.17	-0.24	-0.01	-0.21
Graduated from 2-year college	-8.75	-0.81	0.06	-0.27
Graduated college (2- year/4-year unspecified)	-4.16	-0.31	0.05	-0.47**
Graduated from 4-year college	1.67	0.48	0.15	-0.10
Employment				
Unemployed				
Employed, full-time	-3.09	-0.41	-0.16	-0.43
Employed, part-time	-6.97	0.26	-0.11	-0.36
Not working	-8.58	1.31	-0.22	-0.23
Student, not working	-2.61	-0.75	-0.32*	-0.60

*p<0.05; **p<0.01; ***p<0.001

Table 3.3. Income, Assets, Public Assistance, and Savings Outcome

	Average Monthly Net Deposits (AMND)	Savings Rate	Deposit Frequency	Net deposit as a percentage of pro-rated match cap
	Coefficients	Coefficients	Coefficients	Coefficients
Household income (\$100/month)				
Recurrent income				
0 to \$799	0.84	-0.82***	-0.007	0.01
\$800 or more	-0.003	-0.01	-0.003	-0.0006
Intermittent income	0.43	-0.36***	0.006	0.02
Assets				
Savings account owner	-2.08	-0.70	-0.04	-0.07
Balance in savings account (\$100)	0.48	0.04	0.003	0.01
Checking account owner	8.51**	1.14	-0.07	0.25**
Balance in Checking account (\$100)	0.27	-0.0003	0.007	0.01
Home owner	6.54	1.25	0.007	0.15
Car owner	0.18	0.63	0.02	0.04
Receipt of public assistance				
TANF or AFDC never formerly	-5.14 (0.18)	-0.28	-0.02 (0.57)	-0.09
TANF currently	-0.53 (0.95)	0.09	-0.04 (0.64)	-0.14

*p<0.05; **p<0.01; ***p<0.001

Demographic characteristics

The results (see Table 3.2) indicate that the demographic characteristics of participants and their education and employment status have little link to their savings performance. Rural single mothers (about 12 percent of ADD single mothers live in rural areas) had lower AMND, savings rate and net deposit as a percentage of the pro-rated match cap compared to their urban counterparts. Perhaps transaction costs for deposits and withdrawals, (for example, costs related to transportation), were higher in rural areas.

The graduates of 2-year or 4-year colleges had lower net deposits as a percentage of their pro-rated match cap. In all other cases, education had no effect on savings outcomes. Student single mothers saved less frequently compared to unemployed single mothers, possibly because student participants had student loans (Schreiner et al., 2001).

Income

Household income included both recurrent income (wages, government benefits, pensions, and investments) and intermittent income (self-employed, child support, gifts, and other sources).

Income was not associated with AMND, savings rates, or net deposit as a percentage of pro-rated match cap. However, both recurrent income and intermittent income were linked with decreased savings rates. Although we may not exactly know what caused this through the analysis of ADD data, the broad message here is that, contrary to the prediction of economic theory, less income need not imply less savings in a structured savings program like IDAs (for a detailed analysis, see Sherraden, Schriener & Beverly, 2002).

Assets

ADD single mothers who had checking accounts, on average, had \$8.51 higher AMND than those without checking accounts. This is possibly because participants with checking accounts can reduce transaction costs (Schreiner et al., 2001). Ownership of checking accounts may also be positively related to more financial knowledge and experiences, thus increasing savings. Ownership of savings accounts, however, was not linked with savings outcomes. This may probably be because owning a savings account needs less financial sophistication than owning a checking account (Schreiner et al., 2001). The fact that savings were not linked with savings outcomes is possibly due to the small amounts in these accounts (maximum amount in checking and savings were \$55 and \$50, respectively). Home ownership and car ownership were not associated with savings outcomes.

Receipt of AFDC/TANF

The results indicate that after controlling for program and participant variables, welfare receipt before or at enrollment in IDAs did not significantly affect savings outcomes. Welfare reciprocity itself, in the absence of asset limits, appears not to be linked with saving performance. This may result partially from the fact that savings in IDAs do not count for asset tests for public assistance, and IDAs provides institutional supports for savings (for more detailed analysis, see Zhan, Sherraden, & Schreiner, 2002).

Conclusion

This study examined the savings performance of single mothers in a matched savings program. Overall, the results indicate that single mothers can save in IDA programs, and participant characteristics, in general, have little impact on their savings outcomes. Interestingly, income of single mothers was negatively related to their savings rates, which is contrary to the prediction of economic theory. Further analyses indicate that before controlling for the effects of institutional factors, intermittent income of single mothers was positively linked with their AMND and net deposit as a percentage of the pro-rated match cap. Therefore, institutional factors seem to overpower the income impact in ADD. Institutional factors also explained most of the variance in four outcome measures. These findings suggest that the institutional support in IDA programs may matter more in enhancing the savings of single mothers. Indeed we found that financial education (up to a point) and monthly savings target were strongly related to savings outcomes.

Several limitations of this study must be noted. First, due to self-selection and program-selection, single mothers in ADD are different, in some aspects, from general low-income single mothers. Therefore, the results cannot easily be generalized to all single mothers. Second, although the analysis of ADD data indicates that institutional factors may play an important role, we cannot fully reveal what kind of institutional characteristics caused savings, or differentiate the effects

of different factors. Further studies that compare savings behaviors of single mothers inside IDAs and outside IDAs may help identify these factors. Furthermore, as discussed, possible two-way causation problems between some program factors and savings outcomes would lead to biased results.

Despite these limitations, the results from this study suggest that IDAs or other similar subsidized programs may be effective tools to help low-income single mothers save. Two implications may be drawn from this study. First, this study indicates that monthly savings targets and financial education were positively associated with savings of single mothers. Therefore, in order to implement IDA programs more effectively, limits of matchable deposits could be raised, and the quality of financial education needs to be ensured. For this purpose, federal and state governments may have to generously commit to funding for IDA programs. This study also underscores the special need to help rural single mothers save in IDA programs.

Second, public policies that aim to help single mothers save and build assets should be included and expanded. For example, in order to make a significant impact in the lives of low-income single mothers, IDAs and other subsidized-saving programs need to go to a larger scale. The coverage of IDAs programs at this time is quite limited, and reach only a minute portion of low-income single mothers. Although many states have some types of IDA programs, most of these programs are community-based and the total number of IDA participants is probably less than 20,000 (Sherraden, Schreiner, & Beverly, 2003). IDAs may also be more likely to reach economically more competent single mothers due to the screening process. Therefore, it is necessary to expand the assets-based policy for poor women with children.

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