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Savings Outcomes of an IDA Program for Survivors of Domestic Violence

Cynthia K. Sanders
Boise State University School of Social Work

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Campus Box 1196 One Brookings Drive St. Louis, MO 63130-9906 • (314) 935.7433 • csd.wustl.edu

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Savings Outcomes of an IDA Program for Survivors of Domestic Violence

This report examines account monitoring data on outcomes of an IDA program for survivors of domestic violence. This study examines saving rates, withdrawals, and purchases made among 125 women who participated in the IDA program. Approximately two-thirds of women reached their savings goal and 76% made at least one matched withdrawal purchase. On average, women saved $87 per month while living on modest incomes (most women lived at or below 150% of poverty). These savings outcomes demonstrate that women impacted by intimate partner violence are capable of successfully saving in an IDA program when given the opportunity. Findings regarding factors associated with savings outcomes are limited given the sample size; however, education emerged as a positive factor in improving women's savings outcomes.

Key words: *Individual Development Account, asset building, domestic violence, saving*

Introduction

Redevelopment Opportunities for Women's Economic Action Program (REAP) is a practice, policy and research initiative arising from the collaboration of 13 domestic violence and three homeless service agencies in the St. Louis, Missouri region (Sanders & Schnabel, 2006). Recognizing the role that economic factors and financial issues play in domestic violence, the collaboration culminated in economic services aimed at advancing the economic well-being of survivors of domestic violence. These services include financial education and credit counseling; women's individual development accounts (IDAs); and economic advocacy and support services. This report examines account monitoring data on outcomes of REAP's IDA program for survivors of domestic violence.

Background

Women who experience domestic violence endure various forms and degrees of abuse including physical, sexual, verbal, psychological, and emotional abuse (Johnson & Ferraro, 2000). In addition, women commonly deal with economic abuse. One way to maintain power in a relationship is to retain control of financial resources. Evidence indicates abusive partners engage in a variety of tactics that negatively affect women financially and undermine their efforts to become financially independent (Ptacek, 1997). Economic abuse often includes complete control of financial resources on the part of the abusive partner; behaviors that restrict a woman's ability to pursue education, or gain and maintain employment; and exploit her financial resources (e.g. incurring debt in her name, damaging her credit rating, stealing her money) (Moe & Bell, 2004; Sanders, 2007; Swanberg, Logan, & Macke, 2005). Thus, a woman's capacity to establish financial independence is seriously compromised.

Lack of access to economic resources and limited employment options make women dependent on abusive partners (Sullivan, 1991), and the extent to which a woman is economically dependent on her abuser has been found to predict her ability to leave (Johnson, 1992; Strube & Barbour, 1983). In addition, economic dependency has been found to predict the likelihood and severity of abuse—with greater economic dependency predicting more severe violence (Kalmuss & Straus, 1990; Kurz, 1998). Women who are unable to establish economic independence also find it more difficult to pursue legal charges or obtain restraining orders (Fernandez, Iwamoto, & Muscat, 1997).

In comparison to the physical, sexual, psychological, and emotional dimensions of intimate partner violence (IPV), the economic dimensions have been largely overlooked. While women's physical safety must take precedence, economic abuse should be addressed along with the physical, sexual, verbal, and emotional dimensions of IPV. Historically, efforts to address domestic violence have relied heavily on individual counseling, provision of crisis services, and access to legal assistance (Davis, Hagen, & Early, 1994). Addressing the economic needs of battered women is typically done in the short-term through emergency shelter and limited public assistance. Few programs or policy supports have emphasized long-term economic security.

Research on the relationship between asset holding and various forms of well-being indicates positive social, psychological, and economic associations (Scanlon & Page-Adams, 2001). Studies have demonstrated positive associations between psychological or behavioral traits and asset holding including future orientation and self-efficacy (Moore et al., 2001), life satisfaction (Scanlon 1998), enhanced self-esteem (Rohe & Stegman, 1994a), reduced stress (Vosler & Page-Adams, 1996), and increased civic engagement (Rohe & Stegman, 1994b). Studies have also demonstrated a number of positive associations between asset holding and family functioning, including marital stability (Page-Adams, 1995), school completion (Zhan & Sherraden, 2003), delayed child birth (Green & White, 1997), and financial benefits from intergenerational transfers of wealth (Oliver & Shapiro, 1995). Savings and financial assets are associated with higher educational attainment and test scores among children, including within female-headed households (Mayer, 1997; Zhan, 2006), and greater economic security among female-headed households (Rocha, 1997; Sanders & Porterfield, 2010). Having a reliable vehicle improves opportunities for economic independence by making it possible to obtain job training or education, employment, health care, child care, social supports, and community relationships (Brabo, Kilde, Pesek-Herriges, Quinn, & Sanderud-Norquist, 2003).

Individual Development Accounts and the economic education that accompanies them may be an important economic development strategy for battered women (Sanders, 2007). Through increased financial knowledge and savings, greater financial autonomy may result. Acquiring assets may allow women to begin the process of becoming more economically secure in the long-term. Purchasing a home may result in greater residential stability (Scanlon, 1998). Accessing education, job training, or starting a small business may result in greater job stability and earning potential. In addition, owning a reliable automobile may play an important role in safety, enabling a woman to flee an abusive

relationship. Reliable transportation also supports getting to and from work or school enabling economic stability.

Redevelopment Opportunities for Women's Economic Action Program (REAP) arose out of the recognition that economic factors and financial issues play a critical role in domestic violence and present serious obstacles for many women who wish to leave abusive partners. The REAP program emerged from a community collaborative of 13 domestic violence and 3 homeless service agencies who began working together in 2000 to develop economic services for low-income battered women in the St. Louis, Missouri region (Sanders & Schnabel, 2006). This consortium of agencies works through Redevelopment Opportunities for Women (ROW), a non-profit agency whose mission is "to empower women and their families to build safety, skills, economic security and hope for the future" (Redevelopment Opportunities for Women, n.d.). The collaboration culminated in the development of formalized economic services, including a 12-hour group economic education curriculum (Redevelopment Opportunities for Women, Inc., 2005; Sanders, Weaver, & Schnabel, 2007); women's Individual Development Accounts (IDAs); and economic advocacy and support services. With safety as the central component, the program emphasizes long-term economic development and security for low-income women who have experienced domestic violence.

Women in this study came to participate in REAP's IDA program through a variety of means. Some women were staying in shelters or living in transitional housing and participated in REAP's economic education classes on site. Others learned about the IDA program from domestic violence service providers, caseworkers, social workers, and advocates. All women participating in the IDA program were required to complete REAP's 12-hour economic education curriculum.

Women were eligible for REAP's IDA program with household incomes of up to 200% of the poverty line and qualified for a one-to-one or two-to-one match. While the majority of accounts allowed a maximum saving goal of $1,500 with a $3,000 match, ten AFIA accounts and three local matching partner accounts allowed a maximum saving goal of $2,000 with a $4,000 match. Matching funds to support REAP's IDA program came through three main sources: the Assets for Independence Act (AFIA), a federal program designed to provide matching funds for community based IDA programs; local community partners; and the United Way of Greater St. Louis Great Rivers Community Reinvestment Corporation. Great Rivers is currently the largest contributor to matching funds for REAP's IDA program.

Monthly savings deposits of as little as $10.00 were required for ongoing participation in the program. Monthly savings goals were determined by each woman working with a REAP advocate. Women had a maximum of two and a half years to reach their savings goal, although a few women received extensions due to personal circumstances. Extensions were determined by REAP's IDA Program Director.

REAP IDA accounts could be used to purchase or repair a home, acquire career enhancing education, purchase an automobile, start or support a small business or microenterprise, or retirement. Great Rivers and local partner matching funds offered the flexibility to meet the unique needs of survivors of domestic violence. For example, restrictions in AFIA funds do not allow participants to use their matched savings for a car. Great Rivers and local partner funds allowed REAP to match savings for women who were saving for a reliable automobile. Women receiving these matched funds were also able to access their own funds (not the match) for emergency needs. This unique provision may enable battered women to survive a crisis without feeling forced to return to an abuser for financial help.

This report examines account monitoring data on outcomes of REAP's IDA program for survivors of domestic violence. This study examines saving rates, withdrawals, and purchases made among 125 women who participated in REAP's IDA program. Data on account activity were gathered between November 2001 and March 2009.

This report addresses four account monitoring research questions:

1. Who are REAP IDA participants?
2. How much was saved and accumulated in REAP accounts?
3. What withdrawals were made and assets purchased?
4. What factors are associated with saving outcomes?

Methodology

Data for this report come from the REAP program and account monitoring data from 125 IDA accounts, including demographic information gathered at the time women enrolled in the program. Upon opening an account, cash flow data (i.e. deposits, matches, withdrawals from, and balances for accounts) were collected monthly from financial institutions holding REAP accounts. These data were managed in a management information system (MIS-IDA) by REAP staff (Johnson, Hinterlong, & Sherraden, 2001). Data on account activity were gathered between November 2001 and March 2009.

The researcher received both demographic and account activity data in the form of excel files from which names and identity indicators were removed. Upon receipt of the data, the researcher conducted data checks and worked closely with REAP program staff to resolve any inconsistencies and missing values. Data were transferred and variables created in SPSS for analysis purposes. Descriptive, bivariate and multivariate analyses were conducted to examine the characteristics of women participating in REAP's IDA program and measure associations with savings outcomes.

Findings

Demographic Characteristics

The demographic characteristics of the 125 women holding IDA accounts in this study are summarized below in Tables 1 and 2. In general, women in this study were Black or White in race. At enrollment, the average age was 37. As a group, the women were relatively well-educated, with over half having at least some college. Household size was generally small, often with the woman as the sole adult within the household and one or two children. The majority of women were single, divorced, or separated at the time of enrolling in REAP's IDA program. The most common forms of intimate partner violence experienced were physical, verbal, and economic abuse.

The majority of women (91%) were employed at least part-time when they enrolled in REAP's IDA program, with about half working full-time or more. Mean and median income was about $1,400 per month and 91% of women lived at or below 150% of the poverty line. Relatively few women were receiving government assistance at the time of enrollment. Few women owned assets at the time of enrollment with the exception of owning a vehicle. The majority of women had either a checking or savings account, or both (79%) when they enrolled in REAP.

Participant Characteristics

Race/Ethnicity

Reported race/ethnicity of participants is Non-Hispanic Black (46%), Non-Hispanic White (42%), Latina/Hispanic (4%), Mixed, Bi-Racial, or Other (6%) and Asian or Pacific Islander (2%).

Age

Mean and median participant age at enrollment was 37. Ages ranged from 20 to 61 years in age. Forty-five percent of participants were between 20 and 35 years; 46% between 35 and 50 years; and 9% between 51 and 61 years old.

Education

At enrollment, 10% had less than a high school degree; 20% had a high school education or GED; 37% reported some college; 17% a two year degree and 10% a four year degree; 7% reported having attended graduate school.

Household structure

At the time of enrollment, the number of adults living in the household ranged from one to four with 79% of households consisting of the participant as the sole adult in the household. The number of children in households ranged from zero to six. Twenty-five percent of households had no

children living in the home; 55% one or two children and 20% more than two children. The majority of women were single (42%), divorced (35%), or separated (11%), while 11% were married.

Intimate partner violence

The majority of women reported a history of physical (74%) and verbal abuse (80%). Fewer reported a history of sexual abuse from an intimate partner (28%), while two-thirds reported experiencing economic abuse (67%).

Table 1. Women's Characteristics at Enrollment (N=125)

Women's Characteristics	
Race	
Black/African American	58 (46%)
White	52 (42%)
Latina/Hispanic	5 (4%)
Mixed/Bi-Racial or Other	7 (6%)
Asian/Pacific Islander	3 (2%)
Age	
20 – 35	56 (45%)
36 – 50	58 (46%)
51 – 61	11 (9%)
Mean Age	37
Median Age	37
Minimum-Maximum	20-61
Education	
Less than High School	12 (10%)
High School or GED	25 (20%)
Some College	46 (37%)
Two-year Degree	21 (17%)
Four-year Degree	12 (10%)
Attended Graduate School	9 (7%)
Household Structure	
Number of Adults in Household	
One	99 (79%)
Two	22 (18%)
Three-Four	4 (3%)
Mean Number of Adults in Household	1
Median Number of Adults in Household	1
Minimum-Maximum	1-4
Number of Children in Household	
Zero	31 (25%)
One-Two	69 (55%)
Three or more	25 (20%)

Table continues on next page

Table 1 (con't). Women's Characteristics at Enrollment (N=125)

Women's Characteristics	
Relationship Status	
Single	53 (42%)
Divorced	44 (35%)
Separated	14 (11%)
Married	14 (11%)
Intimate Partner Violence	
History of Physical Abuse	
Yes	92 (74%)
No	19 (15%)
Unknown/missing	14 (11%)
History of Verbal Abuse	
Yes	100 (80%)
No	11 (9%)
Unknown/missing	14 (11%)
History of Sexual Abuse	
Yes	35 (28%)
No	76 (61%)
Unknown/missing	14 (11%)
History of Economic Abuse	
Yes	83 (67%)
No	28 (22%)
Unknown/missing	14 (11%)

Note: The percentage of missing cases is reported when the value is 1% or more. Percentages may not sum to 100% due to rounding.

Economic Characteristics

Employment Status

At enrollment, 91% of women worked at least part-time.

Gross Monthly Income

At enrollment, the average gross monthly income from all sources (e.g. employment, child support, government assistance) was $1,420 and median gross monthly income was $1,385.

Monthly Employment Income

At enrollment, average and median monthly income from employment were $1,067 and $1,017 respectively.

Total Debt

At enrollment women had debt ranging from none to $122,200. However $122,200 was an outlier with the next largest amount of debt equal to $41,000. Excluding the outlier, mean and median debt were $6,621 and $3,300 respectively.

Poverty Status

Seventy percent of women lived at or below 150% of poverty and 21% between 150% and 200%. A few women (n=10) were allowed to enroll in REAP's IDA program even though their monthly gross income was above 200% of poverty. The decision to include these women was based on individual circumstances and the assessment of the domestic violence advocate/IDA program director.

Prior TANF Receipt

Almost half of the women (46%) had received TANF at some point prior to enrolling in REAP's IDA program, with data missing for 12%.

TANF Receipt

Only 15% of women and their family received TANF at the time of enrollment, with data missing for 2%.

SSI or SSDI Receipt

At the time of enrollment 11% of women received Supplemental Security Income (SSI) or Supplemental Security Disability Insurance (SSDI), with data missing for 2%.

Food Stamp Receipt

At enrollment, 35% of women and their families received food stamps, with data missing for 9%.

Assets

At enrollment, about 72% of women owned an automobile. The condition and reliability of these automobiles may be questionable given the number of women who used their IDA savings to purchase an automobile (see Table 4). At enrollment, 21% of women reported owning a home, 6% a business, 2% rental property, and 16% investments such as stocks, bonds, or a 401(k). Missing data ranged from 2% to 5% depending on asset type.

Banking Status

At enrollment, 74% of women had a checking account and 45% a savings account; among those, 40% had both. Eighteen percent of women had neither a checking nor savings account at enrollment. Data were missing for 3%.

Table 2. Economic Characteristics at Enrollment

Economic Characteristic	
Employment Status (n=125)	
Full-time or more	60 (48%)
Part-time	43 (34%)
Working and in school	11 (9%)
In school or job training	1 (1%)
Unemployed	3 (2%)
Disabled	6 (5%)
Missing	1 (1%)
Gross Monthly Income (n=125)	
$0 - $999	36 (29%)
$1,000 - $2,000	65 (52%)
$2001 - $3,000	15 (12%)
$3000 - $3,500	6 (5%)
Missing	3 (2%)
Mean	$1,420
Median	$1,385
Minimum-Maximum	$0 - $3,500
Monthly Employment Income (n=125)	
Mean	$1,067
Median	$1,017
Minimum-Maximum	$0 - $3,166
Total Debt[a] (n=85)	
Mean	$6,621
Median	$3,300
Minimum-Maximum	$0 - $41,000
Missing=39	
Poverty Status (% of federal poverty line) (n=125)	
Less than 100%	53 (42%)
101-150%	35 (28%)
151-175%	14 (11%)
176-200%	12 (10%)
201%+	10 (8%)
Missing	1 (1%)
Prior TANF Receipt (n=125)	
Yes	52 (42%)
No	58 (46%)
Missing	15 (12%)

Table continues on next page

Table 2 (con't). Economic Characteristics at Enrollment

Economic Characteristic	
TANF Receipt (n=125)	
Yes	19 (15%)
No	103 (82%)
Missing	3 (2%)
SSI or SSDI Receipt	
Yes	14 (11%)
No	109 (87%)
Missing	2 (2%)
Food Stamp Receipt	
Yes	44 (35%)
No	70 (56%)
Missing	11 (9%)
Asset Ownership	
Own Vehicle	
Yes	90 (73%)
No	33 (27%)
Missing	2 (2%)
Own Home	
Yes	26 (21%)
No	96 (77%)
Missing	2 (2%)
Own Business	
Yes	8 (7%)
No	114 (92%)
Missing	2 (2%)
Own Rental Property	
Yes	2 (2%)
No	116 (93%)
Missing	7 (6%)
Own Investments (e.g. stocks, bonds, 401(k))	
Yes	20 (16%)
No	99 (80%)
Missing	6 (5%)
Banking Status	
Checking Account Only	43 (34%)
Savings Account Only	7 (6%)
Checking and Savings Account	49 (39%)
Neither Checking or Savings Account	22 (18%)
Missing	4 (3%)

Note: The percentage of missing cases is reported when the value is 1% or more. Percentages may not sum to 100% due to rounding.

[a]Total debt excludes $122,200 outlier. With outlier (n=86), calculations of total debt are as follows: mean=$7,964; median=$3,338; minimum-maximum=$0-$122,200

Savings Outcomes

Savings outcomes were analyzed for 125 IDA accounts based on account activity between November 2001 and March 2009. Table 3 provides data on how much participants saved, total savings accumulation, total matching funds received, unmatched withdrawals, average savings per deposit, saving goals, number of deposits, months of participation, and time taken to reach savings goal.

Table 3. IDA Savings Outcomes

IDA Outcome	Mean	Median	Min – Max	N
Participant Total Savings[a]	$1,310	$1,500	$28 - $4,153[b]	125
Participant Total Savings Less Unmatched Withdrawals (net savings)[c]	$1,045	$1,471	$0 - $4,153	125
Total Savings Accumulation[d]	$3,041	$4,394	$0 - $7,155	112[e]
Total Unmatched Withdrawals	$447	$275	$12 - $1,944	74
Total Matching Funds Received	$1,980	$2,930	$0 - $4,000[f]	112[e]
Participant Savings Goal	$1,570	$1,500	$1,000 - $2,000[f]	125
Monthly Savings Goal	$57	$50	$10 - $333	125
Average Deposit	$87	$59	$2.33 - $519	125
Average Deposit Less Unmatched Withdrawals	$74	$49	$0 - $519	125
Number of Deposits	22	21	3 – 48	125
Months of Participation	27	27	3 – 58[g]	125
Months to Reach Savings Goal	19	16	3 – 48	79[h]

[a]Participant total savings is the total sum of women's deposits and interest. This includes matched and unmatched deposits.
[b]A few women exceeded their savings goal through lump sum deposits; other women exceeded their total savings goal due to unmatched withdrawals that were later re-deposited.
[c]Net savings includes money saved by participant less unmatched saving withdrawals. It does not include match money.
[d]Total savings accumulation includes total participant savings including interest, less unmatched withdrawals, plus matching funds received.
[e]Thirteen accounts were still open and eligible for matching funds as of March 2009.
[f]While the majority of accounts allowed a maximum saving goal of $1,500 with a $3,000 match, ten AFIA accounts and three local matching partner accounts allowed a maximum saving goal of $2,000 with a $4,000 match.
[g]At the discretion of REAP staff and the matching source, a few women were given time extensions beyond the normal 30 month maximum program length.
[h]Includes five accounts that had reached the savings goal but were still open as of March 2009.

The average participant total savings as of March 2009, among 125 REAP IDA participants was $1,310, and the average net savings was $1,045. This includes 112 closed accounts and 13 open accounts. Of the women holding the open accounts, five had reached the savings goal but had not completed their asset purchases, and eight were still saving toward their goal. Among the 112 participants with closed accounts, 72 (64%) closed after meeting their saving goal, while 40 (36%) account holders did not meet their savings goal and closed prematurely. Reasons for premature account closure included such things as inability to save regularly each month (a violation of program rules); life circumstances such as losing a job, health events, household bills, and safety issues; or running out of time to meet their savings goal. Ten women, while not completing their original savings goal, were successful in saving enough to qualify for at least one matched withdrawal. The average total savings accumulation, which includes total participant savings including interest, less unmatched withdrawals, plus matching funds received was $3,041.

Among 116 participants,[1] 88 (76%) of women made at least one matched withdrawal purchase, while 28 (24%) did not receive matching funds for withdrawals made as of March 2009. The average number of withdrawals per person was 2.5 (median 2).[2] The average number of matched withdrawals was 2 (median 2), and the average number of unmatched withdrawals was 1.5 (median 1). Taken together, women made a total of 307 withdrawals, including 189 (62%) matched and 118 (38%) unmatched. The mean and median monthly deposits were $74 and $49 respectively. On average, women who achieved their savings goal did so in 19 months.

Tables 4 and 5 provide details about how women used savings withdrawals. By and large, most matched withdrawals were for purchasing a vehicle or for education. The majority of unmatched withdrawals were for emergency spending such as paying bills or for safety purposes. Emergency withdrawals to maintain housing, for example, could enhance safety. Additionally, many unmatched withdrawals were balance withdrawals that closed the IDA account. Forty-two (57%) women who made at least one unmatched withdrawal also received at least one matched withdrawal.

[1] Nine, of 13 accounts still open, had not made any withdrawals yet.
[2] Number of withdrawals among participants ranged from 1 to 9 withdrawals.

Table 4. Matched Withdrawals

Purchase	Total	Percent	Average Amount	Average Participant Amount	Average Match Amount
Vehicle	63	33%	$2,914	$1,015	$1,900
Education	52	28%	$1,003	$340	$662
Small Business	32	17%	$1,117	$375	$742
Home Repair	31	16%	$1,555	$546	$1,009
Home Purchase	6	3%	$3,420	$1,226	$2,195
Safety/emergency	4	2%	$1,190	$522	$668
Retirement	1	.5%	$900	$300	$600
Total	189[a]	100%	$1,830	$637	$1,194

[a]Total is greater than 125 due to some women making multiple purchases

Table 5. Unmatched Withdrawals

Purchase	Total	Percent	Average Participant Withdrawal
Safety/emergency	59	50	$313
No Purchase/balance withdrawal	55	47	$238
Other/unknown	3	3	$523
Total	118	100%	$281

Factors Associated with Outcomes: Bivariate and Multivariate Analyses

To examine factors associated with savings outcomes, bivariate analyses and multivariate regression models were conducted. The analyses used two continuous outcome measures—total savings accumulation and participant total savings. *Total savings accumulation* was calculated as a continuous measure of total participant savings including interest, less unmatched withdrawals, plus matching funds received. *Participant total savings* was calculated as the sum of all participant deposits and interest. The analyses also used two dichotomous measures—whether savings goal was met or not, and whether participants made at least one matched withdrawal and purchase or not.

Bivariate Associations

Bivariate relationships between savings outcomes and participant characteristics and savings outcomes and economic characteristics were examined. Findings are examined both descriptively

and tested using One-way ANOVA, independent sample t-tests, chi-square, and correlations to assess whether savings outcomes varied significantly. When feasible, variable categories were collapsed in order to meet assumptions of statistical tests. Tables 6-9 provide information on savings outcomes by participant characteristics. Tables 10-13 provide information on savings outcomes by economic characteristics.

Savings amounts vary significantly by race (Tables 6 and 7). Post hoc tests reveal that White women had significantly higher accumulated savings than Black women. Additionally, Latina women had significantly higher total respondent savings compared to Black women. A descriptive comparison suggests that Black women were less likely to reach their savings goal or receive at least one matched withdrawal in comparison to other racial groups. Due to cell sizes, a chi-square test examining all racial categories could not be interpreted. However, when testing for a significant difference between Black and White women only, statistical significance was found, with Black women significantly less likely to meet their savings goal ($x^2 = 5.13$, $p = .024$) or receive at least one matched withdrawal ($x^2 = 6.88$, $p = .009$).

To explore these relationships between race and savings outcomes a bit further, monthly household income and education level were examined. On average, White women had significantly ($t=2.04$, $df=105$, $p=.04$) higher monthly incomes ($1,593) compared to Black women ($1,288) and significantly more education ($F=4.10$, $p=.019$). Additionally, a chi-square test was completed to see whether Black and White women varied in poverty status; indeed, Black women were significantly more likely to have household incomes below 100% of the poverty line compared to White women ($x^2 = 3.62$, $p =.05$). No significant differences in income or education were found between Latina and Black women. This suggests the economic conditions of Black women, compared to White women, put them at a disadvantage in meeting their savings goals.

Accumulated savings and participant total savings did not vary significantly by age. In addition to ANOVA analysis by age group, bivariate correlations of age, by savings amounts were examined, and no significant correlation was found. Whether a woman met her savings goal or received at least one matched withdrawal could not be interpreted for significance due to cell sizes, but the distribution pattern did not suggest much variation in outcome based on age group.

Total savings accumulated varied significantly by education. Post hoc tests showed that those with a college degree accumulated significantly more savings on average that those with only a high school degree or equivalent. While the ANOVA was not statistically significant for participant total savings, there was a general pattern of greater average respondent savings as education level increased. In addition, bivariate correlations between a continuous measure of education and total savings accumulated and between education and participant total savings revealed significant correlation coefficients ($r = .297$, $p \leq .01$ and $r = .254$, $p \leq .01$ respectively).

The relationship between education and either meeting the savings goal or receiving at least one matched withdrawal could not be tested for significance with a chi-square test due to cell sizes.

However, those with a four year degree or higher generally met their goal and received at least one matched withdrawal with higher frequency compared to those with a high school degree or GED. Additionally, education level was significantly correlated with both meeting one's savings goal and receiving at least one matched withdrawal ($r = .270$, $p \leq .01$ and $r = .274$, $p \leq .01$ respectively).

Savings outcomes did not vary significantly by household size or structure. Bivariate correlations between continuous measures of the number of adults and number of children in the household with both total savings accumulated and total participant savings were not significant. While women in households with more than one adult saved and accumulated more savings on average, the difference was not significant. Whether women met their savings goals or received at least one matched withdrawal also did not vary by household size or structure.

Single women saved less on average than married, separated, or divorced women. According to ANOVA results, single women saved and accumulated significantly less compared to divorced women. Similarly, a smaller proportion of single women met their savings goal or received at least one matched withdrawal compared to the other three groups of women. Due to cell sizes, the statistical significance of this relationship could not be assessed. However, bivariate correlation coefficients were significant for the relationship between marital status and total savings accumulated ($r = .273$, $p \leq .01$), total respondent savings ($r = .283$, $p \leq .01$), meeting one's savings goal ($r = .296$, $p \leq .01$), and receiving at least one matched withdrawal ($r = .191$, $p \leq .01$).

At enrollment, women indicated whether they had histories of physical, sexual, verbal, and/or economic abuse. Neither total participant savings nor savings accumulation varied significantly by whether a woman had a history of physical violence, sexual or verbal abuse. While total accumulated savings was, on average, higher for women who had experienced economic abuse compared to those who had not, the difference was not significant. However, total respondent savings among women who had experienced economic abuse was significantly higher than among women who reported no history of economic abuse. Women who had experienced intimate sexual abuse were more likely to have received at least one matched withdrawal compared to women who had no history of intimate sexual abuse. No other types of abuse were significantly related to meeting one's savings goal or receiving at least one matched withdrawal.

Table 6. Participant Characteristics and Total Savings Accumulation

Participant Characteristic	Total Savings Accumulation (mean)
Race* (n=112)[a]	
White	$3,563
Black	$2,373
Latina	$3,386
Other	$3,888
Age (n=112)	
20-35	$2,890
36-50	$3,246
51-61	$2,643
Education* (n=112)	
Less than high school	$2,825
High school or GED	$2,232
College up to 2 year degree	$3,055
Four year degree or more	$4,143
Number of adults in household (n=112)	
One	$2,900
Two	$3,618
Number of children in household (n=112)	
Zero children	$2,694
One or two children	$3,236
Three or more children	$2,891
Relationship status* (n=112)	
Single	$2,314
Divorced	$3,468
Separated	$3,853
Married	$3,733
History of physical abuse (n=98)	
Yes	$3,194
No	$3,094
History of Sexual Abuse (n=98)	
Yes	$3, 358
No	$3,101
History of verbal abuse (n=98)	
Yes	$3,156
No	$3,348
History of economic abuse (n=98)	
Yes	$3,377
No	$2,652

[a]Sample size varies throughout the table due to missing data.
*$p \leq .05$

Table 7. Participant Characteristics and Participant Total Savings

Participant Characteristic	Participant Total Savings (mean)
Race* (n=125)[a]	
White	$1,407
Black	$1,153
Latina	$2,019
Other	$1,354
Age (n=112)	
20-35	$1,211
36-50	$1,463
51-61	$1,338
Education (n=112)	
Less than high school	$1,148
High school or GED	$1,164
College up to 2 year degree	$1,352
Four year degree or more	$1,623
Number of adults in household (n=112)	
One	$1,316
Two	$1,427
Number of children in household (n=112)	
Zero children	$1,289
One or two children	$1,390
Three or more children	$1,245
Relationship status** (n=112)	
Single	$1,077
Divorced	$1,520
Separated	$1,523
Married	$1,591
History of physical abuse (n=98)	
Yes	$1,378
No	$1,400
History of Sexual Abuse (n=98)	
Yes	$1,419
No	$1,366
History of verbal abuse (n=98)	
Yes	$1,397
No	$1,259
History of economic abuse** (n=98)	
Yes	$1,500
No	$1,072

[a]Sample size varies throughout the table due to missing data.
*$p \leq .05$. ** $p \leq .01$.

Table 8. Participant Characteristics and Savings Goal

Participant Characteristic	Met Goal	
	Yes	No
Race[a] (n=117)[b]		
White	38 (76%)	12 (24%)
Black[c]	29 (55%)	24 (45%)
Latina	4 (80%)	1 (20%)
Other	8 (89%)	1 (11%)
Age[a] (n=117)		
20-35	34 (63%)	20 (37%)
36-50	39 (72%)	15 (28%)
51-61	6 (67%)	3 (33%)
Education[a] (n=117)		
Less than high school	7 (64%)	4 (36%)
High school or GED	11 (48%)	12 (52%)
College up to 2 year degree	43 (68%)	20 (32%)
Four year degree or more	18 (90%)	2 (10%)
Number of adults in household (n=117)		
One	61 (64%)	34 (36%)
Two	18 (82%)	4 (18%)
Number of children in household (n=117)		
Zero children	18 (62%)	11 (38%)
One or two children	46 (71%)	19 (29%)
Three or more children	15 (65%)	8 (35%)
Relationship status[a] (n=117)		
Single	24 (49%)	25 (51%)
Divorced	34 (77%)	10 (23%)
Separated	11 (85%)	2 (15%)
Married	10 (91%)	1 (9%)
History of physical abuse[a] (n=103)		
Yes	62 (72%)	24 (28%)
No	12 (71%)	5 (29%)
History of Sexual Abuse (n=103)		
Yes	25 (81%)	6 (19%)
No	49 (68%)	23 (32%)
History of verbal abuse[a] (n=103)		
Yes	65 (71%)	27 (29%)
No	9 (82%)	2 (18%)
History of economic abuse (n=103)		
Yes	57 (76%)	18 (24%)
No	17 (61%)	11 (39%)

[a]Chi-square test for significance could not be interpreted due to not meeting minimum expected cell count assumption.
[b]Sample size varies throughout the table due to missing data.
[c]A chi-square test comparing Black and White women only revealed a significant difference in outcomes.

Table 9. Participant Characteristics and Receipt of Match

Participant Characteristic	Match Received	
	Yes	No
Race[a] (n=116)[b]		
White	42 (86%)	7 (14%)
Black[c]	34 (63%)	20 (37%)
Latina	3 (75%)	1 (25%)
Other	9 (100%)	0 (0%)
Age[a] (n=116)		
20-35	41 (76%)	13 (24%)
36-50	42 (78%)	12 (22%)
51-61	5 (63%)	3 (37%)
Education[a] (n=116)		
Less than high school	8 (67%)	4 (33%)
High school or GED	14 (58%)	10 (42%)
College up to 2 year degree	48 (79%)	13 (21%)
Four year degree or more	18 (95%)	1 (5%)
Number of adults in household (n=116)		
One	68 (73%)	25 (27%)
Two	20 (87%)	3 (13%)
Number of children in household (n=116)		
Zero children	20 (71%)	8 (29%)
One or two children	52 (79%)	14 (21%)
Three or more children	16 (73%)	5 (27%)
Relationship status[a] (n=116)		
Single	33 (65%)	18 (35%)
Divorced	34 (83%)	7 (17%)
Separated	10 (83%)	2 (17%)
Married	11 (92%)	1 (8%)
History of physical abuse[a] (n=102)		
Yes	65 (76%)	20 (24%)
No	15 (88%)	2 (12%)
History of Sexual Abuse* (n=102)		
Yes	29 (91%)	3 (9%)
No	51 (73%)	19 (27%)
History of verbal abuse[a] (n=102)		
Yes	70 (77%)	21 (23%)
No	10 (91%)	1 (9%)
History of economic abuse (n=102)		
Yes	60 (80%)	15 (20%)
No	20 (74%)	7 (26%)

[a]Chi-square test for significance could not be interpreted due to not meeting minimum expected cell count assumption.
[b]Sample size varies throughout the table due to missing data.
[c]A chi-square test comparing Black and White women only revealed a significant difference in outcomes.
*$p \leq .05$.

Relationships between economic characteristics of women and savings outcomes were also examined and are presented in Tables 10 through 13. Women's employment at the time of enrollment in REAP was not significantly related to savings accumulation or participant total savings. Due to cell sizes, whether employment at enrollment is significantly related to meeting one's savings goal or receiving at least one matched withdrawal could not be assessed; however, no general pattern of variation appeared to exist.

A bivariate correlation between a continuous measure of monthly income and total participant savings was significant ($r=.225$, $p = .019$). As income increased, so did total savings among women. Additionally, ANOVA revealed a significant relationship between income group and total participant savings, with those falling within the lowest income category ($0 - $999 month) having significantly lower total savings on average than those in the next highest income group ($1,000 - $2,000). Total savings accumulated, however, was not significantly related to gross monthly income. Again, due to cell size limitations, the significance of a relationship between income category and meeting one's savings goal or receiving at least one matched withdrawal could not be assessed. However, there does appear to be a pattern of lower frequency in meeting the savings goal or receiving a matched withdrawal among the lowest income group compared to higher income groups.

Women's total debt was also explored in relationship to savings outcomes. No significant correlation was found between total debt and total accumulated savings or participant total savings. Additionally, average total debt did not vary significantly by whether women met their savings goal or received at least one matched withdrawal.

While women who were at or below 100% of poverty accumulated and saved less on average compared to women whose poverty status ranged from 101% to above 200% of poverty, it did not vary significantly. Women at or below 150% of poverty were also compared to those above 150% of poverty on savings outcomes. While total accumulated savings was higher on average among women above 150% of poverty than among women below 150%, the amount did not vary significantly between the two groups. However, average total participant savings was significantly higher ($p = .039$) for women above 150% of poverty ($1,529) compared to women at or below 150% of poverty ($1,267). Significance between poverty status, achievement of one's savings goal, or receiving at least one matched withdrawal could not be assessed due to cell sizes. In general, though, poorer women had a lower frequency of goal attainment or matched withdrawal compared to those in higher poverty status groups. Chi-square tests between those at or below 150% of poverty and those above on meeting their savings goal or receiving at least one matched withdrawal were not statistically significant.

Neither total accumulated savings nor participant total savings varied significantly by prior or current use of TANF, current receipt of SSI/SSDI, or current receipt of food stamps. Additionally,

no significant relationships or general patterns were found between government assistance and whether or not women achieved their savings goal or received at least one matched withdrawal.

When they enrolled in the IDA program, women were asked about current asset ownership, including whether they owned a vehicle, home, business, rental property, or investments. Women who owned a home (n=23) had significantly higher total participant savings on average compared to women who did not own a home. Women who owned their own business (n=8) had significantly higher total savings accumulation on average than women who did not own a business. Women who owned a rental property (n=2) had significantly lower total savings accumulation compared to women who did not own rental property. A general pattern indicated that women who owned assets (with the exception of rental property) tended to have a higher frequency of meeting their savings goal and receiving at least one matched withdrawal, although this was not statistically significant. Given the small number of women who owned their own business or rental property, further research is needed to establish if these relationships exist.

Finally, banking status at time of enrollment was not significantly related to average total savings accumulation or participant total savings. Nor did there appear to be much variation in meeting one's savings goal or receiving at least one matched withdrawal based on banking status at enrollment.

Table 10. Economic Characteristics and Total Savings Accumulation

Economic Characteristic	Total Savings Accumulation (mean)
Employment Status (n=112)[a]	
Full-time or more	$2,968
Part-time	$3,316
Not currently working	$2,225
Gross Monthly Income (n=112)	
$0 - 999	$2,504
$1,000 – 2,000	$3,188
$2,001 – 3,000	$3,918
$3,001 – 3,500	$2,658
Poverty Status (n=111)[b]	
Less than 100%	$2,751
101-150%	$3,225
151-200%	$3.449
201%+	$3,103
Prior TANF Receipt (n=97)	
Yes	$2,976
No	$3,523
TANF Receipt (n=109)	
Yes	$3,422
No	$2,995
SSI or SSDI Receipt (n=110)	
Yes	$3,358
No	$2,998
Food Stamp Receipt (n=101)	
Yes	$3,202
No	$3,135
Own Vehicle (n=110)	
Yes	$2,997
No	$3,167
Own Home (n=109)	
Yes	$3,627
No	$2,894
Own Business* (n=109)	
Yes	$4,518
No	$2,932
Own Rental Property* (n=106)	
Yes	$670
No	$3,144
Own Investments (n=106)	
Yes	$2,961
No	$3,039
Banking Status (n=108)	
Checking Account Only	$2,702
Savings Accounts Only	$3,649
Checking & Savings	$3,270
Neither Checking nor Savings	$3,204

[a]Sample size varies throughout the table due to missing data.

[b]A t-test to compare those at or below 150% of poverty and those above on total savings accumulation was not significant.

*$p \leq .05$.

Table 11. Economic Characteristics and Participant Total Savings

Economic Characteristic	Participant Total Savings (mean)
Employment Status (n=112)[a]	
Full-time or more	$1,391
Part-time	$1,344
Not currently working	$1,048
Gross Monthly Income* (n=112)	
$0 - 999	$1,034
$1,000 – 2,000	$1,450
$2,001 – 3,000	$1,455
$3,001 – 3,500	$1,478
Poverty Status[b] (n=111)	
Less than 100%	$1,129
101-150%	$1,455
151-200%	$1,495
201%+	$1,607
Prior TANF Receipt (n=97)	
Yes	$1,260
No	$1,499
TANF Receipt (n=109)	
Yes	$1,261
No	$1,368
SSI or SSDI Receipt (n=110)	
Yes	$1,343
No	$1,338
Food Stamp Receipt (n=101)	
Yes	$1,286
No	$1,429
Own Vehicle (n=110)	
Yes	$1,329
No	$1,372
Own Home* (n=109)	
Yes	$1,650
No	$1,258
Own Business (n=109)	
Yes	$1,602
No	$1,320
Own Rental Property (n=106)	
Yes	$998
No	$1,339
Own Investments (n=106)	
Yes	$1,399
No	$1,302
Banking Status (n=108)	
Checking Account Only	$1,235
Savings Accounts Only	$1,317
Checking & Savings	$1,510
Neither Checking nor Savings	$1,227

[a]Sample size varies throughout the table due to missing data.

[b]While ANOVA did not reveal significant differences in savings outcomes between the four groups, a t-test to compare those at or below 150% of poverty and those above revealed a significant difference in participant total savings ($t = -2.09$, $p = .039$), with those at or below 150% of poverty saving an average of $1,267 compared to those above 150% of poverty who saved an average of $1,529.

*$p \leq .05$.

Table 12. Economic Characteristics and Savings Goal

Economic Characteristic	Met Goal	
	Yes	No
Employment Status[a] (n=117)[b]		
Full-time or more	37 (67%)	18 (33%)
Part-time	37 (73%)	14 (27%)
Not currently working	5 (45%)	6 (55%)
Gross Monthly Income[a] (n=117)		
$0 - 999	17 (53%)	15 (47%)
$1,000 – 2,000	43 (68%)	20 (32%)
$2,001 – 3,000	12 (92%)	1 (8%)
$3,001 – 3,500	7 (78%)	2 (22%)
Total debt (mean)[c] (n=79)	$6,338	$6,199
Poverty Status[a, d] (n=116)		
Less than 100%	30 (63%)	18 (37%)
101-150%	23 (68%)	11 (32%)
151-200%	19 (76%)	6 (24%)
201%+	7 (78%)	2 (22%)
Prior TANF Receipt (n=102)		
Yes	31 (65%)	17 (35%)
No	43 (80%)	11 (20%)
TANF Receipt (n=109)		
Yes	14 (74%)	5 (26%)
No	64 (67%)	31 (33%)
SSI or SSDI Receipt[a] (n=110)		
Yes	8 (62%)	5 (38%)
No	70 (69%)	32 (31%)
Food Stamp Receipt (n=106)		
Yes	28 (68%)	13 (32%)
No	47 (72%)	18 (28%)
Own Vehicle (n=115)		
Yes	57 (67%)	28 (33%)
No	21 (70%)	9 (30%)
Own Home (n=114)		
Yes	20 (83%)	4 (17%)
No	57 (63%)	33 (37%)
Own Business[a] (n=114)		
Yes	7 (88%)	1 (12%)
No	70 (66%)	36 (34%)
Own Rental Property[a] (n=110)		
Yes	0 (0%)	2 (100%)
No	75 (69%)	33 (31%)
Own Investments (n=111)		
Yes	14 (74%)	5 (26%)
No	61 (66%)	31 (34%)
Banking Status[a] (n=113)		
Checking Account Only	24 (62%)	15 (38%)
Savings Accounts Only	4 (57%)	3 (43%)
Checking & Savings	35 (74%)	12 (26%)
Neither Checking nor Savings	14 (70%)	6 (30%)

[a]Chi-square test for significance could not be interpreted due to not meeting minimum expected cell count assumption.
[b]Sample size varies throughout the table due to missing data.
[c]Means exclude a $122,200 outlier. T-test of whether average debt varied significantly by whether or not savings goal was met was conducted with and without the outlier; neither were statistically significant.
[d]Chi-square test comparing those at or below 150% of poverty compared to those above on whether savings goal was met was not statistically significant.

Table 13. Economic Characteristics and Receipt of Match

Economic Characteristic	Match Received	
	Yes	No
Employment Status[a] (n=116)[b]		
Full-time or more	42 (76%)	13 (24%)
Part-time	38 (76%)	12 (24%)
Not currently working	8 (73%)	3 (27%)
Gross Monthly Income[a] (n=116)		
$0 - 999	22 (67%)	11 (33%)
$1,000 – 2,000	46 (75%)	15 (25%)
$2,001 – 3,000	12 (92%)	1 (8%)
$3,001 – 3,500	8 (89%)	1 (11%)
Total debt (mean)[c] (n=78)	$6,719	$6,217
Poverty Status[a, d] (n=115)		
Less than 100%	35 (71%)	14 (29%)
101-150%	23 (72%)	9 (28%)
151-200%	20 (83%)	4 (17%)
201%+	9 (90%)	1 (10%)
Prior TANF Receipt (n=101)		
Yes	36 (77%)	11 (23%)
No	45 (83%)	9 (17%)
TANF Receipt (n=113)		
Yes	16 (89%)	2 (11%)
No	70 (74%)	25 (26%)
SSI or SSDI Receipt (n=114)		
Yes	9 (75%)	3 (25%)
No	77 (76%)	25 (24%)
Food Stamp Receipt (n=105)		
Yes	31 (78%)	9 (22%)
No	51 (79%)	14 (21%)
Own Vehicle (n=114)		
Yes	62 (75%)	21 (25%)
No	25 (81%)	6 (19%)
Own Home (n=113)		
Yes	20 (87%)	3 (13%)
No	66 (69%)	24 (21%)
Own Business[a] (n=113)		
Yes	7 (88%)	1 (12%)
No	79 (75%)	26 (25%)
Own Rental Property[a] (n=108)		
Yes	2 (100%)	0 (0%)
No	82 (76%)	26 (24%)
Own Investments[a] (n=110)		
Yes	13 (68%)	6 (32%)
No	71 (78%)	20 (22%)
Banking Status (n=112)		
Checking Account Only	31 (78%)	9 (22%)
Savings Accounts Only	6 (86%)	1 (14%)
Checking & Savings	34 (77%)	10 (23%)
Neither Checking nor Savings	15 (71%)	6 (29%)

[a]Chi-square test for significance could not be interpreted due to not meeting minimum expected cell count assumption.
[b]Sample size varies throughout the table due to missing data.
[c]Means exclude a $122,200 outlier. T-test of whether average debt varied significantly by whether or not savings goal was met was conducted with and without the outlier; neither were statistically significant.
[d]Chi-square test comparing those at or below 150% of poverty compared to those above on whether respondent received at least one matched withdrawal was not statistically significant.

Multivariate Models

Initial multivariate regression models were constructed by including independent variables that were found to have a significant bivariate association with savings outcome variables or where a pattern of association existed that could not be tested using chi-square tests due to limited cell sizes. These initial exploratory models were conducted to see which variables might emerge as predictive of outcomes. Also, given the relatively small sample size in this study, Abu-Bader's (2010) guideline for determining the number of factors in samples of 50 or more was utilized; the rule of thumb being a sample size of at least $50 + 8m$ (where m = number of factors). Thus for a sample size of 125, the number of factors should not exceed nine ($50 + (8 \times 9) = 122$). Thus, no more than nine independent variables are entered into any regression model. Categorical variables with more than two attributes (e.g. race, relationship status) were dummy-coded for the purpose of completing the regression analyses.

For the two continuous outcomes measures, total savings accumulation and participant total savings, initial regression models included race, education, income, relationship status, whether a woman had a history of economic abuse, and whether or not she owned a home or a small business as independent variables. For the two dichotomous savings outcomes, whether or not a woman met her savings goal and whether or not she received at least one matched withdrawal, independent variables included race, education, income, relationship status, and homeownership. While all models were significant, given the limited number of significant predictors of outcomes, models in which only those independent variables shown to have a significant bivariate relationship[3] were entered into multiple regression models. These models were entered based on the size of their partial correlation coefficients; the one with the largest correlation was entered first in the analysis, followed by the second-largest, and so on (Abu-Bader, 2010). Final model results are shown in Tables 14 through 17. While findings are suggestive, and call for further research, they should not be interpreted as causal.

Education and race were predictive of total savings accumulation (Table 14). Higher education levels predicted more savings accumulation. White women continued to have significantly higher total savings accumulation compared to Black women when controlling for other factors.

Education, race, and relationship status were also predictive of participant total savings. Higher education levels predicted higher participant total savings. In addition, Latina women saved significantly more than Black women when controlling for other factors (Table 15). Finally, as was the case in bivariate tests, divorced women had significantly higher total savings compared to single women when controlling for other factors.

[3] While both total monthly income and poverty status had significant correlations with some dependent variables, only monthly income is included in regression models due to multicollinearity. Additionally, while owning rental property was significantly associated with not meeting one's saving goal, it was not included due to only two women owning rental property.

Table 14. Multivariate Model for Total Savings Accumulation

Independent Variables	Total Savings Accumulation (N=108)		
	B	*SE B*	*B*
Education	313.93	159.48	.194**
Race (Black)[a]			
White	878.66	434.73	.203**
Latina	963.07	1054.10	.085
Other	1127.01	766.13	.145
Relationship status (Single)			
Married	616.14	724.68	.083
Divorced	571.30	469.85	.129
Separated	1089.17	691.07	.160
Owns business	572.51	520.49	.070
Constant	1144.55	533.50	
R^2		.18	
F		2.74***	

[a]Parentheses indicate reference category.
*p ≤ .10. **p ≤ .05. *** p ≤ .01.

Table 15. Multivariate Model for Participant Total Savings

Independent Variables	Total Savings Accumulation (N=92)		
	B	*SE B*	*B*
Education	97.7	54.40	.187*
Race (Black)[a]			
White	118.48	152.42	.085
Latina	738.81	354.00	.216**
Other	213.99	285.59	.081
Relationship status (Single)			
Married	138.12	270.91	.059
Divorced	305.33	171.16	.210*
Separated	332.01	219.01	.166
Economic abuse	123.30	180.42	.078
Owns home	249.49	188.11	.153
Monthly income	.078	.095	.087
Constant	541.94	237.83	
R^2		.23	
F		2.40**	

[a]Parentheses indicate reference category.
*p ≤ .10. **p ≤ .05. *** p ≤ .01.

In a logistic regression model, education and relationship status were predictive of a woman meeting her savings goal (Table 16). The likelihood of meeting one's savings goal increased as education increased, and both divorced and separated women were more likely to meet their goal than were single women. Education was also predictive of receiving at least one matched withdrawal (Table 17). A history of sexual abuse was also predictive (p ≤ .10) of receiving at least one matched withdrawal.

Table 16. Logistic Regression Model for Met Savings Goal

Independent Variables	Met Savings Goal (N=114)		
	B	*SE B*	e^B
Education	.47**	.203	1.60
Relationship status (Single)[a]			
Married	1.59	1.13	4.91
Divorced	1.01**	.50	2.73
Separated	1.65**	.85	5.23
Monthly income	.00	.00	1.00
Constant	-1.95		
X^2		23.34***	
df		5	

[a]Parentheses indicate reference category.
*p ≤ .10. **p ≤ .05. *** p ≤ .01.

Table 17. Logistic Regression Model for Received at Least One Matched Withdrawal

Independent Variables	Met Savings Goal (N=102)		
	B	*SE B*	e^B
Education	.48***	.23	1.62
Relationship status (Single)[a]			
Married	1.11	1.13	3.05
Divorced	.61	.59	1.83
Separated	.94	.88	2.57
Sex Abuse	1.21*	.68	3.34
Constant	-.83		
X^2		13.69***	
df		5	

[a]Parentheses indicate reference category.
*p ≤ .10. **p ≤ .05. *** p ≤ .01.

Summary

Participants, Savings, and Asset Purchases

REAP IDA participants were women between the ages of 20 and 61 with an average age of 37. They were primarily African American (46%) or White (42%) and relatively well educated with only ten percent of women with less than a high school diploma or GED and over 70% with at least some college if not a college degree. Household size was generally small, with 79% of households consisting of the participant as the sole adult in the household with an average of two children per household. The majority of women were single, divorced, or separated, while 11% were married at time of enrollment. The majority of women had a history of physical and verbal abuse. Fewer women reported a history of intimate sexual abuse, and over two-thirds reported experiencing economic abuse.

On average, women's gross monthly incomes were about $1,400, and 91% of women were working at least part-time at enrollment. Seventy percent of women lived at or below 150% of the poverty line. While almost half of the women had received TANF at some point prior to enrolling in REAP, only 15% were receiving TANF at the time of enrollment and 35% receiving food stamps. Overall, few women received SSI/SSDI. While 72% of women reported owning a vehicle at the time of enrollment, the reliability of these vehicles are in question given the large number of women who made vehicle purchases with their matched savings (Table 4). Twenty-one percent of women owned their home at the time of enrollment and few women owned other types of assets. At enrollment the majority of women had either a savings or checking account.

As of March 2009, the average participant total savings was $1,310, average participant savings less unmatched withdrawals was $1,045, and average total savings accumulation was $3,041. The average monthly savings goal was $57 and the average monthly deposit was $87. Among 117 account holders (eight were still working toward their goal) 77 (66%) achieved their savings goal. Women who met their goal did so in 19 months on average. While 74 women made at least one unmatched withdrawal during their participation, 53% still achieved their savings goal. Among 116 women (9 of 13 open accounts had not made any withdrawals yet) 88 (76%) of women made at least one matched withdrawal purchase. Taken together, women made a total of 307 withdrawals; including 189 (62%) matched and 118 (38%) unmatched. The greatest proportion of matched withdrawals were made for purchasing a vehicle or paying for education. Unmatched withdrawals were largely made for safety reasons or emergencies such as to maintain housing, or as a balance withdrawal to close the IDA account.

Savings Outcome Associations

Based on bivariate and multivariate analyses, this study identified associations between women's demographic and economic characteristics and savings outcomes. While the findings are suggestive and indicate the need for further research, the sample size is relatively small. True associations are difficult to identify and it is impossible to say whether any of these relationships are causal.

Two factors showed a relatively consistent pattern with savings outcomes: education and race. Women with more education had greater savings on average, and Black women had lower savings compared to White women and Latina women. Larger studies of matched savings accounts have found similar patterns (Mason, Nam, Clancy, Loke, & Kim, 2009). Further research is needed to understand the phenomenological reasons why Black women experience more challenges in saving in IDA accounts. This study found that Black women were more likely to live at or below 100% of poverty. Other factors that should be examined in future research include access to transportation, internet access, and kinship responsibilities among others. While it will be important to find ways to help Black women be as successful in matched savings programs as women of other races, it is worth noting that over half of the Black women in REAP's IDA program reached their savings goal and on average had a total savings accumulation of $2,373.

Household structure had little association with savings outcomes in this study. While single women had lower savings on average compared to divorced, separated, or married women, neither the number of adults in one's household nor the number of children in the household were significantly associated with savings outcomes. This is consistent with research findings that indicate that female householders with children are less likely to own assets but accumulate assets at a comparable level to those in other household types when provided the institutional structure to do so (Sanders & Porterfield, 2010).

Women who reported owning a home or their own business at the time of enrollment showed more positive savings outcomes. Ownership of these assets may have given these women an added level of economic security that enabled them to successfully save each month in their IDA.

Few associations were found between women's history of abuse and savings outcomes. However, women who reported a history of economic abuse saved more on average than did women who did not report a history of economic abuse. It is possible that women who were impacted by economic abuse were especially sensitive to the need to move toward greater economic autonomy. Additionally, these women may have identified more keenly with content in REAP's economic literacy classes that stressed the role of economic abuse and discussed how to successfully move toward economic autonomy. The association between history of intimate sexual abuse and receiving at least one matched withdrawal may be random but is curious and should be explored in future research with individual women and larger sample sizes. One possibility is that the presence of a history of sexual abuse from an intimate partner is an indicator of more persistent or severe abuse. Thus, type and severity of abuse in relationship to savings outcomes should be explored further in future research.

Perhaps of equal interest to the associations found between women's characteristics, economic factors, and saving outcomes is the lack of associations. For example, age, number of children, employment status, amount of debt, and physical abuse had few if any significant associations with savings outcomes. This suggests that women with a variety of characteristics and circumstances who have experienced intimate partner violence can be successful in a matched savings program designed with their safety concerns in mind. Again, a word of caution is offered in interpretation of findings given the relatively small sample size.

Discussion

REAP's IDA program is the first of its kind, designed specifically with needs of women impacted by intimate partner violence in mind. This study details the savings outcomes of the first 125 women to participate in REAP's IDA program. Savings rates, deposit patterns, withdrawals, and asset purchases are chronicled.

While not all women successfully completed their savings goal or made asset purchases, approximately two-thirds of women reached their savings goal and 76% made at least one matched

withdrawal purchase. In total, 189 matched withdrawals were made to make asset purchases. Additionally, while many women were forced to make unmatched withdrawals over the course of their participation, 57% of women who made an unmatched withdrawal also made at least one matched withdrawal. Unmatched withdrawals were often used to preserve housing, which may also have maintained safety.

Women's asset purchases have potential implications for long-term economic stability. The purchase of a vehicle, for example, may allow women to reliably and safely travel to and from work and school, and take their children to school and doctor appointments (Brabo et al., 2003; Ong, 1996). More education and training could allow women to acquire higher wage jobs (Pandey, Zhan, Neely-Barnes, & Menon, 2000; Spalter-Roth & Hartman, 1991). Buying or repairing a home could give women a sense of ownership, pride, and stake in their neighborhood (Rohe & Stegman, 1994a, 1994b). All these potential benefits have implications for women's well-being and safety.

While savings outcomes of REAP suggest positive effects on women's lives, not all women accomplished what they had hoped. One fourth of women in the IDA program were unable to make matched asset purchases. In a previous study of REAP IDA participants (see Sanders, 2007), women discussed their savings challenges. Most of the challenges concerned daily financial struggles, including unstable and insufficient income, substantial debt, and children's needs. Based on data available about emergency withdrawals, women who closed their accounts prematurely had difficult life circumstances that prevented them from saving consistently. The most common emergency expenditure was for rent or utilities to help women maintain their housing, although in a few cases women made safety withdrawals for temporary housing such as a hotel stay or a move to another city. These withdrawals may have played a positive role in women's economic stability, independence, or ability to remain safe from abuse. That is, the ability to maintain housing may have prevented some women from returning to an abusive partner for economic reasons. Other women also made emergency withdrawals, but re-deposited the withdrawn savings and eventually made matched withdrawals. Moreover, REAP staff gave extensions and exceptions to some women that allowed them to miss deposits (when funding sources permitted). For example, AFIA matching funds have rigid rules that provide little flexibility in the event of emergencies and/or missed deposits. In contrast, United Way of Greater St. Louis Great Rivers recently approved matching funds for a limited number of safety accounts that allow using matching funds to facilitate long-term safety plans.

The average net savings of $1,045, average participant savings of $1,310, and total savings accumulation average of $3,041 are not trivial. On average, women saved $87 per month. Given the financial challenges associated with living on a modest income (most women lived at or below 150% of poverty) and the added challenges that women may have had due to recent or current intimate partner violence, program outcomes are impressive. These savings outcomes demonstrate that women impacted by intimate partner violence are capable of successfully saving in an IDA program when given the opportunity. Findings regarding factors associated with savings outcomes

are limited given the sample size; however, education emerged as a positive factor in improving women's savings outcomes. Additionally, it appears that Black women face additional obstacles in saving that should be explored further in order to maximize the probability of their success. Relationship status, a history of economic abuse, and home or business ownership also showed some association with savings outcomes.

The primary limitation of this study is the relatively small sample size. Many bivariate and multivariate analyses could not be completed due to the limited sample size. Thus, findings are suggestive and not causal in nature. Additionally, there were some data limitations including missing data, although not extensive, and limited information about the details of women's unmatched withdrawals especially those made for safety reasons. Despite these limitation, this study overall provides an unprecedented look at the savings abilities and outcomes of women impacted by intimate partner violence.

Conclusion

Future research is needed to more fully understand possible associations between women's characteristics, economic factors, and savings outcomes. Of critical importance in future research is the need to examine longer-term outcomes. Specifically, what role does participation in REAP, savings outcomes, and asset accumulation play in women's future economic security, safety, and experiences of intimate partner violence? While this study allows us to observe savings outcomes of women who participated in REAP, it does not allow us to understand the complex relationship among financial circumstances, including the acquisition of assets, and domestic violence. While the financial benefit of savings and asset purchases is important in and of itself, fundamentally it will be important to know if participation in REAP resulted in a reduction in domestic violence.

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