

# Improving Relationships with Financial Institutions: Evidence on the Effectiveness of Financial Education from a “Second Chance” Program<sup>\*</sup>

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## Abstract

The Get Checking™ program is a “second chance” program that aims to provide financial education to consumers who were reported to ChexSystems by a previous financial institution for account abuse, mismanagement or fraud. Using data collected from Indiana participants of the program, our first goal is to investigate the success of the program in improving financial management behavior of the participants. Our second goal is to investigate the change of participants’ actual behavior in terms of account usage after the completion of the program. Our findings show that the program was successful in positively influencing the financial management behavior of Non-whites in terms of recording transactions and contacting financial institutions. Also, financial management skills emphasized in the program, especially contacting financial institutions, have a significant positive effect on the actual behavior of the participants in terms of opening an asset account and obtaining a loan. Among the heterogeneous group of the unbanked, our findings shed light on the demographic groups, such as Non-whites and young adults, that could benefit the most from this type of financial management education.

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<sup>\*</sup> We thank Bharathi Nagarajan for her assistance with the collection of the data and Patryk Babiarz for excellent research assistance.

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## **1. Introduction**

The unbanked – those who rely on check cashing outlets and pawn shops for their financial transactions – usually pay high costs for check cashing and electronic money transfers. They can also become victims of financial scams and predatory lending for their short-term loan needs. In addition to addressing these safety and security issues, establishing banking relationships is a key element in establishing financial stability and building financial assets. Finally, unbanked households can improve their credit-risk profiles and gain access to lower-cost sources of credit by joining the mainstream financial system.

Despite the challenges of being unbanked, according to the 2004 Survey of Consumer Finances (SCF), the proportion of families who did not do business with a financial institution did not change much from 2001 to 2004 (Brian, Kennickell and Moore, 2006). In 2004, 8.7 percent of American families did not do business with a financial institution and were considered unbanked. Moreover, 10.6 percent of families did not have a checking account in 2004, a slight decrease from 12.7 percent in 2001 (Brian et al., 2006).

There has been a recent increased emphasis on financial education programs to bring the unbanked into the mainstream financial services market. Nevertheless, the effectiveness of these programs in improving unbanked consumers' financial management skills, influencing their attitudes towards financial institutions, and changing their actual behavior in terms of account usage has not been well documented. In addition, little is known about which sub-groups of the unbanked population benefit most from these educational programs.

The goal of the study described here is to document the role of financial management education in improving financial management behavior and positively affecting the actual behavior of consumers who once had a checking account but had it closed by the financial institution. We use data collected from Indiana participants of the Get Checking™ program. This program is a “second chance” program that aims to provide financial education to

consumers who were reported to ChexSystems by a previous financial institution for account abuse, mismanagement or fraud.<sup>1</sup> Upon completion of a six-hour course and payment of any money owed to the financial institution, participants can open a checking or savings account at any participating financial institution.

A better understanding of the impact of financial management education on the behavior of unbanked consumers enhances our ability to further the development of effective financial management education programs that meet the banking and education needs of unbanked consumers. It may also bring more of these consumers into the financial services marketplace. For the unbanked consumer, this in turn may mean a reduction in the financial costs of managing their money, an increased ability to accumulate financial assets and an improvement of their credit-risk profiles.

From 2003-2005, 1,483 central Indiana consumers earned certificates from the Get Checking<sup>TM</sup> program. A follow-up survey was mailed to all participants who completed the program in 2003, 2004 and 2005. This survey included questions about the checking, savings and other types of accounts that the participants had opened since the completion the program.<sup>2</sup>

Using data from the follow-up survey, our first goal is to analyze the success of the program in improving financial management behavior of the participants. In particular, we investigate whether the demographic characteristics of the participant have a varying effect on recording transactions, reconciling bank statements, budgeting and contacting financial institutions. Our second goal is to investigate the actual behavior of participants in terms of account usage since the completion of the program. Specifically, we investigate the effect of financial education on the likelihood of opening a savings, an asset or a loan account.

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<sup>1</sup> <http://www.getchecking.org>

<sup>2</sup> Participating financial institutions reported that 618 accounts were opened since the beginning of the program.

Our findings show that the proportion of the participants of the Get Checking™ program that opened a checking and savings account` are comparable to national averages. According to the 2004 SCF, 89.4 percent of families had a checking account and 47.1 percent of families had a savings account (Brian et al., 2006). The proportion of participants of the Get Checking™ program that opened a checking and savings account and still had them open at the time of the survey were 90.5 and 54.8 percent, respectively. However, the proportion of participants who opened another type of an asset or a loan account were lower than the proportion of participants who opened a savings account. Since the completion of the program, only 21.0 and 16.6 percent of the participants opened another type of an asset account or a loan account, respectively.<sup>3</sup>

Our findings also show that the program was successful in positively influencing the financial management behavior of Non-whites in terms of recording transactions and contacting financial institutions. Financial management skills emphasized in the program had a significant positive effect on the actual behavior of the participants in terms of opening an asset account and obtaining a loan. In particular, those who reported contacting financial institutions since the completion of the program were more likely to obtain a loan. Our results show that while this financial education program improved the actual behavior of Non-whites in terms of opening an asset account, Non-whites were either still discouraged from applying for a loan or were less likely to be approved for a loan.

## **2. What do we know about unbanked?**

As noted in the existing literature, the unbanked community is not a homogenous group in terms of their financial and demographic characteristics. Table 1 describes the demographic

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<sup>3</sup> Asset accounts include money market accounts, college education savings, Christmas accounts, additional saving or checking accounts and other asset accounts. Loan accounts include credit card accounts, personal loans and other loans.

characteristics of those who did and those who did not have a checking account in the 2004 SCF.

Compared to households with a checking account, those without a checking account are more likely to be headed by younger and single adults, and Blacks and Hispanics and have lower household income. In particular, 56.0 percent of those without a checking account have household income less than \$18,870, compared to 15.6 percent of those who did have a checking account. More than half of households without a checking account reported that they once had a checking account and, therefore, their relationship with a financial institution must have ended by either their own choice or the financial institution's decision. There are significant differences between those who once had a checking account and those who never had a checking account. For instance, those households who once had a checking account are less likely to be headed by Hispanics and more likely to be headed by Whites and to have higher household income. Among those who once had a checking account, 54.4 percent were headed by a White and 15.5 percent were headed by a Hispanic individual. However, among those who never had a checking account, 26.7 percent were headed by a White and 33.2 percent were headed by a Hispanic individual. While 51.8 percent of those who once had a checking account have a household income less than \$18,870, 60.6 percent of those who never had a checking account have a household income less than \$18,870.

Common reasons cited for not having a checking account are not homogenous among the unbanked. As shown in Table 1, consumers cite financial management education problems (not being able to manage or balance a checking account, problems related to credit history, not liking to deal with banks) as well as personal finance problems (not having enough money) as reasons for not having a checking account. However, the reasons related to financial management education are more commonly cited among those who once had a checking account. For example, 10.5 percent of those who once had a checking account report not being

able manage or balance a checking account, compared to 1.5 percent of those who never had a checking account. Similarly, 4.3 percent of those who once had a checking account report problems related to credit as a reason of not having a checking account, compared to less than 1 percent of those who never had a checking account. In addition, among the group of households that once had a checking account, reasons related to mismanagement of checking accounts and not liking to deal with banks are more commonly cited in the 2004 SCF than in the 2001 SCF (Brian et al., 2006).

Compared to the literature on the unbanked, the average expenses for checking and cashing of the participants in our survey were lower (Caskey, 2002). One reason for this finding may be due to the regulation in Indiana that the licensee may not charge check cashing fees in excess of the greater of \$5.00 or 10% of the face amount of the check (Indiana Department of Financial Institutions, n.d.)

### **3. What do we know about the effectiveness of the financial education programs?**

In their study of why households do not have checking accounts, Hogarth, Anguelov and Lee (2004) grouped potential reasons into four categories: account features, human capital, product motivation and institutional motivation. They concluded that, based on their analysis, Whites, single females, households with short time horizons, households with lower levels of education, unbanked households and households with credit problems do not have checking accounts due to reasons related to human capital and motivation. They suggested that financial education programs that build consumers' skills in account management and help them understand the value of using a checking account to track expenses could move them into account services.

However, as Brobeck (2005) reminds us, our understanding of effective financial education is still quite limited despite the continued belief of educators, the financial industry

and policy makers that it is important. He points out that while financial management education typically focuses on increasing consumer knowledge, limited research has been done on the impact of financial education programs on consumer skills and behaviors.

Is an effective financial education program for the unbanked one that motivates these consumers to open a transaction account? Or, should it do more than that?

While there are many frameworks for describing and ultimately measuring the effectiveness of educational programs, Bennett's TOP Hierarchy is appropriate for community-based programs that use the logic model for program design and evaluation (Barkman, et al., 2000). Within this framework, learning, action and impact are considered outcomes of the logic model. Learning outcomes measure participant awareness, knowledge, attitudes, skills and aspirations. Action outcomes document behavior, practice, decisions, policies and social action. Typically, learning level outcomes are assessed at the end of an educational session and perhaps at the conclusion of the educational series if there are multiple sessions. To be most effective, action level outcomes are assessed some time after the completion of the program.

#### **4. Data**

From 2003-2005, 1,483 central Indiana consumers earned certificates through the Get Checking™ program and responded to the end of session evaluations after three and six hours of instruction. In addition, 157 program participants responded to a follow-up survey that was mailed to them in April 2006. Data used in this study were primarily taken from the follow-up survey.

The follow-up survey included questions about the demographics of the respondents and financial management skills they acquired during the program. It included questions about whether they opened a checking and savings account since the completion of the program and whether these accounts were still open. It also asked about whether they opened other types of

asset accounts and a loan account since the completion of the program. The survey also asked what they do differently to manage their accounts since the completion of the program.

Finally, respondents were asked about their expenditures for check cashing and money orders.

Table 2 presents the demographic and socioeconomic characteristics of the participants in both the end of session evaluations and the follow-up survey. First, we assess whether those who responded to the follow-up survey were significantly different than those who completed the program. The majority of survey respondents in both surveys were between 25 and 44 years old. However, the age distribution of the respondents varied significantly across the two surveys. The average age of the participants in the follow-up survey was significantly higher.<sup>4</sup> In the end of session evaluations, respondents between 25 and 34 years old represented the largest group (38.6 percent), while in the follow-up survey, the largest group of respondents were between ages 35 and 44 (29.3 percent). In addition, the distribution of gender varied significantly between the participants of two surveys. While 44.1 percent of the participants of the Get Checking<sup>TM</sup> program were male, only 36.8 percent of the follow-up survey respondents were male.

In terms of race, household size and household income of the participants, there were no significant differences between the participants of the end of session evaluations and the follow-up survey. In the follow-up survey, the proportion of Non-whites was about 46.5 percent.<sup>5</sup> Nearly 30 percent of respondents lived in single-person households while nearly half of the respondents reported that their household consist of 2 or 3 people. More than 30 percent had household incomes between \$18,871 and \$31,450 and nearly 20 percent had household incomes less than \$18,871.

In addition, we investigate whether the demographic characteristics of the respondents to the follow-up survey varied by race or not. As shown in Table 2, Non-whites were

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<sup>4</sup> The follow-up surveys were mailed to the participants 1-3 years after they completed the program.

<sup>5</sup> Almost 90 percent of the non-whites in the follow-up survey were Black respondents.

significantly different than Whites in terms of gender and household size. In particular, 22.5 percent of Non-white respondents were male, compared to 50.0 percent of White respondents. Also, 19.4 percent of Non-whites lived in single-person households, compared to 36.6 percent of Whites. Non-white respondents were not significantly different than White respondents in terms of their age and income.

The end of session evaluation of the Get Checking™ program also asked the participants how confident they feel about several management activities. The majority of participants indicated the highest possible confidence about each of these behaviors. For example, 84.2 percent of participants indicated they felt very confident about maintaining a check register and 80.2 percent of participants indicated they were very confident about balancing with bank statements. Respondents were relatively less confident about talking to a financial institution about saving goals or credit needs. Nevertheless, 75.7 percent and 74.4 percent of participants indicated they were very confident about talking to a financial institution representative about saving goals and credit needs, respectively.

Table 3 presents the summary statistics for changes in actual behavior in terms of account usage and changes in financial management behavior since the completion of the Get Checking™ program. In terms of account usage, 97.5 percent of the respondents opened a checking account and 90.5 percent had the checking account still open at the time the survey was conducted. At the same time, 57.0 percent of the respondents opened a savings account, and the retention rate for the savings account was quite high, as 54.8 percent of the sample reported having the savings account still open at the time the survey was conducted. However, the proportion of respondents who opened another asset or a loan account was relatively lower than the proportion of respondents who opened a checking or savings account. For example, 21.0 percent of respondents opened an asset account. Most frequently opened asset accounts were retirement savings (6.4 percent) and certificates of deposit (5.1 percent). In terms of loan

accounts, 16.6 percent reported having opened a loan account. The most frequently opened loan accounts were car (8.9 percent) and mortgage loans (7.0 percent).

Table 1 in the Appendix shows that the age and race of the respondent had a significant effect on the account usage. In our sample, 14.7 percent of the respondents were below age 25 and all of those respondents below age 25 opened a checking account after earning their certificate. In addition, those below age 25 were more likely to open an asset or a loan account. Specifically, they were more likely to obtain a car loan. After earning their certificate, Non-whites were significantly more likely to open an asset account and less likely to open a loan account. In particular, Non-whites were less likely to have a mortgage loan.

The follow-up survey included a question on whether the respondents owed any money to the financial institution before they participated in the Get Checking<sup>TM</sup> program and how long it took them to repay their debts to the financial institutions. As reported in Table 3, 60.9 percent of the respondents owed money to a financial institution before they earned their certificate. While 40.4 percent of the respondents repaid the amount they owed within one month after earning the certificate, 5.8 percent had made restitution within 2 or 3 months. In addition, 10.9 percent reported still owing money to a financial institution and making restitution at the time the survey was conducted.

In the follow-up survey, respondents were asked to indicate changes in behavior with respect to managing their finances after completing the program. Overall, 74.5 percent reported keeping an up-to-date check register or a record of ATM or debit card transactions; 52.9 percent reported reconciling bank statements with their check register; 66.9 percent reported working to achieve a written financial goal or managing income and expenses to meet financial goals or using a written spending plan and 45.0 percent reported communicating with the financial institution since the completion of the program.

Finally, Table 3 presents information on the cost of cashing paychecks and buying money orders. Almost 35 percent of survey participants reported that they had no expenditures for cashing paychecks or buying money orders. For those who report non-zero expenditures, the median and average monthly cost of cashing paychecks and buying money orders were \$16.00 and \$23.48, respectively. On average, participants reported cashing 2.86 paychecks and buying 5.48 money orders per month.<sup>6</sup> According to Table 1 in the Appendix, there are no significant differences in the cost and the number of checks and money orders by age. However, our findings suggest significant differences in the cost of cashing paychecks and buying money orders by the race of the respondent. For example, while White respondents pay on average \$28.59 per month for these services, Non-white respondents pay only \$15.91 per month. However, the median values for the cost of these services for Whites and Non-whites were more similar (\$21.75 vs. \$11.48). In addition, White respondents purchase a greater number of money orders than their Non-white counterparts (6.35 vs. 4.58).

## **5. Results**

### *5.1 Changes in Financial Management Behavior*

Table 4 presents the results of probit regression for the determinants of changes in financial management behavior since the completion of the Get Checking<sup>TM</sup> program. Changes in financial management behavior were analyzed in four categories: recording transactions (keeping an up-to-date check register or a record of ATM or debit card transactions), reconciling bank statements with check register, planning a budget (working to achieve a written financial goal or managing income and expenses to meet financial goals or using a written spending plan) and, finally, contacting financial institutions (communicating with the

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<sup>6</sup> Both the numbers for checks and money orders were calculated using the responses of those that have non-zero expenses for cashing paychecks and buying money orders. Some respondents in this group indicated zero number of checks or money orders, and our calculation includes those observations as well.

financial institution). Table 4 also presents the marginal effects for the reference group of respondents which consists of White females below age 25 years who live in one person households and who have household income of \$18,871- \$31,450.

Age had limited explanatory power on the changes of financial management behavior with respect to reconciling bank statements with check register and planning a budget. Respondents who were between age 45 and 55 and respondents over age 55 were more likely to reconcile bank statements than those below age 25. Similarly, respondents between age 25 and 34 were more likely to plan a budget than those below age 25. Gender had some limited influence on the change of financial management behavior and male respondents were more likely to record transactions than females.

Race was a significant factor explaining changes in financial management behavior with respect to recording transactions and contacting financial institutions. Non-white respondents were 18.5 percentage points more likely to record transactions and contact financial institutions than White respondents. Finally, income had some impact on the change of financial management behavior. Respondents that had household income over \$50,321 were more likely to reconcile bank statements with their check register and plan a budget than the respondents who had household income between \$18,871 and \$31,450.

## *5.2. Changes in Behavior in terms of Account Usage*

Following the estimation of the changes in financial management behavior, three sets of probit models were estimated to determine the factors influencing the decision to open a savings, an asset and a loan account. Each model was estimated in three steps, first including only demographic factors as the explanatory variables (Model I), second, adding the four dichotomous variables that measure changes in financial management behavior (recording transactions, reconciling bank statements with check register, planning a budget and contacting

financial institutions) to Model I (Model II), and third, adding an interaction term between race and contacting financial institutions variable to Model II (Model III). In particular, Model II was estimated to capture the effect of changes in financial management behavior on personal finances. We aim to investigate whether improving relationships with the financial institution increases the likelihood of opening an asset account or obtaining a loan. Model III is estimated to investigate whether improving the relationship with a financial institution affects the account usage of Whites differently than the account usage of Non-whites.

Table 5 presents the estimation results of the probit models for the likelihood of opening a savings account since the completion of the Get Checking<sup>TM</sup> program. In all three models that we estimated, probability of opening a savings account was significantly affected by household size and income. However, other demographic factors such as age, race and gender of the respondent did not have a significant impact on the likelihood of opening a savings account. Respondents who live in households with 3 or more people were around 29 percentage points less likely to open a savings account than those who live in one person households. Compared to respondents who had household income between \$18,871 and \$31,450, respondents who had household income less than \$18,870 were about 29 percentage points less likely, and respondents who had household income above \$50,321 were about 23 percentage points more likely to open a saving account. Changes in financial management behavior did not significantly affect the decision to open a savings account. In addition, we did not observe any significant differences in the impact of contacting financial institutions between Whites and Non-whites on the decision to open a savings account.

As presented in Table 6, age and race significantly influence the probability of opening an asset account since the completion of the Get Checking<sup>TM</sup> program. In comparison to those below age 25, the other age groups were on average 27 to 37.2 percentage points less likely to open an asset account (Model II). Non-white respondents were more likely to open an asset

account. In addition, those who had household income less than \$18,870 were less likely to open an asset account. None of the variables measuring changes in financial management behavior had a significant effect on the decision to open an asset account. However, the total effect of these variables on the likelihood of opening an asset account was significant and positive.

In Table 6, Model III shows that Non-white respondents who contacted a financial institution were 34.2 percentage points more likely to open an asset account than White respondents who did not contact a financial institution. At the same time, compared to Whites who did not contact a financial institution, Non-whites who did not contact and Whites who contacted a financial institution were not significantly different in terms of their likelihood of opening an asset account.

Finally, we investigated the determinants of obtaining a loan since the completion the Get Checking<sup>TM</sup> program. Results are presented in Table 7. Similar to our findings for asset accounts, respondents below age 25 were more likely to obtain a loan than older respondents. On average, those below age 25 were 17.4 to 20.2 percentage points more likely than other age groups to have a loan account (Model III). Male respondents were also more likely to have a loan account than female respondents. Unlike asset accounts, the probability of having a loan account was lower for Non-white respondents than White respondents. According to Model II, controlling for changes in financial management behavior, Non-whites were 18.1 percentage points less likely to obtain a loan. Changes in financial management behavior, especially contacting a financial institution, had a significant and positive effect on obtaining a loan. Respondents who reported a change in their behavior with respect to contacting financial institutions were 43.5 percentage points more likely to have a loan than respondents who did not report such a change in their financial management behavior.

Model III in Table 7 shows that improving the relationships with financial institutions had a dissimilar effect for Non-whites on obtaining credit than its effect on opening an asset account. Compared to White respondents who did not contact a financial institution, White respondents who contacted a financial institution were 50 percent more likely to obtain a loan. However, compared White respondents who did not contact a financial institution, Non-whites who did not contact and Non-whites who contacted a financial institution were not significantly different in terms of likelihood of obtaining a loan.

## **5. Conclusions**

Using data collected from Indiana participants of the Get Checking<sup>TM</sup> program, our findings show that the program was especially successful in changing the financial management behavior of Non-whites in terms of recording transactions and contacting financial institutions. In addition, our results showed that financial management skills emphasized in the program, especially contacting financial institutions, had a significant positive effect on the actual behavior of the participants in terms of opening an asset account and obtaining a loan.

Among the heterogeneous group of the unbanked, our findings shed light on the demographic groups, such as Non-whites and young adults, which could benefit the most from this type of financial management education. Those below age 25 were more likely to open an asset or a loan account after the completion of the program. Non-whites were more likely to open an asset account and less likely to obtain a loan. In addition, the effect of financial management behavior on the likelihood of opening an asset and loan account varied by the race of the respondent. Non-whites who contacted financial institutions were more likely to have an asset account than Whites who did not contact a financial institution. At the same time,

Non-whites who contacted a financial institution were not significantly different in terms of obtaining a loan than Whites who did not contact a financial institution.

Previous literature investigated the effectiveness of training programs that are developed to bring the unbanked to the mainstream of financial services. The most common outcome measure used to evaluate the effectiveness of a program is the number of checking accounts opened by the participants after they participate a training program.

Our results show that more than ninety percent of Get Checking™ participants opened a checking account and still had the account open at the time survey was conducted. In addition, the percentage of the participants of the program who opened a savings account were comparable to the national averages of consumers with saving accounts. Our results provide evidence that the effectiveness of this program can also be measured by changes in the financial management actions of the participants, especially the behaviors that led the participants to mismanage their finances previously. In addition, the program appears to be effective in teaching participants how to improve their relationships with financial institutions and motivating them to follow through with action. Future follow-ups would allow us evaluate the effectiveness of the program by investigating how the program impacts asset building and lowering the cost of credit for these formerly unbanked consumers.

Finally, our results provide a calculation for the actual cost of being unbanked. We measure how much money these unbanked consumers were spending to cash checks and buy money orders before the completion of the program. There has been some dispute over the accurate measurement of the cost of not having a checking account. Some studies report that the costs of being unbanked are generally overestimated. The amount calculated in this study is lower than what other studies reported. However, it is clear the check cashing and money order fees may significantly contribute to the financial problems of the unbanked. The money that the unbanked spend on these fees is not available to them to use to achieve any other financial

goals and directly affect their ability to accumulate financial assets or take on a loan. In the future, we need to investigate why one-third of our sample reported that they had no costs for cashing checks and buying money orders. We need to study how those respondents manage without having any cost for these services.

In the light of our results, we suggest the following for future study. First, follow-up surveys should include information on the amount of assets accumulated in the savings and assets accounts. Second, a future study should investigate why we observe differences in the determinants of having a savings and asset accounts. Our findings show that the decision to open a savings account is more related to financial resources while the decision to open an asset account is more related to demographic characteristics. In addition, the percentage of respondents who opened an asset account in our sample was relatively small. Maybe with further financial education, we can actually improve the number of participants who decide to open asset accounts. Finally, a future study should investigate why improving relationships with financial institutions actually benefit Whites more than Non-whites in terms of obtaining credit.

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Table 1: 2004 Survey of Consumer Finances, summary statistics for demographics and reasons for not having a checking account.

Variable	Banked percentages N=4,126	Unbanked percentages N=393	Unbanked who used to have a checking account percentages, N=208	Unbanked who never had a checking account percentages, N=185	
Age					
< 25	5.25	8.99	10.44	7.40	
25-34	15.47	25.47	27.27	23.51	
35-44	20.45	22.04	20.08	24.18	
45-55	22.68	20.65	22.54	18.58	
> 55	36.15	22.85	19.67	26.33	
Gender of the household head					
Married male	59.33	38.52	35.49	41.84	
Single male	13.96	21.42	23.44	19.21	
Single female	26.71	40.06	41.07	38.95	
Race of the household head					
White	77.44	41.16	54.38	26.69	***
Black	11.37	32.37	28.43	36.69	
Hispanic	7.43	23.93	15.47	33.19	***
Other	3.76	2.54	1.72	3.43	
Household size					
1	25.64	30.25	33.10	27.12	
2-3	50.74	43.49	43.89	43.05	
>4	23.62	26.26	23.01	29.83	
Household income (\$)					
0-18,870	15.64	55.98	51.76	60.59	*
18,871-31,450	17.50	25.71	26.12	25.26	
31,451-50,320	21.21	13.80	17.08	10.20	**
Above 50,321	45.65	4.51	5.04	3.95	
Reason for not having a checking account:					
Do not write enough checks to make it worthwhile	---	28.09	24.44	32.09	*
Minimum balance too high	---	5.29	6.56	3.89	
Do not like dealing with banks	---	21.98	19.91	24.25	
Service charges too high	---	12.58	11.45	13.81	
Can't manage/balance a checking account	---	6.22	10.50	1.53	***
No bank has convenient hours or location	---	1.40	2.44	0.27	*
Don't have enough money	---	14.55	12.64	16.65	
Credit problems	---	2.60	4.32	0.73	**
Does not need/want a checking account	---	4.96	4.82	5.11	
Other reason	---	2.33	2.92	1.67	

P-values of the t test for significance of differences in proportions: \*\*\*p-value<.01 \*\*p-value<.05 \*p-value<.1

Source: The 2004 Survey of Consumer Finances.

Table 2: Descriptive statistics – demographics

Variable name	Description	End-of-session Evaluation percentages	Follow-up Survey percentages	Follow-up Survey			
				Whites	Non-whites		
Age							
< 25	1 if respondent is under 25, 0 otherwise	22.05	14.65	*	16.87	12.50	
25-34	1 if respondent is between 25 and 34, 0 otherwise	38.61	28.03	**	26.51	29.17	
35-44	1 if respondent is between 35 and 44, 0 otherwise	23.86	29.30	**	28.92	29.17	
45-55	1 if respondent is between 45 and 55, 0 otherwise	12.58	20.38	**	19.28	22.22	
> 55	1 if respondent is over 55, 0 otherwise	2.89	7.64	**	8.42	6.94	
Male	1 if respondent is male, 0 otherwise	44.12	36.77	*	50.00	22.54	***
Non-white	1 if respondent is non-white, 0 otherwise	50.80	46.45		---	---	
Household size							
1	1 if respondent's households size is 1, 0 otherwise	26.30	28.39		36.59	19.44	**
2-3	1 if respondent's households size is 2 or 3, 0 otherwise	45.87	48.39		42.68	54.17	
>4	1 if respondent's households size more than 3, 0 otherwise	27.83	23.22		20.73	26.39	
Household income							
0-18,870	1 if household's annual income is less than \$18,870, 0 otherwise	20.56	18.18		19.51	16.90	
18,871-31,450	1 if household's annual income is between \$18,871 and \$31,450, 0 otherwise	32.84	32.47		30.49	35.21	
31,451-50,320	1 if household's annual income is between \$31,451 and \$50,320, 0 otherwise	25.30	24.68		24.39	25.35	
Above 50,321	1 if household's annual income is over \$50,321, 0 otherwise	21.30	24.67		25.61	22.54	
Highest confidence level of:							
Maintaining check register	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about maintaining your check register?," 0 otherwise	84.20	---		---	---	
Balancing with bank statement	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about balancing your expenditures with a bank statement?," 0 otherwise	80.20	---		---	---	
Talking about saving goals	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about talking to financial institution about saving goals?," 0 otherwise	75.70	---		---	---	
Talking about credit needs	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about talking to financial institution about credit needs?," 0 otherwise	74.40	---		---	---	

P-values of the t test for significance of differences in proportions: \*\*\*p-value<.01 \*\*p-value<.05 \*p-value<.1

Source: Central Indiana Get Checking™ program.

Table 3: Descriptive statistics – Accounts &amp; Financial Management Behavior

Variable name	Description	Follow-up Survey percentages
Opened checking account	1 if respondent opened a checking account after certificate, 0 otherwise	97.45
Checking account still open	1 if respondent's checking account is still open, 0 otherwise	90.45
Opened saving account	1 if respondent opened a saving account after certificate, 0 otherwise	56.95
Saving account still open	1 if respondent's saving account is still open, 0 otherwise	54.78
Asset accounts	1 if respondent opened another asset account after certificate, 0 otherwise	21.02
Certificates of deposit	1 if respondent's another asset account is certificate of deposit, 0 otherwise	5.10
Retirement savings	1 if respondent's another asset account is retirement saving, 0 otherwise	6.40
Other asset accounts <sup>1</sup>	1 if respondent's another asset account is a different type of an account, 0 otherwise	10.19
Loan accounts	1 if respondent opened a loan account after certificate, 0 otherwise	16.56
Mortgage	1 if respondent's loan account is mortgage, 0 otherwise	7.00
Car loan	1 if respondent's loan account is car loan, 0 otherwise	8.90
Other loan accounts <sup>2</sup>	1 if respondent's loan account is a different type of a loan, 0 otherwise	4.46
Restitution completed		
1 month	1 if respondent repaid her debts within 1 month after certificate, 0 otherwise	40.38
2-3 months	1 if respondent repaid her debts within 2 or 3 months after certificate, 0 otherwise	5.77
4-5 months	1 if respondent repaid her debts within 4 or 5 months after certificate, 0 otherwise	1.92
6 months	1 if respondent repaid her debts within 6 months after certificate, 0 otherwise	1.92
Did not owe	1 if respondent did not owe money to financial institution after certificate, 0 otherwise	39.10
Still repaying	1 if respondent was still repaying debt, 0 otherwise	10.90
Differences in behavior		
Recording	1 if respondent changed the behavior of recording transactions, 0 otherwise	74.52
Reconciling	1 if respondent changed the behavior of reconciling bank statement, 0 otherwise	52.87
Budgeting	1 if respondent changed the behavior of budgeting, 0 otherwise	66.88
Communicating	1 if respondent changed the behavior of communicating with financial institution, 0 otherwise	44.59
Cost of cashing paychecks and money orders		
No cost	1 if respondent had no cost of cashing paychecks or sending money orders, 0 otherwise	34.86
Median of nonzero	Continuous	\$16.00
Mean of nonzero	Continuous	\$23.48
Number of checks cashed (monthly)	Continuous	2.86
Number of money orders (monthly)	Continuous	5.48

<sup>1</sup> Other asset accounts includes money market accounts, college education savings, Christmas accounts, additional saving or checking accounts, other asset accounts.

<sup>2</sup> Other loan accounts includes credit card accounts, personal loans and other loans.

Table 4: Probit Models for Changes in Financial Management Behavior (Recording, Reconciling, Budgeting, and Communicating).

Variable name	Recording N=153			Reconciling N=153			Budgeting N=153			Communicating N=153		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	0.267	0.438		-0.530	0.403		-0.294	0.402		-0.336	0.405	
Age												
< 25 (reference)	---	---	---	---	---	---	---	---	---	---	---	---
25-34	-0.173	0.371	-0.068	0.113	0.337	0.040	0.687	0.352 *	0.268	-0.001	0.341	-0.000
35-44	-0.335	0.369	-0.132	-0.018	0.337	-0.006	0.063	0.338	0.024	-0.345	0.343	-0.120
45-55	0.156	0.417	0.059	0.612	0.372 *	0.235	0.492	0.370	0.194	-0.202	0.367	-0.073
> 55	0.383	0.546	0.137	1.002	0.494 **	0.384	0.504	0.478	0.199	-0.386	0.472	-0.133
Male	0.526	0.273 *	0.181	0.274	0.241	0.101	0.160	0.255	0.062	0.214	0.239	0.083
Non-white	0.539	0.247 **	0.185	0.073	0.224	0.026	0.165	0.237	0.064	0.471	0.222 **	0.185
Household size												
1 (reference)	---	---	---	---	---	---	---	---	---	---	---	---
2-3	-0.216	0.294	-0.085	0.169	0.268	0.061	-0.070	0.270	-0.027	-0.122	0.262	-0.045
>4	0.101	0.360	0.038	0.024	0.323	0.008	0.550	0.353	0.216	-0.141	0.324	-0.052
Household income												
0-18,870	0.194	0.342	0.072	0.003	0.310	0.001	-0.071	0.306	-0.027	0.019	0.310	0.007
18,871-31,450 (ref.)	---	---	---	---	---	---	---	---	---	---	---	---
31,451-50,320	0.113	0.300	0.043	0.195	0.284	0.070	0.353	0.298	0.139	0.375	0.286	0.147
Above 50,321	0.437	0.332	0.154	0.585	0.299 *	0.224	0.536	0.324 *	0.211	0.252	0.290	0.098
Base probability	0.6051			0.2979			0.3845			0.3685		
Pseudo R <sup>2</sup>	0.0806			0.0652			0.0859			0.0411		
Log Likelihood	-79.8519			-98.7618			-89.0248			-100.7810		

\*\*\*p-value<.01, \*\*p-value<.05, \*p-value<.1

Table 5: Probit Models for Saving Accounts

Variable name	Model 1 N=147			Model 2 N=147			Model 3 N=147		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	0.374	0.415		0.410	0.473		0.408	0.475	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	0.194	0.359	0.069	0.162	0.370	0.057	0.161	0.370	0.057
35-44	0.228	0.370	0.081	0.217	0.377	0.076	0.214	0.381	0.075
45-55	-0.163	0.383	-0.062	-0.155	0.390	-0.059	-0.159	0.394	-0.060
> 55	0.194	0.483	0.069	0.219	0.490	0.076	0.220	0.491	0.077
Male	-0.222	0.254	-0.085	-0.229	0.259	-0.087	-0.227	0.260	-0.087
Non-white	0.378	0.237	0.128	0.371	0.246	0.124	0.385	0.334	0.128
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	-0.330	0.276	-0.128	-0.325	0.278	-0.125	-0.325	0.278	-0.125
>4	-0.794	0.342 **	-0.309	-0.741	0.350 **	-0.289	-0.741	0.350 **	-0.289
Household income									
0-18,870	-0.754	0.321 **	-0.294	-0.749	0.323 **	-0.292	-0.754	0.333 **	-0.294
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	-0.293	0.291	-0.114	-0.342	0.296	-0.132	-0.341	0.297	-0.132
Above 50,321	0.774	0.330 **	0.229	0.796	0.341 **	0.227	0.793	0.346 **	0.227
Differences in behavior <sup>1</sup>									
Recording				-0.242	0.356	-0.092	-0.245	0.358	-0.094
Reconciling				0.026	0.298	0.009	0.028	0.300	0.010
Budgeting				0.003	0.262	0.001	0.003	0.261	0.001
Communicating				0.319	0.248	0.108	0.333	0.336	0.112
Interaction term									
Communicating*Non-white							-0.030	0.484	-0.011
Base probability	0.6458			0.6591			0.6582		
Pseudo R <sup>2</sup>	0.1185			0.1287			0.1287		
Log Likelihood	-88.4886			-87.4661			-87.4642		

\*\*\*p-value<.01, \*\*p-value<.05, \*p-value<.1

<sup>1</sup>No reference group due to multiple answers available.

Table 6: Probit Models for Asset Accounts

Variable name	Model 1 N=153			Model 2 N=153			Model 3 N=153		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	-0.084	0.452		-0.295	0.529		-0.148	0.542	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	-1.713	0.448 ***	-0.430	-1.947	0.481 ***	-0.372	-2.011	0.501 ***	-0.426
35-44	-0.870	0.373 **	-0.296	-0.911	0.382 **	-0.270	-0.841	0.391 **	-0.280
45-55	-0.996	0.413 **	-0.327	-1.151	0.435 ***	-0.310	-1.107	0.449 **	-0.336
> 55	-1.136	0.580 **	-0.355	-1.315	0.612 **	-0.330	-1.343	0.607 ***	-0.373
Male	0.078	0.299	0.031	0.038	0.311	0.015	-0.006	0.318	-0.002
Non-white	0.820	0.277 ***	0.303	0.793	0.293 ***	0.307	0.192	0.405	0.076
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	-0.439	0.317	-0.166	-0.442	0.324	-0.153	-0.451	0.328	-0.167
>4	-0.307	0.387	-0.119	-0.343	0.395	-0.122	-0.438	0.411	-0.162
Household income									
0-18,870	-0.674	0.412 *	-0.242	-0.722	0.436 *	-0.229	-0.603	0.452	-0.215
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	0.356	0.339	0.141	0.284	0.348	0.112	0.286	0.356	0.114
Above 50,321	0.105	0.366	0.042	0.007	0.377	0.002	0.165	0.397	0.066
Differences in behavior <sup>1</sup>									
Recording				-0.322	0.418	-0.115	-0.186	0.434	-0.072
Reconciling				0.372	0.339	0.147	0.288	0.347	0.114
Budgeting				0.434	0.319	0.171	0.465	0.323	0.183
Communicating				0.281	0.290	0.110	-0.459	0.458	-0.169
Interaction term									
Communicating*Non-white							1.304	0.591 **	0.435
Base probability	0.4667			0.3840			0.4412		
Pseudo R <sup>2</sup>	0.1838			0.2187			0.2515		
Log Likelihood	-64.0389			-61.3058			-58.7320		

\*\*\*p-value<.01, \*\*p-value<.05, \*p-value<.1

<sup>1</sup>No reference group due to multiple answers available.

Table 7: Probit Models for Loan Accounts

Variable name	Model 1 N=153			Model 2 N=153			Model 3 N=153		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	-0.537	0.462		-0.626	0.536		-0.667	0.541	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	-0.788	0.402 **	-0.203	-0.959	0.446 **	-0.209	-0.977	0.450 **	-0.202
35-44	-0.626	0.390	-0.173	-0.691	0.426	-0.172	-0.751	0.434 *	-0.174
> 45	-0.624	0.390	-0.173	-0.762	0.435 *	-0.183	-0.812	0.440 *	-0.183
Male	0.590	0.291 **	0.225	0.624	0.309 **	0.234	0.676	0.316 **	0.251
Non-white	-0.476	0.294	-0.140	-0.750	0.341 **	-0.181	-0.268	0.574	-0.078
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	-0.029	0.324	-0.010	0.003	0.350	0.001	-0.000	0.351	-0.000
>4	-0.355	0.417	-0.109	-0.399	0.461	-0.113	-0.376	0.464	-0.104
Household income									
0-18,870	-0.110	0.399	-0.037	-0.210	0.447	-0.064	-0.308	0.464	-0.088
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	0.281	0.357	0.104	0.235	0.384	0.082	0.250	0.385	0.086
Above 50,321	0.162	0.367	0.058	0.079	0.416	0.027	0.011	0.420	0.003
Differences in behavior <sup>1</sup>									
Recording				-0.362	0.459	-0.104	-0.439	0.471	-0.118
Reconciling				0.343	0.391	0.123	0.406	0.402	0.145
Budgeting				-0.380	0.328	-0.108	-0.389	0.327	-0.107
Communicating				1.151	0.334 ***	0.435	1.348	0.395 ***	0.500
Interaction term									
Communicating*Non-white							-0.683	0.701	-0.164
Base probability	0.2958			0.2656			0.2523		
Pseudo R <sup>2</sup>	0.1280			0.2329			0.2395		
Log Likelihood	-59.4059			-52.2574			-51.8069		

\*\*\*p-value&lt;.01, \*\*p-value&lt;.05, \*p-value&lt;.1

<sup>1</sup> No reference group due to multiple answers available.

APPENDIX

Table 1: Descriptive statistics – Accounts & Financial Management Behavior by Age and Race

Variable name	Under age 25 percentages	Over age 25 percentages		Whites percentages	Non-whites percentages	
Opened checking account	100.00	97.01	**	97.59	97.22	
Checking account still open	91.30	90.30		87.95	93.06	
Opened saving account	45.45	58.91		51.25	63.77	
Saving account still open	43.48	56.72		49.40	61.11	
Asset accounts	43.48	17.16	**	13.25	30.56	**
Certificates of deposit	8.70	4.48		3.61	6.94	
Retirement savings	13.04	5.22		2.41	11.11	**
Other asset accounts <sup>1</sup>	21.74	8.21		7.23	13.89	
Loan accounts	30.43	14.18		22.89	9.72	**
Mortgage	8.70	6.72		10.84	2.78	**
Car loan	21.74	6.72	*	10.84	6.94	
Other loan accounts <sup>2</sup>	4.35	4.48		7.23	1.39	*
Restitution completed						
1 month	52.17	38.35		40.96	39.44	
2-3 months	4.35	6.02		4.82	7.04	
4-5 months	4.35	1.50		1.20	2.82	
6 months	0.00	2.26	*	1.20	2.82	
Did not owe	30.43	40.60		43.37	33.80	
Still repaying	8.70	11.27		8.43	14.08	
Differences in behavior						
Recording	78.26	73.88		69.88	80.56	
Reconciling	43.48	54.48		53.01	54.17	
Budgeting	52.17	69.40	*	63.86	69.44	
Communicating	47.83	44.03		37.35	52.78	*
Cost of cashing paychecks and money orders						
No cost	35.71	34.74		37.04	32.08	
Median of nonzero	\$14.30	\$18.45		\$21.75	\$11.48	
Mean of nonzero	\$17.38	\$30.97		\$28.59	\$15.91	**
Number of checks cashed (monthly)	2.89	2.85		3.06	2.64	
Number of money orders (monthly)	4.78	5.58		6.35	4.58	**

P-values of the t test for significance of differences in proportions: \*\*\*p-value<.01 \*\*p-value<.05 \*p-value<.1

<sup>1</sup> Other asset accounts includes money market accounts, college education savings, Christmas accounts, additional saving or checking accounts, other asset accounts.

<sup>2</sup> Other loan accounts includes credit card accounts, personal loans and other loans.