The unbanked in the U.S.: Similarities and differences between Previously banked and Never banked households

Author's name: Sarah K. Allsberry, MSW, CRADC
Faculty Advisor: Shanta Pandey
School Affiliation: Washington University in St. Louis
George Warren Brown School of Social Work

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Abstract

Past studies have been done on the "unbanked," those without bank accounts with traditional financial institutions. These studies treat the unbanked as a homogeneous group; however, recent studies are beginning to indicate a need to understand variation within this group. This study begins to fill this gap by comparing those with and without a history of bank account ownership to find differences in demographic characteristics and use of Alternative Financial Services (AFS). Using data from the 2009 Current Population Survey, Unbanked/Underbanked Supplement, a model was created using binary logistic regression. The author found that there are significant differences in the history of bank account ownership in several areas, including among Hispanics compared to non-Hispanic households, single parent households, households in the South, and households that patronize (AFS). The findings have implications for practice in financial education and services as well as future research.

Keywords: Low-income, banks, alternative financial services, unbanked

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Specific Aims

Having a bank account is recognized as a fundamental method for building wealth and pulling oneself out of poverty. There are many benefits to bank account ownership (Barr, 2004; Seidman, Hababou, & Kramer, 2005) such as helping people protect assets and build wealth (Hawke, 2000; Aarland, & Nordvik, 2009). For this reason, the focus of many financial education programs is to help people open and use a checking or savings account, to become "banked" (Barr, 2004). However, despite such benefits and efforts, an estimated 7% to 10% of American is unbanked (Federal Deposit Insurance Corporation (FDIC), 2009; Karger, 2004).

When consumers don't have access to traditional financial institutions, i.e. are "unbanked," they use unconventional means to manage their finances (Caskey, Duran & Solo, 2006). This frequently includes the use of alternative financial services (AFS). For example, there are payday lenders and check cashing outlets (Hogarth, Anguelov, & Lee, 2005; Hogarth & O'Donnell, 2000). There is some danger in using these alternatives (Hayes, 2009: Rhine et al., 2003) as some research has likened them to predatory lending (Engel & McCoy, 2001; Staz, 2010). The past decade has seen dramatic growth in AFS (Burkey & Simkins, 2004) and literature abounds over the causes and fuel of this growth (Barr, 2004; Rivlin, 2010, Stegman, 2001).

Past studies on the unbanked consider them a homogenous category (Martin & Tong, 2010; Satz, 2010; Washington, 2005). Recently, however, the FDIC found that "the 9 million households are *approximately split* [emphasis added] between households that have never had a bank account (46.9 percent) and households that were previously banked (49.0 percent)" (p.

11, 2009). This result affirms an observation initially made by Berry (2004) that the unbanked as a whole is heterogeneous and therefore different approaches to helping them are necessary.

The present study sought to contribute to financial education practice and scholarship by seeking patterns among subgroups of the unbanked in order to identify potentially innovative approaches for intervention. Using data from the Current Population Survey, Unbanked/Underbanked Supplement, this study compared the demographic characteristics of two groups within the unbanked category: the "previously banked," referring to those who do not currently have bank accounts, but once did, and the "never banked," referring to those who have never had bank accounts. This study provides analysis of the patterns and differences of demographic groups within the larger unbanked group.

Aim 1. To predict demographic variables between two groups of the unbanked: The previously banked and the never banked.

Aim 2. To predict AFS use between two groups of the unbanked: The previously banked and the never banked.

Literature Review

The benefits of having and using a bank account have been generously researched (Aarland, & Nordvik, 2009; Barr, 2004; Hogarth et al, 2005; Lim, Livermore & Davis, 2010; Seidman, Hababou, & Kramer, 2005). Having a savings account is an important predictor of whether someone saves, households that save have more disposable income; and people who save are more likely to have access to credit and protection during a financial crisis (Barr, 2004; Seidman, Hababou, & Kramer, 2005). It is also easier for someone to establish credit and qualify for a loan when they have a bank account; and bank accounts have also been shown to be positively related to asset development (Aarland, & Nordvik, 2009; Barr, 2004;

Hogarth et al, 2005). Finally, having a bank account automatically sets "into motion close to 20 consumer protection laws and regulations to help ensure that individuals are safeguarded from unfair, discriminatory, or predatory lending practices" (Greene, W.H, Rhine, S.L.W, & Toussaint- Comeau, M., 2003, p. 3).

A December 2009 survey by the FDIC found that approximately nine million, or 7.7%, American households don't have bank accounts. The FDIC also uncovered that those households "are approximately split between households that have never had a bank account (46.9 percent) and household that were previously banked (49.0 percent)" (FDIC, 2009, p.11). This almost 50/50 split is striking, particularly given the benefits associated with banking and the importance of financial management.

When people don't use bank accounts, they utilize other methods of meeting their financial needs, such as going to friends or family members, or patronizing AFS. Examples of AFS include payday lenders, pawn shops, check cashing outlets or tax refund anticipation lenders (RALs) (Hogarth & O'Donnell, 2000). A payday loan is one alternative in which a prospective borrower presents proof of income and a bank account, as well as a post-dated check in the amount of the loan and a fee, usually between $15-$30 per $100 borrowed, which the lender agrees to hold until the borrower's next payday (Stegman, 2007). A check-cashing outlet cashes checks, in addition to other services like bill pay services and money orders (Karger, 2004). A pawnshop gives a loan based on items the borrower brings in for collateral. The borrower may pay 20% of the loan amount, which, for an $80 loan for 30 days, translates into an APR of 240% (Avery, 2011). Finally, an RAL is a loan given in anticipation of the borrower's tax refund.

Use of such methods costs the consumer a great deal of money relative to what they might pay at a traditional bank, leaving less disposable income to apply to such things as a savings fund, needed medical care or even, occasionally, timely payment of rent and utilities (Buckland, Hamilton, & Reimer, 2006; Caskey, 2002; Karger, 2004; Melzer, 2011; Morse 2011). In fact, one author classifies payday lending as predatory lending (Staz, 2010).

There is a paucity of literature concerning the variations within the unbanked population. A 2008 study about the effectiveness of a financial education program observed that "…little is known about which sub-groups of the unbanked population benefit most from these educational programs" (Haynes-Bordas Kiss, & Yilmazer, p.365). The same study also found that the unbanked who had accounts in the past and those that had not were significantly different, particularly in the areas of race and income (Haynes-Bordas, et al., 2008).

On the other hand, there are multiple studies comparing the unbanked as a whole to those with bank accounts. They find that being unbanked is associated with a wide range of social and economic factors including income, race and ethnicity, education, household and family arrangements, homeownership rates and region of the country in which someone lives.

Previous work has found that the unbanked are more likely to be lower income (Seidman et al., 2005). Almost 20% of households earning less than $30,000 a year are unbanked (FDIC 2009). Geographic areas with higher concentrations of low-income households are associated with a lower number of banks (Burkey & Simkins, 2004). Hogarth & O'Donnell (2000) reported higher income is associated with having a bank account. Hogarth et al. (2005) found that differences in the lowest income levels are substantial in predicting who has a bank account. Past studies have found that income is associated with the use of AFS (Lawrence & Elliehausen, 2008; Morse, 2011; Stegman, 2007). Over half of all people who

take out RALs are recipients of the earned income tax credit (EITC), a credit available to people who earn up to a certain annual amount (Theodos, Brash, Compton, Pindus & Steuerle, 2010). Additionally, the highest use of RALs is among people with a median income of $19,768 a year (Theodos et al., 2010).

Minority households are also disproportionately unbanked (Hogarth at al., 2005). The estimated rates vary from between 21.7% to 52.4% of black households, and 19.3% to 35.3% of Hispanics are unbanked (Berry, 2004; FDIC, 2009). This may be, in part, due to environmental influences. One analysis found that banks "progressively abandon" (p. 309) poor and minority neighborhoods; while, at the same time, payday lenders are targeting such neighborhoods (Graves, 2003). Results from a Greene et al. (2003) study suggest that Hispanics more frequently utilize check cashers.

Other works have found that people with less education are more likely to be unbanked (Seidman, et al., 2005). The FDIC (2009) survey found that households without high school diplomas are more likely to be unbanked. Hogarth & O'Donnell (2000) reported a relationship between education and account ownership, though they did not indicate its direction. Yet at the same time, Lawrence & Elliehausen, (2008) reported that people with a high school diploma and some college had the highest percentages of payday loan and pawnshop use.

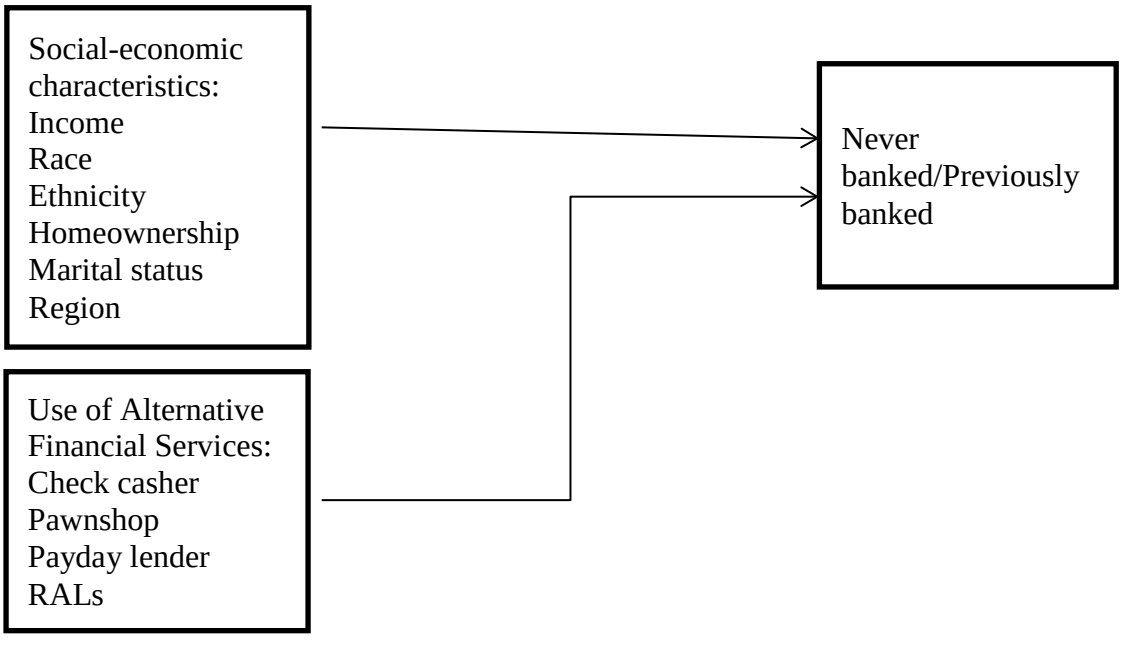
Different kinds of family and household arrangements may impact a household's financial service patterns as well. Being unmarried is associated with higher rates of being unbanked (Greene, et al., 2003; Hogarth, et al., 2005). Unbanked households are more likely to have children (Hogarth et al., 2005). Additionally, single parents with four or more dependents have higher rates of filing for an RAL (Theodos, et al., 2010).

Home ownership has also been found to be significantly associated with having a bank account (Hogarth et al., 2005). Barr (2004) reported that renters are more likely to be unbanked. Finally, other work has found differences in banking patterns depending upon the region of the country (Hogarth et al., 2005). A map in the FDIC (2009) report shows dramatic differences in banking in each state. The Southern region, in particular, reported a 9.5% unbanked population, compared to 6.9%, 6.8% and 6.2% in the Northeast, West, and Midwest regions, respectively (FDIC, 2009). Barr's (2004) analysis discussed regional variations in the amount that consumers pay to use AFS. Additionally, research has uncovered that communities in the South of the U.S. have high rates of use of RALs (Theolkin et al., 2009).

The theoretical framework guiding this research is behavioral economic theory as used by Bertrand, Mallainathan & Shafir (2006). Behavioral economics combines psychology and economics to explain how illogical human behavior occurs despite logical economic guidance. Two principles of this theory as used by Bertrand et al. (2006) help explain banking patterns. First, people have limited cognitive capabilities. Second, even when people know what is best, they sometimes fail to choose it (Mullainathan & Thaler, 2000).

Figure 1 is the conceptual model for this study.

Fig. 1 – Factors predicting Never banked/Previously banked households.



Based on the literature, it is expected that there is a relationship between the independent variables and the dependent variable, though, without controlling for other variables, it is unclear the extent to which the variables are related.

Methodology

This study utilized secondary data from the Current Population Survey (CPS); Unbanked/Underbanked Supplement, gathered in January 2009, which reported on approximately 47,000 households in 50 states and District of Columbia. The survey was a collaborative effort between the CPS, a monthly poll conducted by the Census Bureau, and the FDIC. The CPS collects monthly labor force data about the population living in the United States, and the FDIC supplement collected additional data on their financial behaviors.

The sample was selected through two stages of stratified sampling based on 2000 census information. The first stage of sampling created 2,025 geographic primary sampling units (PSUs) that stratified within each state. A total of 824 PSUs were selected for sampling and weights were assigned to compensate for the bias for households that were not interviewed. The second stage of the sampling selected housing units from within the sample PSUs. The survey was given to someone who was knowledgeable about or involved with the financial decisions of the household. It was administered through either a phone or personal interview from January 18th through January 24th, 2009 and includes approximately 59,000 households in all 50 states and the District of Columbia. There were no callbacks.

To gather the sample this study, a first question was used to screen the sample: “Do you or does anyone in your household currently have a checking or savings account?” Only the households that responded “no” were selected for the data sample, which left 8,150 cases. A

second question was used to cull the sample still further: “Have you or anyone in your household ever had a bank account?” There were six possible responses to this question, including yes, no, don’t know, not in universe, refused and no response. For the purposes of this analysis, only cases that answered yes or no were retained, which left 7,740 observations.

Given that the initial sample was relatively large, all of the cases with missing data were removed from the data set, and a fairly large sample remained, n=4155. The data appear to be representative of the two subgroups “Previously banked” and “Never banked” of the Unbanked (see Table 1). There did not appear to be a pattern to the missing variables, and, as all of the variables retained a large enough number to remain in the analysis independently, there was no effort to impute the missing data. The unit of measurement is the household.

Measures

Dependent variable

History of bank account ownership was a binary variable. The two responses were dummy coded with never banked households as 1; previously banked was the reference group.

Independent variables

The original household ***income*** variable referred to the combined income of “all family members during the previous 12 months, including money from jobs, net income from business, farm or rent, pensions, dividends, interest, social security payments and any other money income received by family members who are 15 years of age or older,” and created 16 categories of income.

The author recoded this into five categories of income (“0-9,999,” “10,000-19,999,” “20,000-29,999,” “30,000-49,999,” and “50,000+”) to ensure that each category had at least 10% of the cases. The five categories were then dummy coded and the last category

("$50,000+") was the reference group. The relationship between income and history of bank account ownership is expected to be positive, in that an increase in income will correspond with an increase in having been the previously banked.

In the original data set, the variable ***Race*** was included 16 categories: "White," "Black," "American Indian/Alaskan Native," "Asian," "Hawaiian/Pacific Islander," and an additional 11 combinations of these five categories. This study recoded the data into three categories: "White," "Black," and "Other" and then dummy coded them for analysis in which "White" was the reference group.

The next variable, ***Ethnicity,*** referred whether or not a household was of Hispanic or Latino origin. Three categories were created, "Not Hispanic," "Mexican," and "Other Hispanic," and, later, dummy variables were created for analysis. "Not Hispanic" was the reference group. The other categories outside of "Mexican" were merged into "Other Hispanic" because their numbers were small.

The 17 categories of the ***Education*** variable were recoded into four meaningful categories: "Less than 1st-8th," "9-12-no diploma," "High school diploma/GED" and "Any college." Four dummy coded variables were created for analysis, and "Any College" was the reference group.

The variable ***Household type*** refers to the legal composition of the members of the household. The responses were recoded into five variables: "Husband & Wife (both civilian and military)", "Single man with kids," "Single woman with kids," "Single man" and "Single woman." These categories were all dummy coded for analysis; "Single woman" was the reference group. For this study, the non-interview households were deleted as well as categories that could not be clearly integrated, such as "primary unmarried family householder in

military," "primary individual in military," and two categories relating to households containing roommates.

Two categories were created for the variable, ***Homeownership status:*** "Owned/being bought by HH member," and "Rented." They were both dummy coded for the final analysis in which rented is the reference group. Excluded responses included those who indicated "staying without payment" because it was very small, 2.8%, and it was not clear how it should be merged with other data.

Finally, no cases for the variable ***Region*** were excluded. The four original categories, "Northeast," "Midwest," "South," and "West" were maintained and dummy variables were created of each, with "West" as the reference group

For this study, ***alternative financial services*** include use of a check casher, receipt of an RAL, or use of a pawn shop or payday lender. Use of a check casher was measured by the answer to the question: "Have you or anyone in your household ever gone to a place other than a bank, a savings and loan or a credit union to cash a check you received from someone else?" Use of an RAL was measured by the answer to the question: "In the past five years, have you or anyone in your household taken out a tax refund anticipation loan?" Use of a pawn shop was measured by the answer to the question: "Have you or anyone in your household ever sold items at a pawn shop?" Finally, use of a payday lender was measured by the answer to the question: "Have you or anyone in your household ever used payday loan or payday advance services?" The original "Yes" and "No" responses were maintained for each question and dummy coded for the final analysis. Cases that responded "I haven't but I'm unsure about other in the household" were deleted from the data set. "No" was the reference group.

Reliability and validity of instrument

The survey was administered as an attachment of the CPS, a monthly survey that has been conducted by the Bureau of Census since 1940. The CPS is the primary source of information of labor force statistics. This is the first time the FDIC-sponsored Unbanked/Underbanked Supplement was part of it. The survey was administered with the assistance of a computer, and the interviewed records were edited for consistency.

Data analysis strategies / Research design

To address the study aims, descriptive statistics were run for both the dependent and independent variables (See Table 1). Bivariate statistics were also analyzed using a correlation analysis with each of the predictor variables and the outcome variable (See Table 3). The results were analyzed using a Pearson chi square test. Finally, the study ran a binary logistic regression and used the odds ratio β_i to assess factors predicting Never banked or Previously banked status of a household (See Table 2). SPSS was utilized in each of these analyses.

Ethics

Most ethical quandaries in research arise in relation to participants in the study. Since this research is using secondary data, there will not be ethical dilemmas that will arise pertaining to participants.

Results

The demographic characteristics of the households in the sample are presented in Table 1. Over 50% earned less than $20,000 a year (n=3257), over 64% were White (n=2677), and 66% were not Hispanic (n=2778). Almost 50% of the sample had education that was less than a high school diploma (n=1929) and 17% of the sample had any college (n=733). “Married couples” were the largest category of household type (n=1457), followed by “single mothers”

(n=1234). Almost 75% of the sample rented their homes (n=2995), and 43% of the sample lived in the Southern part of the country (n=1790).

The AFS most frequently used by the sample was a check casher, (n=1781) and the AFS least frequently used was a payday lender (n=328). 42% of the sample had ever gone to a check casher (n=1781), 8.7% had gotten an RAL in the previous five years (n=363), 17% had ever gone to a pawn shop (n=716), and 7.9% had ever gone to a payday lender (n=328).

Table 1

Characteristics of Unbanked Sample (n=4155)

		Frequency	Percent
Dependent variable			
Have you or anyone in your household ever had a checking or savings account?			
	Yes	2151	51.8%
	No	2004	48.2%
Independent variables			
Income			
	$0-$9,999	1156	**27.8%**
	$10,000-$19,999	1246	**30.0%**
	$20,000-$29,999	855	20.6%
	$30,000-$49,999	631	15.2%
	$50,000 +	267	6.4%
Race			
	White	2677	**64.4%**
	Black	1142	27.5%
	Other	336	8.1%
Ethnicity			
	Not Hispanic	2778	**66.9%**
	Mexican	977	23.5%
	Other Hispanic	400	9.6%
Education			
	0-8th	712	**17.1%**
	9th-12th, no diploma	1217	**29.3%**
	High school diploma/GED	1493	35.9%

	Any college	733	**17.6%**
Household Type			
	Husband and wife	1457	**35.1%**
	Single man with kids	434	10.4%
	Single woman with kids	1234	29.7%
	Single man	630	15.2%
	Single woman	400	9.6%
Homeownership			
	Owned or being bought	1160	27.9%
	Rented	2995	**72.1%**
Region of the U.S.			
	Northeast	611	14.7%
	Midwest	765	18.4%
	South	1790	**43.1**%
	West	989	23.8%
Check casher			
	Yes	1781	**42.9**
	No	2374	57.1
RAL			
	Yes	363	**8.7**
	No	3792	91.3
Pawn shop			
	Yes	716	**17.2**
	No	3439	82.8
Payday lending			
	Yes	328	**7.9**
	No	3827	92.1

Predicting never banked/previously banked status

The author ran a multivariate model using a binary logistic regression with forced entry between characteristic variables and AFS use, and bank account ownership history. This model allows predicting Never banked cases (=1) compared to previously banked cases (=0) and distinguishing the relationship between each type of variable and the history of bank account ownership. Overall model was significant $\chi 2$ (23) =835.36, p<.001. The Cox

and Snell and Nagelkerke R^2 indicate that the model as a whole explained 18% and 24%, respectively, of the variance in history of bank account ownership (p.<.001).

Table 2

Model 1: Logistic regression of characteristics predicting the Never Banked in the United States, 2009 (N=4155)

Predictor	OR	CI	
		Upper	Lower
Income (Reference group: $50,000+)			
$0-$9,999	1.72*	1.26	2.34
$10,000-$19,999	1.16	.86	1.58
$20,000-$29,999	1.78**	1.31	2.43
$30,000-$49,999	1.45*	1.04	2.00
Race (Reference group: White)			
Black	1.46**	1.23	1.74
Other	2.60**	2.00	3.38
Ethnicity (Reference group: Not Hispanic)			
Mexican	3.75**	3.01	4.59
Other Hispanic	2.71**	2.12	3.48
Education (Reference group: Any college)			
0-8th grade	2.89**	2.26	3.71
9th-12th – no diploma	1.85**	1.50	2.28
High school diploma/GED	1.52**	1.24	1.85
Household type (Reference group: Single woman)			
Married couple	1.33*	1.03	1.73
Single man with kids	2.04**	1.49	2.80
Single woman with kids	1.47*	1.14	1.90
Single man	1.72**	1.29	2.27
Homeownership status (Reference group: Renter)			
Homeowner	.69*	.59	.81
Region (Reference group: West)			
Northeast	1.24	.98	1.57
Midwest	.90	.72	1.13
South	1.62**	1.34	1.95
Check Casher (Reference group: Have not used)			
Yes	.88	.76	1.01

RAL (Reference group: Have not used)			
Yes	.59**	.45	.78
Pawn shop (Reference group: Have not used)			
Yes	.46**	.37	.56
Payday lender (Reference group: Have not used)			
Yes	.37**	.27	.52

Note. OR=Odds Ratio; S.E.=Standard Error; CI = Confidence Interval
*p<.05, **<.001 Omnibus $\chi^2(23)=835.358$, p<.001; Cox and Snell R^2 (19)=.18; Nagelkerke $R^2(19)= .24$; Hosmer and Lemeshow = 12.83(8), p=.12.

Households between $0 and $9,999 annual income were 1.72 (95% CI = 1.26-2.34, p. < .05) times more likely to be Never banked. Households with between $10,000 and $19,999 annual income were 1.16 (95% CI = .86-1.58 p. > .05) times more likely to be Never banked. Households between $20,000-$29,999 annual income were 1.78 (95% CI = 1.31-2.43, p. < .001) times more likely to be Never banked. Finally, household between $30,000 to $49,999 annual income were 1.45 (CI = 1.04-2.00, p. < .05) times more likely to be Never banked.

Black" and "Other" were 1.46 (95% CI = 1.23-1.74, p. <.001) and 2.60 (95% CI = 2.00-3.38, p. < .001) times, respectively, more likely to be never banked than "White" households, controlling for other variables. "Mexican" households were 3.75 (95% CI = 3.01-4.59, p. < .001) times more likely than "Not Hispanic" households to be Never banked, and Other Hispanic households were 2.71 (95% CI = 2.12-3.48, p. < .001) times more likely than Not Hispanic households to be Never banked, controlling for other variables.

Increasing education is associated with a lower likelihood of being never banked, with households with the lowest education level ("up to 8th grade") over twice as likely to be never banked (OR = 2.89, 95% CI = 2.26-3.71, p. < .001) as those with "any college." The next education level, "9th-12th grade, no diploma" was 85% (OR = 1.85, 95% CI = 1.50-2.28, p. < .001) more likely to be Never banked, and those with a "high school diploma or GED"

were 52% (OR = 1.52, 95% CI = 1.24-1.85, p. < .001) times as likely to be Never banked, controlling for all other variables.

"Single men with children" were over twice as likely (OR = 2.04, 95% CI = 1.49-2.80, p. < .001) to be never banked as "single women without children," controlling for other factors. "Single women with children" were 47% (OR = 1.47, CI = 1.14 – 1.90, p. < .05) times as likely to be never banked as "single women," controlling for other variables. "Married couples" and "single men without children" were 33% (OR = 1.33, CI = 1.03 – 1.73, p. < .05) and 72% (OR = 1.72, CI = 1.29 – 2.27, p. < .001) times as likely, respectively, to be never banked as "single women," controlling for other variables.

"Homeowners" had 31% (OR = .69, CI = .59 – .81, p. < .05) lower odds of being never banked than "renters," controlling for other variables, and this is consistent with other literature that ties homeownership with bank accounts. Households in the "South" have the greatest odds of being never banked (OR = 1.62, CI = 1.34 – 1.95, p. < .001) than households in the "West," controlling for other variables.

Finally, households that had visited an "RAL" were 41% (OR = .59, CI = .45 – .78, p. < .001 less likely to be never banked. Households that had visited a "pawn shop" were 54% (OR = .46, CI = .37 – .56, p. < .001) less likely to be never banked. Households that had visited a "payday lender" were 63% (OR = .37, CI = .27 – .52, p. < .001) less likely to be Never banked.

The Hosmer and Lemeshow goodness-of-fit test, $\chi 2(8)=12.83$, p.=.12, is not significant, indicating the model fits the data. Overall, the model correctly classified 68.7% of the cases. It correctly classified 70.7% of the previously banked and 66.6% of the never banked cases. The independent variables in the equation had a tolerance ranging between .83 and .94, indicating multicollinearity was not an issue for those predictors. Additionally,

bivariate correlation of the independent variables reported that the highest correlation coefficient (r=.41) was between categories of the income variable, "$0-$9,999" and "$10,000 - $19,999."

Discussion and future research

This study is one of the first to identify similarities and differences among certain "subgroups" of the unbanked. The results provide groundwork on which to build more effective innovations and more insightful research.

The results around income affirmed much of what is already known about the unbanked as a whole. The sample was largely low-income, which is consistent with the finding that low-income households are more likely to be unbanked. Generally, it appears that people with incomes lower than $50,000 are more likely to be never banked.

The results around race and ethnicity were particularly powerful. While it was previously known that racial and ethnic minorities are more frequently unbanked, the findings of this study highlight the magnitude of the difference in banking patterns. Black households are 46% more likely to be never banked than white households, and Other households are more than twice as likely to be never banked (2.60). The results on ethnicity were even starker. Mexican households were over three times as likely (3.75) to be never banked as Not Hispanic households, and Other Hispanic households were over two times as likely (2.71) to be never banked. While this is consistent with other research that both racial minority and Hispanic households are relatively disadvantaged in bank account ownership this study indicates that, not only are racial minorities and Hispanics more frequently unbanked, they're also more likely to be never banked. This is a substantial portion of the population that is completely disconnected with the traditional financial services system. Further research is needed about this disconnection to determine and eradicate

its roots. This finding also provides motivation to make available more tailored financial education programs and financial products.

The education finding also uncovers an interesting trend. Households with less than an 8th grade education are over twice as likely to be Never banked as those with any high school education. This is a large jump, and it demonstrates implications for financial education efforts and practice. Financial education could be strengthened for this education group. Additionally, financial institutions could create a product designed for this group and begin to bring them into banking, such as living skills classes.

The finding about household type is also meaningful. Past studies have found that single women with children are more vulnerable to being unbanked overall (Hogarth & O'Donnell, 2000). In this study, however, single men with children (2.04) have greater odds of being never banked than single women with children (1.47). This suggests that the possibility that single women with children are more often previously banked which then suggests that single mothers are at risk of becoming disconnected from traditional financial institutions. This has powerful implications for practice efforts, particularly for banks and credit unions and the products they make available to this group.

Future research is needed to determine the cause of this disconnection as well as methods of intervention. One possible intervention in this case would be policies that foster asset accumulation (Hogarth, 2005), like Individual Development Accounts. Finally, the homeownership status finding supports past research that homeowners and homeownership is associated with higher rates of bank account ownership (Hogarth et al., 2005).

The next intriguing finding relates to regional differences. Households in the South are

62% times more likely to be never banked households in the West, controlling for other variables. One study posited that it may be a function of the state policies (Hogarth, 2005). These findings have implications for intervention efforts, particularly in the South, where households have the greatest odds of being never banked. One study about financial education reported that the never banked gained more from financial education training than the Previously banked, who came into a program with "pre-training knowledge" (Midwest. Zhan, Anderson, & Scott, 2006). To accommodate this, different curricula may be useful for different levels of prior experience. To this end, regional differences in banking patterns may be another area that would benefit from future research.

A remarkable finding is that the never banked are less likely to use three of four of the AFS in this analysis. It is not clear why this is so. One possible theory for this difference is that the never banked are not as accustomed to financial products such as check cashing or small loan services as the previously banked who, even when they leave traditional banks, still seek equivalent services. Given that this applies to only one group, research testing theories behind this pattern could be useful.

A final interesting point pertains to one type of AFS, a payday loan. According to the Community Financial Services Association (CFSA) of America, the national organization for payday lenders, only individuals with bank accounts can take out payday loan, therefore, it is to be expected that the Never banked have lower rates of using them. However, despite this lower rate, this analysis reveals that 16% of the Never banked have taken out payday loans, though they have never had accounts. These findings casts doubt on the CFSA claim, and indicates that this issue merits further scrutiny.

Limitations

Although instructive, these findings should be viewed in the context of study limitations. One such limitation is that over 3,000 cases were omitted from the final sample because they did not have complete answers, and the study did not try to impute for missing data. This increases the risk of underrepresentation against certain groups. Another limitation is that this research utilizes secondary data. Therefore, it is possible that the study utilized a predictor differently than the survey designer intended. A large limitation of this study is that it's not sensitive to variation in race or ethnicity. Future studies about the unbanked, specifically when analyzing behavior in minority racial and ethnic groups, would require a sampling method like the snowball sampling another that oversamples minority groups. Finally, there are other predictors that may be important that have not been included, such as age or gender of the consumer.

Conclusion

The findings in this study represent a strong first step in efforts to develop a multifaceted approach to reaching the unbanked. They are useful is informing innovative practice methods, they suggest possible policy interventions that will prove fruitful, and they open the door to research that with advance understanding. Healthy use of a bank account is one of the simplest ways of empowering people to build wealth and reduce poverty. By researching and creating program offerings that match actual needs, the U.S. can enjoy a financial services model that works for everyone.

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Appendix

Bivariate analysis

The study ran a correlation analysis or each of the predictor variables and the outcome variable and the results were analyzed using the Pearson Chi squared test. Each correlation was significant. The correlation between bank account history and pawn shop and payday lending were both substantial, with a chi square value of 152.74 and 143.93, respectively. Use of a check casher was approximately split between the previously banked and the never banked (56.8% and 43.2%, respectively). However, the 74.1% of the previously banked got an RAL compared to 25.9% of the never banked, 72.8% of the previously banked visited a pawn shop compared with 27.2% of the never banked, and 83.5% of the previously banked got a payday loan compared with 16.5% of the never banked.

None of the expected values are less than 1, and the observations are unique in that each case contributes to only one square in the data. The expected frequencies are all greater than 5, and they are particularly high in the first two categories income. The Levene's test for income, race, and household type were insignificant, indicating homogeneity of variance. The Levene's test results for ethnicity, education, homeownership, region, check casher, RAL, pawn shop, and payday lender were significant, which means variance is not equal across these groups.

Table 2. Correlation analysis between independent variables and bank account ownership history (Expected values in parentheses).

		Previously banked		**Never banked**			
		n	%	n	%		
Income						$\chi^2(4)$	p
	0-$9,999	572 (598.4)	49.5%	584 (557.6)	50.5%	32.63	<.05

	$10,000-$19,999	692 (645)	55.5%	554 (601)	44.5%		
	$20,000-$29,999	393 (442.6)	46.0%	462 (412)	54.0%		
	$30,000-$49,999	328 (326.7)	52.0%	303 (304.3)	48.0%		
	$50,000+	166 (138.2)	62.2%	101 (128.8)	37.8%		
Race						$\chi^2(2)$	p
	White	1374 (1385.9)	51.3%	1303 (1291.1)	48.7%	11.54	<.05
	Black	627 (591.2)	54.9%	515 (550.8)	45.1%		
	Other	150 (173.9)	44.6%	186 (162.1)	55.4%		
Ethnicity						$\chi^2(2)$	p
	Not Hispanic	1721 (1438.1)	62.0%	1057 (1339.9)	38.0%	352.67	<.05
	Mexican	287 (505.8)	29.4%	690 (471.2)	70.6%		
	Other Spanish	143 (207.1)	35.8%	257 (192.9)	64.3%		
Education						$\chi^2(3)$	p
	Less than1st - 8th	210 (398.6)	29.5%	502 (343.4)	70.5%	246.80	<.05
	9th-12th, no diploma	584 (630)	48.0%	633 (587)	52.0%		
	High School diploma/GED	857 (772.9)	57.4%	636 (720.1)	42.6%		
	Any College	500 (379.5)	68.2%	233 (353.5)	31.8%		
Household type						$\chi^2(4)$	p
	Husband & wife	746 (754.3)	51.2%	711 (702.7)	48.8%	29.77	<.05
	Single man with kids	193 (224.7)	44.5%	241 (209.3)	55.5%		
	Single woman with kids	638 (638.8)	51.7%	596 (595.2)	48.3%		
	Single man	322 (326.1)	51.1%	308 (303.9)	48.9%		
	Single woman	252 (207.1)	63.0%	148 (192.9)	37.0%		
Homeownership						$\chi^2(1)$	p
	Owned/Being bought	655 (600.5)	56.5%	505 (559.5)	43.5%	14.22	<.05

	Rented	1496 (1550.5)	49.9%	1499 (1444.5)	50.1%		
Region						$\chi^2(3)$	p
	Northeast	315 (316.3)	51.6%	296 (294.7)	48.4%	56.64	<.05
	Midwest	489 (393)	63.5%	279 (369)	36.5%		
	South	848 (926.7)	47.7%	942 (863.3)	52.6%		
	West	502 (512)	50.8%	487 (477)	49.2%		
Use Check Casher						$\chi^2(1)$	p
	Yes	1012 (922)	56.8%	769 (859)	43.2%	31.88	<.05
	No	1139 (1229)	48.0%	1235 (1145)	52.0%		
Use RAL						$\chi^2(1)$	p
	Yes	269 (187.9)	74.1%	94 (175.1)	25.9%	79.47	<.05
	No	1882 (1963.1)	49.6%	1910 (1828.9)	50.4%		
Use Pawn Shop						$\chi^2(1)$	p
	Yes	521 (370.7)	72.8%	195 (345)	27.2%	152.74	<.05
	No	1630 (1780.3)	47.4%	1809 (1658.7)	52.6%		
Use payday lender						$\chi^2(1)$	p
	Yes	274 (169.8)	83.5%	54 (158.2)	16.5%	143.93	<.05
	No	1877 (1981.2)	49.0%	1950 (1845.8)	51.0%		