THE ROLE OF ALTERNATIVE FINANCIAL SERVICE PROVIDERS IN SERVING LMI NEIGHBORHOODS

Sherrie L.W. Rhine
Federal Reserve Bank of Chicago

Maude Toussaint-Comeau
Federal Reserve Bank of Chicago

Jeanne M. Hogarth
Board of Governors of the Federal Reserve System

William H. Greene
New York University

Using data from the 2000 Metro Chicago Information Center Survey, we explore transaction account ownership and the use of currency exchange (check-cashing) businesses for financial and nonfinancial services. The results from the estimated model suggest that being unbanked is jointly determined with obtaining financial services from a currency exchange. Our findings show that in the Chicago metropolitan area, currency exchanges play an active role in providing financial services to unbanked households, especially residents of low- and moderate-income (LMI) neighborhoods and Black and Hispanic households. Specifically, we find that unbanked households are 14.6 percentage points more likely than their banked counterparts to patronize a currency exchange. Unbanked households residing in an LMI community are 7.6 percentage points more likely to use a currency exchange than unbanked households residing elsewhere. Furthermore, we find that perceived unfavorable checking account characteristics and distaste for a checking account are important influences on the probability that an unbanked Black household obtains financial services from a currency exchange. Unbanked Hispanic households that obtain financial services from currency exchanges also are influenced by perceived

---

The views expressed are the authors' and do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Board of Governors of the Federal Reserve System.

unfavorable checking account characteristics. Conditioned on being unbanked, our findings show that households with lower income, who are younger, have less education, or who are employed are more likely to use a currency exchange, whereas households that possess a credit card or who are retired are less likely to patronize a currency exchange. From a policy perspective, financial education and cooperation between financial institutions and community groups may go a long way in helping households enter the mainstream financial sector, thus improving the flexibility of households in conducting financial transactions.

Introduction

Policymakers are interested in the banking relationships of low- and moderate-income (LMI) households for several reasons. First, banks target some of their lending and banking services to these households as part of their Community Reinvestment Act (CRA) responsibilities. Because many resources go into the development and monitoring of CRA accountability, we know a great deal about how banks are doing with respect to making primary product lines available to LMI households. It may be helpful to know more about the other side of that relationship – that is, how LMI households relate to financial institutions in their communities. Second, recent legislation (the Debt Collection and Improvement Act of 1996) provided for electronic payment of recurring federal benefits (such as Social Security, Supplemental Security Income and federal retirement payments). Treasury's implementation of this initiative drew attention to those households without direct deposit, including households without transaction accounts at financial institutions, many of whom are lower to middle income. The more we know about these households (the reasons for not having an account, the perceived barriers they face, the financial vehicles they are using in lieu of a transaction account), the better both banks and policymakers can target policies and educational programs to smooth the transition to an all-electronic Treasury payment system.

In the following section, we provide a description of the check-cashing/currency exchange industry. In the third section, we describe our data and present them relative to a national sample. We also explore several aspects of the financial relationships of households, especially LMI households. Of particular interest are transaction account ownership, reasons for not holding a checking account, sources used to obtain

check cashing services, and currency exchange patronage by households. In the fourth section, we empirically investigate the potential joint relationship between being unbanked and obtaining financial services from a currency exchange. The results from this investigation offer interesting insights about the influence that specific characteristics have on an unbanked household's patronage of currency exchange businesses. In the final section, we discuss potential policy responses drawing on the study's findings.

The Check-Cashing Industry

Over 180 million checks, totaling $55 billion, flow annually through the check-cashing industry. The number of check-cashing establishments has doubled over the last five years, with locations in 35 states; 28 states and the District of Columbia regulate check cashing.[1] Presently, there are approximately 6,000 check-cashing establishments owned by roughly 3,700 businesses nationwide. The average fee charged for cashing a check ranges from 2 percent to 3 percent of the face value amount of the check.[2]

In the Chicago metropolitan area and elsewhere in the state of Illinois, check-cashing businesses are referred to as currency exchanges (hereafter referred to as such). The financial services offered by currency exchanges include cashing payroll, government, public assistance, and personal checks, selling money orders, providing money wire transfer services, and submitting bill payments (*e.g.*, local utility bills). In addition, currency exchanges provide a diverse collection of nonfinancial services, such as the sale of public transportation fares (*e.g.*, bus and train passes), postage stamps, prepaid telephone cards, notary services, and lottery tickets. These businesses also collect local tax (*e.g.*, property taxes) payments, distribute public assistance benefits, sell motor vehicle license plates, and handle vehicle title transfers.

The Illinois Department of Financial Institutions (DFI) regulates over 700 currency exchanges across the state, with 429 located in the City of Chicago. Check-cashing fees in Illinois are set according to a two-tier maximum fee structure based on the face value of the check. The maximum fee that can be charged for cashing a check valued up to $500 is 1.4 percent of the face value plus $.90 per check cashed. For a check greater than $500, the maximum fee is 1.85 percent of the check's face value. Similarly, under state regulations, currency exchanges can sell money orders for up to a maximum fee of 1 percent of the money order's value plus $.75 per money order. According to the

Financial Services Centers of America (FiSCA), a trade association representing the check-cashing industry, the typical check-cashing consumer is middle to lower income, younger, and looking for convenient, after-hours financial services. FiSCA purports that one-third of the consumers who seek financial services from currency exchanges are unbanked, while two-thirds are banked consumers who may be seeking convenience in the delivery of financial services.

Data and Sample Description

Data employed in this study were collected by the Metro Chicago Information Center (MCIC) in conjunction with its 2000 annual survey of households in the Chicago metropolitan area.[3] The sample used in this study is 2,483 households. Most of the data were collected in a telephone survey of a sample of households selected through a random-digit-dialing sampling technique. Supplemental surveys were conducted through face-to-face interviews as a way to include information from households in the sample population without telephones. In addition, survey interviews were conducted in Spanish to accommodate Spanish-speaking respondents.[4] The Federal Reserve Bank of Chicago sponsored a supplement of questions focusing on the use of currency exchanges for MCIC's 2000 survey. The definition of variables used in this study is given in Table 1.

While the majority of variables listed in Table 1 are self explanatory, a further discussion is needed concerning the household income categories used here. The income category, INCOME < $30,000, is equal to one if the respondent's household income was less than $30,000. This closely corresponds to the income threshold relevant to the U.S. Census definition of a low-income household, whereby family income is less than 50 percent ($31,893) of the metropolitan area's median income level ($63,800). INCOME < $30,000, therefore, is a conservative measure of the proportion of low-income households in the sample. The three remaining income categories reported in Table 1 are similarly calculated and roughly approximate the U.S. Census definition of moderate-, middle-, and upper-income households.

A description of the socioeconomic and demographic characteristics for the Chicago metropolitan sample population and the nation is provided in Table 2. The description for the nation comes from the 1998 Survey of Consumer Finances (SCF). A comparison between these two data sets reveals that the Chicago metropolitan area has a greater proportion of more highly educated households and households

with greater income, relative to the nation. The Chicago sample also has a greater representation of minority households.

A comparison of LMI households to non-LMI households in the Chicago metropolitan area shows that LMI households tend to be minorities, younger, female, unmarried, and less-educated (Table 3). LMI households also are less likely to hold a checking and/or a savings account (banked) or to possess particular assets such as a home, a money market account, or an IRA.

Characteristics of the Unbanked

A comparison between banked households (own a checking and/or savings account) and unbanked households reveals different socioeconomic and demographic profiles (Table 3). The majority of unbanked households (70 percent) have income less than $30,000 or live in LMI areas (74 percent). Seventeen percent are unemployed in the labor force, while for the banked sample, four percent are unemployed. Unbanked households also tend to be minority, female, younger, unmarried, less educated, and nonhomeowners.

To further understand the circumstances that lead one to be or become unbanked, we explore the reasons given by households as to why they do not possess a checking account and/or have closed their checking account (Table 4). Of the 378 households without a checking account, 68 percent (258 households) resided in LMI communities. Given that the unbanked tend to have less income, it is not surprising that the most common reasons given for not having a checking account related to unfavorable checking account characteristics associated with cost. The specific reasons included the cost of account maintenance (*i.e.*, minimum balance), affordability (*i.e.*, high fees), or lack of sufficient funds to open a checking account. Over 62 percent of the households that lived in LMI neighborhoods gave these unfavorable account characteristics as the primary reason for not having a checking account. Another major reason given by respondents for not having a checking account was a distaste for an account. Close to 30 percent of the households revealed a distaste by stating that they did not like to deal with banks, did not trust banks, or desired to keep financial records private. Smaller proportions (a total of about seven percent) reported that checking accounts were too difficult to manage or that a member of the household had been turned down for an account.

Where, then, do the unbanked cash their checks? In the Chicago metropolitan area, we generally find that financial institutions (includ-

ing banks, savings and loan associations, and credit unions) are the most frequently used source (81.2 percent) for check-cashing purposes (Table 5). Among the unbanked, however, a currency exchange is notably the primary place where checks are cashed (71.8 percent). This finding is in sharp contrast to Caskey (1994), Booz-Allen *et al* (1997), and Dove (1999), who found currency exchanges to be only the third most frequently used source, after banks and grocery stores.[5]

Currency exchange use is even more pronounced for unbanked households residing in LMI communities (Table 5). Here we find that almost 75 percent of the unbanked LMI households use currency exchanges to cash checks. Interestingly, banked LMI households also made more frequent use of currency exchanges for check-cashing purposes (13.2 percent) than did banked households in general. In part, this may reflect greater availability of currency exchange businesses in LMI neighborhoods.

Patronage of Currency Exchange Businesses

The survey results suggest that the most common financial services used at currency exchanges were cashing checks, purchasing money orders, paying bills, and making money wire transfers. Typical nonfinancial services included purchasing bus passes, vehicle stickers, and notary services. Close to 64 percent of the total sample of unbanked households, and 61.5 percent of the unbanked households residing in an LMI neighborhood, patronized a currency exchange to purchase only financial services (Table 6). Despite the fact that they already have a deposit account, 19 percent of the total banked households and 40 percent of the banked households residing in an LMI neighborhood used currency exchanges to obtain financial services. Clearly, having a deposit account does not preclude a household from seeking financial services from alternative sources.

Empirical Investigation and Analysis

The purpose of the empirical investigation is to evaluate the importance of specific characteristics on the likelihood that a household obtains financial services from a currency exchange. As suggested by the descriptive analysis, a high proportion of unbanked households (roughly 83 percent) obtained financial services from currency exchange businesses. The decision to use a currency exchange, therefore, appears to be heavily influenced by the decision to be unbanked.

A bivariate probit model is specified to evaluate whether being unbanked is jointly determined with obtaining financial services from a currency exchange (Greene, 2000). Patronizing a currency exchange (CURRENCY EXCHANGE – FINANCIAL SERVICES) and being unbanked (UNBANKED) are both binary variables each equal to one if the household uses a currency exchange to obtain financial services and if the household is unbanked, respectively. For this analysis, we are examining the probability that currency exchange use is equal to one (equation 1) when unbanked is equal to one (equation 2). Accordingly, the estimates from this model are used to tell us how specific characteristics influence an unbanked household's use of financial services from a currency exchange.

Equation 1: The Likelihood of Currency Exchange Use

The dependent variable, CURRENCY EXCHANGE – FINANCIAL SERVICES, is expected to be influenced by several of the household's socioeconomic characteristics. Because currency exchange businesses may offer unbanked households an alternative means of obtaining financial services, being unbanked (UNBANKED) is expected to have a positive influence on the likelihood of using a currency exchange. Credit cards also can serve as a vehicle in the delivery of many financial transactions, serving as both a payment and a finance medium. The potential substitutability between using a credit card and obtaining financial services from a currency exchange business suggests that having a credit card (CREDIT CARD) is negatively related to the likelihood of patronizing a currency exchange business.

Consumer advocacy groups have claimed that minority households (BLACK, HISPANIC and OTHER (Asian, Native American and Other)), lower-income (INCOME < $30,000) households, and households residing in LMI (LOWMOD) neighborhoods are more likely to use a currency exchange than White households, higher-income households, or households living in middle- and upper-income communities, respectively. If true, these characteristics are expected to have a positive influence on the likelihood of using currency-exchange financial services.

Several studies have stated that convenient location and lower transactions costs in terms of time are major features sought by currency exchange users. The value of one's time (*i.e.*, market opportunity cost) and the need for convenience is expected to be higher for consumers tied to the labor market. As such, working consumers

(EMPLOYED) may be more likely to patronize a currency exchange business than their unemployed counterparts. Conversely, if retired (RETIRED) individuals perceive themselves as having lower market opportunity cost, they may be less likely to patronize a currency exchange business; the omitted categories are households that are unemployed in the labor force or unemployed not in the labor force. To the extent that married households have greater time constraints than unmarried households, being married (MARRIED) also is expected to have a positive influence on the likelihood of currency exchange use, *ceteris paribus.*

Education is used as an indicator variable for a consumer's human capital in financial literacy. Less educated households may possess a weaker understanding than their more educated cohorts about the numerous financial advantages and consumer protections afforded to them from mainstream financial service providers. To determine if less educated households are more likely to use a currency exchange, having a high school degree or less (EDUCATION 12 YEARS OR LESS) is included. It also has been suggested that currency exchange use is greater during the consumer's earlier stages of the life cycle. To evaluate this possibility, the estimated model includes an indicator variable to determine if younger householders (AGE 18 TO 25) are more likely to use currency exchange services than older householders. Finally, the model includes an indicator variable to estimate whether gender (FEMALE) differences exist in the patronage of currency exchange businesses.

Equation 2: The Likelihood of Being Unbanked

Studies have consistently shown that unbanked consumers are more likely to have lower income and net worth, to reside in an LMI neighborhood, to be less educated and unemployed, and to be more heavily represented among Black, Hispanic, female, unmarried, and younger consumers. *A priori*, it is thought that unemployed individuals no longer active in the labor force (UNEMPLOYED, NOT IN LABOR FORCE) may be more likely to be unbanked due to their severed tie to the labor market than employed individuals or individuals who are unemployed but actively searching for a job. If true, UNEMPLOYED, NOT IN LABOR FORCE is expected to have a positive influence on the likelihood of being unbanked. Conversely, it is expected that retired (RETIRED) individuals who previously had a connection to the labor market are less likely to be unbanked.

Generally, a household's net worth is comprised of the dollar value of financial assets held such as savings and other deposit accounts, stocks, bonds, certificates of deposit, and retirement accounts. For the data analyzed in this study, we can ascertain household ownership of many aspects of net worth (*e.g.*, presence of savings accounts, money market funds, IRAs), but we are unable to determine the dollar value of many. However, information provided by the Survey of Consumer Finances (Kennickell *et al*, 1997) suggests that there is a strong, positive correlation between a household's net worth and being a homeowner. As such, homeownership (OWN HOME) is used as an indicator variable for the household's net worth and is expected to be negatively related to being unbanked.

In an earlier study, Hogarth and O'Donnell (1997) find that Black and Hispanic consumers tended not to have a checking account because of perceived unfavorable checking account characteristics (*e.g.*, minimum balance or monthly fees too high) and a distaste for an account (*e.g.*, don't trust banks). Accordingly, indicator variables are included to determine whether perceived unfavorable product characteristics (PRODUCT HAS UNFAVORABLE CHARACTERISTICS) and having a distaste for a checking account (DISTASTE FOR A CHECKING ACCOUNT) have a positive influence on the likelihood of being unbanked. To determine whether these factors play a significant role in the likelihood of being unbanked by racial/ethnic group, interaction terms are included in the empirical model. For example, the interaction term, BLACK X PRODUCT, measures the influence that being Black and perceived unfavorable checking account characteristics have on the probability of being unbanked, relative to being Black and not perceiving checking accounts as having unfavorable characteristics. Similarly, the term, BLACK X DISTASTE, denotes the influence that being Black and having a distaste for a checking account have on the likelihood of being unbanked, relative to being Black and not having a distaste for an account. Comparable interaction terms for HISPANICS and OTHER (*i.e.*, Asian, Native American, and Other) also are included.

Marginal Effects of the Model[6]

The results from the bivariate probit model suggest that being unbanked is jointly determined with using a currency exchange to obtain financial services.[7] Table 7 reports the direct, indirect and total marginal effects on the use of a currency exchange for obtaining financial services by unbanked households. Turning to the total effects, we find that being

unbanked increases the likelihood of using a currency exchange by 14.6 percentage points; unbanked households residing in an LMI neighborhood are 7.6 percentage points more likely to use a currency exchange than unbanked households residing elsewhere.

Unbanked Black households are 17.8 percentage points more likely than unbanked White households to patronize a currency exchange. Similarly, unbanked Hispanic households are 7.5 percentage points more likely to use a currency exchange than their unbanked White counterparts. The lack of significance for the OTHER race variable suggests that no differences exist in the likelihood of using a currency exchange between minorities in the Other racial/ethnic category and Whites.

Unbanked Black households with a distaste for a checking account are roughly 14 percentage points more likely to patronize a currency exchange than unbanked Black households without this distaste. Moreover, unbanked Black households with an unfavorable perception about checking account characteristics are 8.7 percentage points more likely to use a currency exchange than unbanked Black households without this unfavorable perception. For unbanked Hispanic households, having an unfavorable perception about checking accounts increases the likelihood of using a currency exchange by 1.1 percentage points, whereas having a distaste for a checking account does not significantly influence the likelihood of currency exchange use among unbanked Hispanics. Overall, these findings suggest that unfavorable product characteristics and distaste for a checking account are important influences on the probability that an unbanked Black household, and to a lesser degree, an unbanked Hispanic household, use currency exchanges. The results from the unbanked equation suggest that households that perceive checking accounts as having unfavorable characteristics are 15.2 percentage points more likely to be unbanked than households without this perception, and while households with a distaste for a checking account are 10.4 percentage points more likely to be unbanked than households without this distaste. These behavioral attributes offer important insights to help explain why households chose to be unbanked.

In this analysis, we have discussed the combined marginal effects of race and the taste and preference variables. We recognize that the standard errors reported are not associated with these combined effects. Furthermore, we acknowledge that further adjustments are needed to take into account the marginal effects when dummy variables are specified. This adjustment is not expected to substantially influence the

results. Corrections to these points will be made in the next version of the paper. Although beyond the scope of this study, we plan to extend the present model to include an analysis of currency exchange use among banked households.

Potential Policy Implications

While the findings from this study are reflective of a unique urban experience in the Midwest, we believe that important insights can be drawn to help policymakers and community leaders bring LMI and other unbanked consumers into the mainstream financial arena. We find that currency exchanges play an active role in providing financial services to unbanked households, and in particular, to residents of LMI neighborhoods and specific minority households. The decision to forego an opportunity to establish a relationship with a formal financial institution may have long-term implications, potentially unknown to these consumers. As such, we believe that financial literacy and other educational programs could be very useful toward helping consumers gain a better understanding of the inherent tradeoff between mainstream and alternative financial service providers. Moreover, educational initiatives, potentially in partnership with financial institutions, may go a long way to help consumers overcome negative attitudes toward mainstream financial services institutions. We find that households, especially Black and Hispanic households, were less likely to have a checking account with a formal financial institution because of specific account characteristics, such as the cost of account maintenance (minimum balance), affordability (high fees), and lack of funds needed to open an account. These findings suggest that, at least in the Chicago metropolitan area, specific opportunities exist to help bring Blacks and Hispanics into the mainstream financial service arena by making low-cost transaction accounts available. In addition, programs aimed at educating consumers about effective deposit account management, including the avoidance of unnecessary fees and charges, would be quite useful for first-time deposit holders.

To the extent that financial institutions are unable or unwilling to offer products and services that address the concerns of the consumers in our study, and if there is general agreement that access to a basic financial account is important to help families conduct transactions and provide a safe way to accumulate a needed emergency cushion, then there may be a market failure for this segment of the marketplace. The question then becomes: are basic banking accounts a “public good” and

thus, should the government provide these? The development of Electronic Transfer Accounts (ETAs) as part of the EFT 1999 initiative and the enabling legislation for First Accounts are, in part, testimony to Congress' intention to help more households become banked, while still trying to work with the market system to provide these accounts. After about 18 months of availability, 611 financial institutions with 13,000 branches offer ETAs and 8,700 consumers have signed up. The Bush administration recently announced that it has discontinued the $10 million First Accounts initiative and will rely on other programs to accomplish this goal (Goldstein and Kessler, 2001). Hence, the policy answer may be found in the combination of education, cooperation between the public and private sectors, and a policy environment that fosters a variety of targeted responses from the private and nonprofit sectors.

Sherrie L.W. Rhine is Senior Economist and Manager of Consumer Issues Research at the Federal Reserve Bank of Chicago. She has been a research manager at the Federal Reserve Bank of Chicago since 1996. Her research interests include consumer use of financial services, small business financing and access to credit, consumer lending, community economic development, and financial literacy. Prior to joining the Fed, Rhine worked in academia for 10 years and in international tax consulting at a major accounting firm for several years. She has published in academic journals, including The American Economic Review Papers and Proceedings, The Review of Economics and Statistics, Journal of Human Resources, Health Economics, Applied Economics, Journal of Risk and Insurance, and Economics of Education Review. Rhine earned her B.S. from the University of South Florida and her Ph.D. from the University of South Carolina.

Maude Toussaint-Comeau is an Economist at the Federal Reserve Bank of Chicago. Her current research interests include consumer use of alternative financial services, housing tenure choice and spatial concentration, and community and economic development. Prior to joining the Fed in 1998, Toussaint-Comeau taught consumer economics and microeconomics as an adjunct assistant professor at the University of Illinois at Chicago and worked as an assistant economist intern at the U.S. Department of Agriculture. She is currently a member of the Board of Trustees of the Illinois Economic Association. She received a B.A. from the University of Illinois at Urbana-Champaign and a Ph.D. from the University of Illinois at Chicago.

Jeanne Hogarth is Program Manager for the Consumer Policies Section of the Division of Consumer and Community Affairs at the Federal Reserve Board. Her experience includes seven years of high school teaching and 14 years working on consumer economics faculties at the University of Illinois and at Cornell University. During her tenure at Cornell, she was responsible for community education programs related to family financial management and consumer economics. She joined the Federal Reserve Board in 1995, and her recent projects include research and outreach initiatives on consumers' use of banking services, consumer protection strategies, and consumer complaint behaviors. She received her B.S. from Bowling Green State University and her M.S. and Ph.D. from Ohio State University.

William H. Greene is Professor of Economics and Chair, Department of Economics, at the Stern School of Business, New York University. He has a Ph.D. and M.A. from the University of Wisconsin, Madison, B.S.B.A. from The Ohio State University. He has been Professor of Economics at the Stern School since 1982 and Chair of the department of economics since 1996. Research interests center on econometric methods and applications, particularly nonlinear optimization, panel data, discrete choice modeling and limited dependent variables. Applications have been in modeling productivity, credit scoring, attrition in medical clinical trials, and labor supply models. Other employment has included teaching at Cornell University and S.U.N.Y. Binghamton and consulting with National Economic Research Associates, American Express Corp, Ortho Biotech, LRChristensen Associates, and the United States Postal Service. Published research has appeared in Econometrica, Journal of Political Economy, Journal of Econometrics, Journal of Economic Perspectives, Journal of Economic Education, Applied Economics, Review of Economics and Statistics, and the American Economic Review. Other publications include the textbook Econometric Analysis and the econometric software packages LIMDEP and NLOGIT.

Table 1
Definitions of Variables

Variable	Definition
WHITE	Dichotomous variable =1 if White, =0 otherwise.
BLACK	Dichotomous variable =1 if Black, =0 otherwise.
HISPANIC	Dichotomous variable =1 if Hispanic, =0 otherwise.
OTHER	Dichotomous variable =1 if Asian, Native American or Other, =0 otherwi
AGE 18 TO 25	Dichotomous variable =1 if 18<=age<25, =0 otherwise.
AGE 26 TO 45	Dichotomous variable =1 if 26<=age<45, =0 otherwise.
AGE 46 TO 65	Dichotomous variable =1 if 46<=age<66, =0 otherwise.
AGE 66 AND OVER	Dichotomous variable =1 if age>=66, =0 otherwise.
AGE	Age of the head of household (continuous).
MALE	Dichotomous variable =1 if male, =0 otherwise.
FEMALE	Dichotomous variable =1 if female, =0 otherwise.
MARRIED	Dichotomous variable =1 if married or married-like relationship, =0 otherwise.
SINGLE MALE	Dichotomous variable =1 if widowed or divorced, =0 otherwise.
SINGLE FEMALE	Dichotomous variable =1 if widowed or divorced, =0 otherwise.
SINGLE, FEMALE HH w/CHILDREN	Dichotomous variable =1 if single female head of household with children < 18 years of age, =0 otherwise.
LESS THAN HIGH SCHOOL	Dichotomous variable =1 if education <= 11 years, =0 otherwise.
HIGH SCHOOL OR EQUIVALENT	Dichotomous variable =1 if high school or equivalent completed, =0 otherwise.
EDUCATION 12 YEARS OR LESS	Dichotomous variable =1 if number of years of schooling completed <= 12 years, =0 otherwise.
SOME COLLEGE	Dichotomous variable =1 if some college completed, =0 otherwise.
BACHELOR'S DEGREE OR MORE	Dichotomous variable =1 if Bachelor's degree or above completed, =0 otherwise.
HOUSEHOLD SIZE	Number of related persons residing in the household (continuous).
HOUSEHOLD w/DEPENDENTS (<18 YEARS OF AGE)	Dichotomous variable =1 if household with dependent children < 18 years of age, =0 otherwise.
INCOME < $30,000	Dichotomous variable =1 if income<$30,000, =0 otherwise.
INCOME $30,000 TO $49,999	Dichotomous variable =1 if $30,000 <=income<$50,000, =0 otherwise.
INCOME $50,000 to $69,999	Dichotomous variable =1 if $50,000 <=income<$70,000, =0 otherwise.
INCOME $70,000 OR OVER	Dichotomous variable =1 if income>=$70,000, =0 otherwise.
EMPLOYED	Dichotomous variable =1 if employed, =0 otherwise.
UNEMPLOYED, IN LABOR FORCE	Dichotomous variable =1 if unemployed in labor force, =0 otherwise.
UNEMPLOYED, NOT IN LABOR FORCE	Dichotomous variable =1 if not in labor force, =0 otherwise.
RETIRED	Dichotomous variable =1 if retired, =0 otherwise.
BANKED	Dichotomous variable =1 if have checking and/or savings account, =0 otherwise.
UNBANKED	Dichotomous variable =1 if do not have checking and/or savings account, =0 otherwise.
LMI (LOWMOD) NEIGHBORHOOD	Dichotomous variable =1 for low-to-moderate income geographies define by census tracts with 80% or less of the median family income for the Chicago MSA, =0 otherwise.
MIDDLE NEIGHBORHOOD	Dichotomous variable =1 for middle-income geographies defined as censu tracts with 80% or greater but less than 120% of the median family income for the Chicago MSA, =0 otherwise.
UPPER NEIGHBORHOOD	Dichotomous variable =1for upper-income geographies defined as census tracts with 120% or greater of the median family income for the Chicago MSA =0 otherwise.
OWN HOME	Dichotomous variable =1 if homeowner, =0 otherwise.
CREDIT CARD	Dichotomous variable =1 if respondent has a credit card, =0 otherwise.
MONEY MARKET	Dichotomous variable =1 if respondent has a money market account, =0 otherwise.
IRA	Dichotomous variable =1 if respondent has an IRA account, =0 otherwise.
SAVINGS ACCOUNT	Dichotomous variable =1if respondent has a savings account, =0 otherwise
CURRENCY EXCHANGE - FINANCIAL SERVICES	Dichotomous variable =1 if respondent obtained financial services from a currency exchange within the last year, =0 otherwise.
DISTASTE FOR CHECKING ACCOUNT	Dichotomous variable =1 if reason for not having/closing a checking account was 'do not like to deal with banks', 'prefer to keep records privat or 'do not trust banks', =0 otherwise.
PRODUCT HAS UNFAVORABLE CHARACTERISTICS	Dichotomous variable =1 if reason for not having/closing a checking acco was 'do not have enough money to open an account', 'do not write enough checks', 'minimum balance/fee too high' or 'bank hours/location inconver

Table 2
Description of Socioeconomic and Demographic Characteristics

	Chicago MSA		Nation	
	Mean	Std. Dev.	Mean	Std. Dev.
RACE				
WHITE	0.63	0.48	0.78	0.42
BLACK	0.21	0.41	0.12	0.32
HISPANIC	0.09	0.29	0.07	0.26
OTHER	0.06	0.23	0.04	0.18
AGE				
AGE 18 TO 25	0.07	0.26	0.07	0.25
AGE 26 TO 45	0.48	0.50	0.42	0.49
AGE 46 TO 65	0.31	0.46	0.31	0.46
AGE 66 AND OVER	0.14	0.34	0.20	0.40
AVERAGE AGE	44.61	15.79	48.73	17.3
GENDER[1]				
MALE	0.40	0.49	-	-
FEMALE	0.60	0.49	-	-
MARITAL STATUS				
MARRIED	0.54	0.50	0.59	0.49
SINGLE MALE	0.17	0.37	0.14	0.35
SINGLE FEMALE	0.29	0.45	0.27	0.44
SINGLE, FEMALE HH w/CHILDREN	0.10	0.30	0.07	0.26
EDUCATION				
LESS THAN HIGH SCHOOL	0.11	0.31	0.16	0.37
HIGH SCHOOL OR EQUIVALENT	0.15	0.36	0.28	0.45
SOME COLLEGE	0.34	0.47	0.18	0.39
BACHELOR'S DEGREE OR MORE	0.40	0.49	0.33	0.47
HOUSEHOLD SIZE	3.00	1.68	2.59	1.46
HOUSEHOLDS WITH DEPENDENTS (<18 YEARS OF AGE)	0.42	0.49	0.37	0.48
HOUSEHOLD INCOME				
INCOME < $30,000	0.22	0.42	0.44	0.50
INCOME $30,000 to $49,999	0.28	0.45	0.22	0.41
INCOME $50,000 to $69,999	0.18	0.38	0.14	0.35
INCOME $70,000 OR OVER	0.31	0.46	0.20	0.40
WORK STATUS				
EMPLOYED	0.71	0.45	0.70	0.46
UNEMPLOYED, IN LABOR FORCE	0.05	0.23	0.03	0.18
UNEMPLOYED, NOT IN LABOR FORCE	0.09	0.28	0.07	0.26
RETIRED	0.14	0.35	0.19	0.39
SELECTED ASSETS				
OWN HOME	0.62	0.49	0.66	0.33
CREDIT CARD	0.79	0.40	0.72	0.31
MONEY MARKET	0.35	0.48	0.11	0.22
IRA	0.47	0.50	0.28	0.31
N	2483		4309	

[1]As a tool for organizing the data in the 1998 Survey of Consumer Finances (SCF), the head of the household is taken to be the central individual (male or female) in a household without a core couple , the male in a mixed-sex couple or the older person in a same-sex couple.

Note: Sum of mean proportions may not add up to 1.00 due to rounding.

Table 3
A Comparison of Mean Attributes

	LMI		NON-LMI		BANKED		UNBANKED	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev
RACE								
WHITE	0.24	0.43	0.78	0.41	0.69	0.46	0.15	0.36
BLACK	0.52	0.50	0.10	0.30	0.17	0.37	0.59	0.49
HISPANIC	0.18	0.38	0.06	0.24	0.08	0.27	0.22	0.42
OTHER	0.06	0.23	0.06	0.23	0.06	0.24	0.03	0.17
AGE								
AGE 18 TO 25	0.12	0.33	0.05	0.23	0.06	0.24	0.17	0.37
AGE 26 TO 45	0.51	0.50	0.47	0.50	0.47	0.5	0.50	0.50
AGE 46 TO 65	0.26	0.44	0.33	0.47	0.32	0.47	0.24	0.43
AGE 66 AND OVER	0.11	0.31	0.15	0.35	0.14	0.35	0.09	0.29
AVERAGE AGE	41.59	16.08	45.70	15.50	45.17	15.76	39.80	15.29
GENDER								
MALE	0.36	0.48	0.42	0.488	0.41	0.50	0.34	0.48
FEMALE	0.64	0.48	0.58	0.488	0.59	0.50	0.66	0.48
MARITAL STATUS								
MARRIED	0.39	0.49	0.60	0.492	0.57	0.50	0.29	0.45
SINGLE MALE	0.20	0.4	0.16	0.36	0.16	0.37	0.25	0.43
SINGLE FEMALE	0.41	0.49	0.24	0.43	0.27	0.44	0.46	0.50
SINGLE, FEMALE HH w/CHILDREN	0.21	0.41	0.06	0.23	0.08	0.27	0.25	0.44
EDUCATION								
LESS THAN HIGH SCHOOL	0.25	0.43	0.06	0.24	0.07	0.26	0.44	0.50
HIGH SCHOOL OR EQUIVALENT	0.18	0.39	0.14	0.35	0.14	0.35	0.23	0.42
SOME COLLEGE	0.33	0.47	0.34	0.47	0.35	0.48	0.27	0.44
BACHELOR'S DEGREE OR MORE	0.24	0.43	0.46	0.50	0.44	0.50	0.05	0.23
HOUSEHOLD SIZE	3.38	2.03	2.86	1.51	2.93	1.61	3.61	2.08
HOUSEHOLD INCOME								
INCOME < $30,000	0.45	0.50	0.14	0.34	0.17	0.37	0.70	0.46
INCOME $30,000 to $49,999	0.26	0.44	0.28	0.45	0.29	0.45	0.20	0.40
INCOME $50,000 to $69,999	0.13	0.34	0.19	0.40	0.19	0.40	0.04	0.19
INCOME $70,000 OR OVER	0.14	0.35	0.38	0.48	0.34	0.48	0.05	0.21
WORK STATUS								
EMPLOYED	0.62	0.49	0.74	0.44	0.74	0.44	0.47	0.50
UNEMPLOYED, IN LABOR FORCE	0.12	0.32	0.03	0.17	0.04	0.20	0.17	0.40
UNEMPLOYED, NOT IN LABOR FORCE	0.12	0.33	0.08	0.27	0.07	0.26	0.24	0.43
RETIRED	0.13	0.33	0.14	0.35	0.15	0.35	0.08	0.30
SELECTED ASSETS								
OWN HOME	0.35	0.48	0.72	0.45	0.67	0.47	0.15	0.35
CREDIT CARD	0.57	0.50	0.88	0.33	0.87	0.33	0.12	0.32
MONEY MARKET	0.16	0.37	0.42	0.49	0.39	0.49	0.00	0.00
IRA	0.23	0.42	0.56	0.50	0.53	0.50	0.02	0.14
INCOME GEOGRAPHY								
LMI (LOWMOD) NEIGHBORHOOD	_	_	_	_	0.22	0.41	0.74	0.44
MIDDLE NEIGHBORHOOD	_	_	_	_	0.43	0.50	0.16	0.37
UPPER NEIGHBORHOOD	_	_	_	_	0.35	0.48	0.10	0.30
N	673		1810		2224		259	

Note: Sum of mean proportions may not add up to 1.00 due to rounding.

Table 4
Reasons for No Checking Account
Households Residing in LMI Neighborhoods

	Total Households Without a Checking Account		LMI	
	N	Percent	N	Percent
UNFAVORABLE CHECKING ACCOUNT CHARACTERISTICS Minimum balance/fees too high Not enough money to open an account Do not write enough checks	204	54.0	161	62.4
DISTASTE FOR CHECKING ACCOUNT Do not like dealing with banks Do not trust banks Want to keep records private	111	29.4	67	26.0
CHECKING ACCOUNT TOO DIFFICULT TO MANAGE	20	5.3	7	2.7
CREDIT HISTORY IS TOO BAD OR TURNED ME DOWN	8	2.1	3	1.2
REASON UNREPORTED BY RESPONDENT	35	9.2	20	7.7
Sample Size	378	100	258	100

Source: The Metro Chicago Information Center Year 2000 Annual Survey.

Table 5
Check Cashing Sources*
By Bank Relationship Status

	Total Sample				LMI			
	Unbanked		Banked		Unbanked		Banked	
	Frequency of Response	%	Frequency of Response	%	Frequency of Response	%	Frequency of Response	%
FINANCIAL INSTIUTIONS	35	15.0	1789	89.0	23	13.1	368	87.0
CURRENCY EXCHANGES	168	71.8	83	4.10	131	74.9	56	13.2
FOOD STORES	22	9.40	224	11.1	14	8.0	33	7.8
OTHER	15	6.40	18	0.90	11	6.3	2	0.5
Sample Size	234		2011		175		423	
Percent of Total		10.4		89.6		29.3		70.7

*Multiple respondent response possible.

Source: The Metro Chicago Information Center Year 2000 Annual Survey.

Table 6
Currency Exchange Patronage
By Bank Relationship Status

	Total Sample				LMI			
	Unbanked		Banked		Unbanked		Banked	
	N	%	N	%	N	%	N	%
OBTAIN FINANCIAL SERVICE ONLY	165	63.7	421	19.0	118	61.5	192	40.0
OBTAIN NONFINANCIAL SERVICE ONLY	5	2.0	329	14.8	3	1.6	42	8.7
OBTAIN FINANCIAL PLUS NONFINANCIAL SERVICE	49	18.9	83	3.7	44	22.9	43	8.9
NO PATRONAGE	40	15.4	1391	62.5	27	14.0	204	42.4
Sample Size	259		2224		192		481	
Percent of Total Sample		10.4		89.6		7.7		19.4

Source: The Metro Chicago Information Center Year 2000 Annual Survey.

Table 7
Estimated Marginal Effects
Currency Exchange - Financial Services
Conditioned on Unbanked =1

Variable	Direct Effect	Indirect Effect	Total Effect	Standard Error (absolute value)
UNBANKED	0.146		0.146*	0.054
CREDIT CARD	-0.077		-0.077**	0.040
BLACK	0.152	0.026	0.178**	0.074
HISPANIC	0.074	0.001	0.075***	0.043
OTHER	0.032	0.014	0.046	0.029
INCOME < $30,000	0.032	0.019	0.051**	0.022
LMI (LOWMOD) NEIGHBORHOOD	0.068	0.008	0.076**	0.035
EMPLOYED	0.037		0.037***	0.022
RETIRED	-0.046	-0.009	-0.055***	0.032
MARRIED	0.004		0.004	0.012
EDUCATION 12 YEARS OR LESS	0.018	0.014	0.032**	0.016
AGE 18 TO 25	0.070	0.001	0.071***	0.039
FEMALE	-0.010	0.002	-0.008	0.013
UNBANKED Equation				
OWN HOME	-0.020		-0.020*	0.005
UNEMPLOYED, NOT IN LABOR FORCE	0.018		-0.018*	0.008
BLACK x DISTASTE FOR CHECKING ACCOUNT	-0.039		-0.039*	0.015
BLACK x PRODUCT HAS UNFAVORABLE CHARACTERISTICS	-0.091		-0.091*	0.026
HISPANIC x DISTASTE FOR CHECKING ACCOUNT	-0.002		-0.002	0.020
HISPANIC x PRODUCT HAS UNFAVORABLE CHARACTERISTICS	-0.064		-0.064**	0.029
OTHER x DISTASTE FOR CHECKING ACCOUNT	-0.016		-0.016	0.026
OTHER x PRODUCT HAS UNFAVORABLE CHARACTERISTICS	-0.073		-0.073	0.059
DISTASTE FOR CHECKING ACCOUNT	0.104		0.104*	0.012
PRODUCT HAS UNFAVORABLE CHARACTERISTICS	0.152		0.152*	0.026

* significant at the 0.01 level.
** significant at the 0.05 level
*** significant at the 0.10 level

Notes

[1] See "Fiscal Facts: The Check-Cashing Industry" in the web site of Financial Service Centers of America Inc., (FiSCA), formally National Check Cashers Association Inc., www.nacca.org/q&a.htm.

[2] See "Fiscal Facts: The Check-Cashing Industry" in the web site of Financial Service Centers of America Inc., (FiSCA), www.nacca.org/q&a.htm. Some states have set limits on the fees that may be charged.

[3] The Chicago metropolitan area (PMSA) covered in this survey includes Cook, DuPage, Lake, Kane, McHenry, and Will counties.

[4] More information about MCIC, a nonprofit organization located in Chicago IL, can be found by going to www.mcic.org.

[5] See Prescott, Edward S. and Daniel D. Tatar (1999) for a note of caution regarding Caskey's findings (1994) that currency exchanges are infrequently used to cash checks among the unbanked. One important reason they cite is that cities analyzed in Caskey's study have smaller markets than Chicago and New York.

[6] Due to space constraints, we do not present the coefficients from the bivariate probit model for unbanked and currency exchange financial services; these are available from the senior author.

[7] LIMDEP (1998) software was used to estimate the bivariate probit model.

References

Booz-Allen and Hamilton Shugoll Research, "Mandatory EFT Demographic Study," *OMB #1510-00-68*, Washington: U.S. Department of the Treasury, September 15, 1997.

Caskey, John P., *Fringe Banking: Check-Cashing Outlets, Pawnshops, and the Poor.* New York: Russell Sage Foundation, 1994.

Dove Associates, Inc., "ETA Conjoint Research: Final Report and Market Model, Unbanked Federal Check Recipients," *OMB #1510-00-71*, Washington: U.S. Department of the Treasury, May 26, 1999.

Doyle, Joseph J., Jose A. Lopez, and Marc R. Saidenberg, "How Effective Is Lifeline Banking in Assisting the 'Unbanked'?" *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, Vol. 4, June 1998.

Financial Service Centers of America Inc., (FiSCA), formally National Check Cashers Association Inc., "FiSCA Facts: The Check-Cashing Industry," web site, www.nacca.org/q&a.htm.

Goldstein, Amy and Glenn Kessler, "Budget Trims Take Parts of Clinton Vision: Bush's Spending Plan Shows a Shift in Priorities, Preparing the Way for Tax Cut," *Washington Post*, April 1, 2001, page A6.

Greene, William H., *Econometric Analysis*, Fourth Edition, Macmillian Publishing Company, 2000.

Hogarth, Jeanne M. and Kevin H. O'Donnell, "Being Accountable: A Descriptive Study of Unbanked Households in the U.S.," *Proceedings of Association for Financial Counseling and Planning Education*, 1997.

Kennickell, Arthur B., Martha Starr-McCluer, and Annika E. Sunden, "Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, Vol. 83, January 1997, pp. 1-24.

Kooce-Lewis, Joan, Roger Swagler, and John R. Burton, "Low Income Consumers' Use of the Alternative Financial Service Sector," *Consumer Interest Annual*, Vol. 42, 1996, pp. 271-74.

LIMDEP, Plainview, N.Y.: Econometric Software, 1998.

Organization for a New Equality, *Cash, Credit & EFT '99: Reducing the Cost of Credit and Capital for the Urban Poor*, Washington DC: Organization for a New Equality, 1998.

Prescott, Edward S. and Daniel D. Tatar, "Means of Payment, the Unbanked, and the EFT '99," *Economic Quarterly*, Federal Reserve Bank of Richmond, Vol. 85/4, Fall 1999.