
THE UNBANKED HISPANIC COMMUNITY: IMPLICATIONS FOR THE BANKING SECTOR

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ABSTRACT

Recent discussions on the unbanked Hispanic community refer to the untapped deposit potential that this community has to offer to the banking system, but little is known about the magnitude of deposit funds that the non-banked group could offer. We fill the gap in this literature by pinpointing the expenditure, remittance, and saving channels through which funds of the unbanked and the low-moderate-income (LMI) community in general are left out of the banking system. With data from our survey of LMI Hispanics in Orange County, CA, we estimate that (i) about 25% of the county's LMI Hispanic families are unbanked, (ii) the annual remittance outflow from this community is about \$ 226 million, and (iii) the annual "under-the-mattress" savings of the unbanked LMI Hispanic community is about \$78 million.

The idle funds that result from the "under- the- mattress" savings channel and to some extent from the expenditure channel of the unbanked could potentially be used more productively by banks toward creating more deposits. The remittances are a leakage from the region and the majority of remittances are sent through the informal financial sector rather than through banks. Banks would benefit by entering the lucrative remittance market.

INTRODUCTION

According to the 2004 Survey of Consumer Finances, 8.7% of U.S. households are unbanked, i.e. they have no transaction account in the formal banking sector in the U.S. (Bucks, Kennickell and Moore 2006). Numerous studies have used survey data to estimate the number of households that are unbanked, to determine the characteristics of unbanked households, to understand the reasons for being unbanked, and to recognize the importance of the non-mainstream financial sector to low-income households. Examples are Caskey (1994, 1997, 1998, 2001); Bond and Townsend (1996); Good (1999); Stegman (1999); Rhine et al. (2001); Hogarth et al. (1997, 1999, 2003); Stegman and Faris (2001); and Greene et al (2003). The main findings have been that those who were unbanked are female, minority, young, low income, less educated, unmarried, and unemployed.

However, the *quantitative* impact of the cash-centric behavior of households on the banking system is complex and has not been well documented in existing literature. Even though the banking

community is increasingly viewing the unbanked population as potential clients (Maggard, 2004), not much is known about the actual potential deposit funds the unbanked group could offer. Freeman et al. (2003) note that a major change is underway in the relationship between mainstream financial institutions and the U.S. Latino population. Tillet and Handlin (2003) note that "banks have begun to see that attracting the unbanked by providing basic account services and marketing those services in nontraditional ways is good business."

Apart from such references to the untapped potential of the unbanked households, there has been no attempt at quantifying the dollar amounts that do not enter the U.S. formal banking sector. Our paper seeks to address this gap in the literature by establishing a conceptual framework for measuring the dollar amounts that do not enter the formal banking sector. Our paper pinpoints the expenditure, remittance, and saving channels through which funds of the low-income Hispanic community are left out of the banking system. Additionally, the remittance channel is a complete leakage for the *regional* economy. To quote De La Garza and Orozco (2002, p 39.), "Nationally, remittances benefit the US economy. At the state and local level, they constitute lost resources that could have contributed to improving local economies and the quality of life that immigrants and the general community experience."

Table 1 summarizes estimates of the size of the unbanked sector by various authors. It can be seen that minority and low-income communities tend to have higher proportions of unbanked. The percentage of Hispanics who are unbanked range from 24.3% to 58%. The Hispanic community in particular may harbor a general distrust of financial institutions because financial institutions in their countries of origin may have been corrupt or insolvent. They also have a language barrier (Buzell, 2002) and they may perceive a lack of access to the banking system. Coleman (2002) presents evidence that suggests that Hispanic and black borrowers may not have the same access to mortgage loans that white borrowers do.

We focus on the low-income Hispanic community in Orange County, CA. It has been documented that Hispanics in this region have one of the lowest rates of financial market participation and they have a high propensity to use cash even for large transactions as well as to store excess cash at home.¹ The study of Orange County, California, is also appropriate from the demographic point of view. Census 2000 shows that the Hispanic population in the US is 35.3 million, constituting the largest minority group in the US. The largest number of Hispanics, about 11 million (31%), live in one state alone, California. Orange County is a large and economically vibrant metropolitan area in Southern California and is the fifth largest county in the nation. The Hispanic population constitutes the largest minority group in Orange County, accounting for 30.76% of the county's population. It is also the most rapidly growing community in the county and is a vital component of the county's workforce.

The remainder of the paper is organized as follows. The next section discusses our survey methodology. We then compare our sample with that of the county's low-to-moderate-income Hispanic population with a view to address the representativeness of our sample. This is followed

by an extrapolation of the number of LMI unbanked families in the county from our sample. We then delineate the three channels through which the funds of the unbanked stay outside the banking sector and explain the methodology that provides us with rough estimates of the magnitude of funds that stay outside the banking system in the US. Finally, we present the conclusions and discuss how the unbanked community and the banking system would benefit from bringing the funds of the unbanked community into the formal banking sector.

Table 1: Summary Estimates of the Unbanked

Source	Geography	Percentage unbanked in the general population	Percentage of Hispanics who are unbanked
Aizcorbe et. Al (2003) Survey of Consumer Finances (SCF), 2001	US (N= 4,449)	9.1% in 2001	57.4% of those without a checking account were "nonwhite or Hispanic"
Hogarth & Donnell (1997) SCF(1995)	US	9.5%	29.7% of Hispanics were unbanked
Greene et al (2003)	Six county area of Chicago PMSA (N=2,339)	10.7%	24.3% of Hispanics were unbanked.
Woodstock Institute (1997)	Chicago		53% of Hispanics "do not use" banks
Freeman et. Al, Texas Business Review (2003)	US		25% to 58% of the Mexican origin population in the US is unbanked
Dunham (1999)	LMI (low to middle income) neighborhoods of Los Angeles and New York City N= 2,006	37% of the sample of LMI adults	
Caskey (1997)	Atlanta (N=300)	33.4% of households below income of \$25,000	
Caskey (1997)	Oklahoma (N=300)	20% of households below income of \$25,000	
Caskey (1997)	Pennsylvania (N=300)	12.8% of households below income of \$25,000	

SURVEY METHODOLOGY

We used a stratified random sample design in our survey of 217 low-income Hispanic individuals in 21 cities in Orange County, CA, over the period July-August 2002. The stratified sample design allocates elements in the population to a set of mutually exclusive and exhaustive

subsets in the strata (Johnson and Rowe, 1987). We then use random sampling to select elements of the sample from each stratum. Such a strategy can increase sampling efficiency for a limited budget (the case of this study) and makes use of existing information, such as the typical distribution of residences (Cochran, 1977; Kalton, 1983; Casley and Lury, 1982). We chose city of residence as the strata, and we decided to allocate the total surveys proportionate to the Hispanic resident population in each city, as determined from Census 2000. Since about 30% of the county's Hispanic community lives in the city of Santa Ana, 72 of our survey observations include randomly selected Santa Ana residents.

Low-income Hispanic households without long term residence would most likely not appear in a published consumer database. Relying on such a database for survey participants would skew the results towards the wealthier population. Therefore we chose instead to approach anonymous Hispanic adults randomly at shopping centers and public locations for survey participation. The non-responses appeared to be random with a non-response rate of 15%. The survey was administered randomly to every fourth person at locations consisting of twenty-three shopping centers and two church parking lots. Since more recent-immigrants (rather than second-or-third generation Hispanics) are more likely to shop at shopping centers with ethnic food stores, the sampling frame of the survey introduces a certain degree of bias towards the poorer population. With this in mind, we do not attempt to generalize our results to the entire Hispanic population of Orange County, but rather to the low-moderate-income segment only of this community.

The survey administrator informed the participants (in Spanish or English) of the nature of the survey and participation in the survey was entirely voluntary. Respondents had the choice of responding to the Spanish version or the English version of the survey and no record was ever made of their names. Survey respondents were both male and female Hispanics of ages 18-64, who answered 15 questions that dealt with socio-economic variables such as level of income, the method of payment of income (check vs. cash), method of cashing checks, attitude towards banking, expenditure patterns, age, educational attainment, and English-speaking ability. The survey administrator, rather than the respondent, recorded the answers in order to minimize inconsistencies among respondents and potential errors in responses.

COMPARISON OF SAMPLE AND ORANGE COUNTY

Our survey participants were Hispanic individuals over 18 years of age. We present a comparison of demographic characteristics of our sample with that of the Census data for Hispanics in Orange County in Table 2. English speaking ability and educational attainment were the only two characteristics which are reported at the individual level (rather than the family or household level) in Census 2000. The proportions of Hispanics in our sample who do not speak English, speak some English, and speak good English roughly match the corresponding proportions for the county as a whole. The levels of educational attainment for the Hispanic individuals in our sample are lower

than that for Hispanic individuals in the county, which is not surprising since our sample consists primarily of low-moderate-income individuals (Table 148 H, at <http://factfinder.census.gov/servlet/>).

Table 2: Comparison of Characteristics of Survey Respondents with Hispanics in Orange County

Characteristics	Sample (217) ⁱ	County
Do not speak English	11.98% (26)	14%
Speak Some English	23.04% (50)	22%
Speak Good English	64.97% (141)	64%
No high School Diploma	30.4% (66)	54.9%
High School Diploma	58.06%(126)	17.74%
Some College	8.7%(19)	18%
Bachelors Degree	1.8%(4)	5.6%
Graduate or Professional degree	0.9% (2)	2.84%
Median annual family income of LMI Hispanic families	\$20,944 ⁱⁱ	\$27,500 (LMI families only) ⁱⁱⁱ
Mean annual family income of LMI Hispanic families	\$23,846 ⁱⁱ	\$27,697 (LMI families only) ⁱⁱⁱ

Notes: ⁱ Figures in parentheses indicate the number of people
ⁱⁱ From authors' calculations using survey data on individuals
ⁱⁱⁱ Is estimated by the authors using Census 2000 county level frequency distribution of low income Hispanic families (annual income below \$49,999).

Census 2000 reports the countywide distribution of household and family incomes for Hispanics, but does not report a distribution of individual income. Our survey provides us with individual income only. Census 2000 (Table PCT 84 titled, Workers Per Family for Hispanic Families, Orange County) enables us to calculate that the average number of workers in an Orange County Hispanic family is 1.87.² We multiply individual income by 1.87 in order to obtain a frequency distribution of family income for our sample so that we can compare the distribution of estimated family incomes of our survey respondents with the income distribution of low-moderate-income Hispanic families in the county. All our respondents lie within 7 income categories ranging from family incomes of "less than \$10,000" to "\$40,000 - \$49,999." The last row in Table 2 shows that the median annual (estimated) family income of our survey respondents is \$20,944. Using the Census 2000 income distribution of Hispanic families in the county, we calculate the median annual family income of low-moderate-income Hispanic families in Orange County (i.e. with annual income less than \$49,999) to be \$27,500, as reported in Table 2.^{3,4} Following the FFIEC (Federal Financial Institutions Examination Council) definitions, we consider our sample to be representative of low- to moderate-income families only since all of our respondents fall below \$51,688 which is below 80% of the county median family income of \$64,611.

**EXTRAPOLATION FROM THE SAMPLE TO THE COUNTY:
THE NUMBER OF UNBANKED FAMILIES IN THE LOW TO MODERATE
INCOME HISPANIC COMMUNITY OF ORANGE COUNTY**

In this section we explain our methodology used in calculating the number of unbanked Hispanic families in the county's LMI Hispanic community. For the post stratification procedure (explained below) we prefer to use the Census 2000 distribution of family income of Hispanics in Orange County rather than the county distributions (of Hispanic individuals, Census 2000) of educational attainment and English speaking ability. This is because literature on the unbanked identifies low levels of income and net worth as being the predominant characteristic of the unbanked. For example, according to the 2004 Survey of Consumer Finances, among families without a checking account in 2004, 55.1% had incomes in the lowest 20% of that distribution (Bucks, Kennickell and Moore 2006). Greene et. al. (2003) note that in the Chicago metropolitan area, 75.4% of the unbanked Hispanic households resided in low-to-moderate-income areas. In probit equations (Greene et. al., 2003) low income is a highly significant variable in explaining the unbanked status. Since income is major variable that determines whether an individual is unbanked or not we estimate the number of unbanked low-moderate-income Hispanics in Orange County (UBOC) by aggregating (across the seven income categories) the sample proportions of unbanked in income category, s_i^{UB} , multiplied by the number of Hispanic families (OC_i) in the county in that income category. The median income of our LMI Hispanic sample is less than the median income of the LMI Hispanic population (Table 2), suggesting that we may have oversampled the poor. We correct this bias, to some extent at least, by aligning our sample to the LMI county-wide population of the Hispanic community by using OC_i as post-stratification weights. This is shown in equation 1 below.

$$UBOC = \sum_{i=1}^7 s_i^{UB} OC_i = \sum_{i=1}^7 UBOC_i \quad (1)$$

$i =$ 1 to 7 denotes the Low- to-Moderate Income categories of income: less than \$10,000; \$10,000 to \$14,999; \$15,000 to \$19,999; \$20,000 to \$24,999; and \$25,000 to \$29,999; \$30,000 to \$39,999; and \$40,000 to \$49,999.

$s_i^{UB} =$ number of survey respondents without a bank account in the income category i
number of respondents in the survey in income category i

$OC_i =$ number of Hispanic families in Orange County in each of the LMI categories 1 to 7

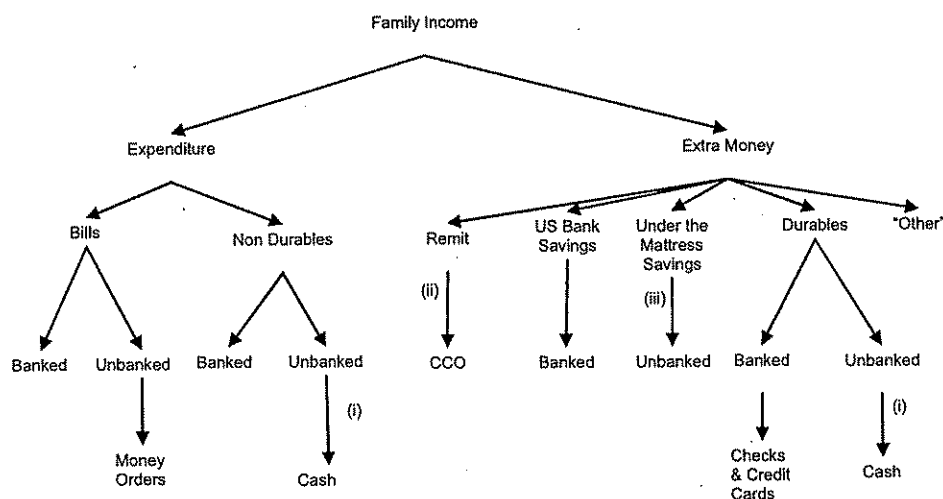
$UBOC_i =$ estimated number of unbanked families in Orange County in each LMI category i
 $UBOC =$ estimated number of LMI Hispanic unbanked families in Orange County

We estimate that 24,788 low-income Hispanic families are unbanked in Orange County, i.e. 25% of the Orange County Hispanic families with annual income less than \$49,999 are unbanked. It can be seen from Table 1 that our estimate of 25% appears to be within the range of estimates obtained by other authors.^{5,6}

THE FUNDS THAT STAY OUTSIDE THE BANKING SECTOR

In this section we follow the financial decisions of the survey respondents with a view to separate out the three channels through which funds of the LMI Hispanic community do not enter the banking system. Figure 1 indicates that survey respondents use their family income to pay for basic expenditures (bills and non durables). "Extra money" is then calculated as the difference between annual family income and annual family expenses on basic expenditures. The respondents indicated whether they (a) used the "extra money" to remit money to their relatives, (b) kept any of the extra money in a U.S. bank, (c) made a major purchase (of a durable good) in the last six months, (d) or used the "extra money" for some "other" purpose. Any part of this "extra money" not used for purposes (a) through (d) above is considered to be "under the mattress" savings of the unbanked.

Figure 1. The Financial Decisions of the Survey Respondents: channels through which LMI funds are left out of the formal banking system



Overall, 61% of the sample of 217 sent money to relatives, regardless of banking status. This is close to the 64% average of foreign-born Latinos cited in recent studies (Inter American

Development Bank, 2005). The majority of remittances (78%) are made with wire transfers using international money transfer companies. (Benidexen & Associates, 2004).

We identify the following paths (described in Figure 1) through which funds of the LMI Hispanic community (both banked and unbanked) do not enter the banking system

Expenditure Channel

The survey respondents incur payments of bills and expenditure on non-durables. The payment of bills by the unbanked is often made through money orders. The money orders are purchased at check cashing outlets (CCOs) or grocery/liquor stores. The use of money orders rather than checks by the unbanked is not a source of leakage of funds from banks because the CCOs would deposit their cash in their accounts with banks. In our sample, out of the 76 who said that they did not have a bank account, 21 were paid in cash and 55 were paid by check, out of which 24 cashed their checks at stores or CCOs and 31 cashed their checks at the issuing banks. The unbanked rely exclusively on cash in their spending decisions on both durable and non durable goods and this leads them to hold idle cash which causes funds to not enter banks directly. This is indicated as channel (i) in Figure 1.

The LMI Hispanic community as whole would have a higher proportion of idle cash balances relative to bank deposits compared to the region wide average. Theoretically, a higher the currency to deposit ratio lowers the money multiplier and lowers the ability of the banking system to give out loans.⁷ It is impossible to calculate the extent of the idle funds at any point in time, and from a practical sense it may not be of consequence to the entire banking system, as opposed to any particular bank. The "idle funds" in the expenditure channel (as opposed to the savings channel discussed below) may not enter banks immediately but are likely to quickly reenter the banking system when the stores that receive the cash payments of the unbanked deposit them in banks. Nevertheless individual banks have been trying to get the unbanked as customers for their checking deposits.

The Remittance Channel

About 61% of the sample remits money primarily to Mexico. Since the majority of remitters use Check Cashing Outlets (Orozco 2004) to transfer their money through international money transfer companies, there is a loss of remittance business (fees) to banks. Furthermore, the remittances per se are a leakage to the regional economy (De La Garza and Orozco, 2002).^{8,9} The remittance funds that are left out of the banking system is indicated by (ii) in Figure 1.

In order to estimate the total amount of remittances of the LMI Hispanic families in Orange County (*REMITOC\$*), the number of Hispanics who remit in each income category *i* is multiplied by the average amount of remittances that is sent per family. The average amount remitted to Latin

America was calculated by taking a weighted average of the amounts remitted by Hispanic immigrants to sixteen Latin American countries. The amounts remitted to each of these countries are obtained from National Money Remitters Association, cited in Orozco (2003).¹⁰ The weights are the proportion of immigrants in Orange County from each of the sixteen countries (Census 2000). On this basis, the average amount remitted to Latin America from is \$319 per month. The average frequency of remitting is 11.9 times per year (Inter American Development Bank, 2005).

We aggregate the dollar amounts remitted across each income category at the county level as depicted in equation 2 below:

$$REMITOC \$ = \sum_{i=1}^7 s_i^{REMIT} OC_i \$_i^{REMIT} \quad (2)$$

Where,

- s_i^{remit} is the proportion of respondents in each income category who remit to Latin America
- $\$_i^{remit} =$ average amount remitted per family in income category i . This amount is considered to be \$319 per month, as explained above. At low levels of income there were a few cases where remittance amount was either considered to be zero or less than \$319 per month because "extra money" was less than \$319 per month.
- $s_i^{remit} =$ $\frac{\text{number of respondents in income category } i \text{ the sample who remit}}{\text{number of respondents in income category } i}$
- OC_i is the number of Hispanic families in each of the seven LMI categories in Orange County.
- $REMITOC\$ =$ total estimated amount of remittances from Orange County

Consequently, the estimated total dollar amount remitted from Orange County, CA, is \$226 million. This amounts to 2.3% of total US remittances to Latin America in 2004 (Inter-American Development Bank, 2005).¹¹

"Under the Mattress" Savings Channel

Low-income Hispanics tend to have cash stored at home, which is perceived to be safer than a bank (Macias-Castillo, 2003). The "under-the-mattress" savings was calculated for the group of people who did not have a bank account, did not put their savings in bank, did not make a large purchase in the last six months and did not incur any expense under the category "other." The category "other" covers any possible expense incurred by the respondent which might have been left

out in the survey questionnaire. This ensures that the "under-the-mattress" savings is indeed cash that is just held at home by the unbanked.

We use the following equation to calculate savings under-the-mattress:

$$\text{"Under the Mattress" savings of the unbanked} = \text{Family income} - \text{payment of bills} - \text{expenditure on non durables} - \text{remittance to Latin America} - \text{expenditure on durables (3a)}$$

In order to estimate the county-wide magnitude (*UBOC*\$) of under-the-mattress savings of the unbanked LMI Hispanic families, we use the aggregation procedure similar to what was used to estimate the county-wide values of the number of unbanked and the total amount of remittance from this group as shown in equations 1 and 2 respectively.

Accordingly, the proportion of unbanked Hispanics in the sample who save under the mattress in each income subcategory, is multiplied by *UBOC_i*, the estimated number of unbanked in each income category obtained in equation 1 above. This gives us the estimated number of unbanked Hispanics county-wide s_i^{UMS} who have "under the mattress" savings. This is multiplied by the average (sample) amount of under the mattress savings, $\$_i^{UMS}$ to obtain the dollar amount of the under the mattress savings of the unbanked Hispanic community in the county. This is shown in equation 3 below:

$$UMSOC \$ = \sum_{i=1}^7 s_i^{UMS} UBOC_i \$_i^{UMS} \quad (3)$$

Where,

- s_i^{UMS} = number of unbanked respondents who save under the mattress in each income category *i* / number of unbanked respondents in income category *i*
- $UBOC_i$ = estimated number of unbanked respondents in each income category *i*, obtained from equation 1 above.
- $\$_i^{UMS}$ = average dollar amount (from sample) saved under the mattress by respondent in each income category *i*
- $UMSOC \$$ = estimated amount of under the mattress savings for the unbanked Hispanic community in Orange County.

Our methodology indicates that the under-the-mattress savings of the unbanked low income Hispanic community is an annual amount of about \$78 million.

In sum, lost annual deposits to banks through the remittance channel and through the "under-the-mattress" saving channel is the sum of \$226 million and \$78 million, which is \$304 million.

When we take into account the lost deposits through the expenditure channel (which cannot be measured), we can conclude the lost annual deposits to the banking system is over \$304 million.

Our calculations should be viewed as rough approximations based on a small sample of 217 low-income Hispanic individuals in Orange County, California. Given our sample, we attempt to align the sample income distribution with that of the county-wide LMI Hispanic community by using corresponding county-wide post stratification weights. We emphasize that our results and methodology be viewed as a starting point for future research on the financial impact of the unbanked on the formal banking sector.

CONCLUSIONS

Based on our sample of 217 Hispanic individuals, we estimate that 24,788 low-income Hispanic families (with family annual incomes below \$49,999) are unbanked. The roughly 24,788 Hispanic non-banked families constitute 25% of the low-moderate-income Hispanic community. The proportion of LMI Hispanics that is unbanked appears to be in line with estimates of other authors who have focused on LMI communities.

From the point of view of society does it matter if Hispanics *choose* to use check cashing outlets rather than banks? We answer this question by pinpointing three possible ways in which funds of the low-income Hispanic community can be tapped by banks: the expenditure channel of the unbanked, the remittance channel of the LMI community, and the "under-the-mattress" savings channel of the unbanked. We examine how each of these benefit both banks and the unbanked community.

Those without bank accounts rely exclusively on cash to carry out all their transactions, and therefore they hold more idle cash than the "banked" at any point in time. It is impossible to calculate the amount of cash that is held as idle balances in between transactions. However, it is clear that the idle cash balances have a delayed entry into the banking system. If banks *directly* get funds of the unbanked rather than indirectly through the CCOs, there will be less idle funds. These idle funds that arise through the expenditure channel could be used more productively by banks for the creation of deposits through the multiplier process.

We estimate that annual remittances from the LMI Hispanic community is \$226 million. These remittances leave the US economy (and therefore the US banking system) since they are a direct leakage out of the region. Furthermore, banks lose the remittance business (fees) to the informal banking sector since the majority of remittances are through the informal financial sector. Maggard (2004) notes that as the immigrant population in the US booms, the amount of money sent out of the country is skyrocketing. An important benefit that banks can provide to immigrants is through reducing the transaction costs of remittances. Some of the remittances to the home country are in lieu of savings in the US (Amuedo, Bansak, and Pozo, 2005). Banks would benefit by channeling such remittance funds into savings opportunities in US banks.

The under-the-mattress savings in the county's LMI Hispanic community is estimated to be \$78 million. Hispanic immigrants are at the risk of losing their savings by being victims of burglaries and/or apartment fires (The Orange County Business Journal, Nov. 14, 2004). Harnessing these savings into bank accounts would be a win-win situation for banks, the unbanked community, and the economy as a whole.

In order to maintain economic stability and vitality of the community, it is important that larger proportions of the unbanked have access to the formal financial sector. Non-participation in the formal financial sector can perpetuate poverty. Households that use the informal financial sector (check cashing outlets, for example) cannot participate in asset building and wealth creation or smooth lifetime income to provide for retirement and unforeseen circumstances. Rhine et. al (2006) note that a consumer's decision to forego participation in the financial mainstream may have far reaching effects beyond the individual level. Communities that have well functioning financial markets are more resistant to economic downturns and can more readily benefit from economic growth. Greater participation in the formal financial sector can help stabilize and revitalize communities.

Whether banks will be successful in harnessing the funds of the LMI community in the form of transactions and savings accounts depends ultimately on whether it is possible to overcome hurdles to account ownership faced by the Hispanic LMI community; these are cultural barriers, low levels of income, distrust of banks, and most importantly the inability to meet the identification requirements for opening a bank account. There are reports on the increase in deposits experienced by banks that began to accept the *matricula*. The *matricula consular* is an identification issued by the Mexican government since November 2001 which allows Mexican immigrants to open bank accounts without disclosing their immigration status. Exito, a major Spanish language paper in Chicago, reports that 5 major banks in California took in \$50 million in deposits after using *matriculas* and ITINs to open interest-bearing accounts. Wells Fargo opened 25,000 new accounts over a seven-month period, thanks to *Matriculas* and ITINs. Nevertheless, the continued use of the *matricula* for opening a bank account is widely debated by policy makers. Whether banks make inroads in the remittance market depends on the extent to which the LMI Hispanic community perceives banks to be a genuine alternative to the informal financial sector (check cashing outlets and wire transfer companies) and also on whether banks can compete with the informal financial sector in providing cheap remittance services.

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ENDNOTES

- 1 OC's Cash Economy, by Chris Cziborr, in The Orange County Business Journal, November 2002. Cash payments made up 62% of the billings of a major clinic in a Hispanic neighborhood in Anaheim, the county's large city. Furniture and electronic retailers report that Hispanic customers pay primarily in cash even for large purchases.
- 2 We choose to work with family income rather than household income because Census 2000 does not have the equivalent of Table PCT 84 for households.
- 3 The survey asked for monthly income of the individual. We make the conservative assumption that the respondents' monthly income is sustainable for eight months only because the majority of the occupations of our respondents were in the construction industry or related industries such as painting, carpentry, landscaping, etc. The lower median income in our sample may be attributable partly to this.
- 4 According to Census 2000, the median family annual income in Orange County was \$64,611 and the median Hispanic family annual income in Orange County was \$41,010.
- 5 We do not have cases where the individual said that he/she is unbanked but has a family member who is banked.
- 6 In our sample of 217, the proportion that was unbanked was 35%. Our post-stratification procedure to align our LMI sample to that of the LMI Hispanic community of the county attaches lower weights to the lower income categories (that have higher proportions of unbanked) and higher weights to the higher income categories (that have a smaller proportion unbanked). Therefore the estimated proportion of the countywide LMI Hispanic community that is unbanked is less than the sample proportion of 35%.
- 7 The formula for the money multiplier is $= (1+c)/(r+c)$ where r is the reserve to deposit ratio and c is the currency to deposit ratio. It can be seen that as the currency to deposit ratio increases, the multiplier falls.
- 8 At least a part of the remittances could have been in the form of savings in banks if the unbanked chose to retain a portion of their remittances as savings in US banks. (Billions in Motion: Latino Immigrants, Remittances and Banking).
- 9 A portion of the remittances would flow back into the US and this would not be a loss to the US economy.
- 10 For example, the average amount remitted to Mexico is \$378 (Orozco, 2003) and the proportion of Mexicans in Orange County is 81.3% (Census 2000).
- 11 According to the Inter American Development bank, 2005, the total amount remitted to Latin America was \$9,610 million in 2004.

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