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A Case Study of Checking Account Inquiries and Closures in Chicago

Introduction

As financial institutions seek new customers in an age of increasing competition, it is becoming ever more important to be able to differentiate among underserved populations and appropriately evaluate risk metrics. Financial institutions may be missing entire segments of potential customers and not realize it without a larger contextual analysis of bank account inquiries and closures.

In this report, The Center for Financial Services Innovation and eFunds Corporation¹ provide a case study of the ChexSystemsSM records maintained for consumers in the city of Chicago who applied for a deposit account in the year 2002. In addition to providing a point-in-time snapshot of the overall account inquiry activity and risk behavior of consumers living in a diverse urban center, this report also delves into consumer account opening behavior over time. The report focuses on four issues:

1. The rate of account inquiries in Chicago
2. The percentage of accounts that were involuntarily closed in Chicago and how many of those closures were due to fraud or account mismanagement
3. The subsequent inquiry rate of consumers who have accounts closed involuntarily in Chicago
4. The ways that account decisioning can be aided with additional information

These issues are important for several reasons. Taken as a whole, as many as 40 million American households are underbanked, and at least half have no bank account. And while surveys have shown that consumers remain outside of the banking system for a variety of reasons, from the perception that they don't have enough money to make it worthwhile to open an account to the lack of appropriate identification, little is known about what percentage of the underbanked population has been excluded from the banking system for reasons related to their risk profile. Moreover, while underbanked individuals are likely to move in and out of the banking system throughout their lives, little is known about the profile and behavior of customers attempting to re-enter the system after a negative event.

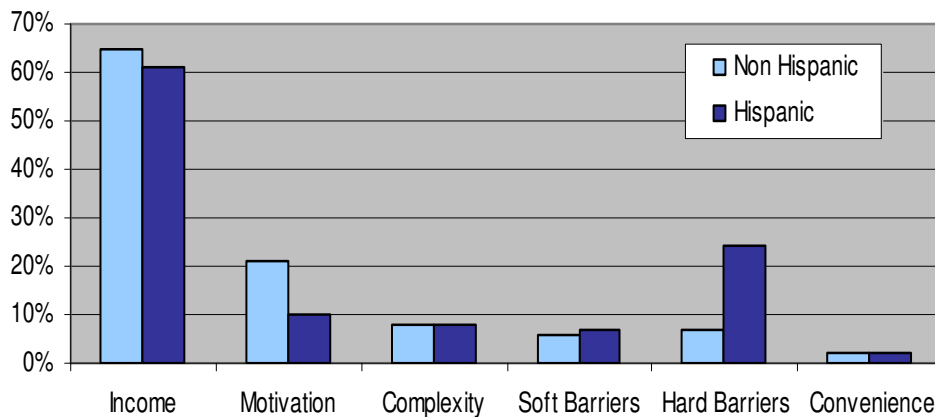
In 2003, the Center for Financial Services Innovation conducted a survey of 1,500 households in low- and moderate-income census tracts in Chicago, Los Angeles and Washington, DC, to discover their financial services attitudes and behaviors. A major focus of the survey was to better understand who had and did not have accounts at banks or credit unions, how those who had accounts used them, and how those who did not have accounts conducted their financial transactions. Consistent with other surveys, the survey found that about 70% of the population had a bank account. But overall, the survey revealed that dividing the world into those who have accounts and those who don't misses an important category of consumer—those who have an account but who simultaneously use a broad array of non-bank financial services providers to meet their needs.

The survey found that almost two-thirds of those who have bank accounts are heavy users of money orders, non-bank money transfer products and, to a lesser extent, payday and auto-title lenders. Conversely, while almost half of those who were without a bank account had owned

¹ Services and data provided by Chex Systems, Inc., a wholly-owned subsidiary of eFunds Corporation.

one in the past, 25% still used a bank to cash checks. Importantly, a major reason those who had bank accounts used money orders and cash to make payments was simply that their payees could not or would not accept checks. In particular, about 38% of the banked households pay their rent in cash or with a money order—20% to landlords who do not accept checks. This suggests that underbanked consumers engage in a complex set of decision-making processes in determining how to make financial transactions. Financial institutions that want to serve them profitably and responsibly need to better understand their behavior and motivations, and also need products and risk management tools that take these factors into consideration.

Why Unbanked?²



This joint research project seeks to help financial institutions do just that by adding one more piece to the puzzle—a more nuanced understanding of who is actively seeking an account relationship, and, conversely, what percentage of consumers are currently being denied accounts when they could be potentially good customers. At the same time, it is important to consider the life cycle of consumers who move in and out of the system and delve deeper into who self-selects to open a bank account and who needs more encouragement and direct touch to become “banked” again.

The dataset used in this study is unique in helping to understand these issues because approximately 9,000 unique banks and credit unions and well over 100,000 branch locations across the nation utilize ChexSystems to make consumer-level account opening decisions. Beginning in 1971, ChexSystems has offered a service that returns information to a financial institution’s new account desk—previous account closures, account inquiries, and unpaid NSF checks—to aide in the account opening process. As a consumer reporting agency, Chex Systems, Inc. receives data on consumers from participating financial institutions that can in turn help those institutions manage risk, prevent fraud, comply with account-opening regulations, and grow relationships. Data gathered from member financial institutions include information on accounts that have been forcibly closed, applications for accounts, and check

² Survey findings from Seidman, E., Hababou, M. and Kramer, J. 2005. A Financial Services Survey of Low- and Moderate-Income Households. Chicago, IL: The Center for Financial Services Innovation.

printing. Other predictive data are gathered through such sources as retailers utilizing SCAN³, the retail check verification service offered by eFunds. Thus, the consumer data collected and maintained offer insights into account opening and risk behavior for broad populations as well as individual consumers.

Methodology

For this study, eFunds created a database that included inquiries made in 2002 by financial institutions that use ChexSystems services as part of the decision to open a deposit account. The inquiries were made on behalf of consumers using a city of Chicago residential address.⁴ The total number of inquiries in the sample is 282,467, with 223,264 unique consumers represented. That means about 60,000 consumers applied for an account more than once that year. The findings in this report utilize the total number of unique consumers rather than the overall number of inquiries to determine results.

Data included in this study include information on closed-for-cause checking accounts reported by institutions using ChexSystems services. Consumer-level check printing histories, subsequent account inquiries, and negative check writing histories were also included. Moreover, each consumer record in the sample also included behavioral data subsequent to an involuntary account closure. The consumer file represented account applications at 3,285 locations representing 832 unique financial institutions—banks, credit unions, and thrifts.

While consumer-level financial information was available for this study, consumer-level demographic data were not. Therefore, generalizations were made based on the characteristics of census tract-level data. The information that follows shows differences among consumers based on the characteristics of the census tracts in which they lived at the time of their application for a bank account in 2002.

Findings

Who Makes Inquiries?

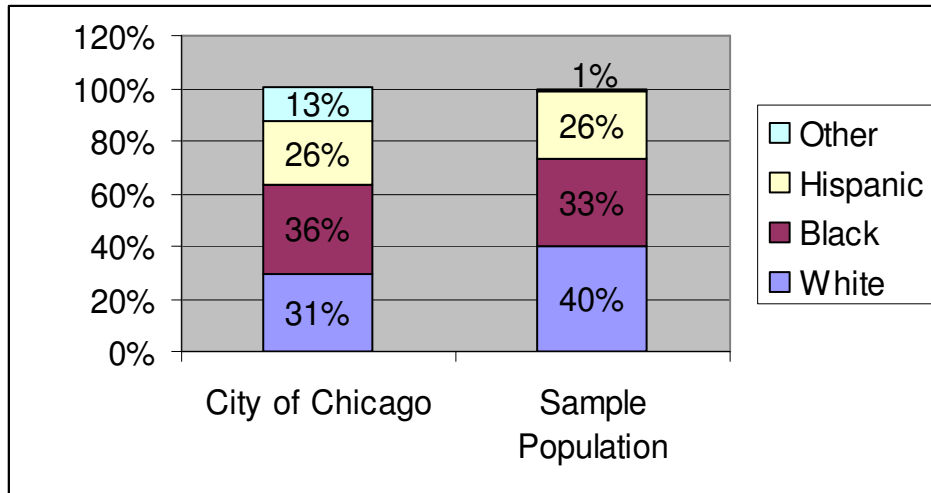
The 2000 census recorded a population of 2.89 million people in the city of Chicago, including 2.13 million adults. Using the ChexSystems sample, 10.5% of the adult population of Chicago applied for an account with a financial institution that utilized ChexSystems in 2002. The number of overall inquiries in the city was probably even higher given that some institutions do not use ChexSystems. The population that applied for bank accounts in 2002 was fairly representative of the ethnic make-up of the city as a whole.⁵

³ The SCAN service is provided by Deposit Payment Protection Services, Inc., a wholly-owned subsidiary of eFunds Corporation.

⁴ We cannot be certain that these consumers reside in Chicago on a permanent basis. While the inquiry events that placed consumers on this sample file occurred mostly at institutions in the Chicago metropolitan area, all fifty states made inquiries about individuals using a Chicago, Illinois, residential address in 2002. Approximately 9% of the inquiries in the sample were made by institutions from states other than Illinois. Most often, this is explained as college students opening accounts and using a parent's address, part-time residents, or consumers who moved from Chicago but who had not yet established a permanent residential address.

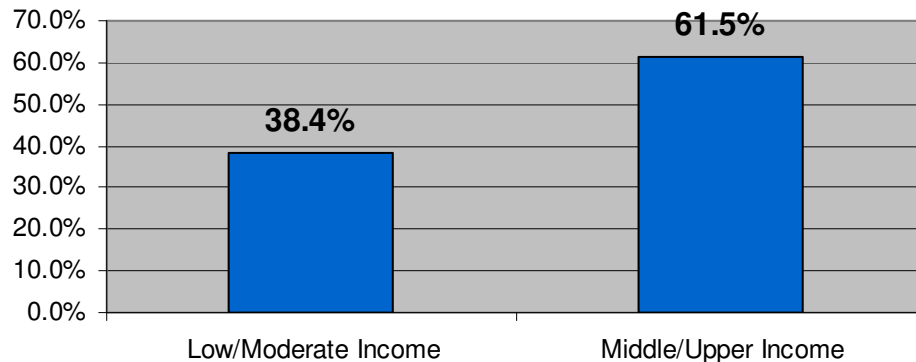
⁵ U.S. Census Bureau, 2000. Compared to the overall population, Whites are slightly overrepresented in the Inquiry group.

Ethnic Composition of Inquiry Group and Overall Population⁶



The following chart shows the breakdown of account applicants by the income of the census tracts where consumers live:⁷

% of Account Inquiry Population



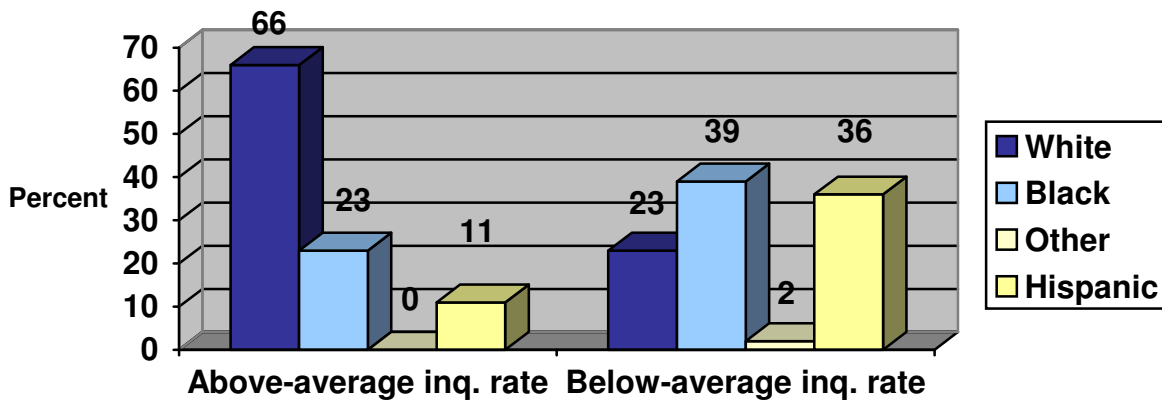
A cross-section of the population applies for checking accounts at any point in time. Fully a third of inquiries came from consumers who live in low and moderate-income census tracts, and the majority of inquiries came from consumers who live in non-white tracts. Thus, consumers in traditionally financial underserved neighborhoods are making concerted efforts to participate in the banking system.

⁶ In this analysis, race is defined as the dominant race of the census tract in which the consumer lives. Dominant race was defined as the race that accounted for the largest absolute percentage of the census tract population.

⁷ Low- and moderate-income tracts are defined as those with a median household income of \$40,000 or less.

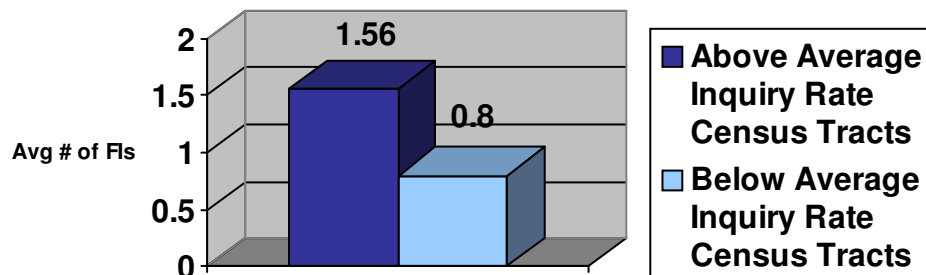
At the same time, there are differences in the *likelihood* of consumers to make inquiries based on demographic factors. By taking an average number of inquiries across the entire city, the authors were able to look at which census tracts fell above the average inquiry rate of 11% and which fell below it. We find that, by this measure, black and Hispanic census tracts display a lower incidence of account inquiries than white tracts. Thus, there appears to be less competition in these areas from a banking perspective, though further research is needed to truly understand this finding.

Racial Distribution of Above and Below Average Inquiry Rate Census Tracts



The authors also looked at the effect of the presence or absence of financial institutions on a consumer's likelihood of making an account inquiry. In Chicago, those census tracts classified as having an above-average inquiry rate are also likely to have more financial institutions physically located there. These tracts have an average of 1.56 financial institutions per census tract, as compared with an average 0.80 financial institutions in census tracts with below-average inquiry rates. This means that more attempts to open checking accounts are made by consumers in census tracts with a greater number of financial institutions located in them.

Average Number of Financial Institutions by Census Tract Inquiry Rate





Because consumers might make inquiries at institutions anywhere—not necessarily in the tract in which they live—consumers living in areas where there are fewer financial institution locations exhibit different behavior *regardless of the location of the inquiry*. In other words, people who live around bank branches make more attempts to open account, even if they go to a branch that is far from their residence to do so. There are numerous potential explanations for this finding, but more information is needed to further understand consumer behavior. However, it suggests that the location and density of branch locations may play a role in the decision to start a banking relationship.

Account Closures

The dataset used for this analysis includes the disposition of accounts applied for by Chicago residents in 2002 as a result of a ChexSystems inquiry. If a consumer in the sample applied for an account in 2002, the data shows whether he or she subsequently had an account involuntarily closed at any time from 2002 until the present. The data shows that overall rate of involuntary closure in 2002 was 7.6% of the sample population. That is, of the consumers who applied for a checking account in 2002, 8% of the consumers in the sample later had that account closed for cause.⁸ Consumers in low-inquiry census tracts have slightly higher rates of involuntary closure relative to the overall population at 8.9%.

Rate of Involuntary Closure by Inquiry Rate

Type	Rate of Involuntary Closure
Overall population	7.6%
Above-average inquiry census tracts	5.8%
Below-average inquiry census tracts	8.9%

The vast majority of closures, both in Chicago and nationally, are due to account mismanagement, as opposed to fraud. Closures resulting from suspected fraud represent 7.7% of the closures reported on consumers in the file, amounting to about 1,300 people out of the total sample of 223,000.⁹ Of the total unique closures from residents of low- and moderate-income census tracts, 665 were for suspected fraud, or 7.3% of all closures in those tracts. Thus, in LMI tracts, there was actually a slightly lower incidence of closure due to fraud than the city average. Across all tracts, 92% of the closures experienced in Chicago during the study period were not due to fraud but rather other, more manageable factors that might be alleviated with financial education or more appropriate products, policies and services.

Inquiries Following a Closure

Following an account being closed for cause, consumers may choose to apply for another account, or they may choose not apply again for a number of years. Financial events stay in the ChexSystems database for up to five years. Unless a financial institution has a policy or

⁸ Accounts closed for cause are closed either because of suspected fraud or because of behavior classified as *account abuse*. This classification includes such behaviors as excessive NSF activity, drawing of uncollectible funds, or exceeding the number of days allowed in overdraft status.

⁹ Nationally, an average of 5% of closed for cause accounts reported involve suspected fraud.

procedure that allows branch personnel to open accounts for consumers who have had accounts closed for cause, it can be very difficult for consumers to reopen accounts. To try to understand consumer behavior in Chicago, we examined inquiries following a report of closure. Of the 16,915 consumers in the sample whose accounts were later closed for cause, 4,198 did not show any subsequent inquiries from the date of closure until the present. The remainder of the population, 12,717 consumers, applied for accounts 46,870 times in the years since 2002, or approximately 3.7 times per consumer.¹⁰ Within this group that applied for an account following a closure, there did not appear to be discernable behavioral segments, with some applying over and over while others applied once and then not again; activity seemed to be consistent across the population.

Overall, about 75% of consumers who had an account closed actively sought a new banking relationship. There is little difference in the subsequent inquiry rate between above-average and below-average inquiry rate census tracts, or between low- and moderate-income and middle- and upper-income tracts.

Subsequent Account Inquiries Following a Closure

	Number of closures	Number of consumers who applied following a closure	Percentage of consumers who apply following a closure
Overall	16,915	12,717	75.2%
Above-average inquiry census tracts	5,183	3,807	73.5%
Below-average inquiry census tracts	11,732	8,910	75.9%
Low-to-moderate income census tracts	9,058	6,949	76.7%

The presence of financial institutions within close proximity to a consumer's residence seems to have some effect on the amount of time that passes before a consumer whose account was closed for cause seeks to re-apply for an account. The table below shows the average number of days that pass following a closure until a consumer applies for a new account (and the financial institution inquires with ChexSystems). On average, consumers wait about 10 to 11 months. Consumers living in census tracts with more than 5 financial institutions in their neighborhood wait between 8 and 9 months.

¹⁰ Data limitations prevent analyzing which, if any, inquiries led to an account being opened. Given the challenges associated with opening a bank account after a closure for cause, it is a fair assumption that these numbers are being driven in part by consumers applying at multiple institutions, hoping for a yes.

Length of Time between Involuntary Closure and Subsequent Inquiry

Number of financial institutions in census tract	Days to Subsequent Inquiry
All census tracts	316.7
0-5	318.3
6-10	259.9

Comparing Account Decisioning Methods

In examining this data, the authors have attempted to determine the difference in account opening decisions made by financial institutions using historical derogatory data for account opening versus using data and a score meant to predict future behavior. To do this, we used the QualiFile® debit score.

Until 1999, ChexSystems' primary account opening decisioning tool alerted financial institutions to a consumer's past derogatory experience with checking accounts, and the financial institution then made a yes or no decision to open the account. Seven years ago, the company developed a new product, QualiFile, to build on the ChexSystems legacy by expanding the data set used, including the option to integrate credit data. The tool generates predictive scores and automates the decision process according to custom strategies defined by the institution. Using a broader data set and score that takes into account a multitude of variables, institutions are able to more accurately predict—and thereby set tolerance for—risk. The financial services industry has begun to innovate in more traditional credit underwriting platforms by adding a broader array of data in order to reach consumers with thin or no credit files. QualiFile extends this concept to checking account decisioning.¹¹

Using a non-scored review of limited historical information is more likely to result in approvals of consumers who do not meet an institution's risk profile and declines of consumers whose past account behavior is seen as derogatory; utilizing richer data to better understand behavior, the latter consumers become an acceptable risk. This segment of the population—on the cusp of the open/do-not-open decision line, is of particular interest for the purposes of this study given the slightly higher closure rate of the traditionally underserved population.

To assess what this sample would look like today to institutions using scores and a more robust set of data, the QualiFile scoring methodology was applied to the 2002 sample. In the sample population, 21,472 consumers exhibited behavior that would prevent them from opening an account at an institution that does not open an account for consumers with a closed-for-cause

¹¹ For more information on alternative credit reporting, see Jacob, K. 200. Reaching Deeper: Using Alternative Data Sources to Increase the Efficacy of Credit Scoring. Chicago, IL: The Center for Financial Services Innovation. And Jacob, K and Schneider, S. 2006 (forthcoming) . Market Interest in Alternative Data Sources and Credit Scoring. Chicago, IL: The Center for Financial Services Innovation.

account or unpaid retail item—a common approach taken by institutions utilizing the legacy ChexSystems service. This table illustrates what happens when the QualiFile methodology is applied to this subset of consumers with derogatory records, showing score range breaks of 548, 565, and 578 that represent common cutoff points used by financial institutions for aggressive, moderate, and conservative approaches to risk.

QualiFile Score for Individuals with Derogatory Records					
Score Range		Number of Individuals In the Range		Percent of Individuals in the Range	
Min	Max	Counts	Cumulative Counts	Percent	Cumulative Percent
0	548	10091	10091	46.99	46.99
549	565	5542	15633	25.81	72.80
566	578	2560	18193	11.92	84.72
579	899	3279	21472	15.27	100.00

Approximately 27 percent of the population with derogatory behavior has a debit score at or above a moderate risk cut-off point, meaning a substantial number of incremental accounts could be opened using a risk scoring tool. In the Chicago sample, for instance, if the common cutoff score were aggressive, banks could open approximately 11,450 more accounts. If they were to use the moderate score cutoff, they could open approximately 5,908 more accounts, and with a conservative score cutoff, 3,348 more accounts.

If it is widely perceived that people with a history of account closure or NSF check writing cannot obtain an account, there may be a segment of consumers who simply do not apply—those people who responded in the CFSI survey that they re unable to open an account due to “bad credit”—whereas, were they to apply at an institution utilizing more robust consumer scoring, they would be able to open an account. Because of this ability to better manage risk and automate an institution’s risk tolerance into an account opening strategy, eFunds no longer sells the legacy product as a stand-alone service and is focused on promoting scored solutions.

Implications

This case study allows financial services providers, policymakers, community organizations and others a glimpse into the account inquiry and closure behavior of the residents of a major city. This study’s findings can be summarized as follows:

1. A significant percentage of residents of Chicago are actively seeking account relationships at a given point in time.
2. While the population of consumers applying for accounts is generally representative of the overall population of the City of Chicago, those living in black and Hispanic census tracts are less likely to apply for an account than those living in white tracts.
3. Residents that live near bank branches apply for more accounts and more quickly seek new banking relationships if they experience an involuntary closure.

4. Involuntary closures are rare, and it is more unlikely that accounts are closed due to suspected fraud rather than account mismanagement.
5. Tools that incorporate additional consumer information can open the door for customers who are currently being denied accounts due to negative but non-fraudulent past behavior.

Even in a very competitive market, there is room for a variety of institutions to access new customers, given the extent to which the general population—including the traditionally underserved population—apply for bank accounts. However, within this framework, institutions should understand that residents living in specific communities, such as black and Hispanic areas, might be less likely to be proactive in seeking bank relationships.

Further, as the incidence of outright fraud is rare—and involuntary closure risks seem similar across different types of communities—financial institutions may want to consider a more nuanced approach the decisioning practices that they use to open accounts. Financial institutions also may want to consider broadening their product suites to accommodate consumers who have had difficulty managing a checking account or may not want or benefit from one. Products such as prepaid cards, check cashing services, remittances, or bill payment options might get these consumers in the door and provide financial institutions with other sources of fee-based income.

This case study provides a glimpse into the checking account behavior and life cycle of a specific population in Chicago. There is much more research to be done to fully understand the patterns and behaviors of underserved consumers. In light of the findings outlined above, one critical next step is for financial institutions themselves to undertake analyses of their own current and potential customer base in order to formulate policies, products and marketing strategies that are more closely aligned to the specific needs and risk behaviors of a variety of consumers.

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