Who needs and who wants financial education?
A study of the characteristics of Mexican immigrants participating in a financial education program in New York City.

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ABSTRACT

Who needs and who wants financial education? A study of the characteristics of Mexican immigrants participating in a financial education program in New York City.

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This dissertation explores the characteristics of first generation underserved Mexican immigrants participating in a community-based financial education program in New York City. According to the literature, this group is less likely than other ethnic groups in the United States to have a bank account and understand and utilize other financial services from the financial mainstream. This condition hinders its opportunities for financial stability and socioeconomic development. Using a mixed method study, this dissertation aims to respond who among the population of first generation underserved Mexican immigrants living in New York City decides to attend a voluntary community-based financial education program. This dissertation finds that there are demographic and socioeconomic characteristics that differentiate those participating in the financial education program from the population, and that these participants might not be the ones who need the program the most according to the literature. The results show that these participants are more likely to have a bank account and use other financial services before they start the program. They also possessed basic understanding of financial concepts and the financial system and decided to enroll in the program because they wanted assistance to better utilize the financial services they already have access to. This self-selection problem is consistent with recent research on the subject conducted with other populations. The analysis also shows that the community-based financial education program was successful in teaching lessons about budgeting. This dissertation does not find conclusive evidence that the financial education program led participants to take action to improve their participation in mainstream financial institutions. The data collected also show that the migration status and level of financial literacy differentiate those participating in the mainstream financial system from those who are not. This dissertation adds to the current scholarly discussion on the effectiveness of financial education programs and factors associated with financial literacy and participation in the mainstream financial institutions. Its findings have implications for financial educators, researchers and Mexican immigrants. It offers a series of recommendations for the development and assessment of financial education programs for Mexican immigrants in New York City and other underserved migrant communities. The study concludes that the majority of Mexican immigrants in New York City urgently need financial education, but a self-selected group that might not need it the most, is the one attending community-based programs on this subject. Therefore, financial education programs need to reach out to those that need the program the most and adjust their curricula to serve better those who are participating.

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Dedication

To Monica, the love of my life,

who I met in the right moment not only because

She made my world the most beautiful place,

but because She became the light

that guided me to finish this work.

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I should write what I want to say,

not what others want to hear.

CHAPTER I: INTRODUCTION

One of the first and most common lessons in financial education is the difference between needs and wants. There are plenty of interpretations of these concepts, but the basic definition is consistent in the majority of programs. According to the parents' guide "For me, for you, for later" by Sesame Street and PNC Bank (2011), needs are things that all of us must have for survival, while wants are things that we desire, but that we can wait to get them at a later time or even choose not to get them at all. Recent research by financial education scholars such as Lusardi (2008, 2011), Mandell (2008), and Boshara (2011) have questioned the effectiveness of financial education and have concluded that one of the challenges is that there is a phenomenon of self-selection among individuals who decide to participate in voluntary financial education programs. In other words, those individuals who need financial education the most, such as people with no bank accounts or lack of access to other mainstream financial services, are not the ones who want to participate in financial education programs.

This dissertation aims to explore this problem of self-selection by studying the characteristics of first generation underserved Mexican immigrants participating in a community-based financial education program in New York City. This chapter presents the problem statement, the objective and significance of the study and introduces the methodology used. It also defines several strategic terms used throughout the dissertation and offers a background on the subject. Chapter 2 presents a review of the literature, with a first section reviewing the literature on the needs of immigrants and Hispanics for higher participation in the mainstream financial institutions, and it includes the demographic and socioeconomic data on Mexican immigrants in New York City. It also covers the historical context and changes in the industry that led to the existence of the mainstream and alternative financial systems. The second section reviews the literature on financial literacy and financial education and the current debate on effectiveness of financial education programs. Chapter 3 describes the dissertation's methodology, including the research questions, hypotheses, data, and assumptions and limitations of the study. Chapter 4 presents the results of the data analysis. This chapter focuses on the quantitative and qualitative analysis of a data set with information of 613 Hispanics who had participated in a community-based financial education program in New York City. From this dataset, 340 participants were first generation underserved Mexican immigrants. The research compares these data to a representative sample of 1003 first generation underserved Mexican immigrants in New York City. It also includes the results of a qualitative analysis of interviews with 30 subjects that represent a subset from the sample of 340 Mexican immigrants. Chapter 5 then states the study's conclusions and implications. This chapter presents the conclusions of this dissertation and the implications these have for actors and entities related to the subject, in particular, financial educators, researchers, and Mexican immigrants in New York City.

Problem Statement

According to a review of the literature, first generation underserved Mexican immigrants are less likely than other populations in the United States to have a bank account and understand and utilize other financial services that would enhance their opportunities for financial stability, wealth accumulation and socioeconomic development. The literature also indicates that there is an overall consensus among policy makers, advocates and financial institutions that the development of financial education programs can solve the problem.

However, there is an ongoing scholarly discussion on the effectiveness of financial education programs given the lack of conclusive evidence about their effect in improving the participants' usage and knowledge of financial services. One of the themes that have emerged in this discussion is the problem of self-selection among attendees of financial education programs. Recent studies have shown that those who attend a program might already have an understanding of the subjects taught and that the ones with higher need of learning these subjects are not attending. Therefore, even when there are community-based financial education programs offered to first generation underserved Mexican immigrants in New York City, those who want to attend might not be the ones that need financial education the most.

Research Question

The research question for this dissertation is: Which are the characteristics of a sample of first generation underserved Mexican immigrants who participated in a voluntary community-based financial education program in New York City? In order to answer this question, five sub-research questions were developed addressing specific aspects. The sub-research questions studied the following: 1) factors differentiating Mexican immigrants in the financial education program from those of a representative sample of the population; 2) factors differentiating Mexican immigrants in the financial education program from all Hispanics participating in the program, 3) factors differentiating Mexican immigrants participating in the mainstream financial market; 4) effects of participating in the financial education program; 5) the problem of self-selection in the financial education program.

Objective of the Study

The objective of this dissertation is to explore the characteristics of a sample of first generation underserved Mexican immigrants living in New York City who decided to attend a community-based financial education program. The goal is to determine if there is a self-selection problem. In other words, this dissertation is interested in finding if those first generation underserved Mexican immigrants in New York City who want financial education present unique characteristics that differentiate them from the overall population and, more specifically, the population that according to the literature needs financial education the most, which includes those who have not had access to or knowledge about the financial system. To complement the analysis, this dissertation utilizes the data collected to find if there are demographic and socioeconomic characteristics that differentiate those subjects who possess a bank account and use other financial services from those subjects who does not. Finally, it explores if there were any effects of the community-based financial education program on the participants.

Significance of the Study

The dissertation seeks to contribute to the academic literature on the effectiveness of community-based financial education programs. Although it is based on a sample of first generation underserved Mexican immigrants, the expectation is that the same problems specified in the dissertation may also apply to other, similar communities. This dissertation also offers findings and conclusions about the demographic and socioeconomic characteristics of people who participate in the mainstream financial system and their level of understanding of financial services. This study's findings have implications for researchers and financial educators that want to evaluate or develop financial education programs, especially those targeting first generation Mexican immigrants and other underserved populations. At a research level, the dissertation also serves as a reference for those who want to use mixed methodology to study financial education and participation in the financial mainstream. This dissertation should be of particular interest for those policymakers and entities that are committed to promote the socioeconomic development of the Mexican immigrants in New York City and elsewhere.

Methodology

Using a sequential explanatory mixed method study, this dissertation studied who among the population of first generation underserved Mexican immigrants living in New York City decided to attend a community-based financial education program. To achieve this aim, the author gathered data from 340 first generation underserved Mexican immigrants participating in a voluntary community-based financial education program in New York City, and compared these data to a representative sample of 1003 Mexican immigrants in New York City and to data from the 613 Hispanic participants of the program. The selected data gathering instruments were surveys in Spanish and open-ended semi-structured interviews. Statistical tools such as frequency analysis, measures of central tendency, regression analysis, chi-square and t-tests were used to analyze the quantitative data. Content analysis was used for the qualitative data.

Definition of terms

The following section presents the definitions of critical terms that will be used throughout the dissertation. In particular, this section defines the terms unbanked and underbanked, the mainstream and alternative financial systems, financial literacy and financial education, community-based financial education programs, immigrants and Hispanics, and the target segment of this study: first generation underserved Mexican immigrants.

Unbanked and underbanked

According to the Center of Financial Services Innovation (CFSI), people with no current checking or savings account are defined as *unbanked*; and individuals that had made one or more financial transactions in the past 30 days in outlets of the alternative financial system are defined as *underbanked* (2007). The underbanked might have a bank account, but still relies on alternative providers to address their financial needs (Berke et al., 2008). Unbanked and underbanked are terms that have become standard in the industry.

Mainstream and alternative financial services

The literature distinguishes between the mainstream and alternative financial systems (Washington, 2006). The mainstream financial system is composed by the traditional financial institutions such as banks, credit unions, insurance companies, credit card companies and investment firms. On the other hand, the alternative financial system is composed by outlets or individuals offering high-cost basic financial transactions to people usually with no history or bad history in the financial mainstream. The alternative financial system includes under-regulated businesses such as check cashers, pawn shops, payday lenders, international money remitters, and other independent outlets offering a combination of financial services. These businesses were labeled as *fringe banks* by economist John Caskey (1994). They have been called *nonbanks* as well (Carrns, 2012). The alternative system also includes individuals offering unregulated or illegal financial services such as usurious loans, fraudulent investment schemes and rotating savings informal associations based on trust.

Financial literacy and financial education

Mandell (2006) defined financial literacy as the concepts people must know in order to make important financial decisions in their own interest. Caskey et al. (2006) stated that unbanked and underbanked Americans are usually classified as *financially illiterate* Americans. The first definition is more concerned with the individual's decisions related to financial matters, while Caskey's put the weight on the level of access to financial institutions and usage of financial services. Jacob and colleagues offered a different perspective when they defined financial literacy as the “ability to understand financial terms and concepts and to translate that knowledge skillfully into behavior” (2000, p. 15). According to this definition, knowledge and information is not enough; the individual must develop beneficial financial behaviors that can be used in financial institutions.

This approach is related to the definition of financial education offered by the Organization for Economic Co-operation and Development (OECD): “the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being” (2005, p. 4).

For the purpose of this dissertation, financial education is the process by which individuals improve their level of financially literacy, and financial literacy is defined as the understanding of basic financial concepts that translate into informed practices in the financial system.

Additionally, a community-based financial education is defined as an educational intervention consistent of a lecture or workshop on a subject related to financial literacy offered free of charge in a space where members of an underserved community gathered voluntarily, such as community centers or faith-based organizations.

First generation underserved Mexican immigrants

The subjects analyzed in this dissertation are labeled *first generation underserved Mexican immigrants in New York City*. As the label indicates, these are adult individuals who were born in Mexico, had migrated to the United States and currently live in New York City. The term *underserved* refers to the socioeconomic characteristics of the subjects and the lack of access to financial services that the general population has.

A significant number of Mexicans in New York City live under or near the poverty line (Waters and Bach, 2011) and their median annual household income per-capita is one of the lowest in the country (Rivera-Batiz, 2003). They work at unstable jobs making them vulnerable to abuses and violations of their rights and ineligible for benefits. They are the ethnic group with the worst educational attainment rate in New York City (Semple, 2011) with only 6% between the ages of 19 and 23 in college or graduated from college (Bergad, 2011). A large majority speaks Spanish at home (Bergad, 2011), have not been in the country for more than 15 years, and live in crowded and unsafe apartments (Waters and Bach, 2011).[1] In short, the large majority of first generation Mexican immigrants in New York City present characteristics that categorize them as underserved. For the purpose of this dissertation, Mexican immigrants are first generation underserved Mexican immigrants.

One of the characteristics that describe first generation underserved Mexican immigrants in New York City is their migration status. According to Bergad (2011), around half of the

[1] A report of the demographic and socioeconomic characteristics of Mexicans in New York City is presented in the next chapter.
[2] For the purpose of this dissertation, the term undocumented means those individuals with no authorization to reside

population consists of noncitizens. Other scholars have established that this population has a higher rate of undocumented residents[2], especially among the adult population (Rivera-Batiz, 2003; Smith, 2006). This study found that 83% of the total subjects surveyed were undocumented. Therefore it is important to consider the migration status of the sample in the analysis of the findings and conclusions of this dissertation.

Finally, the term Hispanic (or Latino) refers to all residents of the United States of Latin American origin, including first, second and third generations. This dissertation defines immigrants as those foreign-born individuals that are currently living in the United States.

Background

Many immigrants in the United States live a cash-only existence (Paulson, 2006). In other words, these immigrants live in this country without making use of services offered by mainstream financial institutions such as banks, credit unions, credit cards or insurance companies. Many first generation underserved Mexican immigrants in New York City live a cash-only existence and have no contact with the abovementioned financial institutions. According to a recent study by EA Consultants, only 21% of Mexican immigrants in New York City have a bank account (2010). This is not surprising given that the average Mexican in New York City earns most of his wages in cash and lives by the day given the low-income he perceives.

[2] For the purpose of this dissertation, the term undocumented means those individuals with no authorization to reside in the United States under the country's immigration laws.

However, these cash-only Mexican immigrants in New York City still make financial transactions and make use of the American financial system to manage their money. One example is when they send money to their community of origin. For most immigrants, remitting money home is not only the first financial transaction they made in the United States, it is one that quickly becomes a routine. Another example is when they need to pay rent and utilities. Most landlords and utility companies do not accept cash as payments. The same is true for many mobile phone companies. Sometimes immigrants get a job that pays by check, so they find themselves looking for ways to cash that check. When they have an emergency that involves disbursing a significant amount of money, they usually seek a quick loan. If they plan to spend some money in the future, for example to buy a gift for their children, have a celebration or even start a business, they store dollars for years.

How could cash-only Mexican immigrants who had never opened a bank account perform all these financial transactions in New York City? This is possible because they might send money through money transfer agencies; they cash checks and buy money orders to pay bills in check cashers outlets; obtain credit from relatives or pawn shops; and save money by storing it in the mattress or participating in informal rotating savings schemes with their friends and neighbors. These practices cause them to pay excessive costs for common financial transactions and be at constant risk of losing their money.

Overall, first generation immigrants in the United States present characteristics that increase their probability to remain outside of the mainstream financial system when they arrive to the United States. According to the literature, individuals living outside the mainstream financial system have a low and unstable source of income and live under the poverty line. They also have low levels of formal education and are undocumented. Another key factor is their history –or lack of- with mainstream institutions. Many first generation underserved Mexican immigrants in New York City fit this description. They present demographic and socioeconomic characteristics that are associated with individuals with no bank account or users of the alternative financial system.

The literature shows that low participation in the mainstream financial system prevent underserved individuals from accumulating assets and developing wealth during in their life cycle. Smart participation in the mainstream financial market allows immigrants to have access to low cost savings instruments, have a financial cushion for emergencies, use a safer and less expensive transmission method that would increase the flow of remittances, develop credit history, channel savings to productive investments, and have access to fair-priced financial tools such as credit cards, mortgages and business loans (See Rhine and Greene 2006, Amuedo-Dorantes and Bansak 2006, Amuedo-Dorantes et al. 2005, Billions in Motion 2002, Lee et al. 2004, Washington 2006.)

According to the paper "U.S. Business and Hispanic Integration: Expanding the Economic Contributions of Immigrants," improving participation in the financial mainstream opens the door for immigrants to cover college education for their children or purchase a home, critical factors to achieve the American dream (Council of the Americas, 2008). The Federal Reserve of Chicago and the Brookings Institution stated that a key measure of success for newcomers to the United States is their level of participation in the financial mainstream (Paulson et al., 2006). Tamar Jacoby from the Manhattan Institute confirmed this assessment when she said that for immigrants getting a bank account is one layer of the process of becoming American (2004). The current Chairman of the Federal Reserve, Ben Bernanke, commented that lack of access to financial services and programs could hinder economic success, which could delay the integration of immigrants to the American society (April 16, 2004).

In conclusion, first generation underserved Mexican immigrants need assistance to facilitate their participation in the mainstream financial system in order to pursue a path of financial stability, wealth accumulation, socioeconomic development for its community and integration to the American society.

What can be done to address this need? Many scholars have concluded that the low level of financial literacy of individuals is a critical factor for their lack of participation in the mainstream financial market. Americans face a challenge regarding financial literacy. From teenagers to executives in corporations, their lack of sufficient knowledge to understand financial concepts and the financial system has been documented. In addition to the failure of schools at all levels in teaching economic and financial concepts, the financial system in the United States has become more complex in the last two decades. However, this situation is considerably worse for a first generation underserved Mexican immigrant in New York City who does not have experience interacting with financial institutions, is not fluent in English and is not comfortable asking questions to agents of financial institutions.

The worrisome data on financial illiteracy has prompted the development of financial education programs. In the last two decades, multiple financial education programs have been created. The developers of these programs assume that financial education would improve the level of financial literacy of the participants and as a consequence enhance the level of their participation in mainstream financial institutions. Most financial education programs assume that the acquisition of knowledge would cause people to make better financial decisions (Bell and Lerman, 2005).

Financial education has become so popular that it is difficult to find a financial institution or large corporation that is not offering a program to their clients and employees respectively. There have been efforts in this regard by banks and credit unions, public and private entities, businesses and financial advisers, and for profit and not-for-profit organizations. Universities, foundations, multilateral organizations, libraries, Websites, media outlets, trade associations, community centers, hospitals, unions, school districts and even money transfer agencies have announced efforts related to financial education. There are even celebrity financial advisers that have written books or developed games under the label of financial education.

The variety of topics included in financial education programs is considerable. Among the most common subjects are banking, credit, budgeting, insurance, homeownership and investing. But there are programs that include entrepreneurship, consumer rights, debt consolidation and even couponing. The diversity in formats is also significant. Some examples of what is considered financial education are: a one-hour talk in a community center on how to open a bank account; a TV show on how to invest in the stock market; an online seminar on planning for retirement offered by an employer; a seminar in a supermarket on how to save money in groceries; a class on avoiding financial scams; a six week course on buying a property at a community college; a soap opera that talks about credit; a video with puppets that talks about teaching the basics of saving to children.

Among these financial education programs, many have been created targeting immigrants and in particular Spanish-speaking ones. Banks such as Wells Fargo, Citibank and Chase, and government agencies like the Federal Reserve and the Federal Deposit Insurance Corporation have published their educational materials in both English and Spanish. Publishers, Website developers, game developers and financial advisors have pursued the same path. Community development credit unions and other nonprofit organizations offer seminars, classes and counseling sessions in English and Spanish.

Although the mission of all these financial education programs is commendable, there is an ongoing debate on the effectiveness of these programs. Scholars have reached different conclusions. According to Martin (2007), the literature on financial literacy and financial education programs is relatively new and the subject is still developing as a program of research. Hence, the opinions published by scholars are considered preliminary views on the subject.

Some believe that financial education programs have an effect on the decision of an individual to improve their usage of services in the financial mainstream. Most studies that have reached this conclusion came after analyzing financial education programs based on the workplace (Bailey, 2003). For example, Bernheim (1996) conducted a study of employer-based retirement education and found an increment in the savings rates and contributions to 401 (k) plans by the participants, and Clark (2003) determined that employees are likely to reevaluate their retirement plans after attending a financial education program.

Other scholars have reached a different conclusion about the effectiveness of financial education. In a study of household financial management, Hilgert, Hogarth and Beverly (2003) did not find conclusive evidence that financial education led to better financial decisions. In the policy brief "Financial Literacy: If it's so important, why isn't it improving?," Mandell followed students who took financial education for 5 years and could not find any significant effect (2006). Alcon (2000) concluded that the quantity of topics or amount of information provided to a group of students did not have a significant relationship in their confidence to conduct financial transactions. For Braunstein and Welch (2002), it is necessary to identify the most effective means to educate consumers. Lusardi (2008) pointed out that the effectiveness of financial education programs must be improved. As keynote speaker of the conference "Empowering the Mexican Community, Financial and Economic Inclusion," Manuel Orozco pointed out that financial education programs for immigrants have had very limited success (March 12, 2012).

In 2010, the National Endowment for Financial Education sponsored the Quarter Century Project, an effort to bring together leading scholars on financial education to review the past 25 years of research within the field. The Quarter Century Project addressed subjects that require further research. One of the themes that emerged in the papers produced was the self-selection observed in many financial education programs (NEFE, 2011). Mandell (2008) concluded that most programs are attended by employees who need it the least. He stated that adult financial education presents a self-selection bias because those who need it the most –due to their socioeconomic characteristics (less educational attainment, lower incomes, and less experience with financial institutions)-- are less likely to attend. Other scholars such as Lusardi (2008) and Boshara et al. (2011) confirmed Mandell's observations.

To sum up, first generation Mexican immigrants in New York City are an underserved community with a considerable low level of participation in the mainstream financial institutions. There have been efforts by different entities to offer financial education programs to this community. These programs assume that improving the level of financial literacy of this group will be a solution to the problem. Nevertheless, a review of the literature indicates that scholars are not in agreement on the impact of these programs neither for the general population, nor for immigrant groups. There is a self-selection problem because the participants attending programs might already have information on the subject and only want to "fine tune" their knowledge (Boshara et al., 2011). As a consequence, the individuals who need the programs the most because they are unbanked and underbanked, and urgently need assistance to improve their financial practices are not attending. Given that recent papers have called for more research on the effectiveness of financial education programs (Bell and Lerman 2005), this study intends to address this call.

The next chapter presents a review of the literature covering the characteristics of first generation underserved Mexican immigrants in New York City, with a special emphasis on the existing information regarding the needs of this group and other underserved populations to increase their participation in the financial mainstream and understanding of the financial system. The chapter will also address the current information on financial literacy and financial education, including the debate on its effectiveness.

CHAPTER II: LITERATURE REVIEW

Introduction

The aim of this literature review is to identify sources of information, explore the analyses made by scholars and policymakers, understand the conclusions reached, and find gaps that support the objective and validate the significance of this dissertation.

Considering that the research on the financial education and participation in the financial mainstream by first generation underserved Mexican immigrants in New York City is limited and fairly recent, the author will look for sources that cover two other groups: immigrants and Hispanics. In order to understand the needs and characteristics of Mexican immigrant population in New York City, the author will look for current data on the demographic and socioeconomic characteristics of this group.

This chapter will be divided in two sections. First, this literature review will focus on the need for immigrants and Hispanics to increase their usage of financial services from the mainstream and enhance their understanding of the basics of financial literacy. The chapter also covers existing literature sources on the history and characteristics of the mainstream and alternative financial systems and looks for possible explanations for the lack of participation in the mainstream financial system, including barriers by institutions, policies and historical trends. Then, it describes the demographic characteristics of Mexican immigrants in New York City, in particular those characteristics that are related to their participation in financial institutions and understanding of the system.

The second section includes a discussion on financial education. It describes financial education initiatives that have been implemented to enhance the levels of financial literacy of the general population, and in particular for underserved groups such as first generation immigrants. It includes examples of programs and materials developed by financial institutions, government agencies and non-profit organizations. It covers sources that support and debate financial education as a method to improve financial literacy levels and financial literacy as a method to improve participation in the financial mainstream. It reviews the lack of conclusive evidence on the effectiveness of financial education programs, and the self-selection problem observed in some of them.

The need for higher participation in the mainstream financial system.

<u>Unbanked and underbanked individuals in the United States</u>

For many adults in the United States, not having a bank account is unthinkable. They use banks to deposit and withdraw money, to pay bills, to access credit or study investment opportunities. The use of money is entirely dependent upon these institutions. Not having access to their ATM card or to credit cards, even for a few days, could be disastrous. However, a large number of residents of this country only use cash and have never opened a bank account (CFSI, 2007).

Recently, there have been major studies to determine the number of unbanked and underbanked individuals in the United States. A study by the Center for Financial Services Innovation (CFSI) conducted in 2008 found that 51.5 million adults in the United States do not have banking accounts in mainstream financial institutions at the time of study, whereas about 54.9 million adults have an account, but still use regularly fringe services. In total, 106 million adults of 49% of the total population 18 or older are either unbanked or underbanked (Berke et al., 2008). A survey by the Federal Deposit Insurance Corporation (FDIC) in 2009 confirmed the results of the CFSI study by revealing that approximately 9 million US households are unbanked and 21 million households are considered underbanked. Americans who are unbanked and underbanked usually include three social groups: (a) minorities and immigrants, (b) low education individuals, and (c) low-income individuals (Stuhldreher andTescher, 2005). Nonwhite households are four times more likely to be unbanked compared to White households (CFSI, 2007). Various researchers have confirmed this assessment of unbanked and underbanked individuals (Hogarth andO'Donnell,1997; Kooce-Lewis, Swagler, and Burton 1996).

The 2009 study by the FDIC pointed out that participation in financial institutions varies among racial and ethnic groups. Minorities have a much higher likelihood of remaining unbanked or underbanked. While only 3.3% of Whites are unbanked, 21.7% of blacks, 19.3% of Hispanics and 15.6% of American Indians/Alaskans do not have a bank account. The same trend applies to the underbanked population. Less than 15% of Whites are considered underbanked, but blacks (31.6%), American Indian/Alaskans (28.9%) and Hispanics (24%) have a higher probability of having a bank account and still use fringe services.

Unbanked and underbanked immigrants in the United States

According to Rhine and Greene, “Upon arrival to the United States, immigrants are immediately faced with making financial decisions and conducting transactions ranging from cashing payroll checks and paying living expenses to remitting income to family members residing in their home country” (2006, p. 21). However, immigrants as a group have a particularly higher incidence of not participating in mainstream financial services. As a group, immigrants are less likely to benefit from financial programs and institutions (Rhine et al., 2006). Despite the availability of financial services to the general US population, many immigrants are not taking advantage of financial programs such as banking services (Bohn and Pearlman, 2010). Osili and Paulson (2008) also showed that immigrants are less likely to own checking or saving accounts. Recent studies on individual savings behavior have illustrated that immigrants have lower savings than native-born Americans (Amuedo-Dorantes and Pozo, 2002; Cobb-Clark and Hildebrand, 2006). Moreover, immigrants are less likely than native-born residents to use diverse financial services (Jacob, 2000).

Immigrants can be deterred from banking by language and cultural differences, lower household incomes, and lack of experience with American financial institutions. Paulson analyzed data from 1996 to 2000 from the Census Bureau's Survey on Income and Program Participation (SIPP). These data show that immigrants are less likely than those who were born in the United States to have bank accounts, stock, or to own homes.

Scholars have studied several factors that affect the level the participation of immigrants in the financial system. Paulson and her colleagues' researched the significance of countries' institutional quality when analyzing the participation of immigrants in the financial mainstream. Bad experiences such as losing savings at a financial institution or devaluation of the currency in their home country might have an effect in the decision of being banked. In addition, Hernandez-Coss (2005), Higert et al., (2005), Paulson et al., (2006) suggested that negative experiences or perceptions of banks in their home country is a factor that makes immigrants shy away from owning bank accounts in the United States. According to Amuedo-Dorantes et al., (2004), immigrants that are banked in the United States are more likely to come from communities with larger numbers of banks before they traveled to the United States. Amuedo-Dorantes and Pozo (2002) claimed that the possibility of returning to the home country could change immigrants' incentives or priorities when it comes to financial practices. These findings showed that there is an impact of the home country on the immigrants' financial behaviors in the United States.

Furthermore, Sherrie Rhine of the Federal Reserve Bank of New York conducted a research study regarding the use of checking and savings accounts by immigrants compared with the native-born (2006). Their analysis targeted immigrant groups from four regions: Mexico, Latin America, Europe and Asia. Their research shows that the factors that influence immigrants' decision to open a bank account varied among the selected regions. Three characteristics emerged as the most relevant. These characteristics are: (a) education, (b) net worth, and (c) household income. Bleakley and Chin's (2004) study found that immigrants who could speak English or who came from English-speaking countries and who were likely to converse at home using the English language are those who were more likely to have checking accounts.

The literature review also indicates that participation of immigrants in the mainstream financial market is related to being undocumented. Rhine and Greene (2006) found that many of the reasons that influence the decision of US-born individuals not to get a bank account are also the same reasons that immigrants remain unbanked. However, according to Suro, Bendixen, Lowell and Benavides (2002), unbanked immigrants are limited by legal status because they fear that their inability to present official documents at a bank will jeopardize their stay in the country. According to Hernandez-Coss (2005), undocumented immigrants prefer to use money transfer agencies because they could remain anonymous. In addition, Grace (2004) also showed that some immigrants believed that in order to open an account in a bank they need a social security number or an American driver's license. They also believe that they would lose their deposits when their valid visa expires (Hilgert et al., 2005).

Other scholars focused on length of stay in the United States. Amuedo-Dorantes et al., (2004) showed that banked immigrants have been longer in the U.S. (an average of 10 years) compared to the unbanked (an average of 22 months). Dunham (2002) also revealed that recent arrived immigrants (less than 10 years) have less participation in the mainstream financial institutions than other ethnic groups. These findings portray a positive relationship between length of stay and participation in the financial mainstream.

Unbanked and underbanked Hispanics

The Appleseed Foundation (2007) reported that 63% of Hispanic immigrants do not have bank accounts. The Pew Hispanic Center (2002) calculated that only 50% of Hispanic immigrants have had a bank account. In the same range, the report Billions in Motion (2002) stated that only 42% of Hispanic immigrants who send money to their communities of origin hold a bank account. However, these percentages vary according to nationality. For example, using data from the Mexican Migration Project, scholars have concluded that by 2004 only 20% of Mexican immigrants had used banking services (Amuedo-Dorantes and Bansak 2006). According to Paulson et al., (2006), among the top ten immigrant source countries, most Chinese immigrants have bank accounts (78%) while Mexican immigrants are the least likely to have bank accounts (40%). The CFSI reported that 35% of Latinos are unbanked; more than half of those unbanked Latinos are Mexicans (2007). A survey by the New York City Immigrant Financial Justice Network (2008) indicated that only 40% of Mexican immigrants from the sample have had a bank account. Orozco (2004) revealed that only 25% of Mexican immigrants in the United States have a bank account.

Besides having a bank account, another financial product that is important to consider is access to formal credit. The Pew Hispanic Center (2002) estimated that 40% of Hispanic immigrants have had a credit card. But a survey of Hispanic immigrants in Miami and Los Angeles showed that when paying bills, 59% use cash, 20% checks and only 2% credit cards (Billions in Motion 2002). The survey made in New York City by the Immigrant Financial Justice Network (2008) showed that only 22% of immigrants have obtained credit from a mainstream financial institution. The New York City Department of Planning (2007) estimated that only 7% of Mexican immigrants are homeowners, an indicator of this community's access to mortgages. The Latino Data Project at City University of New York reported that 71.2% of foreign-born Mexicans in New York City have no health insurance (Begard, 2010).

Another sign of the number of underbanked Hispanic immigrants is the use of financial entities to send remittances. Hispanics, as most immigrants, rely on international money transmitters (Western Union, MoneyGram, Sigue) to send money home. A study by the Appleseed Foundation (2008) among Mexican immigrants in Chicago showed that only 10% use banks or credit unions to send money home and that 84% were not familiar with low-cost programs initiated by the Mexican and American governments in partnership with mainstream financial institutions such as Directo a México. Finally, regarding investments, Castañeda and Castellanos (2001) indicated that less than 10% of Hispanics have invested in stocks, bonds or mutual funds.

The above sources of literature reveal that there is a large share of the Hispanic immigrant population that lives outside the mainstream financial system. Many of these studies have inquired about the reasons for this low level of participation. Given that the literature is recent, there is no consensus on the factors that influence this participation. Following are a series of research studies by scholars interested in determining the relative weight of these factors.

Compared to European and Asian immigrants, Mexican and other Latin American immigrants are less likely to be banked (Rhine and Greene, 2006). These researchers also found that those who arrived before 1989 are less likely to be unbanked compared to recent arrived immigrants. According to Amuedo-Dorantes and Bansak (2006), the share of Mexican immigrants with bank accounts has traditionally been limited; however, this is observed to be increasing over time. According to their analysis, only 9% of their sample of Mexican migrant household heads owned a bank account. According to Rhine and Greene (2006), Mexicans that present less than a high school education, have larger families, earn income below the poverty line and live in the South are significantly more likely to live outside the financial mainstream. Conversely, those with higher educational attainment, who are married and with higher earnings are more likely to be banked.

Banked Mexican migrants are often young, have regular migration status and are English proficient in relation to unbanked ones (Amuedo-Dorantes et al., 2004). Moreover, those who own bank accounts are employed in professional or technical jobs. They are also those who belong in the manufacturing and service occupations. On the other hand, the unbanked are more likely to work in the agricultural sector. According to Amuedo-Dorantes et al., (2004), the banked Mexicans in the United States also portray characteristics that suggest they are loosening ties with Mexico. Fewer banked immigrants have left a spouse or children in their home communities compared to the unbanked Mexicans.

The length of time living in the United States is another factor researched by scholars. A study by CFSI from 2004 implemented in Latino neighborhoods in Washington D.C., Chicago and Los Angeles showed that two-thirds of the banked population still uses nonbank services. The study divided the sample between recently arrived foreign-born Latino immigrants and those who had already settled in the country. The results showed that those recently arrived have a higher probability of being unbanked compared to those who had not recently arrived. However, those who had settled in for years still use money transfer agencies to send their remittances.

According to Paulson et al., (2006), immigrants who live among immigrants from their home country are less likely to open bank accounts. Mexican immigrants tend to settle in already established Mexican towns or in areas where there is a settlement of immigrants speaking Spanish. Thus, the location where immigrants settle is another factor to consider in the analysis of why they are unbanked or underbanked.

A study by the Federal Reserve Bank of New York regarding the use of checking and savings accounts by immigrants found that for Mexicans, the most significant characteristics were poverty, citizenship status, and year of migration (2006). Unbanked Hispanics are overwhelmingly from the low-income households (Dunham, 2002). According to Rhine and Greene (2006), Mexican householders with larger families are more likely to be unbanked. Those who are married are likely to be banked. These researchers also stated that variables such as income, employment, citizenship status and year of migration determined Mexican immigrants´ participation in the financial mainstream.

On the other hand, Hispanic immigrants present a set of cultural experiences that may prevent them from interacting with financial institutions (Appleseed, 2007; Jacob et al., 2000).

Immigrants could be fearful of losing their money if they open an account or believe that credit cards could involve them in frauds. These assumptions might come from bad past experiences in their countries of origin or in the United States. Many immigrants come from communities where the mainstream financial system might not be present (banks and credit unions don't have branches in many rural areas). Therefore, a large share of these immigrants has never interacted with a financial institution. Being Latin America a region where bank accounts have been frozen and where cooperatives are known for their frauds, some Hispanic immigrants don't feel secure depositing their resources in a mainstream financial institution. In addition, the average Hispanic immigrant does not count with the appropriate elements that can help him or her achieve a successful entry into the financial mainstream. On one hand, given their recent arrival to the country and settlement in neighborhoods where other immigrants live, Hispanic immigrants lack a network that can help them understand the American financial system. Most of the time, their peers, relatives, neighbors and co-workers are also unbanked and underbanked. The literature reveals that their children who speak English can become a bridge between them and American institutions, but children in the United States have no knowledge or experience with the financial system.

It is important to take into consideration that force of habit is a key component in the way humans act concerning money. If immigrants become used to fringe banks, it is very difficult that they would change to mainstream entities. Ignacio Valenzuela, a representative of Union Bank, thinks the reason for fringe banks´ popularity is that: "People are creatures of habit. They grew up and saw their parents going to check cashers, and they continue their parents' habits" (Hamilton, 2007). It is difficult to stop people from doing something they feel comfortable carrying out. These habits are interrelated with the cultural assumptions that took them to use alternative providers in the first place. The Appleseed Foundation (2007) found that among Hispanic immigrants there is a generalized belief that banks are “not for them.”

The role of the financial services industry

In order to have a clear picture of the participation of immigrants and Hispanics in the mainstream financial market, it is indispensable to study the financial services industry in the United States. This section of the literature review discusses the historical context that has produced the current situation regarding the supply of financial services to underserved individuals, including the rise of alternative financial services and the barriers presented by the mainstream financial institutions for this group.

Historical Context

In the last three decades, there have been political and economic changes in the United States that have transformed the American financial industry. Since the 1970’s, a process of deregulation of the industry started with the deregulation of brokerage commissions and the standardized bank interest rates (Boshara et al., 2011). Laws supervising banks became more relaxed. Banks were allowed to be larger, cross state lines and offer all sorts of financial products, including higher risk ones (Klein, 2007). Large institutions acquired or merged with small ones. This consolidation of financial institutions reduced the number of local banks in low-income areas of the country. The national or regional banks did not find it profitable to have branches in these areas and closed most of them. On the other hand, deregulation allowed businesses to offer financial products without proper supervision from state agencies. This situation plus the relaxation of interest rates opened the door to the creation of a "subprime market" for short-term debt and ultimately subprime mortgages. Unregulated and underregulated businesses took advantage of this potential profitability and moved to low-income neighborhoods to fill the gap left by mainstream financial institutions. These changes produced a highly complex market for personal financial services that ultimately bifurcated into mainstream and alternative systems and created new products that were developed for the low-income market.

Advances in technology, the emergence of financial engineering and the development of the subprime market allowed for the creation of new financial products to be offered to low-income consumers. Due to the pressure of lobbyists to members of federal and local legislatures, in the last 30 years, many laws related to usury were eliminated, giving credit cards and consumer products an enhanced profitability (Boshara, et al., 2011). One of the most prominent examples of innovative products targeting low-income consumers and in particular immigrants were the "Alt-A" low-documentation loans, one of the most infamous type of loans that played a relevant role in the 2008 financial crisis. These loans were approved with basically no documentation at all from the applicant. Immigrants with no stable source of income or credit history received these mortgages for basically the whole price of the houses they were purchasing. Given that these loans were securitized by banks and other financial institutions (another consequence of deregulation in the industry), these businesses had the incentive to offer these loans to low-income consumers even when they were not in condition to pay them.

Financial product innovation did not happen only in alternative financial services. Some of the new financial products by the mainstream also increased the choices for the consumer, making him responsible for making complex decisions. An example is presented by Boshara and colleagues (2011) in the evolution of retirement plans. It used to be that employers were in charge of managing the accumulation of retirement savings. They had in-house specialists or hire financial advisors for this job. Then there was a shift to contribution plans (such as 401(k)) that put the burden of the responsibility on the average employee who was ill-equipped to make the adequate decisions. Evaluating different options in the market when the products are complex, especially because most of the time there is a lack of absolute transparency on behalf of the providers, could be disastrous for the financial well-being of individuals in the short and long-term. Similar shifts happened in financial products such as college tuition savings plans and insurance.

Deregulation in the banking industry, product innovation and the emergence of a profitable alternative financial market are among the factors that produced the 2008 financial crisis. Although the effects of this financial crisis are still rolling, reports by the U.S. government and think-tanks have pointed out that the economic slump is likely to continue for several years (Boshara et al., 2011). Regarding the financial services market for low-income consumers such as Mexican immigrants, there are two main consequences to take into account. One is the decline in the Hispanic immigrants' aggregate income. This situation came as a result of the slowdown in industries where this population is traditionally employed. The decline in house sales produced a severe slowdown in the residential construction industry, a sector that usually employs a large share of Mexican immigrants in the United States. As a result, 500,000 undocumented Hispanic workers lost their jobs in 2007 according to economists at Deutsche Bank (Moreno, 2007).

Gonzalez (2002) analyzed the impact of the 2001-2002 economic recession on Hispanic workers and found that those in manufacturing, wholesale, retail and transportation were particularly affected. It is expected that a similar impact will be observed in the current recession. According to the Pew Hispanic Center, 84% of foreign-born Latinos believe that their current personal finances are in fair or poor shape and 53% are worried that their home may go into foreclosure (Lopez et al., 2009). Another sign of the impact of the financial crisis is the amount of money sent home by this population. The Mexican Central Bank reported that in November of 2008 there was a decrease of more than 10% in remittances compared to a year ago (La Crónica, 2009). With less cash in their pockets, it is expected that Hispanic immigrants might be reluctant to open an account or take a loan. Therefore, the financial crisis might motivate this community to continue avoiding banks and other mainstream financial institutions.

Another potential effect of the current financial crisis is that immigrants will not be perceived as creditworthy as before. More restrictions might arise to offer them loans because of the negative experience with subprime borrowers and the regulations that arose from the financial crisis. Most Hispanic immigrants are not subprime borrowers. They do not have lesser credit history than prime borrowers or have a record of bad experiences with financial institutions. They just don’t have a credit history because they come from other countries or because they have been using fringe banks for years. On the contrary, according to an article by

The Wall Street Journal, "ITIN mortgages"[3] extended to undocumented immigrants had a delinquency rate of 0.5% by October 2007, despite the downturn in the market (Jordan, 2007). Nevertheless, the general perception of the mainstream financial market after the subprime crisis is that low-income consumers are too risky to receive a loan.

One of the consequences of the 2008 financial crisis was the Dodd-Frank Wall Street Reform and Consumer Protection Act enacted in 2010. The aim of this law was to ensure stability in the financial system through new regulations and the improvement of transparency and accountability of financial institutions. This legislation will have significant effects on financial education programs sponsored by the government. On one hand, it mandated the creation of a Consumer Financial Protection Bureau (CFPB). On the other hand, it contains specific provisions addressing financial education. The CFPB has the ability to enforce regulations regarding consumer protection. According to Boshara et al., (2011), the director of the CFPB would be vice chairman of the Financial Literacy and Education Commission (FLEC), a task force that would coordinate financial education programs across agencies. The CFPB director would also establish an Office of Financial Literacy within the new agency. Its mission will be to implement initiatives to financially educated and empower individuals.

It is necessary to talk about the current political debate on undocumented migration when addressing financial services for foreign-born Mexican residents. Several politicians, opinion leaders and government officials have questioned financial institutions for trying to help

[3] An ITIN is a number issued by the Internal Revenue Service for immigrants residing in the United States with no social security number. The objective of the ITIN is to allow these immigrants to pay taxes on their income. ITINs are offered to foreign students, international businessmen, and a large number of undocumented immigrants.

undocumented immigrants to settle down in the country. The criticism made some financial entities to back off from their attempts to attract Hispanic immigrants because they do not want to alienate other groups. This argument is especially strong among banks and insurance companies with a national presence because of the wide range of customers they serve. An article in the Financial Times pointed out that: "The institutions that have pushed hard to develop business among migrant groups are exceptions." (Lapper, 2007). It also stated that Don Terry, head of the Multilateral Investment Fund at the Inter-American Development Bank said in an interview that he was disappointed regarding the efforts by large banks and other financial institutions to open their doors to immigrants.

Another reason that financial institutions have placed a pause in their attempts to serve Hispanic immigrants is the recent pressure to stop accepting alternative forms of identification such as consular IDs (*matrícula consular* as is known for Mexican citizens). Russ Knocke, spokesman for the Department of Homeland Security, said regarding the option of opening an account without an official identification issued in the United States: "At face value the program seems to be problematic... it seems to be lending itself to possibilities of perpetrating identity theft or creating more risk of money laundering." (Reckard, 2007).

Although there is no law that prohibits the use of a form of identification not issued in the United States when opening an account or performing over-the-counter transactions, the regulatory pressures by Homeland Security have had a major impact in most institutions, especially in the larger ones that don't want bad publicity. As a result, some entities decided to request a second form of identification such as a valid passport to back up the matrícula consular.

The migration debate and the pressures about the use of valid forms of identification had become new barriers for the entry of Hispanic immigrants in the financial mainstream.

In short, the financial services landscape has changed radically in the last thirty years. In particular, the supply of financial services for low-income consumers such as Mexican immigrants has been transformed. Among the factors that caused this transformation are the deregulation and consolidation of the industry, the evolution of financial products, the consequences of the 2008 financial crisis and migration becoming a sensitive topic. These factors help to explain the emergence of a group of businesses dedicated to offering financial services to low-income individuals.

The development of the alternative financial system

Washington (2006) defined the alternative financial system as those financial service providers that include check cashers, money remitters, pawn shops. The mainstream financial system represents those financial services providers that include banks, credit unions, credit cards companies, investment funds and insurers. Economist John Caskey (1994) labeled *fringe services* those financial services providers that offer high-cost financial products to low-income communities. In his original book "Fringe Banking: Check-Cashing Outlets, Pawn-shops, and the Poor" he identified check-cashers and pawn-shops in this category. Later, Caskey added payday lenders to the group (2003). Nowadays, it is common to add money transfer agencies to the category, but Caskey includes these in check-cashing outlets. Fringe services are also known as nonbanks (Cassner, 2011).

Besides fringe services, there are informal financial practices that happen under no regulation or supervision by the state. These happen between private parties, usually at the local level. A loan from a parent to his child would be included in this category. Unfortunately, most of these practices are dangerous because the participant often loses his money. Among these practices, there are illegal ones such as Ponzi schemes or loans with an extremely high interest rate from loan sharks. There are examples of practices that could reach millions of dollars if they target wealthy individuals or if the lending is systematic, but must cases involve local individuals with access to low-income communities and are never prosecuted. Some practices are not even considered by the law, such as informal savings schemes where groups of individuals get together and decide to give an appointed person an amount of money periodically to be stored and then returned according to a lottery (among Mexicans this practice is called *tanda* and is extremely popular in Mexico and the United States). The amount of money lost in informal practices is difficult to estimate given the nature of the transactions. These individuals also become an easy prey for financial abuses by mainstream financial institutions.

The rise of fringe services indicates that they have become a lucrative business. It has been documented by scholars that these institutions have multiplied in the last decades. Caskey (2003) documents 16,689 cash-checking outlets and 11,683 pawn-shops in 2003. Klein (2007) points out that: “highly accurate accounts of the frequency of fringe options are difficult to obtain, these numbers certainly show the proliferation of these options as part of commercial entities over the past 15 years” (2007, p.15). Many studies have demonstrated that individuals who don’t participate in the mainstream financial market pay excessive costs for financial transactions or end losing their money. The fact that these fringe banks are unregulated or under-regulated allows them to charge extremely high fees and rates to their clients. A survey by the Consumer Federation of America indicated that users pay a steep price for alternative financial services (Fox, 2006).

The characteristics of fringe services vary significantly according to the services offered, the location and the target market. Some are nation-wide businesses with franchises in different states and others are small local enterprises. Some have storefronts such as check cashing franchises and others use agents located in other businesses, for example, within a supermarket. There are fringe services regulated at the state level and it depends on the state legislature how much they charge and what products they offer. There are fringe services that don't have any supervision and will not be regulated until the recently created Consumer Protection Financial Bureau starts analyzing the industry.[4]

An explanation of each one of the main categories of fringe services follows:[5]

- *Payday lenders*: a consumer writes a personal check to the lender who agrees to keep the check for a period of time before cashing it. The lender gives an amount of cash to the consumer that is less than the amount in the check. The payday lender earns the difference. In some states, a payday lender might charge 15 dollars for a 100 dollars check. Given that many customers can't pay the cash back on time, the payday lender will renew the loan and charge interest. The

[4] The Consumer Protection Financial Bureau was created as part of the Dodd-Frank Financial Regulation Act of 2010, but did not have a director until January 2012.

[5] From Caskey, 2003.

average payday lender is underbanked (they need a checking account to write the check). According to the literature, they use this service because they don't have enough money in their bank accounts to clear checks they need to pay for imminent expenses. Instead of paying the fee for a bounced check, they prefer to pay the "finance charge" at the payday lender. Given that payday lending is not allowed in New York City, this dissertation will not address this category when talking about fringe services.

- *Pawnshops:* According to Caskey "many working-class immigrants are natural customers for pawnshops." (2003, pg. 12). Pawnshops lend cash to their customers against the value of collateral left by the customer. The cash lent is most of the times an amount significantly less than the value of the collateral. This collateral can be almost anything, from jewelry to electronics. Pawnshops might charge interest rates of more than 100 percent (Caskey, 2003). The customer could retrieve the collateral if he pays the loan and the interest rates in time. Given that many customers can't pay in time, the pawnshop becomes the owner of the collateral and then sells it. The arrival of the Internet simplified the selling of these products. Sites like eBay became a favorite for the industry. Pawnshops were growing exponentially until the emergence of payday lending, an industry that became their competition. Customers preferred to get a loan from paylenders than pawnshops because it was more convenient to leave a check as collateral than a valuable. Large corporations that had pawnshops (Cash American, EZ Corp, First Cash Financial) recognized this trend and started offering payday loans. As mentioned earlier, payday lending is prohibited in the State of New York, therefore the pawnshops in New York City cannot offer this service.

- *Check cashing outlets:* A survey by the Office of the Comptroller of the Currency in New York City and Los Angeles showed that "most of the unbanked who cashed their checks primarily used the services of check-cashing outlets (71 percent)." (Dunham, 2001, pg. 36). As the name implies, check cashing outlets cash checks for a fee. To be able to deposit one's paycheck is a transaction that guarantees one's money's safety from the workers' perspective. Unbanked workers therefore must be able to find ways to accommodate their financial needs (Dunham, 2001; Rhine, Green, and Toussaint-Comeau, 2006). However, these outlets usually offer other services that are demanded by low-income customers such as paying utility bills, making photocopies, buying stamped envelopes, purchasing prepaid and telephone cards, and obtaining money orders. Lately they have also started offering payday loans and placing Automated Teller Machines (ATMs) that dispense small denomination bills (as opposed to ATMs at banks that only have 20 dollars bills). To attract immigrants, they also have partnered with money transmitters such as Western Union and Vigo to wire money to countries of origin. All these services are conducted for a fee. Some of these fees are regulated at the state level. To cash a check, these outlets charge 1.6% of the face value of the check in New York. But in the majority of states there is no limit for this fee.

Rhine, Greene, and Toussaint-Comeau (2006) studied the reasons for consumers to be unbanked and the usage of check-cashing businesses and other fringe services. They found that their ethnic background was a significant factor. There are studies that seek to explain why immigrants depend heavily on alternative financial sectors, especially check cashiers, to cash checks as well as send remittances to their home country. According to Paulson et al., (2006), lack of access to bank accounts, along with limited formal education and low financial literacy push many immigrants to depend on high-cost and poorly regulated alternative financial providers, such as check cashers. The same reasons drive them to use money transfer operators, which are often located in check cashing outlets rather than go to banks for this service (Marcus, 2005). Dunham (2001) indicated that low-income consumers, often the immigrants, consider the use of alternative financial services as the rational choice. These findings imply that there are limitations in the financial services and products that mainstream financial institutions are offering. There are two main reasons that alternative financial services appeal to low-income immigrants: a) geographic convenience; b) products and services designed to accommodate to low-income immigrants´ needs.

Geographic convenience

Alternative financial services are prevalent in low-income neighborhoods where immigrants tend to settle and banks and other financial services providers from the mainstream system are not. Fringe services offering money transfer operators are often located in immigrant neighborhoods and near public transportation areas; in other words, there is geographic convenience (Suro et al., 2002). The Federal Reserve Bank of Chicago and the Brookings

Institution (Paulson et al., 2006) affirmed that many low-educated immigrants use these alternative services because they find them in their own enclaves. Castañeda and Castellanos (2001) reported in their book *Cómo manejar su propio dinero* (How to manage your own money) that in any Hispanic neighborhood of the Unites States, there are plenty of fringe banks. The presence of alternative providers in these neighborhoods and the lack of access to mainstream institutions have contributed to the alarming statistics about the number of underbanked Hispanic immigrants in the country.

Barr (2006) pointed out that the lack of presence of banks in low-income areas was a major barrier to access the mainstream banking sector. A study by the Neighborhood Economic Development Advocacy Project (2006) found that the number of banks in New York City neighborhoods with a high presence of immigrants was remarkably low. In 33 of 41 areas in which at least 40% of residents are foreign-born, bank branches are minimal. Nine of those areas have in average fewer than 0.5 bank branches per 10,000 residents, and 24 of those areas averaged only 1 branch per 10,000 people. The cases of Bushwick, a heavily Hispanic area in Brooklyn that has 110,000 people and only two banks, and Washington Heights, where there are 18 banks for approximate 250,000 people confirm the existence of the barrier (Frederickson, 2006).

The area known as Melrose-Mott Haven in the South Bronx, New York City, is another geographical region with the least presence of mainstream financial institutions according to a study by the City's Office of Financial Empowerment (2008). Many immigrant communities are settled here, including a significant population of Mexicans. A visit to this area shows that practically any of its busy streets has multiple fringe service providers. In Bohn and Pearlman's (2010) study about the financial participation of immigrant communities, the authors stated "that immigrants living in areas with a higher concentration of immigrants from their region of origin may be less banked due to the availability of informal financing options" (p. 27). Using data from the Survey Income and Program Participation (SIPP), the Census, and FDIC, Bohn and Pearlman found strong empirical support for their hypothesis.

Products and services

The products and services offered by fringe services are designed to accommodate to the needs of low-income immigrants while mainstream financial providers offer products for the general population and want immigrants to accommodate to them.

The alternative financial market appeals to low-income consumers for three main reasons. First, they are proficient in cross-selling products. Besides cashing checks and lending small loans, they sell goods and services that are attractive to this segment like prepaid phone cards, payment of bills, preparation of taxes, lottery tickets and translations. Second, they are convenient for people that require their money as soon as they earn it, as opposed to people that can deposit their check in a bank account and wait until the check is cleared to use the money. Third, these entities are very flexible and can customize their services according to the characteristics of their clients. For example, as a response to the Hispanic presence in areas where check cashers do their businesses, these financial portals have partnered with companies as Western Union and MoneyGram to provide their customers the opportunity to send money home. Moreover, Hogarth, Anguelov and Lee (2005) claimed that money transfer agencies have a record of effective transferring money with quick delivery time, extended hours of operation and staff who knows the native language of immigrant customers.

When immigrants are paid with checks, they need the money as soon as possible. Sometimes they can't wait until the bank opens and the check clears. Even when Mexican immigrants have to pay a fee for cashing the check in a check casher outlet as opposed to having the same service for free in a bank, they prefer the check casher. For a low-income individual that needs the money urgently, an upfront fee is less costly than waiting days to get the money.

Regarding credit, when immigrants need money fast, it is easier to go to a pawnshop and leave a piece of jewelry or a television than to go to a credit union and apply for a loan. Although the cost of borrowing money in a pawnshop is many times the cost of using a credit card or personal loan from a credit union, a typical immigrant does not have the credit history and credit score to be approved by the latter. Even in community development credit unions where the terms for receiving a loan are less strict, the immigrant needs at least an Individual Taxpayer Identification Number (ITIN). The same logic applies to the selection of loan sharks over other lenders. The interest rate charged by a loan shark is extremely high and the terms of the loan could be dangerous for the immigrant, but there are no other options available, especially in a time sensitive situation.

Barriers from the mainstream

Presenters at the conference "Promoting Financial Justice for Immigrant New Yorkers" conducted on April 13, 2008, showed the following barriers by the mainstream financial market in New York City: Lack of bilingual staff, restrictive ID requirements to open accounts to immigrants, confusion of requirements in different branches of the same bank and even in the same branch, lack of alternative products for clients with no credit history, high-cost services.

Banks require documentation that might not be feasible for a typical immigrant to present. To open a bank account, the standard practice is that bankers ask clients for a driver's license and social security number. Most Mexican immigrants do not have these documents because of their migration status. By law, an American bank only requires a valid picture official identification to open an account (US Patriot Act). This could be a valid passport or a consular identification. Thus, a bank can open undocumented immigrants a bank account. However, many financial institutions because of internal policies ask for more documentation than the law requires. This practice builds a barrier for banking immigrants.

In New York City, banks' branches located in immigrant neighborhoods require a valid passport plus a consular identification, school identification, proof of address such as a bill from a utility company, or a letter from an American institution (school, community center, health clinic) acknowledging the identity of the person. These branches have adapted their policies to serve the people living in the area, but still can't compare to the flexibility of most fringe services that require next to nothing as identification. Unfortunately, the adaptation of these branches is not universal. If immigrants in New York City want to open an account they must go to branches that are located in areas with a high presence of immigrants. These branches will have agents who speak their language and be more flexible regarding documentation. Branches from the same banks, but located in other areas might reject an undocumented immigrant because their staff is not trained or used to deal with these potential clients. In addition, as mentioned before, there are not many branches from banks located in low-income neighborhoods. These cases exemplify the challenges that the mainstream financial institutions face in order to serve immigrant clients.

Another barrier relates to the business practices of mainstream financial institutions. A study concluded that lack of credit history, fees and minimum balance requirements were important barriers for Hispanic immigrants (Paulson et al., 2006). According to Seidman and Tescher (2005), traditional banks assumed that serving low-income consumers was not profitable because they have low account balances and high transactions volume, characteristics that do not fit their system well. During a presentation for the 2004 Financial Access for Immigrants Conference, Robert Suro, then director of the Pew Hispanic Center, explained that the mainstream financial industry's practices and entire business models were designed for customers who were familiar with this market. But if you are opening a bank account for the first time in this country, it becomes extremely challenging. Underbanked consumers, and particularly immigrants, make financial decisions based on aspects like respect, trust, safety, security and a sense of belonging (Tescher et al., 2007). This decision-making process differentiates them from traditional consumers.

Demographic characteristics of Mexican immigrants in New York City

Researchers have reported that there are particular demographic and socioeconomic variables that are related to being unbanked and underbanked. A review of the literature on the topic suggests that those who have less regular employment, have recently arrived to the country, come from rural and poorer areas, are not proficient in English, have less education, have lower income and are not legally allowed to work in the United States are likely to remain outside the mainstream financial system (Rhine andGreene, 2006; Amuedo-Dorantes and Bansak, 2006); Amuedo-Dorantes et al., 2005; Lee et al., 2004). Findings show that the higher the educational attainment of an individual, the more investments and banking accounts he has (Peng et al., 2007). The 2009 FDIC study also showed that some individuals' traits are related to being unbanked and underbanked. Among these characteristics are: subject belongs to a low-income household, lives in the South of the United States, has less than a college education, is young and is unmarried. Various researchers have shown than unbanked households have the tendency to be less educated, younger, earn lower income and belong to a minority group (Rhine, et al., 2006; Hogarth and O'Donnell, 1997; Kooce-Lewis, Swagler, and Burton 1996).

Most Mexican immigrants in New York City fit the above description. They earn less than the minimum wage in unstable jobs that don't provide benefits, forcing them to live in poverty. They don't have an employment contract or any basis for a long-term commitment from their employer. They send a large share of their income home and have strong ties with their relatives in Mexico. Their formal education consists of middle school at most, have an extreme high dropout rate and low college enrollment rate, making them the ethnic group with the worst educational attainment rate in New York City. Being recently arrived immigrants and coming from regions with scarce formal financial services, Mexicans do not have any history of contact with financial institutions. In addition, Mexican immigrants arriving to New York City exhibit other characteristics that make them more susceptible to be unbanked or underbanked. A large majority do not speak English, don't know how to use a computer (an important literacy when financial institutions are pushing for online and mobile banking), have not been in the country for a long time and have plans to return to their home country.

The section above reported that factors such as industry regulations, product innovation and the rise of the alternative financial services have created barriers for immigrants and Hispanics to participate in the mainstream financial system. Among these barriers were the lack of presence in low-income neighborhoods and the lack of appropriate products to serve underserved customers. First generation Mexican immigrants in New York City tend to settle in neighborhoods with a large population of Spanish-speaking immigrants where there is not a large presence of mainstream institutions, but fringe services are abundant. Moreover, they have no social security number or official identification from the United States because of their irregular migration status. This situation makes Mexicans in New York City fear sharing their personal information with any American institution because of potential problems with the migration authorities. Mexican immigrants are afraid that if they get deported, they will lose their saved money. Therefore, there are demographic data and characteristics that partly explain the lack of participation of Mexican immigrants in New York City in the mainstream financial system. Following is a summary of demographic characteristics of Mexicans in New York City that are associated to be unbanked or underbanked.

In the last three decades, there has been an exponential growth of the Mexican population in New York City. This growth was first observed in some neighborhoods in New York City and then it spread to the five boroughs. From 1990 to 2000, there was a 200% increment in the Mexican population of New York City (US Census Fact Finder). The 2005 American Community Survey reported that this trend did not slow down. According to the New York Times: "In the city, the number of people who identified themselves as Mexicans, here legally or not, soared 36 percent in five years." (Bernstein, 2007). According to the latest data from the New York City Department of City Planning (2007), the number of Mexicans in New York City was almost 245,000 in 2007. The 2010 Census indicated that the number has increased to 319,458 (US Census American Fact Finder). The Center for Latin American, Caribbean and Latino Studies revealed through the Latino Data Project that the number of Mexicans in the City went from 58,410 in 1990 to 187,259 in 2000 and to 319,126 in 2009; it went from being 3.3% of all Latinos in New York City to 13.5% (Bergad, 2011). In other words this community grew fivefold in twenty years. Even after these impressive numbers, the actual number of Mexican New Yorkers might be higher. Given that most of these immigrants are undocumented, the U.S. Census and other survey and research exercises undercounts them. An analysis by the New York City Department of City Planning (2007) showed a 28% increase in births to Mexican women from 2000 to 2005. Only in 2005, 8,234 of these babies were born (Bernstein, 2007). This baby boom has caught the attention of the City demographers because for the first time it surpassed the number of Dominican babies, the largest group of the area. This situation is most probably the product of the arrival of wives, sisters and daughters of the men who migrated in the last few years. If this growth continues, Mexicans will become the largest ethnic group in New York City by 2024 (Bergad, 2007).

The Mexican population is scattered around the City. As opposed to other immigrant groups in New York, “Mexicans and Africans are rather evenly distributed over all kinds of neighborhoods.” (Waters and Bach, 2011). In the last years, highly noticeable pockets had formed in places such as: Sunset Park, Brooklyn; South Bronx; East Harlem, Manhattan; Port Richmond, Staten Island and Jackson Heights, Queens. All these neighborhoods with the exception of Port Richmond have a history of immigration and in particular of Spanish-speaking settlers. In all New York City boroughs there has been a significant rise in the population in the last 5 and 10 years. From 2000 to 2005, this rise goes from a 36.5% in Manhattan to an impressive 107.80% in Staten Island (see Table 1). From 2005 to 2010, this rise goes from 15.30% in Staten Island to 40.96% in Queens (see Table 2). As a percentage of the total population of New York City, Mexicans went from being 0.8% in 1990 to 3.8% in 2009. The increment in each of the five boroughs was highly remarkable (see Table 3).

Table 1

Mexicans in New York City 2000 - 2005

Region	**2005**	**2000**	**% Change**
Bronx	53,683	28,361	89.28%
Brooklyn	76,685	49,619	54.55%
Manhattan	31,980	23,425	36.52%
Queens	65,859	38,855	69.5%
Staten Island	16,204	7,798	107.80%

Source*: US Census, American Fact Finder.*

Table 2

Mexicans in New York City 2005 - 2010

Region	**2010**	**2005**	**% Change**
Bronx	71,194	53,683	32.62%
Brooklyn	94,585	76,685	23.34%
Manhattan	41,965	31,980	31.22%
Queens	92,835	65,859	40.96%
Staten Island	18,684	16,204	15.30%

Source*: US Census, American Fact Finder.*

Table 3

Mexicans in New York City as a percentage of total population per boroughs 1990 -2009

Region	**2009**	**1990**
Bronx	5.5%	1%
Brooklyn	3.9%	0.9%
Manhattan	2.8%	0.7%
Queens	3.6%	0.7%
Staten Island	3.1%	0.5%
New York City	3.8%	0.8%

Sources*: Report 41 from the Latino Data Project from the Center for Latin American, Caribbean and Latino Studies*.

Most Mexican immigrants arriving to New York City come from the state of Puebla and its neighboring states (up to 80% according to Rivera-Batiz, 2003). Most immigrants started their journey in the extreme poverty of the Mixteca region in Mexico. This region includes rural areas from the states of Puebla, Guerrero, Morelos, and Oaxaca. Mexico as a whole has a low rate of participation in financial services. According to a presentation by Juan Manuel del Valle from the Ministry of Finance, only 50% of Mexicans have access to a bank account (Empowering Mexicans in New York City: Financial and Economic Inclusion, March 12, 2012). According to the "First Survey of Financial Culture in Mexico*,"* only 14% of the population has savings or investments in mainstream financial institutions and only 19% uses a credit card (Banamex-UNAM 2008). According to the Mexican Banking National Commission (Comisión Nacional Bancaria y de Valores), only 9% of the total amount of banks in Mexico are present in rural areas

(Milenio, 2011). In the Mixteca region, there are some areas that present a relatively high concentration of branches of Mexican banks and presence of community credit unions given the amount of remittances that are sent. However, most small towns and communities of origin lack access to financial services from the mainstream. Therefore, most Mexicans in New York City have not had extensive experience with financial institutions.

Although Mexicans come to New York City to improve their standard of living, they present a significantly high poverty rate (21%) and near-poverty rate (32%) (Waters and Bach, 2011). Begard (2007) confirmed that Mexicans in New York City lived in poverty in 2007. Even when most New York Mexicans face better conditions than in their communities of origin, they still are under extremely difficult living conditions.

The median household income in 2009 was 42,900 dollars for all Mexicans, and only 30,100 for foreign-born males (Begard, 2011). Meanwhile, the percentage of Mexican immigrant households earning less than 20,000 per year went from 9.4% in 1990 to 12.2% in 2009 (idem). They have the lowest mean annual household income per-capita in the City, around 10,200 dollars, and the median salary of male workers was 15,631 dollars in 1999 (Rivera-Batiz, 2003). This is because “household incomes among Mexicans were determined by the collective incomes of more wage earners” (Begard, 2007, p. 5).

A considerable share of the income received by Mexican immigrants in New York City is sent home as remittances. According to the Mexican Central Bank and BBVA-Bancomer, remittances from the United States to Mexico were more than 26 billion in 2007 (May 2010).

The amount went down due to the 2008 financial crisis that affected the United States to 21.2 million in 2009 and is starting to go up again, especially in states such as Puebla where an increase of more than 30% was observed in 2010 (Milenio, October 4, 2011).

Mexican immigrants in the City report high rates of employment (10.4% unemployment rate; 4.3% for males (Begard, 2011)). “Mexican New Yorkers are employed in a wide array of occupations and industries, but there are sectors where they concentrate.” (Rivera-Batiz, 2003, p. 4). Seventy percent of Mexican male workers are hired in the service, manufacture and constructions industries; 64% of Mexican women are in services and manufacturing (idem). “A wide dispersion across industries and jobs has negative long-term consequences for the group’s advancement and development of human and social capital” (Smith, 2006, p.27).

The policy brief *Housing the City of Immigrants* by the Community Service Society points out that the median year of arrival for Mexicans in New York City is 1995 (Waters and Bach, 2011). In 2009, almost 57% of Mexicans in the City were foreign-born (Begard, 2011).

The level of formal education of Mexican New Yorkers is considered the worst among the major ethnic groups in the City. “About 41 percent of all Mexicans between ages 16 and 19 in the city have dropped out of school, according to census data.” (Semple, 2011). The Census also reports that only 6% of Mexicans age 19 to 23 are in college or have graduated (a number that is even more troublesome compared to similar immigrant groups such as the Ecuadoreans (26%) and Dominicans (37%) (idem). Only 8.3% of males and 11.7% of females ages 25 or more have a bachelor degree or higher (Begard, 2011). Mexicans in New York City arrived with a low level of education from the communities of origin: the "Average level of education for parents arriving with their children is elementary school completion."(Cortina andGendreau, 2003). Among Mexican youth (20 years old and younger), there are more than 20% that report a low or minimum knowledge of English (Cordero-Guzman, 2006). The Latino Data Project (2011) reports that 44.3% does not speak English or does not speak English well, while 90.7% of Mexicans speak Spanish at home. There is also a significant population of Mexicans who are illiterate in Spanish and communicate speaking dialects like Nahuatl and Mixteco. Robert C. Smith author of the seminal book *Mexican New York: Transnational Lives of New Immigrants,* called this situation “a perfect storm of educational disadvantage.” (Semple, 2011).

Among Mexican immigrants in New York City, around 40% are women and the median age of this group is 24.3 years (Rivera-Batiz, 2003). Begard reported that there were 43% women in 2011. According to the report *Housing the City of Immigrants*, by 2011 the median age of the population is 35 (Waters and Bach, 2011). Most Mexican immigrants are undocumented. In 2003, Rivera-Batiz reported that undocumented workers amount to “between 20 and 40 percent of all Mexican immigrants residing in the City.” The report Mexicans in New York City, 1990-2009: A Visual Data Base indicated that in 2000, 60.7% of Mexicans were not citizens. This percentage went down to 49.9% in 2009. Given their undocumented status, they are constantly abused at work. They are unfairly treated and can’t obtain any benefits or public assistance. Most institutions discriminate them because their lack of legal status.

Table 4

A Demographic Portrait of Mexicans in New York

Variable	**Data**
Household Population 25 years and over with a Bachelor's Degree or Higher	9%
Foreign-born population in households that entered the US in 2000 or later	27%
Household population that speaks a language other than English at Home and are not English proficient	62%
Employed civilian labor force 16 years and over in management, professional and related occupations	11%

Source: NYC City Department of City Planning using data from the 2005 American Community Survey.

One of the most urgent concerns for this population is the lack of access to affordable housing. The report *Housing the City of Immigrants* indicates that Mexicans face the worst rent burdens and live in the most crowded apartments (Waters and Bach, 2011). When Mexican immigrants first arrive to New York, they must live with multiple roommates to pay the high rents of the City. "The average number of persons per household among Mexican New Yorkers is 4.6 persons" (Rivera-Batiz, 2003, p. 31). It is common to find three or four families living together in one-bedroom apartments, or many men sharing one room. This practice is due to the need for combining income from multiple workers to pay the rent. Sharing the space is not the only problem this population faces. Mexican immigrants are continuously abused by landlords whom continuously raise the rents and ignore housing regulations. "Mexicans are almost twice as likely to live in unregulated rentals" (Walters and Bach, 2011, p. 4). As a consequence, most of these residences are infested, polluted and unsafe.

In conclusion, the exponential growth of Mexican immigrants in New York City and its suburbs has made this ethnic group one of the largest in the area. Unfortunately, most of them present characteristics that are related to be unbanked or underbanked according to the literature. Among these characteristics are the following:

- They have not been in the United States for too long and still have strong ties with their home country.
- A significant number have migrated from the Mixteca region, a rural area with low presence of financial institutions.
- The level of formal education, including English proficiency, high school and college enrollment, is extremely low.
- They present an irregular migration status preventing them from obtaining an official identification.
- Mexicans in New York live with a meager income because of unstable jobs, unfair employers and the need to send money to their home country.
- Immigrants from Mexico tend to settle in neighborhoods where there is a large presence of Mexicans or other Spanish-speaking groups.

Given these characteristics, it is assumed that a large number of Mexicans in New York City have a low level of participation in mainstream financial institutions and are customers of alternative financial services. In recent years, researchers who have studied the factors that influence the participation of individuals in the mainstream and alternatives financial markets have pointed out that the level of financial literacy and the attendance of financial education programs are variables critical related to this participation.

The need for effective financial education

Financial literacy

Many scholars have concluded that the low level of financial literacy of individuals is a critical factor for their lack of participation in the mainstream financial market. Americans face a challenge regarding financial literacy. In addition to the failure of schools at all levels in teaching economic and financial concepts, the financial system in the United States has become more complex in the last two decades. There are multiple and diverse financial products to be offered to consumers and without the proper advice, individuals can make decisions that will cause damage to their financial situations in the long-term. A quick look to the back page of any application for a bank account, credit card or loan shows many lines of information in small font that even people with advanced studies can’t fully understand. In other words, navigating the financial system in the United States has become a lot more difficult. Braunstein and Welch (2002) offered a list of relevant factors to understand the attention given to the low level of financial literacy in the country: a) technological innovations that have transformed the development and delivery of financial products and services; b) deregulation of the banking industry; c) rise in predatory lending and other fringe services; d) higher consumer debt and less savings; e) a rise in the foreign-born population; and f) increase in consumer responsibilities in managing his finances.

A paper by the Federal Reserve Bank of Chicago and the Brookings Institution defined financial access as knowing that there are financial products and services to choose from (Paulson et al., 2006). Thus, financial access has two elements: (a) individuals´ knowledge on the financial market and (b) the opportunity to choose the best option in this market among financial services. In other words, financial access is related to both the supply and demand side of the financial services industry. The definition of the Federal Reserve Bank of Chicago and the Brookings Institution places the weight of the demand side on the individual's knowledge of the market.

The basic knowledge required to participate in the financial market has been labeled as financial literacy. Mandell (2006) defines financial literacy as the concepts people must know in order to make important financial decisions in their own interest. Caskey et al., (2006) stated that unbanked and underbanked Americans are usually classified as financially illiterate Americans. Thus, financial illiteracy is defined as the lack of sufficient knowledge to utilize and obtain benefits from the available financial services from mainstream institutions.

The knowledge that an individual must have to be financially literate has been categorized in four areas: cash-flow management, savings, credit management and investments (Hilgert et al., 2003). Toussaint-Comeau and Rhine (2000) listed the main topics in financial literacy as: budgeting, record keeping, checking account, choosing between mainstream banking and alternative financial services, small business finance/planning, home purchase counseling, consumer credit/financial products, credit reports and predatory lending. The authors also matched these topics with specific target audiences. Budgeting, learning about the mainstream and alternative financial markets, assessing credit options and avoiding financial scams were highly important for minorities and low-income groups. In addition to these personal finance topics, some scholars believe that a basic understanding of economics is relevant to the participation in the financial mainstream. According to Grimes, Rogers and Campbell-Smith (2010), learning basic economic concepts is related to an individual's choice to open a bank account. Their study revealed that an individual's understanding of the macroeconomic system was important in explaining access to mainstream financial services (idem).

An essay sponsored by the Woodstock Institute explained financial literacy as the "ability to understand financial terms and concepts and to translate that knowledge skillfully into behavior" (Jacob et al., 2000, pg. 15). A report by the World Bank (2009) points out that there is a need for greater understanding of finance together with changes in behaviors to reduce the likelihood that low-income consumers will become victims of unfair deals and acquire products or services that aren't in their best interest. These definitions by the Woodstock Institute and the World Bank are important because they highlight the role played by the individual's behavior. Traditionally, the focus has been on informing the public about their financial options and how they would learn in their consumption. However, it is not enough to acquire information, an individual must fully understand it and apply it in everyday situations involving money management and financial institutions.

Among the factors that scholars cite as a major influence in the rate of unbanked and underbankedness in the country, financial literacy stands out because of the level of attention that it has received and the amount of resources allocated to it in the last years. The Financial Literacy and Education Improvement Act (Title V of the Fair and Accurate Credit Transactions Act of 2003) became the most important action to address this topic. As a consequence of the Act, twenty federal agencies became part of the Financial Literacy and Education Commission (FLEC) with the objective of coordinating government efforts to improve financial literacy. The United States federal government acted by establishing the President's Council on Financial Literacy (now renamed as President's Advisory Council on Financial Capability) and Congress declared April the Financial Literacy Month (The Economist, 2008). Subpart 13 of the law No Child Left Behind formalized the government's recognition of financial education (Lucey and Giannangelo, 2006). A report by the Government Accountability Office estimated that in 2004, twenty federal agencies operated about thirty different programs related to financial literacy (2004). At the local level, departments and commissions for consumer affairs started projects on the subject. The New York City Department of Consumer Affairs has led the country in creating an Office of Financial Empowerment that has the objective of improving the financial literacy of low-income New Yorkers. Other local governments have followed and a created the coalition "Cities for Financial Empowerment (CFE)." Foundations and nonprofit organizations such as the National Endowment for Financial Education (NEFE) and Jump$tart Coalition were founded with this mission. Other nonprofits addressing education in general or working with underserved groups also started programs in financial literacy. Universities had developed programs and research centers to address the subject. Many for profit enterprises have also entered the arena. In essence every large institution whose mission is related to finance has shown interest in the topic.

Financial literacy continues to be widely discussed as the worldwide economy continues to encounter financial crises. The “subprime financial crisis” that started in 2008 is a good example. It started through the rapid increase of credit transactions for low-income consumers. Due to the system of incentives that motivated different actors involved in selling real estate to low-income individuals to push for deals even when the deals were not sustainable, the market for subprime mortgages created a housing price bubble. When it burst, all the actors involved and the society at large suffered the consequences. Financial literacy gained traction in this atmosphere because the low-income consumers that obtained those mortgages could not easily comprehend the information behind loan products and the risks associated with them. This lack of financial literacy combined with the increasing complexity of financial products made the society highly vulnerable. Efforts to tackle the low level of financial literacy in the United States have thrived. Also, scholars and institutions have started to study the topic. One of the first steps was to measure the level of financial literacy in America.

Low level of financial literacy in the United States

Many sources have indicated the low level of financial literacy in the country. From teenagers to executives in corporations, it has been documented their lack of sufficient knowledge to understand the financial system and basic concepts of banking, credit, investment and insurance. Many studies have shown that the average American does not possess the required financial literacy to successfully navigate the financial market. For example, research by the Jump$tart Coalition showed that when leaving high school, American students do not possess basic knowledge of income, money management, spending, credit, savings and investment (Lucey and Giannangelo, 2006). The 2008 National Jump$tart Coalition Survey of High School and College Students showed that “the financial literacy of high school students has fallen to its lowest level ever” (Mandell, 2008, p. 5). Although this same survey showed an improvement in the financial literacy of college students, the fact that college graduation rates are falling means that “75 percent of young American adults are likely to lack the skills needed to make beneficial financial decisions” (idem). This lack of knowledge does not change when Americans become adults. Niall Ferguson, a historian at Harvard University said: "a substantial proportion of the general public in the English-speaking world is ignorant of (personal) finance" (The Economist, 2008). According to the results of Lusardi and Mitchell (2007), American professionals are not ready to plan their retirement. The same authors did another study in 2009 and found that when given a test on financial literacy, high school students received failing grades and adults score a grade of C (Lusardi and Mitchell, 2009). The Jump$tart Coalition compiled a list of sources highlighting the worrisome level of financial literacy in the country. The FINRA Investor Education Foundation found in 2009 that almost half of adults were not able to perform correctly calculations regarding interest rates and inflation even when they thought they knew. An online survey of mothers in the U.S. found that 41% said they wanted more information about managing money so they can pass that information to their children (iVillage, 2010). A survey by the bank Capital One (2010) showed that more than half the teens polled declared that they want to know more about personal finances. Another financial literacy survey found that 78% of adults believe that they would benefit from advice from a professional regarding everyday financial questions (National Foundation for Credit Counseling, 2010). The results from the study *Teachers’ Background andCapacity to Teach Personal Finance study* funded by the

National Endowment for Financial Education (NEFE) found that less than 12% of K-12 teachers had taken a workshop on how to teach personal finance topics and only a few feel capable to teach about them. According to a survey conducted to 23 to 28 years old sponsored by the investment firm Charles Schwab, 28% of this population don't feel adequately prepared to make good choices regarding debt and 40% don't feel adequately prepared to make good choices regarding saving for the future (Charles Schwab and Lieberman Research Worldwide, 2009).

Although the problem of financial illiteracy troubles most Americans, low-income and minority groups have showed lower than average financial knowledge. The rationale for the differences in financial literacy among different socio-economic groups is largely unexamined by previous researchers (Gudmunson and Danes, 2011), but there have been some valuable efforts. Jacob (2000) explained that understanding basic financial principles is more challenging for lower-income persons. Lusardi (2008) pointed out that women, African-Americans and Hispanics present lower levels of financial literacy. Appleseed Foundation (2008) has conducted studies in regions with a high presence of Mexican immigrants and found low levels of financial knowledge and confusion about access to financial services. In the essay El Sueño de su Casa: The Homeownership Potential of Mexican-Heritage Families by The Tomas Rivera Policy Institute (2004), the authors commented on the lack of information on the housing market by this population.

According to these studies, lower-income immigrants are particularly vulnerable regarding financial literacy. Barriers reported to be limiting immigrants' use of mainstream institutions were also investigated by other studies that indicated that lack of financial knowledge is a major barrier. Suro et al., (2002) indicated perceptions of high minimum balance requirements as a barrier. Belsy and Calder (2004) claimed that lack of knowledge about how to manage banking accounts and lack of credit histories are barriers. Schoenholtz and Stanton (2001) put forward that lack of information about requirements to get a loan is also a barrier. Most unbanked households did not want a bank account due to cost-related reasons, such as high minimum balance and fees (Rhine et al., 2006). A Mexican immigrant in New York City does not have experience interacting with financial institutions and lack the knowledge of the language, the products being offered and the overall understanding of the financial system. This immigrant is not comfortable asking questions to the bankers and does not have the confidence to fight back when he feels that the financial institution made a mistake or abused him somehow. Thus, the negative outcomes of the financial illiteracy of most Americans are enhanced in the case of Mexican immigrants.

Financial education

References to financial literacy have flourished in the U.S. in the last decade. Although the term has become very popular, there is widespread confusion about this concept. It is used interchangeably with other concepts such as information on economics and finance. In contrast to the above terms, financial literacy refers to a practical knowledge of personal and household finance. In any case, financial literacy is closer to a term long used in the United States: family economics (households´ money management skills). Also, it is important to distinguish between financial literacy and financial education. The first concept refers to the knowledge that the individual has on personal and household finance and the second is the action of teaching the individual about personal and household finance. In essence, financial education aims to increase the level of financial literacy of the student. A definition of financial education is offered by the Organization for Economic Co-operation and Development (OECD): "Financial education is the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being" (2005, pg. 4). Financial education could be formal –course, seminar, certification- or informal –book, Website, game- and it includes any initiative that addresses the improvement of knowledge and behaviors related to financial literacy (Lusardi et al., 2011).

Hilgert, Hogarth, and Beverly (2003) noted that the number of financial education programs have grown dramatically since the mid-1990s due to concerns of the data indicating the low level of financial literacy in the country. There have been financial education initiatives by a wide range of entities, including financial institutions, universities, nonprofit organizations, foundations, for-profit enterprises and the federal and local governments. Since individuals' decision to be unbanked are influenced by lack of information, policymakers aimed to change this by promoting financial education programs designed to help consumers make informed decisions (Rhine et al., 2006). In 2002, the Treasury Department created the Office of Financial Education and Financial Access that currently coordinates the Financial Literacy and Education Commission, the President's Advisory Council on Financial Capability and other financial education efforts by the federal government. The Federal Reserve System has also been very active in promoting financial education. "Each of the twelve Federal Reserve Banks supports this objective through a wide variety of education partnerships, publications, learning tools, and student challenge contests." (Braunstein and Welch, 2002, p. 449). A study by Fannie Mae identified financial education programs by community organizations, cooperatives, businesses, faith-based organizations, community colleges and U.S. military programs (Vitt et al., 2000). "A study by the Consumer Bankers Association (2002) found that 66 percent of the 68 retail banks surveyed were conducting financial education programs and 97 percent participated in some form of financial education program either directly or through partnerships." (Lusardi et al., 2011, p. 5). There have been several efforts by banks and credit unions around the country in this regard. The FDIC, the SEC and many financial industry trade associations have organized programs as well.

Although financial education programs vary in terms of objectives, topics addressed and the target audience, Lusardi (2011) classified them in three categories: a) Programs addressing personal finance topics, such as budgeting, saving, and credit management; b) Programs addressing retirement and other topics of interest by employers; c) Programs addressing home buying, home ownership, and debt. Braunstein and Welch (2002) classified financial education programs the following way: programs that familiarize households with the fundamentals of personal finance, such as savings and credit; and programs that aim for a specific goal such a debt reduction or home ownership. It has been suggested that certain topics could particularly help unbanked consumers to go to the financial mainstream, such as knowing the different financial products offered in the marketplace, the prices that mainstream and alternative financial service providers charge and how to open bank accounts (Rhine et al, 2006).

Initiatives to improve financial education of Mexican immigrants

Among efforts to address financial education by financial institutions, nonprofit organizations, businesses, universities and public entities, multiple had targeted immigrants. The literature reveals that there is no shortage in the number of financial education programs in the country. Rhine, Greene and Toussaint-Comeau (2006) revealed that financial education programs are one of the strategies of financial institutions to better serve minority or immigrant consumers. Zhan, Anderson and Scott (2009) examined the effects of a training program on the financial knowledge and attitudes of immigrant participants. They have pre-training surveys that proved immigrants' lack of knowledge about mainstream and alternative financial services. Immigrants also were skeptical in relation to banking. After finishing the training program, post-training surveys revealed that immigrants' knowledge about mainstream and alternative financial services had improved. They expressed more favorable feelings toward mainstream financial institutions and less favorable feelings toward alternative financial agencies. According to Toussaint-Comeau and Rhine (2002), delivery of financial literacy programs is particularly effective among the youth Hispanic immigrants, given the relatively large proportion of youth in this population and the importance of teaching children smart financial practices.

A review of financial education programs targeting Hispanic immigrants indicated that there are two main categories: a) programs that are translations from the English original version to Spanish; b) programs that were designed specifically to address the needs and characteristics of this population. It has become a standard practice among major financial education providers to publish any financial education material in English and Spanish. For example, financial institutions such as Citibank, Wells Fargo, Bank of America, Visa and the Federal Reserve Banks publish their financial educational materials in Spanish. The same goes for government entities such as the materials developed by the Office of Financial Empowerment in New York City. Many for profit enterprises like publishers, Website developers, game developers and financial advisors have pursued the same path expecting Latino immigrants to read the information. On the other hand, financial institutions such as Chase, the Latino Community Credit Union in North Carolina and the Neighborhood Trust Federal Credit Union and Union Settlement Credit Union in New York City have launched financial education programs created specifically for Hispanic immigrants. Microfinance institutions such as Accion USA and Project Enterprise and nonprofit organizations such as Qualitas of Life Foundation in New York City[6] offer multiple seminars and classes in community centers, schools and businesses that employ immigrants. These initiatives designed curricula, materials, workshops, Web seminars and presentations in Spanish; all these with topics familiar to the target audience. Given the characteristics of Mexican immigrants, the subjects that are more popular in financial education programs that were designed with them in mind are: budgeting, how to open a bank account, how to develop credit, how to avoid financial scams, homeownership and how to start a business. These programs motivated students to learn how financial tools work, look for alternatives and choose the best option, have discipline regarding financial plans and reduce risks when making financial decisions.

[6] The researcher was a co-founder and director of Qualitas of Life Foundation. He designed the educational program and wrote the curriculum.

Initiatives by banks

In the last few years, national and regional banks have taken aggressive steps to capture the Hispanic immigrant segment. To achieve their objective, these banks have modified their products and services to respond to the needs of Hispanic immigrants. The Consumer Bankers Association (2005) reported that there are many partnerships between banks and community based organizations to educated immigrants about financial issues. Among these partnerships was the one formed by the Branch Banking andTrust in Winston-Salem, the North Carolina Office of Hispanic/Latino Affairs and the nonprofit El Pueblo that created a soap-opera in Spanish to teach immigrants about basic banking and credit issues (Appleseed, 2005).

Wells Fargo is the best example of a large bank taking action to pursue this segment. Given that a large percentage of immigrants from Latin America lack an official form of identification issued by an American institution, Wells Fargo announced in 2001 that 3,000 of its branches were going to accept the *matrícula consular* as an acceptable form of identification for account openings and over-the-counter transactions. This policy was the result of the collaboration between the Texas Secretary of State, the Mexican Consulate in Austin and the bank. In addition, Wells Fargo caught the attention of Mexican immigrants by creating a new product that responded to their most basic need: sending money to their communities of origin. In an attempt to compete with money transfer companies, Wells Fargo created InterCuenta Express, a wire transfer service that allows immigrants to send remittances to the branches of Mexican bank BBVA-Bancomer. Wells Fargo created a Website with downloadable materials in Spanish as a financial education initiative to accompany their institutional strategy.

Bank of America is another bank that has developed strategies to reach out to Hispanic immigrants, and in particular, to Mexican customers. Bank of America innovated by offering immigrants products that responded to their needs. Given that Hispanic immigrants don’t have a credit history and don't qualify for traditional credit cards, the bank allowed them to access a $500 secured credit if they deposit $99 in a parallel account. After the customer demonstrated good use of the credit and made timely payments for a period of time, the money in the parallel account is returned (Jordan, 2007). In addition, Bank of America created SafeSend, a free money transfer service to Mexico in partnerships with Mexican banks Banorte and Santander. Like Wells Fargo, Bank of America developed materials in Spanish to distribute to their Mexican immigrant customers.

Citibank also followed the steps of Wells Fargo and Bank of America by creating customized products with literature in English and Spanish. Besides a platform to send money to Mexican bank Banamex,[7] some Citibank branches have experimented with the provision of mortgages to immigrants with not social security number. Instead, these branches required the Individual Taxpayer Identification Number (Sidel, 2007). It is important to note that one of the main problems faced by financial institutions when serving Hispanic immigrants is the lack of a secondary credit market to sell their products. One particular case is the mortgages opened with individual taxpayer identification numbers rather than social security numbers. Although data had shown that ITIN mortgages have an extremely low default rate (Gorman, 2008), entities such as Fannie Mae and Freddie Mac do not buy these mortgages as a policy. In 2007, an entity called

[7] Banamex and Citibank have the same parent company Citi Corp.

HNMA Funding Company was created by Deutsche Bank and the Hispanic National Mortgage Association. Nevertheless, this entity was not able to operate to its full capacity because there was not enough demand from financial entities. Due to the financial crisis that started in 2008, the HNMA Funding Company closed and efforts by banks to offer ITIN mortgages became almost extinct.

JP Morgan-Chase developed many materials in Spanish to educate their customers on issues related to money. Among these materials were books, Websites and two booklets directed to Mexican immigrants called "Juntos se puede" (Together, we can) to teach about banking and credit. One of the booklets was directed to adults and the other one to children. These booklets were distributed in community centers as well as branches.

In 2010, PNC Bank decided to partner with Sesame Workshop (Sesame Street) to develop the educational kit "Save, Share and Spend". This kit included a series of In of educational materials for children 3-5 years old, including videos, booklets, coloring books and Websites with videogames. All materials were written in English and Spanish. [8]

A strategy followed by most banks trying to reach out to immigrant customers was community partnerships. For large banks serving different groups in multiple geographical areas is more difficult to establish partnerships with community groups such as community centers, health clinics or faith-based organizations. The job is left to branches located in immigrant enclaves. In these branches, account executives see the partnerships as opportunities to open new

[8] The author of this dissertation was a member of the advisory board for this project.

accounts. For smaller regional banks, the partnerships are easier because they are more flexible. However, these smaller banks have less capacity to create a new line of products for the immigrant communities (Appleseed, 2005).

Just as Hispanic immigrants rarely have a bank account or a credit card, they also don't possess any insurance coverage. According to Michael Barr, law professor at the University of Michigan, most immigrants lack the appropriate insurance (Williams, 2007). At some point in the recent past, insurers studied this market and created products tailored to the immigrants' characteristics. One example was the American International Group (AIG) that created an immigrant-friendly package consisting in insurance with a maximum payout of $5,000 for funeral expenses and shipping caskets abroad, and of $3,000 for accidental death and dismemberment. The disappearance of AIG during the financial crisis terminated this initiative. Diverse organization such as Appleseed, the Mexican Consulate General in New York and the Inter-American Development Bank have had meetings with insurers such as MetLife and Aetna to discuss the development of an insurance package for Mexican immigrants.[9] Nothing concrete has come from these meetings.

Banks have two reasons for targeting the Hispanic immigrant market. The obvious reason is that this is an untapped market that is a potential lucrative business. However, banks also have to comply with the mandates of the Consumer Reinvestment Act (CRA). This Act was passed by Congress in 1977 to encourage banks to offer credit to borrowers in low-income areas. The CRA has ignited controversy for years opening the door to many regulatory changes and scholarly

[9] The researcher had participated in meetings among these agencies in 2008 and 2010.

debate over the years. Given that the CRA focuses on lending, it is not useful to motivate banks to open accounts to immigrants that are not creditworthy.

The paper “Expanding Immigrant Access to Mainstream Financial Services” by the Appleseed Foundation (2005) explained that financial institutions faced the challenges of encouraging immigrants to use their remittances products. Also, immigrants opening accounts would have little or no money activity. In other words, immigrants that opened an account would not use other banking products. To overcome these challenges, banks must create an immigrant friendly environment, create remittances products, cross-sell products, open branches in places where immigrants feel comfortable such as supermarkets and community based organizations (idem).

The above described initiatives are plenty and diverse. The resources used by public and private organizations, in particular financial institutions, are considerable. The emphasis by federal and local governments to promote financial education and address the challenge of the high number of unbanked and underbanked individuals in the United States, especially the underserved, is remarkable. However, a report by the National Council of La Raza “asserts that current financial education efforts are not sufficient to meet the needs of low-income and unbanked (Latino) communities” (Appleseed, 2005, pg. 8).

Effectiveness of financial education programs

> "Much can be done to improve these (financial education) programs effectiveness..."
>
> Annamaria Lusardi (2008, pg. 11).

Most financial education programs assumed that the acquisition of knowledge would cause people to make better financial decisions (Bell and Lerman, 2005). Nevertheless, the outcomes of financial education initiatives have not been clear. Researchers are divided in their opinions. There are those who have concluded that financial education programs have an effect on the participation in the financial mainstream. After conducting a study of employer-based retirement education, Bernheim (1996) said that the program strongly increased the rates of savings of the household and stimulate contribution to 401 (k) plans. Bailey (2003) concluded that financial education could lead to better financial behavior in the workplace. Yoong (2008) found a positive relationship between financial education and stock market participation, and Clark (2003) determined that individuals are likely to reevaluate their investments such as retirement plans, as well as their savings and consumption after finishing a program. These studies have shown positive results of financial education efforts that took place in the workplace. Todd affirmed that studies of workplace financial education had showed convincing results of its effectiveness. Nevertheless, in the same paper, the author concluded "Evidence demonstrating the effect of financial education programs appears to be mixed and must be regarded with "cautious optimism""(2002, pg. 6).

Scholars such as Hilgert, Hogarth and Beverly (2003) found that there was no conclusive evidence that financial education leads to better financial decisions. Lewis Mandell, professor at the State University of New York, Buffalo, has argued over the years that most financial education programs are ineffective. After tracking students who took financial education classes during 5 years, Mandell (2006) did not find any significant effect of financial literacy. Actually, he found that high school students who took personal finance course tended to do worse on the post-test than those who did not take any course (Mandell, 2006).

Efforts to teach financial education at high school have been advocated by politicians and advocates. The nonprofit organization Jump$tart Coalition had done an admirable campaign to include financial education in high schools as a requirement. However, like Mandell, Peng et al., (2007) studied individuals that have taken a financial education course in high school and found minimal, even a negative impact on learning outcomes. Alcon (2000) determined that neither the number of topics studied nor the amount of information obtained had a significant relationship with the financial confidence of students.

Studies have indicated that the knowledge offered in a financial education program is a necessary, though not, a sufficient condition to participate in the mainstream financial market. A paper by Courchane and Zorn (2005) stated that knowledge is a key explanatory variable for behavior, but there are other variables playing an important role such as personal experience, education level and bad experiences.

Another source of controversy is the format of effective financial education programs. Braunstein and Welch stated “many challenges remain in identifying the most effective and most efficient means of providing relevant information to educate consumers" (2002, p. 456). They continued: "Educators are seeking other ways to analyze consumer needs more effectively and deliver pertinent information more efficiently" (p. 457). Martin (2007) reviewed the literature on financial education and concluded that the most effective financial education programs are those that are tailored to the needs of the audience, include face-to-face time with a counselor, are offered in a classroom, cover specific topics and teach skills. On the other hand, a study by the Federal Reserve based on the 2001 Survey of consumers indicated that the most effective ways to teach personal finance was through mass media and brochures (Hogarth et al., 2002). A report by the Appleseed Foundation (2005) determined that regarding financial education "successful approaches recognize the realities of immigrant community members´ lives" (pg. 9). They must include a strategy to build trust among the community, start with the basics, and see financial education as part of a process for asset building and credit history development (Appleseed, 2005). Lusardi et al., concludes that: "Evidence from this discussion suggests significant promise exists for financial education, but the promise is not yet fully realized." (2011, pg .2). And continues: "From a cost-benefit perspective, however, traditional methods of financial education have yet to prove their value." (pg. 14).

Given that the opinions published by scholars are still considered preliminary views on the subject "Because most financial literacy programs are relatively new, the literature is also new and part of a field that is still developing as a program of research" (Martin, 2007, p. 2), the National Endowment for Financial Education sponsored the Quarter Century Project. This project was an effort to bring together leading scholars on financial education to review the past 25 years of research within the field. The Quarter Century Project asked prominent experts in financial education to review the effectiveness of the existing initiatives. From one of the papers written for this project, Vitt et al. (2011) comments:

> "Does financial education improve the money management behaviors of learners? Are individuals who were educated about personal finance more likely to live within their means than those who received no such education? These types of questions are at the heart of the growing multi-disciplinary search for hard evidence that people are improving their financial management skills and behaviors as a result of the financial education they receive." (pg. 1).

The Quarter Century Project summarizes the subjects that require further research: gender-focus studies; use of technology in delivering financial education; individuals with diminishing capacity making financial decisions such as retirement; employer engagement; effects of peer groups and relatives in financial decisions; integration of financial products and education and the need for financial education programs to consider the socioeconomic and cultural characteristics of the target audience and tailor its curriculum to their specific needs (NEFE 2011). In addition, one of the topics that emerged in the papers written by the scholars invited to the Quarter Century Project was the self-selection of participants attending a financial education program.

Self-selection of participants attending a financial education program

> "In essence, those who need financial education the most—workers with little formal education, who have accumulated few assets and are in the greatest danger of retiring without sufficient income—are least likely to attend."
>
> Mandell (2008, pg. 15).

Diverse hypotheses have been formulated to explain the lack of conclusive evidence about the effectiveness of financial education programs. An emergent hypothesis is the problem of self-selection. Most programs have assumed that the path to a successful participation in the mainstream financial market is to attend a financial education program. However, they have also assumed that participants were those who needed financial education the most. In his studies of workplace financial education, Mandell (2008) concluded that in fact most programs are attended by employees who need it the least. He stated that adult financial education presents a selection bias because those who need the education the most –due to their socioeconomic characteristics (less educational attainment, lower incomes, and less experience with financial institutions)-- are less likely to attend.

Lusardi (2008) noticed that attendees of voluntary financial education seminars are not a representative group of individuals. She believes that those who attend have a proclivity to save, therefore it is difficult to measure the impact of the intervention. "Most likely to show up at employer seminars on investing, retiring, or even consumer credit are the "fine tuners" who (1) enjoy classes and (2) tend to keep up with and enjoy dealing with financial issues." (Boshara et al., 2011, pg. 16). This assessment is confirmed by research by Fox and Bartholomae (2006) that after a multi-year evaluation of a community-based financial education program in Ohio, found that participants had taken previous financial education programs and their presence in the new program had diminishing returns.

In conclusion, leading scholars on the topic believe that the individuals who need the programs the most because they are unbanked and underbanked, and urgently need assistance to improve their financial stability and enhance their wealth accumulation, are not the ones attending financial education programs. Given that recent papers have called for more research on the effectiveness of financial education programs (Bell and Lerman 2005), this study intends to address this call and focus in particular in the characteristics of a group of first-generation underserved Mexican immigrants participating in a community-based financial education program in New York City.

In the next chapter, this dissertation introduces the methodology used to achieve the objective of this study, including the research questions, hypotheses, validity and reliability, and assumptions and limitations of the study.

CHAPTER III: METHODOLOGY

In order to achieve the objective of this dissertation, the researcher designed an explanatory mixed method study that had two sequential phases. First, the researcher analyzed quantitative data from survey questionnaires of 613 Hispanic participants of a community-based financial education program in New York City. This allowed the researcher to study the characteristics of 340 first generation underserved Mexican immigrants in the program and compare these characteristics with the whole dataset. Then, the researcher compared these data to the results of a survey administered to a representative sample of 1003 underserved Mexican immigrants residing in New York City. Using statistical tools, the researcher was able to find if there were demographic and socioeconomic characteristics that differentiated the Mexicans in the program from the Mexicans in the representative sample. This analysis also allowed the researcher to find if there were characteristics that differentiated Mexican immigrants that participated in the mainstream financial system from those who did not.

For the second phase, the researcher interviewed a subset of 30 Mexican immigrants that had participated in the same financial education program and analyzed the content of their answers to triangulate and complement the information gathered in the surveys and find out if there were effects of the community-based financial education program in the financial stability of the participants.

This chapter is organized based on the following sections: research questions and hypotheses, data, research design, assumptions and limitations, and protection of the rights of participants. The chapter ends with a summary of the methodological procedures used in the study.

Research Question and Hypotheses

Research question and sub-research questions

Research Question: Which are the characteristics of a sample of first generation underserved Mexican immigrants who participated in a voluntary community-based financial education program in New York City?

Sub-research questions:

Sub-research question 1: Which factors differentiate those Mexican immigrants participating in the financial education program from a representative sample of first generation underserved Mexican immigrants in New York City?

Sub-research question 2: Which factors differentiate those Mexican immigrants participating in the financial education program from all Hispanics participating in the same financial education program?

Sub-research question 3: Which factors differentiate those first generation underserved Mexican immigrants in New York City participating in the mainstream financial market from those not participating in the mainstream financial market?

Sub-research question 4: What effect has the participation in a community-based financial education program in New York City on first generation underserved Mexican immigrants*?*

Sub-research question 5: Is there a problem of self-selection that hinders the effectiveness of financial education programs because those Mexican immigrants who decided to participate in a community-based financial education program in New York City are not the ones from the population who need the most financial education according to the literature?

Hypotheses

Hypothesis A: There are factors that differentiate first generation underserved Mexican immigrants in New York City that participate in a community-based financial education program from those first generation underserved Mexican immigrants in New York City from a representative sample.

Hypothesis B: Participation in a community-based financial education program by first generation underserved Mexican immigrants in New York City is related to participation in the mainstream financial market.

Hypothesis C: Participation in the mainstream financial market by first generation underserved Mexican immigrants in New York City is related to being financially literate.

Hypothesis D: There are factors that differentiate first generation underserved Mexican immigrants in New York City that participate in the mainstream financial market from those that do not participate.

Hypothesis E: A high participation of first generation underserved Mexican immigrants in New York City in the mainstream financial market is related to:

a) Having a higher level of education (as measured by formal education, proficiency in English and computer literacy).

b) Having a higher income.

c) The number of years living in the U.S.

d) Being financial literate.

e) Being undocumented (not having a social security number).

f) Having a domestic partner (married or otherwise).

g) Using alternative financial services.

Data

The study utilized data collected from first generation underserved Mexican immigrants in New York City. The data from a sample of this population were collected from two sources. The first dataset, known henceforth as Data Set I, was collected at

Qualitas of Life Foundation, a non-profit organization that offers financial education to Hispanic immigrants in New York City. The second set of data, known henceforth as Data Set II, was collected by EA Consultants, a for-profit consulting boutique firm specialized in financial services for low-income groups.

A profile of the participants

A breakdown of all the participants in this study (combined Data Set I and II) according to ethnicity and participation in the community-based financial education program is shown in Table 1. Out of the 1,616 participants, 1,343 (83.11%) are Mexican, while the remaining 273 (16.89%) participants are a mix of individuals from various countries, but are classified ethnically as Hispanic. Only a percentage (37.93%) of the participants had attended the financial education program by Qualitas of Life Foundation. The table also shows a breakdown of those subjects that had a bank account in the US at the time of the survey (37.49%).

Table 1

Breakdown of participants according to ethnicity, attendance to financial education program and if they have a bank account (N = 1616)

	Frequency	Percentage
Ethnicity		
Mexican	1343	83.11%
Hispanic	273	16.89%
Financial Education		
Attended financial education program (Data Set I)	613	37.93%
Did not attend financial education program (Data Set II)	1003	62.07%
Have a Bank Account		
Yes	529	37.49%
No	882	62.51%

Data set I

All the participants surveyed and interviewed from Data Set I had attended the financial education program by Qualitas of Life Foundation. This means that the participants had attended at least one financial education workshop offered by this organization. Qualitas of Life Foundation is a non-profit organization incorporated in 2007 in the State of New York. The mission of the organization is to "provide financial education to Hispanic immigrant families in New York in order to foster their financial security and improve their standard of living." (Retrieved from <www.qualitasoflife.org> on March 29, 2012). Qualitas of Life Foundation was the product of a group of Mexicans living in New York who seek to promote the economic development of Mexican immigrants in the City. After studying the overall situation of Mexican immigrants in New York, it was decided that their low participation in mainstream financial institutions was a priority. Therefore, the co-founders of the organization decided to focus in financial education.

To do so, the organization started a community-based financial education program in Spanish. The core of the organization's program was the offering of workshops in neighborhoods with a high presence of low-income Hispanic immigrants. These workshops were offered at community centers attended by this demographic. The chosen community centers were independent nonprofit organizations, or spaces where the community gathered. These centers were located at parochial schools, churches, daycare centers, etc. The workshop site could be fully equipped classrooms or spaces with chairs and a desk. The number of participants per workshop varied from 4 to 40 depending on the site. The organization taught the workshops at different times of the day, especially between 9am and 12pm (an appropriate times for housewives and immigrants employed in the evening or night) and 6 and 9pm (a good time for day laborers, cab drivers, factory workers). The workshops were voluntary and free of charge. A workshop consisted in two-hour long sessions where a facilitator presented a topic in lecture format and then assigned some time to interact with the participants and answer questions. The facilitator distributed educational materials to the participants such as textbooks, board games and posters published by other institutions. In addition, each participant received a workbook designed by Qualitas of Life Foundation with information and educational activities.

Each workshop focused on one topic related to financial literacy. The topics taught in these workshops included the following: financial goals; budgeting; access to mainstream financial institutions; savings; credit; taxes; scams; risk and investments; remittances; personal documents; and insurance. The curriculum of the workbook was developed based on a review of diverse financial education materials for low-income groups, but adapted to respond to the needs and characteristics of the participants.[10] The text was simple, straight to the point, easy to read and written in colloquial Spanish. It was meant to be user-friendly for adults with a low level of education. The curriculum and the workbook were revised every year. As educational aids, the facilitators used blackboards, power point presentations and flip boards.

The organization promoted its workshops by sending facilitators to community centers to explain the purpose of the program to Hispanic immigrants attending educational programs (such as ESL, computer literacy, citizenship;) giving away flyers with the information on the workshops; and through local media. The organization offered the workshops in a 3 months span (February – April; May-July; September-November). The participants were encouraged to attend as much workshops as their schedule allowed them. However, it was rare that one participant could attend all the workshops. The organization started with one facilitator and grew to the point of having 10 facilitators offering workshops in six different sites in a three months span. Facilitators had different backgrounds. They included adult educators, community leaders, college students and corporate executives. All of them spoke Spanish and most of them were Hispanic. Qualitas of Life Foundation raised funds from its board members, and institutions such as McGraw Hill and Yahoo! Employee Foundation. By the end of 2011, Qualitas of Life Foundation had served more than 1,200 Hispanic immigrants in the five boroughs of New York City. The main challenges for the organization were to develop a sustainable fundraising

[10] The researcher designed the curriculum and wrote the workbook.

operation that could bring resources to the organization for human resources and geographical expansion, and the development of educational materials, training systems for facilitators and an evaluation system for the financial education program.

During a typical workshop, the facilitator would greet the participants as soon as they arrived at the workshop site. This action had the purpose of making the participants feel comfortable at the site. In case it was a large group, an assistant facilitator was also assigned to the site to help the facilitator. Food and beverages were offered to the participants. The workshops had usually four sections: First, the facilitator would announce the agenda for the day, distribute a survey and the materials, and ask if the participants had any particular questions. Second, the facilitator would give a lecture supported by a power point presentation with information relevant to the subject of the day. Third, the facilitator would organize some activities relevant to the subject of the day. Fourth, the facilitator would ask if there were questions, dismiss the class and stayed to talk to participants one-on-one. Participants hardly arrived on time, but they also preferred to stay late to talk to other participants and the facilitator. In most cases, a sense of belonging was developed. In other words, participants were happy because they felt they were members of the organization. Participants felt thankful to the organization for providing the program and the educational materials free of charge. Some were skeptical at first because they thought that the organization was trying to sell them something or involve them in a scam. However, they eventually realized it was not the case. In short, participants attended the workshop because they wanted to learn about the subject, because they liked the atmosphere of the workshops and enjoyed interacting with others in the class.

Surveys

The data for Data Set I was collected using a survey in Spanish. This data set contains information on demographic and socioeconomic characteristics, participation in the mainstream and alternative financial systems, and level of financial literacy of 613 participants. The survey was handed to the participants before they started the financial education program. In most cases, the participants filled the form by themselves in 15-20 minutes. In some cases, an agent of Qualitas of Life Foundation would help them to complete the survey if they did not understand a question. When asked about their level of English proficiency and computed literacy, the participants self-assessed their knowledge. Participants were told that if they did not want to answer a question, to leave it blank. The data from 613 surveys was entered into a data set in an Excel spreadsheet and analyzed using the software SPSS.

Interviews

As a sub-sample of Data Set I, the researcher interviewed 30 Mexican immigrants for the qualitative section of the study. The interviews used open-ended semi-structured questions prepared by the researcher.[11] The responses of the participants became a data set called the Qualitative Data Set. The researcher selected 30 of the surveyed participants from Data Set I to conduct the interviews. Besides being Mexican immigrants living in New York City, all participants share three characteristics: 1) they had attended the financial education program by Qualitas of Life Foundation; 2) they had a bank account at the time of the interview; 3) they had used alternative financial services (thus, they can be classified as underbanked). This was a

[11] See list of questions in appendix 1.

convenience sample based on availability and willingness of the participants. Denscombe (2007) defined convenience sampling as the selection of research participants based on their availability to the researcher. The interview process was standardized, but the researcher made on-the-spot decisions to elaborate on answers, clarify terms and ask about specific subjects. The responses were classified, coded and organized using an Excel spreadsheet. The interviews focused on two general subjects: 1) the participant's relationship with financial institutions; 2) the participant's relationship with the financial education program.

The researcher had unrestricted access to the clients of Qualitas of Life Foundation because he had been collaborating with the organization since it was founded. Bogdan and Biklen (1992) stated that a good part of the success of the interview involves building a relationship with the interviewee. Qualitas of Life Foundation was always aware of his intention to collect data for the dissertation during the implementation of its financial education program. During his work with this organization, the researcher had the opportunity of meeting all the participants of the qualitative study. The researcher started to contact the participants by phone. During the phone conversation, he explained the purpose of the interview and the nature of the study. Some participants said that they did not want to be part and the researcher just thanked them. When the participant agreed to be part of the study, they schedule a day and time to meet. In some cases, the participant asked for some time to decide the best time for the meeting. In those occasions, the researcher called again. If the participant seemed reluctant to make a decision, the researcher thanked them and ended the conversation. The researcher would propose a place to meet to those participants that agreed to be part of the study. The first proposal was the home of the participant. If for some reason, the home was not available or the participant preferred some other place, the researcher made arrangements to have the interview in other spaces.

The interviews were conducted at the home of the participants (12), at a fast food restaurant (8), and at community centers (10). When they were done at the home of the participants, the living room was the setting. Except for some children, the interviews were conducted with the participant alone. Most of them made the researcher feel welcome by offering beverages and food, and showing other rooms in the home. When the interviews were conducted in fast food restaurants, the researcher arrived earlier, bought beverages and food and reserved a table in a corner where the interview could be conducted. The location of the restaurants was close to the participant's home. The researcher offered the food and beverages to the participants, but with the exception of one, none accepted the offer. The interviews at the community center were done in private spaces. The participants were already familiar with the chosen community centers. The familiarity of the participant with the space where the interview was conducted was a critical factor for the researcher because he wanted the interviewees to feel comfortable. Given the familiarity of the participants with the researcher and the spaces where the interviews were conducted, it is assumed that the participant felt in a trustworthy environment where they could share their experiences.

Every time the interview started, the researcher explained the participant the objective, purpose and nature of the study and mentioned the rights of the participant while he distributed the approved forms by the Institutional Review Board. The participants signed the forms, kept a copy and decided if they wanted the interview to be audio recorded. All of them agreed to this.

The researcher taped the interviews, but at the same time wrote in a notebook most of the answers and made notes. The researcher asked the previously prepared semi-structured questions and allowed the participants respond without directing them to a particular topic. Some gave short answers and some extended their answers by including personal stories, anecdotes and their opinions. If the participant started talking about a topic that was not related to the objective of this dissertation, the researcher would politely stop the participant and continued with the next question. There was no particular question that the interviewees did not want to answer. Only in some cases, the participant would give a short and concise answer that hinted the researcher that he did not want to talk more about the subject. In those cases, the researcher did not pressure for an answer and continued to another question.

The interviews lasted between 45 minutes to 2 hours depending on the answers of the respondents and if there was an interruption like a mother taking care of her children. After the interview had concluded, the researcher thanked the participants. Later, the recording and the notes of the interview were uploaded to a computer for storage. Then, they were reviewed and translated to English. The translations were organized by answers to the original questionnaire, but giving room for open-ended answers. Content analysis was used to generate categories, themes, and patterns. This Qualitative Data Set was first organized in an Excel spreadsheet. The names of all participants remain anonymous, but the researcher gave fictitious names to all of them to include their answers in the data analysis section.

Data Set II

The second set of data, known henceforth as Data Set II, yielded data from 1003 first generation underserved Mexican immigrants in New York City, using a survey in Spanish conducted and designed by EA Consultants, a for-profit consulting boutique firm specialized in financial services for low-income groups. EA Consultants is an international consulting firm dedicated to supporting initiatives that facilitate access to finance, markets and social protection for low-income segments of the population. Its goal is to produce research and work that lead to new ways to thinking and new practice that can be transformative to benefit all segments of society. Its consulting experience is extensive, both within New York City and around the developing world. This data set was collected from a representative sample of the target population and has information on demographic and socioeconomic characteristics and participation in the mainstream financial system. The survey was collected by surveyors approaching potential participants in the street and community events. In most cases, surveyors filled the form after asking the questions to the participants. Participants were told that they did not have to answer any question they did not want to. The data from 1003 surveys was entered into a data set in an Excel spreadsheet and analyzed using the software SPSS. The sample collected was part of a paper prepared for the Multilateral Investment Fund of the Inter-American Development Bank.

The statistical tools used to analyze the quantitative data were: frequency distribution, measures of central tendency, linear regression and logistic linear regression, correlation, chi-square analysis and t-tests.

The variables measured by Data Sets I andII can be classified into five categories: (a) demographic and socioeconomic characteristics, (b) level of financial literacy, (c) participation in the mainstream financial market of New York City, (d) participation in the alternative financial market of New York City, and (e) participation in a financial education program. The third variable, participation in the mainstream financial market of New York City, was defined by the following attributes:

1. Having a bank account
2. Having a credit card
3. Having an investment
4. Having insurance
5. Usage of a tax preparation service

A tabular summary of the frequency distribution of the quantitative data was conducted to manually compare observations in Data Set I and Data Set II, and within the datasets. This manual comparison allowed the researcher to determine if differences existed between the respondents in the two data sets in terms of their demographic and socioeconomic characteristics and participation in the financial mainstream. The frequency distribution included continuous and categorical data. In the case of continuous variables, measures of central tendency such as mean and standard deviation were used for comparisons.

Linear regression models were used to characterize the correlation between variables. A multiple-variable linear regression model was appropriate for the proposed study because most of the models had more than one independent variable. The coefficients of each independent variable represent the independent contributions of each variable to the computed prediction of the dependent variable. Logistic regression was used with binary dependent variables (such as the participant having a bank account or not).

Besides the regression model, chi-square tests were used. The chi-square statistic is used to measure the association between categorical variables. It measures the relationship between categorical data and the relative frequency of outcomes in each category based on a given distribution. With the same objective than the chi-square, t-tests were used to measure the association between continuous variables by testing if the means of two populations were equal or not.

Participation in the mainstream financial market and participation in the alternative financial systems were measured using an index that contained a list of financial activities. This index was labeled *FinInt.* Participation in the two differing systems was measured by adding 1 point for every instance of participation in the mainstream financial market and by deducting one point for every instance of participation in the alternate financial systems. The activities on Index I are listed as follows:

- If the subject has a bank account in the US (+1)
- If the subject wrote checks in the last month (+1)
- If the subject has a certificate of deposit (+1)
- If the subject has an Individual Taxpayer Number (ITIN)(+1)
- If the subject paid taxes last year (+1)
- If the subject has used a tax preparing service (+1)
- If the subject has a credit card (+1)

- If the subject has had a loan in the US (+1)
- If the subject has used a bank to send remittances (+1)
- If the subject has health insurance (+1)
- If the subject has life insurance (+1)
- If the subject has an investment (+1)
- If the subject has used a check casher (-1)
- If the subject has obtained a loan from an informal source (-1)
- If the subject has participated in an informal savings scheme (-1)

Financial literacy was measured using an index called *FinLit*. This index was used only for Data Set I. The participants get one point on this index for each correct answer to the following questions:

- If the subject knows the difference between a savings and checking account (+1)
- If the subject knows the definition of the APR of a loan (+1)
- If the subject knows the definition of diversifying an investment portfolio (+1)
- If the subject knows what is included in a credit report (+1)
- If the subject knows the definition of buying a company stock (+1)
- If the subject knows the definition of premium of an insurance (+1)
- If the subject has participated in a financial education program (+1)

Research Design

This dissertation chose an explanatory sequential mixed method approach that combined a quantitative analysis and a qualitative analysis to respond to the research questions and test the hypotheses. There is not a standard method to measure the effectiveness of a financial education program. In a paper for the National Endowment for Financial Education, Vitt and his colleagues (2011) concluded the following:

> "The quantitative versus qualitative methods debate that is a prominent and persistent topic within the evaluation discipline is also a topic to be discussed and resolved by researchers within financial education. No one method, however, is ideal. Rather, the combination of methods that are complementary is more likely to result in the best evidence of learner outcomes from successful financial education approaches" (pg. 1).

Although the field of mixed methodology is still developing, this type of research has become prominent in social and behavioral sciences (Creswell, 2009). Bergman defines mixed methods research as "the combination of at least one qualitative and at least one quantitative component in a single research project or program" (2008, pg. 1). In the first issue of the Journal of Mixed Methods Research, Tashakkori and Creswell defined mixed methods as "research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry" (2007, pg. 4). Onwuegbuzie and Leech (2006) stated that the use of mixed method studies gives researchers the opportunity to collect, analyze, and interpret both qualitative and quantitative data in a single study while examining the same phenomenon.

Multiple scholars consider mixed method research an appropriate research tool because it gives the researcher the opportunity of:

- Having the potential to build upon findings of qualitative data with quantitative data (Gay, Mills, and Airasian, 2006).
- Having flexibility in order to collect rich data (Creswell, 2007).

- Establishing qualitative and quantitative priorities during the data collection and analysis process (Collins, Onwuegbuzie, and Jiao, 2006).
- Allowing the findings of qualitative data to inform the development of quantitative data (Collins and O'Cathain, 2009).
- Ensuring reliability of qualitative research (Gay, Mills, and Airasian, 2006).
- Providing alternative viewpoints as generalizations are formed during data analysis (Denscombe, 2007).

Mixed methodology provides researchers with the ability to implement and design various strategies for data collection, the option to prioritize one method (qualitative or quantitative), the freedom to determine when the integration of the data from the two approaches is done, and the possibility of determining the overall theoretical perspective guiding the research (Creswell, 2003, 2007; Bergman, 2008).

In particular, scholars have concluded that mixed methodology ensures the validity of studies by:[12]

  - Eliminating biases
  - Explaining the true nature of a phenomenon
  - Triangulating information
  - Offsetting weaknesses of each method
  - Offering a more comprehensive account
  - Answering different research questions

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[12] Bergman, 2008.

This particular mixed method research design entailed the initial analysis of quantitative data followed by the collection and analysis of qualitative data. Using the nomenclature by Creswell and colleagues, this study is sequential and explanatory (Bergman, 2008). It is considered “sequential” because one type of data preceded the other type of data. It is considered “explanatory” because it started with the collection and analysis of quantitative data and it was followed by the collection and analysis of qualitative data to explain and expand the initial outcomes (idem).

When conducting a sequential explanatory mixed method design, the selection of the sample for the qualitative section is considered a potential challenge. According to Creswell and Plano Clark (2007), the sample sizes in a sequential design are not required to be of equal sizes given the nature of quantitative research to generalize and qualitative research to offer an in-depth understanding of a subset of subjects. For this dissertation, 30 Mexican immigrants were selected as the subset of the 340 that attended the community-based financial education program.

Moreover, the researcher needs to determine which results will be the basis for selecting participants for the qualitative phase. “Selection can be based on identifying qualitative participants using significant quantitative results, unexpected non-significant quantitative results, outliers, extreme cases, strong predictors in a correlational study, distinguishing demographic characteristics, or individuals from different comparison groups” (Bergman, 2008, pg. 77). For the purpose of this study, the selection of the 30 interviewees was based on the discovery that there were characteristics that differentiated Mexican immigrants participating in a community-based financial education program from the representative sample. In particular, the researcher was interested in understanding the differences among the groups regarding their participation in the mainstream financial system.

Review of other studies

The decision to select a mixed method approach was made after reviewing the methodologies used by other studies. Given that there is a limited literature that explores this subject (Bell and Lerman, 2005; Martin, 2007), there are not many experiences regarding methodology to address the objective of this dissertation. It is appropriate to classify the methodologies in two categories: a) Those that intended to measure the effectiveness of a financial education program; b) those that intended to measure the parameters that are addressed by a financial education program such as level of financial literacy and level of participation in the mainstream and alternative financial markets.

Efforts to measure the effectiveness of financial education are diverse, but "the literature is filled with calls for studies with better controls, more data, and longer time frames" (Vitt et al., 2011, pg. 3). Many evaluations measure the level of satisfaction with the financial education program using variables such as program delivery, the quality of instruction and the educational materials (Vitt et al., 2011). Although these evaluations might indicate the quality of the program itself, they do not measure the impact of the program in terms of improvement in the levels of financial literacy and participation in the mainstream financial system.

To measure financial literacy, researchers have designed surveys testing knowledge on specific topics such as interest rates, exchange rates, stocks or retirement plans. Cross-sectional and longitudinal survey questionnaires have been conducted by nonprofit organizations like Jump$tart and the National Foundation for Credit Counseling. Using these surveys, scholars have tracked the number of correct answers of a group through time or at a particular point of time. Unfortunately, there is not a standard method to score financial literacy. Lusardi (2010) has suggested the development of a financial literacy universal score that can measure the level of financial literacy of populations across time. Without a standard method or score to evaluate the level of financial literacy is challenging to measure the impact of a financial education program regarding this objective.

Researchers trying to measure the level of participation in the financial mainstream have faced a similar challenge. Most scholars and institutions addressing this subject have studied the relation between: a) selected demographic and socioeconomic variables of a particular group such as high school students, low-income mothers, young employees or recent-arrived immigrants; and b) a parameter or series of parameters defined to measure the participation of individuals in the mainstream and alternative financial markets. A large share of these studies has used a quantitative approach. Researchers have used descriptive statistics, regression analysis, chi-square tests and other statistical tools to look for correlations between variables and understand the phenomenon at hand. To measure the participation in the financial mainstream, researchers define parameters such as having a bank account, number of credit cards or times a subject used a pawn-shop in the last month. The data for these studies have come from surveys designed specifically for this subject such as those from Federal Deposit Insurance Corporation

(FDIC), Merrill Lynch, KPMG and TIAA-CREF, or from household general surveys such as the Health and Retirement Survey, the Consumer Expenditure Survey, or the University of Michigan's monthly Survey of Consumers.

Although this topic is still in its infancy, the use of surveys to gather data and regression analysis to find relations between selected variables have become the standard method. Nevertheless, qualitative studies have made significant contributions to the field. Among these researchers, they have used interviews to do so. Among them, the work of Gross, Block-Lieb and Wiener (2002) on bankruptcy filers, Iversen (2006) on the Jobs Initiative Program, and Edin and Lein (1997) on welfare mothers was noticed. Some studies have used a financial education program as research site. Slaughter (2006) explored the characteristics and experiences of African-American high school students who participated in a web-based financial literacy program. Lusardi (2005) went further by devising a brand new module on financial literacy to measure how workers make their saving decisions. In these cases, ethnographic methodologies such as interviews and observation have been used.

Concluding, the review of the methodologies of other studies indicates that a mixed method exploratory study was the appropriate design to achieve the objective of this dissertation.

Assumptions and Limitations

The researcher assumes that all the participants provided responses that were honest and accurate of their true experiences and opinions. The researcher assumes that the selected research design was sufficient in answering the research questions. The researcher assumes that the qualitative component of the study would produce data that would be helpful in the quantitative component of the study. Creswell (2003) acknowledged that themes and statements collected from qualitative data might be validated with quantitative data by using a representative sample of a population. The researcher assumes that the quantitative data was representative of the population.

The study might be limited because of the use of secondary data. The survey data from Data Set I and Data Set II was self-reported. However, the presence of other types of data such as interviews provided data triangulation. Perlesz and Lindsay (2003) described several reasons for including triangulation in mixed method research, including “to enhance the trustworthiness of an analysis by a fuller, more rounded account, reducing bias, compensating for the weakness of one method through the strength of another, and in testing hypotheses” (p. 25). Data will be triangulated through three sources of findings: 1) the review of literature; 2) the analysis of quantitative data from two data sets of demographic and socioeconomic variables of first generation underserved Mexican immigrants in New York City; 3) the analysis of qualitative first-hand data gathered from interviews to Mexican immigrants that had participated in the community-based financial education program.

Although survey techniques were used to collect reliable answers, it is important to note the source and the data-gathering instrument when making generalizations. The study could also be limited because of the small sample for the qualitative component of the study, but the sample was within the recommended range by Creswell (2005). As researchers make decisions regarding sample size, the goal is to include enough participants in order to produce significantly statistical results (Auerbach, 2003).

Regarding the interview, there are effects of this technique that must be taken into account because they present limitations to the conclusions of this study. The interviewer might influence subjects or lead them to respond in certain ways. One of the main concerns of the researcher was the contamination of the answers given the knowledge that the interviewer had of the subjects.

The researcher assumed the subjects would offer honest answers to the questions, but was prepared to make on the spot decisions about modifying the questions or asking additional ones in particular when participants offered their evaluation of the financial education program. Given that the interviewees knew that the researcher was an active member of Qualitas of Life Foundation and in some cases, their teacher, the participants could have exaggerated the benefits or mitigated the problems of the program in an attempt to please the researcher (or not hurt his feelings). Therefore, when a participant offered a positive or negative outcome of the program, the interviewer asked the specifics of that outcome in order to validate the answer. For example, if a participant said that the program had produced more savings, the researcher would ask questions such as: How much savings? Where are the savings? Was the participant saving before the program? If a participant said that the program had taught him to make a budget, the researcher would ask questions such as: Could you show me your budget? What steps do you take to make a budget? Do you share your budget with your family? Only in the case that the researcher had several answers that validated an opinion of the financial education program, these were reported as actual outcomes of the program.

The study only included first generation underserved Mexican immigrants living in New York City. Although there might be subjects from different areas of New York City, it is expected that some neighborhoods will be overrepresented. It is important to notice the sample might not represent the average Mexican in New York City.

Data Set I included immigrants from Latin American countries (Hispanics). The only reason these immigrants were included in the study was to compare with the Mexicans participating in the same program. This sample of immigrants is not representative of the population of immigrants from Latin American countries in New York City and some countries of origin are overrepresented.

In conclusion, attempts to generalize the results and conclusions of the study to other ethnic groups or to Mexican immigrants in other geographical areas other than New York City should take into consideration the characteristics of the target group and the characteristics of the study.

Protection of Participants' Rights

The approval of the Institutional Review Board ensured that participation in this study is strictly voluntary. Participants had the right to choose not to participate at any given time during the study. Every effort was made to ensure the anonymity of the participants of this study. The structure of this study did not require participants to disclose intimate or personal information that could be used to harm or exploit.

Summary

This study utilizes a sequential explanatory mixed method design to analyze the characteristics of a sample of first generation underserved Mexican immigrants living in New York City who decided to attend a voluntary community-based financial education program. The main objective of the study is to find if there are characteristics that differentiate these participants from: a) a representative sample of the population; b) from the overall dataset of Hispanic participants in the same financial education program. To complement the study, the methodology is also used to find if there are demographic and socioeconomic characteristics that differentiate those subjects who possess a bank account and use other financial services from those subjects who do not; and to explore if there were any effects of the community-based financial education program in the participants.

The population for the study included first generation underserved Mexican immigrants residing in New York City. Data was gathered from: 1) a data set of quantitative information from 613 participants of a community-based financial education program in New York City for

Hispanic immigrants (340 of Mexican origin, the rest from Latin American countries) collected by Qualitas of Life Foundation; 2) a data set of a representative sample of 1003 Mexican immigrants collected by EA Consultants. A mixed method design was used in which the quantitative component of the study preceded the qualitative component of the study. Data analysis was divided into two components. The quantitative data was analyzed for descriptive statistics and correlation analysis. Content analysis was conducted to analyze the qualitative data from the interview responses. The next chapter contains the results of the data analysis.

CHAPTER IV: RESULTS OF DATA ANALYSIS

The objective of this dissertation is to explore the characteristics of a sample of first generation underserved Mexican immigrants living in New York City who decided to attend a community-based financial education program. In other words, this dissertation is interested in finding if those Mexican immigrants who want financial education present unique characteristics that differentiate them from the population that according to the literature needs financial education the most. To do so, the dissertation compares the characteristics of a sample of first generation underserved Mexican immigrants living in New York City who decided to attend a community-based financial education program to a representative sample of the population and to the overall dataset of Hispanics who also participated in the same financial education program. To complement the analysis, this dissertation utilizes the data collected to find if there are demographic and socioeconomic characteristics that differentiate those subjects who possess a bank account and use other financial services from those subjects who does not. Finally, it explores if there were any effects of the community-based financial education program in the participants according to their own words.

This chapter presents the results of the quantitative and qualitative data analysis by answering the research questions posted by this dissertation. After each research question is presented, the researcher includes the data used and the statistical tools utilized to analyze it.

Research Question

The research question of this dissertation is: *Which are the characteristics of a sample of first generation underserved Mexican immigrants who participated in a voluntary community-based financial education program in New York City?* In order to answer this research question: four sub-research questions were developed addressing specific aspects of the study. Following is the data analysis conducted to answer each sub-research question.

Sub-research question 1: Which factors differentiate those Mexican immigrants participating in the financial education program from a representative sample of first generation underserved Mexican immigrants in New York City?

This sub-research question seeks to identify the factors that differentiate the first generation underserved Mexican immigrants who participated in the Qualitas of Life Foundation community-based financial education program from those of a representative sample of the population. The analysis of the data to respond this question is divided in two sections: quantitative and qualitative.

Quantitative data analysis

The respondents were compared on the basis of their place of residence in New York, their gender, their age, marital status, monthly income and time spent in the United States.[13] The

[13] These were the demographic and socioeconomic characteristics that were asked in both data sets.

results of the frequency analysis were used to compare the respondents from the different data sets.

The results of the frequency analysis and the descriptive analysis for measures of central tendency are shown in Tables 1 and 2. Based on the frequency comparison, there are more women in Data Set I compared to Data Set II. The average age for the respondents who participated in the financial education program is 38 years, while the average age for all the respondents is 35 years. The average age of the Mexican respondents in Data Set II is 32 years. These results show that older people, especially among the Mexican respondents, attended the financial education program. There is a significantly higher percentage of lower income respondents for Data Set I (those who participated in the financial education program). This may be so because many participants are unemployed or are homemakers. The same statement can be made about the Mexicans in Data Set I. The average income for all the participants is approximately US$930 per month, while those in Data Set I have a lower mean monthly income at US$590. The respondents were also compared based on the amount of time they have resided in the US. Based on the data, the same trend occurred in all the data sets. Most of the respondents have been in the US for 5 to 10 years.

Table 1

Results of Frequency Analysis – Demographic Characteristics

	All Participants (n = 1616)		Data Set I Mexicans Only (n = 340)		Data Set II (n = 1003)		Data Set I All participants (n = 613)	
	N	%	N	%	N	%	N	%
Place of residence								
Manhattan	256	16.03	79	23.24	150	15.21	106	17.35
Brooklyn	448	28.05	12	3.53	428	43.41	20	3.27
Bronx	267	16.72	115	33.82	51	5.17	216	35.35
Staten Island	163	10.21	114	33.53	6	0.61	157	25.70
Queens	463	28.99	20	5.88	351	35.60	112	18.33
Missing	*19*				*19*			
Gender								
Female	862	53.84	231	68.14	452	45.38	410	67.77
Male	739	46.16	108	31.86	544	54.62	195	32.23
Missing	*15*		*1*		*9*		*6*	
Age								
< 20 years	74	5.02	5	1.63	63	6.43	10	2.03
21-30 years	519	35.23	88	28.76	405	41.28	115	23.37
31-40 years	531	36.05	127	41.50	348	35.48	183	37.20
41-50 years	219	14.87	65	21.24	116	11.82	103	20.93
> 50 years	130	8.83	21	6.86	49	4.99	81	16.46

Missing	*143*		*34*		*24*		*119*	
Marital Status								
With partner	938	61.03	201	61.09	324	60.00	325	60.19
No partner	599	38.97	128	38.91	216	40.00	215	39.81
Missing	*79*		*11*		*71*			
Monthly Income								
< $500	442	40.59	99	64.29	179	66.05	169	61.23
$501 - $1500	364	33.43	36	23.38	63	23.25	72	26.09
$1501 - $2500	261	23.97	17	11.04	23	8.49	29	10.51
$2501 - $3000	12	1.10	0	0.00	2	0.73	2	0.72
> $3000	10	0.91	2	1.30	4	1.48	4	1.45
Missing	*386*		*186*		*335*			
Time in the US								
< 5 years	359	24.03	62	20.20	125	25.10	258	25.96
5-10 years	573	38.35	116	37.79	170	34.14	379	38.13
11-15 years	255	17.07	66	21.50	80	16.06	175	17.60
16-20 years	203	13.59	51	16.61	76	15.26	127	12.78
> 20 years	104	6.96	12	3.91	47	9.44	55	5.53
Missing	*122*		*33*		*11*		*9*	

Table 2

Results of Descriptive Statistics Analysis – Measures of Central Tendency

	N	Mean	SD	Min	Max
Age					
All Participants	1473	34.65	10.54	17.00	86.00
Data Set II	981	32.64	9.40	17.00	77.00
Data Set I	492	38.65	11.53	18.00	86.00
Monthly Income					
All Participants	1230	928.36	780.72	0	4400.00
Data Set II	954	1026.03	754.40	0	4400.00
Data Set I	276	590.78	777.35	0	3348.00
Time in the US					
All Participants	1494	10.14	7.15	0	50.00
Data Set II	996	9.66	6.78	1.00	40.00
Data Set I	498	11.08	7.75	0	50.00

Table 3 displays the results of the frequency analysis used to conduct a comparison of indicators of participation in the financial mainstream of the respondents. The table contrasts the results between Mexicans in the financial education program and those from a representative sample. The results indicate that most of the respondents who attended the financial education program already had bank accounts. There is a slightly smaller percentage of Mexicans (71.43%)

who had a bank account compared to the total percentage of the participants (76.64%) in the financial education program. However, while 71.43% of Mexicans in the financial education program had a bank account, only 21.4% of Mexicans from Data Set II had a bank account. The results on remittances also indicate underbanking for all the respondents, or that they do not maximize their use of the services provided by their banks. While 76.64% of respondents who attended the financial education program have a bank account, only 26.25% use their respective banks for remittances. For the whole database, 37.49% have a bank account, but only 23.55% use banks for remittances.

The respondents were also surveyed regarding health insurance. While 37.84% of the respondents who attended the financial education program reported insurance benefits, they probably refer to benefits by NYS, such as PCAP or Child Health First, and not to traditional insurance. For the Mexican respondents who attended the financial education program, there are fewer respondents who reported to have health insurance (29.36%). The data on the frequency analysis for the question on life insurance indicates that compared to the respondents in the other data sets, more respondents from the attendees of the financial education program were reported to have life insurance (16.47%), although among the Mexican attendees of the program, only 9.90% of the respondents have life insurance. From a representative sample, only 3.71% Mexicans have life insurance. The migration status of respondents was also compared. Those who have attended the financial education program had a higher percentage of having a Social Security number (33.81%) than those from the Whole Database (19.96%) and those Mexicans from a representative sample (12.74%). But the difference in migration status between Mexicans in the financial education program and Mexicans from a representative sample was marginal.

Table 3

Results of Frequency Analysis – Indicators of Participation in Mainstream Financial Market

	All Participants (n = 1616)		Data Set I Mexicans Only (n = 340)		Data Set II (n = 1003)		Data Set I All participants (n = 613)	
	N	%	N	%	N	%	N	%
US Bank Account								
Yes	529	37.49	175	71.43	214	21.40	315	76.64
No	882	62.51	70	28.57	786	78.60	916	23.36
Missing	205		95		5		200	
Loans in the US								
Yes	244	68.35	68	44.74	--	--	159	58.46
No	113	31.65	84	55.26	--	--	113	41.54
Missing	1259		188				339	
Bank Remittances								
Yes	312	23.55	36	19.46	228	22.69	84	26.25
No	1013	76.45	149	80.54	888	77.31	236	73.75
Missing	291		155				291	
Health insurance								
Yes	232	25.47	69	29.36	81	15.82	151	37.84
No	679	74.53	166	70.64	431	84.18	248	62.16

Missing	705		105		493		212	
Life insurance								
Yes	75	8.80	19	9.90	19	3.71	56	16.47
No	777	91.20	173	90.10	493	96.29	284	83.53
Missing	764		148		493		271	
Social Security #								
Yes	286	19.96	36	12.12	120	12.74	166	33.81
No	1147	80.04	261	87.88	822	87.26	325	66.19
Missing	183		43		63		120	

A chi-square analysis was also conducted to determine if a relationship exists between the participation in the financial education program and the demographic and socioeconomic characteristics of the participants. The results of the chi-square analysis indicate that the place where the respondents reside is significantly correlated to their attendance in the financial education program *($p < .001$)*. Based on the Cramer's V value *(.7155)*, the relationship between the place of residence and attendance in the financial education program exhibits a moderate to strong effect size.

Table 4

Results of chi-square analysis – Financial Education x Place of residence

Data Set	Place of Residence					
	Man	Brk	Brx	StIs	Qns	Total
Attended the program	79 5.96 23.24 34.50	12 0.91 3.53 2.73	115 8.68 33.82 69.28	114 8.60 33.53 95.00	20 1.51 5.88 5.41	340 25.66
Did not attend the program	150 11.32 15.23 65.50	428 32.30 43.45 97.27	51 3.85 5.18 30.72	6 0.45 0.61 5.00	350 26.42 35.53 94.59	985 74.34
Total	229 17.28	440 33.21	166 12.53	120 9.06	370 27.92	1325 100.00

Frequency Missing = 19

Statistic	DF	Value	Prob
Chi-Square	4	678.2669	<.0001
Likelihood Ratio Chi-Square	4	695.8589	<.0001
Mantel-Haenszel Chi-Square	1	0.0692	0.7925
Phi Coefficient		0.7155	
Contingency Coefficient		0.5819	
Cramer's V		0.7155	

Another chi-square analysis procedure was conducted to determine the relationship between the respondents' gender and their attendance in the financial education program. The results of this analysis are shown in Table 5. It was found that there is a statistically significant relationship between gender and attendance in the financial education program *($p < .001$)*, but that this relationship has a low Cramer's V *(.1987)*, indicating a weak relationship between the two variables.

Table 5

Results of chi-square analysis – Financial Education x Gender

	Gender		
	F	M	Total
Attended the program	231 17.32 68.14 33.87	108 8.10 31.86 16.56	339 25.41
Did not attend the program	451 33.81 45.33 66.13	544 40.78 54.67 83.44	995 74.59
Total	682 51.12	652 48.88	1334 100.00

Frequency Missing = 10

Statistic	DF	Value	Prob
Chi-Square	1	52.6728	<.0001
Likelihood Ratio Chi-Square	1	53.6935	<.0001
Mantel-Haenszel Chi-Square	1	52.6333	<.0001
Phi Coefficient		0.1987	
Contingency Coefficient		0.1949	
Cramer's V		0.1987	

The data from the Mexican respondents were also compared based on their marital status. Another chi-square analysis was conducted to determine the relationship between marital status and attendance in the financial education program. The results, shown in Table 6, indicate that there is a statistically significant relationship between the two variables *($p < .001$)*. The Cramer's V *(.1961)* indicates that the effect size of the relationship between the respondents' marital status and their attendance in the financial education program is statistically significant, but weak.

Table 6

Results of chi-square analysis – Financial Education x Marital Status

	Marital Status					
	Single	Married	Divorced	Widow	Domestic Partnership	Total
Attended the program	75 5.66 22.80 18.47	161 12.15 48.94 31.51	38 2.87 11.55 45.24	2 0.15 0.61 28.57	53 4.00 16.11 16.72	329 24.83
Did not attend the program	331 24.98 33.23 81.53	350 26.42 35.14 68.49	46 3.47 4.62 54.76	5 0.38 0.50 71.43	264 19.92 26.51 83.28	996 75.17
Total	406 30.64	511 38.57	84 6.34	7 0.53	317 23.92	1325 100.00

Frequency Missing = 19

Statistic	DF	Value	Prob
Chi-Square	4	50.9648	<.0001
Likelihood Ratio Chi-Square	4	49.6334	<.0001
Mantel-Haenszel Chi-Square	1	1.9827	0.1591
Phi Coefficient		0.1961	
Contingency Coefficient		0.1925	
Cramer's V		0.1961	

The results of the last chi-square analysis for this research question helped determine the relationship between attendance in the financial education program and the migration status of the Mexican immigrants. The results indicated that there is no statistically significant relationship between the two variables *(p = .8116)*.

Table 7

Results of chi-square analysis – Financial Education x Migration Status

	Migration Status		
	No SSN	Has SSN	Total
Attended the program	261 21.08 87.88 24.10	36 2.91 12.12 23.23	297 23.99
Did not attend the program	822 66.40 87.35 75.90	119 9.61 12.65 76.77	941 76.01
Total	1083 87.48	155 12.52	1238 100.00

Frequency Missing = 106

Statistic	DF	Value	Prob
Chi-Square	1	0.0568	0.8116
Likelihood Ratio Chi-Square	1	0.0572	0.8111
Continuity Adj. Chi-Square	1	0.0190	0.8904
Mantel-Haenszel Chi-Square	1	0.0567	0.8117
Phi Coefficient		0.0068	
Contingency Coefficient		0.0068	
Cramer's V		0.0068	

T-tests were also conducted to determine which among the continuous variables differentiated the Mexican immigrants who attended the financial education program from those who did not. The results of the t-tests are summarized in Table 8. The continuous variables that were assessed through the t-tests were the respondents' age, monthly income and time spent in the US. As indicated by the results, the significance values for all three variables are less than .05, which indicates that age $(t(522.67) = 5.53, p < .001)$, monthly income $(t(205.98) = -7.28, p < .001)$ and time spent in the US $(t(1300) = 2.24, p = .0249)$ are statistically significant factors that differentiate Mexican immigrants who attended the financial education program from those who did not.

Monthly income represents an interesting finding of the conducted T-tests. The difference between the means of those participating in the financial education program and those not participating is relatively large. This statistic indicates that the lower the income of the subject, the higher the likelihood of participation in the program. A possible explanation for this result is offered by the literature reviewed. According to authors such as Rhine and Green (2006), lower income immigrants are more likely to be unbanked and underbanked. Given the benefits offered by the mainstream financial system, those who earn lower income should be more interested in attending a financial education program, especially one that offers information on how to participate in the financial mainstream. A second explanation for this result is the number of women homemakers in the program who are not earning a salary. A third explanation that could not be proved due to lack of data is the possible high rate of unemployment of participants at the time they answered the survey. The researcher noted that many participants of the program attended because they did not have a job at the time or their work hours were cut short. However, the survey did not ask for employment status.

Table 8

Results of t-tests – Financial Education x Continuous variables

	Fin. Ed.	N	Mean	Df	T	p
Age	No	306	35.97	522.67	5.53	< .001
	Yes	980	32.64			
Income	No	154	551.70	205.98	-7.28	< .001
	Yes	953	1027.10			
Time in US	No	307	10.63	1300	2.24	.0249
	Yes	995	9.67			

Using as statistical tools frequency analysis, measures of central tendency, chi-square analysis and t-tests, the data analyzed indicate that there are factors that differentiate those first generation underserved Mexican immigrants in New York City that attended a community-based financial education program from those of a representative sample. These factors are gender, age, monthly income, marital status, place of residence and time in the United States.

Relationship with participation in the financial mainstream

Chi-square analysis procedures were again conducted to determine the relationship of attendance in the financial education program with the participation of Mexican immigrants in the financial mainstream. The results of the chi-square analysis procedures indicated that the attendance in the financial education program exhibited a moderate, but statistically significant relationship with the possession of an American bank account *($p < .001$)* and weak but significant relationships with the respondents' health and life insurance. No statistically significant relationship was found between attendance in the financial education program and the Mexican immigrants' usage of banks for sending remittances *($p = .3428$)*.

Table 9

Results of Chi-square analysis – Financial Education x Bank account in the US

	Bank Account in the US		
	No	Yes	Total
Attended program	70 5.63 28.57 8.18	175 14.07 71.43 45.10	245 19.69
Did not attend program	786 63.18 78.68 91.82	213 17.12 21.32 54.90	999 80.31
Total	856 68.81	388 31.19	1244 100.00

Frequency Missing = 100

Statistic	DF	Value	Prob
Chi-Square	1	230.1694	<.0001
Likelihood Ratio Chi-Square	1	215.5965	<.0001
Continuity Adj. Chi-Square	1	227.8406	<.0001
Mantel-Haenszel Chi-Square	1	229.9844	<.0001
Phi Coefficient		-0.4301	
Contingency Coefficient		0.3951	
Cramer's V		-0.4301	

Table 10

Results of Chi-square analysis – Financial Education x Use of bank to send remittances

	Used bank to send remittances		
	No	Yes	Total
Attended program	149 12.53 80.54 16.09	36 3.03 19.46 13.69	185 15.56
Did not attend program	777 65.35 77.39 83.91	227 19.09 22.61 86.31	1004 84.44
Total	926 77.88	263 22.12	1189 100.00

Frequency Missing = 155

Statistic	DF	Value	Prob
Chi-Square	1	0.8998	0.3428
Likelihood Ratio Chi-Square	1	0.9225	0.3368
Continuity Adj. Chi-Square	1	0.7263	0.3941
Mantel-Haenszel Chi-Square	1	0.8991	0.3430
Phi Coefficient		0.0275	
Contingency Coefficient		0.0275	
Cramer's V		0.0275	

Table 11

Results of Chi-square analysis – Financial Education x Life insurance

	Had Life Insurance		
	No	Yes	Total
Attended program	173 24.61 90.10 25.98	19 2.70 9.90 51.35	192 27.31
Did not attend program	493 70.13 96.48 74.02	18 2.56 3.52 48.65	511 72.69
Total	666 94.74	37 5.26	703 100.00

Frequency Missing = 641

Statistic	DF	Value	Prob
Chi-Square	1	11.3693	0.0007
Likelihood Ratio Chi-Square	1	10.1411	0.0015
Continuity Adj. Chi-Square	1	10.1270	0.0015
Mantel-Haenszel Chi-Square	1	11.3531	0.0008
Phi Coefficient		-0.1272	
Contingency Coefficient		0.1262	
Cramer's V		-0.1272	

Table 12

Results of Chi-square analysis – Financial Education x Health insurance

	Had Health Insurance		
	No	Yes	Total
Attended program	166 22.25 70.64 27.85	69 9.25 29.36 46.00	235 31.50
Did not attend program	430 57.64 84.15 72.15	81 10.86 15.85 54.00	511 68.50
Total	596 79.89	150 20.11	746 100.00

Frequency Missing = 598

Statistic	DF	Value	Prob
Chi-Square	1	18.2906	<.0001
Likelihood Ratio Chi-Square	1	17.4809	<.0001
Continuity Adj. Chi-Square	1	17.4593	<.0001
Mantel-Haenszel Chi-Square	1	18.2661	<.0001
Phi Coefficient		-0.1566	
Contingency Coefficient		0.1547	
Cramer's V		-0.1566	

The results of the chi-square analysis indicate that participation in the financial education program exhibited a moderate statistically significant relationship with the possession of a bank account and weak but significant relationships with the respondents' health and life insurance.

Qualitative data analysis

In order to have a better understanding of the characteristics that differentiate those first generation underserved Mexican immigrants in New York City that attended a community-based financial education program, the researcher analyzed the interviews of 30 participants. All of them had a bank account at the time of the interview and had used alternative financial services. The interviews focused on two general subjects: 1) the participant's relationship with financial institutions; 2) the participant's relationship with the financial education program.

Following is a description of the profile of the interviewees using frequency analysis and measures of central tendency. The information for this profile was taken from Data Set I with the permission of the participants.[14]

[14] In cases where the information on the participant was missing from Data Set I, the researcher asked the participant to fill the gaps.

Table 13

Results of Frequency Analysis – Demographic Characteristics

	Interviewed Participants (N = 30)	
	N	%
Place of residence		
Manhattan	16	53.30
Bronx	9	30.00
Staten Island	5	16.70
Missing	*0*	
Gender		
Female	20	66.70
Male	10	33.30
Missing	*0*	
Marital Status		
With partner	19	63.30
No partner	11	36.70
Missing	*0*	
Monthly Rent		
< $1200	26	86.70
> $1200	2	6.70
Missing	*2*	

Migration status		
Documented	5	16.70
Undocumented	25	83.30
Missing	*0*	
Job/Occupation		
Homemaker	10	33.30
Construction	4	13.30
Cleaning	7	23.30
Restaurant	2	6.70
Other	7	23.3
Missing	*0*	
Level of formal education		
Elementary	4	13.30
Middle School	7	23.30
High School	11	36.70
Years of college	8	26.70
Missing	*0*	
Level of English Proficiency		
Very bad	6	20.00
Bad	12	40.00
Good	11	36.70
Very good	2	6.70

Missing	*0*	
Level of Computer Literacy		
Very bad	8	26.70
Bad	9	30.00
Good	11	36.70
Very good	2	6.70
Missing	*0*	

Table 14

Results of Descriptive Statistics Analysis – Measures of Central Tendency

	N	Mean	SD	Min	Max
Time in the US					
All Participants	27	13.67	5.41	2	22.00

Missing = 3

Based on the frequency analysis displayed in Table 13, only a third of interviewed participants were men. This percentage is consistent with the percentage of men from Data Set I (those who attended the financial education program). The same consistency was found on the marital status of the respondents. Among the group that was interviewed, 63.3% had a partner (married, domestic partnership) and 36.7% were single (never married, divorced). The percentages for Data Set I were 60.19% and 39.81% respectively. Regarding migration status, 83.3% of the participants of the interview reported that they were undocumented. For the database of the financial education program attendees, the percentage was 87.88% (only Mexicans). The frequency analysis showed that there was a significantly higher percentage of interviewees that came from Manhattan (53.3%) compared to the participants of the financial education program that indicated Manhattan was their borough (17.35%). The rest of the subjects from the interviews were from the Bronx (30%) and Staten Island (16.70%). The number of participants in the financial education program that came from Brooklyn was very low (3.27%), therefore the researcher did not attempt to contact them. However, there were 18.33% of participants from Queens that the researcher had trouble reaching out as opposed to those in the other three boroughs. The data set was also analyzed for measures of central tendency as shown in Table 14. The results from this analysis indicate that the average time in this country for the participants who were interviewed was 13.67 years, while the average time in the U.S. for all the participants in the financial education program is 11.08 years. Therefore, the interviewees had been longer in the country than the typical participant of the Qualitas of Life Foundation program.

The occupation of those who participated in the interview was classified in 5 categories: homemaker (33.3%), construction (13.3%), cleaning services (23.3%), restaurant or food services (6.7%) and a miscellaneous category that included drivers, office managers, clerks at thrift stores and teachers. Among the Mexicans in Data Set I, the percentages were: homemaker (43.45%), construction (8.97%), cleaning services (14.48%), and restaurant or food services (6.90%). Therefore, there were more homemakers in the sub-sample, but less participants in construction and cleaning services. The percentage of immigrants working in restaurants or food services is almost identical. More than 90% of the interviewees pay less than 1200 dollars for monthly rent. For the whole group of Mexicans taking the program the percentages is close to 85%. The level of education of those in the interview was higher than the average Mexican in New York City: 36.70% had less than high school, but 36.70% were high school graduates and 26.7% had attended some years of college or had a college degree. In Data Set I, Mexicans had a lower level of education. Only 22.85% had finished high school and 9.25% had some years of higher education. However, 60% of them self-assessed their English proficiency as bad or very bad, and 56.7% reported their knowledge of computers as bad or very bad. Among the Mexicans attending the program, the percentages are 78.93% and 74.29%. Therefore, the level of education of those attending the financial education program is lower than those who participated in the interviews.

This frequency analysis indicates that the demographic profile of the Mexican immigrants that were interviewed for this dissertation was similar to those that participated in the Qualitas of Life Foundation program. The sub-sample has similar distributions in terms of gender, marital status and migration status. The average time in the U.S. is also similar. There is a difference in terms of place of residence given that a significantly higher number of Manhattan residents were interviewed compared to those attending the program. The level of education (schooling, English proficiency and computer literacy) of the interviewees is higher than those in the program and higher than the average Mexican in New York City. In terms of occupation, there were less homemakers among the interviewed group and more members of the working force.

After describing the demographic and socioeconomic characteristics of the sub-sample of 30 Mexican immigrants, the researcher aims to respond this sub-research question by asking the interviewees the reasons for attending the program and their relationship with the mainstream financial system. In order to organize and analyze the data gathered during the interviews, the researcher elaborated a series of questions that are answered with the participants' responses.[15] As mentioned before, all the names used in the answers are pseudonyms. Following are the questions.

I. Why does a first generation unprivileged Mexican immigrant in New York City join a community-based financial education program?

The responses for this question can be classified in two categories: 1) Mexican immigrants attended the program because they enjoy learning new things and this subject seemed interesting; 2) Mexican immigrants attended the financial education program because they were seeking answers on matters related to money. On the first category, there were participants who attended the program because their children or spouses were taking other classes in the community center and they needed to wait for them. Spending time in the program seemed convenient. Rufina and Flor said that they just like to learn new things. Flor likes to take all the educational programs offered in community centers because they are useful and free. Others were invited by friends and relatives. Some heard about the class and became curious: "Pure curiosity. My friend works at the community based organization and told me. I did not know what it was" (Victoria). Carla had the same reaction: "Because I was invited, because it

[15] These questions are not the questions made during the interview. Some are similar, but the intention of elaborating new questions was to organize the responses already gathered during the interviews.

gave me curiosity of what it was, to see what was the subject." Alejandra also mentioned that after listening about the program she became curious.

Once these participants had attended a session of the program, they took additional sessions because they liked the atmosphere. They mentioned that they felt it was friendly, trustworthy and encouraging. Juan said: "The atmosphere felt very nice, you could ask questions, I felt a trustworthy context." Laura liked to be motivated to reach her goals: "One believes that things do not happen because they are unattainable." Vicente enjoy hearing success stories during the first session of the program because it empowered him: "These people (program facilitators) wake you up. We were in a dark room and told us not to fear. It helped to fulfill the dream you have because there were people who shared their experience. It gets you out of limbo." For others, they decided to attend the financial education program because they could learn how to achieve goals even if they were undocumented: "I have always been felt bound for not being a citizen, I was interested in knowing what I could do" (Elena). Rufina stated: "As one is undocumented, they tell you that you can't do anything or is more expensive."

Regarding the second category (those immigrants seeking information on money matters), there were participants who were not satisfied with their financial habits and saw the program as a potential solution; there were participants with specific questions; and there were participants who were interested in learning about finance in general. Maria and Manuel wanted to improve their economic situation and saw their lack of financial skills as the main barrier. Maria could not understand how other people could spend more than her and still save money. Manuel was envious of the negotiating skills of people he knew. Both Maria and Manuel believed that they could learn these skills taking the program. Pablo attended because he wanted to learn how to administrate his money. Gustavo shared that: “I wanted to have order in my expenses. I did not know how I was spending.” Antonio attended the program because he self-assessed as a compulsive buyer and wanted to correct this behavior.

Some participants had specific questions regarding banking and credit and joined the financial education program hoping to get an answer. Ana was rejected by the store Macy´s when she applied for a credit card and wanted to know why. Magdalena wanted a mortgage and was rejected because according to the bank she had a debt of 40 dollars. She wanted to know how to correct that problem. She also said that she was told to hire a financial advisor, but it was too expensive. In her mind, the program was a substitute for the financial advisor. Rene wanted to know how to improve his credit score. Luisa also had specific questions about a bank account that she just had opened. Araceli wanted to learn how to fill a check and make deposits.

Two thirds of the interviewees said that they were interested in learning about the financial system in the United States. Marcela joined the program: “To understand the system here and know what features and benefits offers.” Julian said that he had always interested in the subject and had read about it, but he thought that he had to attend college and study economics to understand it fully. However, many expressed that they already knew the subject and the program was a god review. For example, Monica said: “After the first class, plenty of information I already knew, but it was a review,” and Manuel described the courses as a review of information he had already learned in other places. Carla and Rene had read books on the subject. Viviana had taken another financial education program before.

Finally, there were members of the sample that wanted to learn about investing opportunities. Even when the financial education program by Qualitas of Life Foundation does not advertise itself as an investing class, these participants attended because they wanted to learn how to start a business, buy a house or invest in securities. Olga already had a business idea in mind and wanted how to learn how to do it. Pablo wanted to know how to get a franchise, and Jose how to get capital for a business. Monica and Mercedes thought that the program would teach them how to buy a house. Others wanted to know more about the stock exchange and how to buy and sell securities: “I wanted to know about investing and how to make money grow” (Julian).

II. Why does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program want to start a relation with a mainstream financial institution?

The interviews indicated that Mexican immigrants in New York City had many reasons to open an account in a mainstream financial institution. In all cases, the mainstream financial institution offered a product or service that responded to a participant’s need. Some of those needs were directly produced by the financial system. In other words, the immigrant had to find a way to deal with the demands of the financial system. For example, multiple respondents said that they approached a bank because they were paid with a check and they needed to cash it. One participant mentioned that she had to pay a fee every time she cashed a check at a bank. The bank teller recommended her to open an account to avoid the fee. Another participant, Araceli, stated: “Because they paid my husband in his business with check and we always asked someone to change it but people get tired of doing it.” Therefore, they seek the assistance of a bank to open the account. Another example was the immigrant’s need to pay bills. Participants like

Liliana said that they opened an account: “To pay for the bills, to be able to pay by check.” Laura corroborated this need by saying that she had to make house payments like the electricity bill. It is important to add that these participants recognized that they had other options to pay the bills (like using money orders), but they found that a checking account would make the process easier. One participant mentioned a more complex need in terms of the long-term benefits that it produces as opposed to the immediate benefit of cashing a check or paying a bill: having a credit history. For Jose, opening a bank account was the first step of obtaining credit in this country because: “here everything is driven by credit.”

Other subjects mentioned reasons that were not the product of the financial system, but of their particular circumstances. Two participants suggested that the reason for opening a bank account was to have an ID from an American institution. Both of those respondents identify themselves as undocumented at the time of the interview. For these Mexican immigrants, having a debit card meant having a form to identify themselves in this country. A considerable number of participants said that the main reason for having an account was to keep their money safe. Monica and Manuel mentioned that there were a lot of burglaries in their neighborhood and they did not want to keep cash at home. Marisol affirmed that she could not leave money at home because she was sharing the apartment with other people. Victoria and Mercedes stated the same cause, but added that the lack of safety was also in the streets and they did not want to carry any money.

Another common response was the desire of the Mexican immigrant in New York City to manage better their household finances. They saw in the mainstream financial institutions a way to keep track of their expenses, avoid the temptation of spending money at hand and defining a financial goal. For them, engaging in the mainstream financial market allowed them to control their money. For example, Marcela wanted a document to see where she had spent the money and the account statement was the solution. Gustavo did not want to have his money at home because he would spend it. The same happened to Marisol who said: “It is also harder to spend when is in the bank.” On the other hand, for some immigrants a bank account was a method to put money away for the future. Rufina was worried about something happening to her husband who is the one earning money in the house and wanted to have some savings. Elena said that her financial goal was to save for emergencies. For Luisa, her aim was to save for her son’s studies.

The researcher also asked the participants about their most significant memories related to money. This question aimed to discover influences that had directly or indirectly made an immigrant start a relation with a financial institution. Some participants responded that they had a bank account because they had the habit of saving since they were children. When asked about the reason to open an account, Viviana mentioned: “I have always had the culture of savings.” Marcela tells the story that her mother asked her to go to the market to buy groceries because she was able to save money in the expenses. Several participants such as Carla, Araceli and Antonio mentioned that they were poor when they were children. Juan said: “I wanted to have money because my family was very poor and when I was a child I craved everything and wanted to buy what I liked.” Liliana’s first memory about money was: “When my mom did not have to cover our expenses. I felt distressed.” Marisol offered a similar story: “My first recollection of money was when I was seven years old. I wanted something I couldn’t get it because my dad got lost. We were the richest in the block and became the poorest.” These experiences from childhood made these immigrants value money and realize the importance of saving it. The same effect seems to appear with participants that had to work since a young age. Pablo said: “I've always lived without a father and worked since I was a child running errands.” Martha and her sisters helped her mother selling housewares door to door. Itzel started working when she was 7 years old, Rene when he was 9 and Liliana when she was 11. Others started working later in life, but experiences at their job made an impression on their money management. Ana and Laura visited Mexico City when they were teenagers and bought products that they could sell in their town. Julian sold fruit in the streets after attending his classes in high school. Furthermore, there were jobs that directly affected the interviewees’ relation with a financial institution. Alejandra became part of a network marketing company in Mexico that taught her about personal finance and motivated her to open a bank account in Mexico where she saved money periodically. At Flor’s first job, part of her salary was deducted and deposited in a bank’s Christmas account that she could withdraw at the end of the year.

A few participants stated that they started to save because they had established a financial goal since they were young. Ana liked to travel; so she had to save for this goal. Some immigrants that came from a humble background wanted money to afford their wishes. Magdalena remembers: “I wanted money for what I wanted, not what I needed.” Julian said about his family economic status: “money was not scarce, but there were no luxuries. I did want luxuries.” Juan said: “When I was a teenager and worked, I had the illusion of having a car and spent 10 years saving to get it.”

Parents and relatives’ habits and opinions had a significant weight in some of the participants’ decisions related to money. Alejandra declared that: “For me, saving is the most important. My father instilled that to all the brothers. We all have a bank account.” Mercedes thanked her parents and Laura her sisters for guiding them regarding money management. Viviana remembered her father reviewing bank statements in the house. He opened a bank account for her and her brother when she was fifteen years old. The opposite happened to Liliana and Marisol who had fathers that left their families when they were young. The families went through the traumatic experience of suddenly losing all their income and had to make radical changes. Liliana started working because there were eight siblings to feed. Marisol had to leave school to take care of her younger brothers because her mother had to start working.

Finally, Mercedes and Victoria mentioned that they read books on personal finances such as Robert Kiyosaki's bestseller "Rich Dad, Poor Dad" and these readings influenced them in their relation with mainstream financial institutions.

III. How does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program start a relation with a mainstream financial institution?

It is remarkable that none of the participants had trouble opening an account in a mainstream financial institution. The overall response when asked about the process for opening an account is like the one given my Mercedes: "No problem, it was all very easy," or Olga: "The bank made it very easy." The only trouble mentioned was that the bank would ask for a social security number to open the account to immigrants that were undocumented. But when the immigrants told the bank that they did not have one, the institution would drop the requirement and open the account with an individual taxpayer identification number (ITIN). However, must banks used by the interviewees only asked for a passport or consular ID, and a proof of address: “With a passport and consular ID, it was easy and they also receive any identification and proof of address” (Ana). The fact that the banks were so flexible in their requirements surprised some of the participants. For example, Luisa said: "I went to the branch to find information, to see if you could, even being undocumented and I was told yes, with ITIN, ID and I had it." A friend told Jose that the passport was accepted to open an account. Others mentioned that they heard presentations from banks on the subject.

The analysis of the responses indicated that the interviewees received information on bank accounts in two different ways. The first one was from someone they knew. Marcela and Flor had husbands with bank accounts who told them how to open one and where to go. Jose mentioned a friend and Magdalena her boss as sources of information. One particular case was Viviana who was encouraged to open a bank account at a department store where she used to pay with cash. They told her that it was easier to pay with a debit card. The second way was through the staff of the bank. Some immigrants decided to go to a branch and ask how to open the account. Gustavo, Elena, Alejandra, Luisa and many others decided to walk directly into the branch and ask about the requirements to have an account. The majority of them stated that the bank agents explained politely how to establish a relation with a financial institution: “The advisor at Citi explained me everything and he was very nice” (Marisol). Pablo said: “The checking account was opened because I talked to an advisor in a bank.” Antonio had an interesting story to tell. He worked at a restaurant where the staff of a Citibank used to eat. He asked the manager about opening an account and he invited him to the branch where he explained the process. He was taught how to use an ATM and received advice on the best account to open. Some other Mexicans received the information from bankers that attended community events or the Mexican Consulate in the City. Monica considered herself lucky because she was attending a class in a community-based organization and agents from Citibank went to the organization: “Citi came to (the community-based organization) and talked with the people attending the programs. They made a presentation and they opened the accounts in the same place.” Moreover, the bank accepted a letter from the community-based organization as a form of identification to open the accounts. Juan listened to a presentation from Citibank at the ESL class he was taking at a community center. Mercedes explained that she opened the account: “Through the Consulate. When I was waiting for my passport, there were ladies from Citibank.” Laura had the same experience in the Mexican Consulate. As soon as she received her passport, she was approached by bankers from Chase to open the account.

IV. What experiences does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program have with a mainstream financial institution?

The answers to this question fell into two categories: 1) experiences related to the transactions made; and 2) experiences related to the problems and challenges faced with mainstream financial institutions. On the first category, Mexican immigrants tend to make the basic transactions of checking and savings account holders. The most common answer was similar to the one given by Olga: “Deposits, withdrawals, balance inquiries, online payments, transfer funds between accounts.” For Monica, bank accounts are for: “Paying for services, making purchases with a debit card.” Writing checks to pay bills, credit card balances and the rent was mentioned multiple times. Some participants highlighted the convenience of ATMs and using their debit cards to shop online and make reservations. Depositing checks received from an employer was a common transaction for Flor. Rufina deposited a check that her husband received and Carla cashed checks at the teller. Only Luisa, Alejandra and Viviana explicitly said that they used their accounts to save money. Viviana stated: “I have a Christmas account at Emmigrant Bank and I save money in the bank for a year and in October they gave me a check.”

An interesting result is that the majority of the interviewees do not use the bank to send remittances to their home country. They still use money transfer agencies even when they know that the bank offers the service. Jose preferred not to send money through Citibank (his current bank) because he knew that this institution had acquired the Mexican bank Banamex where he had a bad experience. Even when he trusted Citibank, he did not trust Mexican banks. Another reason for not using a bank to send money abroad was offered by Juan: “I do not send money to Mexico through the bank, I use (money transfer) agencies. I know it is cheaper through the bank, but I do not want to have a lot of transactions recorded.” According to Juan, records of multiple remittances would let the bank know his income and the bank could inform other institutions in the United States. The rest of the respondents just said that they were used to send remittances through money transfer agencies.

Even when several immigrants said that they felt comfortable using technology such as online banking, some of them were afraid of using computers to make transactions. Alejandra said that she was never “high technology.” Luisa felt that using her debit card to pay in a store was not safe because her personal identification number (PIN) could be stolen. Others felt that online banking was not safe because of the dangers of identity theft.

On the contrary of the lack of trouble when opening an account in a mainstream financial institution, a third of the respondents had experienced problems with their everyday transactions. The most common complaint was the fees charged by the institution. Participants complained that there were excessive or hidden fees for many operations. Carla was happy with her account, but: “What I did not like is the 25 dollars per year fee. I thought it was only at the beginning. Or maybe it was my mistake or maybe it was the bank. You think that you're being treated well, but you do not have enough information.” Magdalena said that the bankers never made it clear that there was a fee for not keeping a minimum balance. Laura was unhappy because Chase acquired Washington Mutual and changed the policies regarding minimum balance and now she has to pay a fee. Viviana did not understand why she had to pay a 35 dollars fee for trying to cash a check that bounced. She though it was not her fault because she did not write the check. Marisol had to close her account because the fees were eating her balance.

Besides the fees, two participants said that the language was a barrier in some branches. When they had gone to branches where the staff did not speak Spanish, they felt they were treated disrespectfully because of their lack of English and even used the word racism to describe their experience. For Rene: “In some banks, if you don’t speak English, there is racism.” Olga described a bad experience that made her change banks: “ My problem with the bank: racism. They treat you they way you look. They make you wait a long time, do not give you the right information, and promise that they will inform you of a minimum balance and no information arrives. When it happened, I complained to the branch, but they washed their hands, I didn’t receive assistance, and the manager was not there. I went to see the Council Member of the neighborhood and told him about what had happened. A representative of the Councilman spoke to the bank and eventually the problem was solved... I felt discriminated and changed bank."

For other participants, they experienced inconveniences that were eventually solved. Elena was charged 20 dollars from a store where she had never bought. After explaining it to the bank, she got reimbursed. Flor had her debit card stolen. The bank replaced it immediately and she did not have to pay for the purchases made by the thief. Luisa received a letter from Bank of America collecting a debt even when she had never had an account in that institution. Victoria and Vicente received a letter from their bank indicating that they owed 1,000 dollars. The bank did not respond to their arguments until they seek the assistance of a legal aid organization that discovered that they were victims of identity theft. The case of Antonio was unique. One day 4,200 appeared in his account. He went to the branch to give notice, but the bank did not deduct the money. He tried again and nothing happened. One day, another 2,000 were deposited into his account. The bank agent told him that he might be receiving money from a friend or a former employer. He explained to her that it was not the case, but nothing was done. Finally, the bank took action when 49,000 showed up in Antonio's account.

Maria and Jose complained that the lack of knowledge of some bankers was a problem. In one occasion, Maria wanted to transfer money between her accounts and even when she had made that transaction several times, a staff member told her that it was not possible. Jose was unhappy because the teller told him that he could get a credit card and made him fill out an application after he told the teller that he was undocumented. When he approached another banker to submit his application, the banker told Jose that he could not get the credit card because he did not have a social security number or an ITIN. Araceli was troubled because she did not get a credit card either after the bank had encouraged her to apply for it. According to her, she was not told that she needed an ITIN. It seems from the content analysis of the interviews that bankers do not always explain the need for an ITIN when the account holder does not have a social security number. Even when the bank can open an account with a valid identification such as a passport or consular ID, it needs a social security number or ITIN if it is an interest-bearing account because the interest earned must be reported to the IRS. Antonio explained that when he opened his account, he told the bank manager that he was undocumented and did not have an ITIN. The manager assigned him a nine-digit number for his application. Antonio does not know if the number was invented or where it came from. Years later, Antonio received a letter from the IRS stating that he had to submit his social security number or ITIN because he had been earning interest without reporting it. The same happened to Juan who went to the bank with the letter and was advised to cancel the interest-bearing account and keep his checking account.

V. What experiences does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program have with alternative financial services?

Many participants had used check cashers to cash their checks before they got a bank account. Jose said: “Before, I had to go to a check casher and I knew that they were taking a percentage.” However, there were two participants that still used check cashers. One used these alternative services to cash checks when the bank was closed and one to get money orders because it was the only form of payment accepted by his landlord.

The answers on the usage of money transfer agencies to send remittances to Mexico are relevant. As mentioned before, many interviewees did not use banks for this service. In addition, they commented that they never had a problem with a money transfer agency. Besides the above mentioned fear of recording transactions and lack of trust in Mexican banks, there were other explanations for this behavior. Monica explained that she prefers money transfer agencies “because it is more accessible to families in Mexico and pay them more than the bank.” Therefore, according to Monica, it is easier for her family in Mexico to collect the money because the remittance is paid in a location closer to where they live. In addition, she affirmed that the money transfer agency pays more. It is not clear from her answer if the amount of money paid already considers the fee that is charged. Pablo said that his family: “do not use the bank because our relatives in Mexico do not have an account.” Itzel answered that she had never had problems sending money to Mexico through a money transfer agency. She tried to do it through Bank of America that does not charge for the service, but she did not like that she had to pay a fee because of the minimum balance requirement and preferred to close it. The bank’s hours of operations was an issue for Gustavo who said that if he received money on a Friday evening, he had to wait until Monday to send it through the bank. Thus, he used a money transfer agency that is opened late and during the weekends. Antonio is a special case because he likes to use both the mainstream and the alternative service: “Sometimes I send money through the bank and sometimes by agency. The bank sends in pesos and the agency in dollars. Supposedly you get a little more with dollars. The dollars can be sold and pay a little more. It is almost the same cost at the bank and the agency.”

A special consideration must be given to the use of *tandas* among the participants. A *tanda* can be defined as a system of savings and credit organized informally by a group of individuals. In a *tanda*, every member of the group contributes during a period of time a predetermined amount of money to a common fund. Every time the members of the group give their contribution, one member is awarded with the whole fund. The system is simultaneously a form of savings and credit because if the member receives the fund when the first contribution is given, this member is obtaining credit that he will pay in installments. However, if the member does not receive the common fund until the end of the time period, this member is receiving the product of her savings. *Tandas* are based on the trust that the members have in each other. They must trust that all members will continue paying their contributions even when they had already received the common fund. *Tandas* are very common in Mexico as well in other parts of the world.

The interviewed group had mixed feelings on *tandas*. Some participants praised them and said that they had never had problems with them. Others rejected them and told stories about bad experiences. Magdalena and Gustavo said that they used a *tanda* to pay the debt they had with the smuggler that brought them to the United States. Magdalena also stated that it was a way to save money. Being part of a *tanda* forced her to have discipline when managing her money. Ana used the words obligation and discipline to describe a *tanda*. Marisol said: “It forced me to save because you are forced to give your contribution.” Rene considered that “We have done well... We do it because it is money that you save each week.” As opposed to Magdalena and Marisol who liked to receive the common fund at the end of the calendar, Ana preferred to receive it at the middle of the calendar. With the money received, Ana paid for a month of rent and other expenses. Ana also mentioned that she felt that being part of a *tanda* was a form of helping her peers because all of them needed the money.

Alejandra did not belong to a *tanda*. Although she believes that they are a good strategy to save money, she does not like to feel pressured for giving her contribution. Elena mentioned that she used to participate in *tandas* in Mexico because her mother organized them. Then she had a bad experience in a *tanda* in New York City and stopped: “Once I wanted a number and the person that organized the *tanda* did not give me a receipt. I lost my money.” Araceli and Juan believed that tandas were frauds. Antonio agreed with them: “Those who organize the *tanda* will get the first numbers (receive the common fund first), but then they will not have money and disappear.”

VI. Why does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program want to have credit?

One third of the participants claimed not to have formal credit in the United States. From the twenty interviewees that had credit, most of them had a credit card. Only one had a mortgage, one had a personal loan and two of them mentioned that they had credit from stores. Two responded to have received loans from friends and family, and only one had used a pawnshop. Two had bought cookware in monthly installments from salesmen that had knocked at their doors.

Both, the ones with credit and with no credit, had strong opinion regarding the subject. Some were aware of the costs of asking for credit. For Carla, “When it’s about money matters, I prefer not asking for trouble, to avoid paying much interest." Marcela mentioned that she doesn't have a credit card: "because I do not want to pay interest." For others, credit had a bad connotation. Marcela also recalled that her "brother did not know how to handle it in Mexico and it was a very bad experience for him. That's the fear, not knowing how to handle it." Olga said that: "I do not like the idea of debt. As my mother, I did not buy until I have the money. In Mexico it is very bad reputation to owe money." For Rufina: "since I was a child, I do not like to owe to anyone. If I am lent money, I pay. In Mexico, I had the need to borrow because my husband suffered an accident and pay the money back before the deadline." Elena said something similar: "Never use any credit because I do not like to owe money. It has always been like that, as soon as I buy something, I pay it." Magdalena did not want to depend on credit cards because she would easily lost control of her expenses. Jose learned not to buy something if he does not have money to pay for it from doing the accounting of his family business in Mexico.

Most participants use credit cards to make purchases. Clothes, electronics, food, supplies, toys, NYC subway metrocards and restaurants were mentioned by several participants. They perceived the credit card as a convenient tool because it was accepted everywhere. Some Mexican immigrants thought that the credit card had the advantage of allowing them to buy by Internet or by phone, make reservations or activate a plan for their mobile phone. For others, the benefit of the credit card was that they could buy something in installments. For Luisa, the benefit was that she would be protected from identity theft. For Martha, credit cards from stores allowed her to take advantage of special discounts and get coupons. All these participants seemed to have figured out the benefits and the costs of credit cards.

Two relevant themes about the reasons to get credit emerged from the analysis. The first theme was the need to pay unexpected expenses. Jose and Victoria said that they wanted to have a method to get money fast in case of an emergency. Mercedes recalled how she got one of her credit cards: “I had a dog and it got sick and I took it to the hospital and the nurse gave me the application and they gave me a 700 dollars limit.” The second theme was the need for credit history in the United States. Olga learned about it through her bank: “The bank where I had my accounts suggested me to make credit history through a secured card.” Julian learned from his employer: “My boss told me that in this country, nothing is achieved without credit.” Others seemed to know it because it was common knowledge. Victoria stated: “To be in this country you need credit history,” and Mercedes seek credit: “because it is necessary to have credit in the U.S.” These participants understood that having credit history and a good credit score was necessary in the long-term. They mentioned the need for it when renting apartments and in case they wanted other loans such as mortgages.

When the credit users from the sample were asked how they got their first loan, many mentioned that it was a relatively simple process and only two recalled being rejected (Flor and Araceli), but later they got credit cards from other banks. Two of the women said that they had additional cards from her husbands’ ones. In most cases, Mexican immigrants applied for secured credit cards that eventually became traditional credit cards. Not having a social security number was not a barrier according to this group. Instead, they were asked for an ITIN. Itzel said: “I asked for a secured card and filled my application, give my ITIN, I made up my income and sent the application by mail. Three weeks later, I got my credit card.” Antonio said that he was able to get the credit card at his bank: “Right there on the bank, I had to leave a deposit of

500 dollars and they gave me that credit limit. Two years later they returned the money and increased my limit." Pablo had the same experience: "Before I got married I got a credit card application for 500 dollars. After 3 years they returned the 500 dollars and gave me credit history." A similar case was what Luisa did: "I went to the branch to see if I could have a credit card. I had a secured credit card of 200 dollars and took 18 months to return the money. They explained the process very well." Jose was assisted to fill an application by a bank agent when he was visiting the Mexican Consulate.

Alejandra received a pre-approved credit card by mail. She submitted her application, and after a couple of phone calls with the bank that offered the card she received her first credit card. Multiple immigrants mentioned that after they got their first credit card, many offers for other cards came by mail. Julian recalled: "I started receiving credit card applications up to 20,000 dollars." In addition, some participants got their credit cards from stores. Macy's, Victoria Secret and Sears were stores that gave members of the group a credit card after they had made a purchase. In one case, the company Amway gave a participant a credit card to buy Amway's merchandise. As mentioned before, Mercedes got a credit card at a pet hospital.

Three Mexican immigrants said that they were able to get credit from community development credit unions. They appraised the institutions because they helped them to review their credit history and credit score and advised them how to transfer balances from credit cards. Ana transferred her balance from BestBuy to a loan from a credit union with lower interest rates. Manuel seemed to be financially savvy regarding credit because he: "got a secured loan with the credit union to open a Citibank CD because it gave more interest."

The participants of the Qualitative Data Set shared with the researcher diverse problems that they had experienced with credit in the United States. The majority mentioned the cost of credit cards and the challenges of being in debt. Carla said: “I had problems because they charge me too much interest and I have seen that other cards pay less.” Vicente declared that he had a bad experience with credit cards: “After some time, if you pay the minimum charge you pay interest on interest. I canceled the card because they were charging too much.” Viviana said that her problem was that she was in debt: “because I used a large cash advance from my cards for an investment that turned out to be a fraud.” Alejandra recalled a traumatic experience: “the debt rose to 20,000 dollars which was very difficult to pay. There was a time when I could not pay the minimum. It went to a debt collector and it was a headache with the creditors. They were calling more than 10 times per day giving me payment options.” Rene had trouble because: “I got into a lot of debt. I consolidated the debt through a lawyers’ firm, but my credit got damaged.”

VII. Why does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program want to make an investment and pay for insurance?

Only a minority of the participants reported to have investments or insurance in the United States. Four had started a business, three had bought a house and three had invested in funds. Five had life insurance and only two said they had health insurance. Regarding the investments, participants who had started businesses seemed proud of their accomplishment, but the results were not optimal. Olga’s motivation was: “ I decided to invest my money when I wanted to have something of my own and do not work as an employee.” Pablo and Martha learned from a bad experience: “We made the investment in the pizzeria. We did badly. What happened is that we thought with the heart and not with the head.” Rene had a business effort that went sour, but he was already thinking in a new one. Rene, Liliana and Julian had their own house. Julian explained that the process was easy for him: “The process to get the mortgage was very easy. I went to the bank and they gave me pre-approval at Chase in fifteen minutes.” He also told the researcher how he was able to refinance the interest rate of the mortgage and seemed very comfortable using the terminology. Only three immigrants mentioned investing in funds. Viviana had an individual retirement account (IRA), but she was confused about how it worked and did not know how much money she had. Itzel said that an agent at Citibank advised her to invest in a mutual fund. Antonio also invested through his bank in a fund for years, but he sold it with a loss. Two interviewees believed that having certificates of deposit (CDs) meant they were investing their money.[16]

Most participants who had insurance chose permanent life insurance. Only two had health insurance. One had the insurance through her company and the other said that he paid 15 dollars per month and he could obtain services from one hospital. The ones that had life insurance explained the reasons for buying one. Marcela said that her husband had one in Citibank and later they got one for her after talking to an agent from New York Life that she met in the street. The agent went to their house and explained the benefits of permanent life insurance and the fact that they could withdraw money from it for future expenses such as tuition for their children. Marcela thought that it was an excellent way to protect her family. Ana said that she had life insurance because: “While I pay it, I am secured.” Itzel responded that an agent from her

[16] Certificates of Deposit (CDs) are considered savings accounts and not investments because there is minimum risk involved. These funds are insured by the FDIC or the NCUA up to 250,000.

bank convinced her to get life insurance. Marisol was also advised by her bank: “The Citibank Financial Advisor talked to me about life insurance and told me that if I am run by a car, my family in Mexico is left with nothing. With insurance, it covers your funeral costs and sends the money to your family in Mexico.” Later, she upgraded this insurance to a permanent one also with the assistance of the bank.

When asked about the reason for not having investments or insurance, there were participants that mentioned their undocumented status as a barrier. Elena recalls that: “An agent went to the house and I was very excited to get life insurance, including one for the education of my daughters. But then he told us that we could not get it because of our status.” About insurance, Alejandra said that: “What prevented me to have it at the time were lack of documents.” Liliana and Antonio were also waiting to be permanent residents of the United States to buy life insurance. For Ana and Laura, they believed that they can’t invest before they regularize their migration status. Victoria would like to invest in federal bonds: “but without papers there is fear.”

Other participants gave diverse explanations for not having investments or insurance. On the subject of investments, there were immigrants that saw them as an unattainable goal due to lack of capital. Nevertheless, they wish they could do it. Maria, Jose and Marcela would like to invest in securities. Flor had a similar response: “I would like but I do not have money. I would invest on Wall Street.” Juan, Gustavo and Carla expressed interest in buying a house for their family. Magdalena said: “Yes, it was my dream, I wanted a house,” but she wanted it for her retirement. The same case applies to Monica and Manuel: “My wife is very concerned about what will happen in old age... Would like to buy a house.” Some others wanted to start a business, but they did not feel ready to do so. Gustavo said: “Here, a business seems too complicated.” Marisol stated that her brother wanted her to participate in a business venture, but she was afraid to damage her relation with him and her sister-in-law, so she preferred to do it alone. Alejandra was waiting to be more financially stable to start a business.

Juan said that he and his wife were looking to buy life insurance because: “In case one of the two dies, the one who stays alive will have money to cover the costs of death of the other.” Pablo and Martha said that they: “have been thinking about it, but have not done it. First, we want life insurance and then one for our children’s education to avoid having to borrow money and allow them continue studying.” Carla also was worried about the future of her children: “I do not have life insurance. I would like to because my friend put it in my head. I think that you should not leave their children with nothing.” The only participant who thought that life insurance was a bad idea was Julian: “I'm not interested in life insurance. Its´ not convincing. I find it ironic because it does not secure your life, it secures your family.” Julian said that his family has access to his bank accounts, but that a life insurance will produce fights among his children about the money.

VIII. How and why does a first generation unprivileged Mexican immigrant in New York City participating in a community-based financial education program pay taxes?

One of the most remarkable findings of this analysis if that every single participant interviewed had paid taxes and had used a tax preparer. The assistance to pay taxes had come mainly from certified tax preparers or accountants. Some participants complained about the rising fees of these services and had asked their tax preparers to lower the cost. Others complained that they were not receiving a fair refund. However, the majority was loyal to the same tax preparer that they first used. Five participants had used free tax preparation sites. Two participants mentioned that they were assisted at a credit union and other two said that a professional had visited a community center. Only one person said that he had had problems with the IRS and that he still owed money to the agency. All others said that they were in good status regarding their taxes.

It is important to study the answers regarding the individual taxpayer identification number (ITIN) given by the interviewees. The answers could be classified in two categories: 1) why does an immigrant get an ITIN; 2) how does an immigrant get an ITIN. The theme of the first category was that Mexican immigrants get an ITIN because they perceived this action as a way to help their legal status in this country. Olga said: “When I migrated, I had the idea that one should be as legal as possible if an amnesty comes.” Maria and Jose believed: “pay taxes and eventually obtain documents and be in order.” For Marcela: “I decided to pay taxes to see if it helps with obtaining legal status.” Luisa stated: “I wanted to work and pay taxes. They say that it would be easier to have papers because you are contributing to the country.” Many others had the same motivation to get an ITIN and pay taxes, but it was not clear where they had learned about this connection between their migration status and paying taxes. There were other responses as well. Alejandra got an ITIN because the restaurant where she was working asked for it. Pablo received a form W-2 from his job and the tax preparer told him to get an ITIN. Martha said that paying taxes was important to show their income for their children’s college applications. Araceli got an ITIN because her husband was paying taxes and she had to be filled as a dependent.

On the second category, most immigrants in the group applied for their ITIN through a tax preparer or accountant and pay for the service.[17] In some cases, they went to an IRS office and filled the form themselves. They explained in their answers that it used to be easier to do it because you only needed to show your passport, certificate of birth and proof of address and fill a form. Nowadays, you have to demonstrate some form of income and pay taxes on that income to receive an ITIN. It is necessary to have someone to assist you with the process.

The quantitative and qualitative data gathered to respond to the first sub-research question indicate that there are demographic and socio-economic characteristics that differentiate those first-generation underserved Mexican immigrants who decided to participate in a financial education program from the average member of this population. Data analysis showed that the factors were gender, age, income, marital status, place of residence and time in the United States. The responses to the interviews showed that this population possessed knowledge of the financial system and had access to the mainstream financial institutions and their services prior to the start of the program.

[17] To apply for an ITIN is free.

Sub-research question 2: Which factors differentiate those Mexican immigrants participating in the financial education program from all Hispanics participating in the same financial education program?

For this sub-research question, Mexicans and Hispanics were compared to find difference between the selected sample of Mexicans and the overall population who attended the financial education program. To study further the impact of the level of financial literacy of Mexican immigrants, this group was contrasted with the overall sample of Hispanics attending the financial education program by comparing the percentage from each group who was able to correctly answer questions regarding basic financial concepts. The results indicate that there is no difference between Mexicans and Hispanic immigrants in general, in terms of their knowledge of checking and savings accounts and the meaning of the concept Annual Percentage Rate (APR), and there is a small difference between the two groups when it comes to their understanding of diversifying. The results also revealed that more Mexicans knew about credit reports, stocks and premiums compared to Hispanics, but the reason behind this is undetermined.

Table 15

Results of Frequency Analysis Comparison – Hispanics and Mexicans in Data Set I (Financial Literacy)

	Mexicans Only		Data Set I	
	N	%	N	%
Differentiate savings and checking account				
Yes	59	44.70	117	44.66
No	73	55.30	145	55.34

Frequency Missing	208		349	
Knows definition of APR				
Yes	52	34.90	94	35.07
No	97	65.10	174	64.93
Frequency Missing	191		343	
Knows definition of diversifying				
Yes	80	50.31	154	53.85
No	79	49.69	132	46.15
Frequency Missing	181		325	
Knows information included in credit report				
Yes	77	52.74	116	44.44
No	69	47.26	145	55.56
Frequency Missing	194		350	
Knows definition of a stock				
Yes	93	68.89	166	64.34
No	42	31.11	92	35.66
Frequency Missing	205		353	
Knows definition of premium				
Yes	18	24.00	30	20.98
No	57	76.00	113	79.02
Frequency Missing	265		468	

A regression analysis was also conducted to identify the factors that significantly affected the respondents' level of financial literacy. This regression used data collected from the participants in the financial education program. The regression analysis tested a model that included demographics and actions related to participation in the financial mainstream as independent variables and the level of financial literacy (index FinLit) as dependent variable. The results of the analysis show that this proposed model was statistically significant *(p = .0236),* and that it accounted for 31.53% of the variance in the respondents' level of financial literacy. Out of all the factors proposed, it was found that only the time spent in the US significantly affected the level of financial literacy *(p = .0017)*.

Table 16

Results of Regression Analysis – Model Summary (All Independent Variables)

Source	DF	Sum of Squares	Mean Square	F	Pr > F
Model	19	70.6957543	3.7208292	1.84	0.0326
Error	76	153.5438290	2.0203135		
Corrected Total	95	224.2395833			

R-square = 0.315269

Table 17

Results of Regression Analysis – Independent Variables (All Independent Variables) – Data Set I

Source	DF	Type I SS	Mean Square	F	Pr > F
Participant_in_fin_ed	1	5.50237403	5.50237403	2.72	0.1030
Place of Residence	4	17.17648971	4.29412243	2.13	0.0858
Genre	1	8.35118184	8.35118184	4.13	0.0455
Job	4	10.41625733	2.60406433	1.29	0.2819
Migration_status2	1	0.70972238	0.70972238	0.35	0.5551
Bank_account_in_US	1	1.93356391	1.93356391	0.96	0.3310
Used_bank_to_send_re	1	1.57330249	1.57330249	0.78	0.3803
Had_health_insurance	1	0.49669365	0.49669365	0.25	0.6214
Had_life_insurance	1	0.34530803	0.34530803	0.17	0.6805
Age	1	0.36914915	0.36914915	0.18	0.6703
Monthly_income	1	2.34296860	2.34296860	1.16	0.2849
Time_in_the_US	1	21.38659871	21.38659871	10.59	0.0017

The respondents in Data Set I were also compared based on their participation in the financial systems to see if there are factors that affect their participation in a financial education program. Based on the results of the frequency analysis, 11.36% of the attendees of the financial education program used certificates of deposit. Comparing this number to the 10.28% of Mexican respondents who have used certificates of deposit, the difference between the two groups is marginal. More Mexicans (38.58%) have ITINs compared to all Hispanic participants

(36.76%), but more Hispanics paid taxes (44.88% vs. Mexicans – 36.84%). This may be because husbands or relatives have already paid, or some have already become citizens. The number of Mexicans who have ITIN and the Mexicans who have paid taxes are also roughly equal; 38.5% have their ITIN and 37% paid taxes. Almost the same percentage of the overall sample of Hispanics and Mexicans use a tax preparation service, which can indicate that this demographic prefers personal attention when dealing with their finances.

While 38% of all respondents have a credit card, only 26% of the Mexicans have a credit card. The results of the frequency analysis also indicated that 14.47% of all the respondents and 11.45% of the Mexican respondents who attended the financial education program made use of informal loans. This number is lower than what is stated in the literature, but this may be because the respondents are unwilling to disclose this information. The data on remittances may indicate that while most of the respondents in both groups are from the low-income sector, they display discipline in terms of sending money to their countries of origin. For both groups, 70% or more remit money to their countries of origin. Compared to the larger Hispanic group, only 19.46% of Mexicans use their banks for remittances, indicating a higher level of underbanking compared to the other immigrants. More Mexicans used informal saving schemes *tandas* than Hispanics (44.57% - 37.46%), and more Mexican immigrants are involved in a network marketing sales force (20.11% - 18.67%). The dataset showed a rate of rejection when opening a bank account of 17.96% for Mexican immigrants. From those who participated in the financial education program, 24.18% had loans in their country of origin.

Table 18

Results of Frequency Analysis Comparison – Hispanics and Mexicans in Data Set I (Financial Market Participation)

	Mexicans Only		Data Set I	
	N	%	N	%
US Certificate of Deposit				
Yes	11	10.28	20	11.36
No	96	89.72	156	88.64
Frequency Missing	233		435	
Individual Taxpayer ID Number				
Yes	76	38.58	125	36.76
No	121	61.42	215	63.24
Frequency Missing	143		271	
Paid taxes last year				
Yes	77	36.84	162	44.88
No	132	63.16	199	55.12
Frequency Missing	131		250	
Used a tax preparation service				
Yes	98	39.20	185	44.79
No	151	60.40	227	54.96
Missing	1	0.40	1	0.24
Frequency Missing	90		198	

Has a credit card				
Yes	47	26.11	122	37.89
No	133	73.89	200	62.11
Frequency Missing	160		289	
Has used informal loans				
Yes	15	11.45	34	14.47
No	116	88.55	201	85.53
Frequency Missing	209		376	
Loans in country of origin				
Yes	24	17.52	59	24.18
No	113	82.48	185	75.82
Frequency Missing	203		367	
Amount of remittances sent last year				
Didn't send	54	29.35	97	31.29
Less than US$1000	66	35.87	92	29.68
US$1000-US$3000	32	17.39	67	21.61
More than US$3000	32	17.39	49	15.81
Missing	--	--	5	1.61
Frequency Missing	156		301	
Rejected by bank when opening acct.				
Yes	30	17.96	49	16.39
No	137	82.04	250	83.61
Frequency Missing	173		312	

Used informal savings schemes				
Yes	82	44.57	121	37.46
No	102	55.43	202	62.54
Frequency Missing	156		288	
Makes sales through network mktg.				
Yes	37	20.11	59	18.67
No	147	79.89	257	81.33
Frequency Missing	156		295	
Had investments				
Yes	100	64.94	176	69.02
No	54	35.06	79	30.98
Frequency Missing	186		356	

A frequency analysis was also conducted to compare the demographic characteristics of the Hispanics and Mexicans in Data Set I. All the respondents in this data set have attended the financial education program. For both the Mexican and Hispanic respondents, the bulk of their remittances go towards spending on food and medicines. More than half of the respondents also pay less than US$1200 in rent, which can indicate that the respondents belong to the sector of society that reports low incomes.

While the Mexican respondents had a higher level of education than the average Hispanic immigrant, there are more Hispanic immigrants (17.95%) who possess a college degree compared to Mexican immigrants (9.15%). Most of the respondents were also educated in their country of origin, although more Mexicans were educated in the United States compared to the Hispanic group as a whole. This may be due to the *Plazas Comunitarias* project in the U.S.[18] A significant majority (72%) reported their level of English proficiency as "not so good" or "bad", with more Mexicans reporting a lower level of English proficiency. The same trend is reflected in the responses for the question on computer literacy. Only 30% of the Hispanic respondents know how to use a computer and the Mexicans reported a lower level of computer literacy. A high percentage of the Hispanic respondents (36.62%) are housewives, and this number is even higher for the Mexican respondents (43.45%).

[18] Plazas Comunitarias is a project by the Mexican Ministry of Public Education and the Ministry of Foreign Affairs that offers Mexican immigrants the opportunity of studying elementary and secondary education in community centers in the United States and receiving an official certificate from Mexico.

Table 19

Results of Frequency Analysis Comparison - Hispanics and Mexicans in Data Set I (Demographics)

	Mexicans Only		Data Set I	
	N	%	N	%
Use of Remittances				
Food/Medicine	57	45.60	102	50.50
Education	14	11.20	22	10.89
House	42	33.60	51	25.25
Business	10	8.00	21	10.40
Missing	2	1.60	6	2.97
Frequency Missing	215		409	
Monthly Rent				
Less than US$800	106	35.57	191	40.38
$800-$1200	147	49.33	208	43.97
$1200-$1600	36	12.08	54	11.42
$1600-$2000	8	2.68	19	4.02
More than $2000	1	0.34	1	0.21
Frequency Missing	42		138	
Level of Formal Education				
Did not complete elementary	5	1.52	8	1.47
Completed elementary school	90	27.44	123	22.53

Completed middle school	128	39.02	184	33.70
Completed high school	75	22.87	133	24.36
College graduate	30	9.15	98	17.95
Frequency Missing	12		65	
Country where respondent studied				
US	83	25.78	101	18.88
Country of origin	239	74.22	434	81.12
Frequency Missing	18		76	
Self-Assessment: English Level				
Bad	79	25.48	126	24.18
Not so good	166	53.55	249	47.79
Good	57	18.39	121	23.22
Very good	7	2.26	24	4.61
Missing	1	0.32	1	0.19
Frequency Missing	30		90	
Self-Assessment: Computer Literacy				
Bad	97	34.15	146	30.48
Not so good	114	40.14	181	37.79
Good	56	19.72	110	22.96
Very good	15	5.28	38	7.93
Missing	2	0.70	4	0.84
Frequency Missing	56		132	
Participants' occupation				
Cleaning Services	42	14.48	62	13.60

Construction	26	8.97	51	11.18
Household	126	43.45	167	36.62
Other	76	26.21	152	33.33
Restaurant	20	6.90	24	5.26
Frequency Missing	50		155	

Frequency analyses showed that the difference between Mexicans and the average Hispanic was marginal regarding knowledge of financial concepts, with Mexicans showing a higher understanding of credit reports, stocks and premiums. This analysis also demonstrated that most participants of a financial education program had a bank account and that there was a considerable difference among Mexicans in the program and those from a representative sample in terms of having a bank account (71% - 21%). However, among those attending financial education, only a minor percentage had health or life insurance and use of banks to send remittances signifying a high rate of underbanked immigrants in the program. Based on the results, only 10% of Mexicans in the program had certificates of deposit and 36% a credit card. Related to taxes, among Mexicans attending a financial education program, 39% have ITINs and 37% paid taxes last year. Almost 40% have used a tax preparation service. The usage of informal savings schemes *tandas* (44.57%) and participation in network marketing sales (20.11%) was considerable among Mexicans in the program. Additional frequency analyses using data from those in the financial education program showed that Mexicans had a higher level of education than the average participant, but with less college degrees attained. However, Mexican immigrants had a lower level of English proficiency and computer literacy. The occupation with highest percentage in the program was the household both for Mexicans and Hispanics.

The analysis of data for this question shows only a marginal difference in demographic and socioeconomic characteristics, level of financial literacy and level of participation in the financial mainstream between Mexicans participating in the community-based financial education program and the overall sample of Data I that includes first generation immigrants from diverse Latin American countries and are classified ethnically for the purposes of this dissertation as Hispanics.

Sub-research question 3: Which factors differentiate those first generation underserved Mexican immigrants in New York City participating in the mainstream financial market from those not participating in the mainstream financial market?

To answer this research question, the researcher used data from both Data Set I and Data Set II. One statistical tool selected for this purpose was linear regression analysis. This analysis was conducted to determine which among the measured factors differentiate Mexican immigrants who participate in the mainstream financial market from those who do not. The results indicate that there are factors that differentiate the participants in the mainstream financial market from those who do not participate.

The linear regression model used participation in the mainstream financial market as the dependent variable as measured by the index FinInt, while the respondents' level of financial literacy (index FinLit), place of residence, gender, age, marital status, time spent in the US, monthly rent, level of education, country of education, level of English proficiency, level of computer literacy, country of birth, current occupation and migration status were used as the independent variables in the analysis. These independent variables were tested in three separate regression procedures. The first regression procedure used all the listed variables; the second used only four variables: level of financial literacy, migration status, level of education and level of English proficiency (labeled in this dissertation as "literature-reviewed" variables),[19] while the last used only financial literacy as the independent variable.

The results of the first linear regression analysis are summarized in the next two tables. Table 20 contains the results of the model summary, which tests the validity of the proposed model. The data indicates that the model was found to be statistically significant *($p < .001$)* with an R-square value of 0.46. The R-square value indicates the extent to which the independent variables predict the dependent variable. In this case, the independent variables account for 46% of the variance in the dependent variable. Among the independent variables tested, six of these variables were found to be statistically significant determinants of participation in the mainstream financial market. The respondents' place of residence *($p = .0498$)*, age *($p = .0322$)*, monthly income *($p = .0402$)* and participation in the financial education program *($p = .0207$)*

[19] The literature considers these variables as factors with a significant weight in the participation of immigrants in the financial mainstream.

were found to be statistically significant at $p < .05$, while the level of financial literacy *($p < .001$)* and the level of education *($p = .0082$)* were found to be statistically significant at $p < .01$.

Table 20

Results of Linear Regression – Model Summary (all variables)

Source	DF	Sum of Squares	Mean Square	F	Pr > F
Model	18	195.3172942	10.8509608	3.39	0.0001
Error	73	233.4109667	3.1974105		
Corrected Total	91[20]	428.7282609			

R-square = 0.455574

Table 21

Results of Linear Regression – Independent Variables (all variables)

Source	DF	Type I SS	Mean Square	F	Pr > F
FinLit	1	85.68986008	85.68986008	26.80	<.0001
Participant_in_fin_education	1	17.87009146	17.87009146	5.59	0.0207
Place of residence	1	12.72350289	12.72350289	3.98	0.0498
Genre	1	1.68184197	1.68184197	0.53	0.4706
Age	1	15.25175317	15.25175317	4.77	0.0322
Monthly_income	1	13.95677682	13.95677682	4.37	0.0402

[20] Number of observations in the model considers all subjects that responded to all the variables considered.

Source	DF	Type I SS	Mean Square	F	Pr > F
Time_in_the_US	1	2.21579419	2.21579419	0.69	0.4079
Monthly_rent	1	0.32159036	0.32159036	0.10	0.7520
Level_of_education	1	23.59531725	23.59531725	7.38	0.0082
Country_of_Education	1	1.14044129	1.14044129	0.36	0.5522
Level_of_English	1	8.62516864	8.62516864	2.70	0.1048
Level_of_Computer_literacy	1	0.11343760	0.11343760	0.04	0.8511
Occupation	4	8.44633943	2.11158486	0.66	0.6215
Country_of_birth2	1	3.67927285	3.67927285	1.15	0.2869
Migration_status2	1	0.00610616	0.00610616	0.00	0.9653

The second regression analysis used the "literature-reviewed" variables as independent variables, namely the respondents' level of financial literacy, migration status, level of education and level of English proficiency. The proposed model was also found to be statistically significant *($p < .001$)*, but the R-square value decreased to 0.162885 as compared to the model that used all the independent variables. These data indicate that while this model is statistically significant in terms of predicting Mexican immigrants' participation in the mainstream financial market, the listed independent variables only account for 16.29% of the variance in the dependent variable. Among the four independent variables tested, the level of education *($p = .0233$)* was found to be statistically significant at $p < .05$, while the level of financial literacy *($p < .001$)* and the migration status *($p = .0002$)* of the respondents were found to be statistically significant at $p < .01$.

Table 22

Results of Linear Regression – Model Summary ("literature-reviewed" variables)

Source	DF	Sum of Squares	Mean Square	F	Pr > F
Model	4	192.350570	48.087642	11.09	<.0001
Error	228	988.550718	4.335749		
Corrected Total	232	1180.901288			

R-square = 0.162885

Table 23

Results of Linear Regression – Independent Variables ("literature-reviewed" variables)

Source	DF	Type I SS	Mean Square	F Value	Pr > F
FinLit	1	95.60061411	95.60061411	22.05	<.0001
Migration_status2	1	64.19243443	64.19243443	14.81	0.0002
Level_of_education	1	22.61238404	22.61238404	5.22	0.0233
Level_of_English	1	9.94513714	9.94513714	2.29	0.1313

The last regression analysis conducted for this research question used financial literacy as the only independent variable that may affect Mexican immigrants' participation in the mainstream financial market. As indicated by the data, the proposed model was found to be statistically significant *($p = 0.0003$),* which means that the respondents' level of financial literacy is a statistically significant determinant of the Mexican immigrants' participation in the mainstream financial market. In comparison to the results of the first two regression analyses, the R-square value for this model decreased to 0.036752. This means that financial literacy alone predicts only 3.68% of the variance in the Mexican immigrants' level of participation in the mainstream financial market.

Table 24

Results of Linear Regression – Model Summary (Financial Literacy), Mainstream

Source	DF	Sum of Squares	Mean Square	F	Pr > F
Model	1	60.207558	60.207558	13.05	0.0003
Error	342	1577.998837	4.614032		
Corrected Total	343	1638.206395			

R-square = 0.036752

Table 25

Results of Linear Regression – Independent Variable (Financial Literacy), Mainstream

Source	DF	Type I SS	Mean Square	F Value	Pr > F
FinLit	1	60.20755796	60.20755796	13.05	0.0003

According to the data analyzed using linear regressions, the factors that differentiate those Mexican immigrants in New York City participating in the mainstream financial market are their place of residence in NYC, age, level of income, level of education, migration status, participation in a financial education program and level of financial literacy.

To confirm the above results, a second analysis is performed by using specific financial behaviors and using logistic regression analysis to generate the required results. The researcher uses the respondents' demographic characteristics, level of financial literacy and participation in the financial education program as the independent variables that may affect Mexican immigrants' level of participation in the mainstream financial market. The level of participation in the mainstream financial market is exemplified by specific variables such as having a bank account, having a credit card, having investments, having health insurance and usage of tax preparation services. Three sets of regression analysis were conducted for each specific financial behavior, with the first regression utilizing all the independent variables, the second using only the "literature-reviewed" variables (level of financial literacy, level of education, migration status and English proficiency) and the last using only the level of financial literacy as the independent variable.

The results of the first regression analysis were used to specify which among the listed independent variables exhibited a statistically significant effect on the usage of banking services by Mexican immigrants. Usage of banking services is defined by the participant having a bank account in the U.S. As summarized in Table 26, the results indicate that when all the independent variables were tested, none of the independent variables were found to have a statistically significant effect on the dependent variable. When the second analysis was conducted and the independent variables included only the “literature-reviewed” variables, it was found that the Mexican immigrants’ level of education *(p = .0191)* was found to have a statistically significant effect on the usage of banking services at p = .05. When the regression was further reduced to using only the level of financial literacy as the independent variable, it was found that financial literacy *(p = .0422)* exhibited a statistically significant effect on the Mexican immigrants’ use of banking services at a significance level of p = .05.

Table 26

Results of Logistic Regression – All Independent Variables x Having a bank account

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	2.6721	0.1021
Participant_in_fin_e	1	2.2163	0.1366
Place of Residence	1	1.2184	0.2697
Genre	1	0.0267	0.8702
Age	1	3.3444	0.0674
Monthly_income	1	1.5083	0.2194
Time_in_the_US	1	2.8446	0.0917
Monthly_rent	1	1.3854	0.2392
Level_of_education	1	3.2099	0.0732
Country_of_Education	1	0.0001	0.9935
Level_of_English	1	3.3160	0.0686
Level_of_Computer_literacy	1	0.5096	0.4753
Job	4	4.1485	0.3863
Country_of_birth2	1	3.1109	0.0778
Migration_status2	1	1.8071	0.1789

Number of observations: 85

Table 27

Results of Logistic Regression – "Literature-reviewed" Variables x Having a bank account

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	2.6824	0.1015
Migration_status2	1	3.5064	0.0611
Level_of_education	1	5.4957	0.0191
Level_of_English	1	1.7213	0.1895

Number of observations: 212

Table 28

Results of Logistic Regression – Financial Literacy x Having a bank account

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	0.9931	0.2192	20.5155	<.0001
FinLit	1	0.2031	0.1000	4.1266	0.0422

Number of observations: 308

The regression analyses were also conducted to examine the effects of the independent variables on the use of credit by Mexican immigrants. Possession of a credit card by participant was used as dependent variable. The results indicate that when all the independent variables are used in the model, only the respondents' country of birth *($p = 0.0277$)* was found to have a statistically significant effect on the use of credit at a significance level of $p = .05$. Using only the "literature-reviewed" variables, the results indicated that financial literacy *($p = 0.0039$)* and the migration status of the respondents *(p = 0.0035)* had a statistically significant effect on the use of credit, at a significance level of p = .01. Using the model wherein financial literacy was the only independent variable, it was found that the level of financial literacy had a statistically significant effect on the use of credit *(p = 0.002)*.

Table 29

Results of Logistic Regression – All Independent Variables x Having a credit card

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	0.3816	0.5367
Participant_in_fin_e	1	1.5749	0.2095
Place	1	1.7186	0.1899
Genre	1	0.6221	0.4303
Age	1	0.3107	0.5772
Monthly_income	1	3.0704	0.0797
Time_in_the_US	1	0.4138	0.5200
Monthly_rent	1	2.2223	0.1360
Level_of_education	1	2.3411	0.1260
Country_of_Education	1	0.0856	0.7699
Level_of_English	1	0.7852	0.3756
Level_of_Computer_literacy	1	0.8577	0.3544
Job	4	3.0171	0.5550
Country_of_birth2	1	4.8442	0.0277
Migration_status2	1	0.0043	0.9480

Number of observations: 82

Table 30

Results of Logistic Regression – "Literature-reviewed" Variables x Having a credit card

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	8.3363	0.0039
Migration_status2	1	8.5428	0.0035
Level_of_education	1	3.3464	0.0674
Level_of_English	1	1.2009	0.2731

Number of observations: 184

Table 31

Results of Logistic Regression – Financial Literacy x Having a credit card

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.9097	0.2110	18.5877	<.0001
FinLit	1	0.3206	0.0869	13.6057	0.0002

Number of observations: 257

The results of the regression analyses were also used to determine the effects of the independent variables on the investment of Mexican immigrants. The dependent variable was defined by asking the participant if he had an investment. Based on the results of the model that used all the independent variables, it was found that none of the specified independent variables exhibited a statistically significant effect on the Mexican immigrants' level of participation in the mainstream financial market. This finding changes when the number of independent variables is streamlined to include only the "literature-reviewed" variables. Using this second model, the level of financial literacy was found to have a statistically significant effect on the level of participation in the mainstream financial market *($p = 0.0019$)*. Similarly, upon testing the model where financial literacy is the only independent variable, financial literacy was also found to have a statistically significant effect on the level of participation in the mainstream financial market *($p = 0.0005$)*.

Table 32

Results of Logistic Regression – All Independent Variables x Having an investment

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	1.2605	0.2616
Participant_in_fin_e	1	0.0016	0.9684
Place of Residence	1	0.2722	0.6019
Genre	1	1.4298	0.2318
Age	1	0.0007	0.9786
Monthly_income	1	0.4204	0.5167
Time_in_the_US	1	0.2348	0.6280
Monthly_rent	1	2.2490	0.1337
Level_of_education	1	0.0000	0.9969
Country_of_Education	1	0.0000	0.9995
Level_of_English	1	0.1592	0.6899
Level_of_Computer_literacy	1	0.2001	0.6546

Effect	DF	Wald Chi-Square	Pr > ChiSq
Job	4	2.9031	0.5742
Country_of_birth2	1	0.7996	0.3712
Migration_status2	1	3.6937	0.0546

Number of observations: 63

Table 33

Results of Logistic Regression – "Literature-reviewed" Variables x Having an investment

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	9.6658	0.0019
Migration_status2	1	0.2673	0.6051
Level_of_education	1	0.0008	0.9773
Level_of_English	1	0.2161	0.6420

Number of observations: 152

Table 34

Results of Logistic Regression – Financial Literacy x Having a investment

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	0.1688	0.2237	0.5695	0.4505
FinLit	1	0.3973	0.1142	12.0995	0.0005

Number of observations: 210

The next set of regression analyses tested the effects of the independent variables on the Mexican immigrants' health insurance. The results of the regression analysis that included all the independent variables indicated that among the specified independent variables, only the respondents' migration status exhibited a statistically significant effect on the dependent variable *($p = 0.0078$)*. Using the model which included only the "literature-reviewed" variables as independent variables, it was found that the respondents' level of financial literacy *($p = 0.0140$)* and migration status *($p = 0.0010$)* were found to have statistically significant effects on the dependent variable. Similarly, when the model using only financial literacy as the independent variable was tested, it was determined that the respondents' level of financial literacy significantly affected their health insurance *($p = 0.0005$)*.

Table 35

Results of Logistic Regression – All Independent Variables x Having health insurance

Effect	DF	Wald Chi-Square	Pr > ChiSq
Finlit	1	0.2626	0.6083
Participant_in_fin_e	1	0.0291	0.8645
Place of Residence	1	0.0766	0.7819
Genre	1	1.0789	0.2990
Age	1	0.0224	0.8809
Monthly_income	1	0.4014	0.5264
Time_in_the_US	1	0.1133	0.7364
Monthly_rent	1	0.5820	0.4455
Level_of_education	1	1.4430	0.2297
Country_of_Education	1	0.6180	0.4318
Level_of_English	1	2.0424	0.1530
Level_of_Computer_literacy	1	1.5524	0.2128
Job	4	4.0411	0.4005
Country_of_birth2	1	0.0226	0.8805
Migration_status2	1	7.0887	0.0078

Number of observations: 89

Table 36

Results of Logistic Regression – "Literature-reviewed" Variables x Having health insurance

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	6.0389	0.0140
Migration_status2	1	10.8725	0.0010
Level_of_education	1	2.4604	0.1167
Level_of_English	1	0.0408	0.8398

Number of observations: 204

Table 37

Results of Logistic Regression – Financial Literacy x Having health insurance

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.8808	0.1987	19.6554	<.0001
FinLit	1	0.2955	0.0849	12.1287	0.0005

Number of observations: 285

The last regression analysis for this research question was the Mexican immigrants' usage of a tax preparation service. The results of the regression analysis which used all the independent variables indicate that financial literacy *($p = 0.0013$)* was found to have a statistically significant effect on the dependent variable at a significance level of $p = 0.01$. The respondents' level of computer literacy *($p = 0.0302$)* was also determined to be a statistically significant factor that determines the respondents' usage of a tax preparation service, at a significance level of $p = 0.05$. The results of the regression analysis for the model that used only the "literature-reviewed" variables denote that the financial literacy *($p = 0.0003$)* and migration status of the respondents *($p = 0.0009$)* are both significant determinants of the Mexican immigrants' usage of a tax preparation service. Using the model wherein financial literacy is the only independent variable, the results show that financial literacy is a significant factor in determining the Mexican immigrants' usage of a tax preparation service *($p = 0.0027$)*.

Table 38

Results of Logistic Regression – All Independent Variables x Tax Preparation Services

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	10.2756	0.0013
Participant_in_fin_e	1	0.1672	0.6826
Place of Residence	1	0.1510	0.6976
Genre	1	3.1654	0.0752
Age	1	0.4379	0.5081

Effect	DF	Wald Chi-Square	Pr > ChiSq
Monthly_income	1	0.1567	0.6922
Time_in_the_US	1	1.2843	0.2571
Monthly_rent	1	0.0002	0.9879
Level_of_education	1	2.2870	0.1305
Country_of_Education	1	0.0026	0.9594
Level_of_English	1	0.1080	0.7424
Level_of_Computer_literacy	1	4.6984	0.0302
Job	4	1.5076	0.8253
Country_of_birth2	1	0.0671	0.7955
Migration_status2	1	1.1411	0.2854

Number of observations: 89

Table 39

Results of Logistic Regression – "Literature-reviewed" Variables x Tax Preparation Services

Effect	DF	Wald Chi-Square	Pr > ChiSq
FinLit	1	13.0535	0.0003
Migration_status2	1	10.9434	0.0009
Level_of_education	1	0.8875	0.3461
Level_of_English	1	0.0227	0.8801

Number of observations: 207

Table 40

Results of Logistic Regression – Financial Literacy x Tax Preparation Services

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.3375	0.1854	3.3141	0.0687
finlit	1	0.2485	0.0829	8.9960	0.0027

Number of observations: 287

A Pearson's correlation analysis was conducted to specify the relationship between the variables of the study. The variable FinInt pertains to the participation in the mainstream financial market. The p-values in the table were used to identify which variables exhibited significant relationships with others, and the correlation value indicates the strength of the association between the variables.

Table 41

Results of Pearson Correlation Analysis

	Financial Literacy (FinLit)		Financial Integration (FinInt)	
	r	p	r	p
Financial Literacy (FinLit)	--	--	**.247**	**.000**
Financial Integration (FinInt)	**.247**	**.000**	--	--
Monthly Income	-.053	0.65	-.015	.573
Time Spent in US	**.088**	**.001**	**.162**	**.000**

According to the Pearson's Correlation analysis between the index FinLit (created to measure the knowledge of participants of basic concepts of personal finances and the financial system) and FinLit was found to be statistically significant at a significance level of $p < .001$. The correlation value is $r = .247$, indicating a significant, but weak relationship between the two variables. This finding means that the high participation of Mexican immigrants in New York City in the mainstream financial market is positively related to being financially literate. The significance value for the relationship between participation in the financial market and the income of the respondents is greater than $p = .05$, indicating the absence of a statistically significant relationship between the two variables. The correlation value signifying the relationship between the participation in the mainstream financial market and the number of years they have lived in the US is $r = .162$, with a significance level of $p < .001$. This indicates that there is a weak, but significant positive correlation between the two variables.

Sub-research question 4: What effect has the participation in a community-based financial education program in New York City on first generation underserved Mexican immigrants?

In order to answer this sub-research question, the researcher utilized the analysis of the interviewees' responses given that it was the only time when there was access to the participants after they had completed the community-based financial education program.

The participants of the Qualitas of Life Foundation program had diverse memories about the concepts they had learned. Some remembered specific concepts and others remembered how they have learned them. On the method of learning, some participants recalled the days when guest speakers such as the staff of a microfinance organization, successful business owners or members of a credit union visited the program. Others like Luisa and Maria were very enthusiastic about a board game that they played during the program. Most participants had positive memories of the workshops' facilitators and their method of teaching. They felt that the facilitators had motivated them to reach their goals and improve their situation. Olga said: "when they said "yes we can", I believed it." Juan and Jose felt that they had learned to not be fearful to demand their rights to a financial institution and ask when they had a doubt. Jose was eager to declare: “If there is abuse, you can complain to the banking institutions knowing that they can’t discriminate against you.“

The interviewees mentioned many topics that they had learned in the program such as real state, frauds, how to talk to their children about money, how to administrate a business, and the basics of banking. However there were three subjects that were mentioned the most: credit, protecting assets and money management. These subjects were not only mentioned, the participants also shared strong opinions about them and even gave details. For example, Jose recalled the definition of APR (annual percentage rate), and the fact that there is a maximum interest rate that you can charge in the State of New York. Alejandra responded that she had learned how the interest rate of a credit card was calculated and how much she had to pay to stay out of trouble. Luisa said: “I did not pay all my balance, only the minimum. But since the class, I pay as much as possible.” Rene learned the steps to have credit history in the United States.

Concerning asset protection, many participants stated that they had learned meaningful concepts. Viviana mentioned that after the workshop on frauds she realized that she had been the victim of one. Olga and Rufina said that they don’t trust people in money matters because they could be deceived. Others thought that the most important information they had received in the program was about insurance. Flor said: “it is very important to have life insurance, leaving secured the future of your children or if there is an accident at work.” Ana mentioned that she learned the importance of having insurance for damages at home. A few members of the group said that they were educated in organizing their documents at home in case of an emergency. Laura learned: “to know how to have in hand important documents.” For others, the concept of having a will to lawfully allocate their resources in case of death was very helpful. Flor was worried because she did not have a will. “It is important to make a living will,” she said.

Two thirds of the participants said that the most important concept they had learned in the financial education program was to make a budget. This improvement appeared in different ways. However, the responses showed that the participants not only learned the concepts, also started to put them into practice with positive results. First was the concept of recording expenses. Participants learned to record their income and expenses. For example, Carla said: “I have a notebook with everything regarding costs.” Martha said that she does an estimate on how much money she earns and spends and then look for possible leaks. Elena mentioned that a benefit of budgeting was that she always paid her bills on time. Second was the importance of monitoring their savings. After the program, Rene started to observe carefully a percentage of his income that was saved. Antonio said that he avoided spending everything he earned to have something for tomorrow. Flor reviewed her bank statement to see how much she was spending because she wanted to save for college. Maria said: “Now I have discipline (to save). Before, money was spent quickly.“ Gustavo affirmed: “I acquired better habits, saving and planning things, setting goals with my children and me.” Alejandra mentioned that she learned not to spend money if she does not have it at hand so she can save. The third concept regarding budgeting that the participants recalled was the difference between needs and wants. Araceli said she buys less and avoids buying what she does not need. Carla stopped buying sales of products that were not necessary. Vicente stated that he learned to: “Put down the credit card, moderate in spending, not compulsively, buy the most necessary.” Jose changed his priorities regarding spending because he learned: “To give priority to expenditures, 80% education rather than entertainment or amenities.”

When asked if their economic situation has changed due to the concepts learned in the financial education program, most participants said that their situation was the same. Three of them said that their economic situation has worsened, but they explained it was because the economic crisis left them or their husbands with fewer earnings. Six participants claimed that since they took the financial education program they have improved their economic situation. Remarkably, five of them said it was because they have learned to manage better their money and only one because she had used the concepts of the program to take control of her family’s debt. Elena affirmed that since the program: “It has improved. We are stable. Now I have a savings and I have emergency money.” Itzel had the same experience: “It has improved because I can save more, even when the money has not increased.” On the other hand, Carla told her husband to cancel most of his credit cards, transfer the balances to the one with lower interest rates and make a plan to pay the debt.

After asking the participants about what they had learned in the financial education program, the researcher also asked about specific actions that were recommended in the program. Half of the participants responded that they had saved some money in the last month. Only eleven interviewees had made a budget in the last month. However, two thirds of the group had talked about money with their family.

Concluding, the qualitative analysis seeks to find the effects of the financial education program by Qualitas of Life Foundation in the participants. When asked the reasons for joining the program, a few said that it was because they were curious or liked the friendly atmosphere.

However, the majority was looking to improve their knowledge of money management and the financial system. Several participants defined the program as a good review of information they had already acquired by experience, from reading books and newspapers or even from other financial education programs. These corroborates the finding described above that the participants of a financial education program had already a solid understanding of the financial system and wanted to learn more or find answers to their questions, and that they were already members of the financial mainstream.

When participants were asked for the effects that the financial education program had in them, they talked about three aspects. The first and most common aspect is that they were able to prepare a budget, and as a consequence they could monitor their savings and prioritize needs over wants. Even when they reported their economic situation to have minimal improvement, they felt they were better money managers. Another aspect was the information they received throughout the program. Some were able to recall specific data on three subjects that seemed to have had an impact on them: credit, money management and asset protection. They also recalled learning about organizations that were looking out for them and about resources they could access related to money matters. They confirmed their knowledge on the financial system and felt ready to continue utilizing it. Finally, some said that they felt empowered. They felt motivated from hearing that being undocumented or having low-income was not an impediment to continue improving their economic status.

Sub-research question 5: Is there a problem of self-selection that hinders the effectiveness of financial education programs because those Mexican immigrants who decided to participate in a community-based financial education program in New York City are not the ones from the population who need the most financial education according to the literature?

The quantitative analysis showed that there were factors of the selected sample group that were related to their participation in a financial education program. Among these factors were gender, age, income, marital status and length in the United States. If you are a Mexican immigrant in New York City and you are a woman, older, earn low-income, and have been in the country for a longer time, you are more likely to attend a financial education program than the average. The quantitative analysis also showed that besides these demographic characteristics, there were some financial actions that were related with the enrollment in a financial education program. Among those actions were to have a bank account, have credit, pay for insurance, used an alternative financial service such as a money transfer agency, participate in a *tanda* and pay taxes through a tax preparer.

The qualitative analysis confirmed these results. The sub-sample of 30 participants from the Qualitas of Life Foundation community-based financial education program presented similar demographic characteristics than the sample from Data Set I, with the exception of the level of education that seemed to be higher for those in the interview, and the higher number of homemakers and residents of Manhattan in the sub-sample. The other relevant difference was the level of participation in the financial mainstream. The researcher had decided to select a sub-sample of underbanked Mexican immigrants. However, the qualitative analysis showed that even when those interviewed were underbanked, they presented a high level of participation in the mainstream financial institutions and an overall solid understanding of the financial system in the United States.

The content analysis of the interview's responses showed that this group had a relatively easy entry into the financial mainstream. They did not encounter major barriers to open accounts or even obtain credit from a bank. Some of them walked into a branch and asked the staff about the process. Others found information from friends, family, community centers or work colleagues. If they were undocumented, the financial institution made it easier by dropping the requirement of a social security number. If they were not approved for a credit card in the first attempt, they were able to do it eventually. If they felt uncomfortable because the staff did not speak English, they found another branch with Spanish speakers. If they wanted to have a better interest rate than the one offered by their savings account, they knew that it was better to deposit money in certificates of deposit. For those in the interview, accessing the financial mainstream for basic financial products was not a challenge. Moreover, all of the interviewed immigrants had pay taxes and used a tax preparer to do so. They all were able to get an ITIN with relatively ease. With the exception of one, all had their taxes in order. A few of the participants were able to access more sophisticated financial products such as permanent life insurance, mutual funds and mortgages. There were some that had business accounts.

On the other hand, these same interviewees mentioned that the problems they had encountered came not at the beginning of the relation with a financial institution, but later when they were performing typical transactions. There were complaints about hidden fees, high interest rates in credit cards, wrong debits and credits in their account and changes in institutional policies that affected them like the increase in the minimum balance requirements. They also found that bankers did not give them the correct information in more than one occasion and the fact that they had to made changes in their accounts when the IRS sent them letters because they had not a social security number of ITIN. In general, the challenges faced by this group of Mexican immigrants in New York City are the same challenges that an average account holder from a low-income background has in the United States.

The reasons for opening a bank account and using other financial services indicated that this group of immigrants had a very clear understanding of the advantages and disadvantages of participating in the American mainstream financial system. Some were looking for financial products that could solve their immediate needs. The aspects of safety and convenience were mentioned multiple times. Mexican immigrants wanted a place to keep their money safe and saw a bank account as the solution. Some wanted to cash checks they received without paying a fee. Others wanted the convenience of having a checkbook to pay for bills or a debit card to withdraw money from an ATM or buy at stores. A considerable number of participants affirmed that their main reason for starting a relation with a mainstream financial institution was that they were trying to improve the way they manage money. In other words, they wanted to have better personal and household finances and they saw banks and credit unions as institutions that could help them to achieve this objective. Participants mentioned that a bank account helped them to take control of their money because it was harder to spend if it was deposited. They also talked about forcing them to review their expenses with the bank statement. They said that it was easier to establish a financial goal through with the support of a financial institution. All these participants seemed to have had strong influences in their life that helped them to prioritize money matters. For some it was their parents and siblings that instilled in them the importance of administration and having a bank account. Others talked about reading influential books. Some participants said that the fact they were poor when children helped them to value money management. Finally, some started working very young and had to learn to administrate money very fast.

Most participants of the sub-sample demonstrated a solid understanding of the financial system, an active interest to learn more about it and even a remarkable confidence in what they were expressing. They appeared very comfortable taking about the subject of money and financial institutions like if they had figured out the foundations of the system. At the same time, they realized that the financial system was very complex and that they needed to continue learning about it.

However, these confident participants of the Qualitas of Life Foundation financial education program still used alternative financial services. A few used pawnshops and check cashers, but most of them used money transfer agencies to send money abroad. When asked the reasons for this behavior, they expressed that they had never had problems with these alternative financial institutions and even listed some advantages that they have over the mainstream ones. For example, the hours of operation were more convenient for check cashers over banks, and money transfer agencies paid more money to their relatives in Mexico. None of the participants had a bad opinion of alternative financial institutions. A special consideration must be given to the topic of *tandas*. Concerning *tandas*, the interviewees had mixed feelings. Some saw *tandas* as an opportunity to force themselves to save money (same reason for opening a bank account) and had had great experiences with *tandas*. Others had negative experiences with *tandas* in New

York City and preferred not to participate. In sum, the group of Mexican immigrants that were interviewed felt that they had a general solid understanding of the mainstream and alternative financial systems.

Summing up, it seems that the community-based financial education program by Qualitas of Life Foundation does not produce or increase the participation in the mainstream financial system or the knowledge of financial concepts. On the contrary, being part of the financial mainstream increases the likelihood that a first generation underserved Mexican immigrant in New York City attends the financial education program. Those who already had experienced the financial system are the ones who wanted to learn more about it. In short, there is a problem of self-selection among those Mexican immigrants attending a voluntary community-based financial education program.

Conclusion of data analysis

To conclude this chapter, the researcher utilizes the data collected and the analysis conducted to accept or reject the formulated hypotheses.

Hypothesis A: There are factors that differentiate first generation underserved Mexican immigrants in New York City that participate in a community-based financial education program from those first generation underserved Mexican immigrants in New York City from a representative sample.

There is a gap in the literature on the characteristics of those who participate in a community-based financial education program for immigrants. It is assumed that those who participate in a financial education program lack the information to be learned. In other words, an immigrant that wants to learn about opening a bank account must be unbanked. However, recent research has shown that there is a self-selection problem that might be hindering the effectiveness of financial education programs. In other words, those who want a financial education program are not those who need it the most.

To test this hypothesis, frequency analysis, measures of central tendency, chi-square and t-tests were conducted to compare the data from Data Set I (those who had participated in a financial education program) and Data Set II (those from a representative sample).

Based on the frequency analysis comparison, a higher percentage of women and low-income participants are present in the financial education program. Measuring the average and standard deviation of the data sets, the results show that older Mexicans were the ones present in the financial education program. The difference is marginal in terms of time that the participant has been in the country and marital status.

To go further with the analysis, chi-square analysis and t-tests were conducted to determine if relationships existed between the attendance in the financial education program and the respondents' demographic characteristics, namely their gender, marital status and migration status. The results indicated that the place of residence, gender and marital status of the respondents exhibited statistically significant relationships with attendance in the financial education program. The effect size for the relationship between the place of residence and attendance in the financial education program was classified as strong, while the relationship between the gender and marital status of the respondents and their attendance in the financial education program was classified as significant, but weak. Migration status in the US did not exhibit a statistically significant relationship with attendance in the financial education program.

According to t-tests, the respondents' age, monthly income and the number of years spent in the US were found to have statistically significant relationships with attendance in the financial education program. These significant relationships indicate which factors affect the attendance on the financial education program, and therefore identify which factors differentiate those who attended and those who did not attend the financial education program.

The qualitative analysis of the interviews indicated that the subjects have access to financial services by mainstream financial institutions and had a considerable understanding of these.

Hypothesis A is validated: there are factors that differentiate first-generation underserved Mexican immigrants in New York City that participate in a financial education program from those from a representative sample.

Hypothesis B: Participation in a community-based financial education program by first generation underserved Mexican immigrants in New York City is related to participation in the mainstream financial system.

Recent literature has debated the effectiveness of financial education programs. Scholars have not found conclusive evidence that financial education lead to better financial decisions or higher level of participation in the financial mainstream (Hilgert, Hogarth and Beverly, 2003; Mandell, 2006; Lusardi, 2011).

For this hypothesis, a chi-square analysis was conducted to determine the relationship of attendance in the financial education program with the participation of first generation underserved Mexican immigrants in the financial mainstream. The results of the chi-square analysis procedures indicated that the attendance in the financial education program exhibited statistically significant relationships with the respondents' having a bank account and having health insurance.

The interviews to Mexican immigrants with a bank account that attended the community-based financial education program by Qualitas of Life Foundation indicated that the interviewees were more likely to have access to diverse financial services such as credit cards and tax preparers than the general population before they attended the program. In other words, these participants might have decided to attend the program because they had access to these services.

<u>Hypothesis B is validated: Participation in a community-based financial education program by first generation underserved Mexican immigrants in New York City is related to participation in the mainstream financial system.</u>

Hypothesis C: Participation in the mainstream financial market by first generation underserved Mexican immigrants in New York City is related to being financial literate.

To validate or reject this hypothesis, a Pearson's correlation between the indexes FinLit and FinInt was performed. The relationship between these two variables was found to be statistically significant at a significance level of $p < .001$. The correlation value is $r = .247$, indicating a significant, but weak relationship between the two variables.

In addition, using Data Set I (participants of a financial education program), five logistic regressions were conducted with FinLit as independent variable and having a bank account, having a credit card, having an investment, having health insurance and usage of tax preparation services as dependent variables. In all models, being financial literate was found to have a statistically significant effect on the dependent variables. These findings mean that the high participation of first generation underserved Mexican immigrants in a community-based financial education program in New York City in the mainstream financial market is positively related to being financially literate.

Using the information gathered through content analysis of the qualitative data, the Mexican immigrants participating in a financial education program showed a basic understanding of financial services and financial institutions that was not a consequence of the program, but of prior experiences or learning opportunities.

Hypothesis C is validated: Participation in the mainstream financial market by first generation underserved Mexican immigrants in New York City is related to being financial literate.

Hypothesis D: There are factors that differentiate first generation underserved Mexican immigrants in New York City that participate in the mainstream financial market from those that do not participate.

The literature review showed that unbanked and underbanked individuals in the United States have particular characteristics that differentiate them from those who participate fully in the mainstream financial system. Unbanked and underbanked individuals are more likely to be recent arrived young immigrants, have lower income, have no or poor experiences with the financial mainstream, come from areas with scarce financial institutions, have low English proficiency, settle in areas with high presence of immigrants, lack official documentation due to their migration status, have ties with their home country and have lower level of education.

To test this hypothesis, three linear regression models were performed with the index FinInt as dependent variable and the index FinLit, the participation in a financial education program and demographic characteristics as independent variables. Based on the results of the linear regressions, factors such as the age of the respondents, their monthly income, the level of formal education, migration status and their level of financial literacy were found to be significant determinants of participation in the mainstream financial market. To be part of a financial education program was also found to be determinant in Mexican immigrants' participation in the financial mainstream. However, other statistical tools showed that the relationship between the variables is weak. This finding indicates that there are factors that differentiate the participants in the mainstream financial market from the general population, but the extent of the significance is questionable as it will be shown in the next hypothesis.

Hypothesis D is validated: There are factors that differentiate first generation underserved Mexican immigrants in New York City that participate in the mainstream financial market from those that do not participate.

Hypothesis E: A high participation of first generation underserved Mexican immigrants in New York City in the mainstream financial market is related to:

a) Having a higher level of education (as measured by self-reported formal education, proficiency in English and computer literacy).

The literature states that immigrants with higher level of education and English proficiency are more likely to have bank accounts. After conducting two linear regressions with the index FinInt as dependent variable and level of formal education, proficiency in English and computer literacy among the independent variables to be tested, the results showed the level of formal education and computer literacy to be statistically significant in some of the models, while the effect disappears in others. Given the lack of conclusive evidence, the hypothesis is neither validated nor rejected.

b) Having a higher income.

According to the literature, banked immigrants tend to earn more than unbanked immigrants, so income is a factor for participating in the mainstream financial market. For this dissertation, as with the previous hypothesis, the significance value for the relationship between participation in the financial market and the income of the respondents is greater than $p = .05$ according to a Pearson's Correlation, indicating the absence of a statistically significant relationship between the two variables. This conclusion is confirmed by a linear regression with the index FinInt as dependent variable and income among the independent variables. Income is found to be statistically significant, but at $p < .05$. Given the lack of conclusive evidence, the hypothesis is neither validated nor rejected.

c) The number of years living in the US.

The literature reviewed concluded that length of stay is a strong factor that increased immigrants familiarly with banks and credit unions in the United States and therefore, their participation in the mainstream financial market. In this study, linear regression analysis didn't show any statistically significant relationship between participation in the mainstream financial market and number of years living in the United States. According to the Pearson's Correlation analysis, the correlation value signifying the relationship between the participation in the mainstream financial market and the number of years they have lived in the US is $r = .162$, with a significance level of $p < .001$. This indicates that there is a weak, but significant positive correlation between the two variables. Given the lack of conclusive evidence, the hypothesis is neither validated nor rejected.

d) Being undocumented (not having a social security number).

Findings based on literature review would indicate that participation of immigrants in the mainstream financial market is related to being undocumented. Linear regression analysis indicated that migration status ($p = .0002$) was statistically significant at $p < .01$. The result was consistent in several of the statistical models used to test this hypothesis. The hypothesis is validated.

e) Having a domestic partner (married or otherwise).

The sources consulted for the literature review showed that having a family could affect participation in mainstream financial market. Those who are married are more likely to be banked. In the case of immigrants, fewer banked immigrants have spouses or dependents in their home country. This dissertation found that that immigrants with a domestic partner are more likely to attend a financial education program and that attending a financial education program is associated to participation in the financial mainstream. However, no statistically significant relationship was found between the variables. Given the lack of conclusive evidence, the hypothesis is neither validated nor rejected.

f) Using alternative financial services.

The literature presents that those who are banked and knows the benefits of banking would not engage in the alternative financial system. However, there is a significant number of individuals that are classified as underbanked. There are immigrants who use alternatives because of the geographical convenience and the products that respond better to their needs. No statistically significant relationship was found through the use of statistical tools in this dissertation. Given the lack of conclusive evidence, the hypothesis is neither validated nor rejected.

This chapter presented the results of the analysis of the quantitative and qualitative data collected for this dissertation. Using statistical tools and content analysis, the findings were presented in the framework of the research question, sub-research questions and hypotheses formulated as part of the methodology design. In the final chapter of this dissertation, the researcher presents the conclusions reached through the literature review and data analysis, and the implications that these have for researchers, financial educators, financial institutions and first-generation underserved Mexican immigrants residing in New York City.

CHAPTER V: CONCLUSIONS AND IMPLICATIONS

The objective of this dissertation was to analyze the characteristics of a sample of first generation Mexican underserved immigrants who decided to participate in a voluntary community-based financial education program in New York City. This study aimed to find if these subjects presented characteristics that differentiated them from a representative sample of the population and from all Hispanics enrolled in the financial education program. It also used the data collected to investigate if there were demographic and socioeconomic characteristics that differentiated those among the sample who used the mainstream financial institutions and understood basic concepts of the financial system. Finally, it complemented the analysis by exploring if there were any significant effects of the community-based financial education program in the participants.

To finalize, this dissertation presents five conclusions based on the literature review and the results of the analysis of quantitative and qualitative data. In addition, it introduces the implications of these conclusions for financial educators, researchers and Mexican immigrants.

Conclusions

I. Most first generation underserved Mexican immigrants in New York City *need* financial education.

The literature review indicated that recent immigrants are more likely to be unbanked and underbanked than other minorities. Studies have determined that there are demographic and socioeconomic characteristics that are related to having a low level of participation in the financial mainstream and having a low level of financial literacy. Among these characteristics are: lacking experience with financial services; living in poverty; having a low level of formal education and knowledge of English; having irregular migration status; living among other immigrants (in neighborhoods with a high of concentration of fringe services); having strong ties with the country of origin; and using alternative financial services. (See Rhine and Greene, 2006; Bohn and Pearlman, 2010; Amuedo-Dorantes and Pozo, 2002; Cobb-Clark and Hildebrand, 2006; Jacob, 2000; Hernandez-Coss, 2005; Hilgert et al., 2005; Amuedo-Dorantes et al., 2004; Bleakley and Chin, 2004; Dunham, 2002).

The literature also indicated that the Mexican immigrant community in New York City presents many of the above-described characteristics. According to the US Census, this population in New York City grew from around 60,000 in 1990 to almost 325,000 in 2010. Thus, it is a relatively new community in the City. There are Mexican "towns" in the five boroughs (Waters and Bach, 2011) in areas where other immigrant groups have settled before and with multiple alternative financial services providers. Most Mexican immigrants in New York City come from the impoverished region of "La Mixteca" where financial institutions are rare. This community is sadly known for having the lowest level of educational attainment and English proficiency among ethnic groups in the City (Semple, 2011; Begard, 2009), having one of the lowest mean annual household income per-capita in the country (Rivera-Batiz, 2003), having a third of the population under the poverty line (Waters and Bach, 2011), living in extremely crowded and unsafe households (idem) and being abused by other groups (Smith, 2006) given that almost half of them are noncitizens (Begard, 2009).

The literature review confirmed that most first generation underserved Mexican immigrants in New York City are unbanked and engage in financial transactions through alternative financial providers. Surveys made in the City by EA Consultants indicated that up to 80% of first generation Mexican immigrants in New York City did not have a bank account. A study by the Immigrant Financial Justice Network (2008) showed that more than 75% did not have a credit card, while 71% had no health insurance (Begard, 2009) and 96.29% had no life insurance (EA Consultants, 2011).

The analysis of the data gathered for this dissertation confirmed the need of this community for more participation in the mainstream financial system. It was found that less than 40% had a bank account, more than 80% did not use a bank to send remittances, more than 70% did not have health insurance and more than 90% did not have life insurance. Almost 90% did not have a certificate of deposit and almost 75% lacked a credit card. Almost half of the respondents to the survey used *tandas* to save money.

Based on the results of linear regressions of more than 1600 surveys, it was found that migration status, level of financial literacy and participation in a financial education program by Mexican immigrants in New York City were significant determinants of their participation in the mainstream financial market. Those who are older and with regular status in the U.S. (residents or citizens), and who understand basic personal finance concepts are more likely to be banked. However, the data analyzed did not find conclusive evidence about the relation between level of formal education, marital status, English proficiency, monthly income, length in the United

States, and their participation in the financial mainstream. Moreover, the researcher could not found a negative relationship between being banked and the use of alternative services.

This information was corroborated with the qualitative analysis. The subset of 30 Mexican immigrants had bank accounts, but still used alternative services. The content analysis of the interviews indicated that the subjects had access to bank accounts and credit cards, but were not taking full advantage of these services because of lack of information or due to a bad experience that discouraged them. Even when they had bank accounts, they still sent money through money transfer agencies and considered them more convenient. They also used *tandas* because they forced them to save money periodically. The interviewees did not have insurance products even when they knew their benefits, and did not have investments even when they wish they had capital to do so.

The data gathered by this dissertation confirmed the literature about the high number of Mexican immigrants in New York City who are unbanked and underbanked. Thus, there are hundreds of thousands of Mexican immigrants in New York City with no or low access to mainstream financial institutions; and those who have access are still using alternative financial services and do not fully understand the benefits of the mainstream financial system. It is imperative to create effective policies and initiatives that facilitate access to mainstream financial institutions for this population. Among these policies and initiatives, the design of financial education programs is critical.

Financial education is defined as the process to improve individuals' understanding of financial concepts and develop skills to make informed choices, learn where to go for help, and to take other actions for their financial well-being (OECD, 2005). In the last decades, policy makers, advocates, educators and financial institutions have developed multiple financial education programs, many of them for immigrants. The developers of these programs assumed that financial education teach information that would increase students' participation in mainstream financial institutions (Bell and Lerman, 2005). The literature indicated that participation of individuals in the mainstream financial market is positively related to participation in a financial education program. It also revealed a correlation between attending a financial education program and being financially literate. According to several scholars, a higher level of financial literacy would facilitate the participation of unbanked immigrants in the mainstream financial market. Moreover, financially literate immigrants should be more open to the idea of banking and obtaining other services in the mainstream financial market. They will become less prone to use alternative financial agents and will become critical of them. In short, there are authors that affirm that there is a causal relation between financial literacy and participation in the financial mainstream (See Bailey, 2003; Bernheim, 1996; Clark, 2003; Yoong, 2008). According to these statements, Mexican immigrants in New York City urgently need financial education.

II. There are first generation underserved Mexican immigrants in New York City who *want* financial education.

This dissertation was interested in knowing who among the population of first generation underserved Mexican immigrants in New York City decided to take a voluntary community-based financial education program. To test if there were characteristics that could be associated to those who attend the community-based financial education program by Qualitas of Life Foundation, a comparison between Mexican immigrants who had participated in the financial education program and those from a representative sample was conducted.

In terms of demographics, Mexicans in the program presented the following characteristics: 68.14% were women; 61.09% had a domestic partner; 72% were below age of 40; 88% had a monthly income of less than $1500; 85% belonged to a household that paid less than $1200 in monthly rent; 58% had been in the US for less than 10 years; 68% had less than middle school completion; 79% self-reported bad or not good knowledge of English; and 74% self-reported bad or not good knowledge of computers.

Frequency analysis showed that 71.43% of Mexicans in the financial education program had a bank account. More than 36% paid taxes the year before the interview, 38.58% had an ITIN and 39.2% had used a tax preparation service at some point. On the other hand, they still used the alternative financial system given that almost 45% participants were in informal saving schemes (*tandas*) and only 19.46% used the bank to send money home.

Statistical tools such as chi-square analysis and t-tests indicated that participants of the financial education program were more likely to be women, married and older than the average Mexican in the City. Statistical analysis also showed that perceiving a lower monthly income and being longer time in the United States were relevant factors. The participation in the financial education program was not associated with the country of origin and migration status. A key finding from the data analysis was that participants of the financial education program were more likely to enroll in the program when they were already banked.

The factors that differentiated those who want to participate in a financial education program were confirmed with the responses to the interviews. Regarding the participation in the financial mainstream, it was remarkable that 66% had formal credit and all of them had ITINs and had paid taxes. Nevertheless, most of them still preferred money transfer agencies because they represented more options for relatives, were more convenient and had fewer fees, and liked to participate in *tandas* because they liked the pressure of having to save an amount periodically.

The data analyzed also showed a significant positive relation between attending the community-based financial education program and a higher level of financial literacy. Among Mexican immigrants who had attended a financial education program, the data studied from the sample indicated that 44.7% of Mexicans knew the difference between a checking and savings account; 35% knew what is the annual percentage rate (APR) of a loan; 50.31% knew the definition of diversifying; 52.74% knew the information included in a credit report; 68.89% knew the definition of a stock; and 24% understood the concept of the insurance's premium. The interviews confirmed this level of financial literacy among participants of the community-based financial education program. Although these figures can't be compared with a standard measurement or score of financial literacy level, they are perceived as high taking in consideration the findings of the literature review.

The responses showed that participants had acquired basic information about the financial system prior to their enrollment to the program. They pointed out that many Mexican immigrants learned about financial matters because of good and bad experiences with the financial system or because they had a special interest in the subject that have emerged from personal circumstances. Some have attended other classes, read books or listened to shows about the topic in the radio. They acquired information on the subject and then started their participation in the financial education program because they recognized its complexity and wanted to know more about it.

Bell and Lerman (2005) and Hogarth (2003) pointed out that although a correlation between financial literacy and financial behavior exists, the direction of causality is not clear. This dissertation could not establish a causality effect either among those Mexican participants of the financial education program. A Pearson’s correlation analysis using the data gathered for this dissertation showed a statistically significant relationship between financial literacy and participation in the financial mainstream. This assessment was confirmed through a series of logistic regressions that studied the relation between financial literacy and specific financial behaviors such as having a bank account or a credit card. Nevertheless, the direction of the effects was not determined. The literature assumed that financial literacy increased the participation in the mainstream financial market. Nevertheless, it could be that those already in the financial mainstream were learning more about the subject and becoming financially literate.

In conclusion, Mexican immigrants who attended the financial education program had access to the financial system and had information about it prior to their enrollment. However, they acknowledge the complexity of the financial system. Therefore, they joined the program because they wanted to learn more about the financial system and how to improve their own financial practices.

III. There is no conclusive evidence that the community-based financial education program by Qualitas of Life Foundation was effective in increasing the participation of Mexican immigrants in New York City in the mainstream financial system.

According to the literature review and the first-hand data analyzed, Mexican immigrants in New York City have a critical low level of participation in the financial mainstream and low level of financial literacy. Qualitas of Life Foundation designed a community-based financial education program to address these needs. The curriculum focused on learning about the financial mainstream and the program was promoted in this regard. However, the analysis of the quantitative and qualitative data gathered for this study indicated that the participants of this program were more likely to have a bank account and use other financial services before they started the program. In addition, these participants possessed basic understanding of financial concepts and the financial system before the beginning of the program and decided to enroll because they wanted assistance to utilize the financial services they have already access to.

This dissertation could not find conclusive evidence that this community-based financial education program attracted Mexican immigrants in New York City that were living a cash-only existence and turned to the financial mainstream after attending. There was no evidence that the participants of the program had improved their economic situation or reached financial stability after the program. They had not saved more money, built credit history or started an investment. Therefore, the community-based financial education program by Qualitas of Life Foundation did not reach out to those that need the program the most and its curricula should be revised and adapted to serve better those who are participating.

The lack of conclusive evidence of the effectiveness of this community-based financial education program is not unexpected. There is an ongoing debate on the effectiveness of financial education programs among financial educators and researchers working on the subject. Scholars have not been able to find definitive proof that financial education has an impact in the participation of individuals in the mainstream financial system and their level of financial literacy. (See Hilgert et al., 2003, Mandell, 2006; Alcon, 2000, Orozco, 2011). For Braunstein and Welch (2002), Lusardi (2008), Lusadi et al., (2011), it is necessary to improve financial education programs so they can become effective in achieving their objectives. Martin (2007) conducted a review of the effectiveness of financial education programs and found that some of them had negative outcomes for the attendees. Many suggestions have been made to improve these programs. Research made for the National Endowment for Financial Education Quarter Century Project suggested aspects such as the inclusion of technology in the delivery of programs, the engagement of employers and the tailoring of curricula to the specific needs of the audience (NEFE, 2011).

One of the suggestions presented by scholars working at the Quarter Century Project was to study the self-selection bias observed in many financial education programs (NEFE, 2011). Mandell (2008) stated that one of the challenges of financial education programs was the lack of attendance by those who need the education the most, for example, individuals with less educational attainment, lower incomes, and less experience with financial institutions. According to Lusardi (2008), attendees of voluntary financial education seminars have a proclivity to improve their financial habits, in particular savings; therefore it is difficult to assess if the program works because the attendees are not a representative sample. Boshara et al., (2011) concluded that participants of financial education programs were those who want to specialize in a subject that they already knew.

This self-selection problem observed by scholars is consistent with the results of this dissertation. Thus, there is no conclusive evidence that the program by Qualitas of Life Foundation reached out to those Mexicans in New York City that required financial education because they live outside of the mainstream financial system.

IV. There is evidence that the community-based financial education program by Qualitas of Life Foundation was effective in teaching Mexican immigrants in New York City about one particular topic: budgeting.

The content analysis of the interviews to 30 Mexican immigrants that had participated in the financial education program by Qualitas of Life Foundation showed that the program was successful in teaching these participants lessons about budgeting. Learning about budgeting does not make an individual financially literate. Budgeting is only one component of financial literacy. Researchers have enlisted the subjects that are covered in the average financial literacy curricula, and budgeting is a common topic, but not the only one (See Toussaint-Comeau and Rhine, 2000; Lusardi, 2011). Furthermore, budgeting does not necessarily imply the usage of products and services at financial institutions. In the Qualitas of Life Foundation curriculum, budgeting was taught at the beginning of the program. It referred to the learning of how to record and classify income and expenses. The objective of the budgeting class was for participants to "take control of their money."

There were three findings that corroborated the effectiveness of this program in teaching the topic of budgeting. First, the interviewees prioritized this subject as the reason for joining the program. They did not always use the term "budget," but they wanted to correct what they perceived as bad financial habits. They mentioned specific cases such as having trouble keeping track of their money, feeling anxious for not knowing how much money they had made, spending everything as soon as they earned it, not knowing when the bills had to be paid, feeling envy of peers that earned less money and were able to save, and not being able to control themselves when they wanted to buy something that they did not need.

Second, when participants were asked about what they had learned in the program, budgeting was the primary response. Some of them used the term "budget", some mentioned the lessons learned during the budgeting class, some recalled the activities done during that particular class, and some others mentioned the requirements of budgeting such as recording expenses, differentiating needs and wants, paying bills on time, monitoring their savings and keeping track of their cash. In general, they said that they had received valuable information on this topic and felt motivated to continue their learning process.

Third, the interviewees affirmed that they had changed some of their habits regarding budgeting, in particular prioritizing needs over wants and keeping records of their expenses. The researcher could not confirm these affirmations.

Although the organization did not achieve its objective of improving the standard of living of the participants, it should highlight the achievement of teaching them about budgeting. Learning how to manage money at a personal and household level is considered by some programs as the first step in learning about other key components of personal finance: consuming, saving, borrowing and investing. It is important that the organization builds on these lessons to continue the learning process of these participants.

To conclude, the qualitative section of this study was the only opportunity to assess the effectiveness of the Qualitas of Life Foundation financial education program because the data were obtained after the subjects had finished their participation in the program. According to their responses, this particular financial education program was effective in teaching one of the areas covered in the curricula: budgeting. However, these data did not offer any conclusive evidence that the participants had used this learning to improve their economic situation or reach financial stability. In addition, there was no evidence that this information facilitated their usage of financial services in the mainstream financial institutions.

V. The migration status of first generation underserved Mexican immigrants in New York City is related to their participation in the mainstream financial market.

The literature review indicated that participation of immigrants in the mainstream financial market is related to being undocumented (Rhine and Greene, 2006). The quantitative analysis of the datasets used in this dissertation showed that the migration status of those surveyed was a statistically significant factor in their participation in the mainstream financial system.

Another finding of this study that confirms the relation between migration status and participation in the mainstream financial institutions came from the analysis of the participants of the financial education program. Almost 88% of Mexican immigrants in the financial education program were undocumented (migration status was not a statistically significant factor in the participation of subjects in the financial education program). The qualitative analysis showed that most participants were able to learn only about budgeting, a topic that does not require contact with financial institutions. A possible explanation for the effectiveness in teaching this topic could be that immigrants in the financial education program faced barriers to practice other lessons learned due to their migration status.

Therefore, the outcomes of this study are consistent with the sources that consider being undocumented as a barrier to open an account or have access to other financial services. Nevertheless, according to federal law, any person regardless of migration status, can open an account in a bank or a credit union with a valid picture ID such as a current passport or a *matrícula consular*. In addition, all individuals –including the undocumented- have the right to have an ITIN to pay taxes on their income. With an ITIN, they also can have access to formal credit, including mortgages or business loans. In addition, some insurance products are also available to them. Although the financial institutions have the right to establish policies regarding the requirements to open an account or access other services, there is not a legal barrier for an undocumented immigrant to participate in the financial mainstream. In a place like New York City, there is evidence that branches of major banks and credit unions located in immigrant neighborhoods offer financial services to the undocumented without hesitation. In this study, banks rejected only 18% of surveyed Mexicans when they tried to open an account.[21]

This apparent contradiction was also observed in the qualitative component of the study. From the 30 immigrants interviewed, 83% were undocumented, but all of them had a bank account and paid taxes regularly. Two thirds of this sample had formal credit in the United States, including credit cards, mortgages and business loans. The answers of this group demonstrated that the participants had a general understanding of the costs and benefits of the financial system in the United States and a relatively high rate of participation in the financial mainstream.

Some scholars had pointed out that the undocumented status of immigrants is not only an actual barrier, but also a perceived barrier. In other words, there are internal policies by some financial institutions that prevent access to undocumented immigrants, but there are also factors associated with the demand side that hinder the participation of this group in the financial mainstream. There are three factors to consider. First, undocumented immigrants might lack the correct information on the requirements to open an account or access other services. David

[21] The reason for the rejection was not asked.

Grace, senior vice-president of the World Council of Credit Unions expressed during a conference that there is a widespread belief among immigrants that they need a social security number and a driver's license to open an account (April 16, 2004). The large majority of bank executives ask potential customers for social security number and driver's license because it is a standard procedure. Most of them are not institutionally trained to offer services to undocumented immigrants. Only those with experience in a branch in neighborhood with a large presence of immigrants understand the policies towards this population. The qualitative analysis indicated that Mexican immigrants identified confusion among bankers regarding the requirements of the financial services they were offering.

The immigrants interviewed said that they did not have trouble opening bank accounts. However, many of them said that their undocumented status prevented them to obtain life insurance. When asked how they knew that, they responded that insurance agents have told them so.

Second, undocumented immigrants fear the consequences of revealing their migration status to American institutions. Suro et al., (2002) concluded that undocumented immigrants fear that contacting a bank without official documents could lead to deportation. This conclusion is supported by Hernandez-Coss (2005) who pointed out the preference of undocumented immigrants to remain anonymous. This dissertation found that the majority of Mexican immigrants prefer money transfer agencies to banks when sending remittances (including those with a bank account). They explained this behavior by saying that they did not want the banks to have a record on their remittances to Mexico.

Third, there are sources that point out that undocumented immigrants fear loosing their savings if they were deported (Hilgert et al., 2005). The Alabama Appleseed Center for Law and Justice (2009) elaborated a deportation manual for advocates. This legal study covers the possibility of a deported immigrant loosing deposits from American banks. The organization advises to fill a form with the IRS to convert the bank account in the United States to a bank account for foreigners. “Once this change has been made, the account can be managed from anywhere in the world. An individual can decide to leave their money in the U.S. or transfer it to a bank in his or her home country” (p. 12). Although it is possible to legally protect this asset, it is a long and bureaucratic process that might be daunting for anyone, especially for an undocumented immigrant. None of the interviewed participants mentioned potential deportation as a factor for not participating in the financial mainstream or knew about this procedure to protect their assets.

Therefore, the researcher concludes that migration status is a factor in the participation of Mexican immigrants in the financial mainstream. However, this relation is based on actual and perceived barriers. In some cases, the financial institutions prevent undocumented immigrants to access financial services given their institutional policies and lack of training of their staff. In other cases, the undocumented immigrants lack the correct information on the requirements to participate in the mainstream financial system. Finally, there is the imminent risk of deportation that would make it difficult to have access to their deposits.

Implications

The conclusions reached in this dissertation have implications for financial educators, researchers and the Mexican immigrants. Following are the descriptions of these implications.

I. Financial educators

For the purpose of this dissertation, financial educators are all individuals and public or private organizations interested in developing and implementing a financial education program. The literature review described the vast number of actors that have been involved in financial education in the last years. Among them, the literature mentioned community centers, non-profit organizations, schools, cooperatives, credit unions, banks, businesses, faith-based organizations, institutions of higher education, military programs, federal and local governments and trade associations. (See Vitt et al., 2011; Lusardi et al., 2011; Braunstein and Welch, 2002; Rhine et al., 2006; Hilgert, Hogarth and Beverly, 2003).

The findings and conclusions of this dissertation have a direct application in the work of financial educators. These can serve as a framework for the development of new financial education programs and the assessment of existing ones. The case of Qualitas of Life Foundation is an example. This organization is currently offering a financial education program for first generation Mexican immigrants in New York City. The conclusions of this dissertation established that the organization was successful in teaching this population about budgeting, but not so much in increasing the level of participation in the mainstream financial system or the understanding of financial concepts related to it. It has been established that the self-selection effect observed in the participants is a significant reason for the lack of impact. However, the limited resources (economic, human) faced by this organization prevented it from taking actions that could have increased its impact in the community.

The following recommendations could be used as a framework for the evaluation and the improvement of Qualitas of Life Foundation and other financial education programs for Mexican immigrants, as well as other underserved populations. With the adequate resources, many positive changes could be implemented in these programs.

Critical elements of a financial education program for immigrants

1. Financial education programs must consider and respond to the needs and characteristics of the target audience. The literature has pointed out the importance of this condition. The Quarter Century Project by the National Endowment for Financial Education stated that the socioeconomic and cultural characteristics of the students must be considered when developing the curriculum (2011). Other scholars also affirmed that the most successful financial education programs are those that are tailored to the needs and characteristics of the students, especially when these programs are made for immigrants and other minorities (Martin, 2007; Appleseed, 2005). Courchane and Zorn (2005) pointed out that

other variables such as education and personal experience play an important role in the participation of people in the financial market. Braunstein and Welch (2002) mentioned cultural background, prior experiences and current financial situation as some of those factors. Therefore, no financial education program would be successful until these factors are addressed and incorporated into the curriculum. In the case of immigrants, the program must take into consideration the cultural practices and experiences that they brought from their communities of origin. An effective financial education program must be adapted to the community, not the other way around.

The understanding of the idiosyncrasy of the target students also allows for the development of a trustworthy relationship and ongoing dialogue between the participants and financial educators. Toussaint-Comeau andRhine (2000) found that information seminars on financial literacy with presenters who were culturally or ethnically similar to the audience were considered very effective. Given that achieving financial goals and entering the mainstream financial system is a long-term process, participants of financial education programs need to believe that they can actually succeed. Educators must help them to fight their fears, confront insecurities, communicate better with their families and understand their strengths and weaknesses. They must be motivated and given words of encouragement at all moments. This can only be achieved if the curriculum is tailored to the characteristics of the students and if there is an honest bond between financial educators and students.

As suggested by Lusardi et al., (2011) a new standard to measure the level of financial literacy must be developed. However, it can’t be universal. Just as the curriculum, it must be tailored to the characteristics of the students. The parameters of the measurement should depend on the circumstances of the subject. For example, a Mexican immigrant that just arrived to the country could be considered financially literate if he knows how to compare the fees charged by money transfer agencies even when he does not know the difference between a checking and a savings account. Another case would be a Mexican immigrant that has had a bank account in the United States for 10 years, but can't be considered financially literate because he still does not know that he needs to develop credit history in the country to have access to a mortgage. In other words, the basic knowledge on the financial system that an immigrant needs depends on his circumstances.

Finally, financial educators must consider the characteristics of the place of residence of the participants when designing or assessing a program. New York City is a friendly place for immigrants in comparison with other regions of the country. An undocumented immigrant in New York City has more opportunities to access information and receive support to participate in the financial mainstream than immigrants in other cities or towns in America. The curriculum of the financial education program must take these differences into consideration.

2. The program must incorporate ongoing counseling. As it was expressed in the interviews with participants of the Qualitas of Life Foundation program, Mexican immigrants in New York City like to have someone to contact when they need support regarding financial matters. Once they found someone, they became attached to that person. For example, interviewees expressed that they had had the same tax preparer for years. This

tax preparer was usually someone from the same ethnic origin, who spoke Spanish and who was living in the neighborhood. Even when the participants were not completely satisfied with the service offered by the tax preparer (due to raising fees or mistakes in the tax returns), they were loyal to the services of this person. Something similar was pointed out regarding bankers. When a Mexican immigrant found an approachable banker, they did not mind the bank charging them fees or not offering the best alternatives in financial services. They just liked to have someone they knew in the bank.

The program must avoid setbacks in the learning process that may occur if participants face obstacles in the financial system and they don't have support to overcome them. Counselors trained in diverse subjects such as budgeting, banking, credit, debt, financial scams and homeownership must offer personalized advice by phone or appointment on a permanent basis. If the counselors were culturally or ethnically similar to the participants, the results would be optimal.

3. The financial education program must also be family and community oriented. Most people do not feel comfortable talking with others about money. They prefer to spend, save, invest, get credit or start a business in an isolated manner. However, relatives and peers have a role in their financial decisions. According to the Quarter Century Project, most financial decisions are made within the context of the family unit (NEFE, 2011). According to Clark et al., (2005) and Shim et al., (2009), parents are highly influential in developing the financial practices of their children. Financial education programs must take advantage of these relations and incorporate lessons for the whole family.

Sharing experiences about money with peers could be a powerful learning experience. A sense of community helps students to realize that they are not alone when facing financial challenges and that they can support each other in many ways. Responses from the interviewees showed that participants enjoyed listening to the experiences of their peers during the program. A successful financial education program must be facilitated in spaces where students feel confident and comfortable such as community centers, churches or schools; and at times that are convenient for them.

4. Financial educators must incorporate lessons from Behavioral Economics in the development of curricula. The literature showed that there is already a scholarly conversation about financial education and Behavioral Economics. This is a school of thought that studies why humans display behaviors that would seem contrary to rational decision-making. It challenges some of the key assumptions of Neo-Classical Economics like humans being rational, self-interested and natural utility maximizers. Instead, it is interested in exploring behaviors such as overreaction and procrastination. Behavioral Economics borrows theories and practices from psychology aiming to understand why humans do not act in their best interest or why humans are reluctant to use knowledge acquired in practical situations.

Behavioral economists acknowledge the role that the psychological traits of an individual play in his financial decisions (Hilgert et al., 2003). A study of consumers by the National Bureau of Economic Research highlighted that economically self-destructive attitudes such as overconfidence, selflessness or loss aversion were observed in the subjects (Braunstein andWelch, 2002). Martin (2007) concluded that some households made “mistakes” regarding financial decisions and these mistakes were more common among low-income and less educated individuals. Richard Thaler, from the University of Chicago, believed that instead of teaching financial literacy, the path to successfully navigating the mainstream financial market was to make products easier to understand (The Economist, 2008).

The study of Behavioral Economics is critical for an effective financial educational program because the data studied on this population indicated behaviors that might be considered not rational. The main evidence is the lack of a negative correlation between being part of the financial mainstream and utilizing services from alternative financial providers. According to the data, most banked Mexican immigrants still use services of alternative financial providers, for example, sending remittances through money transfer agencies. They also participate in *tandas* when they have a bank account. Another example are participants who seemed to understand basic financial literacy concepts on credit cards, but still made mistakes when using one, or those who were not satisfied with a financial services provider such as a tax preparer, but were reluctant to look for other alternatives. An effective financial education program must account for these behaviors and look for ways to help the participants to understand and overcome them. In addition, an effective financial education initiative should develop an appropriate measure for the success that considers behaviors related to personal money management in addition to access to the financial system.

5. Financial educators must incorporate lessons from one prominent theory from the field of education: Critical Pedagogy. This theory encourages students to think critically about their situation. It is heavily influenced by the writings of the Brazilian educator Paulo Freire. In particular, two lessons from Critical Pedagogy should inform the new model. The first lesson is to challenge the idea that information on the financial system can be deposited into the brains of the participants (ironically, this is called by Freire the "banking" concept of education). Instead of depositing bits of information that might be forgotten soon, those teaching a financial education program must assist the participants to comprehend the information and learn how to use it in their benefit. Participants should be encouraged to put into practice the lessons learned in the program in an actual situation. This is what NEFE (2011) called “teachable moments.” The paper “Tools for Survival: An analysis of financial literacy programs for lower-income families” highlighted the connection between the educational effort and the actual practice by affirming that financial education had limited use if it was not connected to a specific action such as opening a bank account (Jacob, 2000). Thus, within the framework of Critical Pedagogy, an effective financial education program would make participants accumulate experience in the mainstream financial system and then asked to share these experiences with their community to expand the education process.

   The second lesson to incorporate in the curriculum is that education, especially in adults, is not a dichotomy, but a continuum. An illiterate person doesn’t become literate after learning a lesson. As mentioned before, there are attitudes, habits and perceptions that have to change. It is not a recipe but a process. An effective financial education program must be a long-term process covering detailed information over a period of time.

6. Financial education programs must incorporate the use of technology in financial services. Must financial institutions from both the mainstream and the alternative systems are incorporating technological advances into their financial services. Customers are expected to understand how to use an ATM, a mobile phone and the Internet. Given that this trend is irreversible, financial education programs should incorporate effective learning techniques to teach participants how to use this technology when utilizing financial services. Mandell (2006) considered that the way personal finance is taught needs to be improved and that it should be interactive, contemporary and fun. Technology can help to achieve this. Moreover, this strategy could facilitate the learning process if the program incorporates educational tools such as web-based programs, recordings for MP3 players, applications for smart phones and video games. These additional tools are especially important given that immigrants have by nature an unstable life and many times they can't commit to attend a long-term financial education initiative. As noted in the quantitative data gathered for this dissertation, knowledge of how to use a computer is not common even for those Mexican immigrants attending the financial education program. For a population with these or similar characteristics, a financial education program should teach financial literacy and use of technology as a parallel process.

7. Another critical element is that financial education programs must partner with banks. Appleseed Foundation and the Center for Financial Services Innovation had developed

multiple strategies and tools to establish partnerships between banks and financial educators. For example, they have recommended the organization of community events where providers of financial services could meet individuals and offer their services and products in a friendly and trustworthy atmosphere. The financial education program should teach the student to compare the different alternatives and decide which one they prefer.

Another example of a potential successful partnership with a financial institution is the development of educational materials. Financial institutions, especially large ones, have the resources and locations to distribute a large number of these materials. One successful case was the initiative “Save, Share and Spend” between PNC Bank and Sesame Workshop. In this case, the bank sponsored the creation of a series of educational materials for children 3-5 years old. The educational experts of Sesame Workshop developed the materials and PNC distributed them through their branches.

Financial institutions could learn from financial educators the products and services that are needed by unbanked and underbanked potential customers. Large financial institutions have traditionally developed products and asked underserved customers to use them even when they are not optimal solutions to their needs. The literature review indicated that in the early 2000’s, major banks experimented with new products designed for Hispanic immigrant customers. However, these products have disappeared or become marginal for these institutions. Except for some branches located in immigrant neighborhoods that have adapted their services to assist the locals and still use some of the products designed for these populations, the major financial institutions had not shown a strategic interest in underserved immigrant customers because the products they designed were not profitable enough. Financial educators could offer guidance as well as a space for pilot projects and market research for these institutions to develop products that: a) respond to the needs of the potential market segment; b) are profitable for their business.

Finally, as it was mentioned before, the best moment to teach financial literacy concepts is during a "teachable moment" when the individual is interacting with a financial institution (NEFE, 2011). A partnership that allows participants attending a financial education program to go to a bank, credit union or insurance company, and receive personalized financial counseling would be highly successful.

8. In addition to partnering with institutions from financial mainstream, financial education programs must study the characteristics of alternative financial systems and learn from their success. There are a significant number of immigrants that are classified as underbanked because they have a bank account, but still use the products of alternative financial providers. There is tendency to disqualify alternative financial systems among financial educators. There are plenty of reasons to do so given examples such as the predatory interest rates charged by pawnshops, and the lack of regulation of informal practices such as *tandas*. However, these entities have been highly successful in attracting clients and have offered a solution to their demands. According to the responses of the interviewed group, in some cases these agencies could be a better option compared to mainstream financial institutions. Convenience and products that respond better to the Mexican immigrants' needs were found to be reasons for the usage of alternative

services. If a *tanda* instills discipline to save periodically or a money transfer agency has a better exchange rate than a bank, financially literate individuals should be able to compare between mainstream and alternative financial institutions and chose the best option.

9. Financial education programs must tackle the self-selection problem observed in this study. Two outcomes come out from this problem. One is that financial education programs must improve their outreach strategies to contact and enroll those who need financial education the most. For example, strategies to reach out to unbanked Mexican immigrants should incorporate a combination of local media, partnerships with community-based organizations, presence in street fairs in immigrant neighborhoods, advertisement campaigns and friendly materials to be distributed by governmental or private organizations. The second is that current financial education programs must adapt their curricula to serve better those who are participating taking into consideration their characteristics. If the participants already have access to the financial mainstream and know the basics of financial services, financial education programs must assist them in fine-tuning their knowledge, solve specific challenges and guide them to achieve specific financial goals.

10. When addressing the needs of immigrants, it is important to consider the development of a *transnational financial education program*. The literature showed that having strong ties with their country of origin is a factor in the participation of immigrants in the

financial system. Most of the times, strong ties with a country of origin means that immigrants are sending money to their relatives abroad. Data from this dissertation indicated that more than 70% of Mexican immigrants in the financial education program had sent money home the year before. There are multiple sources that discuss the billions of dollars that are remitted by immigrants in the United States every year. In other words, a fraction of the money earned in the United States goes to someone else in a different country. This situation makes the process of budgeting a challenge. Immigrants not only have to learn how to make a budget with the members of their household in the United States, they have to discuss the subject during a phone conversation with relatives that they might have not seen in years. As mentioned above, financial education programs must be family oriented because most financial decisions are made with relatives or affect relatives. In the case of first generation immigrants, it is essential that financial education programs consider how to educate those in the United States and those receiving money abroad. Data from the interviews to 30 Mexican immigrants confirmed this need. The participants were eager to learn how to budget their expenses, but they had trouble incorporating the money sent abroad. They complained about the use of the remittances by the recipients and the lack of control they had about those financial decisions. They knew that most of the money sent home was used for basic needs such as food and medicines, but they also believed that there was a surplus that was not managed well by whoever was receiving the money. Some participants complained that large sums of money were used for wants (such as celebrations) and not in needs. Some had found innovative solutions to this problem such as asking their relatives abroad to send back the receipts of everything they buy with the money sent,[22] ask for pictures of the things that were bought, or even monitoring every expense through online banking.[23] But these immigrants were exceptions. The lack of a *transnational budget* affected the financial practices of most of the participants interviewed.

To sum up, financial educators who want to develop or evaluate a program should consider the following aspects: tailor the program to the characteristics of the target audience, made it family and community oriented, include ongoing counseling, incorporate the lessons of Behavioral Economics and Critical Pedagogy, teach about the usage of technology in financial services, partner with financial institutions from the mainstream, learn from alternative providers, reach out to those unbanked that need the program the most and adapt their program for the current attendees that already have access and basic knowledge of the financial system, and in the case of immigrants, it should be a transnational financial education program.

The importance of partnering with financial institutions that target underserved groups.

The mainstream financial system is mainly associated with banks, insurers and investment companies, but it also includes smaller and local nonprofit institutions that target underserved groups. When addressing the needs of Mexican immigrants, two categories of

[22] This interviewee sent money to their children for their college expenses. To justify the recall of receipts, he told them that he could use them for tax deductions.

[23] This interviewee had an account in a Mexican bank where he sent the remittances. His family had a debit card of that account and that way he could review all the expenses made in the Internet.

institutions are worth considering: community development credit unions and microfinance organizations. Financial educators have an outstanding opportunity by partnering with this type of institutions because overall they share the same mission.

Community development credit unions

Credit unions –cooperative nonprofit financial institutions owned by its members- have historically served low-income and marginal communities. One of the reasons that make them popular is because they customize their services to the needs of local groups. Historically credit unions have served a captive audience such as employees of a company or government agency. Nevertheless, more than sixty years ago a group of credit unions formed a coalition to serve low-income communities. After decades of lobbying efforts, in 1994, the Community Development Financial Institutions Fund was signed a law by President Bill Clinton. This fund stated to give grants for the creation of community development credit unions that flourished in some low-income areas. The most successful ones target residents of large public housing developments or underserved neighborhoods with a low presence of banks. Some of them had been successful serving recent arrived Hispanic immigrants.

In New York City, there are four community development credit unions that form the New York City Financial Network Action Consortium. They are relevant for the discussion of the mainstream financial services market in New York City because all of them are located in immigrant enclaves: Brooklyn Cooperative Federal Credit Union in Bushwick, Brooklyn; Lower

East Side People's Federal Credit Union in Manhattan's Lower East Side; Union Settlement Federal Credit Union in East Harlem and Neighborhood Trust Federal Credit Union in Washington Heights. These four entities serve almost 19,000 members. These entities have created strategies that would bring groups such as Hispanic immigrants to perform financial transactions. In contrast to traditional financial institutions, these entities have a unique business model that responds to the needs and characteristics of its target population. They have developed products tailored to Hispanic immigrants and performed practices that facilitate their participation in the mainstream financial market. They have a Spanish-speaking staff and work with partners in the community. They also began accepting the *matrícula consular* and passports as forms of identification. Among their services, they offer secured loans for people with no credit history, mortgages for ITIN holders, tax preparation services and remittances to Latin America. Brooklyn Cooperative Federal Credit Union has launched an innovative product called *Fuerza C* targeting recent arrived immigrants. This product offers a personal loan of $100 to cover a membership fee for the credit union to individuals with no credit history. This membership offers many benefits such as financial counseling, assistance obtaining an ITIN and paying taxes. However, the most important benefit is that it represents an avenue to start building credit history for immigrants with no experience with financial institutions in the United States.

One of the relevant features of these institutions is the inclusion of financial education programs in their operations. They have used different methods. Neighborhood Trust Federal Credit Union established a sister nonprofit organization called "Credit where credit is due" to manage financial education programs. Brooklyn Cooperative Federal Credit Union made a partnership with the community based organization "Make the Road" to teach financial education. Union Settlement Federal Credit Union has a full-time staff member in charge of the subject. In all cases, the financial education classes are free and are offered both to potential and active members of the credit unions. Besides the classes, these institutions have staff trained to offer financial counseling to their members.

Offering financial education through a community development credit union is a major advantage given the importance of "teachable moments" (NEFE, 2011). Financial education could be irrelevant if the understanding of financial services is not complemented with a corresponding financial behavior. Learning about opening a checking account is not significant if the student does not open a checking account. The correspondence of the objectives of financial educators and community development credit unions is a major advantage that must be tapped.

Outside New York City, there is a community development credit union that exemplifies the above benefits. It has had a considerable high rate of success with Mexican and other Hispanic immigrants. The Latino Community Credit Union in Durham, North Carolina, was founded in 2000 and by 2010 it had opened 10 branches. It became the fastest-growing credit union of any type in the country with $90 million in assets. Among the products offered are personal loans up to $500 for people with no credit history, deposit accounts with no minimum balance, international money transfers and secured credit cards. Products are designed specifically for its target population and it is recognized as one of the best credit unions in the country. This credit union has an award-winning curriculum on financial education for recent arrived Hispanic immigrants that is offered through free workshops and is also used by their staff when interacting with their customers (Latino Credit Union Website).

This credit union and its financial education curriculum is an example for organizations in New York and elsewhere. However, it is relevant to take into consideration the effect of its location. This institution has been very successful selling mortgages to immigrants given the relatively low cost of residential units in North Carolina. This situation is hardly possible in high cost real estate markets such as New York City. In addition, the Latino Credit Union also has the financial and operational support of the State Employee's Credit Union in North Carolina, one of the largest in the country.

Microfinance organizations

There is plenty of literature on the impact of microfinance organizations in some of the most impoverished areas in the world. Providing small personal loans based on trust to those with no assets has become one of the major interventions to reduce poverty of this century. The success of organizations such as Grameen Bank in Bangladesh has prompted the creation of microfinance organizations in most countries, including the United States.

One example is Accion USA, a nonprofit organization that provides small business loans to clients with no or bad credit history. This organization has become a leader in micro lending with products such as business loans, lines of credit and group loans (three to five business owners who get together to support each other's loans). Accion USA conducts a successful operation in the New York City and has targeted Hispanic immigrants through the hiring of a Spanish-speaking staff and partnering with community based organizations. Other microfinance institutions in New York City targeting immigrant communities are Project Enterprise and Grameen America. All these organizations offer some kind of financial education programs.

Although these institutions offer loans to immigrants, they have a limitation: they can't represent their first step in the process of participating in the financial mainstream. These organizations recruit a particular subset of the population: those who want to start a small business and are ready to do so. As opposed to those borrowers in the most impoverished regions of the world that do not have an alternative (they have to start a productive endeavor to survive), most microfinance borrowers in the United States are working adults who wish to start a business because they prefer it to their current job. Most of the individuals that receive a business loan have already interacted with a financial institution and have a basic understanding of the financial system. Therefore, those attending financial education classes by microfinance organizations also represent a self-selected group that needs a specific type of financial education that cover entrepreneurship and small business management.

Concluding, financial educators must consider partnering with mainstream financial institutions that target underserved populations and have similar mission and objectives. Working in conjunction with community development credit unions and microfinance organizations would increase the rate of success of their programs.

II. Researchers

The implications for researchers of the conclusions reached by this dissertation are manifold, especially when research on this field is still considered in its developing stages. There are four specific implications for researchers that emerged from this study.

First, the purpose of this dissertation is to add to the academic literature information and analysis about the characteristics of a group of first generation underserved Mexican immigrants participating in a community-based financial education program in New York City. This dissertation also addressed the characteristics of the members of this population that are related to their participation in the mainstream and alternative financial systems and the level of financial literacy. This study is a source of information for researchers interested in these subjects because it targets a specific segment of the population that has not being studied in-depth, but that presents similar characteristics to other groups such as immigrants, Hispanics and underserved low-income groups. Future studies on these subjects should address the following questions:

a. Which demographic and socioeconomic characteristics of a particular group are related to their participation in the financial mainstream, participation in a financial education program and level of financial literacy?
b. Which characteristics other than demographic and socioeconomic variables – such as behaviors, habits, experiences and skills- are related to their participation in the financial mainstream, participation in a financial education program and level of financial literacy?

c. Which characteristics of the surrounding environment are related to the participation in the financial mainstream, participation in a financial education program and level of financial literacy of a group?
d. Which characteristics of the financial industry supplying services to a particular group are related to the participation in the financial mainstream, participation in a financial education program and level of financial literacy of that group?
e. Are any of these characteristics a predictor for participation in the financial mainstream, participation in a financial education program and financial literacy?

Second, the findings of this study contribute to the current scholarly discussion on the effectiveness of financial education programs, and in particular, the problem of self-selection among participants of these programs that has been commented by scholars such as Lusardi (2011) and Mandell (2008). Future studies on self-selection in financial education programs should address the following questions:

a. How do you measure the effectiveness of a financial education program? Do you take into consideration the knowledge of the students of the concepts taught, their usage of financial services, or changes in their economic situation in the short and long-term?
b. How to incorporate the lessons of Behavioral Economics and Critical Pedagogy in the development of a financial education program?

c. How do you reach out those that need financial education the most in order to enroll them in a program?
d. Why do the attendees of a financial education program decided to enroll? Which were their expectations? Were their expectations met?
e. Why do individuals reject participation in a financial education program?
f. Is it worth to have a financial education program that does not lead to higher and better participation in the financial mainstream and higher level of financial literacy?

Third, the methodology designed for this dissertation can be used as a reference for future studies. The use of mixed methods is not prominent among researchers addressing participation in the financial system and financial literacy, but as Boshara et al., (2011) described it is an appropriate and desirable choice that should be used more in future studies. Research regarding methodology should address the following questions:

a. Which methodology is the most appropriate to measure accurately participation in the financial mainstream, participation in a financial education program and level of financial literacy?
b. What costs and benefits have the use of mixed methodology when addressing these subjects?
c. Which category of mixed method research –e.g. sequential or concurrent, exploratory or explanatory- is more appropriate when addressing these subjects?

d. How to address the challenges that come up when using mixed methodology in studies about financial education?

Finally, scholars interested in the study of the characteristics of Mexican immigrants in New York City will find new data in this dissertation that can explain better its current situation and the challenges it faces. Future studies regarding the financial education and financial practices of Mexicans in New York City as well as Mexican immigrants in other regions should address the following questions:

a. Are the participation in the financial mainstream, participation in a financial education program and level of financial literacy of Mexican immigrants related to their socioeconomic development?
b. Which type of financial education program is more effective for Mexican immigrants?
c. Are the characteristics of the place of residence of Mexican immigrants related to their participation in the financial mainstream, participation in a financial education program and level of financial literacy?
d. Is the migration status of Mexican immigrants related to their participation in the financial mainstream, participation in a financial education program and level of financial literacy? Is it an actual or perceived barrier?
e. Are the characteristics of the region of origin of Mexican immigrants related to their participation in the financial mainstream, participation in a financial education program and level of financial literacy?

f. Is the participation of Mexican immigrants in the mainstream and alternative financial systems related to the participation in the mainstream and alternative financial systems of their relatives abroad?

g. Is the level of financial literacy of Mexican immigrants related to the level of financial literacy of their relatives abroad?

III. Mexican immigrants in New York City and elsewhere.

The conclusions of this dissertation showed that the financial education program by Qualitas of Life Foundation was attracting Mexican immigrants that had already entered the financial system and figured out its fundamentals. They wanted to continue learning about it because they were interested in the subject. However, there is a majority of Mexican immigrants that are at the margin of the financial mainstream and they do not attend a financial education program. Mexican immigrants in New York City come from underserved communities that are at the bottom of the socioeconomic ladder in the United States. Although they work hard for long hours, they receive the worst salaries and are exploited and discriminated against. They are not used to experiencing social mobility, succeeding in financial matters or planning for the future.

Furthermore, it is critical to take into consideration that the Mexican immigrants surveyed and interviewed in this study live in New York City, a safe haven region for undocumented individuals. The need for more participation in the financial mainstream is important in New York City, but in other regions of the country is urgent. Recent policies and laws at the state and local level have legalized extreme and aggressive attitudes towards this population. Although by federal law, an undocumented immigrant can open a bank account, obtain a credit card, pay taxes, start a business, buy a house and have access to most financial services, without the proper information and guidance, immigrants could end at the mercy of people influenced by xenophobic discourses that could limit their access to financial services. Lawmakers and authorities at the state and local level might pressure the mainstream financial institutions to close their doors to this group. Besides the devastating separation of families, high rates of deportation and constant intimidation, these recent measures against undocumented immigrants could shut down opportunities for their socioeconomic development and condemn them to the use of alternative financial services.

Therefore, it is imperative that financial educators and researchers work on the development of appropriate and successful financial education programs for Mexican immigrants because the stakes are high. The costs of using alternative providers include paying higher fees and interest rates, being unable to build history with mainstream financial institutions and being victims of financial scams and robbery. The benefits of using mainstream financial providers include financial stability, wealth accumulation, access to low cost savings instruments and fair-priced credit, a cushion for emergencies, a safe environment (not being targets for robbery), usage of better transmission methods for remittances, and having resources and knowledge to achieve financial goals such as paying for their children college, purchasing a home, starting a business and having other productive investments. In other words, the benefits of being part of the mainstream financial system for Mexican immigrants are factors that can facilitate their successful integration to the American society.

Moreover, this participation will produce positive externalities for the economy. Mexican immigrants who participate in mainstream financial institutions save and invest money that can be efficiently allocated by the financial system. These banked Mexicans also pay income taxes demonstrating their interest in contributing to the country where they are settling in. Conversely, immigrants that are not part of the mainstream financial system, or do not fully comprehend how to navigate it, tend to make costly mistakes that could affect the entire country. As the latest financial crisis demonstrated, the lack of basic financial knowledge of many homebuyers who acquired subprime mortgages had a devastating effect in the economy.

Another example is the vast number of individuals who don’t have a retirement plan and are forced to rely on government benefits to pay for their expenses in their golden years. Unbanked and underbanked Mexican immigrants that do not have health insurance and rely on emergency Medicare or state sponsored health services are indirectly contributing to the growth of the national deficit. Furthermore, when Mexican immigrants do not place their savings in the banking system, there are fewer funds available to invest in productive projects in their neighborhoods. This lack of local capital creates underdeveloped communities and increases poverty levels in certain areas of the country such as some neighborhoods in New York City. An educated participation in the American financial system can foster the socioeconomic development of Mexican immigrants and have positive effects for their place of residence and the country.

The final chapter of this dissertation covered the four conclusions reached by this dissertation. The conclusions were that this population urgently needs financial education, and that some of its members want to attend financial education programs. Unfortunately, the ones who attended a voluntary community-based financial education program were not the ones that needed it the most. There is not conclusive evidence that this program had an impact in the participation of the attendees in the mainstream financial system or that they were able to improve their economic situation or reach financial stability, but there was evidence that it taught one particular subject: budgeting. This chapter also offered the implications that these conclusions and the overall findings of this dissertation have for financial educators, researchers and the Mexican immigrant community in New York City.

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Appendices

Appendix 1: Questions for interviews

1. Could you tell me why did you decide to open a bank account in the US?
2. Could you tell the steps you have to follow to open a bank account in the US?
3. Could you tell me if you face any barriers to open a bank account in the US?
4. Could you tell me which are the typical transactions you do with your bank?
5. Could you tell me which are the typical challenges you face with your bank?
6. Have you used an alternative method of banking such as check cashers and “tandas” (informal savings schemes popular in Mexico)? Why or why not?
7. If subject has obtained formal credit in the US: Yes or No
8. Could you tell me why did you decide to obtain credit in the US?
9. Could you tell the steps you have to follow to obtain credit in the US?
10. Could you tell me if you face any barriers to obtain credit in the US?
11. Could you tell me which are the typical products you acquire with credit?
12. Have you used an alternative method to obtain credit? Why or why not?
13. Could you tell me which are the typical challenges you face with the institution that offered you credit?
14. Could you tell me why did you decide not to obtain credit in a financial institution in the US?
15. Have you tried to obtain credit in a financial institution in the US?
16. Would you like to obtain credit in a financial institution in the US?
17. General information if subject has an investment or uses other financial services.

18. General information if subject has paid taxes, use tax preparer, has an ITIN.
19. General information if subject has health or life insurance.
20. Why did you decide to attend a financial education program?
21. What were your expectations from attending a financial education program?
22. Did the program fulfill your expectations?
23. Could you tell me 3 things that you remember from the financial education program?
24. Since you took the financial education program, what changes in your habits related to money have occurred?
25. Since you took the financial education program, have your standard of living been improved?
26. In the last month have you discussed issues related to money with your family?
27. In the last month have you prepared a budget?
28. In the last month have you saved any money?