Financial Literacy Center WORKING PAPER

Barriers to Immigrant Use of Financial Services

The Role of Language Skills, U.S. Experience, and Return Migration Expectations

SILVIA HELENA BARCELLOS, JAMES P. SMITH,
JOANNE K. YOONG AND LEANDRO CARVALHO

WR-923-SSA

February 2012

Prepared for the Social Security Administration

This product is part of a deliverable to
the Social Security Administration
Financial Literacy Research Consortium,
Grant No. 5 FLR09010202. Working
papers have been approved
for circulation by RAND Labor and
Population but have not been
formally edited or peer reviewed.

A joint center of the RAND Corporation, Dartmouth College,
and the Wharton School

**BARRIERS TO IMMIGRANT USE OF FINANCIAL SERVICES
THE ROLE OF LANGUAGE SKILLS, U.S. EXPERIENCE, AND
RETURN MIGRATION EXPECTATIONS**

REPORT TO THE SOCIAL SECURITY ADMINISTRATION

Silvia Helena Barcellos, James P. Smith, Joanne Yoong and Leandro Carvalho

Abstract

Immigrants constitute a rapidly growing share of the U.S. population. However, when compared to natives, foreign-born residents are more likely to be unbanked, less likely to participate in formal retirement savings programs and have lower levels of financial literacy. This project (1) investigated barriers to the use of financial services faced by immigrants and (2) designed and evaluated new financial education materials targeted at immigrants. We focused on three potential barriers: limited English proficiency, lack of U.S. experience and return migration expectations. We designed new financial education materials to help immigrants overcome financial participation barriers. Using the RAND American Life Panel we administered two different versions of the educational material to randomly selected test groups – one general version and one including immigrant-specific information -- as well as having a control group that received no information. We find that the groups that received the educational intervention were more likely to correctly answer questions on investment and savings strategies, IRA and 401(k) rules and to perform simple interest rates calculations. When questions involved specific immigrant information, the effect was mostly present for the treatment group that received immigrant-specific content. We find little effect of the treatments on financial behavior measures such as probability expectations and choice tasks. Overall, the knowledge outcomes point to the efficacy of this type of educational material in informing respondents with respect to important financial information that they are not familiar with, including information related to their immigrant status. However, we find limited effect on intended behavior change.

Executive Summary

Immigrants constitute a rapidly growing share of the U.S. population. However, when compared to natives, foreign-born residents are more likely to be unbanked, less likely to participate in formal retirement savings programs and have lower levels of financial literacy. This project (1) investigated barriers to the use of financial services faced by immigrants and (2) designed and evaluated new financial education materials targeted at immigrants. Three potential barriers are the focus of our analysis: limited English proficiency, lack of U.S. experience and return migration expectations. We provide evidence that, even controlling for a wide range of personal characteristics, these factors are strongly related to immigrant financial participation, portfolio allocation, financial confidence, trust in financial institutions, retirement planning and retirement program participation. In addition to the decision of which assets to hold, where to hold wealth is an important choice immigrants need to make, since many of them hold a significant fraction of their wealth abroad. Our analysis also shows that Hispanic immigrants are different than natives in several aspects relevant for financial decision making. When compared to white natives, Hispanic immigrants are less confident in financial matters and in their ability to meet unexpected expenses, have lower levels of trust in financial institutions (presumably partly “inherited” from low levels of trust in financial institutions in their origin country), are less likely to plan for retirement, and are more likely to make pre-retirement withdrawals and to borrow against retirement plans. In order to complement these empirical findings, we conducted a series of interviews with professionals who work directly with immigrant populations, such as immigration attorneys, accountants and religious counselors. The results from these interviews confirmed our previous findings that trust and knowledge issues, especially with regard to investments and retirement planning financial products constitute key immigrant barriers.

We used these findings to develop new materials targeted at specific barriers related to immigration status. To develop the educational materials we used as a starting point FDIC’s Money Smart curriculum (especially the “Bank on it” and “Pay yourself first” modules). Specifically, we developed two versions of this resource material, with the dual objectives of testing hypotheses about constraints to financial participation and obtaining proof-of-concept for design features and materials that are suitable for widespread use by other organizations interested in the financial well-being of immigrants. The financial education materials provided information about reasons to keep money in a bank, type of financial institutions, accounts insured (and not insured) by the FDIC, saving options, “rule of 72” for interest rate calculation (a simple rule to determine the amount of time it takes for an investment to double in value at a constant interest rate), investment products (including bonds, mutual funds, retirement plans, stocks and securities) and saving tips. The materials include pictures and straightforward questions about the content presented in order to increase participants’ engagement and interest. The second version of the material also included additional information targeted at immigrants such as procedures and documents needed to open an U.S. bank account, FDIC insurance information, and retirement plan rules that apply to non-citizens. The material took the form of

an easy-to-navigate website with information and questions to fixate content presented during the internet survey.

Using the RAND American Life Panel we administered the two different versions of the educational material to randomly selected test groups – one general version and one including immigrant-specific information -- as well as having a control group who received no information. We find that the groups that received the educational intervention were more likely to correctly answer questions on investment and savings strategies, IRA and 401(k) rules and to perform simple interest rates calculations. When questions involved specific immigrant information, the effect was mostly present for the second treatment, which included the immigrant-specific screens. Despite the significant effects of the treatments on knowledge, treatment respondents are not found to report to be more likely to enroll on 401(K), to want to learn more about IRA or to open an IRA. They also don't behave differently when given choice tasks. Overall, the knowledge outcomes point to the efficacy of this type of educational material in informing respondents with respect to important financial information that they are not familiar with, including information related to their immigrant status. However, we find limited effect on intended behavior change.

The evaluation points to large effects on financial knowledge, with Hispanic respondents and those who paid more attention to the materials presenting the largest effects. Since the materials were presented in English, respondents with limited English ability benefited less from the material. These results yield key lessons for the design of effective financial educational materials targeted at immigrant populations. First, they underline the importance of interesting and entertaining materials that catch the participants' attention. Second, given that a significant fraction of this population have limited English ability, translating the materials into different languages is crucial for the effectiveness of the intervention. Future research should test and compare different specific designs of computer-based financial education programs on knowledge, intended behavior and actual behavior change. More evidence on what works for which audiences and in which dimensions, and especially on what works best given immigrant financial education policy objectives, would be welcome in this field.

I. Introduction

Today, one out of every nine individuals living in the U.S. was born abroad. As the number of foreign-born residents continues to grow, the extent to which this population can fully participate in the economic life of this country is an increasingly important issue. In particular, it is important to understand how and why immigrants differ from natives in the use of financial services, which will have direct implications for their pattern of long-term wealth accumulation and their ability to maintain consumption levels in the face of economic hardship and during old age.

Overall, foreign-born individuals are much more likely to be unbanked compared to individuals who were born in the United States. While 5.1% of the native white families don't have a transaction account, the same is true for 53% of Mexican, 37% of other Latin American, 20% of Asian and 17% of European households in the U.S. (Aizcorbe, Kennickell, and Moore 2003; Rhine and Greene, 2006). This pattern holds for savings accounts, homeownership, and stock ownership as well, with the native-immigrant gap in financial participation increasing with the sophistication of the financial product. The evidence for Hispanics shows that they are less likely to participate in formal retirement savings programs and to have credit cards, while having lower levels of financial literacy (FINRA 2009 National Financial Capability Study). Moreover, immigrant financial participation rates decrease the higher the levels of ethnic concentration in the metropolitan area where they reside (Osili and Paulson 2004).

However, access to banking services is critical to wealth-building: they provide households with the opportunity to conduct basic financial transactions, save for an emergency and long-term security needs, and access credit on affordable terms. Unbanked workers must find other ways to accommodate their financial needs such as patronizing (usually expensive) check-cashing businesses and/or paying in cash (Caskey 1994; Dunham 2001; Rhine, Greene and Toussaint-Comeau 2006). Immigrant households often save informally outside the banking sector, but such savings are likely to be at risk of appropriation and offer no return or inflation protection. Besides, they do not contribute to credit histories, causing immigrant households to struggle to achieve financial independence. These factors can potentially explain why natives are found to accumulate more wealth (Shamsuddin and DeVoretz 1998, Carroll et al. 1994, Cobb-Clark and Hildebrand 2006) and to have higher precautionary savings than immigrants with similar characteristics (Amuedo-Dorantes and Pozo 2002).

While previous studies provide evidence that there are significant native-immigrant differences in wealth levels and accumulation, financial market participation and portfolio choices, very little is known about what drives these differences and what can be done to eliminate them. The first part of this study identifies barriers to financial participation for immigrants by analyzing data from the New Immigrant Survey (NIS). Use of the NIS allows us to investigate the patterns in financial participation and asset ownership both in the U.S. and abroad as well as its relation to English proficiency, time in the U.S and migration expectations for a nationally representative sample of new legal permanent residents. We also use new measures of financial knowledge, confidence and trust in financial institution collected in a baseline survey using the RAND American Life Panel (ALP) to calculate immigrant-native

differences in these variables that can help explain the already documented differences in financial participation.

We provide evidence that, even controlling for a wide range of personal characteristics, these factors are strongly related to immigrant financial participation, portfolio allocation, financial confidence, trust in financial institutions, retirement planning and retirement program participation. In addition to the decision of which assets to hold, where to hold wealth is an important choice immigrants need to make, since many of them hold a significant fraction of their wealth abroad. Our analysis also shows that Hispanic immigrants are different than natives in several aspects relevant for financial decision making. When compared to white natives, Hispanic immigrants are less confident in financial matters and in their ability to meet unexpected expenses, have lower levels of trust in financial institutions, are less likely to plan for retirement, and are more likely to make pre-retirement withdrawals and to borrow against retirement plans.

We use the findings from the NIS, the ALP baseline survey and information from interviews with practitioners to develop new financial education materials designed to help immigrants better understand the US financial system and their options for saving and investing. In particular, the educational material focuses on the main barriers to immigrant use of financial services identified in the first part of the analysis, namely lack of knowledge of financial services, low financial confidence and trust in financial institutions. We use the ALP to conduct a randomized evaluation of the new educational materials and to compare their efficacy to existing approaches based on generic financial information. We use the FDIC's Money Smart program as a benchmark to the materials.¹ The material took the form of an easy-to-navigate website with information and questions to fixate content presented during the internet survey.

We find that the groups that received the educational intervention were more likely to correctly answer questions on investment and savings strategies, IRA and 401(k) rules and to perform simple interest rates calculations. When questions involved specific immigrant information, the effect was mostly present for the second treatment, which included the immigrant-specific screens. Despite the significant effects of the treatments on knowledge, treatment respondents are not found to report to be more likely to enroll on 401(K), to want to learn more about IRA or to open an IRA. They also don't behave differently when given choice tasks. Overall, the knowledge outcomes point to the efficacy of this type of educational material in informing respondents with respect to important financial information that they are not familiar with, including information related to their immigrant status. However, we find limited effect on intended behavior change.

¹ See <http://www.fdic.gov/consumers/consumer/moneysmart/adult.html>.

II. Immigrant Characteristics and Financial Market Participation: Results from the New Immigrant Survey (NIS)

The NIS is a nationally representative multi-cohort longitudinal study of new legal permanent residents in the U.S., the baseline survey was conducted from June 2003 to June 2004 with 8,569 adults. It contains detailed information on the wealth of immigrants, including the amount held in different assets and accounts both in the US and abroad. Besides, the NIS offers a wide range of information on immigrants' characteristics. Data on language skills, complete previous migration history (including duration of previous periods spent in the US and previous categories of visa held) and return migration expectations are available. This is a significant improvement over the data commonly used in the previous literature mentioned above (the SIPP and NSLY) which do not gather information about assets held abroad, or distinguish between various immigrant types (particularly important as temporary (e.g. students) and permanent (legal residents) immigrants face very different constraints and incentives). One disadvantage of the NIS is that it is not a nationally representative sample of all immigrants, but a subsample of new legal permanent residents. However, it can be argued that new legal permanent residents are the most relevant population for the purposes of this analysis since they are the group who will most likely encounter the types of barriers to financial participation which are the focus of this study and are likely to stay in this country for extended periods of time.

The first part of this study explores barriers to financial participation for immigrants by analyzing data from the New Immigrant Survey (NIS). Immigrants might find it harder than natives to acquire information about financial services. This might be both because of immigrants' limited English ability to understand the products and less exposure to the rules of the US financial market due to limited time spent in this country. Therefore, immigrants with better language skills and more US experience should be more sophisticated financially. Another potential barrier encountered by immigrants has to do with the uncertainty generated by the long process of naturalization and the possibility of return migration. Even though most of the US legal residents end up staying permanently in the US, the possibility of return migration might cause them to allocate their wealth towards more liquid assets and to invest less time and money to gather information about US financial products. Moreover, a large fraction of immigrants send remittances to their home country, usually using wire services that do not involve opening a bank account. We start the analysis by tabulating wealth holding by region of birth in Table 1.

Table 1: Wealth Holding by Region of Birth

		of which from:				
	All Immigrants	Europe, Canada, Oceania	Asia	Mexico	Ctr/South America	Africa and Middle East
Mean total net wealth (ppp adjusted)	51,298	99,512	66,197	29,685	31,854	38,721
Proportion Owning						
Real estate US	0.23	0.27	0.16	0.34	0.23	0.17
Real estate abroad	0.09	0.13	0.12	0.06	0.06	0.08
Bank account US	0.46	0.65	0.52	0.35	0.34	0.52
Bank account abroad	0.08	0.15	0.13	0.01	0.02	0.09
IRA/KEOGH	0.06	0.11	0.08	0.03	0.04	0.06
Financial wealth	0.14	0.26	0.20	0.05	0.08	0.10
Any assets abroad?	0.16	0.26	0.23	0.08	0.10	0.15
Mean Asset Portfolio						
Real estate US	26,058	45,497	21,264	26,865	22,936	16,691
Real estate abroad (ppp adjusted)	14,058	15,025	30,289	1,986	7,156	12,428
Bank account US	3,607	8,965	5,444	1,212	1,164	3,193
Bank account abroad (ppp adjusted)	871	1,961	1,625	19	199	885
IRA/KEOGH	584	1,476	909	176	189	311
Financial wealth	7,680	29,903	7,996	495	1,339	6,786
Debts	1,559	3,315	1,329	1,068	1,130	1,572
Observations	8,569	1,525	2,721	1,163	2,003	1,157

Notes: Authors' calculations using the first wave of the NIS. Summary statistics are population-weighted.

The information in the NIS allows us to describe patterns of wealth holding of legal resident immigrants in terms of different financial products and domestic versus international asset holdings. Table 1 shows that, as expected, there is a lot of variation by region of birth with immigrants from Mexico and South America having lower net wealth and being significantly less likely to have bank accounts, retirement accounts and to hold stocks and bonds. Also interesting is the fact that a significant proportion of immigrants hold assets abroad (a fraction that varies between 8 to 26% depending on the region of birth). Moreover, among those who do hold assets abroad, the ppp adjusted value of these assets is in the same order of magnitude as the value of assets held domestically. These figures suggest that not taking into account assets held abroad is an important limitation of previous work on immigrant wealth accumulation since they reveal that permanent residents hold a significant part of their wealth on international assets.

Next, we present in Table 2 summary statistics on the personal characteristics of the immigrants in the sample. Latin American immigrants have fewer years of education and are less likely to understand and speak English well. They are also distinctively more likely to have adjustee status which means that they were already living in the US when they got permanent residence. For those who had adjustee status the survey asked if they had previously held a non-immigrant work visa. Fourteen percent of all immigrants (and more than half of the adjustees) had a work visa before becoming LPR, and this fraction does not vary much by region of origin.² Immigrants from Europe, Canada and Oceania are more likely to say they do not intend to live in the United States for the rest of their lives.

Table 2: Immigrant Characteristics by Region of Birth

	All Immigrants	of which from:				
		Europe, Canada, Oceania	Asia	Mexico	Ctr/South America	Africa and Middle East
Household annual income (ppp adjusted)	31,684	47,767	30,023	22,794	21,202	28,067
Age	39.1	37.4	41.4	38.1	38.7	35.8
Male	48%	47%	39%	40%	46%	51%
Married	71%	83%	83%	81%	66%	70%
Years of Education	12.68	14.84	13.21	8.94	11.02	13.59
Attended English class last year	17%	20%	16%	18%	19%	18%
Does not understand English well	41%	30%	42%	58%	48%	25%
Does not speak English well	47%	37%	46%	69%	55%	29%
Adjustee status	24%	27%	19%	36%	30%	18%
Work Visa	14%	16%	12%	17%	15%	12%
Years in the U.S.	8.8	9.3	6.7	11.5	10.0	8.6
Plans to migrate back	12%	18%	11%	9%	10%	12%
Observations	8,569	1,525	2,721	1,163	2,003	1,157

Notes: Authors' calculations using the first wave of the NIS. Summary statistics are population-weighted.

In the next table we investigate how language skills, U.S. experience and migration expectations relate to financial participation and portfolio allocation. Different hypotheses could explain why these variables would be related. For example, immigrants might find it harder than natives to acquire information about financial services. This might be both because of immigrants' limited English ability to understand the products and less exposure to the rules of

² However, the fraction relative to the number of adjustees is significantly lower for Latin American immigrants.

the US financial market due to limited time spent in this country. Therefore, immigrants with better language skills and more US experience should be more sophisticated. Another potential barrier encountered by immigrants has to do with the uncertainty generated by the long process of naturalization and the possibility of return migration. Even though most of the US legal residents end up staying permanently in the US, just the possibility of return migration might cause them to allocate their wealth towards more liquid assets and to invest less time and money to gather information about US financial products. Moreover, a large fraction of immigrants send remittances to their home country, usually using wire services that do not involve opening a bank account.

Table 3: Immigrant Characteristics and Financial Participation

	Owns				
	IRA/KEOGH?	Bank account US?	Bank account abroad?	Stocks/Bonds?	Any assets abroad?
Does not speak English well	-0.047 [0.0114]***	-0.0457 [0.0216]**	0.0165 [0.0124]	-0.0874 [0.0152]***	0.0011 [0.0172]
Attended English class	-0.0143 [0.00852]*	0.0384 [0.0161]**	0.00387 [0.00930]	-0.0224 [0.0114]**	0.0248 [0.0129]*
Years in the U.S.	0.00221 [0.000396]***	0.0079 [0.000754]***	0.000194 [0.000435]	0.00426 [0.000533]***	-0.000401 [0.000603]
Adjustee status	0.00852 [0.00930]	0.073 [0.0177]***	-0.0212 [0.0102]**	0.00846 [0.0125]	-0.0587 [0.0141]***
Work Visa	0.0528 [0.0114]***	0.0674 [0.0216]***	-0.000217 [0.0125]	0.0656 [0.0153]***	-0.00476 [0.0173]
Plans to migrate back	0.00164 [0.0139]	0.0251 [0.0266]	0.051 [0.0153]***	0.0465 [0.0187]**	0.0448 [0.0214]**
Mean Dependent Variable	0.06	0.46	0.08	0.14	0.16

Notes: Authors' calculations using the first wave of the NIS. All regressions use survey weights and control for household income, total wealth, age, gender, marital status, education and region of birth.

Table 3 shows how the probability of owning different assets relates to language skills, US experience, previous visa status and return migration expectations, controlling for household income, total wealth, age, sex, marital status, education and region of birth. U.S. experience is represented in the regression by both years in the US and adjustee status. The regressions in the table show that even after controlling for a range of individual characteristics, language, US experience and return migration expectations are strongly related to portfolio allocation of legal

permanent residents. Immigrants who do not speak English well are less likely to hold assets domestically, the effects being very large in magnitude especially for retirement account and stocks and bonds. On the other hand, immigrants who attended English classes in the previous year are more likely to have a bank account in the US and to hold assets abroad. There are clear positive returns to US experience for assets held domestically but not for assets held abroad and this is true for both measures of US experience, years in the US and adjustee status. The effects are large in magnitude and actually negative for adjustee status on assets held abroad. Those who had a work visa in the past are more likely to hold assets domestically, with no significant difference on assets held abroad. Finally, this pattern reverses for those who plan to migrate in the future: we find that they are significantly more likely to hold assets abroad but no effect is found on domestic assets.

Taken as a whole, the NIS results suggest that language, US experience and migration expectation play an important role in immigrants' financial participation and portfolio allocation decisions. In addition to the decision of which assets to hold, where to hold wealth is an important choice immigrants need to make. In the next section we compare immigrants' and natives' levels of financial knowledge, confidence and trust in financial institutions, factors that can influence the patterns presented. Moreover, we document the association between these factors and English proficiency, U.S. experience and migration expectations. We also describe the development of educational materials that focus on the specific barriers faced by immigrants. Finally, we present results of an evaluation of these materials using the RAND American Life Panel.

III. Immigrant-Native Gaps and Financial Education: Results from the RAND American Life Panel (ALP)

The second part of this study uses data from the American Life Panel (ALP). The ALP is an Internet panel of respondents 18 and over. Respondents in the panel either use their own computer to log on to the Internet or they were provided a small laptop or a Web TV, which allows them to access the Internet, using their television and a telephone line. The technology allows respondents who did not have previous Internet access or a computer to participate in the panel and furthermore use the Web TVs for browsing the Internet or use email. Official participants in the ALP are recruited from survey programs that collect representative samples of U.S. consumers. As of 2010, the ALP contained approximately 3,000 individuals from U.S. households³. Recently the ALP has begun recruiting from a random mail and telephone sample

³ The first cohort of participants in the ALP was recruited from among individuals ages 18 years and older who had responded to the Monthly Survey (MS) of the University of Michigan's Survey Research Center (SRC).² Each month, the MS interviews approximately 500 households, of which 300 households are a list-assisted random-digit-dial (RDD) sample and 200 are re-interviewed from the RDD sample surveyed six months previously. The 200 re-interview Michigan participants were referred to RAND each month. Through August 2008, about 51 percent of these referrals agreed to be considered for the ALP, and about 58 percent of them actually participated in at least the household characteristics module of the ALP. Thus, about 30 percent (51 percent $\times$ 58 percent) of the Michigan recruits became ALP participants. Originally, the ALP included only respondents 40 years of age and older. However, since November 2006, the ALP has included respondents 18 years of age and older.

In 2003, RAND received a five-year grant from the National Institute on Aging to study methodological issues of internet interviewing among an older population. Part of the study concentrated on a comparison of internet interviewing with CATI (Computer Assisted Telephone Interviewing). To that end, RAND recruited both a small internet panel and a parallel telephone panel. Both subpanels were obtained from the University of Michigan as described above. Once the experiments comparing internet with CATI were finished the members of the CATI sample were invited to join the internet panel and about 80 of the original 500 CATI panel members agreed to do so. In the ALP, this group is called the SRG sample, after RAND's Survey Research Group, which administered the CATI study. After August 2008, the ALP did not receive new

using the Dillman method, with the goal to achieve 5000 active panel members – the new members are being drawn from Hispanic and disadvantaged populations.

This study was designed to take advantage of the expansion of the ALP to vulnerable populations. The ALP has a planned expansion of about 2000 new panel members which targets low income and minority individuals. In particular the expansion aims at a subpanel of about 1000 respondents who will be interviewed in Spanish if needed.⁴

As of January 10th, 2012, the sample used for this work represents the presently available fraction of the total intended new recruitment. Data for this work come from MS189 and MS215, two modules of the ALP conducted separately. Data for the survey portion of the study was collected first in MS189, followed by the experimental module, MS215. The total available data from MS189 contains 3061 individuals who have completed the survey. When weighted, this sample is representative of the American Population. All results below are calculated using survey weights – for an explanation of how ALP survey weights are constructed, see Appendix 1.

MS189 contains data on the respondent's country of birth as well as parents' and grandparents' country of birth. Using this information we classified respondents into natives or immigrants—who can further be divided into first generation (born abroad), second generation (at least one parent born abroad) or third generation immigrants (at least one grandparent born abroad).⁵ According to this definition, there are 1206 immigrants in the baseline survey. Since the main purpose of MS215 was to test financial education materials targeted at immigrants, only these 1206 respondents were invited to take the experimental module of this study. We will use in the analysis below 746 respondents who have completed MS215 by the time this report was written.

respondents from the University of Michigan. Instead, in the fall of 2009 participants in the Face-to-Face Recruited Internet Survey Platform (FFRISP) were offered to join the ALP. The FFRISP was an NSF-funded panel of Stanford University and Abt SRBI. Respondents were sampled from June to October 2008 in a multi-stage procedure based on address lists. The target population consisted of individuals 18 years or older who resided in a household in the 48 contiguous states or the District of Columbia and who were reportedly comfortable speaking and reading English, and the sample was representative of this population. They were recruited in a face-to-face interview. They were offered a laptop (worth \$500) and a broadband internet subscription, or \$200 upfront and \$25 per month (for 12 months) if they already had a computer and internet access. Additionally, they were paid \$5 per monthly survey. The FFRISP recruited 1,000 respondents from a gross sample of 2,554 addresses that were not known to be ineligible. The panel was terminated after September 2009, but participants were offered to join the ALP under the same conditions (laptop, high speed internet, monetary compensation). From the 1,000 participants in the Stanford sample, 457 agreed to join the American Life Panel.

⁴ The sample frame comes from Post Office Delivery Sequence Files. By concentration on zip-codes with particular characteristics one can oversample vulnerable populations. The samples are address-based, while for about half of the households in the database also a phone number is available.

⁵ In the tables and text below, the term “immigrants” include first, second and third generation immigrants while “natives” are considered to be those who are fourth generation or above. In tables 9 and 10 we consider how first and second generation immigrants compare to third generation immigrants (who may be more similar to fourth generation and plus, or natives according to the definition above, than to foreign-born immigrants).

Table 4: Sample Sizes American Life Panel Surveys

	Number of Observations
Baseline Survey (MS 189)	3,061
Immigrants in Baseline Survey	1,206
Immigrant Experiment (MS 215, currently in the field)	746

Notes: ALP sample numbers as of January 10th 2012.

In MS189, 1609 individuals were classified as native (not 1st, 2nd or 3rd generation immigrant, defined as above) white, 195 as native black, 267 as Hispanic immigrant, 939 as non-Hispanic immigrant, and 51 as other (such as Asian-Americans and Native Americans). Among immigrants, 215 are 1st generation (i.e., born abroad), 348 are 2nd generation and 643 are 3rd generation. In MS215, we have 746 immigrants of which 162 identify themselves as Hispanic or Latino.

III.1. Immigrant-Native Gaps in Financial Behavior

We start by documenting how immigrants differ from natives in terms of various economic outcomes in the baseline survey. Survey questions in MS 189 that directly address or proxy for aspects of savings behavior include

- *Savings behavior, planning and confidence:*
 - the degree to which the respondent agrees with the statement that he/she is confident about dealing with day-to-day financial matters
 - the degree to which the respondent agrees with the statement that he/she is able to access financial products, services and professional that meet all their financial needs
 - the degree to which the respondent agrees with the statement that he/she is confident in his/her own ability to raise \$2,000 to meet an unexpected need in the next month
 - how much respondent reports thinking about planning for retirement [or having done so, prior to retirement]
 - the degree to which the respondent agrees with the statement that he/she is confident that he/she are currently planning and saving adequately to cover financial needs in retirement [or have done so, prior to retirement]
- *Trust in financial institutions, both in the U.S. and abroad:*
 - the degree to which the respondent trusts the stock market, banks, insurance companies, stock brokers and investment advisers. All respondents answer questions regarding trust in American institutions; first and second generation immigrants also answer questions about trust in institutions abroad (in her country of birth or her parents')

- *Savings behavior and outcomes in the context of employee-benefits plans*
 - If offered, the respondent's reported enrolment in an employer-sponsored retirement savings plan
 - If enrolled, the respondent's reported 2010 contributions (percentage and dollar amount) and 2010 withdrawals or loans.
 - If enrolled, the respondent's reported portfolio allocation.

As a first step, we tabulate in Table 5 below the confidence and planning variables for different demographic groups. It should be noted that the overall levels of access to financial products and long-term preparedness are low for all groups. For example, almost one third of the respondents report not planning for retirement and more than half are not confident they will be able to meet their financial long-term needs.

A closer look on the figures across groups reveals some immigrant-native gaps. When compared to white Americans, Hispanic immigrants are less confident about financial matters and in their ability to meet unexpected short-term expenses, and they are less likely to plan for retirement.⁶ It is important to note however that this is a Hispanic immigrant phenomenon, since non-Hispanic immigrants appear to be more prepared, even when compared to white Americans.

Table 5: Self-Reported Financial Confidence, Access and Planning Measures by Demographic Group

	% Confident about financial matters	% Able to access financial products	% Confident in ability to meet unexpected short-term expenses	% Report thinking/planning for retirement	% Confident in ability to meet long-term needs
Native, white	84	60	65	65	32
Native, black	76	51	44	56	22
Immigrant, Hispanic	78	61	49	57	34
Immigrant, non-Hispanic	88	66	73	72	41
Observations	3,058	3,056	3,057	3,057	3,056

Notes: Authors' calculations using wave 189 of the American Life Panel. Summary statistics are population-weighted.

One common explanation of why immigrants are less confident about meeting financial needs and have lower financial market participation rates than natives is that they might trust American financial institutions less. Several factors could explain such lack of trust, such as

⁶ All the differences mentioned in the text were statistically tested and found to be different than zero at a 10 percent confidence level.

language barriers, lack of knowledge about the system’s operation, and lack of trust “inherited” from the home country, where institutions are possibly weaker and more vulnerable to corruption or mismanagement. We look at differences in trust in institutions across groups and countries in Table 6 below.⁷

The level of trust in U.S. financial institutions is very low across all groups (panel A), with banks being on average the most trusted institution and stock brokers being the least. Hispanic immigrants have the lowest level of trust for all institutions, while non-Hispanic immigrants have levels that are comparable to white natives. Interestingly, when asked to rate trust in financial institutions in their country of origin (panel B), first and second generation immigrants report on average trusting institutions abroad less than they trust U.S. institution. The decrease in confidence is especially large for banks (from 39% to 15%), insurance companies (from 17% to 10%) and financial advisers (from 13% to 3%). This comparison suggests that lack of reliability of foreign institutions might partly explain immigrants’ reluctance in participating in financial programs in the United States.

Table 6: Trust in Domestic and Foreign Financial Institutions, by Demographic Group

Panel A: All respondents, trust financial institutions in the United States					
	% trust the stock market	% trust banks	% trust insurance companies	% trust stock brokers	% trust investment advisers
Native, white	9	47	19	6	17
Native, black	9	35	23	8	21
Immigrant, Hispanic	5	39	17	3	13
Immigrant, non-Hispanic	9	44	22	5	18
Observations	2,992	2,991	2,991	2,989	2,989
Panel B: Immigrants only, trust financial institutions in country of origin					
	% trust the stock market	% trust banks	% trust insurance companies	% trust stock brokers	% trust investment advisers
Immigrant	6	15	10	2	3
Observations	538	540	538	538	537

Notes: Authors' calculations using wave 189 of the American Life Panel. Summary statistics are population-weighted.

⁷ See Appendix for the specific questions asked about trust in financial institutions in the US and in the immigrant’s country of origin. Answers were given in a 1-5 scale, respondents are considered to trust one institution if they answer 4 or 5.

Next, we look at savings behavior and outcomes in the context of employee-benefits plans. Table 7 shows that a little over half of respondents are offered retirement plans by their employer, in most cases a Defined Contribution (DC) plan. When offered a plan immigrants are as likely to enroll as white Americans, having a greater likelihood of enrolling than African Americans. Conditional on holding a DC plan, Hispanic immigrants are as likely as whites to have contributed in 2010 but they are 5 times more likely to have made a pre-retirement withdrawal and 3 times more likely to have borrowed against the plan. This might reflect lack of knowledge regarding program rules (i.e. penalties for early withdrawal) or unwillingness to keep the money in a retirement account in the United States until retirement (if they are more likely to migrate back to their country of origin, for example).

When it comes to portfolio allocation in DC plans, it is clear that immigrants are closer to the allocation decisions of African Americans than those of White Americans. For example, when compared to whites, Hispanic immigrants are less likely to hold stocks (57% versus 68%) and more likely to hold bonds (22% versus 16%). This again might be related to the lack of familiarity with the American stock market and the uncertainty that it causes.⁸

Table 7: Retirement Plans, by Demographic Group

	Employer offers any plan	Employer offers DC plan	If offered DC plan			
			If enrolled in DC plan (N=837) in 2010			
			Enrolled	Contributed	Made withdrawal	Borrowed against
Native, white	61	87	80	83	5	3
Native, black	51	89	75	76	5	4
Immigrant, Hispanic	60	88	85	82	25	9
Immigrant, non-Hispanic	61	88	83	80	4	4
Observations	1,829	1,140	1,005	835	834	834

Notes: Authors' calculations using wave 189 of the American Life Panel. Summary statistics are population-weighted.

⁸ Other possible explanations include differences in risk preferences, numeracy or financial literacy.

Table 8: Portfolio Allocation in Defined Contribution Plan

	Percentage allocation in DC plan (N=837)			
	Stocks	Bonds	Cash	Other
Native, white	68	16	10	5
Native, black	56	18	15	10
Immigrant, Hispanic	57	22	10	11
Immigrant, non-Hispanic	58	21	15	6

Notes: Authors' calculations using wave 189 of the American Life Panel.
Summary statistics are population-weighted.

Tables 5 to 8 above show that immigrants (in particular Hispanic immigrants) are different than natives in several aspects relevant for financial decision making. When compared to white natives, Hispanic immigrants are less confident in financial matters and in their ability to meet unexpected expenses, are less likely to plan for retirement, have lower levels of trust in financial institutions (presumably partly “inherited” from low levels of trust in financial institutions in their origin country), are more likely to make pre-retirement withdrawals and to borrow against DC retirement plans, and are more likely to allocate their investments in bonds rather than stocks. In the next table, we explore how much of these patterns are related to English proficiency, time in the U.S., return migration expectations, Hispanic ethnicity and immigrant generation.

Tables 9 and 10 show the results. The sample is restricted to (1st, 2nd and 3rd generation) immigrants and all the regressions include controls for age, sex, citizenship, income, education and employment.⁹ As expected (not shown in the table due to space constraints but results available upon request), higher income and education are related to greater financial confidence and trust in financial institutions, as well as larger probability of enrolling in DC plans when offered by an employer, making contributions and not withdrawing or borrowing against the DC plan. The coefficients of income and education are large in magnitude and statistically significant. We focus on 5 variables of interest in the tables: Language ability, measured by whether the respondent self-reports speaking poor or fair English; U.S. experience measured by immigrant generation (3rd generation is the omitted category) and whether living in the U.S. for less than 15 years; whether the respondent reports a probability lower than 50% of living in the U.S. for the rest of his life (a measure of migration expectation) and Hispanic ethnicity.

Table 9 shows results for financial confidence and trust in financial institutions. English ability is related to retirement planning and confidence in the ability to meet long-term needs. It is also interesting to note that those with lower English ability tend to trust more institutions in their origin country, in particular banks and insurance companies. U.S. experience is also relevant, first and second generation having lower financial confidence levels than third

⁹ Coefficients on the controls are available upon request.

generation immigrants and those who have been in the U.S. for less than 15 years trusting banks more. Plans to migrate outside the U.S. is associated with lower confidence levels, lower trust in most U.S. institutions and higher trust in financial institutions in the country of origin. As suggested by the tables above, Hispanics immigrants have lower levels of financial confidence and trust in financial institutions, even controlling for a range of individual characteristics.

Table 9: Financial Confidence, Trust and Immigrant Characteristics

	% Confident about financial matters	% Able to access financial products	% Confident in ability to meet unexpected shot-term expenses	% Report thinking/ planning for retirement	% Confident in ability to meet long- term needs	% trust the stock market	% trust banks	% trust insurance companies	% trust stock brokers	% trust investment advisers	% trust foreign stock market	% trust foreign banks	% trust foreign insurance companies	% trust foreign stock brokers	% trust foreign investment advisers
Poor/Fair English	0.066	0.095	-0.009	-0.261	0.453	0.069	0.166	0.46	-0.048	-0.135	-0.066	0.384	0.353	-0.02	-0.035
	[0.079]	[0.103]	[0.094]	[0.097]***	[0.106]***	[0.062]	[0.113]	[0.091]***	[0.047]	[0.086]	[0.057]	[0.087]***	[0.073]***	[0.036]	[0.044]
1st Generation	-0.019	-0.04	-0.066	0.071	-0.145	0.038	0.096	0.03	-0.023	0	0.058	0.17	0.094	-0.05	0.001
	[0.033]	[0.044]	[0.040]	[0.041]*	[0.045]***	[0.025]	[0.046]**	[0.038]	[0.019]	[0.035]	[0.239]	[0.362]	[0.304]	[0.151]	[0.182]
2nd Generation	-0.035	-0.039	-0.068	-0.016	-0.033	0.04	0.031	0.03	-0.016	-0.019	-0.007	0.048	0.004	-0.041	0.013
	[0.025]	[0.033]	[0.030]**	[0.031]	[0.034]	[0.019]**	[0.035]	[0.029]	[0.015]	[0.027]	[0.239]	[0.362]	[0.304]	[0.151]	[0.182]
Less than 15 years in US	-0.046	0.1	-0.129	0.151	-0.075	-0.067	0.187	-0.051	-0.007	-0.072	-0.101	0.144	0.077	-0.045	0.025
	[0.063]	[0.083]	[0.076]*	[0.078]*	[0.084]	[0.049]	[0.089]**	[0.072]	[0.037]	[0.068]	[0.045]**	[0.068]**	[0.057]	[0.028]	[0.034]
Plans to migrate from US	-0.124	-0.124	-0.057	-0.011	0.038	-0.001	-0.176	-0.069	0.065	-0.069	0.129	0.11	0.051	0.1	0.076
	[0.034]***	[0.045]***	[0.041]	[0.042]	[0.046]	[0.026]	[0.047]***	[0.038]*	[0.020]***	[0.036]*	[0.029]***	[0.044]**	[0.037]	[0.018]***	[0.022]***
Hispanic	-0.051	0.005	-0.071	0.01	-0.052	-0.004	0.02	-0.049	0.003	-0.051	0.029	-0.076	-0.065	0.025	0.002
	[0.026]**	[0.034]	[0.031]**	[0.032]	[0.035]	[0.020]	[0.036]	[0.029]*	[0.015]	[0.028]*	[0.022]	[0.034]**	[0.029]**	[0.014]*	[0.017]
Observations	1192	1192	1193	1193	1193	1168	1168	1167	1165	1166	532	534	532	532	531
R-squared	0.075	0.098	0.237	0.179	0.092	0.062	0.075	0.086	0.038	0.041	0.113	0.175	0.14	0.148	0.07
Mean	0.847	0.645	0.656	0.67	0.385	0.078	0.425	0.204	0.0431	0.165	0.0553	0.154	0.0968	0.0223	0.0298

Notes: Sample restricted to 1st, 2nd and 3rd generation immigrants. All regressions include as controls age, age squared, gender, citizenship, income dummies, high school and college dummies and employment status. Results calculated using sample weights, standard errors robust to heteroskedasticity.

In table 10 we present the analysis of retirement plan participation. Those with limited language ability are more likely report employer offered retirement plan, but once enrolled are less likely to contribute. First generation immigrants are less likely to work for employers who offer retirement plans and those who have been living in the U.S. for less than 15 years are less likely to contribute to one. Hispanic immigrants are more than 2 times as likely as “similar” non-Hispanics to make a pre-retirement withdrawal and 6.5 percentage points more likely to borrow against the plan (an effect that is 119% of the sample mean).

Table 10: Retirement Plans and Immigrant Characteristics

	Employer offers any plan	Employer offers DC plan	If offered DC plan		If enrolled in DC plan		Allocation in DC plan			
			Enrolled	Contributed	Made withdrawal	Borrowed against	Stocks	Bonds	Cash	Other
Poor/Fair English	0.519 [0.147]***	0.101 [0.176]	0.065 [0.174]	-0.783 [0.229]***	-0.082 [0.171]	-0.111 [0.133]	124.988 [1,497.331]	-212.671 [295.584]	-33.795 [1,826.408]	1.727 [202.856]
1st Generation	-0.142 [0.055]***	0.008 [0.051]	-0.041 [0.054]	0.062 [0.072]	0.06 [0.054]	-0.027 [0.042]	-674.189 [634.727]	215.353 [125.300]*	-403.612 [774.225]	-32.92 [85.992]
2nd Generation	-0.008 [0.042]	-0.052 [0.038]	0.013 [0.041]	0.016 [0.054]	-0.118 [0.040]***	0.005 [0.031]	-335.116 [477.488]	-39.057 [94.260]	-349.586 [582.429]	-25.206 [64.689]
Less than 15 years in US	0.163 [0.102]	0.03 [0.094]	0.114 [0.096]	-0.335 [0.119]***	-0.056 [0.089]	-0.002 [0.069]	2,813.56 [1,199.192]**	65.927 [236.729]	287.461 [1,462.745]	-4.5 [162.465]
Plans to migrate from US	-0.023 [0.060]	0.038 [0.071]	0.009 [0.075]	0.052 [0.100]	-0.058 [0.075]	0.019 [0.058]	-94.651 [650.230]	5.3 [128.360]	-59.075 [793.135]	-0.525 [88.092]
Hispanic	0.057 [0.042]	-0.037 [0.039]	0.066 [0.041]	0.055 [0.055]	0.24 [0.041]***	0.065 [0.032]**	108.208 [493.353]	151.391 [97.392]	47.06 [601.780]	12.134 [66.839]
Observations	699	442	389	331	330	330	1195	1195	1195	1195
R-squared	0.215	0.036	0.28	0.108	0.222	0.119	0.01	0.01	0.004	0.002
Mean	0.605	0.883	0.843	0.814	0.109	0.0544	335.4	41.62	188.7	17.12

Notes: Sample restricted to 1st, 2nd and 3rd generation immigrants. All regressions include as controls age, age squared, gender, citizenship, income dummies, high school and college dummies and employment status. Results calculated using sample weights, standard errors robust to heteroskedasticity.

III.2. Design of New Financial Education Materials

Both the New Immigrant Survey and the American Life Panel results suggest that the barriers faced by immigrants in the financial market are related to (1) U.S. experience; (2) expectations about future migration; (3) language skills; (4) trust issues, both in terms of confidence in financial ability and trust in financial institutions; and (5) lack of retirement planning and preparedness. In particular, tables 9 and 10 suggest that (4) and (5) are strongly

associated to (1)-(3). In this section we explain how we used these results to develop new educational materials targeted to immigrants.

In order to complement the empirical results and to develop the content and wording of the immigrant-specific information to be added to the educational materials, we conducted a series of interviews with professionals who work directly with this population, such as immigration attorneys, accountants and religious counselors. Their feedback and experience related to the main factors determining immigrants' financial decisions were crucial in deciding which issues the new materials should concentrate on. A copy of the interview protocol used is available in Appendix 2. The results from these interviews confirmed our previous findings that trust and knowledge issues, especially with regard to investments and retirement planning financial products constitute key immigrant barriers.

To develop the educational materials we used as a starting point FDIC's Money Smart curriculum. Specifically, we developed two versions of this resource material, with the dual objectives of testing hypotheses about constraints to financial participation and obtaining proof-of-concept for design features and materials that are suitable for widespread use by other organizations interested in the financial well-being of immigrants.

The financial education materials provide information about reasons to keep money in a bank, type of financial institutions, accounts insured (and not insured) by the FDIC, saving options, "rule of 72" for interest rate calculation (a simple rule to determine the amount of time it takes for an investment to double in value at a constant interest rate), investment products (including bonds, mutual funds, retirement plans, stocks and securities) and saving tips. The materials include pictures and straightforward questions about the content presented in order to increase participants' engagement and interest.¹⁰ Additional information targeted at immigrants included procedures and documents needed to open an U.S. bank account, FDIC insurance information, and retirement plan rules that apply to non-citizens.

The material takes the form of an easy-to-navigate website with information and questions to fixate content presented through the internet during the ALP survey. Two versions were tested based on content variation:

- Version A: The content was based on general-purpose financial information about banking services, savings and credit. To ensure high quality and relevance for the general audience as

¹⁰ The screens with questions appear every 4 to 6 screens with information. These questions are intended to measure immediate recall of the information given and can be used as a proxy for whether the participant read and paid attention to the materials (as opposed to "skipping" the information screens without reading and absorbing the content). These questions are more straightforward than the questions used as outcome measures of financial knowledge, which requires interpretation and/or application of the concepts presented in the materials.

well as a validated benchmark, we based the materials on the FDIC Money Smart program, especially on the first two modules (“Bank on it” and “Pay yourself first”).

- Version B: The content of Version A was supplemented to include content directly addressing immigrant barriers. This took the form of an additional section (Frequently-Asked Questions, FAQ) that provided relevant information about the U.S. banking system and how the rules of existing services apply for the foreign-born population.

We conducted a field experiment by randomly assigning the immigrant subsample of the ALP into three test groups: one group was administered version A of the materials, another groups was administered version B and a third group received no information (i.e. the control group). We compared the three groups in terms of participant level of interest, comprehension and intention to change behavior with respect to savings and investments. A copy of both versions of the educational material (A and B) is available in Appendix 3.

III.3. What Works, in which Dimensions and for which Audiences? Evaluating the New Materials

The random assignment of ALP participants into 3 groups, where one received material version A (general content information), the other version B (general content information plus immigrant-specific FAQ section) and a control group that received no material, makes the evaluation of the materials easier. Random assignment implies that participants should have on average similar characteristics across the three groups; therefore any differences in outcomes between them can be attributed to the educational materials. Table 11 shows that the characteristics are balanced across the control group and the two treatment groups, which have 240, 263 and 243 observations respectively. One can see from the table that the means across groups are very similar and binary and joint tests for significant differences across them cannot reject the null hypothesis that the means are the same and that the variables in Table 11 cannot jointly predict treatment assignment (out of 42 binary tests, we only reject the null 4 times at the 10 percent confidence level and 1 time at the 5 percent level).

Table 11: Are Controls Balanced?

	Experimental Groups			Hypotheses (p-value reported)		
	Control (C)	Treatment 1 (T1)	Treatment 2 (T2)	C=T1	C=T2	T1=T2
Age	49.93	51.60	51.80	0.21	0.19	0.88
Male	0.43	0.38	0.35	0.31	0.09	0.48
Citizen	0.95	0.96	0.96	0.66	0.64	0.97
Family Income <25K	0.26	0.21	0.29	0.19	0.41	0.03
High School grad	0.54	0.54	0.57	0.90	0.56	0.47
College grad	0.42	0.42	0.41	0.97	0.84	0.81
Employed	0.72	0.71	0.63	0.89	0.05	0.06
Hispanic	0.22	0.22	0.21	0.99	0.77	0.77
Birthday	15.19	15.60	15.32	0.59	0.87	0.72
1st generation	0.15	0.18	0.15	0.46	0.85	0.36
2nd generation	0.31	0.30	0.30	0.84	0.77	0.93
Poor/Fair English	0.01	0.01	0.02	0.73	0.26	0.41
Less than 15 yrs in US	0.05	0.03	0.03	0.38	0.23	0.73
Expect to migrate back	0.10	0.08	0.06	0.53	0.12	0.35
Observations	240	263	243			
Join significance test p-value				0.72	0.29	

Notes: Authors' calculations using wave 215 of the American Life Panel.

We start our analysis by testing the effect of the two versions of the educational material (Treatment 1 and Treatment 2) on financial knowledge questions. The actual questions answered by respondents can be found in Appendix 4. Table 12 shows that respondents who read the educational materials are more likely than respondents who did not (control group) to correctly differentiate savings and investment products, to correctly do an interest rate calculation, to be more familiar with the purpose of a 401K and with the rules governing retirement accounts. The magnitudes of the effects are large, varying from 7 percent (or 6 percentage points, on the question regarding employer matching in retirement accounts) to 90 percent (or 30 percentage points, on the interest rate calculation question, which has a low average of 45 percent) of the dependent variable mean. When questions involved specific immigrant information, the effect was mostly present for the second treatment, which included the immigrant-specific FAQ screens. As expected given that the randomization was successfully done, the results with and without controls are almost identical.¹¹ Overall, the knowledge outcomes point to the efficacy of this type of educational material in informing respondents with respect to important financial information that they are not familiar with.

¹¹ Controls includes age, age squared, gender, citizenship, income and education dummies, employment status, Hispanic ethnicity, immigrant generation dummies, English ability, time in the U.S. dummies, and migration expectations.

Table 12: The Effect of the Intervention on Knowledge

	Knowledge questions									
	Differentiate between saving and investment	Knows interest rate calculation (rule of 72)	Diversification	Knows 401(K)	IRA taxation	IRA withdrawal	IRA loan	IRA Immigrant	Immigrant IRA taxation	Employer retirement account match
Without Controls										
Treatment 1	0.08 [0.026]***	0.425 [0.042]***	0.014 [0.039]	0.139 [0.045]***	0.01 [0.040]	0.127 [0.036]***	-0.002 [0.045]	0.089 [0.037]**	-0.028 [0.044]	0.096 [0.034]***
Treatment 2	0.046 [0.027]*	0.291 [0.043]***	-0.012 [0.039]	0.084 [0.045]*	-0.008 [0.041]	0.08 [0.037]**	0.05 [0.046]	0.241 [0.038]***	0.176 [0.045]***	0.063 [0.035]*
With Controls										
Treatment 1	0.076 [0.025]***	0.435 [0.040]***	-0.005 [0.037]	0.122 [0.044]***	0.012 [0.040]	0.119 [0.035]***	-0.001 [0.045]	0.077 [0.037]**	-0.015 [0.045]	0.079 [0.032]**
Treatment 2	0.036 [0.025]	0.315 [0.041]***	-0.01 [0.037]	0.071 [0.045]	-0.001 [0.040]	0.053 [0.035]	0.054 [0.046]	0.238 [0.037]***	0.181 [0.046]***	0.059 [0.033]*
Observations	730	712	727	728	727	728	727	724	724	727
Mean Y	0.904	0.447	0.761	0.571	0.728	0.793	0.444	0.768	0.546	0.823

Notes: Authors' calculations using wave 215 of the American Life Panel as of January 2012. Controls include age, gender, citizenship, education, income, employment, ethnicity, immigrant generation, English ability, time in the US, and migration expectations.

Table 13 investigates the effect of the treatment on expectations and on hypothetical choice tasks. Despite the significant effects of the treatments on knowledge, treatment respondents are not found to report to be more likely to enroll on 401(K), to want to learn more about IRA or to open an IRA. Respondents in treatment group 1 are however, more likely to choose to save or invest a higher fraction of money in the choice task when compared to the control group (a 10 percent effect relative to the mean). However, this effect is not found for respondents in treatment group 2. These results are robust to the inclusion of controls.

Table 13: The Effect of the Intervention on Intended Behavior Change

	Probability Expectations			Choice Task (\$1,000)			
	How likely to enroll in 401K?	How likely to learn about IRA?	How likely to open IRA?	Save or Invest	Spend	Give to friend or relative	Other
Without Controls							
Treatment 1	-0.018 [0.056]	-4.48 [3.015]	-1.048 [3.684]	73.648 [41.701]*	-4.528 [28.836]	-8.081 [21.902]	-35.308 [37.610]
Treatment 2	0.038 [0.055]	-7.15 [3.061]**	-3.738 [3.678]	16.822 [42.534]	-9.846 [29.016]	30.866 [23.227]	26.163 [38.864]
With Controls							
Treatment 1	0.005 [0.058]	-3.045 [2.835]	0.944 [3.500]	70.63 [41.830]*	-18.472 [29.031]	-3.008 [22.764]	-45.227 [39.298]
Treatment 2	0.038 [0.056]	-5.364 [2.885]*	-2.081 [3.510]	-2.533 [42.686]	-5.337 [29.671]	26.005 [24.679]	47.698 [40.646]
Observations	384	724	428	660	492	302	320
Mean Y	0.729	48.73	42.48	737.7	308.2	106.3	193.7

Notes: Authors' calculations using wave 215 of the American Life Panel as of January 2012. Controls include age, gender, citizenship, education, income, employment, ethnicity, immigrant generation, English ability, time in the US, and migration expectations.

Next, we investigate whether there is heterogeneity in the treatment effects. We look at five dimensions of heterogeneity by interacting the treatment dummies with: “attention” paid to the material, Hispanic ethnicity, poor English ability, less than 15 years in the U.S. and migration plans.¹² How much attention is paid to the educational materials is based on the fraction of questions asked in the middle of the exposition that was answered correctly. These questions follow directly from the information given therefore mistakes can be interpreted as inattention (the questions are displayed with the materials in Appendix 3). English ability, time in the U.S. and migration plans are defined as above.

¹² All the variables in the interactions are also included in the model separately as a main effect. The only exception is “attention” which is only available for the treatment groups.

Table 14: Heterogeneity in the Intervention Effects, Knowledge questions

	Differentiate between saving and investment	Knows interest rate calculation (rule of 72)	Diversification	Knows 401(K)	IRA taxation	IRA withdrawl	IRA loan	IRA Immigrant	Immigrant IRA taxation	Employer retirement account match
TREAT1	-0.029	0.173	-0.025	-0.143	0.012	0.148	0.026	0.112	0.106	0.027
	[0.056]	[0.089]*	[0.084]	[0.101]	[0.092]	[0.079]*	[0.104]	[0.084]	[0.102]	[0.074]
TREAT2	-0.113	-0.005	-0.121	-0.112	0.204	-0.06	0.037	0.191	0.174	0.083
	[0.052]**	[0.081]	[0.076]	[0.092]	[0.083]**	[0.072]	[0.095]	[0.076]**	[0.093]*	[0.067]
attention_T1	0.12	0.297	0.024	0.3	-0.001	-0.032	-0.031	-0.039	-0.136	0.058
	[0.057]**	[0.090]***	[0.085]	[0.102]***	[0.093]	[0.080]	[0.105]	[0.085]	[0.104]	[0.075]
attention_T2	0.174	0.374	0.129	0.215	-0.238	0.131	0.02	0.054	0.008	-0.027
	[0.052]***	[0.082]***	[0.077]*	[0.093]**	[0.084]***	[0.073]*	[0.096]	[0.077]	[0.094]	[0.068]
TREAT1	0.051	0.462	-0.007	0.172	0.042	0.147	0.032	0.034	-0.029	0.085
	[0.028]*	[0.045]***	[0.041]	[0.050]***	[0.045]	[0.039]***	[0.051]	[0.041]	[0.051]	[0.036]**
TREAT2	0.01	0.348	-0.019	0.067	0.006	0.109	0.076	0.18	0.185	0.049
	[0.028]	[0.046]***	[0.042]	[0.051]	[0.046]	[0.039]***	[0.052]	[0.042]***	[0.051]***	[0.037]
hispanic_T1	0.121	-0.126	0.011	-0.235	-0.146	-0.129	-0.156	0.203	0.064	-0.031
	[0.061]**	[0.098]	[0.090]	[0.108]**	[0.098]	[0.084]	[0.111]	[0.089]**	[0.110]	[0.079]
hispanic_T2	0.123	-0.154	0.043	0.028	-0.03	-0.263	-0.102	0.267	-0.017	0.049
	[0.062]**	[0.099]	[0.091]	[0.110]	[0.099]	[0.085]***	[0.112]	[0.090]***	[0.111]	[0.080]
TREAT1	0.077	0.444	-0.003	0.126	0.014	0.122	-0.007	0.073	-0.016	0.084
	[0.025]***	[0.040]***	[0.037]	[0.044]***	[0.040]	[0.035]***	[0.045]	[0.037]**	[0.045]	[0.032]***
TREAT2	0.036	0.316	-0.01	0.065	0.004	0.051	0.059	0.237	0.189	0.054
	[0.026]	[0.041]***	[0.037]	[0.045]	[0.041]	[0.035]	[0.046]	[0.037]***	[0.046]***	[0.033]*
poorEng_T1	-0.025	-1.428	-0.332	-0.364	-0.544	-0.372	0.706	0.723	-0.207	-0.638
	[0.261]	[0.526]***	[0.488]	[0.590]	[0.531]	[0.461]	[0.603]	[0.487]	[0.596]	[0.426]
poorEng_T2	-0.033	-0.927	-0.155	0.34	-0.743	-0.037	0.009	0.515	-0.719	0.052
	[0.241]	[0.499]*	[0.463]	[0.560]	[0.503]	[0.437]	[0.572]	[0.462]	[0.565]	[0.404]
TREAT1	0.067	0.429	-0.004	0.104	-0.003	0.111	0.016	0.071	-0.005	0.09
	[0.025]***	[0.041]***	[0.037]	[0.045]**	[0.041]	[0.035]***	[0.046]	[0.037]*	[0.046]	[0.033]***
TREAT2	0.027	0.311	-0.013	0.069	-0.004	0.059	0.071	0.232	0.191	0.073
	[0.026]	[0.041]***	[0.038]	[0.046]	[0.041]	[0.036]*	[0.047]	[0.038]***	[0.046]***	[0.033]**
less15yrs_T1	0.203	0.166	-0.03	0.462	0.37	0.224	-0.399	0.142	-0.255	-0.247
	[0.126]	[0.210]	[0.188]	[0.227]**	[0.205]*	[0.177]	[0.233]*	[0.194]	[0.237]	[0.164]
less15yrs_T2	0.225	0.089	0.123	-0.029	0.01	-0.235	-0.443	0.171	-0.261	-0.392
	[0.135]*	[0.219]	[0.202]	[0.244]	[0.219]	[0.190]	[0.249]*	[0.202]	[0.246]	[0.176]**
TREAT1	0.084	0.445	-0.004	0.128	-0.024	0.117	-0.004	0.096	0.003	0.057
	[0.026]***	[0.042]***	[0.038]	[0.046]***	[0.042]	[0.036]***	[0.047]	[0.038]**	[0.047]	[0.033]*
TREAT2	0.042	0.335	-0.003	0.091	-0.015	0.048	0.071	0.261	0.193	0.032
	[0.026]	[0.042]***	[0.039]	[0.047]*	[0.042]	[0.037]	[0.048]	[0.039]***	[0.047]***	[0.034]
migback_T1	-0.077	-0.107	-0.009	-0.066	0.399	0.018	0.038	-0.211	-0.203	0.242
	[0.087]	[0.144]	[0.129]	[0.157]	[0.140]***	[0.122]	[0.161]	[0.132]	[0.160]	[0.114]**

migback_T2	-0.076 [0.097]	-0.277 [0.158]*	-0.091 [0.144]	-0.28 [0.174]	0.12 [0.156]	0.07 [0.136]	-0.252 [0.178]	-0.292 [0.144]**	-0.132 [0.176]	0.359 [0.126]***
Observations	725	708	722	723	722	723	722	720	719	722
R-squared	0.217	0.32	0.18	0.118	0.117	0.19	0.068	0.163	0.098	0.21
Mean	0.904	0.447	0.761	0.571	0.728	0.793	0.444	0.768	0.546	0.823

Notes: Notes: Authors' calculations using wave 215 of the American Life Panel as of January 2012. Controls include age, gender, citizenship, education, income, employment, ethnicity, immigrant generation, English ability, time in the US, and migration expectations.

Table 14 shows that respondents who paid more attention to the materials are more likely to answer the knowledge questions correctly, in particular differentiating between savings and investment, doing the interest rate calculation and knowing the purpose of a 401(k). Hispanics also seem to take more advantage of the treatment than other ethnic groups especially when it comes to questions related to immigrant status. This is possible because, as suggested by the tables in the last subsection, they have a lower level of financial confidence and information to begin with. Those with lower English ability seem to take *less* advantage of the materials. In the interest rate calculation – one of the more evolved questions – they do significantly worse than respondents who report speaking English well or very well. This result points to the importance of translating financial education materials in order to reach immigrants with limited English ability. Results for time in the U.S. and migration expectations do not present a clear pattern, with the interaction being positive for some of the variables and negative for others.

Table 15 presents heterogeneity results for probability expectations and the choice task. Similarly to Table 13, there are not many significant effects of the treatment in these outcomes. Hispanic immigrants are more likely to respond to the treatment by choosing to save or invest in the choice task. Those with limited English ability are more likely to respond they expect to open an IRA in the future (so are those who have been in the U.S. for less than 15 years), but they also choose to spend more and save/invest less in the choice task after the treatment.

Overall the heterogeneity analysis suggests that keeping the attention of the respondents during the exposition of the materials is key for the effectiveness of the intervention. Also important is the availability of the financial education materials in several languages, since respondents with limited English were less benefited by the materials presented in English only. The treatment had the largest effect among Hispanic immigrants, possibly due to the lower level of financial knowledge and confidence they have to begin with.

Table 15: Heterogeneity in the Intervention Effects, Probability Expectations and Choice Task

	How likely to enroll in 401K?	How likely to learn about IRA ?	How likely open IRA?	Save or Invest	Spend	Give to friend or relative	Other
TREAT1	-0.162 [0.118]	-4.752 [6.586]	1.164 [6.747]	21.054 [96.726]	-61.494 [60.937]	-28.862 [43.999]	-34.422 [78.667]
TREAT2	0.012 [0.116]	-2.137 [5.912]	-0.8 [6.303]	-36.425 [84.964]	-89.891 [56.615]	32.218 [40.139]	13.094 [69.155]
attention_T1	0.198 [0.122]	1.902 [6.673]	-0.271 [6.952]	55.922 [97.967]	50.37 [62.442]	31.305 [45.569]	-12.874 [81.189]
attention_T2	0.035 [0.117]	-3.723 [5.980]	-1.57 [6.398]	40.331 [86.419]	101.13 [57.271]*	-7.977 [41.968]	45.042 [72.686]
TREAT1	0.053 [0.067]	-2.382 [3.196]	0.437 [4.119]	18.074 [47.184]	-24.537 [33.789]	8.341 [27.337]	4.505 [46.348]
TREAT2	0.092 [0.064]	-5.123 [3.258]	-2.58 [4.204]	-31.221 [48.276]	-17.46 [34.508]	40.07 [30.113]	104.009 [48.049]**
hispanic_T1	-0.179 [0.134]	-3.165 [6.983]	1.822 [7.858]	241.13 [101.253]**	23.245 [67.404]	-40.072 [51.718]	-172.43 [88.125]*
hispanic_T2	-0.219 [0.132]*	-1.057 [7.036]	1.667 [7.729]	124.671 [102.766]	46.41 [67.136]	-44.638 [53.695]	-190.651 [88.706]**
TREAT1	0.004 [0.058]	-3.292 [2.844]	0.285 [3.497]	76.183 [41.910]*	-25.224 [29.071]	-2.435 [23.073]	-44.369 [39.740]
TREAT2	0.038 [0.057]	-5.313 [2.899]*	-2.395 [3.519]	-2.813 [42.863]	-4.526 [29.743]	24.356 [25.143]	46.531 [41.204]
poorEng_T1	0.078 [0.672]	39.306 [37.767]	88.07 [37.882]**	-888.912 [532.000]*	663.572 [321.566]**	-3.323 [206.512]	-29.959 [368.250]
poorEng_T2	0.073 [0.564]	17.935 [35.827]	57.767 [33.940]*	-496.24 [504.637]	308.696 [305.719]	44.812 [197.251]	24.167 [351.080]
TREAT1	-0.011 [0.059]	-3.321 [2.903]	-0.83 [3.591]	74.408 [42.918]*	-19.743 [29.950]	0.702 [23.790]	-43.727 [40.832]
TREAT2	0.023 [0.057]	-5.632 [2.938]*	-3.498 [3.581]	0.09 [43.556]	-6.774 [30.329]	28.363 [25.485]	49.762 [41.463]
less15yrs_T1	0.368 [0.277]	6.291 [14.581]	30.404 [15.391]**	-81.129 [205.761]	22.021 [134.592]	-54.035 [96.848]	-30.197 [179.383]
less15yrs_T2	0.432 [0.303]	7.267 [15.619]	27.697 [16.159]*	-59.935 [220.769]	33.763 [144.822]	-39.976 [101.629]	-58.26 [215.026]
TREAT1	-0.001 [0.060]	-3.636 [2.980]	0.446 [3.715]	69.841 [44.074]	-3.405 [30.670]	-1.34 [24.205]	-35.611 [41.712]
TREAT2	0.02 [0.059]	-5.273 [3.006]*	-1.417 [3.706]	1.753 [44.435]	-0.524 [30.966]	32.065 [26.194]	50.323 [43.422]
migback_T1	0.085	6.537	4.869	7.173	-146.239	-12.627	-91.23

	[0.222]	[10.017]	[11.290]	[147.635]	[96.404]	[73.147]	[125.880]
migback_T2	0.235	-2.528	-8.115	-68.033	-42.857	-56.147	-25.234
	[0.213]	[11.156]	[11.689]	[169.204]	[106.849]	[78.418]	[129.697]
Observations	380	719	425	655	491	301	319
R-squared	0.132	0.193	0.227	0.092	0.101	0.13	0.114
Mean	0.729	48.73	42.48	737.7	308.2	106.3	193.7

Notes: Notes: Authors' calculations using wave 215 of the American Life Panel as of January 2012. Controls include age, gender, citizenship, education, income, employment, ethnicity, immigrant generation, English ability, time in the US, and migration expectations.

IV. Conclusions

This study investigates the barriers to financial participation faced by immigrants in the U.S.. Three factors are the main focus of our analysis: language ability, U.S. experience and return migration expectations. We provide evidence that, even controlling for a wide range of personal characteristics, these factors are related to immigrant financial participation, portfolio allocation, financial confidence, trust in financial institutions, retirement planning and retirement program participation. Based on these results we designed and tested new financial education materials targeted at immigrants. We use data from the New Immigrant Survey in the analysis of immigrant financial participation and portfolio allocation and data from the American Life Panel for new measures of financial confidence, capability and trust as well as for the evaluation of the new educational materials.

The results show that immigrants (in particular Hispanic immigrants) are different than natives in several aspects relevant for financial decision making. When compared to white natives, Hispanic immigrants are less confident in financial matters and in their ability to meet unexpected expenses, are less likely to plan for retirement, have lower levels of trust in financial institutions, are more likely to make pre-retirement withdrawals and to borrow against DC retirement plans, and are more likely to allocate their investments in bonds rather than stocks. Controlling for ethnicity and socio-economic status, higher English ability translates into greater retirement planning, enrollment in employer-sponsored retirement plan and confidence in the ability to meet long-term needs. U.S. experience (measured by time in the U.S. and immigrant generation) is associated with higher financial confidence and trust levels as well as with higher regular contributions to retirement plans. Immigrants who plan to migrate abroad have on average lower financial confidence levels, lower trust in most U.S. institutions but higher trust in financial institutions in their country of origin.

We developed new educational materials using as a benchmark FDIC's Money Smart curriculum. Specifically, we designed two versions of this resource material (a general and an immigrant-specific one), with the dual objectives of testing hypotheses about constraints to financial participation and obtaining proof-of-concept for design features and materials that are suitable for widespread use by other organizations interested in the financial well-being of immigrants. We conducted a field experiment by randomly assigning the members of the ALP into three test groups and administering each type of materials to one of the randomly selected test groups among the immigrant subsample of the ALP, as well as maintaining a control group which receives no information.

We find that respondents who read the educational materials are more likely than respondents who did not (control group) to correctly differentiate savings and investment products, to correctly do an interest rate calculation, to be more familiar with the purpose of a 401K and with the rules governing retirement accounts. The effects are large and statistically significant. When questions involved specific immigrant information, the effect was mostly present for the second treatment, which included the immigrant-specific FAQ screens. Despite the significant effects of the treatments on knowledge, treatment respondents are not found to report to be more likely to enroll on 401(K), to want to learn more about IRA or to open an IRA. They also don't behave differently when given choice tasks. Overall, the knowledge outcomes

point to the efficacy of this type of educational material in informing respondents with respect to important financial information that they are not familiar with, including information related to their immigrant status. However, we find limited effect on intended behavior change.

An analysis of heterogeneity in the treatment effects reveals that respondents who paid more attention to the material and Hispanic immigrants presented the largest impact. Since the materials were presented in English, respondents with limited English ability benefited less from the material. These results underline the importance of interesting and entertaining materials that catch the respondent's attention as well as translation to different languages for the effectiveness of the intervention. Future research should test and compare the effects of different designs of computer-based financial education on knowledge, intended behavior and actual behavior change.

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VI. Appendices

Appendix 1: ALP Survey Weights

As with all surveys based on random samples, the composition of the un-weighted sample differs from the population composition. RAND constructs sampling weights to correct for this sampling error and to make the sample as representative of the population of interest as possible. The benchmark distributions against which the ALP is weighted are derived from the Current Population Survey (CPS). The sampling weights were constructed using the March 2008-2010 waves of the CPS, which includes the annual income supplement. Three weighting methods have been implemented for the ALP: cell-based post stratification, logistic regression, and ranking. After some experimentation, ranking was found to give the best results among these different methods. It allows finer categorizations of variables of interest (in particular, age) than cell-based post-stratification does, while still matching these distributions exactly. Variables were created that account for interactions with gender, so that all distributions are matched separately for males and females. The resulting set of variables whose distributions are matched exactly is:

- Gender $\times$ age, with 14 categories: (1) male, 18-24; (2) male, 25-34; (3) male, 35-44; (4) male, 45-54; (5) male, 55-64; (6) male, 65-74; (7) male, 75+. Categories (8)-(14) are the same as (1)-(7), except that they are for females instead of males.
- Gender $\times$ race/ethnicity, with 6 categories: (1) male, non-Hispanic white; (2) male, non-Hispanic African American; (3) male, Hispanic and other; (4) female, non-Hispanic white; (5) female, non-Hispanic African American; (6) female, Hispanic and other.
- Gender $\times$ (household) income, with eight categories: (1) male, <\$25,000; (2) male, \$25,000-\$49,999; (3) male, \$50,000-\$74,999; (4) male, \$75,000+; (5) female, <\$25,000; (6) female, \$25,000-\$49,999; (7) female, \$50,000-\$74,999; (8) female, \$75,000+.
- Gender $\times$ education, with six categories: (1) male, high school or less; (2) male, some college or a bachelor's degree; (3) male, more than a bachelor's degree; (4) female, high school or less; (5) female, some college or a bachelor's degree; (6) female, more than a bachelor's degree. All aggregate U.S. statistics for the SCPC were weighted using the sampling weights constructed in this manner.

Appendix 2: Interview Protocol

Introduction

The RAND Corporation is currently conducting a study to identify the main barriers to the use of financial services faced by the immigrant and Hispanic communities. Previous studies have shown that immigrants and Hispanics are less likely to participate in the financial mainstream than natives. This is worrisome because financial participation is critical for wealth building, access to credit and saving for emergencies and old age. The ultimate goal of the study is to design new financial education materials that will help these populations overcome the main barriers to financial participation identified.

[contact] gave me your contact information. He mentioned your work with these communities and we believe that your experience can be very valuable to inform our study. Would you have a few minutes to tell me about your work, the characteristics of the populations you work with and the main barriers to financial participation faced by these populations?

[If answer is no, ask what would be the best time to call back or who would be the best person to talk to]

Part 1: Background

I would like to start by asking you about your work and activities related to the immigrant and Hispanic community

- Job description
- Affiliation/Organization
- In which capacity do you interact with the Immigrant/Hispanic community?
- Brief description of existing programs, including
 - Target group
 - Location
 - Duration

Part 2: Characteristics of Immigrant/ Hispanic Population Served

Now I would like to ask you about the characteristics of the immigrant/Hispanic population you work with.

- What is their average education level?
- What kinds of occupations do most of them work on?
- Are they documented immigrants?
- Do they have checking and/or savings accounts?
- Do they usually save for emergencies or retirement?
- Would you say they have full access to financial services?
- Do they regularly send remittances to friends and family abroad?

- How do they usually send these remittances? I.e., through a commercial bank, a carrier, mail, friends, etc.

Part 3: Barriers to the use of financial services by this population

Now I would like to ask you about the main barriers you believe these communities face that prevent them to use financial services.

Do you think many of them don't hold bank accounts in the US or don't hold most of their savings in US institutions because of

- Language barriers
- Lack of knowledge/experience on how US financial institutions work
- Expectations that they will return to their home country in the future, therefore their savings should be held abroad
- Concern that an asset held in the US will be harder to transfer to another country in case they decide to migrate back (for example, IRAs)
- Concern that, in case of an emergency (i.e. death), an asset held in the US will be hard to access by family members living abroad
- Lack of trust/misconceptions about financial institutions

In your experience, what are the main concerns/questions that these populations have with respect to the use of financial services? Main "traps"/misconceptions?

Part 4: How not having access to financial services hurt this population?

In your opinion, how the lives of this population would improve if they greater access to financial services?

Part 5: How can we help this population have greater access to financial services?

Have you ever thought about what could be done to help this population have greater access to financial services? Would you mind sharing some of these ideas with us?

Part 6: References?

Do you know other people who work with the immigrant and/or Hispanic communities that I could also talk to in order to inform our study? Would you be comfortable sharing their contact information with me? I would contact them to ask a few questions like the ones I asked you today.

Thank you very much for your time!

Appendix 3: Educational Material, Versions A and B

Screens seen by treatment groups 1 AND 2

You can also use Automated Teller Machines (ATMs) to get fast access to your money. Most ATMs are available 24 hours a day, 7 days a week. Additionally, you can use your bank's ATM or debit card to make purchases instead of cash.

Cost. Using a bank is almost always cheaper than using other businesses to cash your check.

Security. The Federal Deposit Insurance Corporation (FDIC) insures deposits up to the maximum amount allowed by law. This means that the FDIC will return the money to the customers if a bank closes and cannot give its customers their money.

Financial future. Building a relationship with a bank establishes a record of paying bills, can help you save money, and can help with getting a loan.

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Types of Financial Institutions

Types of financial institutions include:

Banks and thrifts. Banks and thrifts make loans, pay checks, accept deposits, and provide other financial services.

Credit unions. A non-profit financial institution owned by people who have something in common. You have to become a member of the credit union to keep your money there. Credit unions accept deposits, make loans, and provide other financial services.

Insured banks and thrifts are guaranteed by the FDIC. This means that if the bank were to fail the FDIC would return your money, up to the insured amount. You can tell if the FDIC insures a bank by the displayed FDIC logo.

Most credit unions are insured by the National Credit Union Administration (NCUA). The deposit insurance rules are the same at NCUA-insured credit unions as they are at FDIC-insured banks.

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Many banks also offer *non-deposit accounts* or products that are not insured by the FDIC.

Stocks, bonds, and mutual funds are examples of non-deposit investment products.

These carry some level of risk, meaning that you could lose some or all of the money that you invest in these products.

Bank personnel should provide a written explanation that these products are not insured by the FDIC and may lose value. It is important to understand these products and services before you buy them.

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Now we would like you to answer a couple of questions.

What type of account is typically insured by the FDIC?

- ☐ Deposit
- ☐ Non-deposit

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Which two of the following are deposit accounts?

- ☐ Stocks
- ☐ Checking
- ☐ Savings
- ☐ Mutual funds

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Savings Tips

1. Consider opening a checking account at a bank or credit union instead of using check-cashing stores. You might pay 2 percent or more of each check you cash. Two percent of a \$500 check is \$10. This can easily add up to several hundred dollars in fees every year.
2. Join a retirement plan (i.e., a 401(k) or 403(b) plan) if your employer offers one and deducts the money from your paycheck! Most employers will match up to \$.50 of each dollar you contribute. The matched amount is free money!
3. Do your homework if you decide to purchase investments. Know what you are investing in and get professional advice if you need it. You should have at least two to six months of emergency cash savings before you begin investing in investment products that are not federally insured.

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Rule of 72

The Rule of 72 is a formula that lets you estimate how long it will take for your savings to double in value. This calculation assumes that the interest rate remains the same over time.

Here is how you calculate it:

Divide 72 by the current interest rate to determine the number of years that it will take to double your initial savings amount.

For example, if you invest \$50 in a savings account at a 4 percent interest rate, it will take 18 years for your initial savings of \$50 to double. ($72 \div 4 = 18$) You can also estimate the interest rate you would need to earn to double your money within a set number of years.

For example, if you put \$500 in an account that you want to double in 12 years, you will need an interest rate of 6 percent. (72 divided by 12 = 6 percent)

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Saving Options

There are two basic ways to save money. You can open a savings account or you can invest your money. An important difference between the two is that savings accounts are federally insured and investments are not.

With a savings account, you make money by earning interest. The bank pays you interest for the opportunity to use your money. A savings account also ensures that your money is safe and that you have easy access to it.

The Federal Deposit Insurance Corporation (FDIC) insures your money in insured financial institutions up to the maximum allowed by law. The National Credit Union Administration (NCUA) insures your money at insured credit unions. This means that if your financial institution goes out of business and cannot pay you your money, the FDIC or NCUA will make sure that you receive it up to the insurance limit.

The FDIC has an online tool called Electronic Deposit Insurance Estimator (EDIE). It lets you calculate the insurance coverage of your accounts at each FDIC-insured institution. You can find EDIE online at www.myfdicinsurance.gov.

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Buy an Investment

An *investment* is a long-term savings option that you purchase for future income or financial benefit. Many banks now sell investment products (e.g., mutual funds). While some investment products are sold at banks, they are not the same as deposit accounts because the money you invest is not federally insured.

When you invest money, there is also a greater risk of losing it than if you put your money in a savings or other deposit account. In fact, there is a possibility that you might lose the entire amount you invest if the investment does not perform well.

On the other hand, your investment may earn and grow more than a regular savings account because of the risk you take when you invest your money. In general, the higher the risk, the higher the expected rate of return on the investment. You make money on investments by selling them for more than you paid for them, or by earning dividends and interest. The money you earn is considered income and you may have to pay taxes on it.

In case of an emergency, sudden illness, or job loss, you always want to be able to support yourself and your family. Therefore, most financial advisors recommend that, before you do any investing, you should have a savings cushion that will allow you to pay bills and expenses for six months. While you might find this cushion hard to attain, even a small rainy day fund is important. Any money you have saved beyond this savings cushion can be used for investing.

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Saving is important so that you can:

- ☐ Have money for emergencies
- ☐ Achieve your financial goals
- ☐ Manage your money better
- ☐ Improve your standard of living
- ☐ a and b
- ☐ All of the above

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The Rule of 72 helps you determine (select all that apply):

- ☐ How long it will take for your savings to double in value with a fixed interest rate
- ☐ The interest rate you need for your money to double within a set time period
- ☐ How long it will take for your savings to double in value with a variable or adjustable interest rate

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Investment products include:

Bonds
Mutual funds
Retirement investments
Stocks
U.S. Treasury securities

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Savings Bonds and Other Treasury Securities

You can buy a variety of different U.S. Treasury securities and savings bonds. When you buy a bond, you are lending money to the U.S. government, and will receive interest for a certain amount of time, or the term of the bond. There are different types of U.S. Treasury Securities and savings bonds with different terms, but all of them are relatively safe investments because your money is backed by the U.S. Government. Savings bonds may be purchased through a payroll deduction, through your financial institution, and at www.treasurydirect.gov.

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Corporate Bonds

When you buy *corporate bonds*, you are lending money to a corporation for a certain period of time, called a *term*. The corporation promises to repay the amount of money you are lending it on this specified date in the future. In addition, it may promise to make regular interest payments to you. You may lose money if the corporation fails to honor its promises.

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Stocks

When you buy a stock, you own part of the company, called a share. A company that does well might periodically pay you dividends. Dividends are the portions of the company's profits that it gives to you as a shareholder. The value of your investment changes according to the stock market. When you sell the stock, you may either earn or lose money.

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Mutual Funds

Mutual funds are offered by companies that combine money from many investors to purchase numerous separate investments. The investment products in a mutual fund are managed by a professional and typically include numerous stocks and bonds.

By combining your money with the money of other investors, you can diversify even a small investment. *Diversification* is the concept of —do not put all of your eggs in one basket. Diversification reduces the risk that you will lose your money because you spread the risk of loss across many savings and investment options.

Like stocks, mutual funds may pay dividends, and they may also gain or lose money over time.

Many banks now sell mutual funds, some of which carry the bank's name. But mutual funds sold in banks, including money market funds, are not bank deposits. As a result, they are not federally insured by the Federal Deposit Insurance Corporation (FDIC).

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Which type of savings products, not including investment products, are available at most financial institutions? (select all that apply)

- ☐ CDs
- ☐ Money market accounts
- ☐ U.S. Treasury securities
- ☐ Bonds

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If you were to invest \$1000 in a stock mutual fund, it would be possible to have less than \$1000 when you withdraw your money.

- ☐ True
- ☐ False

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IRA

An *Individual Retirement Arrangement (IRA)*, also known as an *Individual Retirement Account*, is the most basic kind of retirement arrangement. With an IRA, you deposit money into an account, which may include a combination of stocks, bonds, mutual funds, or Treasury securities. These types of accounts are tax exempt and generally designed to help ensure adequate income for retirees.

Though an IRA generally grows over time due to interest earned and your contributions, it may also lose value depending on the stock market and your investment choices. You should talk to an experienced investment professional for help making the best investments for you. There are two main types of IRAs: traditional IRAs and Roth IRAs.

A *traditional IRA* is a personal savings plan that gives you tax advantages for saving for retirement. Contributions to a traditional IRA may be tax deductible, based on the amount of your contribution and your income. The earnings on the money in your IRA are not taxed until they are distributed (you withdraw them). A traditional IRA can be established at many different financial institutions, including: banks, insurance companies, and brokerage firms.

A *Roth IRA* is also a personal savings plan, but operates somewhat the reverse of a traditional IRA. For instance, contributions to a Roth IRA are not tax deductible, while contributions to a traditional IRA may be deductible on your annual income tax return. However, while distributions (including earnings) from a traditional IRA may be included in income, the distributions (including earnings) from a Roth IRA are not included in income. For both IRA types—traditional and Roth—earnings that remain in the account are not taxed. A Roth IRA can be established at the same types of financial institutions as a traditional IRA.

Under a *payroll deduction IRA*, an employee establishes an IRA (either a traditional or a Roth IRA) with a financial institution. The employee then authorizes a payroll deduction for the IRA, with the remainder of the employee's pay is distributed to the employee as before.

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401(k) and 403(b) Plans

A 401(k) plan is a retirement savings plan established by an employer that lets its employees set aside a percentage of their pay before taxes are taken out. This can help lower your tax bill.

A 403(b) plan is a retirement savings plan for employees of public schools and certain tax-exempt organizations.

Characteristics of 401 and 403(b) plans include:

- A maximum contribution limit per year—you can invest up to a certain amount of your own money each year, not counting interest earned
- A penalty, or fee, on early withdrawal before age 59½, except in special circumstances
- Portability—you can move the money into an IRA (called *rolling over*), or roll it over into a new 401(k) plan if you change employers
- Choices—generally, you get to choose how to invest the money in your plan
- Your employer may match a certain percentage of the money you invest in the retirement plan. Not taking advantage of this match is like leaving free money on the table.

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- 401(k) plans often allow you to receive your account balance when you leave your job.
- 401(k) plans may allow for distributions while still employed if you have reached age 59½ or if you suffer a hardship.

Warning

1. You may owe current income taxes – and possibly tax penalties – on your distribution if you take money out before age 59½, unless you transfer it to an IRA or another tax-qualified retirement plan.
2. Taking all or a portion of your funds out of your account before retirement age will mean you have less in retirement benefits.

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When is the latest you may begin to take payment of your benefits?

Federal law sets a mandatory date by which you must start receiving your retirement benefits, even if you would like to wait longer. This mandatory start date generally is set to begin on April 1 following the calendar year in which you turn 70½ or, if later, when you retire. However, your plan may require you to begin receiving distributions even if you have not retired by age 70½.

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Can you borrow from your 401(k) plan account?

401(k) plans are permitted to – but not required to – offer loans to participants. The loans must charge a reasonable rate of interest and be adequately secured. The plan must include a procedure for applying for the loans and the plan's policy for granting them. Loan amounts are limited to the lesser of 50 percent of your account balance or \$50,000 and must be repaid within 5 years (unless the loan is used to purchase a principal residence).

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If you leave before retirement, can you take your retirement benefit with you?

If you leave your employer before retirement age and you are in a defined contribution plan (such as a 401(k) plan), in most cases you will be able to transfer your account balance out of your employer's plan.

What choices do you have for taking your defined contribution benefits?

- A lump sum – you can choose to receive your benefits as a single payment from your plan, effectively cashing out your account. You may need to pay income taxes on the amount you receive, and possibly a penalty
- A rollover to another retirement plan – you can ask your employer to transfer your account balance directly to your new employer's plan if it accepts such transfers.
- A rollover to an IRA – you can ask your employer to transfer your account balance directly to an individual retirement account (IRA).

Please note: If you elect a lump sum payment and do not transfer the money to another retirement account (employer plan or IRA other than a Roth IRA), you will owe a tax penalty if you are under age 59½ and do not meet certain exceptions. In addition, you may have less to live on during your retirement. Transferring your retirement plan account balance to another plan or an IRA when you leave your job will protect the tax advantages of your account and preserve the benefits for retirement.

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A person who has a defined contribution plan through work (like a 401(k) or 403(b) plan) is not eligible to open or deposit money into an IRA.

- ☐ True
- ☐ False

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What is the main difference between a Roth IRA and a Traditional IRA?

- ☐ The period when taxes are collected is different in the different plans
- ☐ Roth IRA needs to be established by an employer
- ☐ Their age limits for withdrawing the money are different

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Before investing for retirement:

Ask your employer about any retirement accounts that are offered through work. Learn more about investment options from your bank's customer service representative or a reputable financial advisor.

- Do not follow investment advice blindly. Do your own research.
- Read the prospectus of an investment product or instrument carefully.
- Get more information from reliable sources, for example: Internal Revenue Service (IRS): www.irs.gov
- Use the public library for more resources.

Do not invest in anything you do not fully understand.

Remember, investments are NOT federally insured. You could lose the interest AND the principal of your investment.

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Saving for Retirement

Make the most of your remaining paychecks to save for retirement. How much money you will need to set aside for retirement—which, for many people, could last 30 years or more—will depend on a variety of factors, including:

- When do you expect to retire?
- Will you continue to earn income from a part-time job?
- How much money do you have in savings and pensions?
- What expenses will you incur for housing and health care?

Try to reduce or eliminate debt. Another way to save more money for a more enjoyable retirement is to cut back on unnecessary expenses, especially if you need to go into debt to pay for them. Pay off most or all of your credit card balances and other loans to save on interest charges and avoid being burdened with repayment during your retirement years.

Develop a plan to stretch your money through a long retirement. The idea is to determine where your money will come from during retirement, so you will not have to live in fear of running out of money.

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How to Create a Savings Action Plan

You need to consider three decision factors when selecting the best savings and investment options.

1. How much money do you want to accumulate over a certain period of time?

Once you determine the amount you want to accumulate, you may be able to use the Rule of 72 to determine the time and interest rate needed to double your savings. Remember, this formula only works with fixed interest rates.

2. How long can you leave your money invested?

If you have some money that you will not need for several years, you might consider investment options, including stocks, bonds, or mutual funds. On the other hand, if you think you will need access to the money, it might be best to keep it in a savings account.

3. How do you feel about risking your money?

If you are not comfortable with risk and cannot afford to lose the money, consider depositing your money in an insured financial institution. You will need to shop around for the account that best meets your needs.

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Screens seen by treatment group 2 ONLY (immigrant-specific content)

As a first, second or third generation immigrant, there are some questions that you might have about setting up and holding financial products, such as a retirement account in the United States. Here are some frequently asked questions about financial services rules that apply for first, second and third generation immigrants.

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FREQUENTLY ASKED QUESTIONS

1. What documents are accepted as proof of identity when opening a bank account?

Answer: When opening a bank account you will need to prove your identity. A state-issued driver's license or ID card will be accepted as proof of identity. If you are not a citizen of the United States (U.S.), some banks may accept other forms of photo identification including the Matricula Consular card, resident alien card (Green Card), or passport. Typically, any government-issued ID displaying an ID number and the country of issuance is accepted. You will also need to provide your Social Security number (SSN) or Individual Taxpayer Identification Number (ITIN).

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FREQUENTLY ASKED QUESTIONS

2. Are deposit accounts held by non-citizens also insured by the FDIC?

Answer: Yes, the FDIC (Federal Deposit Insurance Corporation) is an independent agency of the United States government that insures banks and savings associations. Therefore, it will protect account holders against the loss of deposits in case these institutions fail, regardless of the citizenship or visa status of the account holder. FDIC insurance is backed by the full faith and credit of the United States government. Since the FDIC's creation in 1933, no depositor has ever lost even one penny of FDIC-insured deposits.

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FREQUENTLY ASKED QUESTIONS

3. What happens to my retirement account (e.g., IRA or 401(k)) if I leave the U.S.?

Answer: If you move abroad, you can still maintain and access your retirement account and keep your savings growing in the U.S. until you reach the age limit for withdrawal. You can also choose to withdraw early and take the money with you in which case you will usually have to pay a penalty and current income taxes. At the time you withdraw the money it will be taxed, with the rate depending on the tax treaty agreement between your country of residence and the United States, as well as on how your country of residence taxes worldwide income. For most people, the best strategy may be to just leave the money in the 401(k) account, if this is allowed, or to roll over to an IRA and leave it there until they reach retirement. Many IRA custodians, such as Vanguard and Fidelity, allow non-citizens to maintain their IRAs even if they are no longer living in the US. Nowadays, it is quite easy to manage these accounts online from anywhere in the world. You just need to make sure you update your international address with the vendor where you hold your account.

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FREQUENTLY ASKED QUESTIONS

4. If something happens to me in the US, will my family abroad be able to access the assets I hold in US institutions?

Answer: Yes, your family will be able to access your assets. It is important however that you provide your bank/retirement plan provider with your beneficiaries' names and dates of birth and that you constantly update the international contact address. It is also important that you let your family know what assets you hold and in which institutions you hold them so that they know what to look for. Your family will be able to access your assets in case something happens to you even if they do not have a social security number (SSN) in the US.

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FREQUENTLY ASKED QUESTIONS

5. How do 401(k) or 403(b) plans' age limits, penalties and taxation vary for citizens versus non-citizens?

Answer: Retirement accounts rules usually do not vary depending on your citizenship status. Rules for permanent residents (green card holders) are usually the same as the rules for American citizens. One important difference is the tax rates that apply at the time you withdraw your money that may differ depending on your country of residence. Taxation of 401(k) for non-citizens who move abroad (or who are not US residents for tax purposes) depends on the tax treaty the US has with their country of residence. At the time of distribution taxes are usually withheld in accordance with the tax treaty. Currently, the highest rate of withholding for US federal taxes is 30%. For more information on US income tax treaties see the IRS website (www.irs.gov)

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Appendix 4: Knowledge and Expectation Questions and Choice Task

We would like to start by asking you some general questions regarding savings and investment options.

Q1. What is the major difference between saving and investing?

- a. Most savings products are federally insured, while investment products are not
- b. Savings products have a risk of loss and investment products do not
- c. Investment products do not have as high a potential for growth as savings products
- d. Savings and investment products are the same

Q2. If you want your savings account to double in value in 20 years, what fixed interest rate would the account need to have?

Value Box []

Q3. When an investor spreads his money among different assets, does the risk of losing money:

- 1. Increase
- 2. Decrease
- 3. Stay the same

Q4. Which of the following are ways you can save for retirement? Select all that apply.

- a. Build home equity, then apply for a home equity loan
- b. Invest in stocks, bonds, or mutual funds
- c. Establish a 529 Plan
- d. Enroll in a 401(k) or 403(b) plan

Next, we would like to ask you some questions about some features of retirement savings accounts that apply to 401(k) and IRAs in general. In these plans – usually called defined-contribution plans -- money accumulates in an account designated for a worker, and that money may be paid out in a variety of ways depending on the plan or the worker's choice.

IRA1. A person who withdraws money from a standard 401(k) plan or IRA after he turns 59 1/2 does not pay taxes on the money that he withdraws.

- 1. True
- 2. False

IRA2. After age 70 1/2, you have to withdraw at least some money from your 401(k) plan or IRA.

- 1. True
- 2. False

IRA3. If you lose your job while holding an outstanding loan from your 401(k) plan

1. You can still continue to pay for the loan as before
2. You are no longer responsible for paying back the loan
3. The loan will be treated as a withdrawal if not paid back promptly, resulting in taxes and penalties

IRA4. An immigrant living abroad can hold a standard 401(k) plan in the United States if he has worked in this country in the past.

1. True
2. False

IRA5. If an immigrant withdraws money from a standard 401(k) plan or IRA held in the U.S. after he turns 59 ½, he will have to pay taxes and the amount of taxes will depend on his country of residence.

3. True
4. False

IRA6. If your employer increases the percentage of the money you invest in your 401(k) matched by the firm, you should:

- a. Reduce your contribution since now you need to invest less money to reach your retirement savings target
- b. Increase your contribution since this is free money your employer is depositing in your account
- c. not change your contribution.

IRA7. Does your current employer offer a defined-contribution plan? For example, a 401(k) plan or 403(b) plan is this type of plan.

1. Yes=>If Yes, go to SAVE1.
2. No =>If No, go to IRA8.
3. I don't know => go to IRA8.

IRA8. If your employer offered you this type of plan (401(k) or 403(b)) how likely would you be to enroll

1. Very likely
2. Likely
3. Not likely
4. Not sure

Now we would like to ask you a few questions about your decisions regarding savings and investments.

SAVE1 Suppose that you were to receive \$1000 as an unexpected inheritance from a relative. What would you do with this money?

Save or invest \$ _____

Spend \$ _____

Give to friend/relative \$ _____

Other \$ _____

[SUM TO 1000]

Probabilistic expectations

Next, we would like to ask your opinion about how likely you think various events might be. When I ask a question I'd like for you to give me a number from 0 to 100, where "0" means that you think there is absolutely no chance, and "100" means that you think the event is absolutely sure to happen.

For example, no one can ever be sure about tomorrow's weather, but if you think that rain is very unlikely tomorrow, you might say that there is a 10 percent chance of rain. If you think there is a very good chance that it will rain tomorrow, you might say that there is an 80 percent chance of rain.

PE1 What is the percent chance that you will want to learn more about IRAs?

You can also enter your answer here: 52

PE2 In case you do not have an IRA, what is the percent chance that you will want to open one?

Option: I already have an IRA.

}