How Do Indian Americans Make Financial Decisions? A Look At Debt And Risk Aversion Among Indian American Immigrants

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Abstract

Indian immigrants are the second largest and second wealthiest immigration group in the United States (Hoffman and Batalova, 2022). Understanding how they make financial decisions can provide insight on a range of topics from personal well-being to economic stability. This paper seeks to understand if the year Indian Americans/their families immigrated to the United States affects how debt-averse and risk-averse they are. I collected a randomized data sample from Indian immigrants across the United States in a survey I created on Qualtrics with over 500 responses. I ran three regressions, first with the immigration year group, second with age added as a control, and third with age, household income, and the number of people in the household added as controls. This paper finds there is no significant relationship between what year participants immigrated to the United States and how debt-averse and risk-averse they are. However, it finds that age is significant regarding debt aversion and as age increases, the tendency to avoid debt increases. Similarly, household income is significant regarding risk aversion and as household income increases, the tendency to be more aggressive with investments increases.

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1. Introduction

Understanding how individuals make decisions, specifically financial decisions, is a complex topic. A variety of background factors affect preferences when spending money ranging from age and education to environmental factors such as ethnicity and culture. While there have been studies done on how sex, age, education, and household income affect aspects of these decisions, there have been very few done on how cultural factors affect them. The United States is a country made up of immigrants with vastly distinct upbringings and it is important to acknowledge these differences when evaluating how individuals make financial decisions. Two crucial aspects of decision-making are debt and risk aversion, which determine wealth accumulation and much more.

As the second highest-earning income group, Indian Americans value wealth, education, and family. They have the highest income per household with a median annual household income of $119,000 (Budiman, 2021). Furthermore, Indians are the second largest group of international students enrolled in United States universities (Hanna and Batalova, 2020). With all of these accomplishments, Indian Americans are often token as the “model minority” and have grown to establish a prominent community in the U.S. They see themselves in CEOs of companies, award-winning authors, and even the Vice President of the United States. Their success can be owed to various attributes, however, how they handle their money can be a critical determinant.

This paper aims to see if the year Indian American immigrants/their family immigrated to the United States affect how debt-averse and risk-averse they are. It investigates immigration and assimilation patterns and hopes to uncover their implications on financial decision-making. A survey was sent to Indian American individuals across the country to collect a sample of

responses for this paper. While there are a lot of factors that go into measuring financial decisions such as the state of the economy, and interest rates, this paper focuses on the participants' attitudes regarding debt and risk aversion.

A survey, created in Qualtrics, inquired about participants' priorities and opinions regarding financial decisions. The survey is referenced at the end of this paper with each question and answer choice. A few questions include what types of companies they would invest in, how much they value family, and under what circumstances they would take on debt. The independent variable is the year the individual's family migrated to the United States. This is the most important factor when it comes to determining how values concerning money have shifted during the family's time in the United States and how it affects the individual. Other background factors I will be looking into include the education level of the individual, income, and age.

I hypothesize the more time an individual spends in the United States, they will be less risk and debt-averse than if they were to immigrate recently because they will be more diverse with their investments. It is a commonly believed notion that taking risks leads to higher rewards and that can be seen as a trend among white households who have historically had the economic upper hand being the second group with the highest income following Asian-Americans. Those who have lower debt-to-income ratios tend to be more uncomfortable with debt and risk and therefore aren't as adventurous when it comes to investing money. I hypothesize that the more time an individual spends in the United States, and the higher they climb within their career paths and obtain more money, they will be more comfortable with debt and risk to propel themselves higher up the socioeconomic ladder.

Section 2 of this paper provides a quick history of Indian American immigration in the United States and Indian culture. Section 3 covers the literature review which goes into depth

about debt aversion and risk aversion and the role cultural values play in them. Section 4 explains the survey and dives into the data results through descriptive statistics as well as data visualizations. Section 5 discusses regression results on both debt and risk aversion and statistical significance. Lastly, section 6 concludes and discusses limitations and improvements for future research.

2. Indian American History

Indian Americans have held a presence in the United States since the 18th century but it wasn't until the late 19th century when they began to leave their mark. At this time, they arrived in the United States to work hard jobs mostly in the agriculture, lumber, and railroad industries (Hanna and Batalova, 2020). In the 20th century, The Luce-Celler Act of 1946 allowed 100 Indian immigrants per year into the U.S. and naturalized those who were already living there. It wasn't until 1965 when Congress, under President Lyndon B. Johnson, passed the Immigration and Nationality Act which allowed Indian Americans to come to the United States in large amounts. A key part of the act was the family reunification clause which allowed immigrants from Asia to join existing families in the United States. Annual immigration went up by half a million people with only 20% of total immigrants being from Europe (History, Art & Archives, U.S. House of Representatives). Through this act, the door for Asian immigration, specifically Indian immigration, flew open leading to opportunities never seen before.

The Indian American population has doubled over the decades. In 1980, there were approximately 206,000 Indian Americans in the United States. In 1990, there were 450,000 and, in the year 2000, their population doubled to 1,023,000. In 2010, the population was at 1,780,000, and according to the recent U.S. Census Bureau American Community Surveys data in 2021, there were 2,709,000 Indian Americans in the United States (U.S. Census) making them the second largest immigration group. Today, most Indian Americans find themselves in the United States to further their education or to pursue high-skilled jobs. If Indian Americans are not U.S. citizens, they hold a special visa status. The most common is an H1-B which is a visa for specialized, high-skilled workers and has mostly been dominated by the technology field. Indians account for 74% of all H1-B visas with Chinese immigrants at 12% and Canadians at 1%

(Hanna and Batalova, 2020). The next common visa is an H4-B which allows family members of H1-B visa holders to come to the United States. F-1, J-1, and M-1 visas are reserved for students and scholars. Lastly, an L-1 visa is given to employees of international companies that have branches in the U.S. (Badrinathan, 2021). While Indian Americans haven't had a long history in the United States, they've built a lasting legacy.

Another component in comprehending Indian American decision-making follows the values and culture they brought with them from halfway across the world. Indian culture accounts for over 1 billion people. It has been cultivated for thousands of years and continues to change with the modern world. The Indian subcontinent is home to 28 states and 8 union territories, six major and distinct religions, and more than 1000 languages, a number academics still argue about (Kramer, 2021). India has faced invasions, been a victim of colonization, and much more which have contributed greatly to the values of its inhabitants. Perhaps the greatest effect on Indian culture within the last 150 years is British colonization. The British brought with them their universal language, their Western customs and ideas, and widespread Christian missionaries. While British India brought turmoil and civil unrest, Western exposure also pushed India forward. They raised the quality of education which would benefit later generations. Prior to the British, education wasn't universal and focused on religion (Faruke, 2018, pg. 246). Through the process of Westernization, Indian culture transformed into what it is today.

Familial and external influences contribute greatly to Indian American decisions. Indians are both independent and interdependent meaning while they drive to be individualistic in their goals, they also feel the need to meet the expectations of others, in most cases their families (Sinha, 2004, pg. 100). Historically, Indians lived in joint families with over three generations residing under the same roof. Recently, the concept of joint families has become rare, and the

mindset of viewing elders and other family members as guests rather than family has become common leaning into the idea that Indian Americans are increasingly independent in comparison to their parents (Prakesh, 2019). Another difference between which they lean more towards corresponds with their socioeconomic status and therefore their caste, which still exists in many parts of India and beyond. Caste plays a large role in understanding Indian culture, although there are no questions about it in the survey and this paper won't go too in-depth about it. However, it is important to note that modern-day immigrants with higher socioeconomic status in India more easily immigrated to the United States compared to their lower socioeconomic status counterparts.

Indian immigrant values of higher education, wealth, and strong familial relations transferred over when they moved to the United States. Indian Americans reported that acquiring higher status and wealth were priorities and they defined wealth as owning new cars, big houses, and traveling (Bhattacharya, 2004, pg. 88). The survey asks about these three topics and if they value it enough to go into debt. Immigrant parents highlighted that education was one of their top priorities before moving to the United States and was emphasized more upon their arrival to the U.S. (Bhattacharya, 2004, pg. 90). In 2010, 45% of Indians obtained their legal permanent resident status through their employment which is a higher percentage than other Asian subgroups (Rahma, 2017, pg. 43). Indian culture is a complex bundle of ideologies and in the process of immigrating to the United States, the paper seeks to understand to what extent Indian Americans have stuck to their culture when it comes to how debt and risk-averse they are.

3. Literature Review

Although there is not much research or evidence conducted on how Indian Americans specifically make their financial decisions, there is an overall human attitude concerning the topic. In the process of creating the survey, two topics were prominent: debt aversion and risk aversion. In my research, I found these to be the most influential when it came to making financial decisions. The environment in which an individual grew up is crucial in understanding their lifestyle and mindset. The values that individuals harbor are usually shaped by their culture and Indian culture emphasizes family morals, education, and wealth. Debt aversion and risk aversion go hand-in-hand with cultural values. An individual's willingness to pay for higher education or invest in business is dependent on their priorities. In my literature review, I'll go more in-depth about debt and risk aversion, what findings helped create my survey, and later my conclusions. Section 3.1 discusses debt aversion. Section 3.2 discusses risk aversion.

3.1 Debt Aversion

Debt aversion is defined as an intrinsic unwillingness to take on debt and is fairly new to the behavioral economics world. The consensus concerning debt is that people try to avoid it. Debt plays a large role in financial decisions because people are reluctant to invest money in their education, homes, businesses, etc. Although debt is viewed as bad for personal finance, it's also viewed as necessary to ensure a higher income and therefore net worth and quality of life. Eight out of ten Americans have debt and 69% say debt is necessary even if they don't want it. The most common types of debt are mortgage debt at 44%, unpaid credit card balances at 39%, car loans at 37%, and student loans at 21% (Urahn, 2015). Although there are several reasons why individuals take on debt, this paper explores studies specifically regarding ethnicity, age, family, immigration, and education.

One determinant of how much debt individuals take on is ethnicity. Although there are no studies done on Indians specifically, a study by Urahn (2015) explores debt differences in white, black, and Hispanic households. White Households, the second highest income group following Asian Americans, have more assets and debt than black and Hispanic households which are both historically known for having lower incomes. According to the PEW Charitable Trusts, white households have a median total debt of $41,500 while blacks have $18,950 and Hispanics have $19,875. Similarly, white households have median total assets of $275,000, blacks have $40,000 and Hispanics have $80,875. When put in perspective and account for household income, the ratio of debt to asset ratio indicates no matter what socioeconomic background you come from, debt is a constant part of life. Another observation in this study finds that only 20% of blacks and 24% of Hispanics said they would take on debt all over again for education compared to 44% of white borrowers (Urahn, 2015).

Another determinant of debt levels is age and generational differences. When viewing debt through a generational lens, the silent generation sees debt in a more positive light compared to Gen Xers and Millennials. A difference in attitude concerning debt can be attributed to both a different time with less inflation and less competition as well as the fact that the silent generation is older and able to pay off their debt. However, debt is rewarding regarding income and net worth. High-debt Gen Xers and millennials both reported three times higher income than their low-debt income counterparts. Similarly, high-debt Gen Xers reported 6.5 times higher net worth than their low-debt income counterparts while high-debt millennials reported 5.5 times higher (Urahn, 2015). Although there are different attitudes about debt ranging from socioeconomic backgrounds and generations, debt is viewed as a regular part of life and there is a consensus that it does lead to a better quality of life.

A study by Almenberg (2021) studies debt aversion within Swedish households highlighting specifically its relationship with immigrational differences and the importance of family. The paper finds that there are strong connections between the survey respondents and their parents which leads us to believe family does have a strong impact on financial decisions. As previously established, family is an important part of Indian American ideals. Indian Americans are known for having strong familial relationships, especially with their parents. It can be argued that one of the biggest reasons for Indian American success is parental pressure. This study also brings to light the differences in financial behavior between not only first and second-generation immigrants but also immigrants from different countries. In Switzerland, they found that the German-speaking region, historically known for emphasis on wealth accumulation, is more likely to save their money than their French-speaking counterparts.

Another influence on debt aversion is education because it requires money, usually in the form of loans, to pursue higher education, and the question of whether it's worth it arises. A large reason why Indian-Americans immigrate to the United States is to further their education. However, education in the United States is considerably more expensive than in India. A topic that fits into the category of debt aversion, loan aversion, was of interest as I researched. It's a costly jump to fund one's education in the United States. Within the U.S., 35% of undergraduate students and 55% of graduate students take out a loan to fund their education (Boatman, 2017). The main concern among prospective students is whether higher education is worth it and studies find that on average, it is. Education leads to higher incomes and a better quality of life which is something Indian Americans seek. On the other hand, the study points out that those who invest in their education delay buying other things such as cars and houses, and even tend to get married and have kids later (Boatman, 2017). During the 2021-2022 school year, 21% of the

total enrolled international students were from India alone (Institute of International Education). Furthermore, 79% of Indian-Americans work in management, business, science, or arts occupations which are all jobs that require at least a four-year college degree (Hanna and Batalova, 2020). Education and family are priorities among Indian Americans and potential drives to take on debt.

3.2 Risk Aversion

The common term "the higher the risk, the higher reward" is true in all aspects of life, more so when it comes to finance. In theory, the more money one invests, the more money one gains or loses. Whether or not to take that risk is an increasingly popular topic of discussion. Risk aversion is defined as the unwillingness to take risks due to uncertainty (Bartke and Schwarze 2008, pg. 3). While risk aversion and debt aversion are similar, this section focuses on risk aversion specifically regarding investment choices. While there isn't research done specifically on Indian-Americans, there are studies that investigate risk aversion among other groups. Although there are several reasons why individuals are risk averse, this paper explores studies specifically regarding ethnicity/religion, age, immigration, and the number of people in the household.

Immigrants share distinct financial experiences because they take a risk when they leave their home country to move to a new one. In a study conducted by Halek and Eisenhauer (2001, pg. 11), they found that immigrants in the United States are more risk-taking compared to their counterparts. Similarly, another study conducted in Dublin, Ireland on the relationship between entrepreneurship and migrants finds that migrants have a positive attitude concerning risk when it comes to opening up new businesses (Batista, 2014). This could be due to various factors such as religion and nationality. Bartke and Schwarze (2008, pg. 12) find in their study on the German

population that individuals who are atheists are much more risk-prone than individuals with religious affiliation. They also find that individuals who follow stricter religions are more risk averse, specifically among Muslims and Protestants.

Age and wealth are other determinants of risk aversion. As age and wealth increase, individuals tend to be more risk-taking and therefore less risk-averse because they have less to lose. In examining the relationship between age and risk, there have been studies that argue younger people are more risk-taking but other studies that argue the opposite. Wang and Hanna (1997) find that as people age, relative risk aversion decreases. They find that investment in risky assets and risk tolerance increases as age increases as well. The study suggests that young people, on average, don't have the resources to take large risks which leads to them not being as comfortable with taking risks. A similar study done by Aren and Hamamci (2020) based on personality types and risk aversion finds that single people tend to be less risk averse with their choice of investment being mostly stocks or bank deposits. Married people, on the other hand, have higher financial literacy but are more risk-averse. Those with higher financial literacy look for assurance and safety in investments. However, financial literacy is subjective and individuals who believe they have high financial literacy can make high-risk investments or vice versa. Another factor in risk aversion is wealth and the number of people in one's household, both of which I recorded in my survey. A study conducted in Sweden finds that households are likely to hold wealth in real assets, such as real estate, which are considered riskier compared to other forms of investments, and that Swedish households are very risk-averse in general (Pålsson, 1996). In a study on asset allocation, Riley and Chow (1992) observed that risk aversion declined when an individual acquired more wealth, education, and age until they hit the age of 65.

When it comes to investment attitude, I asked various questions about what types of investments they would make given the choice as well as what types of stocks they would be interested in. When it comes to stocks, well-established companies such as Google are considered less risky because they have a solid foundation and there is evidence they are doing well, relative to how the market is doing. On the other hand, start-ups are risky because they are new and therefore there isn't much information on how well they will perform in the market. Between bonds and stocks, bonds are considered safer because, unlike stocks, their fluctuating prices aren't as unpredictable and they have cash payout. Real estate is considered a low-risk investment while investing in businesses is considered high risk (Royal, 2023). Indian Americans, as previously mentioned, focus on wealth accumulation. The types of investments they make and the attitude they have towards them can be a determinant of their financial success.

4. Survey & Data

To collect data, the survey created in Qualtrics was distributed to Indian Americans across the United States at random. The survey is approved by the IRB (Institutional Review Boards) and distributed through a link. Means of distribution include social media posts, emails, messages, etc. The survey contains 33 questions excluding the first question that asks for consent before completing the survey. Although the survey asks questions ranging from how much the participant values family and retirement to their parents' education and beyond, the paper focuses on a few specific questions that this section elaborates on and provides data visualizations for.

Figure 1 exhibits the percentages of what year the participants immigrated to the United States with the data collected through the survey. It's important to note the majority of respondents immigrated to the U.S. between the years 1990 and 2010, specifically in the 2000-2010 group. Factors such as the number of people in the household and wealth accumulation vary and affect the financial preferences of participants in these time periods. It is likely for participants from this time period to have children, houses, and other large financial responsibilities that could affect their preferences on debt and risk aversion.

Figure 1: U.S. Immigration Year Count Distribution

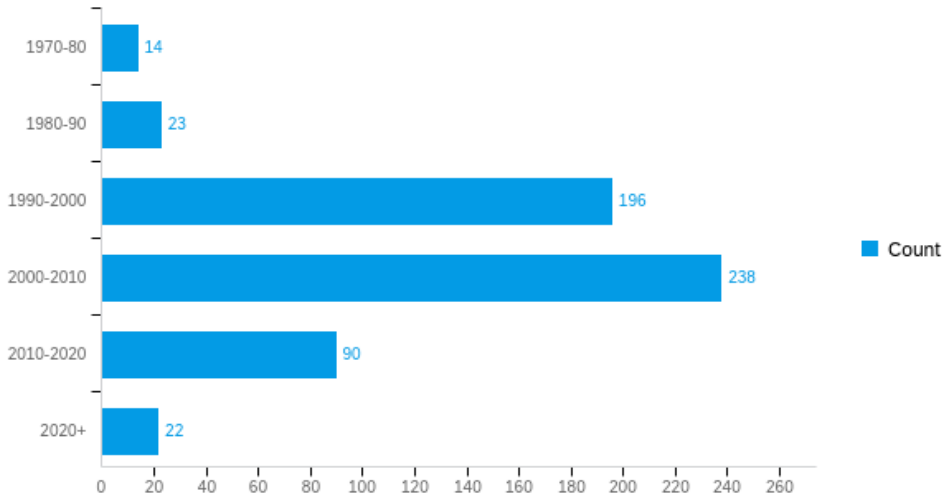
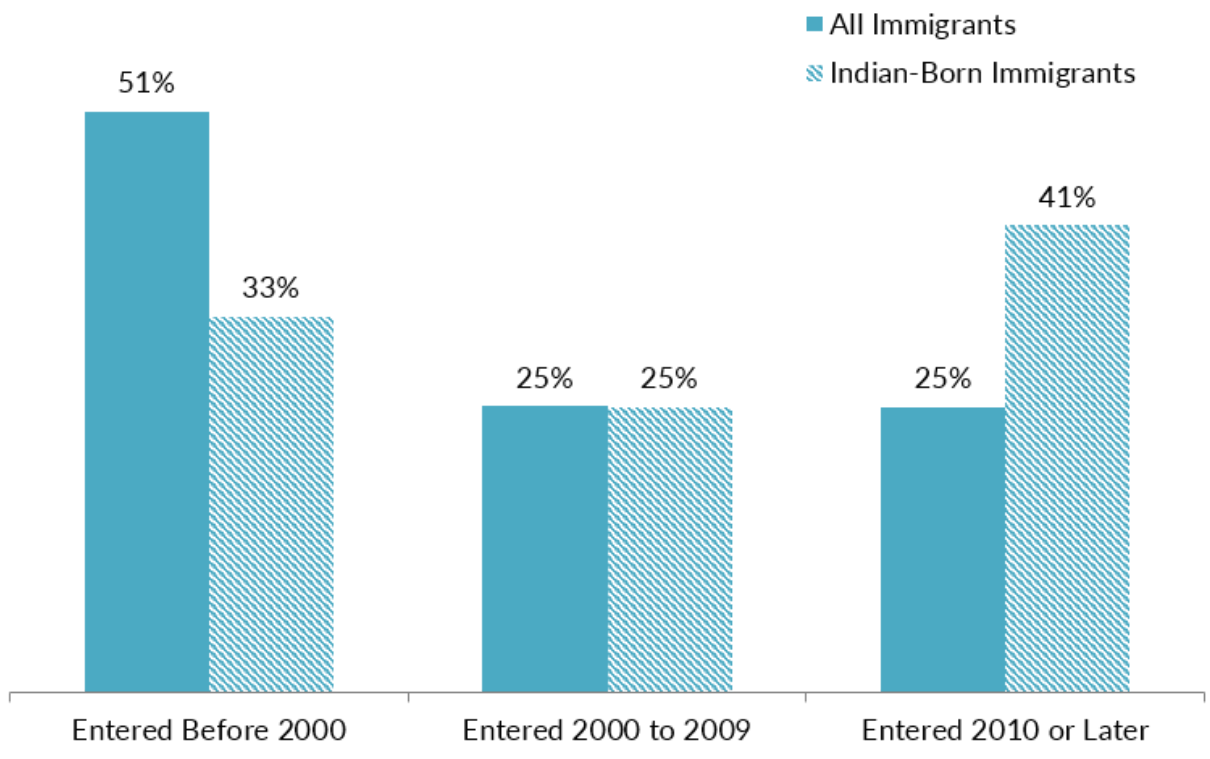


Figure 2 references a figure in the Hanna and Batalova (2020) article which shows the arrival of immigrants in three different time periods; entered before 2000, entered 2000 to 2009, and entered 2010 or later. While the number of time periods is less than the ones in this study, the side-by-side comparison shows the sample collected in this study with an overall Indian American population group. The sample collected in this paper represents those who immigrated between the years of 1990 and 2010 the most while Hanna and Batalova's figure tells us the largest share of immigrants came in 2010 or later according to the U.S. Census Bureau.

Figure 2: Indian-Born and All Immigrants in the United States by Period of Arrival, 2019



Source: Hanna and Batalova (2020), MPI tabulation of data from the U.S. Census Bureau 2019 ACS.

The summary statistics for the survey questions are divided into 4 tables. Table 1 covers key background information about the participants and the percentage for each answer below the answer choice. Table 2 displays percentages for each choice for questions on a scale from 1-10. Similarly, table 3 displays the percentages for binary variables where no is equivalent to 0 and yes is equivalent to 1. Tables 2 and 3 both include a mean, median, min, and max to see how much they value each subject in the question. For example, the question "How important is family to you?" has a mean of 9.643 indicating participants found family to be extremely important. Similarly, for the question "Would you take on debt to buy a house?", which is a binary variable, the mean is 0.8847 which indicates most participants would take on debt to buy a house. Lastly, table 4 shows the percentages for each choice regarding the risk aversion questions. At first glance at Table 4, participants seem to be more aggressive in their investment attitudes than conservative. This is an interesting observation as we move forward with our analysis to see how it changes according to when they first immigrated to the U.S.

The controls used for regressions in section 5 of this paper are age, household income, and number of people in the household. In this sample of data, 42.9% of participants are aged 45-54 while 29.6% are aged 35-44. The age distribution is ideal because individuals in these age groups are making important financial decisions. For household income, 15% of respondents make below $100,000, 24.8% make between $100,000 - $149,000, and 60.2% make above $150,000. The median household income for Indian Americans in the United States is $119,000 (Budiman, 2021) so this data is consistent with the research. Lastly, 60.2% of participants have 4 people in the household and 18% have 3 people. All three controls affect how risk or debt-averse participants are. Age, wealth, and number of people in the household explain how much risk and debt individuals can take on without worrying about loss and other consequences.

Table 1 - Background Summary Statistics

Age	Below 24 *9.9%*	25-34 *8.2%*	35-44 *29.6%*	45 - 54 *42.9%*	55 - 64 *7.7%*	Above 64 *1.7%*
Number of people in household	I live by myself *3.4%*	2 people *8.3%*	3 people *18%*	4 people *60.2%*	5 people *7.1%*	5+ people *7.2%*
Household Income	Below $100,000 *15%*		$100,000 - $149,999 *24.8%*		More than $150,000 *60.2%*	
Education	High school and below *3.2%*	Some college/2 year degree *4.2%*	4 year degree *28%*	Master's and other professional degrees *60.9%*	Doctorate *3.56%*	
U.S. Immigration Year	1980 and before *3.26%*	1980-90 *3.95%*	1990-2000 *33.3%*	2000-2010 *40.3%*	2010+ *19.1%*	

Table 2 - On a scale from 0-10 Summary Statistics

Question	*Mean*	*Median*	*Min*	*Max*
How important is family to you?	9.643	10.00	4.00	10.00
How important is retirement to you?	8.841	10.00	0.00	10.00
I focus more on the future than the present.	6.72	7.00	0.00	10.00
I try to avoid debt at any cost.	7.525	8.00	0.00	10.00
It's wise to put your money in multiple and different assets.	8.779	9.00	3.00	10.00

Table 3 - Binary Summary Statistics (No = 0, Yes = 1)

Question	*Mean*	*Median*	*Min*	*Max*
Would you take on debt for your child's education?	0.5852	1.00	0.00	1.00
Would you take on debt to buy a house?	0.8847	1.00	0.00	1.00
Would you take on debt to go on vacation or other luxury goods?	0.0338	0.00	0.00	1.00
Would you take on debt to buy a car?	0.73	1.00	0.00	1.00
Would you take on debt to invest in a business?	0.653	1.00	0.00	1.00
Would you take on debt to attend a more expensive and highly regarded school?	0.515	1.00	0.00	1.00

Table 4 - Risk Aversion Summary Statistics

What is your attitude concerning investment?	Conservative *5.7%*	Somewhat conservative *8.6%*	Moderate *50.2%*	Somewhat aggressive *29.4%*	Aggressive *6.1%*
Which of these best describes you?	Slow and steady wins the race *11.9%*	I'd like to be more cautious than I am *13.8%*	I'm equally risk-taking and cautious *41.2%*	I understand the risks that come with growth *26.2%*	My goal is growth and I take risks to achieve it *6.9%*
How often do you discuss financial decisions with your family?	Never *1.9%*	Sometimes *29.2%*	About half the time *15.4%*	Most of the time *35.8%*	Always *17.7%*
It's safer to invest in local stocks than international stocks.	Strongly disagree *3.6%*	Somewhat disagree *14.1%*	Neither agree nor disagree *43.4%*	Somewhat agree *27.1%*	Strongly agree *11.9%*

Figure 3 displays what types of debt respondents would take on with a simple yes/no percentage graph. For huge financial burdens such as houses, cars, and businesses, participants are willing to take on debt. These decisions could lead to wealth, with the exception of cars which depreciate in value. On the other hand, participants are cautious towards taking on debt for individual education as well as a child's education which portrays more of a debate concerning education. Debt regarding education, as mentioned in the literature review, is a tricky topic for all races including Indian Americans. Although the majority of respondents would take on debt for

education, the close clash is an interesting observation. A reason for the conflict in differences includes age, household income, and how many people live in the participant's household.

Figure 3: Preferences on Types of Debt

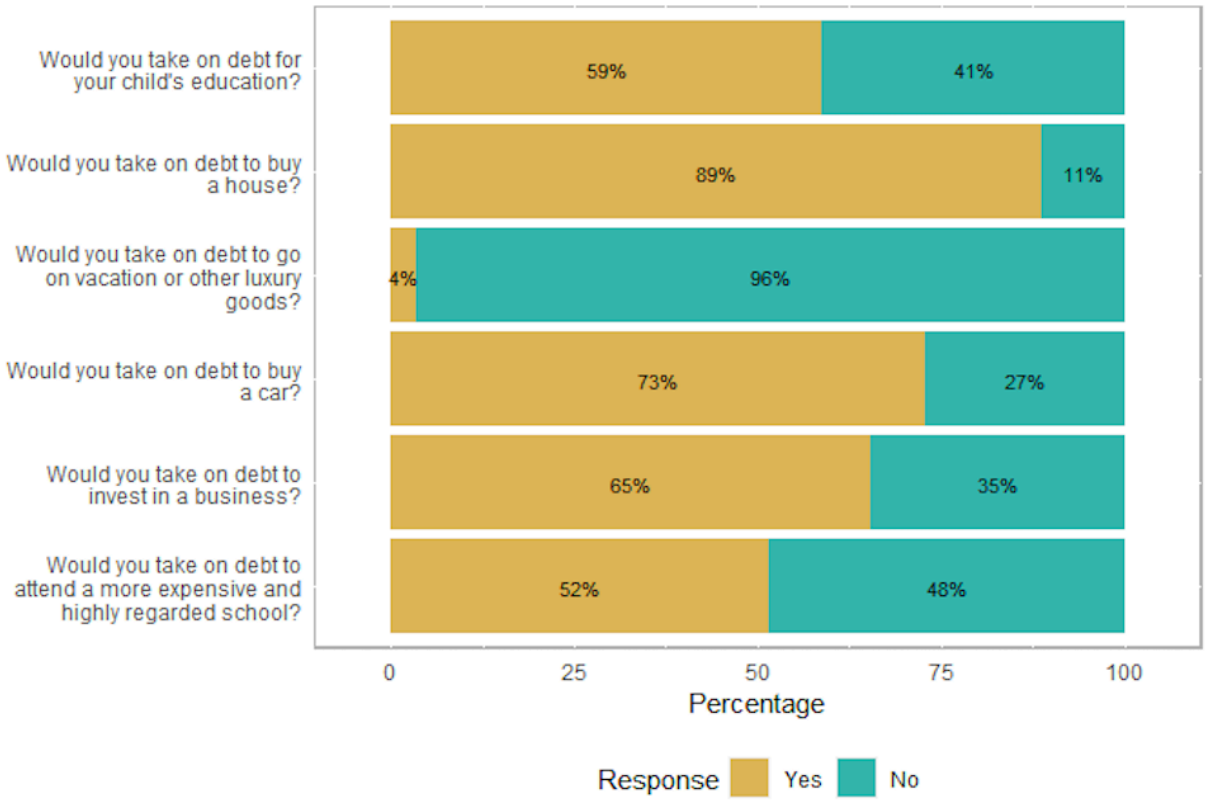


Figure 4, similar to Figure 3, exhibits the percentage results of the questions that were asked on a scale from 0-10. In all of the questions, 10 is equivalent to “A lot” and 0 is equivalent to “Not at all”. For example, for the question “It’s wise to put your money in multiple and different assets”, 10 means that they agree immensely while 0 means they don’t agree at all. The percentages on the figure are shown for the number of participants that replied with 5. As predicted, there is a huge emphasis on family, followed by retirement. Overall, there were very few participants who answered 0-4 for any of the questions. One question to focus on keenly is “I try to avoid debt at any cost” since I will be using it later when I run my regression on debt aversion. More than any other number, participants answered with 10 and in the 5-10 range

signaling the majority lean towards avoiding debt. It's the most divided question. Debt, as discussed, is a complex topic that covers many aspects of life from education to houses, so it is anticipated to be one of the more controversial questions.

Figure 4: Preferences on a scale from 0-10

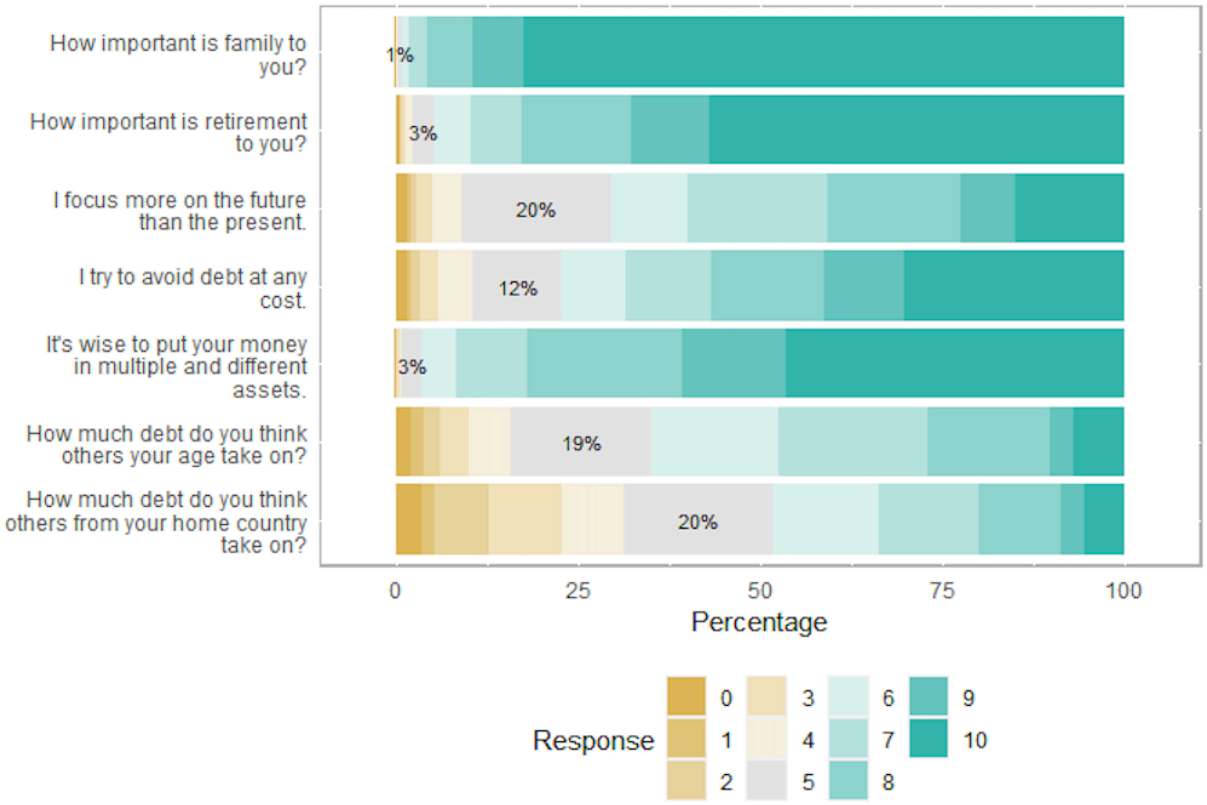


Figure 5 displays the results of the question "The company you work at just awarded you 5k. Which of these is the most appealing for potential investments?" against U.S. immigration in the x-axis among this sample of Indian American immigrants. Stocks, which are fairly risky, are the most common choice followed by savings accounts which are the least risky option on this graph. Real estate is the next most common choice which can be considered safe or risky, but for the most part, appreciates in value. Stocks are a popular choice among all respondents but specifically in the before 1980 and the 1990-2000 groups. Bonds are the most common for those

who immigrated after 2010. Savings accounts are also the most appealing to those who immigrated after 2010 and can be correlated to not having enough wealth accumulation or confidence in spending choices.

Figure 5: U.S. Immigration Year vs Potential Investments

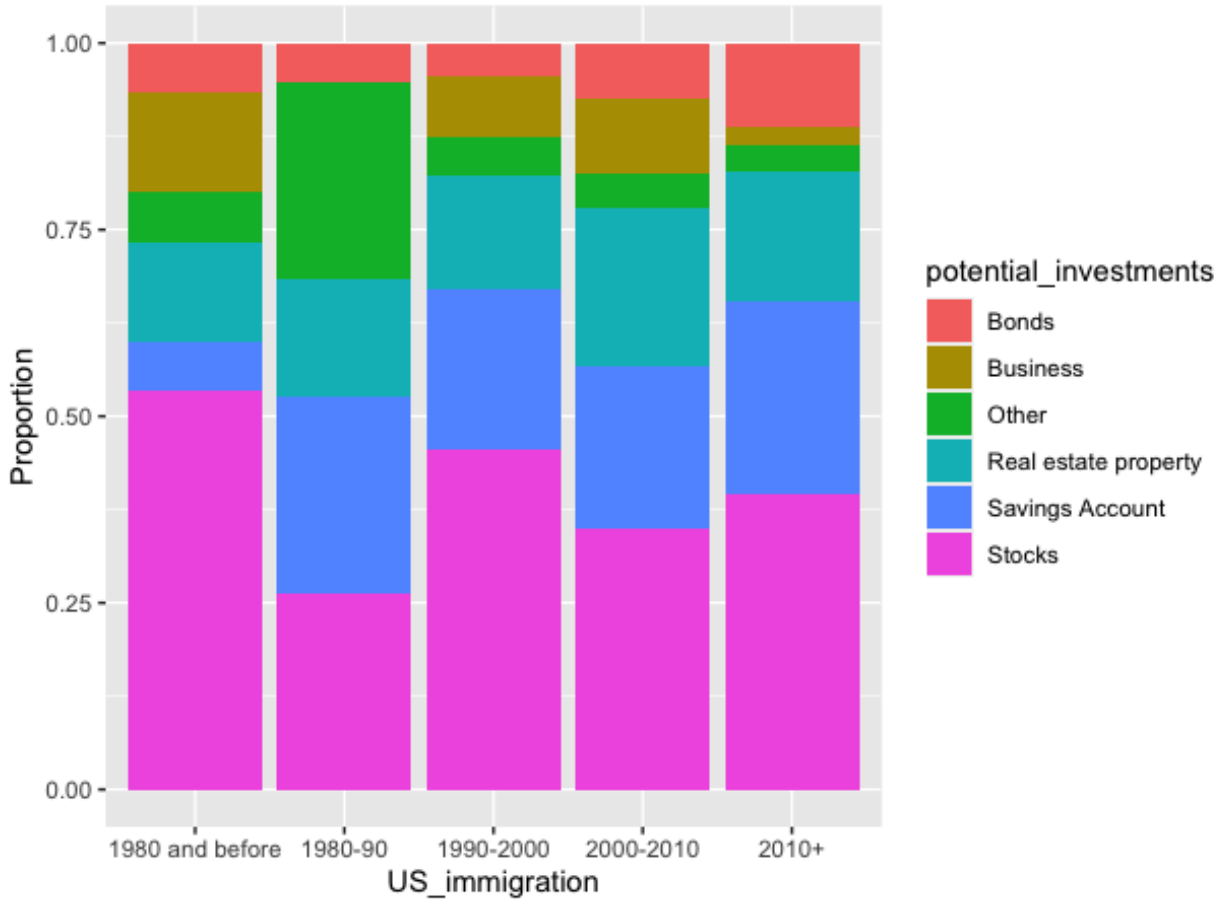


Figure 6 shows the results of the question "The company you work at just awarded you 5k and you want to invest in stocks. Which of these appeals to you the most?" against U.S. immigration in the x-axis. The safest choice is well-established companies such as Apple, Google, and Tesla which is the most common choice across all U.S. immigration groups. However, those who immigrated in 1990-2000 and after 2010 are more diverse in how risky they

are concerning stocks. Indian Americans who immigrated after 2010 are the most risky with the highest proportion of start-up companies.

Figure 6: U.S. Immigration Year vs Potential Stocks

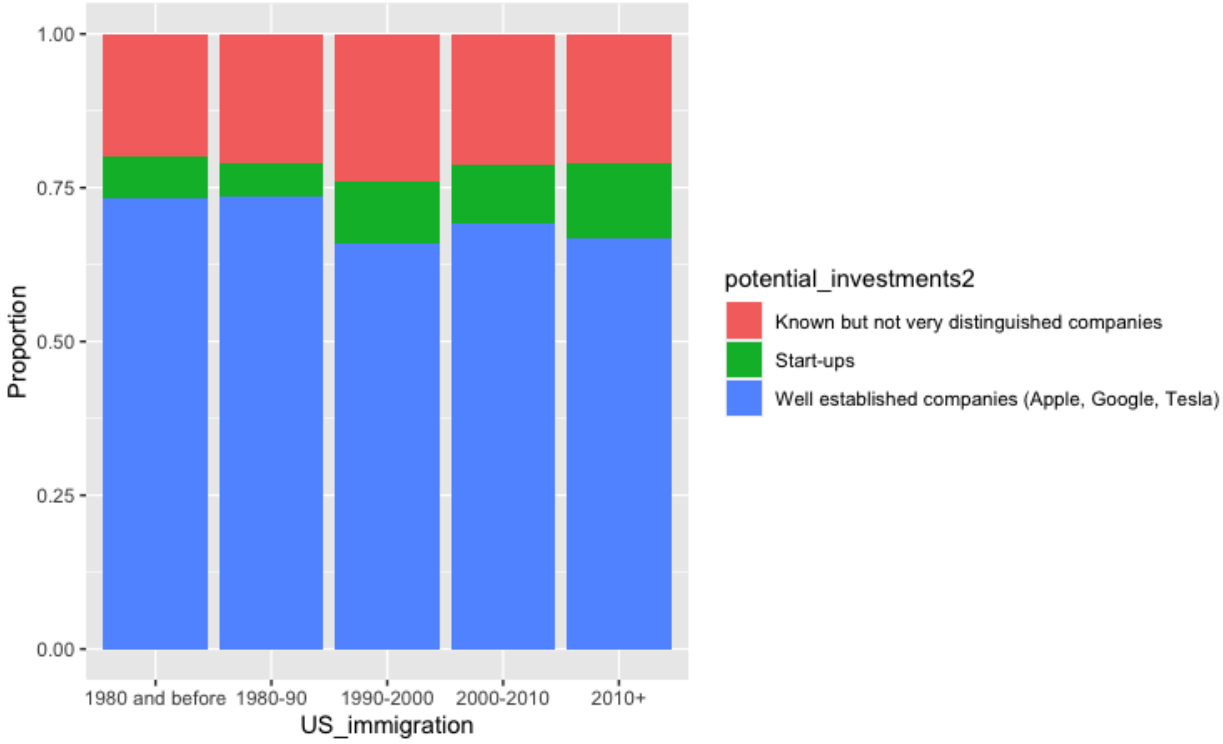


Figure 7 shows the relationship between U.S. immigration year and debt aversion, the relationship I will be running a regression on. The question referred to in this figure is "I try to avoid debt at any cost" on a scale from 0-10 with 0 being "not at all likely" and 10 being "extremely likely." The graph displays the variation in medians regarding how much they avoid debt within different immigrant groups. The immigrant group from before 1980 and in the 1980-1990 group avoided debt the most of all the groups while those who immigrated between 1990-2000 avoided it the least. Indian Americans who immigrated between 1990 and 2010 have varying interquartile ranges, however, their medians are relatively the same.

Figure 7: U.S. Immigration Year and Debt Aversion

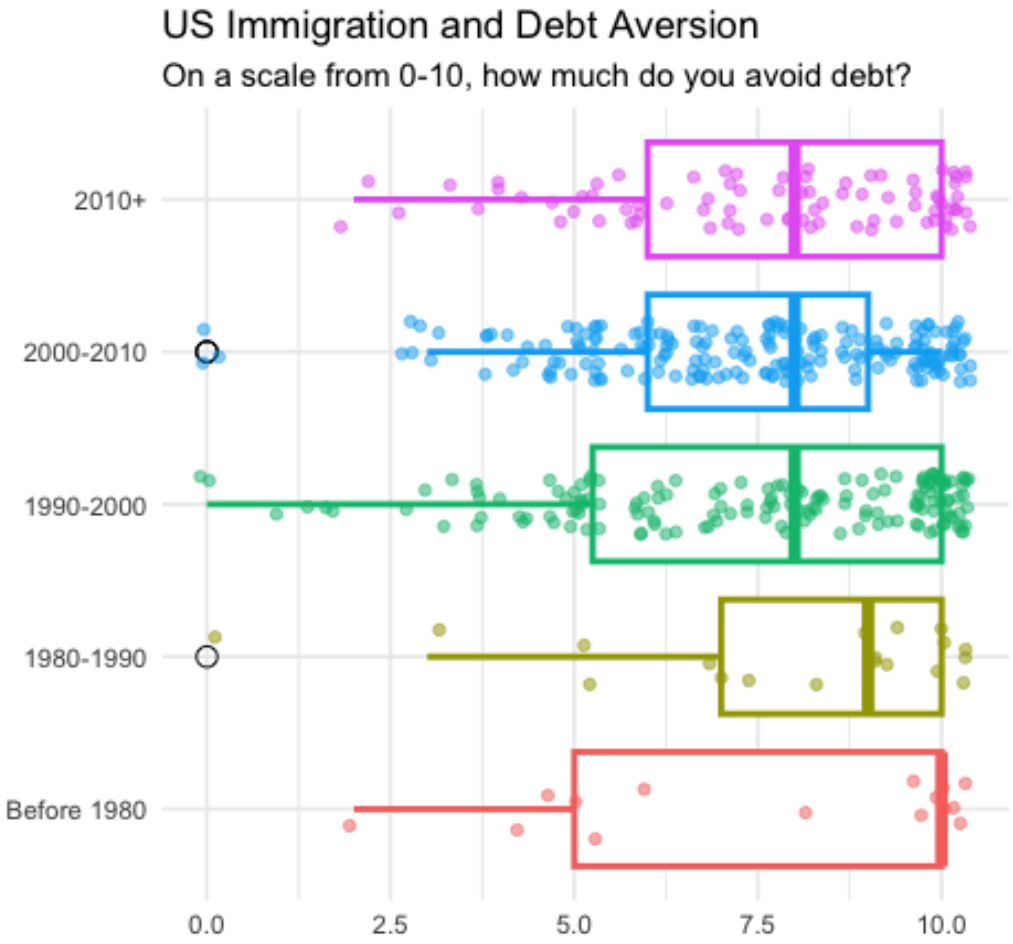
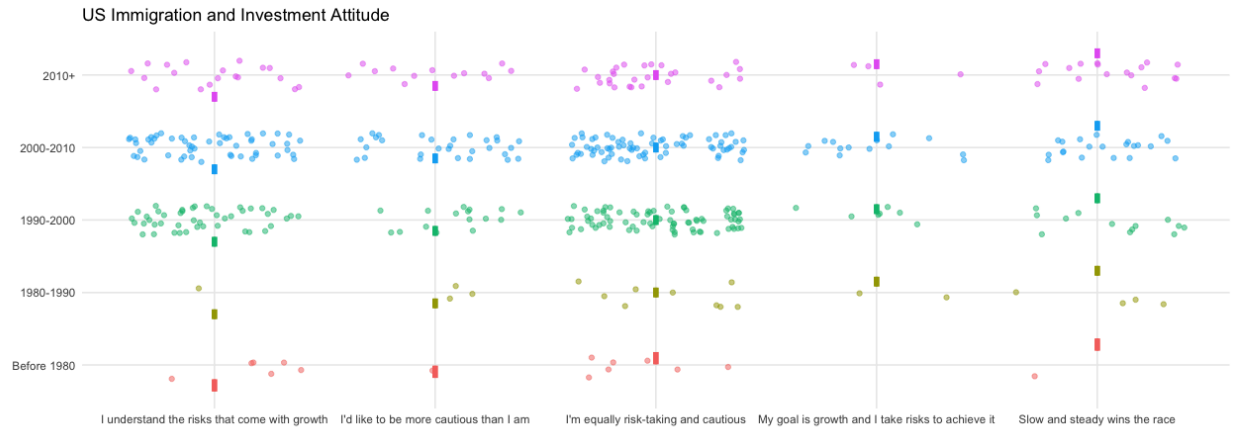


Figure 8 shows the relationship between U.S. immigration year and investment attitude, another relationship I will be running a regression on. Overall, the majority of respondents in all immigrant groups chose within the range of "I'm equally risk-taking and cautious" and "I understand the risks that come with growth", specifically those who immigrated between 1990 and 2010. However, the trend could be attributed to the high level of responses from participants from those immigrant groups. At first glance, prior to running any tests, Indian Americans as a whole seem to be less risk averse, however, it doesn't seem to be heavily affected by when they immigrated to the United States.

Figure 8: U.S. Immigration Year and Investment Attitude



The data visualizations in Figures 1-8 provide a look at the survey data before jumping into empirical results. The visualizations exhibit a few trends regarding the participant's preferences on investments, debt, and cultural values. As a whole, family, and retirement are important in most Indian American values. In addition, choices on potential investments and how risk or debt don't seem to be heavily affected by what year participants immigrated to the United States but rather just general preferences. In section 5 I hope to uncover the significance of these data visualizations and trends.

5. Empirical Results

For my empirical analysis, I will be running two separate analyses, one for debt aversion and one for risk aversion. 5.1 of this section runs regressions for debt aversion to conclude the results. Section 5.2 does the same as section 5.1 but instead with risk aversion. In Section 4, Figure 7 and Figure 8 show visually the relationship this paper is trying to seek with the two questions. This section aims to test the significance and my hypothesis. First, I run linear regressions with the two dependent variables and the independent variables, U.S. immigration year, age, household income, and number of people in the household.

5.1 Debt Aversion Empirical Results

The regressions for debt aversion are shown below. The question chosen as the dependent variable for this regression is "I try to avoid debt at any cost" which is given on a scale from 0-10, 0 being "not at all likely" and 10 being "extremely likely." The main control factor this paper is interested in is what year the participant/participant's family immigrated to the United States. Three other controls that could affect this relationship are age, household income, and number of people in the household. Below are the three regressions. All three regressions are run with the U.S. immigration year as its own variable in Table 5 and again within the different immigrant groups in Table 6. The immigrant groups are divided into four: 1980-1990, 1990-2000, 2000-2010, and 2010+ to test if the level of significance varies with each group.

The null hypothesis states what year Indian American immigrants immigrated to the United States does not affect how debt averse they are. The alternate hypothesis states the year participants, Indian American immigrants, immigrated to the United States affects how debt averse they are. The p-values will determine whether to reject or not reject the null hypothesis and check the significance of the relationship.

(1) $Debt\ Aversion_{it} = \beta 0 + \beta 1 \cdot U.S.\ Immigration\ Year_{it} \cdot \varepsilon$

(2) $Debt\ Aversion_{it} = \beta 0 + \beta 1 \cdot U.S.\ Immigration\ Year_{it} + \beta 2 \cdot Age_{it} \cdot \varepsilon$

(3) $Debt\ Aversion_{it} = \beta 0 + \beta 1 \cdot U.S.\ Immigration\ Year_{it} + \beta 2 \cdot Age_{it} + \beta 3 \cdot Household\ Income_{it} + \beta 4 \cdot People\_Household_{it} \cdot \varepsilon$

Table 5 shows the results of all three regressions with immigration year as its own variable. Below the constant is the standard error in italics and below that is the p-value in parentheses. The p-value for immigration year in all three regressions is significantly higher than 0.05, at 6.76 for the first regression, 0.3619 for the second, and 0.2795 for the third. We don't reject the null hypothesis and the relationship between our outcome and predictor variable is statistically insignificant. Furthermore, the R^2 value is much closer to 0 than 1 for all three regressions which tells us that the variation in y values, debt aversion, is not accounted for by the x values, immigration year.

In the second regression, age is the only control. The third regression has age, household income, and the number of people in the household as the controls. The p-value for age in the second regression as well as household income and number of people in the household in the third regression are higher than 0.05. Once again, we don't reject the null hypothesis and the relationship between our outcome and predictor variables is statistically insignificant. However, in the third regression, age has a p-value of 0.029 which is less than 0.05 and indicates that we reject the null hypothesis and the relationship is significant. The older the survey participants are, the more debt-averse they are. Since this study includes only a sample of Indian American participants, it's hard to determine for sure if there is any solid relationship between the two variables.

Table 5 - Debt Aversion Regressions

Coefficient	(1)	(2)	(3)
U.S. Immigration year	0.041 *0.0973* (0.676)	0.092 *0.101* (0.362)	0.11 *0.101* (0.28)
Age	X	0.17 *0.093* (0.067)	0.213*** *0.097* (0.029)
Household Income	X	X	-0.088 *0.056* (0.1160)
Number of people in the household	X	X	0.103 *0.108* (0.339)
Constant	7.232 *0.66* (<2e-16)	6.145 *0.886* (1.13e-11)	6.425 *1.057* (2.32e-09)
R^2	0.0003	0.006	3.733e-06
Adjusted R^2	0.0015	0.0023	-0.0019
N	553	552	545

Table 6 shows the results for the three regressions with immigration year divided into the four groups as coefficients. The omitted group is before 1980 meaning each coefficient in the other immigration time periods is the difference in the outcome between that group and those migrating before 1980. The estimate for immigration year became negative for all groups in the first and second regression which means if the tendency to avoid debt increases, the U.S. immigration year decreases. On the other hand, the third regression is a mixture of positive and negative values. Otherwise, the rest of the results remained the same for the immigration groups, including the p-values which are all above 0.05, so the conclusion that it's statistically insignificant stands. The control variables of household income and number of people in the

household in the third regression have p-values that are greater than 0.05 which means we do not reject the null hypothesis and the relationship between the control variables and the dependent variable is insignificant. However, age in the third regression has a p-value of 0.03 which is less than 0.05 and therefore statistically significant. This suggests as age increases, the tendency to avoid debt increases when income and the number of people in the household are also controlled.

Table 6 - Debt Aversion Regressions by U.S. Immigration group

Coefficient	(1)	(2)	(3)
U.S. immigration year: 1980-1990	-0.611 *0.763* (0.423)	-0.644 *0.761* (0.398)	0.611 *0.764* (0.380)
U.S. immigration year: 1990-2000	-0.519 *0.541* (0.338)	-0.427 *0.542* (0.431)	-0.453 *0.551* (0.411)
U.S. immigration year: 2000-2010	-0.643 *0.536* (0.231)	-0.507 *0.539* (0.348)	-0.493 *0.547* (0.368)
U.S. immigration year: 2010+	-0.235 *0.564* (0.677)	-0.008 *0.576* (0.989)	0.0124 *0.579* (0.983)
Age	X	0.176 *0.093* (0.061)	0.213*** *0.098* (0.03)
Household Income	X	X	-0.078 *0.057* (0.168)
Number of people in the household	X	X	0.122 *0.11* (0.268)
Constant	8.00 *0.511* (<2e-16)	7.106 *0.698* (<2e-16)	-0.671 *0.892* (1.27e-15)
R^2	0.005	0.0119	0.0172
Adjusted R^2	-0.0017	0.0029	0.005
N	549	548	541

After running all three regressions in both Tables 5 and 6, it can be determined that the relationship between debt aversion and immigration year is statistically insignificant in the sample of Indian Americans collected in this paper. The p-values for both immigration year as its own variable and with immigration year divided into four groups are all above 0.05 which suggests there is no significant relationship. The year bracket participants arrived in the United States does not affect how debt-averse they are. Furthermore, the controls of the number of people in the household and income also play no effect on how debt-averse participants are since their p-values are also above 0.05. Age, however, is the exception with its p-value being below 0.05 in the third regression in both Tables 5 and 6. However, there needs to be more research on age specifically to come to the conclusion that age and debt aversion share a significant relationship among Indian American immigrants.

5.2 Risk Aversion Empirical Results

The regressions for risk aversion are listed below. The question chosen as the dependent variable to calculate this regression is “What is your attitude concerning investment?” which is given five multiple-choice answers. Conservative is equivalent to 1, somewhat conservative is equivalent to 2, moderate is equivalent to 3, somewhat aggressive is equivalent to 4, and aggressive is equivalent to 5. Once again, the number one independent variable this paper is interested in is what year the participant/participant’s family immigrated to the United States. Three other controls that affect risk aversion taken into account are age, household income, and the number of people in the household. Keeping this in mind, the three regressions are listed below. All three regressions are run with immigration year as its own variable and again within the different immigrant groups of 1980-1990, 1990-2000, 2000-2010, and 2010+, the same as was done with debt aversion.

The null hypothesis states what year Indian American immigrants immigrated to the United States does not affect how risk averse they are. The alternate hypothesis states the year participants, Indian American immigrants, immigrated to the United States affects how risk averse they are. The p-values will determine whether to reject or not reject the null hypothesis and check the significance of the relationship.

(1) $\textbf{Risk Aversion}_{it} = \beta 0 + \beta 1 \cdot \textbf{U.S. Immigration Year}_{it} \cdot \varepsilon$
(2) $\textbf{Risk Aversion}_{it} = \beta 0 + \beta 1 \cdot \textbf{U.S. Immigration Year}_{t} + \beta 2 \cdot \textbf{Age}_{it} \cdot \varepsilon$
(3) $\textbf{Risk Aversion}_{it} = \beta 0 + \beta 1 \cdot \textbf{U.S. Immigration Year}_{it} + \beta 2 \cdot \textbf{Age}_{it} + \beta 3 \cdot \textbf{Income}_{it} + \beta 4 \cdot \textbf{People\_Household}_{it} \cdot \varepsilon$

Table 7 displays the regressions' results for risk aversion with immigration year as its own variable. The p-value for immigration year in all three regressions is significantly higher than 0.05, at 0.0554, 0.148, and 0.1533 which indicates we don't reject the null hypothesis and the relationship between our outcome and predictor variable is statistically insignificant. However, the p-value for the first regression with U.S. immigration year by itself is very close to 0.05 and not much higher which signifies it is a trend and if larger samples are collected, it could potentially be significant.

The two other regressions, which are run with age, household income, and the number of people in the household, hold both insignificant and significant results. Age in both regressions has p-values of 0.308 and 0.6366 which are higher than 0.05 therefore, we don't reject the null hypothesis and the control is insignificant. In the third regression, the number of people in the household has a p-value of 0.2291 which is also greater than 0.05 and insignificant. However, household income has a p-value of 0.0487 which is less than 0.05 indicating that we reject the null hypothesis and the relationship is significant. This suggests that as household income increases, the more aggressive participants are with their investments. Since this study includes

only a sample of Indian American participants, it's hard to determine for sure if there is any solid relationship between the two variables.

Table 7 - Risk Aversion Regressions

Coefficient	(1)	(2)	(3)
U.S. immigration year	-0.074 *0.039* (0.055)	-0.06 *0.041* (0.148)	-0.059 *0.041* (0.153)
Age	X	0.038 *0.037* (0.308)	0.018 *0.038* (0.637)
Household Income	X	X	0.044*** *0.022* (0.049)
Number of people in the household	X	X	0.05 *0.042* (0.229)
Constant	3.72 *0.262* (<2e-16)	3.457 *0.367* (<2e-16)	2.86 *0.434* (1.05e-10)
R^2	0.007	0.009	0.02
Adjusted R^2	0.005	0.005	0.012
N	518	517	511

Table 8 displays the regression results with immigration year divided into four categories. The omitted group is before 1980 meaning each coefficient in the other immigration time periods is the difference in the outcome between that group and those migrating before 1980. The p-values for all immigration brackets in the three regressions are significantly higher than 0.05 indicating that their relationship with risk aversion is not significant. The controls of age and number of people in the household all have p-values that are higher than 0.05 indicating their relationships with risk aversion are also insignificant. Household income has a p-value of 0.08,

which is greater than 0.05 and statistically insignificant which is different from table 7. The change in p-values could be due to the different immigrant groups. Furthermore, the R^2 value is much closer to 0 than 1 which tells us that the variation in y values, risk aversion, is not accounted for by the x values, U.S. immigration year.

Table 8 - Risk Aversion Regressions by U.S. Immigration group

Coefficient	(1)	(2)	(3)
U.S. Immigration Year: 1980-1990	-0.333 *0.296* (0.261)	-0.35 *0.297* (0.239)	-0.312 *0.297* (0.294)
U.S. Immigration Year: 1990-2000	-0.021 *0.206* (0.918)	-0.001 *0.207* (0.997)	-0.066 *0.209* (0.752)
U.S. Immigration Year: 2000-2010	-0.059 *0.204* (0.773)	-0.026 *0.207* (0.900)	-0.077 *0.208* (0.713)
U.S. Immigration Year: 2010+	-0.365 *0.091* (0.677)	-0.311 *0.222* (0.161)	-0.339 *0.222* (0.1275)
Age	X	0.038 *0.037* (0.305)	0.019 *0.038* (0.613)
Household Income	X	X	0.038 *0.022* (0.086)
Number of people in the household	X	X	0.037 *0.042* (0.383)
Constant	3.333 *0.195* (<2e-16)	3.137 *0.273* (<2e-16)	2.6996 *0.351* (7.59e-14)
R^2	0.022	0.023	0.031
Adjusted R^2	0.014	0.014	0.017
N	514	513	507

Within the sample of Indian American respondents collected in this paper, the relationship between risk aversion and immigration year is statistically insignificant. The p-values for both U.S. immigration year as its own variable and with U.S. immigration year divided into four groups are all above 0.05 which suggests there is no significant relationship, the same as it was for debt aversion. The year bracket participants arrived in the United States does not affect how risk-averse they are. The controls of age and number of people in the household have p-values above 0.05 which indicate that the relationship they share with risk aversion is also insignificant. Household income has a p-value below 0.05 in the third regression in Table 7. However, there needs to be much more tests run on household income specifically to come to the conclusion that household income and risk aversion share a relationship among Indian American immigrants.

6. Conclusion

Understanding how immigrants make financial decisions is a complex question that involves many moving parts. It is also a question that hasn't been researched heavily and with this paper, I hoped to slightly fill the gap and start establishing a relationship in literature. This paper focuses on debt and risk aversion among Indian American immigrants by focusing on what year they immigrated to the United States. My original hypothesis is that the earlier a participant immigrated to the United States, the less debt and risk-averse they were. The hypothesis is rejected because what year participants immigrated to the United States does not affect how debt and risk averse they are.

Focusing solely on the debt aversion portion of this paper, what year survey participants/their families immigrated to the United States does not affect how debt and risk-averse they are. While immigration year is insignificant, age is significant in both the regressions shown in Tables 5 and 6. This suggests that as age increases, the tendency to avoid debt also increases indicating that Indian Americans in this sample of data are more debt-averse. There is not sufficient data or findings to come to this conclusion as this paper focused on immigration year and not age, however, it is a topic to be further examined in the future.

On the topic of risk aversion, this paper finds that what year Indian Americans immigrated to the United States does not affect their attitude concerning risk and investments. Although immigration year is not significant in its relationship with risk aversion, household income had a p-value below 0.05 in Table 7. This suggests that as household income increases, Indian American immigrants are more likely to be aggressive with their attitudes concerning investments. Since immigration year is the variable this paper focuses on and not household income, there is not sufficient data to come to the conclusion that household income and risk

aversion have a relationship in the sample of data collected for this paper. Household income is a variable to be examined more closely in future research.

Limitations of this study include sample size, data collection bias, and external/internal validities. A larger sample size could lead to potentially more significant or insignificant results since there is power in numbers. The sample size would have to be chosen at random, as this paper did, to obtain accurate and the best results. An increase in sample size can also include participants from older ages and generations to seek more differences in attitudes concerning debt and risk. Furthermore, the data was collected through a survey distributed at random so while there is a low risk of bias, there is still a chance there might be some in terms of representing Indian American immigrants regarding household income level and education level.

Other limitations include internal and external validity. Internal validity assesses whether the observed effects of relationships are caused by the independent variable and not influenced by other variables in the study design. As observed, immigration year did not have a significant relationship with both debt and risk aversion but age and household income did. Potential variables that could have affected the dependent variable but were not accounted for in this study design include location of residence, occupation, and sex. Location of residence accounts for living expenses because a participant living in New York City has a very different lifestyle compared to someone who lives in a small town in Texas. Similarly, occupation plays a role in lifestyle differences as well since a participant working in finance could have more knowledge about finance and investments compared to their doctor counterparts. Lastly, sex is a variable I intentionally left out because while many papers show a relationship between sex and risk aversion, I wanted to focus on immigration year. However, sex is another variable that could have influenced the study design and the outcome of the regressions. External validity refers to

the extent to which results of a study can be generalized or applied to settings populations, conditions, or contexts beyond the specific conditions in which the study was conducted. This study included just a small sample of Indian Americans so the findings of this study cannot be generalized to all Indian Americans. In addition, there might be cities and states in the United States that this survey did not reach so the findings of this study also cannot be generalized to Indian Americans from every region of this country.

References:

Almenberg, Johan, et al. "Attitudes towards debt and debt behavior." *The Scandinavian Journal of Economics* 123.3 (2021): 780-809. https://gflec.org/wp-content/uploads/2020/04/Working-Paper-Attitudes-Toward-Debt-and-Debt-Behavior-3_26_2020.pdf

Aren, Selim, and Hatice Nayman Hamamci. "Relationship between risk aversion, risky investment intention, investment choices: Impact of personality traits and emotion." *Kybernetes*49.11 (2020): 2651-2682.

Badrinathan, Sumitra, et al. “Social Realities of Indian Americans: Results from the 2020 Indian ...” *Social Realities of Indian Americans: Results From the 2020 Indian American Attitudes Survey*, 9 June 2021, carnegieendowment.org/2021/06/09/social-realities-of-indian-americans-results-from-2020-indian-american-attitudes-survey-pub-84667.

Batalova, Jeanne, and Ari Hoffman. “Indian Immigrants in the United States.” *Migrationpolicy.Org*, 7 Dec. 2022, www.migrationpolicy.org/article/indian-immigrants-united-states#:~:text=Today%2C%20Indians%20represent%20the%20second,their%20numbers%20continue%20to%20grow.

Batista, C., Umblijs, J. Migration, risk attitudes, and entrepreneurship: evidence from a representative immigrant survey.*IZA J Migration* 3, 17 (2014). https://doi.org/10.1186/s40176-014-0017-4

Bartke, Stephan, and Reimund Schwarze. "Risk-averse by nation or by religion? Some insights on the determinants of individual risk attitudes." *Some Insights on the Determinants of Individual Risk Attitudes (October 2008). SOEPpaper* 131 (2008).

Bhattacharya, G., Schoppelrey, S.L. Preimmigration Beliefs of Life Success, Postimmigration Experiences, and Acculturative Stress: South Asian Immigrants in the United States. *Journal of Immigrant Health* 6, 83–92 (2004). https://doi.org/10.1023/B:JOIH.0000019168.75062.36

Boatman, Angela, Brent J. Evans, and Adela Soliz. "Understanding loan aversion in education: Evidence from high school seniors, community college students, and adults." *Aera Open* 3.1 (2017): 2332858416683649.

Budiman, Abby. “Indians in the U.S. Fact Sheet.” *Pew Research Center’s Social & Demographic Trends Project*, Pew Research Center, 24 May 2022, www.pewresearch.org/social-trends/fact-sheet/asian-americans-indians-in-the-u-s/.

Faruke, Fidha S, and Anuragsheel Gupta. *The Positive Impact of British Rule on Indian Education System*, thelawbrigade.com/wp-content/uploads/2019/05/Fidha-S-Anuragsheel.pdf. Accessed 10 Sept. 2023.

Gautam, Shiv, and Nikhil Jain. “Indian culture and psychiatry.” *Indian journal of psychiatry* vol. 52,Suppl 1 (2010): S309-13. doi:10.4103/0019-5545.69259

Gibson, Campell, and Kay Jung. “Historical Census Statistics on the Foreign-Born Population of the United States 1850 To 2000.” *U.S. Census Bureau*, www.census.gov/content/dam/Census/library/publications/2021/demo/p60-274.pdf. Accessed 3 Sept. 2023.

Gupta, Ashish, and Shweta S. Bajpai. "Impact of Western culture and English language on Indian culture and society." *New Man Int J Multidiscip Stud* 3 (2016): 38-43.

Halek, Martin, and Joseph G. Eisenhauer. “Demography of Risk Aversion.” *The Journal of Risk and Insurance*, vol. 68, no. 1, 2001, pp. 1–24. *JSTOR*, https://doi.org/10.2307/2678130. Accessed 26 Sept. 2023.

Hanna, Mary and Batalova, Jeanne. “Indian Immigrants in the United States.” *Migrationpolicy.Org*, 7 Dec. 2022, www.migrationpolicy.org/article/indian-immigrants-united-states-2019.

Hersch, Joni. “Smoking, Seat Belts, and Other Risky Consumer Decisions: Differences by Gender and Race.” *Managerial and Decision Economics*, vol. 17, no. 5, 1996, pp. 471–81. *JSTOR*, http://www.jstor.org/stable/2487821. Accessed 27 Sept. 2023.

History, Art & Archives, U.S. House of Representatives, “Immigration and Nationality Act of 1965,” https://history.house.gov/Historical-Highlights/1951-2000/Immigration-and-Nationality-Act-of-1965/(September 01, 2023)

Kimball, Miles S. “Standard Risk Aversion.” *Econometrica*, vol. 61, no. 3, 1993, pp. 589–611. *JSTOR*, https://doi.org/10.2307/2951719. Accessed 26 Sept. 2023.

Kramer, Stephanie. “Key Facts about the Religiously and Demographically Diverse States of India.” *Pew Research Center*, Pew Research Center, 13 Dec. 2021, www.pewresearch.org/short-reads/2021/12/13/key-facts-about-the-religiously-and-demographically-diverse-states-of-india/.

Ogaki, Masao, and Qiang Zhang. “Decreasing Relative Risk Aversion and Tests of Risk Sharing.” *Econometrica*, vol. 69, no. 2, 2001, pp. 515–26. *JSTOR*, http://www.jstor.org/stable/2692241. Accessed 30 Sept. 2023.

Pålsson, Anne-Marie. "Does the degree of relative risk aversion vary with household characteristics?." *Journal of economic psychology* 17.6 (1996): 771-787.

Prakesh, M. (2019). Impact of Western Culture on Indian Culture. Academic Journal of Arts and Humanities, 1(1), 19-22.

Rahma, Zaynah, and Susan J. Paik. "South Asian immigration and education in the US: Historical and social contexts." *Social and Education History* 6.1 (2017): 25-52. https://www.redalyc.org/pdf/3170/317049848002.pdf

Royal, James. “Corporate Bonds: Here Are the Big Risks and Rewards.” *Bankrate*, www.bankrate.com/investing/corporate-bonds/#:~:text=Bonds%20tend%20to%20be%20much,are%20less%20risky%20than%20stocks. Accessed 5 Sept. 2023.

Sinha, Jai B.P., and Rajesh Kumar. “Methodology for Understanding Indian Culture.” *View of Methodology for Understanding Indian Culture*, 3 Mar. 2004, rauli.cbs.dk/index.php/cjas/article/view/27/26.

Singh, Yogendra. "Modernization of Indian tradition." Rawat Publications, 2018.

Urahn, Susan K. “The Complex Story of American Debt .” *The PEW Charitable Trusts*, pewtrusts.org, July 2015, www.pewtrusts.org/-/media/assets/2015/07/reach-of-debt-report_artfinal.pdf?la=en&hash=168FE15FB45F7BEFF758E0D0F5D46786D4629E05.

Wang, H. and Hanna, S. (1997), “Does risk tolerance decrease with age?”, Financial Counseling and Planning, Vol. 8 No. 2, pp. 27-31.

William B. Riley Jr., and K. Victor Chow. “Asset Allocation and Individual Risk Aversion.” *Financial Analysts Journal*, vol. 48, no. 6, 1992, pp. 32–37. *JSTOR*, http://www.jstor.org/stable/4479593.

Survey questionnaire hard copy:

Q1 Read through the following consent form and verify that you consent to taking this survey.
Consent form

- o I consent (1)
- o I don't consent (2)

Page Break

Q2 What is your age?

- o Under 18 (1)
- o 18 - 24 (2)
- o 25 - 34 (3)
- o 35 - 44 (4)
- o 45 - 54 (5)
- o 55 - 64 (6)
- o 65 - 74 (7)
- o 75 - 84 (8)
- o 85 or older (9)

Q3 What is your annual pre-tax household income?

- o Less than $10,000 (1)
- o $10,000 - $19,999 (2)
- o $20,000 - $29,999 (3)
- o $30,000 - $39,999 (4)
- o $40,000 - $49,999 (5)
- o $50,000 - $59,999 (6)
- o $60,000 - $69,999 (7)
- o $70,000 - $79,999 (8)
- o $80,000 - $89,999 (9)
- o $90,000 - $99,999 (10)
- o $100,000 - $149,999 (11)
- o More than $150,000 (12)

Q4 What is your highest level of education?

- o Less than high school (1)
- o High school graduate (2)
- o Some college (3)
- o 2 year degree (4)
- o 4 year degree (5)
- o Master's and other professional degrees (6)
- o Doctorate (7)

Q5 If applicable, what is parent #1's highest level of education?

- o Less than high school (1)
- o High school graduate (2)
- o Some college (3)
- o 2 year degree (4)
- o 4 year degree (5)
- o Professional degree (6)
- o Doctorate (7)
- o N/A (8)

Q6 If applicable, what is parent #2's highest level of education?

- o Less than high school (1)
- o High school graduate (2)
- o Some college (3)
- o 2 year degree (4)
- o 4 year degree (5)
- o Professional degree (6)
- o Doctorate or MD/DD/JDs (7)
- o N/A (8)

Q7 Which South Asian country(s) are you from?

- ▢ Afghanistan (1)
- ▢ Bangladesh (2)
- ▢ Bhutan (3)
- ▢ India (4)
- ▢ Maldives (5)

- ▢ Nepal (6)
- ▢ Pakistan (7)
- ▢ Sri Lanka (8)

Q8 How many people live in your household?

- o I live by myself (1)
- o 2 people (2)
- o 3 people (3)
- o 4 people (4)
- o 5 people (5)
- o 5+ people (6)

Q9 What year did you or your family/ancestors immigrate to the United States?

- o Before 1950s (1)
- o 1950-60 (2)
- o 1960-70 (3)
- o 1970-80 (4)
- o 1980-90 (5)
- o 1990-2000 (6)
- o 2000-2010 (7)
- o 2010-2020 (8)
- o 2020+ (9)

Page Break

Q10 How important is family to you?

- o 0 (0) (Not important)
- o 1 (1)
- o 2 (2)
- o 3 (3)
- o 4 (4)
- o 5 (5)
- o 6 (6)
- o 7 (7)
- o 8 (8)
- o 9 (9)

o 10 (10) (Very important)

Q11 How important is retirement to you?

o 0 (0) (Not important)

o 1 (1)

o 2 (2)

o 3 (3)

o 4 (4)

o 5 (5)

o 6 (6)

o 7 (7)

o 8 (8)

o 9 (9)

o 10 (10) (Very important)

Q12 I focus more on the future than the present.

o 0 (0) (I focus on the present)

o 1 (1)

o 2 (2)

o 3 (3)

o 4 (4)

o 5 (5)

o 6 (6)

o 7 (7)

o 8 (8)

o 9 (9)

o 10 (10) (I focus on the future)

Q13 I try to avoid debt at any cost.

o 0 (0) (Not at all likely)

o 1 (1)

o 2 (2)

o 3 (3)

o 4 (4)

o 5 (5)

o 6 (6)

o 7 (7)

o 8 (8)

o 9 (9)

o 10 (10) (Extremely likely)

Q14 It's wise to put your money in multiple and different assets.

o 0 (0) (Not wise)

o 1 (1)

o 2 (2)

o 3 (3)

o 4 (4)

o 5 (5)

o 6 (6)

o 7 (7)

o 8 (8)

o 9 (9)

o 10 (10) (Very wise)

Q15 How much debt do you think others your age take on?

o 0 (0) (Not much)

o 1 (1)

o 2 (2)

o 3 (3)

o 4 (4)

o 5 (5)

o 6 (6)

o 7 (7)

o 8 (8)

o 9 (9)

o 10 (10) (A lot)

Q16 How much debt do you think others from your home country take on?

o 0 (0) (Not much)

o 1 (1)

o 2 (2)

- o 3 (3)
- o 4 (4)
- o 5 (5)
- o 6 (6)
- o 7 (7)
- o 8 (8)
- o 9 (9)
- o 10 (10) (A lot)

Page Break

Q17 What is your attitude concerning investment?

- o Conservative (1)
- o Somewhat conservative (2)
- o Moderate (3)
- o Somewhat aggressive (4)
- o Aggressive (5)

Q18 Which of these best describes you?

- o Slow and steady wins the race (1)
- o I'd like to be more cautious than I am (2)
- o I'm equally risk-taking and cautious (3)
- o I understand the risks that come with growth (4)
- o My goal is growth and I take risks to achieve it (5)

Q19 You receive a guaranteed payment of $500, or you get to enter a lottery with a 50% chance of winning $1000. Which do you choose?

- o $500 (1)
- o 50% of winning $1000 (2)

Q20 You receive a guaranteed payment of $100, or you get to enter a lottery with a 50% chance of winning $300. Which do you choose?

- o $100 (1)
- o 50% of winning $300 (2)

Q21 How often do you discuss financial decisions with your family?

- o Never (1)
- o Sometimes (2)

o About half the time (3)

o Most of the time (4)

o Always (5)

Q22 The company you work at just awarded you 5k. Which of these is the most appealing for potential investments?

o Stocks (1)

o Real estate property (2)

o Bonds (3)

o Business (4)

o Savings Account (5)

o Other (6) _____

Q23 The company you work at just awarded you 5k and you want to invest in stocks. Which of these appeals to you the most?

o Well established companies (Apple, Google, Tesla) (1)

o Known but not very distinguished companies (2)

o Start-ups (3)

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Q24 It's wise to make investments according to family/friend's recommendations.

o Strongly disagree (1)

o Somewhat disagree (2)

o Neither agree nor disagree (3)

o Somewhat agree (4)

o Strongly agree (5)

Q25 It's safer to invest in local stocks than international stocks.

o Strongly disagree (1)

o Somewhat disagree (2)

o Neither agree nor disagree (3)

o Somewhat agree (4)

o Strongly agree (5)

Q26 Would you take on debt for your child's education?

o No (1)

o Yes (2)

Q27 Would you take on debt to buy a house?

o No (1)

o Yes (2)

Q28 Would you take on debt to go on vacation or other luxury goods?

o No (1)

o Yes (2)

Q29 Would you take on debt to buy a car?

o No (1)

o Yes (2)

Q30 Would you take on debt to invest in a business?

o No (1)

o Yes (2)

Q31 Would you take on debt to attend a more expensive and highly regarded school?

o No (1)

o Yes (2)

Q32 Would you recommend a family member take on debt to buy a house?

o No (1)

o Yes (2)

Q33 Would you recommend a family member take on debt to invest in a business?

o No (1)

o Yes (2)

Q34 Would you recommend a family member take on debt to buy a car?

o No (1)

o Yes (2)

End of Block: Default Question Block