

EXPLORING CREDIT CARD BEHAVIORS
OF MILLENNIALS IN THE
UNITED STATES

by

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ABSTRACT

Consumer credit is not a new concept in the United States. It has evolved over time from basic installment plans, which allowed consumers to pay off their purchases incrementally, to the more complicated and increasingly prevalent credit cards in today's society. This study investigated the credit card behaviors of Millennials, individuals born between 1981-1997 (Pew, 2015), in the United States. Specifically, the main focus of this study was to see if Millennial respondents had a credit or debit card, outstanding balance on credit cards, and if they have a revolving amount of credit. For multivariate analysis, demographic control variables as well as unfavorable credit attitude and risk tolerance were included in the analyses.

Findings from the 2013 Survey of Consumer Finances (SCF) showed that as the age of Millennials increases, the likelihood of having a credit card and the amount of credit card outstanding balance increased. The households with higher education levels had higher credit card balances. Single males and females were less likely to use credit cards than married couples and carried lower balances than married households. White households were more likely to use credit cards and have credit card balances than other ethnicities, but were less likely to have revolving credit.

This study provides characteristics and behaviors of the Millennial Generation as they relate to credit consumption and debt management compared to those of the rest of the U.S. population. This helps show the credit attitudes of Millennials as well as how Millennials view and use credit including whether or not they have learned to use credit cards responsibly. This is useful information for those who want to create a credit savvy population and educate about the

adverse effects of carrying large amount of debt. Further, this study provides important insights for financial planners to determine why certain demographic characteristics and other factors cause Millennials to treat credit differently than previous generations. This information will allow financial planners to target needs that are specific to Millennials and offer them financial advice that is the most valuable and significant.

DEDICATION

This thesis work is dedicated to my family. I am so thankful for my parents, Steve and Rhonda Odom, and my brother Clay. They have continued to love, support, and push me to succeed with their constant words of encouragement and countless prayers on my behalf. I know that the Lord has guided my steps throughout this process, and it is because of Him that I had the opportunity and ability to write this thesis. I have been blessed beyond measure.

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CHAPTER 1

INTRODUCTION

The concept of consumer credit is not a new one in the United States. In the mid-Nineteenth Century, consumer credit began in the form of installment plans, which allowed consumers to pay off their purchases incrementally. Since then, consumer credit has become more complicated and more prevalent in every day circumstances. It has grown in complexity because credit lending is now a major money making industry. For example, while banks were traditionally the only institutions that offered credit cards, these services are now offered by retail stores and even phone companies (Federal Deposit Insurance Corporation (FDIC), 2007). Technology has helped increase the prevalence of credit cards because it is easier now than ever before to use a card as a form of payment versus the more traditional methods of cash or check.

There has been a shift in the way consumers view the use of credit. This is largely due to the way consumers regard money. For example, Ritzer (1995) and Zuckerman (2000) showed that there was a shift across the United States from holding savings in high regard, to focusing on spending and credit use. Whereas there used to be a negative connotation associated with over spending and credit use, it is now an acceptable and expected part of consumer culture. According to the 2013 Survey of Consumer Finances, nearly 75% of U.S. families carried debt in some form.

This change became evident in the 1920s when consumer debt as a percentage of income increased from 4.6% to 9.3% in 1929. One major cause of this was the stock market crash in October that marked the beginning of the Great Depression. This was the time period when it

became common to assume that customers were buying on credit rather than paying with cash (Olney, 1999), and this trend has continued. Throughout the 1980s, consumer debt increased to over \$800 billion (Zhu & Meeks, 1994), and over the course of the 1990s, consumer's revolving credit rose almost two and a half times from \$247 billion to \$610.7 billion (Lee & Kwon, 2002). By 2004, 71% of families had a credit card account (Board of Governors of the Federal Reserve System, 2006) and consumer credit balances increased from \$1.62 trillion to \$3.02 trillion from 2000 to 2013 (Board of Governors of the Federal Reserve System, 2014). These statistics show continuing trends toward a society consumed by debt and moving increasingly toward dependency on consumer credit.

Purpose

The purpose of this study is to examine the credit card behaviors of members of the Millennial generation in U.S. households, specifically as they relate to having a credit or debit card, the total outstanding balance accrued on credit cards, and whether or not they have a revolving amount of credit. To better understand the research discussed in this paper, generations are defined as the following: The Greatest Generation (born before 1928), The Silent Generation (Born 1928-1945), The Baby Boom Generation (Born 1946-1964), Generation X (Born 1965-1980), and Millennial Generation (Born 1981-1997) (Pew, 2015).

It is important to study different generations because a multitude of factors, including the variables mentioned previously, contribute to the way generational beliefs and behaviors shift over time. Thus, behaviors manifested in the Greatest Generation have evolved over time into those exhibited by the Millennial Generation, and these may be drastically different from one another.

Technology is a major component in these changes. For example, credit card use was not possible for early generations because the concept and practices involved in credit card use had not yet been invented. The values held by each generation influence how they view credit use as well as impact younger generations' views. For example, seeing credit used responsibly versus recklessly might determine how younger people are influenced for or against credit based on their parents' and grandparents' experiences with credit use. As practices related to credit card use have evolved, credit has become an increasingly common practice and consumers have grown more comfortable with using credit with each passing generation.

Contribution of this study

The purpose of this study is to help determine characteristics and behaviors of the Millennial Generation related to credit consumption and management compared to those of the rest of the U.S. population. This will help show the credit attitudes of Millennials as well as how Millennials view and use credit including whether or not they have learned to use credit cards responsibly. This is useful information for those who want to create a credit savvy population and educate about the adverse effects of carrying large amount of debt.

CHAPTER 2

LITERATURE REVIEW

Overview of Credit Card Use by Consumers

Consumer credit is not a practice specific to a generation or area of the world. It is a widespread behavior that has become exceedingly prevalent over the past several decades. Consumer credit behavioral practices established themselves in the United States in the early to mid-Nineteenth Century with installment plans, which allowed consumers to make large or expensive purchases over time (Board of Governors of the Federal Reserve System, 2006). Through installment plans, consumers received instant access to necessary items as well as luxury goods with the ability to pay off their debt incrementally. However, this process was not as simple as it is today because a limited number of banks and lenders were comfortable with extending credit as there was no way for them to assess whether or not individual borrowers had the capability to repay loans and debts (Board of Governors of the Federal Reserve System, 2006).

Research conducted by Ritzer (1995) and Zuckerman (2000) showed that culture in the United States experienced a shift throughout the twentieth century from holding the idea of savings in high esteem to not only approving of, but also focusing on spending. Credit cards are a symbol of this change in practice. The average American consumer's view on credit shifted from those of prudence, self control, and patience (Calder, 1999); to ones that view credit as a necessary, beneficial, and convenient way to buy desired items. Credit cards are now a

convenient way for consumers to acquire the items they desire with their current income.

According to the Survey of Consumer Finances, nearly 76% of U.S. families carried some form of debt in 2004 (Board of Governors of the Federal Reserve System, 2006).

The 1920s marked the beginning of a new era with consumer credit. Following World War I, consumer debt as a percentage of income increased from 4.6% in 1919 to 9.3% in 1929, and nominal installment debt increased from \$1,867 in 1919 to \$4,906 in 1929 (Olney, 1999). During this time, the Great Depression influenced credit behaviors as well. It is also noted that in the 1920s it became common to assume customers were buying on credit instead of paying with cash (Olney, 1999). While this change might have initially been caused by the lack of cash flow caused by the Great Depression, it eventually led to overspending in general. This shift shows a change in consumer behavior from self-control in the marketplace to a mentality that appeases self-gratification.

Current Credit Card Behaviors

With the passing of time, consumer debt has increased. Throughout the decade of the 1980s, consumer credit, excluding mortgage debt, was over \$800 billion (Zhu & Meeks, 1994). Revolving credit, which is credit card debt consumers do not completely pay off each cycle, rose both as a share of total consumer credit and relative to income from the 1960s to the mid-2000s (Board of Governors of the Federal Reserve System, 2006). According to the Federal Reserve Board, consumers' revolving credit increased nearly two and a half times from \$247 billion to \$610.7 billion during the 1990's (Federal Reserve Board, 2000). By 1999, consumer credit for households reached \$1.4 trillion, according to the Federal Reserve's Flow of Funds Accounts (Maki, 2002).

Credit card use continues to increase as indicated by statistics from the Survey of Consumer Finances that showed that in 2004, 71% of families held a credit card account, which was an increase of 16% since 1970 (Board of Governors of the Federal Reserve System, 2006). The Consumer Credit Report from the Federal Reserve Board states that the consumer credit balance has increased from \$1.62 trillion to \$3.02 trillion from 2000 to 2013 (Board of Governors of the Federal Reserve System, 2014). As these statistics show, American culture is currently one consumed with credit cards and credit card debt on an increasingly large scale.

Credit Card Industry

The credit card industry is constantly evolving. While credit cards traditionally stemmed from the banking industry, now retail stores and phone companies also offer the same services (FDIC, 2007). The credit card market experienced a huge boom because of the growing popularity and acceptance of this alternative form of payment as well as consumers' changing beliefs that credit card debt is normal. In 1996, the FDIC reported that banks' losses were increasing. In fact, banks lost \$3.8 billion due to credit cards and loans, which was 36% more than the previous year (Roberts, 1998).

These events have forced credit card companies to develop better techniques for screening applicants to make sure risk scores are acceptable (FDIC, 2007). However, banks also offer risk-based pricing for applicants that are not as qualified. This feature allows less qualified applicants to use credit cards on the condition that they pay higher interest rates and other fees if they do not pay off their bill during each billing cycle (FDIC, 2007). Allowing less qualified consumers to participate in credit card spending increases the overall profits of the credit card industry even though it may not be in the best interest of the consumer. Individuals'

irresponsible credit behaviors can spiral out of control causing credit card debt to build up over time, which is made even more risky by elevated interest rates.

MasterCard and Visa are two of the most well-known credit card companies. When they are discussed together they are called Associations (FDIC, 2007). Interestingly, MasterCard and Visa do not give credit card access directly to consumers. Instead, insured banks that are members in the Associations extend credit card services to consumers on behalf of the Associations; they also use the Application's logo. Other credit card companies such as Discover and American Express are also popular, however, they issue their specific cards directly to users (FDIC, 2007).

A general-purpose credit card is one that can be used as an additional form of currency at relatively any place of business (FDIC, 2007). There are different types of general-purpose credit cards including standard, premium, and corporate, among several others (FDIC, 2007). Standard credit card programs are aimed at users that meet some but not all credit criteria. These consumers are considered a higher risk and, therefore, have higher rates and fees and lower credit limits (FDIC, 2007). Premium credit cards are issued to users that have better credit scores and higher incomes than those using standard credit cards (FDIC, 2007). Corporate credit cards are used in business. These cards are “agreements between a sponsoring entity and a financial institution, in which the financial institution issues corporate cards to select employees of the sponsoring company” (“Credit Cards – General Overview”, 2006, p. 13).

The idea of credit has increased in popularity over the past one hundred years and credit cards are now accepted as a common form of currency. The United States saw a steady increase in consumer credit use and consequently, consumer debt following World War I and it has evolved over the decades that followed. In 2004, the number of credit card using households rose

to 71%, and by 2013, consumer credit balances reached \$3.02 trillion (Board of Governors of the Federal Reserve System, 2006). The prominence of credit cards not only as a form of payment, but also as an avenue for short-term financing for consumers is no longer questionable (Chakravorti & Emmons, 2001; Hayhoe et al., 2000). The growing trend of consumer credit and, as a result, consumer debt is becoming increasingly prevalent in current American culture, which could lead to major issues in the future.

Profile of Users

The profile of credit card users spans a wide variety of groups. Generation, gender, level of income, and level of education among others are all categories that are used to describe credit card users. Credit cards provide access to funds one would normally not have. This access can create problems such as compulsive buying (Dittmar, 2005), an increase in materialistic values (Unanue, Dittmar, Vignoles & Vansteenkiste, 2014), and most importantly credit card debt.

Compulsive Buying

Compulsive buying is defined as a “dysfunctional consumer behavior with harmful psychological and financial consequences” (e.g., Dittmar, 2004; Kasser & Kanner, 2004) or “an individual who experiences and routinely acts on powerful, uncontrollable urges to purchase” (Edwards, 1993; Faber, 1992; Goldsmith & McElroy, 2000). This is an issue of growing concern because, according to Dittmar (2000), 5 million Americans fall into the category of compulsive buyers. Compulsive buying is centered around three core concepts: an irresistible urge to buy, a lack of control over spending habits, and repeated excessive buying regardless of the consequences to any area of life including private, social, and work (Dittmar, 2004).

One cause of compulsive buying is the growing acceptance of materialistic values in our culture (e.g., Dittmar, 2004; Kasser & Kanner, 2004). Research shows that compulsive buying is more prevalent in younger generations and is exceedingly more common in consumer goods, or products focused on appearance, rather than goods that are considered necessities (Dittmar, 2005). Since evidence points to younger individuals being more directly affected with compulsive behaviors, this is a growing concern as these consumers mature in the market place (Dittmar, 2005).

According to Christenson et al. (1994) and Schlosser et al. (1994), this compulsive behavior usually manifests in later adolescent years or early adulthood, which is the age of college students. In fact, the rate of compulsive buying in the college-aged population is higher than that of the general population (Brougham, Jacobs-Lawson, Hershey, & Trujillo, 2011). Research also shows that younger individuals are more comfortable with the idea of debt, do not view it as a negative concept, and also have higher levels of debt (Lea & Webley, 1995; Lunt & Livingston, 1992). This is evidence of a “buy now, pay later” (Yurchisin & Johnson, 2004) mindset which creates unhealthy buying habits that have the potential to lead to financial stress over time.

Gender plays a significant role in compulsive buying as well. Male respondents are more risk tolerant than women. They show this by making more risky financial decisions (Lemaster & Strough, 2014). However, in studies that determine gender differences in compulsive buying, women accounted for 74% to 90% (Hanley & Wilhelm, 1992). Women have higher compulsive buying scores regardless of age or materialism.

Materialism

Materialistic values and their growing popularity in the United States is the strongest predictor of compulsive buying (Dittmar, 2005). The culture of materialism has become a very dominant power in determining the future of individuals and the development of societies (Roberts & Sepulveda, 1994). Whereas previously there was a social stigma associated with being in debt, today's consumers do not perceive debt as negative; this also plays into the concept of "buy now, pay later" which explains the higher levels of credit debt and, subsequently, bankruptcy (Office of Superintendent of Bankruptcy Canada, 2008).

These two concepts lead to a more materialistic society that revolves around the positive association between social status and increased purchases of consumer goods (Chien & DeVaney, 2001; Roberts & Jones, 2001). Some of the main explanations for the push towards materialism are power, desire for other's goods and purchases, and self-gratification (Belk, 1988). However, the increased popularity of materialism does not translate to increased overall well-being, as many consumers believe it will. Evidence shows that the opposite is true and, in fact, materialistic values are associated with lower well-being (Unanue, et al., 2014). The general well-being of individuals that focus on materialism suffers and this dangerous financial cycle leads to psychological frustration (Unanue, et al., 2014). Consumers who continue on this path find themselves increasingly unhappy as well as deeper in debt.

Richins and Dawson (1992) developed the materialistic value scale measuring three core items: "acquisition centrality, success, and happiness" (as cited in Unanue, et al., 2014, p. 569). This scale measures the extent to which people center their lives around material acquisitions, view success through the lens of materialism, and define their happiness based on possessions (Richins & Dawson, 1992).

Compulsive buyers among college students have statistically lower self-esteem when compared to non-compulsive buyers (Yurchisin & Johnson, 2004). They also feel there is a greater connection between their status among peers and the purchases they make (Yurchisin & Johnson, 2004), which means that their sense of well-being comes from feelings of inclusivity within their friend groups when they make purchases. According to the Material Values Scale created by Richins and Dawson (1992), there is no significant difference in materialism between men and women. However, studies conducted by Eastman and colleagues (1997) suggest that men are more materialistic than women. Men and women do not focus on the same materialistic goods, which can make this more difficult to determine (Bloch, 1981). Men concentrate on goods that are more noticeable (O’Cass & McEwen, 2004) and provide independence while women are drawn to products that symbolize emotional qualities (Dittmar, Beattie, & Friese, 1995). Research suggests that women are more focused on fashion and appearance while men are more focused on durable goods such as cars (Bloch, 1981).

Another aspect of compulsive buying and materialistic values is emotional stability. A cause of this behavior could be a lack of emotional stability that is momentarily appeased when the individual makes a purchase (Mowen & Spears, 1999; Dittmar et al., 2007). This quality might apply more to women since their main reason for buying materialistic goods is self-expression and personal emotions (Dittmar et al., 1995). In addition, men and women experience compulsivity differently. For example, women are more likely to purchase clothing items and place value on goods according to emotions and relationships associated with the good. On the other hand, men are more likely to impulsively buy items relating to technology and entertainment that promotes their sense of independence and enjoyment of leisure activities (Coley & Burgess, 2003; Dittmar et al., 1995).

Credit Card Debt

Credit card debt is an increasing problem in the United States. Growing debt can be partially attributed to compulsive buying as well as materialistic-minded consumers. In the late 1980s, only a few credit card companies directed sales pitches to college students and young adults. Over the next decade, however, 40 out of the top 50 credit card issuers targeted college students (Ring, 1997). The Nellie Mae Corporation report reads that in 2001, 21%, nearly one-fourth, of college students had a credit card debt ranging from \$3,000 to \$7,000 (Yurchisin & Johnson, 2004). In addition, nearly 80% of college students had a credit card, and the average number of credit cards per student is three (Hayhoe, 2002).

College students use their credit cards for a multitude of purposes ranging from necessities and expenses amassed habitually to spur of the moment purchases, emergency situations, and entertainment (General Accounting Office, 2001). There are many factors that can increase the risk of college students becoming compulsive buyers. These range from emerging identity, easy access, time perspective, and responsibility for paying off debt (Brougham, et al., 2011).

Emerging identity refers to the process whereby college students are transitioning from being dependents to becoming financially independent from their parents (Brougham, et al., 2011). In most states, the age when an individual can acquire a credit card without the need for parental consent is 18 (Lyons, 2004). Research conducted by Norvilitis and Santa Maria (2002) shows that many first time college students have no first hand experience in regards to dealing with their own finances. In fact, many students report they feel they do not have the necessary financial education to use credit cards appropriately and responsibly (Norvilitis & Santa Maria, 2002; Yarema & Sampson, 2001).

There is a consensus that consumers' lack of knowledge about credit cards is an issue (Lee & Hogarth, 1999). In order for this to be corrected, there needs to be an increase in not only the awareness of dangerous credit card behavior, but also understanding how to use credit (Mansfield, 2000). It also must be said that awareness does not equal understanding. Some credit card companies have recognized college students' need for proper guidelines on how to be responsible credit card consumers (Mansfield, 2000). For example, Visa developed a campaign focused on showing students how to use credit wisely (Speer, 1998), and Visa has even gone as far as to send out kits and other materials to orientation leaders at over 4,000 colleges giving useful tips on the best way to choose credit companies (Commercial Law Bulletin, 1997).

Easy access to credit cards combined with a limited knowledge of finances can lead college students to make poor decisions regarding consumption and credit card debt. These poor decisions can lead to further problems such as damaging students' credit to the point where it is difficult or impossible to make any big purchase or long-term commitment such as buying a house or car (Palmer, Pinto, & Parente, 2001; J. Quinn, 1998; L. Quinn, 2001). In addition, college students do not understand credit card interest and are likely to underestimate the amount of time it will take to pay it off (Lewis & van Venrooji, 1995). It is estimated that the spending power of college students is over \$90 billion (Mansfield, 2000), which translates to the possibility for copious amounts of debt. Because an increasing number of college attendees have trouble maintaining their debt, this problem is becoming a reality (Hayhoe et al., 2000; Lyons, 2004).

New legislation in the form of the Credit Card Accountability Responsibility and Disclosure Act (CARD) of 2009 was passed because of a heightened scrutiny of credit card contracts. One improvement the CARD Act implemented was limiting credit card companies'

ability to trap consumers with high long term prices, rates, and fees by first offering low short term prices boasting no annual fees and teaser rates. Further, the low interest rates that are used to get consumers to open an account must be left alone for six months. Rate increases that occur after the first year are only applicable to new charges and not balances that already exist (Bargill & Bubb, 2011). These are a few ways the CARD Act has helped protect young consumers as well as the rest of the population.

Future time perspective is a frame of reference for how far into the future an individual looks when thinking about his or her life (Seijts, 1998). Research shows that college students are focused more on present circumstances rather than thinking about future consequences of financial actions (Green et al., 1994; Brougham & John, 2007). This means that buying habits and compulsive purchases are not affected by possible long-term costs of decisions, which is an easy way to accumulate large amounts of debt without even realizing that it is happening. Since there is no money exchanging hands, some feel that credit card transactions are abstract or not real (Roberts, 1998). This mindset is not only false, but dangerous as well. If a consumer's future time perspective is only focused on the present, then he or she is not thinking about the credit card bill that will inevitably come at the end of the month. Putting thoughts of credit card payments aside can be a direct path to overspending.

Responsibility for paying off debt is also a significant factor in the risk of college students becoming compulsive buyers because more responsible students will be better off financially than those that are less responsible. In addition, students who are accountable for their own expenditures are more likely to have previously managed their own finances and understand the consequences of spending over their limits (Mandell, 2008; Brougham, et al., 2011). This shows that prior experience with finances is a big help for the financial future of college

students. However, if students are not responsible for their own debt, but rather their parents are, these good spending habits have not yet had an opportunity to form. This means that the lack of financial experience in a controlled environment can lead to problems with making sound monetary decisions when students live on their own.

College students today come from a generation where credit cards are common and their use is expected and accepted in everyday life (Ritzer, 1995). While many students have shown responsible behavior related to credit card use, there is an overall low amount of financial literacy, which brings about a multitude of risks (Palmer et al., 2001). Credit card debt among college students causes numerous problems including not being able to afford to finish a degree (Yurchisin & Johnson, 2004). This can get out of hand quickly, because by not receiving a college degree, one's job opportunities are greatly diminished. This, in turn, affects the amount of income one makes, which affects one's ability to pay off debts (Yurchisin & Johnson, 2004). Depending on the amount of debt acquired throughout collegiate years, debt may be so significant that even obtaining a college degree might not be enough to offset the amount owed (Yurchisin & Johnson, 2004).

Credit card use varies among different levels of income, although findings were not conclusive (Castellani & DeVaney, 2001). For instance, before 1980, lower income families (earning an overall income of \$360 per week) did not have as many opportunities to access credit as opposed to families earning an average level of income (Berthoud & Kempson, 1990). This is due to credit card companies and banks screening credit card applicants to make sure the individual is a good investment. In fact, due to the fear of being denied credit, many families do not even apply (Zhu & Meeks, 1994). During the 1980s, however, there was an increase of 91%

in the number of families with incomes of \$10,000 or less that held bankcards (Zhu & Meeks, 1994).

Families with below average incomes typically use credit cards to manage their budgeting problems rather than increasing the amount of purchasing power they have or service features credit cards provide (Howells 1990). Research by Castellani and DeVaney (2001) shows that households earning an income of a maximum of \$20,000 annually have a more positive view of using credit cards to bridge the gap of paying for living expenses when income is not steady or is lacking. This is significantly different from the behaviors of families with above average incomes who use credit cards for the convenience they bring as well as benefits offered by credit card companies.

Research shows that there is a relationship between level of education and store cardholders (Lee & Kwon, 2002). A store card is similar to a credit card in that it offers an alternative form of payment and it is a source of financing (Ausubel, 1991; Chakravorti, 1997, 2000; Chakravorti & Emmons, 2001; Lee & Hogarth, 1999; Slocum & Matthews, 1970; Stavins, 2000). However, store cards can only be used at particular stores (Humphrey, 2001) and they provide services to consumers with minimal credit worthiness, which causes many card users to use more credit than they can reasonably repay (Starvins, 2000). Stores are not as stringent on who they extend cards to, and therefore, consumers with low credit worthiness find themselves in situations with debt rising more quickly than they can repay.

Overall, a higher level of education was associated with positive attitudes regarding debt (Abdul-Muhmin, 2008). The likelihood of a consumer having a store card is higher for those who have some years of college education, followed by college graduates, high school graduates, and those with graduate level educations (Lee & Kwon, 2002). Also according to Lee and Kwon

(2002), when one looks at income level in connection with education level, it can be deduced that with an increase in the level of education, store card use increases because more educated individuals enjoy the benefits and convenience factors these cards provide. In contrast, consumers with lower levels of education may use store cards to avoid the more complicated measures needed to obtain a credit card or other outlets of financing.

In addition, minority students have a stronger likelihood of using revolving credit than the rest of the college population (Munro & Hirt, 1998; Lyons, 2004; Grable & Joo, 2006). However, the Survey of Consumer Finances from 2010 reports that 42% of African American and 44% of Hispanic led households have one or more credit cards compared to 72% of non-African American or Hispanic consumers with credit cards (SCF). Research also shows that male students have an easier time making payments on their credit cards than female students (Lyons, 2004).

Summary of Literature Review

Consumer credit and debt are big factors in modern economics. From the introduction of consumer credit in the early Twentieth Century to the evolution of credit cards as we know and use them now, consumers' views of debt have changed. Where saving originally motivated consumers and debt was considered taboo, today's consumers are comfortable with over spending even when it leads to debt or bankruptcy. By 2004, 71% of families in the United States had credit cards, and 76% of those households had credit card debt (Board of Governors of the Federal Reserve System, 2006). As a result, the credit card industry has grown to accommodate the large amounts of available credit desired by the population.

The profile of credit card users changes when different factors such as age, ethnicity, gender, level of education, and level of income are taken into account. Across the board, access

to credit cards can create problems such as compulsive buying (Dittmar, 2005), an increase in materialistic values (Unanue, et al., 2014), and most importantly credit card debt. Compulsive buying is an uncontrollable urge to purchase an unnecessary good (Edwards, 1993; Faber & O'Guinn, 1992; Goldsmith & McElroy, 2000).

This is a growing problem because there are 5 million Americans that currently fit this description (Dittmar, 2005). Materialism is one of the strongest predictors of compulsive buying (Dittmar, 2005), and its power over consumers is increasingly dominant (Roberts & Sepulveda, 1999). Debt is now socially acceptable whereas consumer ideology was previously strongly opposed to debt. Credit card debt has increased tremendously over the past several decades largely in part to the materialistic mindset of consumers in the marketplace. Young adults, especially college students, are the target of many credit card companies and there are mixed results about how they manage debt. While many use credit cards for day to day purchases, school related items, and emergency situations, there are many young adults who lack good decision making skills due to lack of knowledge on credit and debt topics. Overall, consumer debt due to over extending credit and lack of self-control in the market place is causing overwhelming debt and poor money management skills across the United States.

CHAPTER 3

METHODOLOGY

Dataset

The dataset to be used in this research is the Survey of Consumer Finances (SCF), which is sponsored by the Federal Reserve Board. This survey has been conducted triennially since 1983. For the purposes of this paper, the most recent survey, 2013 SCF will be used. The SCF collects information from U.S. households regarding pensions, income, balance sheets and other socio-demographic characteristics. The sample size for the dataset collected in 2013 was 6,015 households. The age of respondents ranged from 17 to 100 years with the top-coded at age 95. The respondent of the survey questions is the financially more knowledgeable person in couple households while for single households it is the household head.

The SCF dataset has been constructed based on a dual frame sample design. This design is created from two samples, the multi-stage area-probability sample and the list sample, which is obtained from records of income tax filings supplied by the Internal Revenue Service (IRS). The second set of cases provides an over-sampling of wealthy families, which shows the wealth distribution even with a sample size this small.

There is an issue with how the SCF differentiates between the respondent and the head of the household. According to the codebook, for male/female couples the head of household is considered the male and for same-sex couples the head is considered the elder of the two. However, the respondent to the survey should be the individual who is more financially knowledgeable, which could apply to either the head of household or the spouse depending on financial responsibilities and shared tasks within the household. Lastly, the data from this survey

is multiply imputed. According to Rubin (1987), for each incomplete value at least two acceptable values will replace it. The Federal Reserve Board uses multiple imputations to create five usable data sets. This means that the number of observations is five times the number of households included in the survey (Federal Reserve Board, 2013), which helps in overall efficiency of the data.

One limitation of the SCF, according to the codebook, is that the version available to the public is changed to ensure that any unusual specific cases cannot be identified to protect the participants' privacy. For example, there is no identifying geographical information in datasets collected after the 1998 SCF. While limiting, this does not impose significant influence on the study being proposed.

Sample selection

According to the Pew Research Center (Pew, 2015), generations of recent centuries are defined as the following: The Greatest Generation (born before 1928), The Silent Generation (Born 1928-1945), The Baby Boom Generation (Born 1946-1964), Generation X (Born 1965-1980), and Millennial Generation (Born 1981-1997). This study includes data from a sample representative of the entire U.S. population and focuses specifically on the Millennial Generation. The total sample size in the 2013 SCF was 6,015 households, while the analytic sample categorized as Millennials, those born from 1981 to 1997, was 801 households.

Measurement of variables

Dependent variables

The analyses for this study will utilize four different dependent variables. The first dependent variable is a measure of whether or not participants in the sample have a credit card balance. The definition of this statement means that the participant has at least \$1 of outstanding

credit card balance, which is coded as 1. If the participant pays off the balance each month, the variable is coded as 0.

The second dependent variable represents participants' total outstanding balance. The question proposed by the SCF is the following, "After the last payment(s) (was/were) made, what was the total balance still owed on (this account/all these accounts)?" The third dependent variable is whether or not the participants have a debit card. If the participant has at least one debit card it was coded 1. If not, it was coded 0. The fourth dependent variable represents the participants that have a revolving amount of credit. The question proposed by the SCF is the following, "Other than the store accounts where you have credit cards, do you (or your family living here) have any charge or revolving charge accounts at stores where you owed money after your last payment? Do you (or your family living here) have any charge or revolving charge accounts at stores where you owed money after your last payment?". If a household held at least \$1 of revolving credit, it was coded as 1. Otherwise, it was coded as 0.

Independent variables

For multivariate analysis, control variables included demographic characteristics such as age of respondent (categorical for descriptive and continuous for multivariate analysis); the highest educational attainment (less than high school, high school diploma, some college, bachelor, post-bachelor degree); marital status (married, single male, single female, partner), race/ethnicity (White, Black, Hispanic, Asian/others), employment status of respondent (salary workers, self-employed, retired, not working), household income (continuous), as well as unfavorable credit attitude (yes/no), and risk tolerance (no risk, average, above average and substantial risk).

For the purpose of this study the age of the survey respondent was included as a continuous variable. The level of education was determined using information regarding the level of schooling as well as the highest degree attained by the household head. This variable was separated into the following five groups: less than high school, high school graduate, some college, bachelor's degree, and post-bachelor's degree. The group that received less than a high school education was listed as the reference group. The marital status of households was measured using four dummy variables, which are as follows: married, single male, single female, and partnered households.

The race/ethnicity of the participants was determined by the participants' self-identification. The responses fall into the following six categories: White, Black, Hispanic, Asian, Pacific Islander/Native Hawaiian, and American Indian/Alaska Native. However, due to the small size of certain ethnic groups, the public version of the SCF datasets include fewer categories by grouping together all race/ethnic groups that are not White, Black, and Hispanic. In this study, the variables include: White, Black, Hispanic, and Asian/others.

Employment status is reported in the SCF by the following categories: employed by someone else, self-employed, retired, or not in the labor force due to lack of employment. Other criteria for this study are that the participating household head must be working full-time and are either salaried or self-employed workers. This makes the self-employment variable measurable by a binary code: 1 if the household head is self-employed, and if not 0.

Household income was computed according to the approach used by the Federal Reserve Board. To measure income, the interviewers requested information on the family's pre-tax income, for the full calendar year preceding the survey. For example, 2013 SCF includes a household's income in the year of 2012. General credit attitude was measured in the SCF by

asking respondents the following: “Do you think it is a good idea or a bad idea for people to buy things on the installment plan?” There were three possible responses: (1) good idea, (2) good in some way, bad in others, and (3) bad idea. People who answered “bad idea” were categorized as having an unfavorable attitude toward credit use.

The last variable discussed risk tolerance. In the SCF, respondents answer the following question, “Which of the statements on this page comes closest to the amount of financial risk that you (and your {husband/wife/partner}) are willing to take when you save or make investments?” The level of risk tolerance is measured as four dummy variables for no risk, average, above average, and substantial risk.

Analysis

First, a descriptive analysis for the sample and the variables of interest using univariate and bivariate analyses was conducted. Additional multivariate analyses will further investigate the relationship between the dependent and independent variables.

For the multivariate analysis, I used two different regression models, logistic regression model and Ordinary Least Squares (OLS) regression. A logistic regression (logit) is widely used for analyzing the relationship between several explanatory variables and a binary outcome variable. An OLS regression is used when you have a continuous dependent (outcome) variable and want to estimate the unknown parameters in a regression.

CHAPTER 4

RESULTS

Descriptive results

The sample's descriptive results of credit card behaviors of U.S. households are presented in Table 1. About 38% of U.S. households had at least \$1 of a credit card balance. The mean total outstanding balance of credit cards was \$2,185.31, which is the average monthly usage that gets paid off. Nearly 80% of all U.S. households had a debit card. In addition, the mean interest rate of the card on which consumers carried the largest balance was 8.74%. Furthermore, 4.52% of U.S. households had revolving balances on their credit cards, meaning that most consumers pay off their credit card debts regularly each pay period. Among households who held credit card debt, the mean total outstanding balance of credit cards was \$5,729.23. In addition, 90% of those with credit card debt also held a debit card. The mean interest rate of the card on which

Table 1. Characteristics of credit card use of U.S. households, 2013 SCF

Variables	All households (N=6,015)	Those with credit card debt (N=1,995)
Having a credit card balance	38.14%	N/A
Total credit card outstanding balance (mean)	\$2,185.31	\$5,729.23
Having a debit card	80.28%	90.07%
Interest rate on the card where you have the largest balance	8.74% (interest rate)	12.46% (interest rate)
Having a revolving credit	4.52%	11.85%

Weighted results.

consumers carried the largest balance was 12.46%. Lastly, 11.85% of U.S. households with credit card debt had revolving balances on their cards.

Descriptive results of credit card behaviors specific to Millennials from the 2013 Survey of Consumer Finances (SCF) are presented in Table 2. About 34% of Millennials had at least \$1 of a credit card balance. The mean total outstanding balance of credit cards was \$1,048.01. This was less than half of that owed by the average U.S. household. Over 90% of Millennials had a debit card, which is higher than that of the U.S. population in general. In addition, the mean interest rate of the card on which Millennials carried the largest balance was 6.85%.

Furthermore, 4.08% of Millennials had revolving balances on their credit cards, which is very similar to the behavior of the average U.S. households. Among Millennials holding credit card debt, the mean total outstanding balance of credit cards was \$3,049.48. Nearly 97% of these Millennials had a debit card. Also, the mean interest rate of the card on which Millennials with credit card debt carried the largest balance was 12.43%. Lastly, 11.9% of Millennials with credit card debt had revolving credit card balances, which is similar to the statistic of U.S. household with credit card debt that have revolving credit balances.

Table 2. Characteristics of credit card use of Millennials, 2013 SCF

Variables	All households (N=801)	Those with credit card debt (N=263)
Having a credit card	34.4%	N/A
Total credit card outstanding balance (mean)	\$1,048.01	\$3,049.48
Having a debit card	90.5%	96.9%
Interest rate on the card where you have the largest balance (mean)	6.85% (interest rate)	12.43% (interest rate)
Having a revolving credit	4.08%	11.9%

Weighted results.

Table 3 contains descriptive characteristics from all U.S. households versus Millennials specifically from the 2013 SCF. The variables discussed are the following: age, education, marital status, race/ethnicity, employment status, income, credit attitude and risk tolerance.

The mean age of household respondents was 51 years old while the average age of Millennial household respondents was about 27 years old. When looking at education, some high school and high school completion percentage were higher for households than Millennials, while some college and college completion were higher for Millennials than households. In addition, the percentage of participants that received post-bachelor degrees was higher among household respondents than Millennials. The percentage of married couples was 47.59% for households and 28.25% for Millennials. The percentage of single females in the two groups is relatively similar with 27.98% unmarried in the sample household and 28.01% in the Millennial category. The percentage of single males in the household sample was 15.37% and 24.64% for Millennials. In addition, the percentages of households classified as partnerships were about 9% and 19% for Millennials.

Racial ethnicity comparisons for households versus Millennials for White was 70.09% for households and 61.42% for Millennials, for Black was 14.61% for households and 16.98% for Millennials, for Hispanic was 10.64% for households and 16.12% for Millennials, and for Asians/Others was 4.65% for households and 5.48% for Millennials.

Nearly 55% of households and 77% of Millennials are salaried workers. About 9% of households are self-employed compared to only around 5% of Millennials. The percentage of households not working is 16.60% while the percentage of Millennials not working is 18.05%. The mean income for households was \$86,596.13 compared to \$42,571.04 for Millennials. In regards to credit card attitudes, 34.59% of households had negative attitudes toward credit while

Table 3. Characteristics of sample households, 2013 SCF

Variables	All households (N=6,015) Percentages	Millennials (N=801) Percentages
Mean age (S.D.)	51.2 (7.73)	26.5 (1.77)
Education (%)		
Less than high school	10.99	8.88
High school	31.30	27.44
Some college	25.57	32.97
Bachelor degree	19.66	21.55
Post-bachelor degree	12.48	9.16
Marital status (%)		
Married couple	47.59	28.25
Single female	27.98	28.01
Single male	15.37	24.64
Partnered couple	9.06	19.11
Racial/ethnicity (%)		
White	70.09	61.42
Black	14.61	16.98
Hispanic	10.64	16.12
Asian/others	4.65	5.48
Employment status (%)		
Salaried workers	54.52	77.08
Self-employed	8.68	4.87
Retired	20.19	N/A
Not working	16.60	18.05
Mean income (Median)	\$86,596.13 (\$46,668.45)	\$42,571.04 (\$31,450.47)
Unfavorable credit attitude (%)	34.59	31.82
Risk tolerance (%)		
Substantial risk	3.01	3.55
Above average risk	14.08	18.53
Average risk	36.31	38.10
No risk	46.61	39.81

Weighted results.

31.82% of Millennials had unfavorable attitudes. There was not much variation in relation to risk tolerance between the two groups. The most significant differences were that for above average risk households were about 14% and Millennials were about 19% and about 47% of households took no risk while about 40% of Millennials took no risk.

Multivariate results

When testing for significance regarding the results, I used a p-value of 0.05 as a statistical threshold. Therefore, if the p-value is less than 0.05, the effect of that variable is statistically significant. In Model 1, as showed in Table 4, results from the logistic regression on the likelihood of credit card usage indicated that as age increased, the likelihood of households having a credit card increased as well. Specifically, each additional year of age increased the odds of having credit card balance by 6%. Compared with those with less than high school education, households that completed some college or earned a bachelor degree had a higher likelihood of having credit cards. In addition, single females and single males were less likely to use credit cards when compared with married couples. The odds of single female and male households having a credit card balance were 36% lower than those of married couples. Black households were less likely to use a credit card than White households. As income increased, the likelihood of having a credit card increased as well. Each 10-fold increase in income increased the odds of having a credit card balance by 43%. Households that have unfavorable credit attitudes were less likely to use credit cards than similar households with favorable attitudes. In particular, those with unfavorable credit attitudes had 38% lower odds by comparison to those with favorable attitudes.

Table 4. Logistic regression on the likelihood of having a credit card balance, 2013 SCF

Variable	Coefficient	Standard Error	P-value	Odds Ratio
Age	0.0552	0.0245	0.0241	1.057
Education				
Less than high school (reference)				
High school	0.6488	0.3397	0.0561	1.913
Some college	1.3337	0.3384	<.0001	3.795
Bachelor degree	1.3108	0.3588	0.0003	3.709
Post-bachelor degree	0.1495	0.4217	0.723	1.161
Marital status				
Married couple (reference)				
Single female	-0.4447	0.2225	0.0457	0.641
Single male	-0.4535	0.2261	0.0449	0.635
Partnered couple	-0.14	0.2154	0.5156	0.869
Race/ethnicity				
White (reference)				
Black	-0.4388	0.2206	0.0467	0.645
Hispanic	-0.0617	0.2138	0.7731	0.94
Asian/others	-0.7279	0.3844	0.0583	0.483
Employment status				
Salaried workers (reference)				
Self-employed	0.5535	0.2842	0.0515	1.739
Not working	-0.6803	0.3058	0.0261	0.506
Log of income	0.3582	0.1209	0.0031	1.431
Unfavorable credit attitude	-0.4755	0.165	0.0039	0.622
Risk tolerance				
Substantial risk	-0.23	0.4372	0.5987	0.795
Above average risk	0.3273	0.2145	0.1269	1.387
Average risk	0.1359	0.1757	0.4394	1.146
No risk (reference)				
Concordance (mean)	72.5%			

Weighted results. Total sample size: 801

For Model 2, results from the OLS regression showed that age, education, race/ethnicity, employment status, income and credit attitude were found to be significant (See Table 5).

Similarly to Study 1, as age increased, the amount of credit card outstanding balance increased. Specifically, each additional year of age increased the amount of credit card outstanding balance by \$108.89. Compared with those with less than a completed high school education, households

Table 5. Ordinary Least Squares on the amount of credit card balance, 2013 SCF

Variable	Coefficient	Standard Error	P-value
Intercept	-4066.8146	628.4012	<.0001
Age	108.89492	15.80846	<.0001
Education			
Less than high school (reference)			
High school	854.56102	206.46367	<.0001
Some college	1281.50634	207.35655	<.0001
Bachelor degree	1321.79993	224.15938	<.0001
Post-bachelor degree	1297.76348	261.6078	<.0001
Marital status			
Married couple (reference)			
Single female	-797.22554	150.78579	<.0001
Single male	-946.67212	155.01038	<.0001
Partnered couple	-669.8193	156.18108	<.0001
Race/ethnicity			
White (reference)			
Black	-434.8404	147.23515	0.0032
Hispanic	232.82239	151.11531	0.1235
Asian/others	-715.45981	234.74205	0.0023
Employment status			
Salaried workers (reference)			
Self-employed	1910.77754	207.70198	<.0001
Not working	309.93378	174.36275	0.0756
Log of income	181.17668	51.50196	0.0004
Unfavorable credit attitude	-376.02409	111.66878	0.0008
Risk tolerance			
Substantial risk	-245.4226	285.48026	0.39
Above average risk	66.01601	151.74017	0.6635
Average risk	-226.41411	123.69062	0.0673
No risk (reference)			
Adjusted R-squared	0.0835		

Weighted results. Total sample size: 801

who completed high school, had some college education, earned a bachelor's degree or graduate degree all had higher credit card balances than the reference group. Married couples had a higher credit card balance than other types of households. In addition, White households had higher amounts of credit card balance than Black and Asian households. When compared with salary

earning households, self-employed households had higher credit card balances. As income increased, so did outstanding credit card balances. Households that have unfavorable credit attitudes had lower credit card balances than similar households with favorable attitudes.

For Model 3, the logistic regression on the likelihood of owning a debit card is presented in Table 6. As age increased, the likelihood of households having a debit card decreased. Specifically, each additional year of age decreased the odds of having a debit card by 6%. Compared with those with less than a completed high school education, households that completed high school, had some college education, earned a bachelor's degree, or earned a graduate degree all had a higher likelihood of having a debit card. Households with more educated respondents had higher odds of having a debit card from 132% (high school diploma) to 415% (post-bachelor degree). Black and Hispanic households were less likely to use debit cards than White households. When compared with salary earning households, those who did not work were less likely to use debit cards. As income increased, the likelihood of having a debit card also increased. Specifically, each 10-fold increase in income increased the odds of having a debit card balance by 20%. Households that had unfavorable credit attitudes were less likely to use debit cards than those with favorable attitudes. When compared to those that have no tolerance for risk, households that had an average risk tolerance were more likely to use debit cards. Those with average risk tolerance had odds of having a debit card 2.7 times that of other respondents not willing to take any risk.

In Model 4, the logistic regression on the likelihood of holding revolving credit is displayed in Table 7. Black and Hispanic households were more likely to have revolving amounts of credit when compared to White households. Black and Hispanic households had odds of having a credit revolving balance 5.5 times and 7.4 times higher than Whites households,

respectively. In addition, self-employed households were more likely to have revolving credit than salary earning households. Lastly, households that had an average risk tolerance were more likely than those with no tolerance for risks to have revolving credit with odds 3.3 times as high.

Table 6. Logistic regression on the likelihood of having debit card

Variable	Coefficient	Standard Error	P-value	Odds Ratio
Age	-0.0658	0.0334	0.0487	0.936
Education				
Less than high school (reference)				
High school	0.8393	0.3361	0.0125	2.315
Some college	1.627	0.3767	<.0001	5.089
Bachelor degree	2.1084	0.5156	<.0001	8.235
Post-bachelor degree	1.6388	0.6118	0.0074	5.149
Marital status				
Married couple (reference)				
Single female	-0.2233	0.3491	0.5224	0.8
Single male	-0.5352	0.3572	0.1341	0.586
Partnered couple	0.1059	0.3758	0.7782	1.112
Race/ethnicity				
White (reference)				
Black	-0.7572	0.3111	0.0149	0.469
Hispanic	-0.6443	0.3069	0.0358	0.525
Asian/others	0.3296	0.7276	0.6506	1.39
Employment status				
Salaried workers (reference)				
Self-employed	-0.5525	0.4566	0.2262	0.576
Not working	-0.7658	0.3213	0.0172	0.465
Log of income	0.1783	0.0806	0.027	1.195
Unfavorable credit attitude	-0.5671	0.2447	0.0204	0.567
Risk tolerance				
Substantial risk	-0.5156	0.4878	0.2906	0.597
Above average risk	0.5331	0.3758	0.156	1.704
Average risk	0.9921	0.3278	0.0025	2.697
No risk (reference)				
Concordance (mean)	79.2%			

Weighted results. Total sample size: 801

Table 7. Logistic regression on the likelihood of having revolving credit

Variable	Coefficient	Standard Error	P-value	Odds Ratio
Age	0.0364	0.0562	0.5174	1.037
Education				
Less than high school (reference)				
High school	-0.2324	0.6568	0.7234	0.793
Some college	0.2808	0.6315	0.6565	1.324
Bachelor degree	-0.1858	0.7222	0.797	0.83
Post-bachelor degree	-15.9072	1110.3	0.9886	<0.001
Marital status				
Married couple (reference)				
Single female	-0.9231	0.6142	0.1328	0.397
Single male	0.1419	0.5074	0.7797	1.152
Partnered couple	-0.1774	0.4955	0.7203	0.837
Race/ethnicity				
White (reference)				
Black	1.7105	0.4911	0.0005	5.532
Hispanic	1.9978	0.4319	<.0001	7.373
Asian/others	-14.7964	1702.3	0.9931	<0.001
Employment status				
Salaried workers (reference)				
Self-employed	1.4868	0.4703	0.0016	4.423
Not working	-0.0107	0.7144	0.988	0.989
Log of income	0.5348	0.3036	0.0782	1.707
Unfavorable credit attitude	-0.036	0.4057	0.9294	0.965
Risk tolerance				
Substantial risk	-0.0241	1.1388	0.9831	0.976
Above average risk	0.9331	0.5536	0.0919	2.542
Average risk	1.1909	0.4486	0.0079	3.29
No risk (reference)				
Concordance (mean)	82.3%			

Weighted results. Total sample size: 801

CHAPTER 5

DISCUSSION

This study investigated the credit card behaviors of Millennials in the United States. Results from the 2013 Survey of Consumer Finances (SCF) showed that as the age increases, the likelihood of having a credit card and the amount of credit card outstanding balance increased. However, as age increased, households were less likely to hold a debit card. This overall pattern suggests that as people age, they become more comfortable having and using credit. This is a logical conclusion based on the fact that experience dealing with financial matters is gained over time. One possible interpretation for the decrease in debit card ownership as age increased could be that it is more convenient for an aging population to use one credit card than to have both a credit and debit card.

When looking at the differences in education as it relates to credit card debt, it was determined that completion of high school, attending college, earning a bachelor's degree, and/or a graduate degree all led to having a higher credit card balance than those who did not complete high school. This can be attributed to the fact that many college students must use credit cards to help finance their college education. It can also be attributed to an increase in financial education. Credit, when used appropriately, can be a powerful tool in one's financial repertoire. This group of educated individuals was also more likely to have debit cards.

Married couples were more likely to use credit cards than single males and females, and they also carried a higher credit card balance than single households. One possible cause for these behaviors is an increase in spending as a married couple. In addition, if both spouses

attending college, their combined debt from these institutions is double that of a single household.

Black households were less likely to use a credit card than White households, and Black and Asian households had lower amounts of credit card balances than White households. Across the board, White households were more likely than others to have debit and credit cards as well as credit card balances. However, Black and Hispanic households were more likely to have revolving amounts of credit when compared to White households. One cause for this could be the amount of income earned by these households. Black and Hispanic households are more financially vulnerable than White households. A household with more disposable income would be more likely to use these assets responsibly, rather than using them solely out of necessity.

An increase in income led to an increased likelihood of having a credit card as well as credit card balances and probability of having a debit card. Having access to increased amounts of disposable income means there is not as much risk associated with having a higher credit card balance. The household would simply have to pay off the balance at the end of each pay period, which appeared to be the case since these households did not have a statistically significant p-value for maintaining revolving credit.

Households with unfavorable credit attitudes were less likely to use credit cards than similar households with favorable attitudes. They also had lower credit card balances than households with favorable credit attitudes. This was expected because it is a logical conclusion that those who have a negative outlook on credit would be less likely to use it than those with a positive outlook.

Self-employed households had higher credit card balances than salary earning households. Self-employed households were also more likely to have revolving credit than

salary earning households. This could be attributed to self-employed peoples' income being less of a certainty when compared to salary earners. Those who are self-employed must make sure that all expenses, insurance, and wages are paid out before they take out their own wages. In a slow month, or one in which overhead costs or repairs are more than expected, this could affect the take home pay of the self-employed individual. In addition, those who do not work were less likely to use debit cards than those who earn a salary. This is a logical conclusion because if an individual is not bringing in a monthly salary, there is no need to have a debit card.

Households that had an average tolerance for risk were more likely to use debit cards than those that had no risk tolerance. In addition, these households were also more likely to have revolving credit than households with no risk tolerance. In other words, households are not likely to participate in something that makes them feel uncomfortable. Therefore, if they had an adverse risk tolerance, they would not use revolving credit if they could possibly avoid it.

The implications of this study are that age, education, income, ethnicity, credit attitudes, level of risk tolerance, and employment status all have an affect on households' decisions to have credit and debit cards as well as having outstanding credit balances and revolving credit. This highlights possible areas where consumers' financial knowledge might be lacking. For example, educating those in the Millennial generation about the long term advantages credit cards can provide when used responsibly could be beneficial for them. The results suggest that an increase in age leads to an increase in the use of credit as well as credit card balances, but not revolving credit. This means that credit is being used more responsibly with older generations because they are paying off their debt each pay period. Passing this knowledge to Millennials could help them in planning for the future.

Instructing those who did not attend college about how to use credit wisely as well as the pitfalls of using it negatively could influence how they view credit. Financial planners could help this group of individuals with their lack of financial knowledge, or teach them how to manage and budget with a low income. The results of this study showed that individuals with higher education were more actively using credit cards than those without the same education. These individuals also did not utilize revolving credit, which suggests that they are using credit responsibly.

Individuals with lower levels of income were less likely to use credit than those with higher levels of income. Black and Hispanic households were more likely to have revolving credit than other ethnic groups. Those who are self-employed also were more likely to have revolving credit than individuals with different employment statuses. The results suggest that these groups would benefit from some kind of financial education or advising.

Credit attitudes and level of risk tolerance both play into how households view and use credit. Those households with negative credit attitudes and low levels of risk tolerance might be affected by past experiences with credit. An undesirable experience that leaves a consumer in a worse off position could be enough of a reason to create negative opinions of credit and risk behaviors. Educating this group of consumers could eradicate fear of credit and replace it with a healthy knowledge of proper credit use.

The Millennial generation is second in size only to the Baby Boomers (Sweeney, 2005), and they will soon be the major market segment that requires the services of financial planners and educators. This research will help financial planners and educators understand the needs and information gaps of Millennials specific to their generation.

Some limitations in this study include the list of tested variables. Other possible variables that could have been included are gender, previous experiences that led to negative credit attitudes, and number of dependents in each household. Each of these could have influenced credit outlooks, credit balances, and revolving credit.

Other limitations could come from the fact that the methodology of data collection in the Survey of Consumer Finances is largely self-reported and participation is on a volunteer basis. This limits the possibility of receiving completely accurate information for every participant in the study. While the sample size used by the SCF is fairly large, it is not possible for everyone in the United States to be interviewed in the data collection process.

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