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Assessing the Level and Impact of Financial Literacy on African Americans

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Walden University
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Abstract

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MBA, Ohio Dominican University, 2011

Bachelors of Education, University of Education, Winneba, Ghana, 2003

Dissertation Submitted in Partial Fulfillment

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Abstract

Individuals are faced with making important economic decisions regarding retirement, savings, investing, and insurance. Across the globe, developed and emerging economies are experiencing growth in the sophistication of financial markets and products. Individuals require a greater degree of financial literacy to understand and explore these sophisticated and emerging financial markets and products. A review of literature revealed African Americans, however, lack the decision-making tools to function in the financial world. The purpose of this study was to assess the extent to which African Americans have financial knowledge. The sample size was 382 African Americans residing in Columbus, Ohio. The study was based on the planned behavior theory, self-determination theory, and transtheoretical theory, all of which emphasize autonomy and competency. Data were collected utilizing the Jump-$tart Coalition survey instrument for measuring financial knowledge. Survey questions focused on personal finance topics including income, money management, savings and investment, and spending and credit. Data were analyzed using *t* test and ANOVA. On average, participants demonstrated a lower knowledge level of personal finance. Results (M = 45%) were compared with the Jump-$tart Coalition national average (M = 48%). Results however, indicated that, formal financial education has a positive impact on knowledge of personal finance. There was significant knowledge difference (t = 12.921, p = .00) between participants who took courses in finance and economics and participants who did not. This study has positive social change implications in that it could lead to improvement in economic well-being of African Americans as well as the health of the nation's economy.

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Dedication

This scholarly work is dedicated to my children; Roland, Rolanda, and Nora, popularly called the “R Family,” as a symbol of my commitment to attain higher educationan and achievement worthy of emulation.

Acknowledgments

My major thanks go to the Almighty God for the gift of academic capability to acquire knowledge up to this level of educational attainment. I am equally most grateful to my dissertation committee: Dr. Steven Tippins, mentor and chair, Dr Mohammad Sharifzadeh, committee member, and Dr. Klagge, URR reviewer, for the various roles they played in moving me this far. I also like to thank Dr. Adu Bonna as a source of motivation to my successful completion of this graduate course.

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Chapter 1: Introduction to the Study

Introduction

Individuals and households make important economic decisions, including financial decisions. While some decisions can be made based on experience, age, and other factors (de Bruin, Parker, & Fischoff, 2007; Juliusson, Karlsson, & Gärling, 2005; Stanovich & West, 2008), other decisions are complex, requiring information, skills, and education. For example, financial decisions such as retirement planning and alternative investment opportunities require expert advice or financial education to execute them successfully. Also, developed and emerging economies have been experiencing growing and increasingly sophisticated financial markets and products in recent times. These financially sophisticated markets and products require education and financial literacy to enable decision making and the adoption of such products (Gaurav, Cole & Tobacman, 2011).

Financial education can substantially assist in making informed decisions. Some documented sources indicate that most Americans, especially African Americans, lack this important decision-making tool to function (Lusardi, 2008; Mandell, 2009). According to Mandell, (2009), the low financial knowledge status of African Americans has ramifications for their financial wellbeing as far as resource management is concerned. In recent times, the financial world has shifted the burden for making finance-related decisions to individuals (Mitchell, & Lusardi, 2011). Financial decision areas such as investing for retirement, saving for college education, or acquiring insurance for the family, which were previously shared with governments or employers, have now been shifted to the individual, who has had to assume the burden of risk for complex savings tasks (Norman, 2010; EOCD, 2006). Furthermore, consumers are facing more complex financial obligations, including home buying, employee benefits, and paying for college and are prone to the severe consequences from financial mistakes (Harnisch, 2010). There is a greater need for financial education in an increasingly global and unforgiving economy. For example, we live in a world of economic uncertainty that requires individuals to be cognizant of what is happening in the economic world in order to develop skills and services that will sustain their personal and business financial wellbeing. This calls for greater education. Research shows that there is a strong correlation between poor financial illiteracy and high indebtedness and low wealth accumulation (White House 2012).

An increasingly changing financial atmosphere that places more financial decision-making tasks on the consumer calls for increased financial understanding and planning in every facet of life (Harnisch, 2010). I conducted this study to assess the extent to which African Americans receive financial education and literacy over time. The study is a replication and extension of previous studies' findings that African Americans receive and maintain a lower level of financial education than their European American counterparts in the population over the past several years. The study is intended to test the financial knowledge levels of African American adult workers, entrepreneurs, and students of 18 years or older in Columbus, Ohio.

Background of the Study

As financial markets and products become increasingly complex in ever-growing developed and emerging economies, new and updated knowledge of financial matters is necessary for individuals and households to manage their resources (Mitchell, & Lusardi, 2011). The recent financial crisis that spanned 2007 through 2009 caused many irreparable financial losses to households and individuals (Bucher-Koenen, & Ziegelmeyer, 2013; Duca, Muellbauer & Murphy, 2010). For example, according to Atkinson, Luttrell and Rosenblum, (2013), households' net worth dropped $16 trillion, or 24%, from the third quarter 2007 to first quarter 2009.

The crisis called for new and sustainable financial reforms and programs across nations that would equip individuals and households to survive in times of hardship via effective financial decision making. To restore the hopes of Americans following the crisis, the government made a committed statement that "No issue is currently more important to this country than restoring economic security for all families in the wake of the greatest economic crisis since the Great Depression" (White House, 2012, p. 1). According to the White House, saving for retirement and higher education and understanding credit card, student loan, and mortgage debt issues through personal financial literacy not only benefit American families, they also have implications for the nation's economic health.

Furthermore, aging is inevitable, and so is retirement. People retire either voluntarily or involuntarily (Don & Sousa-Poza, 2007). Whichever the case, governments and employers of most developed countries had at one time the sole responsibilities to plan toward compensating their retirees through the traditional pension scheme (Josiah, Gough, Haslam, & Shah, 2014). However, today there has been a paradigm shift away from government-employer responsibility to employee responsibility, where the concept of the Defined Benefit (DB) pension scheme gave way to the Defined Contribution (DC) pension scheme (Josiah, Gough, Haslam, & Shah, 2014; Pension Review Board, 2012). In the wake of this shift of burden, financial planning and decision responsibilities now rest with the employee. According to Mitchell, and Lusardi, (2011), the employee is now not only saddled with the decision of how much to contribute toward retirement, but also how to distribute their wealth, either to withdraw benefits as a lump-sum, an annuity, or even to reinvest.

These changes support the growing need for financial education and sensitization. Financial education does not only shape cost-effective financial planning and behavior, it also enhances asset accumulation (Jappelli & Padula, 2011; Mitchell, & Lusardi, 2011). Jappelli & Padula, (2011, 2013) recognized financial literacy as a specific form of human capital, through which individuals and households can accumulate by investing in their own financial knowledge.

Records show, however, that most Americans lack this wealth accumulation tool (Grinblatt, Keloharju & Linnainmaa, 2011). According to Grinblatt, et al., (2011), about 50% of American households do not participate in the stock market, one of the wealth accumulation investment sources, not because they do not want to, but because they lack financial literacy. A report of the state-by-state financial capability survey indicated that most American households and individuals have low financial capability (FINRA

Investor Education Foundation, 2012, 2013). This report documented that 56% of Americans households do not have rainy-day funds to meet three months of financial contingencies, and 19% reported overspending their household income. Furthermore, 34% reported paying exactly the minimum credit card payment, and 26% reported having overdue medical bills (FINRA Investor Education Foundation, 2012).

The low financial capability status of Americans has increased the growing need for financial education for individuals to survive in the global economy. The financial crisis that spanned from 2007 through 2009, was a wake-up call for government policy-makers to educate their citizens on howto survive unstable financial conditions (Atkinson, Luttrell & Rosenblum, 2013; Financial Literacy and Educational Commission [FLEC], 2010).

Financial literacy and education has been, and still is, a major concern. Financial education can influence positive change in behavior and attitudes toward money practices such as savings, spending, investment, and risk management (FINRA Investor Education Foundation, 2013; Fluellen, 2013). Having an understanding and knowledge of money matters not only impacts sound financial decision making but also the financial health and confidence of the individual (Norman, 2010; Tschache, 2009).

For these reasons, concerted efforts have been made in recent years to promote the financial well-being of the individual, in part by identifying critical research opportunities that could provide outcome-based financial education, relevant public policy, and effective practice (Schuchardt et al., 2009). For example, realizing the need for individuals and families to have the information and tools necessary to make sound financial decisions in an increasingly complex financial system, FLEC developed a strategy to increase awareness and access to effective financial education. The strategy was also intended to improve the financial education infrastructure in order to enhance and share effective practices (FLEC, 2010). Furthermore, programs such as individual development accounts (IDA) were also designed to provide individuals with the required training in financial management skills to enable them translate the acquired knowledge into practice (Shockey and Seiling, 2004).

Evidence exists that financial education improves the financial wellbeing and behaviors of individuals and households (Behrman, Mitchell, Soo & Bravo, 2010, 2012; Jappelli & Padula, 2013; Lusardi & Mitchell, 2013, 2014). However, there is still skepticism about whether financial literacy and education can provide long-term improvement in financial behavior and the wellbeing of the individual (Mandell & Klein, 2009). This skepticism has generated renewed interest among researchers, academicians, and policymakers alike.

Nevertheless, favorable reports about financial literacy exist. Studies by Almenberg and Dreber (2012) and van Rooij, Lusardi, and Alessie, (2007, 2011) show a positive link between financial literacy and decision-making, especially in the area of stock participation. Many agents of social change and scholars have conducted similar studies on the financial literacy levels of U.S. citizens (Jump$tart, 2004, 2008, 2012; Lusardi & Mitchell 2011; Mandell, 2004). Findings of Lusardi and Mitchell's (2011), and Mandell's (2004) studies, however, showed that although most Americans lack financial literacy in general, African Americans in particular were ranked lowest.

Statement of the Problem

The problem addressed in this study is the issue of low financial knowledge levels among African Americans in the United States. Many scholars (Almenberg & Dreber, 2012; Eugster, 2013; Jappelli & Padula, 2011, 2013; Lusardi, 2012) have acknowledged that financial literacy is important for wealth accumulation. Grinblatt, Keloharju and Linnainmaa (2011) underscored that about 50% of American households' wealth accumulation is hampered by a low level of financial literacy, and that in particular, African Americans lack this essential economic tool (Lursadi, 2014). Studies about the financial literacy levels of Americans were unanimous in their reports that minorities, especially African Americans, tend to have lower levels of financial literacy (Elan & Goodrich, 2011; Lusardi, Bumcrot & Lin, 2011; Mandell, 2004, 2009).

The fact that African Americans are ranked or branded the least knowledgeable population in terms of financial literacy in the empirical literature generally demonstrates a serious problem worthy of consideration. In the professional field of finance, personal finance is equally important as traditional finance that usually focuses on firm value and shareholder wealth creation (Jones, 2013). The study of this problem derives its significance from the fact that modern scholars, practitioners, and institutions have attached significance to personal finance as a means of addressing the financial needs of Americans in contemporary times (Council for Economic Education [CEE], 2011: Financial Literacy and Education Commission, 2011; Lusardi, 2012; Lusardi & Mitchell, 2012, 2014).

Because personal finance plays a significant role in modern society, many scholars and private and public institutions have developed increased interest in its development. As a result, various studies have been conducted to address the low financial literacy prevalence among Americans (Elan & Goodrich, 2011; Jump$tart, 2012; White House, 2012). A review of the literature, however, revealed some research flaws. No study tends to investigate the financial knowledge levels of African Americans in isolation. Therefore, adequate representation is questionable.

Furthermore, pprevious research that attempted to conduct a study on the minority subgroups – African Americans and Hispanics -- only investigated one aspect of financial literacy, their savings behavior (Lursadi, 2005). Financial knowledge areas include, but are not limited to, savings and investment, numeracy, stocks and bonds, inflation, interest rates, risk management, and other money practices (Lusardi & Mitchell, 2010). In addition, the Jump$tart Coalition for Personal Financial Literacy focuses its biannual studies on students only.

The focus of this study was to address the prevailing gap in the literature. The research built upon and expanded previous studies by; (a) conducting a study focused on African Americans' financial levels of knowledge, (b) increasing the sample representation for the study, and (c) involving a cross-section of African American social classes including entrepreneurs, adult workers, and students as participants.

This study was based on the behavioral theories that emphasize certain conditions to achieve desired behavior, in this case, financial knowledge to ensure wise personal and household financial management.

Purpose of the Study

The purpose of this study was to establish the extent to which African Americans have knowledge in financial matters and use that knowledge in making personal financial decisions. The study was a research extension of previous works of Lusardi (2008), and others but it focused on a single minority group, African Americans. Studies about Americans' financial literacy level began over the past two decades and showed that African-Americans lagged behind their other ethnic counterparts such as European Americans (Jump$tart 2004, 2008, 2012). African American subgroups that previous studies overlooked were included in this study to achieve meaningful generalization. For participants' proximity, accessibility, and cost saving purposes, I drew the sample population for the study from Columbus, Ohio.

For this study, I utilized a quantitative approach together with the cross-sectional designthat utilizes the survey technique as a means of data collection. I investigated the extent to which African-Americans have financial literacy (dependent variable) in terms of money and risk management, stocks and bonds, inflation rates, and interest rates (independent variables). Researchers of personal finance are still working on establishing a standardized method of measuring financial knowledge (Huston, 2010). For now, most personal finance researchers such as Lusardi and Mitchell, (2010, 2012) and van Rooij, Lusardi and Alessie, (2007) have used key educational variables such as numeracy and knowledge of compound interest, stocks and bonds, inflation, and interest rates as independent variables to measure financial literacy.

Research Questions and Hypothesis

RQ1a: To what extent do African-Americans have knowledge about personal finance?

$H_0$1a: Generally, African Americans do not have a low level of knowledge about personal finance.

H_a1a: Generally, African Americans have a low level knowledge about personal finance.

Personal finance and financial matters are used interchangeably in the personal finance literature (Mandell, 2008: Lusardi, 2012). This research question sought to measure participants' financial knowledge in income and budgeting, money management, banking, investment, insurance, and risk management.

RQ2a: To what extent do participants with formal financial education have greater knowledge of personal finance than those without formal financial education?

$H_0$2a; Participants with formal financial education do not have greater knowledge in personal financial matters than those without formal financial education.

H_a2a*;* Participants with formal financial education have greater knowledge in personal financial matters than those without formal financial education.

This research question sought to relate participants' formal financial education with their test scores.

RQ3a: To what extent do participants with formal financial education use financial tools for managing their personal financial matters?

$H_0$3a; Participants with formal financial education do not use financial tools for managing their personal financial matters.

H_a3a; Participants with formal financial education use financial tools for managing their personal financial matters.

This research question focused on how participants with formal financial education manage their personal financial matters.

RQ4a: To what extent do participants without formal financial education use financial tools for managing their personal financial matters?

$H_0$4a; Participants without formal financial education do not use financial tools for managing their personal financial matters.

H_a4a; Participants without formal financial education use financial tools for managing their personal financial matters.

This question focused on how participants without formal financial education use financial tools to manage their personal financial matters.

Other Research Questions

The following additional research questions were designed to study the relationships between participant groups in terms of test scores or mean differences.

RQ1b: Are there differences in knowledge of personal finance between students, adult workers, and entrepreneurs?

$H_0$1b: There are no differences in knowledge of personal finance among students, adult workers, and entrepreneurs.

H_a1b: There are differences in knowledge of personal finance among students, adult workers, and entrepreneurs.

In this research question, I wanted to study if there were differences in knowledge of personal finance between participant groups.

RQ2b: Are there differences in test scores between (a) participants with formal financial education, (b) participants with informal financial education, and (c) participants without any form of financial education?

$H_0$2b: There are no differences in knowledge of personal finance between participants with formal financial education, participants with informal financial education, and participants without any form of financial education.

H_a2b: There are differences in knowledge of personal finance between participants with formal financial education, participants with informal financial education, and participants without any form of financial education.

In this research question, I wanted to know if there were differences in knowledge of personal finance between participants of the three groups. This question is similar to the main research question two, yet broke down research participants into three groups for further analysis.

RQ3b: Are there knowledge differences with respect to personal finance between male and female participants?

$H_0$3b: There is no significant difference in knowledge of personal finance between male and female participants.

H_a3b: There is significant difference in knowledge of personal finance between male and female participants.

In this question, I wanted to know if there were gender differences with respect to knowledge of personal finance.

Theoretical Foundation

The theoretical foundation for this study was based on the human behavior theories. Specifically, behavioral theories such as planned behavior theory (PBT), transtheoretical model (TTM), and self-determination ttheory (SDT) were applied in this study in order to better understand how individuals' behavior patterns toward financial matters could be transformed through financial education (Xiao, 2008b). These behavioral models have been successfully applied in health and education sectors to influence behaviors (American Institutes for Research, 2010).

I was confident that the application of these theories could provide increased understanding of how individual behaviors are formed and influenced. For example, while PBT could be applied to online shopping, investment, and debt reducing behaviors, TTM could be applied to better understand how individuals could be motivated to increase savings and reduce debt. Also, SDT could be applied to better understand the factors that contribute to individuals' money motivations and attitudes (Schuchardt et al., 2007, 2009). Personal finance is a behavior-based discipline (Bhushan & Medury, 2013). It depends on the decision-maker's willingness to let go of a problem behavior in exchange for a positive behavior (Schuchardt et al., 2007). Based on that premise, I employed two frameworks—theoretical and conceptual—which explained how financial education could be employed as an intervention tool to influence an individual's behavior and attitudes toward financial matters and products.

Personal finance entails the process in which individuals and households acquire, develop, and allocate financial resources to satisfy their current and future financial needs. It is concerned with skills, understanding, and behaviors toward money matters (Schuchardt, Bagwell, Bailey, DeVaney, Grable, Leech, Lown, Sharpe & Xiao, 2007). As Schuchardt et al., (2007) stated, in the realm of personal finance, decision makers are central; the more skillful an individual becomes in managing money, the more possible it is to meet the individual's dreams (National Endowment for Financial Education [NEFE], 2010). Previous studies documented that acquiring financial education can improve an individual's financial behavior (Jump$tart, 2012; Turnham, 2010). The Jump$tart, (2012) survey also revealed that financial education exposure not only increases financial knowledge, but also translates into more refined and responsible financial behavior. This finding was more specific to high school and college students who are expected to exhibit such behaviors during adulthood after being exposed to financial education (Jump$tart, 2012).

The planned behavior theory, transtheoretical model, and self-determination theory were employed together to provide insight into the behavior and motivation needed to instill positive attitudes toward money matters. Patterns of behavior of human institutions, societies, households, and individuals regarding money can be desirable or undesirable. In the wealth creation or accumulation process, for example, positive attitudes and behaviors toward savings and investment are crucial. Any attempt to encourage financial behavior change in individuals and households requires a better understanding of behavior formation and the processes needed for assisting consumers in changing their undesirable financial behaviors for positive ones (Schuchardt et al., 2009). Positive financial behavior may include, but is not limited to, money management, debt control, and saving behaviors.

Chapter Two contains an elaboration of the principles pertaining to each of these three models later in this study.

Figure 1 represents a conceptual framework that depicts the outcome of financial literacy as defined in the study by various scholars. The framework is consistent with many researchers who argue that financial literacy leads to financial knowledge and skills acquisition, which in turn influences effective financial decision making ability, behavior, and wellbeing of the individual (Lusardi, 2012; Mandell and Klein, 2009; Schuchardt et al., 2009). According to CEE, (2012), "Financial education is a key predictor of financial knowledge—and financial knowledge is a key predictor of financial behavior" (p.5).

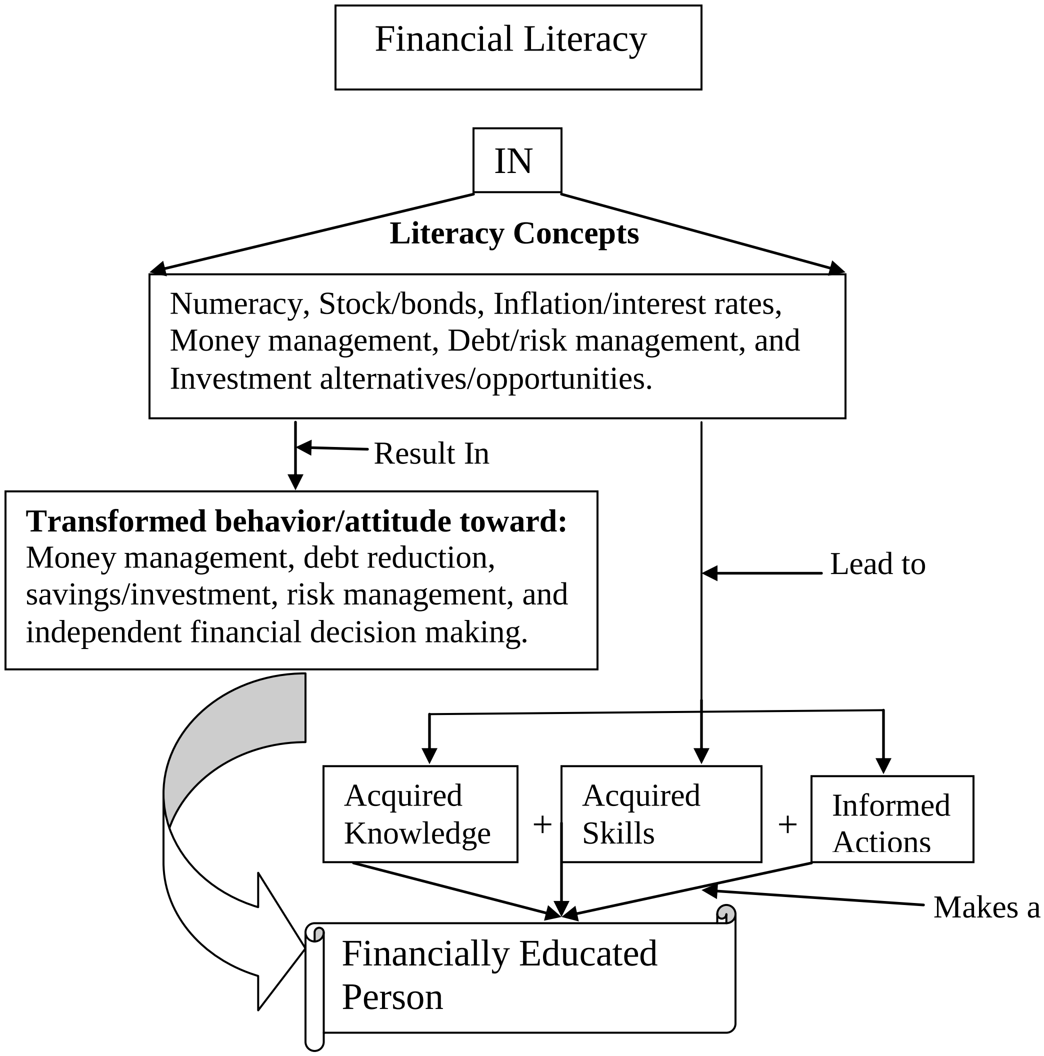

Figure 1. Conceptual framework of financial literacy.

While financial education in two or more of the literacy areas may lead to the perceived financial literacy outcome, a financially educated person is believed to be one who not only acquires the necessary knowledge and skills, but also puts them into informed action (Hogarth, 2006, Norman, 2010). To this end, receiving financial education alone is insufficient. The perception is that a financially enlightened individual, having acquired knowledge and skills, will begin to develop positive attitudes toward such practices as money management, savings, debt reduction, and risk management. This includes making independent financial decisions after the individual receives financial education and the illiteracy gap narrows (Shuttleworth, 2009).

As suggested by Hogarth (2006), although an individual may or may not have financial literacy, he or she will need to be exposed to the motivational strategies to develop the desired attitudes. For example, Shim, Barber, Card, Xiao and Serido (2010) discussed how the theories of consumer socialization and planned behavior could be combined effectively to explain the financial development of young adults. The means of exposing an individual to one or more of the financial literacy areas could be formal, as in a school system, or informal, such as organized workshops and employer-sponsored programs.

Nature of the Study

I conducted this study using the quantitative approach of data collection and analysis. Quantitative, qualitative, and mixed methods are used by various researchers in the social sciences (Arghode, 2012). Arghode (2012) discussed how the fundament beliefs and assumptions influence the choice of each approach. Arghode posited that the choice of each method is dependent on the nature of the investigation and what the analyst intends to achieve. The cross-sectional design was utilized in this study. The choice of methodology and research design was not only for cost effectiveness and convenience, but also because the chosen approaches had been successfully applied in similar studies (Hung, Parker & Yoong, 2009; Mandell, 2004, 2008; Lusardi, 2005; van Rooij et al., 2007).

Specifically, most Americans, including African Americans, lack financial education (Lusardi & Tufano, 2009; Miller 2010). This phenomenon manifests in individual and household financial behaviors and attitudes toward money matters. A study of this kind needed a quantitative approach in order to measure the knowledge levels of a larger population with relatively limited survey questions (Patton, 2002). According to Patton, the advantage derived from quantitative research is the opportunity to not only to achieve research results from many participants with a limited set of questionnaires, but also to provide a abroad generalization from findings. Similarly, the cross-sectional designed was suitable for this study because it utilizes the survey technique where participants could be randomly selected and given equal chances to answer questions pertaining to their behaviors and attitudes toward money management (Nachmias & Nachmias 2008). The survey design allowed me to administer questionnaire items and collect a quantitative response of participants' financial knowledge levels, the effects of lack of financial education on their lives, and their attitudes and opinions about financial education. Data collected from the survey was analyzed using the parametric test. This is discussed in detail in chapter three.

With the quantitative approach, I studied the extent to which African Americans have financial literacy in terms of money and risk management, stocks and bonds, inflation rates, and interest rates. While financial literacy or participants' financial knowledge level is the dependent variable, money and risk management, stocks and bonds, inflation rates, and interest rates become the independent variables in this study. It is difficult but not impossible to measure financial literacy. Personal finance advocates and researchers such as Lusardi and Mitchell (2010, 2012) and van Rooij et al. (2007), had employed similar independent variables such as numeracy and knowledge of compound interest, stocks and bonds, inflation, and interest rates to measure the financial knowledge levels of their participants. However, Huston (2010) called for a standardized approach to measuring financial literacy.

Assumptions

Since financial education is positively linked to financial behavior changes (Kiviat & Morduch, 2012), certain underlying assumptions must be considered. First, an empirical assumption such as poverty and the effect of traditional education need to be ignored when it comes to financial literacy education. For example, it should not be assumed that people from poor families will remain in poverty. Also, traditional education alone might not adequately provide financial literacy, but education accompanied by application of knowledge, information, and skills are assumed to be capable of changing positive finance behaviors. This assumption buttresses the fact that study of adult education, psychology, behavior change, and other financial socialization factors are ignored (Sprow 2011).

Second, individuals who exhibit negative financial behaviors such as negative attitudes toward savings and investment, and money management, lack financial literacy awareness and skills. Thus, individuals tend to exhibit behaviors as a result of knowledge deficiencies (Sprow, 2011). This assumption was supported by Sprow (2011). Sprow posited that, “anyone with difficulties related to money must have a lack in financial knowledge, or the difficulties would not have occurred” (p. 670).

Finally, the researcher assumed that the instrument to be used will provide valid and reliable findings.

Scope and Delimitations

This study focused on African-Americans’ financial knowledge level. Recent and past studies have established that though the financial illiteracy level of Americans is widespread, African-Americans situation is more pronounced (Elan & Goodrich, 2011; Lusardi, 2005, 2008; Lusardi, Bumcrot & Lin, 2011; Mandell, 2004, 2009). Although previous researchers studied both majority and minority groups comprising Whites, African-Americans, and Hispanics, this study focused attention on only African-Americans.

I suggested that perhaps samples employed during previous investigations were not adequate to represent African-Americans. To this end, I conducted an exclusive study of African-Americans residing in the Columbus area, a large city in the State of Ohio. According to Rostogi, Johnson, Hoefel, and Drewery (2010), the African American population in Columbus stands at 237,077 or 15.8% of the total African American population in Ohio. The G*Power software used to estimate the sample size that provide a statistically, fair representation of the Black population. I drew the sample population from adult workers, students and some African American businessmen within the Columbus area.

Limitations

The major limitation to this study was getting access to the entire population. Even if all respondents could be accessed, this could not be accomplished without cost to the researcher. Also, the sample for this study did not significantly reflect the national population's demographics of Ohio to a lesser extent and that of the nation to a larger extent.

The written survey instrument to be used for this study was a previous instrument for measuring financial knowledge created by the Jump$tart Coalition for Personal Financial Literacy and authored by Mandell, (2008). The reason for using this same questionnaire instrument was to maintain consistency and validity. While it is not possible to determine the full validity and reliability of the survey instrument for this study, the researcher assumed the instrument was valid and reliable.

Definition of Terms

The following terms have been applied throughout this dissertation. While some terms are being used as has already been defined, others are used interchangeably.

African-Americans: People of the African descendants born, and living in America. African-American is a name and racial identity that is more preferred by a majority of the Blacks, versus “negro” or people of “color” as was used during the era of racial segregation.

Black Americans: For purposes of the United States census, the Office of Management and Budget (OMB), has defined “Black or African American” as a person having origins in any of the Black racial groups of Africa (Rastogi, Johnson 2010). The terms Blacks or Black Americans are used interchangeably to refer to African-Americans.

*Basic money management practices***:** Include, but are not limited to, budgeting, saving, investing, and insuring (Hogarth, 2006).

Cognitive Ability: Mental skills, including processing information, computational skills, reasoning, judgment, remembering, understanding, and problem-solving skills.

Consumers: Users and beneficiaries of financial education, and financial information.

Core financial competencies; CFPB (2013) defines core financial competencies as basic topic areas in financial management that encompass earning, spending, saving, investing, borrowing, and protecting against risk.

Financial education: Financial education, according to Hogarth, (2006), has been conceptualized to include: (i) "being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes;" (ii) "understanding the basic concept underlying the management of money and assets," and (iii) "using that knowledge and understanding to plan, implement, and evaluate financial decisions." To Norman, **"**Financial education refers to knowledge or an understanding on the importance of money and the use of money, it answers the question, why spend on this as opposed to that." (Norman, 2010, p. 200).

Financially Educated Person: **"**Is a person who is financially literate and is able to allocate finances objectively or wisely" (Norman, 2010).

Financial literacy: “Financial literacy refers to the set of skills and knowledge that allows an individual to make informed and effective decisions through their understanding of finances.” (Norman, 2010, p. 200). The Government Accountability Office (GAO) also defines financial literacy as “the ability to make informed judgments and take effective actions regarding the current and future use and management of money” (Harnisch, 2010).

Financial Capability: FCPB (2013) defines financial literacy, or financial capability, as a “combination of knowledge, skills, and action which encompass the ability to analyze the costs, risks and consequences of particular financial services, products, and decisions, make effective choices and recover from poor ones, know where to go for help, and take other actions to improve present and long-term financial well-being in an evolving financial landscape. It should be noted that though financial literacy and financial education have been defined by various authors, they are contextually the same, and are being used interchangeably throughout this work.

Financial Capital; Tradable assets in an investment perspective which encompass stocks, bonds, and real estate **(**Maginn, Tuttle, McLeavey & Pinto, 2007).

Financial or money matters; Issues of personal finances or money from ownership to management.

Human Capital; human capital from an investment stand point, is the present value future labor income that is non tradable and declines as one ages (Maginn, et al., 2007).

Informed Decision; Decision based on knowledge, education, and information.

Predatory Lending; Lending outside the mainstream (banks and other financial institutions) ranging from payday loans to pawn shops that come with high interest rates.

Rainy-Day Savings: Keeping a part of one's income as a means of financial security to meet any unforeseen future financial emergencies or contingencies, such as loss of job, medical bills or car repairs.

SPSS; Statistical Package for the Social Sciences (SPSS) software. The SPSS is a powerful software tool for entering and analyzing data (Frankfort-Nachmias and Nachmias 2008).

Traditionally underserved consumers; The term "traditionally underserved consumers" includes un-banked and under-banked consumers who mostly hail from low-income and economically vulnerable families (FCPB, 2013).

Un-banked Consumers: Are Individuals or households without banking facilities, thus checking and/or savings accounts.

Under-banked consumers: Individuals or households with checking or savings accounts yet having poor access to mainstream financial services often relying on alternative, non-traditional financial services (FDIC, 2009).

Wealth or net worth: The total value of one's assets minus debts (Chang, & Lui, 2010).

Whites: The dominant population in the U.S. and is used throughout this study as benchmark, but not an envious group, to other ethnic groups.

Significance of the Study

The economic condition of most African-Americans is appalling dating back from the abolition of slavery (Miller, 2010). According to Miller, (2010), African-Americans have suffered economic adversities far too long since 1957. Studies indicate that the majority of African-Americans come from low income and low education families (Lusardi, 2005, 2008). For example, Lusardi, (2005) reported in another study that African-Americans, and Hispanics experience low education, low income and many other unestablished shocks. Personal interactions with colleagues and coworkers indicated that most African-Americans are not credit card holders and the few who hold credit cards either have low or bad credit ratings. Common wisdom also indicates that having a good job and access to credit can improve one's financial well-being. Education can assist enormously in minimizing economic adversity and impoverished conditions. However, lack of education is in part the explanation for most African-Americans' low financial knowledge. For example, close to 40% of African-Americans versus only 15% of their white counterparts do not have a high school diploma (Lusardi, 2005).

An understanding of African-Americans' economic predicament, education and training needs could potentially aid policy makers to better formulate policies and strategies to improve their economic wellbeing via financial education. An understanding of the factors that explained the gap in financial literacy among African-Americans would play a vital role in aiding policy-makers to act affirmatively to mitigate the deficiency, and improve their savings and investing decisions. (Fonseca, R. et al., 2012).

Financial education influences the ability to make savings, investment, insurance, and housing decisions with minimal or no reliance on financial professionals or employers (Kataracha & Konstantinidis, 2014; Shockey & Seiling, 2004; Schuchardt et al., 2009). Because financial education is believed to have a positive impact on consumer financial behaviors, this study will help improve the core financial competencies of African-Americans, and empower them to better take independent control of their financial and economic decisions. Studies indicate that financial education not only contributes to positive financial behavior changes, but also contributes to the economic and general well-being of the individual (Kim, 2007; Kwon & Anderson, 2005; Xiao, Tang, & Shim, 2008). The findings of this study served as a vehicle to entreat parents of African-Americans to enroll more of their children into finance education programs in schools and colleges.

The significance of this study was derived from the assertion of Jiyane & Zawada, (2013). Jiyane and Zawada asserted that, “by means of financial literacy, the basic skills such as numeracy and literacy, communication skills and information searching skills, will be improved which, in turn, will improve confidence, generate good income and achieve the United Nation’s millennium development goals” (Jiyane & Zawada, 2013). Additionally, Adult financial education can impact not only the family, but the entire community, bringing in a new wave of positive change. Studies have shown that “financial education benefits other people or institutions more than the financial learners themselves” (Sprow Forte, 2013, p. 218).

Results of this study hopefully, would benefit not only the African-American sub-minority group, but also benefit other alien Africans, and other American communities that have close ties with African-Americans. My research could empower individuals and many entrepreneurs to rise in their management careers through sound financial education, an education that would empower them to take greater control over their financial lives and businesses (CFPB, 2013).

Summary

Investigating whether or not African-Americans have financial knowledge as has been documented by previous studies, was the ultimate aim of this study. Chapter 1 of this study provided consumers with an introductory framework by explaining the purpose and significance of conducting this study. The chapter introduced the study, informed readers about the study's background, and stated the prevailing and overarching problem, along with the rationale and significance of the study that could potentially introduce a new wave of positive change to its beneficiaries.

Financial education advocates argue that being financially literate not only improves individuals' financial and economic well-being, but also instills better money habits into the individuals (Elan & Goodrich, 2011; Hogarth, 2006). Various scholars have attempted to define financial literacy based on its outcomes. Norman, (2010) conceptualizes financial literacy as a "set of skills and knowledge that allow an individual to make informed and effective decisions through her or her understanding of finances." Lusardi and Mitchell, (2010) posited that ordinary consumers and households alike often face complex financial decisions in their daily lives making consequential economic decisions because they lack vital information. To Hogarth, (2006), financial literacy not only makes a person knowledgeable, and informed about money management issues, but also enables the application of the acquired knowledge and understanding to planning, implementing, and evaluating financial decisions. These definitions are tied to the outcome of financial education that influences such behaviors as minimizing spending, meeting bills on time, having manageable levels of credit, setting financial goals and modalities of attaining the set goals via saving and investing (Hogarth, 2006).

In this study I focused on African-Americans in Columbus, Ohio to draw samples for analysis. For participants' proximity, accessibility and cost, this study was limited to only Columbus residents. The reason for this was that, though the financial literacy level of African-Americans was examined by the Jump$tart Coalition for Personal Financial Literacy and other researchers, this often took place at the national level. Records also indicate that financial education and debt management programs about Federal student loans receive not only uneven administration, but also rare evaluation (PACFC, 2008). The above scenarios and other previous studies have left a wide research gap worthy of consideration in this regard. For example, early studies identified and documented minorities, including women, African-Americans, and Hispanics (Almenberg & Dreber, 2012; Lusardi, 2005; Mandel, 2004) as those having a low level of financial education. While this effort was plausible, it would be more plausible if an exclusive study is conducted on each demographic group to allow more representation.

The purpose of this study was to help close the racial wealth gap that exist between African-American families and White families by appealing to policymakers, and social and racial justice advocates to develop a wealth policy agenda favorable to all families (Meschede, & Osoro, 2013). Shapiro, Meschede, and Osoro (2013) believed institutional amendment, and broad public policy in the area of years of homeownership, education, and income, can essentially close the gap. Through financial education African-Americans can build a formidable financial foundation through risk and debt management, creation of an emergency fund, savings, and investment. The study was also intended to appeal to policy makers to make financial education and debt management programs available and accessible to students in every state in the U.S.

I provided conceptual and theoretical frameworks of the study. While the theoretical framework provided insight into how the application of behavioral theories can translate into positive change in behaviors toward financial matters, the conceptual framework provided a better understanding of what components of financial education make a person financially literate.

Chapter 2 provides a literature review surrounding the topic under investigation. I reviewed the literature on studies involving African Americans' financial literacy, financial education initiatives, the need for financial education, theories of human behavior, and the historical and economic background of African-Americans. Chapter 3 focused on the methodology and instruments used during the data collection process.

Chapter 2: Literature Review

Introduction

In chapter 2, I present relevant literature pertaining to the study. I believe the reviewed literature to be exhaustive and relevant in capturing essential aspects of the study. In the first section, I review literature on financial literacy versus traditional education. In the second section, I review literature on how financial education and effective financial decision-making, relate as dependent and independent variables. I compared and contrasted the two disciplines and explained how both were needed to transform behavior. In the third section, I review literature on the need for financial education and the role that plays in consumers' financial decision-making efforts. In the next section, I review literature on how financial knowledge is determined.

In the remaining sections and subsections, I review literature on; (a) theories of human behavior, **(**b) financial education initiatives and contributions of key organizations to financial literacy drive, (c) historical, economic and educational backgrounds of African Americans, and (d) African Americans' financial literacy level.

Traditional Versus Financial Education

One question that needs clarification is whether traditional education is a substitute for financial education or if they are complementary. The difference between the two disciplines lies in their broad and narrow purposes as defined by various scholars and institutions. While traditional education seeks to develop the intellect, provide social needs, prepare individuals for careers, create a workforce, promote social or political systems, and boost the economy as a whole (Association for Supervision and Curriculum

Development, 2012; Ahukaramū, 2007), personal financial education focuses on the financial wellbeing of individuals and households (Bhushan & Medury, 2013; FLEC, 2011).

Furthermore, financial literacy is beyond the traditional sense of literacy, that of reading and writing. It is an outcome-based education assessed in terms of actual performance in relation to financial matters (Lee, 2013). According to Kirsh et al., (2001, p.3) as cited by Huston, (2010), a standardized definition of general literacy applied in the National Adult Literacy Survey is “using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.” In regard to the question of whether a person with a traditional education also requires a financial education, rresearch has shown that people with a high level of education may exhibit financial knowledge and behaviors as poor as those with low levels of education (OECD, 2006). This significant finding implies that every individual, regardless of level of education, needs financial literacy to function financially. Arguably, while traditional education creates value by conferring liberal or technical knowledge and skills useful to employers and industries, personal financial education equips individuals with the financial capability to assume sole responsibility of their financial matters (FLEC, 2011).

According to Norman (2010), professional education and financial education are two different things. This assertion was made in relation to the question of who is financially literate. Norman asserted that a financially literate person is one who can allocate finances objectively or wisely without being influenced by behaviors and impulsiveness which many scholars argue, can undermine the tenets of financial literacy.

Personal financial education means basic money management—budgeting, saving, investing, and insuring—and a set of consumer skills within a financial education framework (Hogarth, 2006). Education in the fundamentals of personal finance such as cash and debt management, wealth protection through insurance, emergency fund creation, asset accumulation, and estate preservation would likely assist individuals and households in realizing their current and future financial plans.

Relationship Between Financial Education and Financial Decision Making

Financial literacy influences financial decision making (Brown, 2009; Katarachia & Konstantinidis, 2014; Lusardi, 2010, 2011; Lusardi & Mitchell, 2013, 2014). Several studies examined the relationship between financial education and financial decision making (Eugster, 2013; Lusardi and Mitchell, 2007, 2011c; Lusardi and Tufano, 2008, 2009; Lusardi and Scheresberg, 2013; Moore, 2003; van Rooij, Lusardi and Alessie 2011**).** The studies documented a strong connection between both variables**.** For example, Eugster (2013) found a positive correlation between financial literacy and individuals' readiness to participate in a risky asset market.

Also, Moore (2003) documented that, financially knowledgeable individuals and households are more likely to make informed decisions to avoid consequential predatory lending practices than the financially illiterate. Moore surveyed two participatory groups during the study, the "victim pool" and the focus-group, and established that the victim pool was more likely to exhibit a higher rate of risky, negative, and nonproductive behaviors than the focus group. The victim pool was considered the less financially educated group. The decision to create wealth through stock market participation and retirement contributions is well documented as a function of financial enlightenment (Lusardi and Mitchell, 2007, 2011c; van Rooij et al., 2011**).** Lusardi and Mitchell's (2007, 2011c) and van Rooij et al. (2011**)** studies confirmed that financially enlightened individuals tend to not only increase their participation in the stock market, but also achieve a high level of wealth accumulation at retirement through retirement planning.

However, the link between financial literacy and financial behavior and decision-making has been disputed by some scholars. Other variables have a positive influence on the ability to make financial decisions (Huston, 2010; Massimo and Ornella 2011). According to Massimo and Ornella (2011), previous studies failed to establish a strong correlation between financial literacy and financial decision making. Massimo and Ornella argued that, factors such as sociodemographic features, financial maturity, practical experience derived from daily use of financial products, and the amount and quality of information available at the time of decision making, make financial decision-making feasible.

Financial literacy and behavior as positive correlates have also been questioned. Huston (2010), for example, contended that, while financial literacy can be a good quality for predicting financial behavior outcome, the approach does not hold for all individuals. Huston further argued that, other behavior tendencies such as impulsiveness, behavioral biases, unusual preferences, and unexpected circumstances may play a role in poor financial decision-making or behavior. Furthermore, evidence indicates that though the level of financial literacy tends to vary with education and income levels (Lusardi, Michaud, & Mitchell, 2011), some consumers with high education and income levels tend to be as ignorant about financial issues as less-educated and low-income consumers (OECD, 2006).

Nevertheless, other studies argue in favor of financial literacy and its impact on decision-making and behavior. Previous studies documented that, financial literacy impacts the way individuals and households behave when it comes to financial matters and decision making (Brown, 2009; Chang & Lyons, 2008; Kiviat & Morduch, 2012; Mandell & Klein 2009). Brown (2009) reported that, financial literacy influences financial decision-making. Brown investigated the extent that education in personal finance influenced financial decision-making among graduate level health professionals. The study proved significant among the two constructs when participants of the study reported behavioral change including thoughtful consideration of spending, minimizing student loan borrowing, and avoiding credit cards to avoid unnecessary payments.

In similar studies, Harnisch (2010) and Norman (2010) posited that financial education is increasingly relevant, not only for investors but also for average individuals, families, and communities, in enabling them to decide how to balance their budgets, buy a home, fund their children's educations, and save toward retirement. Savings are important in an individual's life. As Elliot and Beverly, (2011) posited, savings not only lead to increased investment for business, they also increase youth educational expectations and the ability to afford school fees, and other school needs. Elliot and Beverly revealed that the youth who had high expectations to graduate from a four-year program and had saved toward college were more likely to attend college than youth without savings. Elliot and Beverly believed that expectation to attend college shortly after graduating high school and eventually attending college is partly influenced by savings.

Rationale for Financial Education

Efforts are being made to provide financial literacy to all Americans because of the enormous benefits (Ramasawmy, Thapermail, Dowlut, & Ramen, 2013) it offers to American citizens as well as the economy as a whole (Norman, 2010; OECD, 2006).

A number of reasons explain the need for financial education. Jappelli and Padula's (2011) study showed that increased investment in financial literacy by a nation leads to a corresponding increase in the national saving rates. Also, the positive relationship between financial literacy and an individuals' ability to make sound financial decisions as evidenced in previous studies (Almenberg & Dreber, 2012; Eugster, 2013; Lusardi and Mitchell, 2007, 2011c; Moore, 2003; van Rooij, Lusardi and Alessie 2011), calls for an increased need for financial education. According to Almenberg and Dreber (2012), Baker and Ricciardi, (2014), and van Rooij et al., (2011), through financial education, individuals and households can accumulate wealth and improve their financial well-being by making viable economic decisions including stock market participation. Other studies confirm this by documenting that financial illiterates are less likely to participate in the stock market than the financially enlightened (Bucher-Koenen, & Ziegelmeyer, 2013).

Many factors account for the overwhelmingly non-participatory behaviors by both financially literate and illiterate individuals and households in the stock market. For example, though, Almenberg and Dreber (2012) documented stock market participation as a product of financial literacy outcome, the participation efforts of most individuals and households are often reduced by low cognitive ability, cost of participation, less knowledge about stock market activities, and risk aversion (Grinblatt, Keloharju, & Linnainmaa, 2011; Guiso & Jappelli, 2005; Kim, Hanna, Chatterjee, & Lindamood, 2012). Guiso and Jappelli (2005) argued that lack of awareness of financial assets is a major impediment to stock market participation. Grinblatt, Keloharju and Linnainmaa (2011) also found that cognitive ability influenced stock market participation. Grinblatt, Keloharju and Linnainmaa found a direct relationship between stock market participation and IQ, controlling for wealth, income, age, and other demographic factors as rivalry variables. As with financial education, high-IQ investors are more likely to participate in the stock market and reap more return on their savings than low-IQ investors (Christelis, Jappelli, & Padula, 2010; Grinblatt, Keloharju, & Linnainmaa, 2011; Lusardi, 2012).

Furthermore, financial literacy influences behavior change (Brown, 2009; Kiviat & Morduch, 2012; Norman, 2010). The need for financial education is important not only for the positive impact it has on consumers, but also the behavioral implication of financial illiteracy. The purpose of financial education is to overcome the negative consequences inherent in financial illiteracy.

Victims of financial illiteracy tend to exhibit fewer attitudes toward savings, investing, and money management and hence accumulate less wealth as a consequence (Lusardi and Mitchell, 2007; Lusardi and Tufano 2009; van Rooij, Lusardi & Alessie, 2007). According to van Rooij, et al., (2007), for example, findings of previous studies indicated that participants who had exposure to financial education in high school or at employer-sponsored programs developed more positive attitudes towards savings: They were more likely to plan for retirement, and accumulate much more wealth than their counterparts. The less-wealth accumulation tendency and behavior resulting from lack of financial education was also confirmed in the studies of Stango and Zinman (2007), and Agarwal, Driscoll, Gabaix and Laibson (2007).

While Stango and Zinman argued that consumers who lack the skill of correctly computing interest rates on series of payments end up with huge debts and less wealth; Agarwal, Driscoll, Gabaix and Laibson contended financial mistakes are peculiar to the young and elderly who demonstrated lower levels of financial literacy. The work of Fornero, Monticone, and Trucchi, (2011) on mortgage choices, also found that more financially literate individuals and families are more likely to develop such behaviors as doing comparison shopping on mortgages, diversifying risks, and repaying their debt obligations on time than financially illiterates. As Mandell (2004) posited, financial well-being is a function of financial resources, and how efficiently one can utilize those resources. Mandell continued to posit that the financial well-being of individuals is likely to be worst if they have fewer financial resources and are also financially illiterate people.

The great economic depression was another cause for the need for financial enlightenment. Financial education is needed to equip the individual with effective coping skills and strategies in times of hardship. The recent great economic depression not only increased concerns for the need for financial education in the U.S, but also in other parts of the globe. As with the U.S, for example, there have been recent attempts to measure the financial knowledge of the citizens of New Zealand (Colmar, 2013). Director of CFPB Richard Cordray, posited that the need for financial education is not only necessitated by the aftermath of the worst financial crisis ever experienced by Americans in recent history, but also the growing complexity of the marketplace coupled with the decisions consumers ought to make to effectively manage their personal finances. All of these things call for the need for increased financial literacy in the general population (CFPB, 2013).

The financial illiteracy level of Americans is at an all-time record high, especially for minorities (Cerarini, et al., 2010; Elan, & Goodrich, 2011; Lusardi, 2005; Lusardi et al., 2011; Mandell, 2004). This trend raised increased concern from financial literacy advocates. Specifically, concern for the prevalence of financial illiteracy among the US citizenry is just not an issue about individual people, but an issue common to both scholars and policy makers alike (Fornero, Monticone, and Trucchi, 2011). While various scholars and institutions argue in favor of financial education, a good number of Americans and teachers are more concerned with where – middle or elementary schools -- personal financial education should be provided (Way & Holden, 2009). Concern from the international arena also showed that in 2008, the Organization for Economic Co-operation and Development embarked on an International Network on Financial Education to foster international participation among member nations globally (Fornero, Monticone, and Trucchi, 2011).

There has been a growing number of studies and publications over the past several years reporting the need and efforts made to provide financial education to individuals, communities and government (Harnisch, 2010; Hogarth, 2006; Norman, 2010; OECD, 2006). These efforts are cognizant of the role financial education plays in the development of individuals, households and communities. A source argued that financial education is crucial not only to individuals, but also to investors, government, and financial institutions (Norman, 2010; OECD, 2006). Findings of Lusardi and Mitchell, (2010) revealed that financial education has a positive correlation with retirement planning. Individuals need financial education not only because of the growing emergence and sophistication of financial markets and products, but because the responsibility and risk of financial decisions have drifted from government and employers to individuals (Fornero, Monticone, and Trucchi, 2011; OECD 2006; Yoong 2011).

Furthermore, the need for financial education, according to Norman, (2010) is two-fold: because individuals generally lack adequate financial background or an understanding of how to navigate today's complex financial markets; and since the strength of the government is dependent on the strength of the individuals that serve the government, financial education is inevitable and necessary. The need for financial literacy is also assigned to specifics. For example, the Dodd-Frank Act is of the view that older Americans ages 62 or older specifically need financial literacy to protect them from financial exploitations through unfair, deceptive, and abusive practices; as well as for current and future financial choices. The bureau also believes the outcome of financial education can move the United States toward a vision of sustained financial well-being for American individuals and families (CFPB, 2013).

Research sources also indicated that financial education is needed to solve compelling consumer issues (Braunstein & Welch, 2002; Consumer Financial Protection Bureau, 2013; Fornero, Monticone, and Trucchi, (2011). According to Braunstein and Welch (2002), the increase in the sense of urgency for financial literacy stems from numerous factors: One is that, technology and market innovations have exposed consumers to a wide spectrum of services providers, predatory lending, a high level of consumer debt, low saving rates, and increased access to credit for the young population. Technology and market innovations also shifted employer responsibility for deciding and directing employer-sponsored retirement and pension plans to employees.

Additionally, Harnisch (2010) made a strong case for financial literacy. Harnisch posited that because financial literacy has a positive association with the health and well-being of individuals, families, communities and markets, lack of or low levels of financial literacy may conversely result in poor health, decreased quality of life and lower college attainment levels. Low levels of financial literacy, coupled with the changing trend of the consumer financial environment, have led to an increase in risky consumer behavior (Harnisch, 2010). Harnisch cautioned that the shift in the consumer environment dictates a more refined financial understanding. In the absence of a solid foundation of knowledge in the basics of personal finance, individuals and families are more likely to incur unsustainable debt, experience home foreclosure, have financial insecurities in retirement, and may face challenges in financing their children's college education (Harnisch, 2010).

Measuring Financial Knowledge

If individuals and households need financial literacy to be able to function in the ever-changing financial environments, how is individuals' knowledge about financial matters determined? Measuring the financial knowledge of individuals is difficult (Hastings, Madrian, & Skimmyhorn, 2012, 2013; Lusardi & Alessie, 2007, Lusardi & Mitchell, 2013, 2014), but not impossible. Research conducted by Huston, (2010) revealed that there is an absence of a standardized measurement approach for financial literacy: Lack of conceptualization, definition, content, and interpretation of the measuring instrument for financial literacy, poses obstacles for its measurement. However, Wagland and Taylor (2009) suggested standards and benchmarks be established for the accurate assessment of financial literacy.

Nevertheless, researchers often adopt different approaches to achieve their goals (Hung, Parker, & Yoong, 2009). While some researchers measure financial knowledge using a subjective or objective approach such as the use of self-assessed questions and subject-matter questions, other researchers utilize statistical models that involve dependent and independent variables. Researchers often develop models as a proxy to evaluate financial literacy (Moore, 2003). For example, Lusardi and Mitchell (2011) applied statistical models to measure the relationship between 401(K) borrowing and the borrower's demographics, financial literacy, and financial behavior. Also Lusardi, Michaud and Mitchell, (2011) developed a stochastic life cycle model to measure the impact of financial literacy on household wealth. Most researchers use the self-assessed and subject-matter approaches for simplicity reasons. However, there seemed to be a mismatch between the self-assessed knowledge and actual knowledge, as participants are more likely to overstate their knowledge (Lusardi & Mitchell, 2014), creating a gap between the knowledge they believe they have and what they actually know.

Financial literacy cannot be statistically evaluated based on simple, isolated measures of knowledge, experiences, or behaviors, but on a combination of comprehensive competency areas (Moore, 2003). For example, previous and recent studies tested the financial knowledge of their participants using subject-matter questions in the areas of financial concepts, investment, life insurance, annuities, numeracy, compound interest, inflation, the stock market, stocks, bonds, risk diversification, and mutual funds (Lusardi & Mitchell, 2010; van Rooij et al., 2007). These competency areas, especially, concepts on compound interest, inflation, and risk diversification have been widely used to measure financial literacy. Their popularity stemmed from the fact that they are consistent and standard and have been used in most studies across the United States and abroad (Lusardi, Mitchell, and Curto, 2009, 2010; Lusardi and Mitchell, 2011c). However, van Rooij et al. (2011) adopted more complex and advanced survey instruments to measure financial behavior relative to stock market participation.

Theories of Human Behavior

Education may be a great behavioral intervention tool for individuals and families, but interventions based on social and behavioral science theories seem to work even better than those lacking a theoretical platform (Glanz & Bishop, 2010). Many theories of human behavior exist; however, behavior models such as the theory of planned behavior (TPB), the transtheoretical model (TTM), and the self-determination theory (SDT) have been successfully applied, especially, in the health and education sectors (Glanz & Bishop, 2010). Because the efficacy of TPB, TTM, and SDT theories is unquestionable and can help provide an increased understanding of how individual behaviors can be transformed through financial education intervention, the researcher suggests these models be employed in this study.

Theory of Planned Behavior

The Theory of planned behavior can be traced to the work of Icek Ajzen (1885). The TPB model posits that, an individual's intention, determined by his or her attitudes, to act or perform an intended behavior, influences the overall behavior (Ajzen, 1991, 2012). TPB explains how individuals' attitude and intention variables can be combined to influence behavior change. Financial education intervention can provide the necessary information needed to succeed in inducing positive attitudes toward money management, debt reduction, and savings behavior. As Moore, (2003) posited, financial knowledge, experiences, and behaviors have a common connection. While financial knowledge and experience may positively influence the financial behaviors of consumers, lack of it may have a negative influence on their overall financial behaviors (Eugster, 2013).

However, there exists a contextual difference between financial knowledge and financial literacy (Elan & Goodrich, 2011; Huston, 2010). According to Elan and Goodrich, (2011) and Huston, (2010), while financial knowledge may be conceptualized as accumulated stock of knowledge acquired via education and/or experience pertaining to personal finance basics and products, financial literacy is the cumulative effect of the ability, confidence, and use of acquired knowledge and experience to deal with financial issues. Huston specifically posited that, financial literacy not only influences personal financial behaviors but also impacts the financial well-being of individuals and households.

Transtheoretical Model

The transtheoretical behavioral model was developed by Prochaska in 1977. The model posits that an individuals' behavior change moves in stages and as such may need planned intervention to motivate those changes (Kolundžija K. et al. 2011). The TTM is a model used to assess a person's readiness to trade an unhealthy behavior inherent in him/her with a new behavior which is perceived to be healthier (Xiao, 2008b). Because most African Americans have negative attitudes toward savings, investment and other financial practices, increasing awareness through financial education can be a good source of behavioral change intervention capable of influencing an individual to terminate bad or anti-financial practices for good ones (Schuchardt et al., 2007, 2009).

The Self-Determination Theory

The SDT is a model that focuses on autonomous and controlled motivation as a means of making choices with or without external interference and the extent to which an individual's motivation is self- motivated and determined (Deci and Ryan, 2008). By implication, financial education should be able to promote and rekindle the individual's interest, and confidence needed to apply the acquired knowledge and skills automatically to their advantage. While it is recognized that education is the backbone of intellectual growth, sometimes one might have education but may not have applied them effectively to reap the financial rewards. Financial education literature which was reviewed, suggests that providing consumers with information is only a part of the solution. As Shockey and Seiling, (2004) posit sheer increased knowledge, formal or informal, does not necessarily translate into behavior change. The ability to manage one's financial life and make good financial decisions requires the interplay of knowledge, skills, and action to make an individual financially literate (FINRA Investor Education Foundation, 2010, 2013; FCPB, 2013). FINRA Investor Education Foundation's (2013) survey educates us that, at times there is a discrepancy between perceived, self-reported knowledge and real-world behavior tendencies.

The basis for the application of these behavior theories in explaining consumer behavior in this study is on the assumption that, knowledge and practice may be at different ends of financial education continuum. The fact that financial education leads to increased knowledge is never the end of the journey. Financial education is needed to combine with the necessary information, skill building, and motivation to make the desired changes in behavior possible (Hogarth, 2006). According to Hogarth, (2006) financial education, awareness campaigns, and perhaps learning tools need to be accompanied with audience-targeted motivational strategies to elicit the desired behavioral changes in financial management practices.

Historical Review of Financial Education Initiatives and Contributions of Key Organizations to Financial Literacy Drive

Efforts to expand financial literacy among Americans have gained wide support from various stakeholders (Kiviat & Morduch, 2012). Over the last several decades, financial education initiatives have been of paramount concern to scholars, educators, community groups, businesses, government agencies, national and international organizations, and policy-makers to provide consumers with this public good (OECD, 2006; FLEC, 2011; Hogarth, 2006; NEFE, Jump$tart Coalition for Personal Financial Literacy, 2008). For example, the Department of Health and Human Services (HHS) launched the American Institutes for Research (AIR) and directed it to conduct an environmental scan on financial and health literacy, and develop plans for their successful delivery. The bi-annual testing of the financial knowledge of Americans since 2004 by the Jump$tart Coalition for Personal Financial Literacy (Mandell, 2004) epitomizes another strong move to assess and provide Americans with necessary financial education. Studies of consumer knowledge, by the Jump$tart Coalition's survey on "The Financial Literacy of Young American Adults," indicated that there was a widespread lack of financial understanding of rudimentary financial concepts, principles and practices (Harnisch, 2010; Jump$tart Coalition for Personal Financial Literacy, 2008).

Following a mounting need for increased financial literacy to improve consumer behavior in the ever-changing financial environment, policymakers have focused attention on mandating financial education and consumer economics curricula in primary and secondary schools in the U.S. (Harnisch, 2010). According to Harnisch (2010), conscious legislation and initiatives initiated at both the federal and state levels have been purported to boost financial education, increase consumer financial literacy, and provide new consumer protections throughout the United States. Consistent with this laudable move, Congress approved legislation in 2003 creating a Financial Literacy and Education

Commission as well as the President’s Advisory Council on Financial Literacy (CFPB, 2013; Harnisch, 2010). The contributions to the financial education drive of these organizations are provided below:

The Financial Literacy and Education Commission

The growing need to provide Americans with financial education and capability has given birth to FLEC in 2003. Mandated with the power to increase consumer financial literacy and provide new consumer protections throughout the United States, the commission began work few years after its promulgation. For example, to increase research in the area of financial education and literacy, the Financial Literacy and Education Commission in 2008 developed a priority list of key research areas called research priorities (FLEC, 2011). Taking cognizance of the fact that many issues have risen overtime, there was a fervent need to update and expand the 2008 research priorities with key research questions many of which were intended to address traditionally underserved and vulnerable populations that may be financially fragile. As a living document to broadly direct research and research funding in the field, participants of the 2012 research priority panel identified the following nine top issues as priority areas for research:

- Evaluate the delivery of financial education for youth and adults in order to identify effective approaches, delivery channels, and other factors that enhance effectiveness.

- Identify optimal combinations of financial information, advice, regulation, disclosure, and delivery mechanisms - -including default options -- and their impact on starting and maintaining positive financial habits.
- Employ longitudinal data to evaluate the effectiveness of core competencies on behavior and financial well-being over time.
- Identify, evaluate, and build consensus on "key metrics" for financial education/capability, including measures of knowledge, behaviors, and well-being.
- Identify and evaluate the relationship between financial education and access to and design of high quality financial products.
- Assess the role of business cycles and the economic and financial contexts in individuals' financial decision making.
- Ascertain how risk and uncertainty, including economic and other shocks (such as natural disasters), alter risk exposure and risk management choices both at the consumer and community levels.
- Identify opportunities and roles for local, state, and federal governments as scalable platforms for financial capability.
- Identify and evaluate potential synergies between educational programs targeting financial capability and those targeting physical and mental health.

The rationale for this broad range of research priorities was to meet the changing trend of the financial education field, as research will be critical to understanding what is effective, and cost effective, so that successful approaches could be replicated and supported through funding and policy (FLEC, 2011).

The President's Advisory Council on Financial Literacy

As with FLEC, the President's Advisory Council on Financial Literacy and Capability was formed in 2008 and 2010 respectively by an executive order. The Council was detailed to advise the President and the Secretary of the Treasury on financial matters, including developing possible means of empowering Americans to understand better and mitigate themselves from financial misfortunes through education (PACFL Annual Report, 2008; The White House, 2013). As a policy, intended by the Federal government to promote and encourage financial literacy among Americans, the Council was detailed to collaborate with public and private entities to step up existing financial-education efforts, especially, for the youth in school, and adults in the workplace. The council was also charged with the responsibilities of ensuring more financial service accessibility, and providing a means of evaluating and conducting research on financial knowledge (PACFL Annual Report, 2008).

The Council immersed itself in reviews of existing studies on financial literacy to better understand and effectively play its mandatory role. Having scrutinized the financial education literature, the Council considered the school, the workplace, and the community, as the three primary financial education delivery hubs accessible to all Americans. Financial literacy and sensitization guidelines were then developed to provide the modalities of financial education delivery in the three hubs (The White House, 2013). To ascertain and promote financial literacy, entrepreneurism and responsible consumer practices, PACFL made 15 recommendations in 2008, one of which was a call for mandatory financial education in all schools for students in grades kindergarten through 12, as well as in post-secondary schools (CFPB, 2013; Harnisch, 2010; PACFL, 2008).

Other recommendations related to financial education delivery presented to Congress and the Department of the Treasury of the United States for adoption, according to PACFL annual report, (2008) included the following:

- Institutionalize and expand the National Financial Literacy Challenge, (personal finance contest) for high school students.
- Implement the Post-Secondary Financial Education Honor Roll program to encourage best practices in financial education at colleges and universities.
- To take the necessary steps to require college students to take a more comprehensive course in financial literacy (or pass a competency test) than the present entrance and exit counseling requirements, as a condition of receiving Federally funded or Federally guaranteed student loans.
- Promote the availability of financial education resources for parents, caregivers, and teachers to use with pre-school and early elementary school children.
- Explore one or more tax incentives to encourage employers to provide financial education in the workplace.
- Implement the Workplace Financial Education Honor Roll program, approved by the full Council in 2008.

- Create an Internet-based resource center on the Federal government's financial literacy website, www.mymoney.gov, for human resource professionals and employers that consolidate the best financial education information and resources.
- Require financial institutions to provide every adult American with access to an electronic, debit card-accessible depository account protected by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
- Provide Federal funding for any non-profit organizations working on community-based financial literacy programs and for state and local governments demonstrating leadership in financial education for their residents.
- The private sector, state and local governments, and nonprofits should adopt the Council's definitions for "financial literacy" and "financial education," so that programmatic decisions are based on a common understanding of the terms.
- Identify and standardize the specific skills that a person should have upon completion of a comprehensive financial literacy program and explore the creation of a certification program for such programs and for instructors of programs that meet the criteria.

- Colleges, universities, and other research entities should execute critical research into the state of financial literacy and the most effective measures to increase financial literacy in the United States.
- Nonprofits should create and distribute a self-administered “National Financial Check-Up” that would allow Americans to assess their own financial knowledge, and provide links to trustworthy sources of information to fill in any gaps.
- Appropriate funds to the United States Department of the Treasury to coordinate active and ongoing media and marketing outreach to promote more widespread knowledge of general financial education concepts among the American people.

The National Endowment for Financial Education (NEFE)

NEFE is a private, nonprofit entity dedicated to providing financial education as well as empowering financial decision making for individuals and households (NEFE Mission, 2014). Since its inception in 1972, NEFE is dedicated through its missions to provide Americans with needed financial education. NEFE is dedicated to;

- Empowering Americans to achieve their life goals through the prudent and informed management of their financial resources.
- Helping instill in all Americans the commitment to save toward the realization of their financial goals and their future financial security.
- Assisting consumers in understanding and actively participating in the management of their investments.

- Better prepare all Americans for their retirement years.
- Encouraging in the nation's young people an understanding of personal financial planning and the acquisition of sound money management skills.
- Effecting the financial education of individuals in special circumstances, and support the development and delivery of programs and materials related to their unique needs.
- Expanding the financial literacy body of knowledge through research in support of developing a discipline that prepares educators and other intermediaries to improve the financial well-being of the public.
- Supporting proactive research of consumer, social, and business trends (NEFE Mission, 2014).

As advocates for the financial wellbeing of individual and families, NEFE appointed Sharon M. Danes, a professor and family economist in the College of Education and Human Development at the University of Minnesota, to head a research team to evaluate the use of the High School Financial Planning Program (HSFPP) across the United States during the 2009/2010 school year. HSFPP was a curriculum provided to teachers nearly 30 years ago to teach teenagers about money management and financial constructs such as credit ratings, and concepts (Danes, & Brewton, 2012). According to Danes, & Brewton, (2012), by 1984, more than 7.8 million students in all 50 states had participated in the financial enlightening program. Results from the HSFPP study indicated a significant improvement in students' financial knowledge, behaviors, and confidence. Furthermore, NEFE, in a bid to promote finance education from the grass root, convened key stakeholders, comprising Pre-K–12 teachers, education faculty, funders, and researchers, to deliberate the findings and implication of a survey on "Teachers' Background and Capacity to Teach Personal Finance" (Way & Holden, 2009). During the key stakeholders' meeting with NEFE, the top 15 research priorities for establishing effective financial education in PreK -12 classrooms emerged. Some of these research priorities according to Way & Holden, (2009) included:

- Review the role that teachers' financial education backgrounds and financial experiences play in personal finance education classroom practice.
- Examine successful personal finance education programs to identify not only best practices, but the factors such as teacher characteristics that contributed to their development and what has sustained them over time.
- Examine how personal finance can be successfully integrated into the core curriculum courses.
- Consider how best to address personal finance and instruction preparation needs among practicing teachers and pre-service students.
- Determine the optimal places in higher education for providing personal finance teacher education.
- Assess whether there are effective collaborative models for providing financial education. What benefits might be gained by forming various kinds of partnerships between school districts, colleges/universities, and financial services providers for providing such education? How can successful partnerships be achieved and sustained?

- Examine what forms of pre-service and in-service personal finance teacher education are most likely to translate into effective classroom practice and/or enhanced financial security for teachers.
- Review what is required at the college/university level to effectively train education students to teach personal finance.
- Ascertain the most effective curricula and venues for nurturing greater personal finance knowledge and fostering its application to financial education programs for school and

non-school audiences.

- Look at the role teachers play in the initiation and expansion of school-based efforts to provide financial education.
- Examine the teacher certification standards that are optimal for supporting effective personal finance education in PreK–12 educational settings

Current Initiatives by the Consumer Financial Protection Bureau (CFPB)

A message from director of CFPB Richard Cordray, also informed how current initiatives are underway to take financial education to the next level. According to Cordray, the CFPB developed financial literacy strategies and activities following mandates from the Dodd-Frank Wall Street Reform and Consumer Protection Act. CFPB was mandated to develop and implement a strategy that would empower, educate, and improve the financial literacy of consumers to make better-informed financial decisions. Formed to deal with the after-shock of the economic crisis, the Dodd-Frank Act was convinced that national financial stability is dependent on the financial well-being of individuals and families (CFPB 2013).

To provide consumers with sustainable financial decision-making resources and skills, the Bureau developed and implemented a financial education research program. The program focused on (a) determining how to measure financial well-being and identifying the knowledge, skills, and habits associated with financially capable consumers, (a) evaluating the effectiveness of existing approaches to improve financial capability, and (c) developing and evaluating new approaches (CFPB 2013).

The Organization for Economic Cooperation and Development (OECD)

The growing demand for financially literate individuals and families has raised concern in recent times among scholars and organizations in the international arena (Fornero, Monticone, and Trucchi, 2011). An example is, the Organization for Economic Cooperation and Development. The OECD is an intergovernmental-economic organization, formed in the early 1960s with current member nations of 34 (Jackson, 2013). As an international body, according to Jackson, (2013), the OECD concerns itself with discussing, analyzing and developing key economic and social policy recommendations perceived to be the basis for international standards and practices as well as share expertise and exchanges with developing and emerging economies

To assist various governments to respond to the growing concern for consumer literacy globally, the OECD took the initiative to examine financial literacy across member nations and provided suggestions for improvement (OECD, 2006). To facilitate the design and implementation of effective financial education programs, the OECD recommended that:

- Governments and all concerned stakeholders promote unbiased, fair and coordinated financial education.
- Financial education should start at school, for people to be educated as early as possible.
- Financial education should be part of the good governance of financial institutions, whose accountability and responsibility should be encouraged.
- Financial education should be clearly distinguished from commercial advice; codes of conduct for the staff of financial institutions should be developed.
- Financial institutions should be encouraged to check that clients read and understand information, especially when related to long-term commitments or financial services with potentially significant financial consequences: small print and abstruse documentation should be discouraged.
- Financial education programs should focus particularly on important life-planning aspects, such as basic savings, debt, insurance or pensions.
- Programs should be oriented towards financial capacity building, and where appropriate targeted to specific groups and made as personalized as possible.
- Future retirees should be made aware of the need to assess the financial adequacy of their current public and private pension schemes.

- National campaigns, specific web sites, free information services and warning systems on high-risk issues for financial consumers (such as fraud) should be promoted.

The OECD released its first major international study on financial education, dubbed "Improving Financial Literacy," as well as the world's first practical guidelines on good practices in financial education and awareness. The guidelines were addressed to all countries, developed and developing, that are interested in financial education to guide the design and implementation of effective financial education programs (OECD, 2006).

Historical, Economic, and Educational Background of African-Americans

African-Americans suffered racial, economic, and educational disparities in U.S. history (American Council on Education, 2006, 2011; Johnston, 2011). According to the American Council on Education (2006, 2011), though there have been major changes, minority educational attainment is still low relative to their White counterparts. The low socio-economic status, measured in terms of education, income, and occupation, of the Black Americans today is partly attributed to slavery, racial discrimination, and oppression suffered in past decades (Gill, 2013; Harris, 2010; Kaba, 2010). These factors have contributed to the economic disadvantage of Black Americans and have put them in a disproportionate economic and financial position. Subsequent sections of this study describe the historical, economic, and educational background of the African-Americans.

Historical Background

African Americans are citizens of the United States whose ancestral roots could be traced from Sub-Saharan Africa. History has it that though most Black Americans are descendants of captive Africans who were victims of slavery; some are descendants of voluntary immigrants from Africa, the Caribbean, and South America (Maris-Wolf, 2009; Miller, 2010). Blacks are geographically located in the Southern, Northeastern, Midwest areas, and the Western coast of America. The Southern block hosts an overwhelming population of 55.0 percent of the entire Black population. While the Midwest has 18.1 percent, the Northeast and West have 17.1 and 9.8 percent respectively. At the state level, ten prominent states host the largest Black populations as of 2010. Measured in millions, New York recorded 3.3, Florida 3.2, Texas 3.2, Georgia 3.1, and California 2.7. Also, North Carolina recorded 2.2, Illinois 2.0, Maryland 1.8, Virginia 1.7, and Ohio 1.5 (Rostogi et al., 2010). According to Rostogi et al., (2010), the African Americans experienced a steady growth in population over the years. For example, the 2010-Population Census revealed that, population figures for the Black Americans increased significantly from 2000. The population increased from 36,419,434 or 12.9 percent to 42,020,743 or 13.6% of the entire U.S. population of which 237,077, or 15.8%, live in Columbus, Ohio

Historically, African-Americans were disadvantaged in the areas of social and economic well-being, through discrimination (Harris, 2010, Johnston, 2011). Prior to the American Civil war and the Emancipation Proclamation signed by President Abraham Lincoln in 1863 to abolish slavery, African-Americans were victims of slavery, abject poverty, and social degradation (National Archives, n.d). Specifically, the Jim Crow laws were guilty of discrimination against African Americans for lucrative jobs, quality public education, and business opportunities hence thwarting their socio-economic advancement

(Chang, & Lui, 2010). The Jim Crow laws included series of anti-Black laws and ordinances enacted between 1877 and 1965 allowing individuals' segregation in race, employment, and education (Packard, 2002; Tischauser, 2012).

From1930 through1960, Black Americans were denied participation in the legitimate homeowner market across the country (Coates, 2014). However, racial discrimination and oppression laws began to unfold in favor of the African-American during the period of reconstruction (Pusey, 2014). For example, according to Pusey (2014), Ulysses S. Grant signed a bill into law as the Civil Rights Act of 1875. The Act was purported to clarify, expand, and guarantee Black Americans full and equal opportunities after slavery. Also, the Civil Rights Movement led by Martin Luther King Jr between 1954 and 1968 mounted serious racial agitation to eliminate racial discrimination against the Black race (Barber, 2010).

Despite the bitter experience, African-Americans have made a significant cultural and technological impact in American life today. Much of the rich and diverse culture, literature, art, agricultural products and skills, foods, clothing styles, music, and technological innovation, as experienced in the nation today, can be traced to the works of African- Americans (Horton & Littlefield, 1995; Urban Views Weekly, 2014).

Economic Background

From an economic perspective, though African-Americans have experienced significant improvement in their socio-economic status since the Civil Rights Act, chronic poverty resulting from unemployment, health problems, low educational attainment, and other social issues, still remain the underlying characteristics in the African-American communities (Conger, Conger, & Martin, 2010; Kim, 2011).

Unemployment as a macroeconomic factor has a negative impact on the income of individuals and households. Assessing the economic climate of the new millennium, Conger et al., (2010) revealed that race and gender play a role in the economic circumstances of individuals and households. Buttressing this, Conger et al. stated that while, in general terms, the unemployment rate increased across all racial and ethnic groups during the past decade, comparatively, African Americans and Hispanics' unemployment situations were worst. But Williams, (2013) sees this trend as no surprise. Williams explained that the unemployment disparity between the Black and general community reflects the status quo that persists.

The low socio-economic status of Black Americans today can be linked to the era of slavery, racial discrimination, and oppression suffered in past decades (Kaba, 2010; Williams, 2013). Kaba, (2010) believes African-Americans' exposure to enslavement during the early part of the 21^{st} century held back their economic, social, and political advancement in the United States. Also, a wealth distribution gap exists between African-Americans and other ethnic groups. As with Williams (2013), a research report from the Institute of Assets and Social Policy (IASP) indicated that the wealth disparity rate between Whites and African-Americans has never been at par since the 80s. African-Americans hold fewer assets than debt. For example, more than 24% of African-American families lack assets to protect themselves in periods of economic hardship (IASP, 2010). The disproportionate debt burdens of Blacks, specifically Black women, are often as a result of their reliance on credit cards and on borrowing in general, for survival (Chang, & Lui, 2010; Shapiro, Meschede, & Sullivan, 2010; Taylor, Kochhar, Fry, Velasco, & Motel, 2011).

Families accumulate wealth not only as means of providing economic security but also for creating opportunities for the next generation (Chang, & Lui, 2010; Shapiro, Meschede, & Osoro, 2013). Yet, recent study indicated that a high-income African-American household holds far less financial wealth than a middle-class White family (Shapiro, Meschede, & Sullivan, 2010). Further evidence indicated that, historically, poor and unemployed African-American families of which women head 31 percent, over the past two decades, is at a record high. This economic condition was further exacerbated by the great recession which negated the wealth creation efforts of the minority (Taylor et al., 2011; U.S. Bureau of Labor Statistics, 2010). Furthermore, reports from the Economic Policy Institute and the U.S. Labor Department indicated that, in 24 states, including the District of Columbia, the average unemployment rate among African Americans exceeded 10 percent, in 2011 and 13.6 percent, in 2013. According to the Equal Employment Opportunity Commission report, the remnants of historic hurdles of African Americans has a persistent impact on the workforce today despite strenuous efforts to bridge the gap in educational attainment between African Americans and White Americans in recent decades (Gill, 2013).

According to the U.S. Bureau of Labor Statistics (2010), 17.6 million African-Americans representing only 11 percent of the U.S. population, were in the labor force in 2009 while unemployment rate stood at 15 percent for African-Americans of age 16 years and older in 2008. Their inability to compete in the labor market for white collar jobs with Whites could be blamed on the low rate of higher education credentials (Admon, 2005). Poverty and unemployment have prevented African-Americans from enjoying credit and other banking facilities available to them. Records of an FDIC survey demonstrated that, minorities, including Blacks, Hispanics, and American Indians, have a high probability of being unbanked, under-banked, or both. The survey showed that 21.7% of Black households, 19.3% of Hispanics, and 15.6% American Indian/Alaskans versus 3.3 percent of their White counterparts were unbanked. Also, 31.6% of Blacks, 28.9% of American Indian/Alaskans, and 24.0 percent of Hispanics versus 14.9% of White households were more likely to be under-banked (FDIC, 2009).

Educational Background

Historically, African-Americans have lower educational attainment than their White counterparts. Inequalities in the accessibility of education explain this historical gap (Admon, 2005; Gill, 2013; Williams, 2013). Admon (2005) posited that, the inequality in the accessibility of education was manifested in such factors as increased segregation in K-12 education, the rising cost of tuition, and a decrease in financial aid. As a result, there was a 13% gap in college enrollment rate during the 60s and 80s between minorities and their White counterparts.

Williams, (2013) argued that, social factors such as racial discrimination and limited access to education play a vital role in African-Americans unemployment predicament.

While African-Americans have made significant progress in narrowing the education gap through higher educational attainment, the trend changes at a slow pace.

For example, less than a decade ago, 9.0% of African-Americans had less than a high school diploma, 34% had high school diploma, 32 percent had some college, or associate's degrees and 24 percent had Bachelor's degrees (U.S. Bureau of Labor Statistics, 2010). Also, as of 2009, the post-secondary and secondary educational attainment of African Americans was relatively low. For example, an update to Minorities in Higher Education 2010 by the American Council on Education, revealed that only 18 percent of African Americans held a Bachelor's degree compared to 58 and 36 percent of Asian Americans and Whites ages 25 to 29 respectively (Kim, 2011). According to Kim, (2011), this educational attainment gap can only be changed through a substantial reduction of existing disparities from each educational transition point.

A Study by Behrman, Mitchell, Soo & Bravo, (2010), found that, not only financial literacy, but also schooling promotes wealth accumulation. Elevating the education level of the overall U.S. population not only calls for closure of the educational gaps among ethnic and racial groups, but also between genders (ACE, 2011). ACE, (2013) argued that, disparities in the quality of education and careers available to Americans persist for ethnic and racial minorities. However, ACE is committed to bridging the educational gap through innovative programs such as science, technology, engineering and math (STEM), focused on cultivating a talent pool of minorities. This goal was consistent with, and in collaboration with the Obama administration's initiative of providing greater access for underrepresented minorities and women (ACE, 2011). Minorities, including African-Americans, have been underrepresented in the managerial and professional spheres due to lack of educational credentials (Admon, 2005).

Review of Financial Literacy Level of African-Americans

Despite past and present efforts and initiatives to provide financial education to Americans, the financial knowledge level of African Americans is still not on par with other ethnic groups. African-Americans have relatively lower financial literacy than their White counterparts. A number of research studies confirmed low financial knowledge prevalence among African-Americans (Cerarini, Johannesson, Lichtenstein, Sandewall & Wallace, 2010; Elan, & Goodrich, 2011; Lusardi, 2005; Lusardi, Bumcrot, & Lin, 2011; Lusardi & Mitchell, 2011a, 2011b; Mandell, 2004). The studies were not only consistent in their reports regarding the low financial knowledge level of African Americans, but also the results were at an all-time low across past and present studies for minorities, especially, African-Americans (Lusardi & Tufano, 2008, 2009).

Cerarini et al., (2010) reported that, although genetic variations contribute in explaining how individuals make financial decisions, African Americans' financial decision-making ability is limited. One key explanation to this limitation is their low financial knowledge. For example, an exclusive analysis of the results of African-Americans conducted during the 2004 Jumpstart national survey revealed relatively low performance. The Jumpstart national survey, which is a part of the motivation for this study, has reached worrisome findings worthy of taking a replicative study for purposes of policy directions and implementation. One crucial finding was that, African Americans generally spend more than they save. This behavior may have a consequential impact on their wealth accumulation and economic well-being. The survey further found that, African Americans of the same age group (youth) not only exhibit lower levels of financial literacy but the trend tends persist (Mandell, 2004).

Consistent with the Jum$tart survey, Lusardi conducted study of the financial education and saving behavior of African Americans and Hispanics in 2005. The study confirmed that the saving and investment behavior of minorities assumed a uniquely poor dimension from other ethnic groups (Lusardi, 2005). Similarly, a Health Retirement Survey (HRS) conducted in 2008 not only reported low financial performance among a focused group of -- elderly, African-Americans, Hispanics, and the less educated -- but also reported that performance was worst the during the study than at other times (Elan, & Goodrich, 2011). Elan and Goodrich's (2011) study also revealed low performance among African American high school and college students during the 2008 Jump$tart national survey. According to Elan and Goodrich, for example, while African-American high school seniors scored 41.3 percent, their White counterparts scored 52.5%. Similarly, whereas the African American college students were ranked 56.3 percent, their White colleagues were ranked 63.3% indicating that African Americans are always trailing their White counterparts in terms of performance.

Recent studies also reported the same findings - low financial knowledge - among African-Americans. For example, a state-by-state financial literacy study in 2011 by Lusardi, Bumcrot, and Lin identified not only low financial literacy levels among various states but also among different demographic groups; women, the less-educated, African-Americans, and Hispanics. An analysis of results indicated that, demographic characteristics were a good explanation for some states scoring higher on the financial literacy index than their counterparts (Lusardi, Bumcrot, & Lin, 2011). However, the National Foundation for Credit Counseling (NFCC) annual Financial Literacy Survey reported otherwise. The report showed that African Americans and Whites were more likely to grade themselves "A" than Hispanics during a survey, implying a high knowledge of personal finance among them (NFCC, 2011). Nevertheless, the Prudential Insurance Company of America, known as the "Prudential" reported a mixed result in its 2013 study. The findings revealed that though the African American community has witnessed growing financial progress, and confidence, it is still challenged with huge debt burdens and low investment holdings attributable to low financial literacy (Prudential Insurance Company of America, 2013).

The low financial knowledge level of African Americans has impacted them negatively. Literature reviewed by Lusardi's 2005 study revealed substantial financial consequences suffered by African-Americans. The literature specifically made known that as a result of low education and income, African Americans and Hispanics alike, accumulate low financial wealth at retirement, own low household assets such as stocks, housing, 401(k), and IRAs; and are less likely to qualify for a mortgage than their White counterparts (Lusardi, 2005). Also, Prudential Insurance Company of America, (2013) stated that African-American communities are not only challenged with huge debt burdens, but also own fewer investment products such as stocks and CDs due to low knowledge of investment.

Filling the Research Gap

Extensive research has been conducted on the financial literacy level of Americans. Specifically, much has been learned about the financial literacy status of the minority, including African-Americans, in the personal finance literature. However, an exclusive study about the financial knowledge of African-Americans is almost non-existent in the literature. For example, the bi-annual financial knowledge tests conducted by Jump$tart coalition, have always examined only high school seniors. Also, literature reviewed showed that government, private institutions, and researchers tested the financial knowledge of Americans, including African Americans several years ago. However, the proportion of African-Americans who participated in these tests was often not revealed.

Literature reviewed indicated that, studies on the financial knowledge level of African-Americans did not provide a large sample enough to provide convincing results. The view of this study is, therefore, that, researchers who established findings on the low level of financial knowledge of African Americans' in past and recent studies, might have relied on a few representation of African-Americans for generalization. For example, a Jump$tart national survey of 4,074 high school students in 2004, only sampled 506 or 12.4% of African Americans nationwide (Mandell, 2004).

In a quantitative study, sample size matters. As Patton, (2002) stated, a researcher who intends to cover broadly versus deeply into a phenomenon would not only need to consider the units of analysis, but also the sample size. To have a broader perspective of a phenomenon, a large sample is needed to provide meaningful generalization (Patton, 2002). The African American population not only constitutes students, but also working adults and African-American entrepreneurs, which previous studies, including those of Jump$tart Coalition, overlooked. While it makes sense to replicate the study to assess the current financial knowledge level of African Americans by including high school students, working adults, and African American entrepreneurs, it is uncertain whether the samples employed by prior studies were adequate to draw meaningful conclusions.

Social Implication of the Study

The concept of financial education has gained weight in the personal finance literature relative to the crucially important role it plays in society. The ramification of having low or no financial education are many and may include low participation and contribution rates for retirement, low savings, bankruptcy and huge amounts of consumer debt. The prevalence of bankruptcy and huge amounts of most consumer debt – credit card, student loan, and mortgage debt, is being blamed on low or lack of financial literacy (Hogarth, 2006; Jappelli & Padula, 2011).

Also, literature reviewed on the relationship between financial literacy and decision-making, indicates that, the financial illiteracy implication on individuals may be catastrophic, resulting in a negative attitude toward; money management, savings, debt reduction, expenditure, and investment. Human capital, from an investment perspective, is the present value of future labor income that represents an investor’s single largest asset (Maginn, et al., 2007). According to Maginn, et al., (2007), individual investors, especially the young, generally have more human capital than they have financial capital (stock, bonds, and real estate). The reason for their small financial capital holding is not only because they have little time to save and invest, but also because they have low levels of financial education.

This study has positive social change implication and policy direction not only for the benefit of individuals and households, but also for the community and the nation. Because individuals constitute the units of households, communities, and societies, educating individuals would in turn benefit households, communities, and societies. Financial education is essential for boosting development. Research indicates that most people cannot account for how much is spent for basic needs such as food and drink per month (Norman, 2010). If individuals cannot account for the expenditure on their daily needs and/or effectively allocate their personal finances, then the expectations of these individuals to manage public funds, including households, community, and government funds, would be exposed to serious risk (how can they do the same for government funds?).

As Norman (2010) argued, the strength of the government rests on the strength of the individuals since, spending is part and parcel of government’s role, hence the need for financial education. Additionally, nations benefit directly from the investment in financial education (Jappelli and Padula 2011). Individuals should be empowered with the basics of finance and economics to enable them make informed decisions as well as make appropriate choices based on their needs and budget parameters (Harnisch, 2010). Though most consumers make poor financial decisions and choices, older adults, in particular, are said to be good candidates for those errors (Agarwal, Driscoll, Xavier &

Laibson, 2009). Financial literacy can impact how households make their savings and investment choices (Fornero, Monticoney & Trucchiz, 2011).

Summary

Much time and effort were devoted to this segment of the dissertation, not only because it is important, but also because it informs readers about the scope of the study. The study focuses on the financial literacy level of African Americans. In this chapter the researcher reviewed literature pertinent to the topic under investigation. The researcher reviewed literature on studies involving the low financial literacy level of African-Americans, financial education initiatives, including governmental and non-governmental bodies, the rationale for financial education, theories of human behavior; and the historical and socioeconomic background of African Americans.

Literature reviewed in this study brought forth several revelations. Literature reviewed on the economic and historical background of the African Americans, for example, specifically suggests that, there is a need for discovering more avenues for disseminating financial information and education other than the usual school, workplace and community hubs. Financial education is crucial in Americans’ lives. Financial education enables its beneficiaries to understand and make better financial decisions (Gerardi, Goette, and Meier 2010). A study conducted by Gerardi et al., (2010) revealed that, the massive mortgage delinquencies and foreclosures in the U.S. subprime mortgage market could be partly blamed on the low financial literacy of the victims. Early studies have shown that increased financial education enables individuals to stay on top of their mortgage payments and other debt obligations (Agarwal et al., 2010).

Research also found two explanations for why individuals and households make suboptimal financial decisions. Two of such reasons include financial illiteracy and impatience (Hasting & Mitchell, 2010, 2011). To be considered financially educated, an individual should not only understand household cash flow, the essence of holding an emergency fund and the fundamentals of a credit rating, but also understand the capital market system and financial institutions (Hung, Parker, & Yoong, 2009).

Because the majority of African-Americans have low financial knowledge, they are likely candidates to be unbanked, under-banked, and to fall victims to predatory lending. People without bank accounts are often denied many opportunities and offerings, including obtaining credits, receiving Federal payments, and owning property such as cars and homes (PACFL, 2008). Though, the PACFL annual report recommended, among other things, that financial education be mandatory in all schools for students in grades Kindergarten through 12, a prior survey indicated that most of the high schools in Ohio do not provide financial education to their students. An interaction with students and colleagues in black-dominated high schools in the Columbus area, for example, confirmed this. An example is Broke Haven High school in North Columbus, which was closed in mid-May 2014 because of low student enrollment.

Conscious efforts and initiatives have been made to provide financial education for all– youth, adults, families, and communities-- in the United States. Financial illiteracy is still a widespread and huge issue in the US today. Financial illiteracy is disproportionately pronounced for the low-educated and low-income populations, such as the Hispanic and African- American communities. Recent and past development indicates that, the American leadership has not relented in its efforts to promote the financial wellbeing of Americans. A financial resource guide was developed, and the Presidential Advisory Council of Financial Capability was formed, as sources of inspiration for all American leadership to design self-suited financial capability initiatives, accessible for every American.

Based on research reviewed on financial literacy outcomes, the PACFC recommended the school, workplace, and community as the three primary financial literacy sources or hubs, from which all Americans can benefit (The White House, 2012). For example, research in the United States indicated that, workers responded to financial education programs offered by employers by increasing their participation in 401(k) retirement savings plans. Also, mortgage counseling in a financial education package has the potential to effectively reduce the risk of mortgage delinquency (EOCD, 2006). Furthermore, the current body of literature undertook a more pragmatic effort to investigate and provide a lasting solution to the issue of financial illiteracy (Lusardi and Mitchell, 2011; Monticone, 2010; Jappelli, 2010; van Rooij et al., 2011). The work of these scholars made several discoveries, including widespread financial illiteracy in both the US and abroad, and a strong association of financial literacy with sound financial well-being and behavior of individuals and households (Fornero, Monticone, and Trucchi, 2011).

Financial education is reported to have a direct link with indebtedness, and wealth accumulation (FINRA Investor Education Foundation, 2013). The relationship between financial illiteracy and fundamental, consumer-centric changes in the financial atmosphere, can have a greater negative impact not only on the individual, but also on the communities, states and the nation as a whole (Harnisch, 2010).

Chapter 3: Methodology

Introduction

Literature reviewed in this study indicated that minorities, including African Americans, have persistently demonstrated low levels of personal finance knowledge relative to their European American counterparts. The goal of this quantitative study was to assess the financial literacy and education status of African Americans in Columbus, Ohio. In this chapter, I present the research design, target population, and sampling technique. I also present the research instrument, as well as the data collection and analysis techniques used in this study. Other sections include test of significance, levels of measurement, validity and reliability of instrument, methodological limitations, ethical consideration, and summary.

Description of Research Design

This research used a cross-sectional design. The cross-sectional design was selected this study based on its ability to make descriptive analysis of the following research questions:

- To what extent do African Americans have knowledge about personal finance?
- To what extent do participants with formal financial education have greater knowledge of personal finance than those without formal financial education?
- To what extend do participants with formal financial education use financial tools for managing their personal financial matters?

- To what extent do participants without formal financial education use financial tools for managing their personal financial matters?

In conducting research of any kind, the researcher needs to consider the type of design appropriate for the study. The choice of design alternatives and methods is dependent on their relative strengths and weaknesses (Patton 2002).

Cross-sectional design was appropriate because this study was not intended to examine the cause and effect relationship between the dependent and independent variables pertaining to financial literacy. The design allowed me to make descriptive analysis and presentation of the characteristics of participants as well as their respective performance in the study. According to Howick, (2013), cross-sectional design is a non-analytical descriptive study that describes data and characteristics of the population or phenomenon under investigation and does not intend to create a causal relationship between variables.

Definition of Target Population

The target population for this study was African Americans in Columbus, Ohio. Nachmias and Nachmias (2008) identified units of analysis as an important consideration in the social science research process. The units of analysis can be identified as individuals, groups, or institutions from which valuable data can be collected and analyzed (Nachmias and Nachmias 2008). To obtain a bigger picture of the financial knowledge levels of participants, the units of analysis for this study included African Americans residing in Columbus, Ohio. I sampled, collected, and analyzed data from adult workers, entrepreneurs, and students of 18 years or older.

Various reasons were assigned for the consideration of this cross section of participants. Previous studies often focused on either women or students to make generalizations (Jump$tart, 2008; Lursardi, 2008). The inclusion of entrepreneurs and working adults was based on the argument that knowledge about financial matters is attributable to such factors as sociodemographic features, financial maturity, or practical experience derived from exposure to and use of financial products (Massimo & Ornella 2011). Columbus is a historic city for African Americans, with the African American population constituting of 28% of the entire population of the city (Urban Views Weekly, 2014). According to Urban Views Weekly (2014), 5.8% of businesses were African American-owned firms as of 2007. In 2013, Columbus hosted the Black Enterprise Entrepreneurs Conference + Expo to honor the largest African American-owned businesses in the nation. Also, the inclusion of students in the study was not only based on the argument that they have opportunities to learn financial matters in school, from parents, and in jobs (NFCC, 2009, 2011), but also that they need financial education as they enter the adult world of financial decisions (Mandell, 2008).

Sampling Method

Though the survey technique is popular in terms of its relative cost effectiveness, it could not be conducted on the entire population of African Americans in Columbus. The entire African American population living in Columbus, Ohio in the past decade was 237,077 (Rostogi et al., 2010). Sampling played an important role in this research process because the entire population could not be reached. Even if the entire population was accessible, expensive would have been prohibitive. The population from which the sample was drawn for this study constituted 237,077 African Americans living in Columbus, Ohio, including adult workers, entrepreneurs, and students of 18 years or older.

The sampling strategy employed for this study was convenience sampling. I used convenience sample by taking into consideration what sampling units were conveniently available (Nachmias and Nachmias 2008). To access student participants, I used schools that were willing to cooperate. The schools were more convenient, less expensive and easily accessible for the survey since all potential participants were available at a particular place and at a particular time. I contacted principals of three Columbus City Schools: Horizon Academy High School, Westerville North High School, and Northland High School. Letters of cooperation were obtained from these schools prior to conducting the survey.

Sample Size

Sample size is an important consideration in the social sciences. To test the hypotheses of this study, appropriate sample size was needed. A sample size of 382 participants was determined for this study. A priori G*power analysis was performed to determine the sample size using the G*power software. A one tail *t* test was used to estimate the sample size. This was set at 0.05 alpha level, 0.9 power, and 0.3 effect size. Table 1 illustrates a detailed analysis of the test. With a sample size of 382 participants for the study, maximum results were achieved from generalizations made that were representative of the 237,077 African American population in Columbus, Ohio.

Table 1

*Calculation of Sample Size Using the G*Power Analysis*

Alpha (α)	Power (1-β)	Effect size (d)	Critical t	Sample Size G*power
0.05	0.90	0.3	1.6488	382

Instrumentation

Measuring financial literacy can be difficult as there are no standard financial literacy measures (Moore, 2003; Huston, 2010). Previous studies have, however, measured the financial literacy of their participants, taking into consideration the operational definitions provided by various scholars and academicians. Previous researchers utilized the survey method via the questionnaire instrument together with statistical models to test their hypotheses (Hung, Parker & Yoong, 2009; Mandell, 2004, 2008; Lusardi, 2005; van Rooij et al., 2007).

The Jump$tart Coalition for Personal Financial Literacyundertook a bold initiative to assess the financial literacy level of young Americans (Mandell, 2008, 2010). The first of its kind, the initiative began in 1997-98 when the first national survey was conducted with high school seniors. The measure of financial knowledge of high-school seniors by the Jump$tart Coalition became a biennial event that continued until 2008, when college students were included in the survey population (Jump$tart Coalition for Personal Financial Literacy, 2012; Mandell, 2004, 2008). According to Mandell, (2004, 2008), the Jump$tart Coalition has been administering a 31-question instrument that examined participants' knowledge in areas of income, money management, savings, spending, credit, and insurance.

Complementing the Jump$tart Coalition's effort of promoting financial literacy of young Americans, other researchers have also contributed to the personal finance literature. For example, van Rooij, et al., (2007) measured and evaluated the impact of financial literacy on the stock market participation of individuals and households of the Dutch population. Van Rooij, et al., used two modules, basic and advanced questionnaire instruments, to assess participants' financial literacy. While the basic module assessed participants' knowledge about interest rates, interest compounding, inflation, and discounting, the advanced module tested participants' knowledge about stocks and bonds, the stock market, diversification, and the bond price/interest rate relationship.

Financial knowledge pertaining to concepts on compound interest, inflation, and risk diversification have been widely used by personal finance researchers to measure financial literacy. The popularity of these concept areas stemmed from the fact that they are consistent and standard and have been used in most studies across the United States and abroad (Lusardi, Mitchell, and Curto, 2010; Lusardi and Mitchell, 2011c).

A recent study by Barry Bloom also employed the Jump$tart Coalition survey instrument. Bloom, (2011) utilized the instrument to measure the personal financial literacy of hospitality students at Midwestern University. The purpose of Bloom's study was to make a statistical comparison of the recently conducted national survey of all college students.

Hung, Parker & Yoong, (2009) defined and measured financial literacy using a combination of financial literacy questions designed by Lusardi and Mitchell, Kimball and Willis, and others. The combined survey instrument assessed participants' financial knowledge in the areas of investment portfolios, portfolio diversification, compound interest, institutional knowledge, and markets and products.

FINRA Investor Education Foundation's 2009 capability survey used questionnaire items to test the financial literacy of Americans. FINRA Investor Education Foundation assessed participants' financial knowledge involving interest rates, inflation, bond prices, mortgages, and risk. That organization believed Americans needed basic knowledge in the fundamental concepts of economics and finance to support their economic life. Participants were exposed to a battery of questions that required computational skills in the basic concepts relating to interest rates and inflation, risk and diversification, and bond price and interest rate relationships (FINRA Investor Education Foundation, 2010). Table 2 illustrates studies that employed the survey instrument for data collection involving the financial literacy of their participants:

Table 2

Studies That Used the Survey Instrument to Collect Data on Financial Literacy Studies

Survey Source	**Instrument**	**No. of Items**	**Competency Area Tested**	**Year Administered**
Jump$tart Coalition	Survey	31	Income, money mgt, savings, spending, Credit, insurance.	1998, 2000, 2004, 2006, 2008
Rooij, Lusardi & Alessie,	Survey	16	Int. rates/compounding, inflation, discounting, stocks/bonds, stock market, diversification	2007
Hung, Parker & Yoong,	Survey	6	Investment portfolio, Diversification, compound Int., institutional knowledge, fin. Markets/ products	2009
FINRA	Survey	5	Inflation, Bond prices, risk, mortgages, compound Int.	2009

Table 2 represents research bodies that developed and administered different numbers of questionnaire items to their respondents. Though the financial concepts differ, they believe the concepts achieved the same goal of measuring financial knowledge. This confirms the argument that there is no standardized procedure for measuring financial literacy. Lucey (2005), however, suggested a standardized method be developed to measure financial literacy.

The objective of this study was to utilize the appropriate research instruments to collect and analyze data. I chose to utilize the Jump$tart Coalition's 31-questionnaire instrument after considering a number of survey instruments modeled by previous researchers. The instrument assesses four key areas of participants' financial knowledge such as income, money management, savings, spending, credit, and insurance. The instrument was preceded by self-assessment questions to measures participants' demographics including their income levels, age, sex, and education. The Jump$tart Coalition's survey module was chosen for two additional reasons: (a) Records of the biennial financial literacy survey were available to be used as benchmark for this study, and (b) the validity and reliability of the instrument has been established not only by Jump$tart Coalition, but also by other researchers over the years.

Lucey (2005) assessed the validity and reliability of the Jump$tart Coalition's survey instrument and reported an overall consistency of the instrument. According to Lucey, the reliability and validity of an instrument is an important consideration in any research process, since the instrument is expected to yield similar results over its repeated use. Validity represents the potential ability of the instrument to estimate its targeted concept (Lucey 2005; Frankfort-Nachmias and Nachmias 2008). Lucey determined that survey items of the Jump$tart Coalition for Personal Finance had *p* values of less than 0.01 and .939 reliability (Boyland & Warren, 2013).

Data Collection Technique

African-American adult workers, business owners, and student of 18 years or older constituted the target population for this study. To access student participants, Columbus City schools were used to collect data. As mentioned earlier, principals of three Columbus City Schools—Horizon Academy High School, Westerville North High School, and Northland High School—were contacted for their permission to conduct the study. Selection of schools was neither random nor purposive, but was based on those ready to cooperate (convenience sampling).

Working adults and business owners were reached in community centers such as the church, work and business locations, and participants' residents, all located in the Columbus area. These groups of participants were contacted in person, by phone, or by e-mail. Potential participants signed consent forms prior to taking the survey.

Data Analysis

A 31-survey questionnaires designed by Jump$tart Coalition was administered to participants after seeking permission from its publisher. At the end of the survey, responses from the three participant groups – high school students, adult workers, and entrepreneurs, were collected and analyzed. The raw data was coded, hand keyed, and developed into themes using the Statistical Package for the Social Sciences (SPSS) software. I developed descriptive statistics tables for participants' demographics including sex, age, education, income, and scores. For purpose of analysis, other descriptive statistics tables were developed for participants' responses to each of the questionnaire items.

The following analyses were made using parametric tests:

1. Used the Jump$tart Coalition's results as a benchmark to compare the performance of the research participants.
2. Analyzed and compared test scores between entrepreneurs, adult workers and student participants.

3. Analyzed and compared test scores between participants with formal financial education and participants without formal financial education.
4. Analyzed and compared the performance of both male and female participants.

The SPSS software will be utilized to input data, analyze data, and test hypothesizes. Statistical tables of results were also displayed for purposes of analysis.

Test of Significance

Testing for differences of means requires test of significance to relate research variables or groups to performance (Frankfort-Nachmias and Nachmias, 2008). In this study, I tested differences of mean scores between male and female participants, students, adult workers, and entrepreneurs. Parametric test, especially the Independent-Sample *t* Test, was employed to test differences between group means.

The test enabled the researcher to assess the relationship between the various groups of research participants' knowledge and experiences in financial matters. Specifically, I compared, for instance, the mean scores of entrepreneurs and adult workers with respect to their performance in the financial literacy survey. A higher mean score for entrepreneurs in the study was indicative of them having more knowledge in financial matters than their counters. This was perhaps due to their experiences dealing with money as argued by Massimo and Ornella (2011). Massimo and Ornella argued that most people who have experience in dealing with money have knowledge in financial matters. The difference-between-means tool enabled the researcher to test this assertion via the t-test statistic.

Levels of Measurement

In quantitative studies, researchers often group events or objects with quantitative or qualitative characteristics into categories. For purposes of grouping independent variables into categories for measurement and analysis, I needed to determine the appropriate level of measurement, nominal, ordinal, interval or ratio (Newsom, 2013).

For the purpose of this study, I used the nominal level of measurement. The nominal level of measurement allowed the use of numbers, symbols, or letters to classify cases or variables (Frankfort-Nachmias & Nachmias, 2008). The research participants in this study comprised of business owners (entrepreneurs), adult workers, and high school students of the African-American community. To group variables, I assign 1s and 2s to represent male and female respectively, and 1s, 2s and 3s to high school students, business owners, and adult workers respectively. The assignment of theses numerals was not only to group cases and performs analysis, but to enable the SPSS software identify and code variables. Defining variables in the SPSS, values such 1s and 2s are often assigned to represent the content of a variable in the Data View (Green & Salkind, 2012).

Ensuring Validity and Reliability of Instrument

In the social sciences, quantitative researchers often use instruments such as questionnaires as a means of measuring variables. To test hypotheses I needed to first measure variables. However, sometimes results achieved turns out not to be exact. The discrepancy in actual results and expected results arises due to what is called measurement error (Frankfort-Nachmias & Nachmias, 2008). To minimize this occurrence, social research scientists suggest that researchers ensure that the applicable instrument does not only meet its intended purpose (valid), but also be consistent in all cases (reliable). As such, a reliable instrument is also a valid instrument (Field, 2009).

I used an existing questionnaire instrument for this study for reasons justifiable to its use. First, I used the Jump$tart's 31-question instrument to avoid any doubt about the validity and reliability of a study's instrument. Second, the validity and reliability of the Jump$tart's questionnaire instrument was tested and reported by Lucey, (2005). Third, the questionnaire instrument was successfully used several times by Jump$tart Coalition for Personal Finance to measure the financial knowledge levels of high school and college students. The competency areas of financial knowledge tested using the instrument included income, money management, credit, savings, spending, and insurance (Jump$tart Coalition, 2012; Mandell, 2004, 2008). According to Field (2009), an instrument has content validity element if it covers the full range of the construct to be measured.

Handling Methodological Limitation

The survey technique of data collection in a quantitative enquiry is used extensively in the social sciences due partly to its cost effectiveness (Frankfort-Nachmias & Nachmias, 2008). However, it is also invariably subject to certain limitations. In a survey method, a researcher can reach participants through personal interviews, mails or telephone interviews. The choice of one or more methods depends on participants' preference or ease of accessibility. A participant may, for example, prefer to be contacted via telephone or email while another may

be indifference to the means of contact.

One major limitation of the survey technique especially the mail method is its low response rate. Most of the participants for this study, especially business owners, and adult workers had their questionnaires emailed or mailed to their post boxes. To minimize this limitation, and to increase the response rate I sought the cooperation of respondents by i) including a cover letter that explained the essence of the survey and motivated them to fill and returned questionnaire on time, and ii) followed up to remind respondents to fill out and return questions.

Ethical Consideration and Recruitment Process

Protecting research participants especially, high school students, is an important consideration in this study. Protecting the rights and welfare of research volunteers is paramount in the social science research endeavor (National Academy of Engineering, 2014). I made appropriate disclosure of the potential benefit and harm (if any) of the study to participating students to achieve maximum understanding and participation. Their privacy and confidentiality were protected as participants. Participation in this study was voluntary. This allowed participants not to feel obliged or pressured to participate.

Recruiting students as minors for purposes of research is an issue of concern for all and sundry. In this study only students of ages 18 years or older were recruited to participate. I obtained a letter of cooperation from school principals as authorized representatives prior to recruiting students.

Summary

The plan for this study was to utilize a quantitative approach to explore the financial literacy and status of African-Americans in Columbus**.** The manner in which a research is being conducted, units of analysis, sample size, and instruments are all important factors to be reckoned within a research process. These important factors not only provide its consumers, a deeper insight, but also epitomize the authenticity of the study.

In this proposed study, I outlined the necessary components of a research methodology. For example, I described the research design and explained the rationale for its choice over other alternative designs. The target population was defined and the units of analysis provided. I chose to sample respondents based on convenience and their willingness to participate. Instrumentation is an important research consideration in the social sciences. For purposes of this study, I used the survey technique of data collection and have provided justification for the adoption of such instrument.

I provided the data collection technique as well as data analysis procedure utilizing the SPSS software tool. The t-test was used to compare differences between means of variables. I considered the nominal level of measurement as a means of categorizing variables for analysis. The choice of the nominal level of measurement was because there was no need of ordering or ranking independent variables associated with the study as it is in the case of ordinal and interval levels of measurement. The nominal level techniques was used to assign numerals to variables to enable the SPSS identify and classify them for analysis.

The validity and reliability inherence of a research instrument is as important as the research itself. I used a previously-used instrument to avoid the issue of validity and reliability as absence of both elements could compromise the validity of overall research findings. Because the survey technique of data collection is associated with low participants' response rate (Frankfort-Nachmias & Nachmias, 2008), I designed strategies to secure an acceptable response rate for analysis.

Chapter 4: Results

Introduction

The purpose of this study was to utilize a quantitative approach to explore the financial literacy and education status of African Americans in Columbus, Ohio. The participant groups for this study included entrepreneurs, adult workers, and students. Two sets of research questions were developed for this study. The main research questions were designed to study participants' knowledge in personal finance and the extent to which they use financial tools to their advantage. The other research questions were designed to study knowledge variations (if any) with respect to personal finance between (a) adult workers, entrepreneurs, and students, (b) participants with formal financial education and those without formal financial education, and (c) male and female participants.

In this chapter, I present the research questions, participant demographic characteristics, data collection and recording, descriptive analysis of results, and summary of results. Data was analyzed using the SPSS software tool while the *t* test approach was employed to test mean differences of participant groups.

Research Questions

The following research questions were investigated during the study using the cross-sectional design. The cross-sectional design was considered for this study based on its ability to make descriptive analysis of the performance of participant groups.

- To what extent do African Americans have knowledge about personal finance?

- To what extent do participants with formal financial education have greater knowledge of personal finance than those without formal financial education?
- To what extent do participants with formal financial education use financial tools for managing their personal financial matters?
- To what extent do participants without formal financial education use financial tools for managing their personal financial matters?

Additional research questions were intended to investigate if differences or variations of financial literacy levels existed between research participant groups. To achieve this goal I analyzed (a) differences in performance between students, adult workers, and entrepreneurs, (b) differences in performance between male and female participants, and (c) differences in performance between participants with formal financial education and participants without formal financial education. The following additional research questions were asked:

- Are there differences in knowledge of personal finance between students, adult workers, and entrepreneurs?
- Are there differences in financial literacy test scores between participants with formal financial education and participants without formal financial education?
- Are there knowledge differences with respect to personal finance between male and female participants?

To test hypothesizes for these questions the *t* test was conducted using the SPSS software. The Independence-Samples *t* Test was used to compare means by using participant groups as test variables and group codes to define each group. The researcher chose to utilize independent-sample *t* test because the procedure allowed evaluation of the mean differences between the independent groups.

Participants Demographics

This section of the chapter is organized in two parts. The first part includes descriptive statistics of participants, and the second part includes analysis of the results of each research question and hypothesis. Demographic characteristics of the sample groups are presented in Tables 3 and 4.

Participant demographic characteristics relevant to this study are presented in Table 3. In Table 3, students formed the majority of respondents (n = 154, 49.3%) followed by adult workers (n = 110, 35.3%). Also, 48 entrepreneurs representing 15.4% participated in the survey. A sample of 382 (N = 382) participants including 200 high school students, 128 adult workers, and 54 entrepreneurs, was initially proposed for the study. However, 312 (n = 312) participants representing 82% response rate returned valid surveys. The remaining 18% of respondents either failed to turn in their survey or gave invalid responses.

Participants' sex, age, income, and educational characteristics are also presented in Table 4. In Table 3, respondents under 20 years old constituted 24% while respondents between 20 and 29 years old were17.7%. More than one-fourth (26.3%) of the participants were within the age range of 30 -39 years. In addition, 18% of the respondents were within the 40-49 age group and 44 respondents were within 50-59 years of age constituting 11.4%. Eight participants representing 2.6% were 60 year of age or older. The average age of participants was 32 years old. For gender balance, an equal number of males and females were sampled. The gender composition of the sample included 156 males (50%) and 156 females (50%).

Table 3

Participants Demographic Characteristics

Variable	frequency	percentage
Participant Group:		
Students	154	49.3%
Adult Workers	110	35.3%
Entrepreneurs	48	15.4%
Gender:		
Male	156	50%
Female	156	50%
Age:		
< 20 years	75	24%
20-29 years	55	17.7%
30-39 years	82	26.3%
40-49 years	56	18%
50-59 years	36	11.4%
60+ years	8	2.6%
Income:		
No income	113	36.2%
< $20,000	81	26%
$20,000-$39,999	79	25.3%
$40,000-$79,999	30	9.6%
$80,000+	9	2.9%
Education:		
High School	61	38.6%
Some College	27	17.1%
College	48	30.4%
Graduate	22	13.9%

Note. *N* = 382, *n* = 312. *N* was the sample population for the study and *n* was the actual sample that participated and had turned in valid survey items. The later is used for analysis.

Participant income brackets are also shown in Table 3. While a majority of the students (113, 36.2%) do not have their own source of income, 26.6% (n = 41) had jobs at fast food restaurants and grocery stores. A majority of all respondents were within the income bracket of less than $20,000 per annum ($n$ = 81, 26%). More than 50% of these respondents were students, who earned part-time income from companies such as Kroger, McDonalds, Wendy's, and others. Only 2.9% of the respondents earned $80,000 per year. All nine of these respondents owned their own businesses.

Regarding educational attainment, a majority of the respondents (n =61, 38.6%) had a high school education while 27 respondents or 17.1% attended some college. In addition, 48 respondents (30.4%) had college degrees, and 22 respondents (13.9%) had graduate degrees.

Table 4 is a presentation of participants who had formal education in personal finance and those without formal finance education. Ninety participants representing 28.8% indicated they had formal education in personal finance and finance-related courses such as finance and economics at college and/or high school. Out of this number, 67 were male participants while 23 were female participants. Also, 102 participants representing 32.7% of the total andcomprised of 48 males and 54 females indicated that they had personal finance education in the form of financial literacy workshops and/or employer sponsored financial literacy programs.

Additionally, 120 students representing 38.5% of total respondents came from Horizon Science Academy the curriculum of which does not include business programs. The school was used based on its large enrolment of over 91% African Americans students. The essence of involving this category of participants was the fact that all students need finance education to attain the money management skills needed for paying for college loans, creating working budgets, managing risk, credit and debt, and savings and investment as they join the financial world as adults. Studies also indicated that parents play a crucial role in educating their children about financial matters (John, 2010). The other 34 students came from Northland High School and Westerville North High School, which offered business courses including consumer finance, economics, entrepreneurship, and business management. An analysis of the hypothesis $H_0$2b that stated there are no differences in knowledge of personal finance between participants with formal financial education and participants without formal financial education is presented in Table 4.

Table 4

Participants With and Without Formal Financial Education

Variable	total	frequency				Total (n = 312)
		Male	%	Female	%	%
Formal: Took courses in finance and Economics	90	67	74.4%	23	25.6%	28.8%
Informal: Financial literacy workshops/ Employer sponsored programs	102	48	47.1%	54	52.9%	32.7%
None: No financial literacy workshops/ Employer sponsored programs	120	68	57%	52	43%	38.5%
Total	312					100%

Data Collection

The results of this study were based on a survey conducted on three groups of African American respondents. The survey was administered to a total of 200 students, 128 adult workers, and 54 entrepreneurs in three different settings. Over 80% of the students took the survey at Horizon High School. The St Anthony's Church of Columbus was another setting where the survey was administered. While the majority of the respondents agreed to take the survey at the church premises, others chose to take the survey in the comfort of their homes. Other participants including business owners had their surveys mailed to them with return envelops.

Prior to conducting the survey and following IRB approval guidelines, letters of cooperation were written to the principal of Horizon Academy High School and the parish priest of St Anthony Catholic Church. The principal of the high school had written letters to participating students explaining the benefits of the survey and asked for their cooperation. The students spent the last half hour of their school session to take the survey and returned the survey the same day. It took approximately two weeks to receive all completed surveys. Financial incentives were offered to participants after successfully completing and returning the survey. A $10 dollar gift card was awarded to participants as an honorarium.

As indicated in Table 4, a total of 312 completed questionnaires were received indicating an 82% valid response rate. These included 154 students, 110 adult workers, and 48 entrepreneurs. The remaining questionnaires were invalid due to more than one answer given, having been returned blank, or having not been returned. A questionnaire consisting of 44 items was partitioned into two parts. Part one contained 13 self-assessment questions including participants' demographics including age, educational attainment, and income characteristics (see Table 3). Part two consisted of the entire Jump$tart Coalition's 31-questionnaire instrument meant to test the current levels of financial literacy of participants. All questions used the multiple choice criteria. The Jump$tart Coalition survey covered four key financial knowledge areas. These included participants' knowledge in (a) income, (b) money management, (c) savings and investment, and (d) spending and credit. Data were collected and analyzed based on these key financial areas. Each of these variables is presented in a subsequent section under data analysis.

Data Recording

After data were collected, recording of data became the necessary logical next step of this study. Data was processed using the IBM's SPSS software. Data were hand coded and entered into the SPSS software. Numbers were assigned to each participant group as codes for the SPSS to be able to identify and process data. For example, while 1s and 2s were assigned to female and male participants, numbers such as 1, 2, and 3 were assigned to high school students, adult workers, and entrepreneurs respectively

Both the Independent-Samples *t* Test and One-Way ANOVA test statistics were used to test differences in performance or mean scores between (a) the three groups of participants, (b) participants with formal financial education and participants without formal financial education, and (c) male and female participants. While the Independent-Samples t Test was used to test the means of two variables at a time, the One -Way

ANOVA test statistic was used to test the means of all the three participant groups in the study.

The following hypotheses were tested:

$H_0$1b: There are no differences in knowledge of personal finance among students, adult workers and entrepreneurs.

$H_0$2b: There are no differences in knowledge of personal finance between participants with formal financial education and participants without formal financial education.

$H_0$3b: There is no significant difference in knowledge of personal finance between male and female participants.

Data Analysis and Results

Descriptive Analysis of Results

The major research questions of this study were intended to investigate the extent to which participants have knowledge in personal finance and how they use financial tools to manage their financial resources. This section presents descriptive analysis of results of the main research questions and the additional research questions that were meant to study performance differences between study groups.

Data were analyzed using the Jump$tart Coalition's 2008 national results as baseline for comparison. The overall performance of participants of the current study are shown in Table 5 while Table 6 is an illustration of performance of the current survey alongside the 2008 Jump$start national performance.

On Table 5, the average (*M*) performance of participants of the current study was 45.2 % with a standard deviation (*SM*) of 11.2%. The average score of the 312 participants was derived by using the SPSS software tool. For the sake of comparison the researcher used the same survey instrument (Jump$tart 31 questionnaires) as often used by Jump$tart Coalition for its bi-annual national survey. Table 5 is a presentation of participants' performance which used to accept or reject the hypothesis *(H0a)* that; *African-Americans do not have a low level knowledge about personal finance.*

Table 5

Overall Performance of the 2015 Financial Literacy Survey

Performance	*n*	*M*	*SD*
Overall	312	45.2%	11.2%

Note. *n* = sample size, *M* = mean score, and *SD* = standard deviation

A comparative analysis of the performance of the 2008 Jump$tart survey and the current survey are presented in Table 6. The data were used to make analysis of the hypothesis *(H0a)* that; *African-Americans do not have a low level knowledge about personal finance.* The national average score of the 2008 Jump$tart survey was 48.3% whereas the average score of the current survey was 45.2%. The 48.3% represented all Americans including the minority sub-groups.

Though the average score for the current study fell below that of Jump$tart's national average score of 48.3%, it was nevertheless, an improvement of the African-Americans' performance during the same study. Specifically, performance of African-Americans in particular during the 2008 Jump$tart survey was 41.2% versus 45.2% in the current study. This score was however, still lower than of their White counterparts (52.5%) as seen in table 6.

Table 6

Comparison of 2008 Jump$tart Performance on Financial Literacy Survey with the Current Study

Score	2008 Jump$tart	2015 Survey
Average Score	48.3%	45.2%
Whites	52.5%	--
African-Americans	41.2%	45.2%

Source: Jump$tart, 2008 Survey.

Descriptive Analysis of Performance in Key Financial Literacy Areas

Participants were tested in specific areas of financial knowledge. Table 7 is an illustration of results pertaining to participant's knowledge in income, money management, savings and investment, and spending and credit during the survey. The results were also compared with that of Jump$tart Coalition's 2008 survey between White and African-American participants.

On Table 7, 58.3% versus 46.6% of the participants gave correct responses to the income questions. The performance indicated an improvement rate of 11.7%. However, the performance of the white counterparts during the 2008 Jump$tart survey was however, 61.6%. Also, while 46.4% of participants of the current study had correct responses in money management, 36.4% and 43.6% of participants in the 2008 Jump$tart survey had correct responses in money management respectively.

Furthermore, 45.8% versus 37.1% of the participants had correct responses in savings and investment item. The current score on savings and investment was 0.1 percent less than the score of their white counterparts (45.9%). Forty-nine and half percent (49.5%) had correct responses on spending and credit item versus 37.6%, representing improvement rates of 11.9% and 1.1% over 2008 survey and their White counterparts respectively. Analysis of the hypothesis (*H0a)* that; *African-Americans do not have a low level of knowledge about personal finance* was made based on data presented in Table 7.

Table 7

Comparison of 2008 Jump$tart Performance on the Four Financial Literacy Key Area With the Current Study

Key Area Tested	2008 Jump$tart, (*n* = 932)		2015 Survey, (*n* = 312)
	Whites	African-Americans	African-Americans
Income	61.6%	46.6%	58.3%
Money management	43.6%	36.4%	46.4%
Savings & investment	45.9%	37.1%	45.8%
Spending& Credit	48.4%	37.6%	49.5%

Data Source: Jump$tart 2008 survey.

Descriptive Analysis of Participants' Savings Behavior

The saving behaviors of African-Americans were measured during the study to determine their attitudes toward savings. This behavior was measured through self-assessed questions in part one of the survey item. Generally, most of the participants saved for one reason or the other. For example, while some participants save towards investment, others, especially students save towards their college tuition and fees. In Table 8, while none of the students save towards investment, more than one-fifth (*n* = 35, 27.7%) said they saved towards college preparation. Majority of the students (*n* = 105, 68.2%) do not save at all because they either do not have any source of income or lack of the habit of saving.

More than one-third (*n* = 50, 45.5%) of adult respondents said they saved toward investment, while 20 participants representing 18.2% response rate said they do not save at all. But13.6% and 22.7% of adult respondents said they save towards college and for other purposes respectively. All the entrepreneurs save for one reason or the other. Over 50% of the entrepreneurs said they save towards investment, while 45.8% save for other reasons. Data presented in Table 8 help to confirm report from the body of literature that described African Americans as those who save less and spend more and how financial education can assist in changing such behavior.

Table 8

Descriptive Statistics of Participants' Saving Motives

	Students	%	Adult workers	%	Entrepreneurs	%
Save towards investment	--	--	50	45.5%	26	54.2%
Save for college	35	27.7%	15	13.6%	--	--
Save for other purpose	14	9.1%	25	22.7%	22	45.8%
Do not Save	105	68.2%	20	18.2%	--	--
Total	154	100%	110	100%	48	100%

In general, while more than half (n =187, 59.9%) of the sample population said they save for one reason or the other, 158 respondents (adults workers and entrepreneurs put together) representing 48.1 percent specifically save towards investment.

Descriptive Analysis of Participants' Motives for Consulting Financial Professionals

As part of self-assessment, participants for this study were asked if they consulted any financial expert for advice on insurance, savings and investment, mortgage, tax planning, or debt counseling. In table 9, seven four (74) respondents, representing 23.7% of the sample had consulted financial professionals for one or more of the above.

Majority of the respondents (*n* = 56, 50.9%) of those consulted professionals were adult workers. Eleven (n = 11, 22.9%) who were entrepreneurs had consulted financial experts for insurance, and tax planning, while 7 students representing 4.5% consulted financial experts for either insurance or savings and investment. In Table 9, details of participants' reasons for consulting financial professionals are presented to help study if participants who consult or do not consult financial professionals are attributable to their low financial awareness. The hypothesis that; *African-Americans do not have a low level of knowledge about personal finance*, can partly be analyzed using Table 9.

Table 9

Descriptive Statistics of Participants' Motives for Consulting Financial Professionals

	Students	%	Adult workers	%	Entrepreneurs	%
Consult financial Professionals	7	4.5%	56	50.9%	11	22.9%
Reasons:						
Insurance (auto, life, and health)	5	71.4%	13	23.2%	4	36.4%
Savings and investment	2	28.6%	18	32.1%	--	--
Advice on mortgage or loan	-	--	10	17.9%	--	--
Tax planning purpose	-	-	10	17.9%	7	63.6%
Debt counseling	-	-	5	8.9%	--	--

Descriptive Analysis of Results of other Research Questions

In this study, the researcher also wanted to know if there were differences in financial literacy levels among the various participant groups. The researcher tested mean differences between participant groups including male and female participants and between participants with and without formal financial education to determine if there were any statistically, significant differences in group means. Both Independent Sample *t* test and a One-Way ANOVA test were employed to test mean differences. Subsequent sections explain the reason for utilizing both test statistics.

Table 10 is a presentation of the mean (*M*) scores and standard deviations (*SD*) of participant groups while the mean differences in performance between male and female participants and the other participant groups are presented in Tables 11 and 12. In Table 10, the mean score and standard deviation for the general performance of the total participants during the study was (n = 312, M = 45.2%, SD = 11.2%). Detail results of the mean scores and standard deviations of the various participant groups are also shown in table 10. Table 10 is used to help analyze performance variations in terms of mean scores between participant groups. It relates to the hypotheses that; i) *There are no differences in knowledge of personal finance among students, adult workers and entrepreneurs*, ii) *there are no differences in knowledge of personal finance between participants with formal financial education and participants without formal financial education*, and iii) *there is no significant difference in knowledge of personal finance between male and female participants.*

Table 10

Descriptive Statistics of Means and Standard Deviations for Participant groups

Participants	*N*	*M-score*	*SD*
Overall	312	45.2%	11.2%
Gender:			
Male	156	46.5%	10.2%
Female	156	44.0%	12.1%
Group:			
Students	154	37.9%	7.1%
Adult Workers	110	49.6%	9.0%
Entrepreneurs	48	58.7%	8.6%
Formal Fin Edu	90	56.4%	10.4%
Informal Fin Edu	222	40.7%	7.9%

Descriptive statistics of the confidence intervals, mean, and standard error difference between the paired participant groups are shown in Table 11. Data presented illustrate of how wide participants' knowledge varies from group to group and assist in analyzing the hypotheses such that:

1. There are no differences in knowledge of personal finance among students, adult workers and entrepreneurs,
2. there are no differences in knowledge of personal finance between participants with formal financial education and participants without formal financial education, and
3. there is no significant difference in knowledge of personal finance between male and female participants.

While the 95% CI for males and females ranged from -0.131 – 4.962 with mean difference of 2.474, the 95% CI for students and adult workers ranged from 9.641-13.718 with 11.679 mean difference. Also, while the 95% CI for students and entrepreneurs ranged from 18.055-23.515 with mean difference of 20.785, the 95% CI for adult workers and entrepreneurs ranged from 6.061-12.151 with mean difference of 9.106. The 95% CI for participants with formal financial education and participants without formal financial education ranged from 13.309 -18.121 with mean difference of 1.216. The CI ranges and mean differences indicate the extent to which one participant group has more know in personal finance than the other.

Table 11

Descriptive Statistics of Confidence Intervals, Mean and Standard Error Differences Between Participant Groups

Group	Mean Diff.	Std Error Diff	95% CI
Males/Females	2.474	1.264	-0.131- 4.962
Students/Adult Workers	11.679	1.034	9.641-13.718
Students/Entrepreneurs	20.785	1.368	18.055-23.515
Adult Workers/ Entreps	9.106	1.542	6.061-12.151
Participants With/ Without Formal Fin Edu	15.715	1.216	13.309 -18.121

Note. Mean Diff = Mean differences, Std Error Diff = Standard Error differences, and 95% CI= 95% Confidence Interval.

One-Way ANOVA Test Results for Multiple Groups

While the independent sample t test statistic is limited to only two groups at a time, the One-Way ANOVA test statistic enables testing on two or more independent sample groups. In this study, a One-Way ANOVA was used to test the mean score differences between (a) students, adult workers, and entrepreneurs, and (b) participants with formal financial education, participants with informal financial education, and participant without any form of financial education

The One-Way ANOVA was used to test the hypothesis that, there are no significant differences in knowledge levels of personal finance between these two sets of participants. The results are shown in Tables 12 and 13. In Table 12, the ANOVA test revealed a statistically significant relationship at .05 confidence level between mean differences for students, adult workers, and entrepreneurs at F (2, 309) = 146.616, p = .00. The results implied that there were differences in knowledge levels of personal finance between the three groups of participants.

Data in Table 12 can be used to test the same hypotheses as indicated in Table 11 but uses ANOVA test for multiple groups, students, adult workers, and entrepreneurs.

Table 12

One-Way ANOVA Test for Differences in Knowledge Levels Between Students, Adult Workers, and Entrepreneurs

Source	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between groups	19044.564	2	9522.282	146.616	.000
Within Groups	20068.615	309	64.947		
Total	39113.179	312			

Note. df = degree of freedom, *F*= *F*-ratio, and sig. = significance (two-tailed).

Similarly, an ANOVA test was conducted for participants with and without formal knowledge in consumer finance. In table 13, the ANOVA test revealed a statistically significant relationship at .05 confidence level between mean differences for participants with formal financial education, participants with informal financial education and participant without any form of financial education at F (2, 309) =

114.395, $p = .00$. With $p < .05$ implied that there were differences in knowledge levels of personal finance between the three groups of participants.

As with Table 11, hypotheses related to knowledge difference between multiple groups can be tested using data in Table 13 via ANOVA test for multiple groups.

Table 13

One-Way ANOVA Test for Differences in Knowledge Levels Between Participants With Formal Financial Education, Participants With Informal Financial Education, and Participants Without Any Form of Financial Education

Source	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between groups	16639.774	2	8319.887	114.395	.000
Within Groups	22473.405	309	72.29		
Total	677048	312			

Note. *df* = degree of freedom, *F*= *F*-ratio, and sig. = significance (two-tailed).

Independent Sample *t* test Results for Two Groups

The independent-samples *t* test was conducted to determine if there were differences in knowledge levels of personal finance between:

- males and females;
- students and adult workers;
- students and entrepreneurs;
- adult workers and entrepreneurs; and

- participants with formal financial education and participants without formal financial education.

As seen in Table 14, Leven's test and *t* test were used to determine whether or not variances and means differed between the five paired of groups. Leven's test between males and females was statistically significant (F = 4.381, p = .037), and therefore did not supported the assumption of homogeneity of variances. There was, however, statistically significant difference at .05 level between the means of male and female participants, t(301.573) =1.957 , p = .05. Also, homogeneity of variances was tested with Levene's test for students and adult workers. Levene's test for equality of variances was statistically significant (F = 5.264, p = .023), hence violated the assumption of homogeneity of variances. Similarly, there was statistically significant difference at the .05 level between the means of the two groups, t(198.452) = 11.299, p = .00.

While Levene's test for equality of variances for students and entrepreneurs proved statistically significant (F = 4.278, p = .040), violating the assumption of homogeneity of variances and the t test revealing statistically significant difference at the .05 level between the means of the two groups, t(67.987) = 15.194 , p = .00; Levene's test for equality of variances for adult workers and entrepreneurs was not statistically significant (F = 007, p = .935), hence supported the assumption of homogeneity of variances (see Table 14). The t test, however, proved statistically significant difference at the .05 level between the means of adult workers and entrepreneurs, t(156) = 5.907, p = .00.

Furthermore, in Table 14, Levene's test for equality of variances for participants with formal financial education and participants without formal financial education also violated the assumption of homogeneity of variances. The Leven's test proved statistically significant (*F* = 18.148, *p* = .00). The t test revealed statistically significant difference at the .05 level between the means of the two groups, *t*(132.278) = 12.921, *p* = .00. Hypotheses related to knowledge difference between groups can be tested using data from Table 14 via independent sample test for paired groups.

Table 14

Independent Sample t Tests for Financial Literacy Between Participant Groups

Group	Variances	Levene's Test for Equality of Variances		*t*-test for Equality of Means		
		F	Sig.	*t*	*df*	Sig.
Male/Female	Equal variances not assumed	4.381	.037	1.957	301.573	.05
Students/Adult Wkrs	Equal variances not assumed	5.264	.023	11.299	198.452	.00
Students/Entrepreneur	Equal variances not assumed	4.278	.040	15.194	67.987	.00
Adult Wkrs/Entrepren	Equal variances Assumed	.007	.935	5.907	156	.00
Participants With/ Without formal Fin Edu	Equal variances not assumed	18.148	.00	12.921	132.278	.00

Note. *df* = degree of freedom, *F*= *F*-ratio, *t* = *t*-test, and sig. = significance (two-tailed), Wkrs = workers.

Use of Financial Tools for Managing Personal Finances

Money management and budgeting can be a daunting task in the personal finance process. Personal finance tools are available for people to make this task easier in order to have better control of their personal finances. One of the research questions for this study focused on the extent to which participants become aware and use financial tools in managing their financial resources. Analysis of results indicated that 192 participants representing 61.5% have checking and/or savings accounts. One hundred and eight (n = 108) participants representing 34.6% indicated they own investment products such as CDs, stocks, shares, bonds, and mutual funds and receive dividends and/or interest as their primary source of income. More than 50% (n =78) of those indicated they have checking/savings accounts and other investment products also use personal financial tools such as Mint, BudgetSimple and MoneyDance to manage their financial resources. The personal finance tools are web-based tools or applications that assist users in budgeting and managing investments. They assist in tracking consumers' bank accounts, credit cards, investment, and retirement funds and provide a snapshot of one's financial health (Mint.com). Further analysis revealed that 62 out of the 78 participants, representing 79.5%, were participants who had formal coursework in finance, and college degree in finance and own their own businesses.

Discussion of Results

In this section I present a discussion of results in relation to the research questions and hypotheses. The results of the study were analyzed in two categories. Category A included analysis of the main research questions and category B included an analysis of the sub-research questions. The survey presented contrasting results with the sixth biennial survey of the Jump$tart Coalition. Results of the 2008 high school and college survey were used as a baseline for comparison.

The first research question in the A category was stated: To what extent do African-Americans have knowledge about financial matters? The response to this research question was reflected by participants' overall performance in the survey. The survey tested participants' knowledge in personal finance. The survey item included self-assessment questions, which gathered information about participants' saving and investment behaviors. The survey also included 31- questionnaires that tested participants' knowledge in key areas of personal finance such as income, money management, savings and investment, interest rates/inflation, and spending and credit. The average score for the survey was 45.2%. This score may be considered an underperformance and indicate low level financial literacy among African-Americans when compared with 2008 Jump$tart national average score of 48.3% and that of their White counterparts' achievement of 52.5% in the same survey. The results, nevertheless, indicated an improvement overtime when compared with African-Americans' score of 41.2% in the same survey (see table 6).

Results for the specific key knowledge areas—income, savings and investment, money management, spending and credit—of personal finance were also compiled. Though, participants for the study generally recorded low average score in the survey, their performances in these key areas of personal finance was encouraging. More than half (*n* = 58.3%) of the participants gave correct responses to the income questions. This represented an improvement rate of 11.7% better than 2008 Jump$tart record of 46.6%. This achievement was, however, still below their White counterparts' performance of 61.6%. Also, 46.4% of participants of the current study had correct responses in money management as against 36.4% and 43.6% for their White counterparts during the Jump$tart survey. Furthermore, 45.8% versus 37.1% of the participants had correct responses in savings and investment item representing an improvement rate of 8.7%. This was closed to their White counterparts' performance of 45.9% in the Jump$tart survey. 49.5% had correct responses on spending and credit item versus 37.6%, representing improvement rates of 11.9% and 0.01% over 2008 survey and their White counterparts respectively.

As an extension of research question one I also investigated the extent to which participants saved for investment and other needs and whether or not participants consulted financial professionals for any financial motive. Financial motive in the context of this study ranges from insurance, savings and investment, mortgage, tax planning to debt counseling. Seventy four (n = 74) of the respondents representing 23.7 percent said they had consulted financial professionals for one or more of the above. Majority of the respondents (n = 56, 50.9%) who consulted professionals were adult workers. Eleven (n = 11, 22.9%) respondents made up of entrepreneurs had consulted financial experts for insurance, and tax planning, while 7 students representing 4.5% had consulted financial experts for either insurance or savings and investment. Evidently, African-Americans do consult financial experts for financial decision making.

The extent to which an individual consults or does no consult financial experts for financial decision making does not in itself reflect financial illiteracy. A survey on African-Americans found that African-Americans' use of financial professionals is relatively low not because they are financially illiterates but because of certain barriers such as (a) cost, (b) lack of knowledge on how to choose a qualified advisor, (c) the need to build trust, and (d) confidence in their own decision making (Prudential Research Study, 2011).

Savings is a precursor to capital accumulation and investment. Studies, however, found African-Americans as among the majority of Americans who lack this behavior (Prudential Research Study, 2011). The prudential study found that only 22% of African-Americans save toward their retirement. The saving behaviors of African-Americans were measured in this study to determine their attitudes toward savings. Results indicated that most of the participants saved toward one reason or the other. In general, while more than half (n =187, 59.9%) of the sample population said they saved for one reason or the other, 158 respondents (adults workers and entrepreneurs put together) representing 48.1% specifically save towards investment.

The second research question in the A category was stated: To what extent do participants with formal financial education have greater knowledge of personal finance than those without formal financial education? Data collected revealed that 28.8% (*n* = 90) indicated they had coursework in consumer finance and finance-related courses such as finance and economics either at college or high school. Two hundred and twenty-two participants (*n* = 222) representing 71.2% of total participants either had informal personal financial education in the form of employer-sponsored education and/or financial literacy workshops or did not have any form of financial education at all. To answer this research question I tested differences of mean scores between participants with formal financial education and participants without formal financial education to determine which participant group has greater knowledge than the other.

The independent-samples *t* test was used to test the hypothesis of this question. There was statistically significant difference at the .05 level between the means of the two groups, $t(132.278) = 12.921$, $p = .00$. Based on this finding, H_0a should be rejected. The results were counter to the hypothesis that Participants with formal financial education do not have greater knowledge in financial matters than those without formal financial education. Participants with formal financial education ($M = 56.4$, $SD = 10.4$) has greater knowledge in financial matters than participants without formal financial education ($M = 40.7$, $SD = 7.9$). The 95% CI which ranged from 13.309 -18.121 for the mean differences was wide with a mean difference of 15.715. This finding implied that knowledge of personal finance varied significantly among participants with formal financial education and those without formal financial education.

The third research question was stated: To what extend do participants with formal financial education use financial tools for managing their personal financial matters?

This research question focuses on the extent to which participants become aware and use financial tools in managing their financial resources. 192 participants representing 61.5% of total participants indicated they have checking and/or savings accounts. One hundred and eight (*n* = 108) participants representing 34.6% indicated they own investment products such as CDs, stocks, shares, bonds, and mutual funds and receive dividends and/or interest as their primary source of income. More than 50% (*n* =78) of those indicated they have checking/savings accounts and other investment products also use personal financial tools such as Mint, BudgetSimple and MoneyDance to manage their financial resources.

Out of the 108 participants who indicated they own various investment products, 70 participants or 64.8% were those who had formal financial education while 38 participants or 35.2% were those did not have formal financial education. Furthermore, 62 out of the 78 participants, representing 79.5%, said they own various investment instruments and use personal financial tools to have a better control of their wealth. This category of participants was those who had formal coursework in finance and college degree in finance and own their own businesses.

The analysis also revealed that few participants (20.5% versus 79.5%) who did not have formal financial education owned investment instruments such as CDs, stocks, shares, bonds, and mutual funds, and use personal financial tools for budgeting and control of their financial resources. This answers the fourth portion of the main research question. Evidently, these results indicate that by having a formal education in personal finance and/or finance-related courses have an impact on how individuals control their financial resources.

Discussion of Additional Research Questions

The first question in the category B research questions was: Does any one group of participants have more knowledge in personal finance than the other? The results obtained informed that there are differences in the level of knowledge in personal finance between the study groups. A one-way ANOVA was used to test the hypothesis of this question. There was statistically significant difference at the .05 confidence level between the means of students, adult workers, and entrepreneurs, F (2, 309) = 146.616, p = .00. Based on this finding, $H_0$1b was rejected. This was because the results were counter to the hypothesis that; *there are no differences in knowledge of personal finance among students, adult workers, and entrepreneurs*.

Generally, the three groups of participants with M = 45.2%, and SD = 11.2% on the average, differ in their knowledge of financial matters. The extent to which financial knowledge varied between the groups was, however, not established. Based on this, each group was further tested against the other. Example, an independent-samples t test was used to test the hypothesis that: *entrepreneurs do not have more knowledge in personal finance than high school students*. The t test was statistically significant at the .05 level between the means of students and entrepreneurs, t(67.987) = 15.194 , p = .00. Based on this finding, $H_0$1b(i) was rejected. Students (M = 37.9, SD = 7.1) on the average are less financially knowledgeable than entrepreneurs (M = 58.7, SD = 8.6). The 95% CI which ranged from 18.055-23.515 for the mean difference was quite wide with mean difference of 20.785. In terms of knowledge in personal finance, it can be inferred that students and entrepreneurs do not have equal knowledge in financial matters.

Also, an independent-samples *t* test was used to test the hypothesis that: *entrepreneurs do not have more knowledge in personal finance than adult workers*. The *t* test was statistically significant at the .05 level between the means of adult workers and entrepreneurs, $t(156) = 5.907$, $p = .00$. Based on this finding, $H_0$1b (ii) was rejected. Entrepreneurs ($M = 58.7$, $SD = 8.6$) on the average are more financially knowledgeable than adult workers ($M = 49.6$, $SD = 9.0$). However, the 95% CI which ranged from 6.061-12.151for the mean difference was not quite wide with mean difference of 9.106. In terms of knowledge in personal finance, it can be inferred that adult workers and entrepreneurs do not have equal knowledge in financial matters.

Similarly, an independent-samples *t* test was used to test the hypothesis that: *adult workers do not have more knowledge in personal finance than students*. The *t* test was statistically significant at the .05 level between the means of students and adult workers, $t(198.452) = 11.299$, $p = .00$. Based on this finding, $H_0$1b (iii) was rejected. Adult workers ($M = 49.6$, $SD = 9.0$) on the average are more financially knowledgeable than students ($M = 37.9$, $SD = 7.1$). The 95% CI which ranged from 9.641-13.718 for the mean difference was quite wide with a mean difference of 11.679. In terms of knowledge in personal finance, it can be inferred that students and adult workers do not have equal knowledge in financial matters.

The second question in the category B research questions was stated: Are there differences in test scores between i) participants with formal financial education, ii) participants with informal financial education, and iii) participants without any form of financial education?

A One-Way ANOVA was used to test hypothesis of this question. In this study while some participants indicated they had formal coursework in finance; some indicated they had informal education from their employer-sponsored programs, and/or financial literacy seminars; and others indicated they did not have any form of financial education. The results obtained informed that there were differences in mean scores which in turn indicate differences in the level of knowledge in personal finance between the three groups. Example, while the mean score and standard deviation for participants with formal financial education was, (M = 56.4, SD = 10.4), the mean score and standard deviation for participants with informal financial education was (M = 42.8, SD = 6.7) and the mean score and standard deviation for participants with informal financial education was (M = 38.9, SD = 8.4). The test showed statistically, significant difference at the .05 confidence level between the means of participants with formal financial education, participants with informal financial education, and participants without any form of financial education, $F(2,309) = 114.395$, $p = .00$. Based on this finding, $H_0$2b was rejected. This was because the results were counter to the hypothesis that; *there are no differences in knowledge of personal finance among* participants *with formal financial education, participants with informal financial education, and participants without any form of financial education.*

Generally, participants without any form of financial education do not have knowledge in financial matters as much as participants with informal financial education, and participants with informal financial education do not have knowledge in financial matters as much as participants with formal financial education.

The third question in the category B research questions was: Are there gender differences with respect to knowledge of personal finance? The independent-samples *t* test was used to test the hypothesis of this question. There was statistically significant difference at the .05 level between the means of the males and females, $t(301.573) = 1.957$, $p = .05$. Based on this finding, $H_0 1b$ was rejected. This was because the results were counter to the hypothesis that $H_0 1b$: Male participants do not have more knowledge in personal finance than females. Males ($M = 46.5$, $SD = 10.2$) on the average are more financially knowledgeable than females ($M = 44$, $SD = 12.1$). The 95% CI which ranged from -0.131- 4.962 for the mean differences, however, was not quite wide with a mean difference of 2.474. This finding implied that knowledge of personal finance varied among males and females. Thus, in terms of knowledge in personal finance, it can be inferred that males and females do not have equal knowledge in financial matters.

Summary

This study was a quantitative-based descriptive study that investigated the level of financial literacy among African-Americans in Columbus, Ohio. The study involved three groups of participants – high school students of ages 18 or older, adult workers, and entrepreneurs – to collect data. The study which was benchmarked with the Jump$tart 2008 survey presented contrasting results.

The first question regarding this study was: to what extent do African-Americans have knowledge about financial matters? I found in the study that African-Americans' knowledge in financial matters are relatively below average. The average score for this study was 45.2 percent versus 48.3 percent average score for 2008 Jump$tart national study. The score was also below their White counterparts' achievement of 52.5% in the Jump$tart national study. On the contrary, this study was an improvement over time. For example, while the average score for the current study was 45.2%, the average score for African-Americans in particular during the Jump$tart study was 41.2%.

Further analysis was made for key knowledge areas in income, savings and investment, money management, and spending and credit? The study found that though, participants for the study generally recorded low score in the survey, their performances in key areas of financial literacy was encouraging. The achievement, however, was still below their White counterparts.

In terms of use of financial professionals for financial decision making, I found that on the average, less than half (*n* = 43.9%) of the participants consulted financial professional for one reason or the other. This implies that more than half of African-Americans rely on themselves for financial decisions.

Additionally, the savings behavior of African-Americans was also measured during the study to determine their attitudes toward savings. I found that most of the participants saved toward one reason or the other. In general, while more than half (*n* =187, 59.9%) of the participants said they saved for one reason or the other, 158 respondents (adults workers and entrepreneurs put together) representing 48.1% said they specifically saved towards investment.

Performance scores for participants with formal financial education and those without format financial education were analyzed. I tested differences of mean scores between the two groups to determine which participant group has greater knowledge than the other. The test showed significant difference at the .05 level between their means at $t(132.278) = 12.921$, $p = .00$. The results indicated that participants with formal financial education have greater knowledge in financial matters than those without formal financial education.

To answer the research question regarding the use of financial tools data from the self-assessed item was analyzed. One hundred and eight ($n = 108$) participants representing 34.6% indicated they own investment products such as CDs, stocks, shares, bonds, and mutual funds and receive dividends and/or interest as their primary source of income. More than 50% (n =78) of those indicated they have checking/savings accounts and other investment products also use personal financial tools such as Mint, BudgetSimple and MoneyDance to manage their financial resources.

Out of the 108 participants who indicated they own various investment products, 70 participants or 64.8% were those who had formal financial education while 38 participants or 35.2% were those did not have formal financial education.

Additional research questions were asked and results obtained. One of the questions was: does any one group of participants have more knowledge in personal finance than the other? The *t* test results were significant for the participants groups indicating there was differences in knowledge levels when it comes to financial matters among students, adult workers, and entrepreneurs. This supported the hypothesis that there are differences in knowledge of personal finance among students, Adult workers, and entrepreneurs.

Personal finance knowledge was also tested between participants with formal financial education have greater knowledge of personal finance than those without formal financial education. Differences of mean scores between participants with formal financial education and participants without formal financial education were tested to determine which participant group has greater knowledge than the other. There was statistically significant difference at the .05 level between the means of the two groups, $t(132.278) = 12.921$, $p = .00$. The test indicated that Participants with formal financial education have greater knowledge in financial matters than those without formal financial education.

Knowledge differences between genders were also tested. The *t* test was used to test the hypothesis that males do not have more knowledge in personal finance than females. The result was statistically significant at $t(301.573) =1.957$, $p = .05$. This implied knowledge in personal finance varied between genders as males on average scored 46.5% versus females' average score of 44.0%. Thus, in terms of knowledge in personal finance, it can be inferred that males have more knowledge in financial matters than females.

The next chapter concludes this study. In Chapter 5, I provide interpretation of the research findings and the potential positive social change of the study. Furthermore, I present recommendations for further studies and a conclusion summarizing the major findings of the study.

Chapter 5: Interpretation, Recommendations, and Conclusion

Introduction

The purpose of this quantitative study was to determine the financial literacy levels among African Americans in Columbus, Ohio. The nature of the study was quantitative-based research that allowed me to utilize the survey method to collect and analyze data. Findings of the study would provide suggestive measures to aid policy implementation and direction for social benefit.

Literature reviewed demonstrated that African Americans' knowledge in personal finance has tended to be persistently low as compared to other ethnic groups. Generally, findings of this study indicated that there had not been any change in the level of knowledge of personal finance among African Americans as reported in the literature. I found in the study that African Americans' knowledge in financial matters fell below average. I compared performance of this study with the 2008 Jump$tart study.

There was however, performance improvement in specific areas of personal finance such as income, money management, savings and investment, and spending and credit was indicated by the study. One significant finding of the study was that participants with formal financial education had greater knowledge in financial matters than those without formal financial education. Also, it was established in the study that a majority of African Americans including entrepreneurs have the habit of saving for college, investment, and/or emergency. An additional finding of the study was that knowledge in financial matters differed significantly between the participant groups of

AfricanAmericans. It was found that experience dealing with money is a key financial socialization factor that increased knowledge of personal finance.

The results of the study were analyzed and presented in Chapter 4. In this chapter I present interpretation of findings, limitations of the study, recommendations, , and conclusion. Detailed discussion and interpretation of findings in relation to the theoretical/conceptual underpinnings and body of literature reviewed are presented in subsequent sections of this chapter. In addition, I provided implications for policy implementation and positive social change.

Interpretation of Findings

Research Question 1a: Knowledge of Personal Finance.

RQ1a: To what extent do African Americans have knowledge about financial matters?

A cross section of African Americans was surveyed to determine their financial literacy levels. I posed four main research questions regarding the study. The first research question I asked was: To what extent do African Americans have knowledge about financial matters? Responses to this question were obtained through a survey. The results were compared with the sixth biennial results of the Jump$tart Coalition.

While the overall average score of African Americans in the current study was 45.2%, their average score during the 2008 Jump$tart survey was 41.2%. Though there was 4.0% improvement in the current survey, the performance was lower than the national average performance (*M* = 48.3%) involving the European Americans, African Americans, Hispanics, and Native Americans during the 2008 Jump$tart study. The performance was also lower than their European American counterpart's performance of 58.5% in the Jump$tart 2008 survey. This finding demonstrates low level of financial literacy among African Americans. Comparatively, African Americans also tend to have low working knowledge of personal finance (Daniels, 2011).

As revealed in the body of literature in Chapter 2, the finding of this study was consistent with the findings of previous studies that African Americans comparatively have low financial knowledge (Elan, 2011; Lusardi, 2005; Lusardi, Bumcrot, & Lin, 2011; Lusardi & Mitchell, 2011a, 2011b; Mandell, 2004, 2008). For example, Cerarini et al., (2010) found that, although genetic variations contribute to explaining how individuals make financial decisions, African Americans' financial decision-making ability was limited due to their limited knowledge of personal finance.

The 2004 -2008 Jump$tart Coalition national results for African Americans revealed relatively low performance. The survey further found that, African American young adults not only exhibit lower levels of financial literacy, but the trend is persistent (Mandell, 2004). In his key note address on January, 2011 on Martin Luther King, Jr. Day, T. Daniels, founder and president of Society for Financial Education and Professional Development, confirmed that many African Americans lack a working knowledge of personal money management concepts (Daniels, 2011). President Daniels disclosed that African Americans experience many personal finance issues including (a) higher debt delinquencies than any other ethnic group, (b) comparatively lower savings, (c) a lower homeownership rate (only 45% own homes), (d) a greater incidence of home foreclosure, (e) a greater incidence of victimizatoin by predatory lending practices, and (f) and a greater incidence of higher cost auto/consumer loans than other ethnic groups.

According to Daniels (2011), African Americans need to:

- know how to manage credit;
- know how to save for emergencies and/or unexpected expenses;
- know how to manage debt;
- know how to save and use investment vehicles to accumulate wealth and retirement income;
- know how to manage risk to protect current income and assets;
- know how to manage cash so that they are not living from payday to payday, which requires developing a budget to serve as a spending plan;
- know how to protect oneself from fraud or predatory lending practices; and
- know how to use financial services such as checking, savings, and money market accounts.

Key Knowledge Areas

Participants were tested in specific areas of financial knowledge. Jump$tart Coalition for Personal Financial Literacy identified these knowledge areas as income, money management, savings and investment, and spending and credit (Mandell, 2008). Though, the overall results revealed low financial knowledge among African Americans, analysis of results in these key areas revealed that:

- more than half (*n* = 58.3%) of the participants gave correct responses to the income questions versus 46.6% of Jump$tart 2008;

- 46.4% of participants of the current study had correct responses in money management versus 36.4% of Jump$tart 2008;
- 45.8% had correct responses in savings and investment item versus 37.1% of Jump$tart 2008; and
- 49.5% had correct responses on spending and credit item versus 37.6% of Jump$tart 2008.

Based on these findings, there was no evidence to conclude that African Americans have low basic knowledge in income, money and risk management, savings and investment, spending, and credit. The results not only revealed a considerable knowledge of these specific areas of personal finance but also improvement over time.

The results also revealed more of a connection between experience and financial literacy. The results indicated that participants who had experience in income or money management such as credit and ATM card use, paying auto insurance, owning security and bank accounts, and employment history were more financially literate than those who had little or no experience (Mandell, 2008). Specifically, while entrepreneurs' performance ranged from 62.7% to 80.3% on the four key areas, adult workers scored between 54.4% and 66.7%. Students had the lowest scores ranging from 27.6% to 39.4% in the four key areas. This is consistent with Massimo and Ornella's (2011) conception that experience dealing with money can potentially increase one's financial knowledge.

Use of Financial Experts

Self-assessment items were administered in the study to determine if participants consulted financial experts for financial decisions. The results determined that the bulk of the participants did not consult financial professionals. Seventy-four (74) respondents representing 23.7**%** of the sample had consulted financial professionals for decisions on insurance, savings and investment, mortgage, tax planning, and debt counseling. Majority (*n* = 56, 50.9%) of the respondents who consulted professionals were adult workers.

These results could be interpreted differently. Thus, some participants might have not consulted professionals for some reasons known only to them. It could be interpreted that this category of respondents either did not need to consult experts or had no access to them. On the contrary, it could be interpreted that participants who contacted financial experts did so because they lacked the necessary financial knowledge and skills to independently take financial decisions. The latter is consistent with Rooij, Lusardi, and Alessie (2007)'s study that suggests that individuals with low literacy are more likely to rely on family and friends as their main source of financial advice.

It could further be interpreted that they are financially knowledgeable but have little to no confidence in making independent financial decisions. A survey on African-Americans revealed that African-Americans' use of financial professionals is relatively low not because they are financially illiterates but because of certain contact barriers such as (a) cost, (b) lack of knowledge on how to choose a qualified advisor, (c) the need to build trust, and (d) confidence in their own decision making (Prudential Research Study, 2011).

It could also be interpreted that most people consult financial professionals because business is personal and it makes sense to partner with experts who have expertise and experience to achieve a meaningful financial goal or strategy. The low performance in the current investigation and African-Americans' contact of financial experts are however, indicative of their lack of the necessary financial knowledge and skills to independently take financial decisions. This finding is consistent with the conceptual framework which defined a financially educated person as one who combines knowledge, skills and actions to solve financial issues. The finding is also consistent with Bhushan,(2014) and Sood and Medury (2012)'s finding that financial literacy affect individuals' awareness of financial products and services.

Savings Behavior

Savings is a precursor to capital accumulation and subsequent investment (Daniels, 2011). The saving behaviors of participants of this study were measured to determine their attitudes toward savings. Literature reviewed determined that African-Americans spend more than they save (Daniels, 2011; Mandel, 2004). Additionally, past and recent studies found African-Americans as among the majority of Americans who lack positive savings behavior (Lusardi, 2005, Kuan, Cullen, & Modrek, (2015). Kuan, et al. (2015) who studied a single aspect of asset accumulation and savings behaviors found that African Americans and Hispanics are less likely to save toward their 401(k) plans.

The results, however, were somewhat contrary to these reports. it was found that most of the participants either saved toward their college education or rainy day. In general, while more than half (n =187, 59.9%) of the sample said they either saved for college education and/or rainy day, 158 respondents (adults workers and entrepreneurs put together) representing 48.1 percent specifically said they saved towards investment. This finding could be interpreted in two folds: (i) starting their own businesses or increasing their investment portfolios might have explained adult workers and entrepreneurs' attitudes toward savings. However, how much they cut back their spending in order to save was not revealed in this study. (ii) Lack of basic understanding of financial matters, negative attitudes toward savings or poor paying jobs (John, 2010) or a combination of these factors may have accounted for those who did not save toward anything for this study.

Research Question 2a

To what extent do participants with formal financial education have greater knowledge of personal finance than those without formal financial education?

Differences of mean scores between participants with formal financial education and participants without formal financial education were tested to determine which participant group has greater knowledge than the other. There was statistically significant difference at the .05 level between the means of the two groups, $t(132.278) = 12.921$, $p = .00$. This implies that one group of participants has more knowledge in financial matters than the other. Participants with formal financial education have greater knowledge in financial matters than those without formal financial education. This was evident in their mean scores and standard deviations of $M = 56.4$ and $SD = 10.4$ for participants with formal financial education and ($M = 40.7$, $SD = 7.9$) participants without formal financial education.

Participants were further grouped as participants with formal financial education, participants with informal financial education, and participants without any form of financial education for further analysis. This is because there were participants who had coursework in consumer finance and finance-related courses such as finance and economics either at college or high school, participants who had informal financial education in the form of employer-sponsored programs and/or financial literacy seminars, and participants who did not have any form of financial education. A test performed on these three groups showed there was statistically, significant difference at the .05 confidence level between their means at $F(2,309) = 114.395$, $p = .00$. Example, while the mean score and standard deviation for participants with formal financial education was, ($M = 56.4$, $SD = 10.4$), the mean score and standard deviation for participants with informal financial education was ($M = 42.8$, $SD = 6.7$) and the mean score and standard deviation for participants with informal financial education was ($M = 38.9$, $SD = 8.4$).

The findings indicated that having formal and/or informal financial education plays a crucial role in providing increased personal finance knowledge to individuals. Based on this finding participants without any form of financial education have less knowledge in financial matters than participants with informal financial education, and participants with formal financial education. On the reverse, participants with formal financial education have greater knowledge in financial matters than participants with informal financial education, and participants without any form of financial education.

Research Question 3a

To what extend do participants with formal financial education use financial tools for managing their personal financial matters?

This research question focused on the extent to which participants became aware and use financial tools in managing their financial resources. Does the use of these financial tools as a result of participants' education in personal finance? Self-assessment questions were posed to answer this question. One hundred and eight (*n* = 108) participants representing 34.6% indicated they own investment products such as CDs, stocks, shares, bonds, and mutual funds and receive dividends and/or interest as their primary source of income. More than 50% (*n* =78) of those indicated they have checking/savings accounts and other investment products also use personal financial tools such as Mint, BudgetSimple and MoneyDance to manage their financial resources. It was found that 62 out of the 78 participants, representing 79.5%, who indicated they own various investment instruments and use personal financial tools to have a better control of their wealth had formal coursework in finance and college degree in finance and own their own businesses.

The analysis also revealed that few participants (20.5% versus 79.5%) who did not have formal education in personal finance owned investment instruments such as CDs, stocks, shares, bonds, and mutual funds, and use personal financial tools for budgeting and control of their financial resources. Evidently, these results indicate that by having a formal education in personal finance and/or finance-related courses have an impact on how individuals control their financial resources. It could also be interpreted that perhaps those participants who did not use the financial tools were not aware of their existence.

Interpretation of Other Research Questions:

RQ1b: Does anyone group of participants have more knowledge in personal finance than the other?

A one-way ANOVA was used to test the hypothesis of this question. There was statistically significant difference at the .05 confidence level between the means of students, adult workers, and entrepreneurs, F (2, 309) = 146.616, p = .00. This implied that on the average, the three groups of participants differ in their knowledge of financial matters. Which group of participants had greater knowledge in personal finance was, however, not revealed in the ANOVA test. An Independent-samples t tests were conducted to determine the extent to which their knowledge varied. While the t test was statistically significant at the .05 level between the means of adult workers and entrepreneurs, $t(156) = 5.907$, p = .00, the t test was statistically significant at the .05 level between the means of students and entrepreneurs, $t(67.987) = 15.194$, p = .00. Also, the t test was statistically significant at the .05 level between the means of students and adult workers, $t(198.452) = 11.299$, p = .00. These outcomes implied that while adult worker have greater of knowledge in personal finance than students, entrepreneurs have greater knowledge in financial matters than both adult workers and students alike.

This knowledge difference is subject to different interpretations. Participants with greater knowledge could either have formal education in personal finance as found in the study and/or have gained experience (especially entrepreneurs) from the financial world (Mandell, 2008; Massimo & Ornella, 2011). According to Massimo and Ornella (2011), experience in income or money management such as credit and ATM card use, paying auto insurance, owning security and bank accounts, and employment history can potentially increase one's financial knowledge.

The findings of the study were also consistent with the findings of Rooij, Lusardi, and Alessie, (2007). Rooij et al. (2007) found that financial literacy differs substantially among individuals depending on their education, age and gender.

RQ2a: Are there gender differences with respect to knowledge of personal finance?

This question was a knowledge extension question designed to determine if there were differences in knowledge of financial matters between genders. The independent-samples *t* test was used to test the hypothesis of this question. There was statistically significant difference at the .05 level between the means of the males and females, $t(301.573) = 1.957$, $p = .05$. The 95% CI for the difference in means ranged from -0.131-4.962 with a mean difference of 2.474. Based on this finding, it can be inferred from the results that males ($M = 46.5$, $SD = 10.2$) on average are more financially knowledgeable than females ($M = 44$, $SD = 12.1$). This finding was consistent with Almenberg and Dreber (2015) and Sucuahi, (2013). Almenberg and Dreber stated that not only fewer women than men participate in the stock market but also have low scores when it comes to financial literacy.

What explained or accounted for this gender knowledge difference was not established in this study though. It could be that few women take coursework in finance or finance-related courses and/or have little experience in dealing with money.

Limitations of the Study

This study was limited in various ways. The survey was designed to measure the extent to which African Americans have knowledge in financial matters. By this, the study was limited by design to provide a descriptive analysis of the results of the survey and not to study the causal relationship between dependent and independent variables as typically done in a quantitative study.

Another limitation of the study was that it did not take into consideration other demographic factors of participants. The sample population included only students, adult workers, and entrepreneurs but did not take into consideration other social demographics such as level of education, income or social class (middle or lower) within the Black community as bases for the study. The study was also limited to only Columbus, Ohio.

Literature reviewed determined that minorities including African Americans, generally have low levels of financial knowledge. This investigation was not limited to Columbus, Ohio but also was limited to only African-Americans.

This study was also limited to the use of a particular research instrument to assess the financial knowledge of participants. The researcher employed Jump$tart Coalition for Personal Financial Literacy’s established, standardized instrument for measuring financial knowledge. The rationale for the employment of this instrument was to maintain consistency and validity and for the fact that the same instrument was successfully applied in various scholarly studies.

Recommendation for Further Study

The low levels of financial knowledge among African-Americans were reported by previous studies. This study was designed to understand the extent to which African-Americans lack this basic knowledge in financial matters as reported by previous studies. The study is a replication and extension of previous studies intended to bridge the research gap as was identified in the literature. Data was collected, analyzed and results reported. However, the limitations of this study provided greater opportunities for further examination of the issue.

The first recommendation for further studies is that there is the need to broaden the study to involve all minority groups. Literature reviewed did not only reveal African-Americans as those who lack financial education, but also other minority groups such Asians, Hispanics, and Native Americans. Additionally, future studies should investigate the relationship between financial literacy and factors that influence financial literacy such as the role of parents, financial literacy seminars/workshops, work and money management experiences, and coursework in personal finance offered at schools and colleges.

In this study I conducted only a descriptive versus analytical study to examine the financial knowledge levels of African-Americans. An analytical research design studies cause-effect relations between dependent and independent variables (Howick, 2013). For example, parents play a crucial role in promoting financial literacy to their children. However, the extent to which parental role in promoting financial literacy correlates with financial literacy needs to be analyzed. Research suggests that parents are a major source of financial socialization (John, 2010). John (2010) posited that the poverty levels of Blacks persist or perpetuate because African-Americans are more likely to have poor relatives down the family tree than wealthier families to transmit knowledge, skills, and opportunities related to basic understanding of financial matters.

Second, I recommend that other survey instruments, as identified in the methodology section of chapter three, be used to collect and analyze data in subsequent studies. The 31-questionaire instrument designed by Jump$tart Coalition was utilized for this study.

I further recommend that future studies undertake a statewide investigation of the African Americans' financial literacy levels to better understand a bigger picture of the phenomenon. To meet a doctoral requirement and to minimize cost, the present study was limited to only Columbus city. The study was designed to bridge the research gap by conducting an exclusive study on African-Americans. The researcher included a cross-section of African-Americans such as Black entrepreneurs, adult workers and students participants from the African-American community which were ignored in previous studies.

Further efforts could be made to conduct a similar study in the suburban or rural settings since all Americans, regardless of where they live and work, experience the same economic and financial hardship. This study was only focused on the urban area. Future studies could compare the financial literacy levels between the urban and rural dwellers as results obtained can be used for policy implementation purposes. Despite the traditional mode of delivering financial education in schools and colleges, financial literacy is in short supply in the nation (Hasting, Mandrian & Skimmyhorn, 2012).

I further suggest that interstate studies be conducted to compare the levels of financial education between high school students in Ohio and students in one or more of the 36 States that made personal finance education mandatory within their states (CEE, 2012). CEE contended that students from States where financial education course was mandatory are more likely to report financial knowledge and display positive financial behaviors than students from states that did not.

Financial education is crucial for financial resource building in a nation. A retrogressive look at African Americans' economic history, as reported in the literature, revealed a little progress in areas of economics and finance (Carlton, 2011). Standard of living is a multiplicative function of economic or financial resources (Mandell, 2008). As such, wealth disparities can only be bridged by virtue of having a working knowledge of financial literacy (Daniels, 2011).

Suggestive Measures

The role of financial education in the lives of Americans in this era of financial crisis cannot be overemphasized. Knowledge in financial matters can serve as a moderator for understanding of the function of financial transactions and personal money management concepts and to efficiently utilize financial resources (Daniel, 2011). To provide and promote financial education to all Americans, the researcher provides the following suggestive measures:

To promote financial education, the State of Ohio should make personal finance or finance related courses mandatory for high school students as requirement for graduation. As Council for Economic Education (2012) recommended, "Early training in economics and finance will go a long way towards the creation of a stable society in the future" (p.5). Ohio State should join the 36 States that made personal finance education mandatory in their States (CEE, 2012). The CEE (2012) argued that students from States where financial education course was mandatory were more likely to report financial knowledge and display positive financial behaviors than students from States that did not. That these young adults are more likely to exhibit the following financial behaviors: (a) more likely to save, (b) less likely to max out their credit cards, (c) less likely to make late credit card payments, (d) more likely to pay off credit cards in full each month, (e) less likely to be compulsive buyers, and (f) more likely to be willing to take average financial risk.

Though records of the CEE indicated that as at 2011, the State of Ohio made positive strides to promote financial education in the region by including personal finance education in their K-12 standards, the results of this policy was incomplete. Thus, the State, according to CEE, (2012)

- did not require standards to be implemented by District;
- did not require high schools to specifically offer personal finance education;
- did not require high school students to take personal finance education Course; and
- did not require testing for personal finance education students.

It is further recommended that, college level business math or finance courses be mandatory for all majors. Parents of African-American students should support the efforts to make courses in personal finance a requirement or priority for high school graduation. It is also recommended that credit management seminars on various communities and college campuses be organized to provide financial socialization.

Implication for Practice and Positive Change

This study provides important insight into financial education opportunities for individuals and families. The study also provides policy implementation as well as positive social change opportunities for students, parents, campus administrators, and financial professionals and educators.

Positive Social Change

Improving the financial knowledge and behaviors of African Americans can make a difference in their lives. Many individuals and households have very little knowledge in finances, debts and their risk potentials that may impact their financial wellbeing. Financial literacy provides financial knowledge and awareness which can influence positive attitudes and behaviors toward money matters. Individuals and households need financial education to be able to make thoughtful and informed decisions about personal finances. For example, knowledge in credit and credit risk is necessary to make financial decisions that are integral to everyday life and can potentially exonerate individual and household consumer from financial trouble or pitfalls.

Financial literacy can bring about a change in the economic wellbeing of African-American individuals and households. Understanding and managing financial resources through financial education, individuals and families can accumulate much economic wealth (Bucher-Koenen, & Ziegelmeyer, 2013). Also, because financial education is linked with stock market participation, more African Americans especially women, confidently would join the stock market and improve the financial market and institutions (Gerardi, Goette, & Meier 2010). Almenberg and Dreber (2015) stated that fewer women than men participate in the stock market due to their low knowledge in financial literacy. The poverty gab of African Americans could be narrowed through financial literacy and education. Daniels (2011) noted that wealth distribution gaps can only be closed through financial education. Acquiring knowledge and skills through financial education can potentially increase human capital returns (Athreya, Ionescu, & Neelakantan, 2015). Athreya, et al., (2015) found that human capital investment returns exceed that of financial investment at early stage of a household lifecycle and declines as the household ages and therefore increase stock-market participation.

Implication for Practice

The results of this study provide grounds for policy implementations. For example, the State of Ohio could make it mandatory for high school students to offer personal finance or finance related course as requirement for graduation. As stated in chapter two, the ramification of having low or no financial education could lead to low participation and contribution rates for retirement, low savings, bankruptcy and huge amounts of consumer debt. The prevalence of bankruptcy and huge piles of most consumer debts – credit card, student loan, and mortgage debt, could be blamed on low or lack of financial literacy (Hogarth, 2006; Jappelli & Padula, 2011).

Parents, educators, and policy makers need a concerted effort to successfully promote financial education in their communities. This study serves as a wakeup call to African Americans, especially students to take advantage of financial socialization opportunities available to them. Students generally have limited, direct experience when it comes to financial matters and are more likely to exhibit undesirable attitudes and behaviors, and low knowledge levels of personal finance (EverFI, 2013). Research found that positive attitudes toward savings, risk preferences, and investment choices can best be learned from parents (John, 2010). To build positive attitudes and behaviors, parents of African-Americans could make sure students are enrolled in college business math and finance as their majors.

Conclusion

Generally, the level of financial literacy among African-Americans in Columbus, Ohio is not high. This finding was consistent with the major hypothesis that African-Americans have low levels of financial literacy and with the findings of previous studies. African Americans have generally demonstrated relatively low levels of financial knowledge during the study. Results of the study further confirmed that financial illiteracy is not only widespread in the United States but pronounced among the African-American ethnicity (Hasting, Mandrian & Skimmyhorn, 2012).

Based on this, individual, families, educators, and policymakers have a collective role to play in this regard. Literature reviewed pointed out that much focus was on providing financial education to all Americans in this era of financial crisis. Policies are being put in place to achieve this goal (CEE, 2011). The question that remains is; how are individuals, families, and educators ready to make this happen, given the role financial literacy plays in our modern society?

Parents need to demonstrate positive financial behaviors to their children. Children develop positive saving behaviors directly from their peers and parents as agents of financial socialization (Ashby et al., 2011, Daniels, 2011, John, 2010). The youth makes financial decisions at younger ages (Center for Financial Security, 2012) and this skill needs to be empowered with financial knowledge in order to be successful at adulthood. Understanding how the youth develop financial behaviors is critical for parents and educators alike in order to improve low levels of financial literacy (CFS, 2012). Findings of this study support efforts to make financial education mandatory in high schools and colleges. The State of Ohio, with support from parents, should make personal finance or finance-related courses mandatory for graduation since this study brought to light a strong connection between financial education and knowledge in financial matters, and positive attitudes and behaviors toward financial matters.

Findings of this study suggested that the overall financial literacy level of African-Americans is generally low. The study established that knowledge in personal finance is partly influenced by taking courses in personal finance and/or finance related courses. The study also established that knowledge in personal finance is affected by certain demographic characteristics such as gender, experience, and work history.

Findings of this study has the potential of assisting policymakers, regulators, and educators in devising appropriate mechanism to increase the level of financial literacy not only among African-Americans but also amongst other ethnic groups. In conclusion, the financial knowledge status of African-Americans as revealed in this study strongly supports the need for workable financial education programs that would teach financial concepts to students and consumers to boost their financial competency for making informed decisions about financial products.

References

Admon, N. (2005). Minority access to higher education and its social outcomes. *New York University*. Retrieved from http://www.usca.edu/essays/vol142005/AdmonEIE.pdf

Agarwal, S., Driscoll, J. C., Gabaix, X., & Laibson, D. (2007). The age of reason: Financial decisions over the lifecycle with implications for regulation. WP 2007-05, Harvard University. Retrieved from http://www.econ.yale.edu/~shiller/behfin/2007_03/gabaix.pdf

Agarwal, S., Driscoll, J. C. Gabaix., X. & Laibson, D. (2009). The age of reason: Financial decisions over the lifecycle with implications for regulation. *Brookings Papers on Economic Activity*, 2-78. doi:10.1353/eca.0.0067

Agarwal, S. Gene A. Itzhak, B. Souphala C. & Douglas, E. (2010). Learning to cope. Voluntary financial education programs and the Housing Crisis, *American Economic Review, Papers and Proceedings*, *100(2)*, 495-500. doi=10.1257/aer.100.2.495

Ahukaramū, T. (2007). The Purpose of education perspectives arising from Mātauranga Māori: A discussion. 4th version. Retrieved from http://www.charlesroyal.com/assets/educationpurposev.4.pdf

Almenberg, J. & Dreber, A. (2012). Gender, stock market participation and financial literacy. SSE/EFI Working Paper Series in Economics and Finance, No 737. Retrieved from http://ssrn.com/abstract=1880909

Almenberg, J. & Dreber, A. (2015). Gender, stock market participation and financial literacy. *Economics Letters,* 137, 140–142. doi:10.1016/j.econlet.2015.10.009

Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In J. Kuhl & J. Beckmann (Eds.), *Action Control,* 11-39. Heidelberg, Germany: Springer. Retrieved from http://www.duluth.umn.edu/~kgilbert/educ5165731/Readings/Theory%20of%20Planned%20Behavior-%20Azjen.pdf

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes 50(2),* 179-211. doi: 10.1016/0749-5978(91)90020-T

Ajzen, I. (2012). Theory of planned behavior. In P. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology*. Thousand Oaks, CA: SAGE Publications, Inc..

American Council on Education. (2006). Racial and ethnic minority students. Retrieved from http://www.acenet.edu/higher-education/topics/Pages/RacialEthnic-Minority-Students.aspx

American Council on Education. (2011). Racial/Ethnic minority students. Retrieved from http://www.acenet.edu/higher-education/topics/Pages/RacialEthnic-Minority-Students.aspx

American Institutes for Research. (2010). Consumer education initiatives in financial and health literacy report. Retrieved from http://www.aspe.hhs.gov/hsp/10/ConsumerEducation/index.pdf

Ashby, J. S., Schoon, I., & Webley, P. (2011). Save now, save later? Linkages between saving behavior in adolescence and adulthood. *European Psychologist*, *16*(3), 227-237. doi: 10.1027/1016-9040/a000067

Association for Supervision and Curriculum Development. (2012). What is the purpose of education? *ASCD Journals.* Retrieved from http://www.ascd.org/ASCD/pdf/journals/ed_update/eu201207_infographic.pdf

Athreya, K., Ionescu, F. F. & Neelakantan, U. (2015). Stock market investment: The role of human capital. *Finance and Economics Discussion Series Divisions of Research & Statistics and Monetary Affairs Federal Reserve Board, Washington, D.C.* doi: http://dx.doi.org/10.17016/FEDS.2015.065.f

Atkinson, T., Luttrell, D., & Rosenblum, H. (2013). How bad was it? The costs and consequences of the 2007-09 financial crisis. *Staff Papers, Federal Reserve Bank of Dallas*. Retrieved from http://ideas.repec.org/p/fip/feddwp/1110.html

Atkinson, T., Luttrell, D., & Rosenblum, H. (2013). Assessing the costs and consequences of the 2007–09 financial crisis and its aftermath. *Economic Letter Research Publications, 8*(7), 1-4. Retrieved from http://www.dallasfed.org/assets/documents/research/eclett/2013/el1307.pdf

Baker, H. K. & Ricciardi, V. (2014). Investor behavior. The psychology of financial planning and investing. New York, NY: Wiley Publishers.

Barber, L. (2010). Assessing the legacy of Dr. Martin Luther King, Jr. *Christian Research Journal*, *33*(1). Retrieved from http://www.equip.org/articles/assessing-the-legacy-of-dr-martin-luther-king-jr/#christian-books-1

Behrman, J. R., Mitchell, O. S., Soo, C. K. & Bravo, D. (2010). Financial literacy, schooling, and wealth accumulation. *National Bureau of Economic Research*. Working Paper 16452. Retrieved from http://www.nber.org/papers/w16452

Behrman, J. R., Mitchell, O. S., Soo, C. K. & Bravo, D. (2012). How financial literacy affects household wealth accumulation. *American Economic Review, 102*(3), 300–304. doi: http://dx.org/10.1257/aer.102.3.300

Bhushan, P. (2014). Relationship between financial literacy and investment behavior of salaried individuals. *Journal of Business Management & Social Sciences Research, 3*(5), 2319-5614. Retrieved from http://www.borjournals.com/a/index.php/jbmssr/article/view/1707/1066

Bhushan, P., & Medury, Y. (2013). Financial literacy and its determinants. *International Journal of Engineering, Business and Enterprise Applications*, 155-160. Retrieved from http://iasir.net/IJEBEApapers/IJEBEA13-145.pdf

Bloom, B. A. N. (2011). A pilot study of personal financial literacy among hospitality students. *Department of Apparel, Educational Studies, and Hospitality Management.* Retrieved from http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1037&context=gradconf_hospitality

Boyland, J. & Warren, R. (2013). Assessing the financial literacy of domestic and international college students. *MBA Students Scholarship Paper 18.* Retrieved from http://scholarsarchive.jwu.edu/mba_student/18

Braunstein, S. & Welch, C. (2002). Financial literacy. An overview of practice, research, and policy. *Board's Division of Consumer and Community Affairs, 446 -457.* Retrieved from http://www.federalreserve.gov/pubs/bulletin/2002/1102lead.pdf

Brown, K. A. (2009). Examining the influence of financial literacy education on financial decision-making among graduate level health professions students (Doctoral Dissertation Capella University). Retrieved from http://gradworks.umi.com/33/72/3372749.html

Bucher-Koenen, T. & Lusardi, A. (2011). Financial literacy and retirement planning in Germany. *Journal of Pension Economics and Finance*, *10*(4), 565 – 584. doi: http://dx.doi.org/10.1017/S1474747211000485

Bucher-Koenen, T., & Ziegelmeyer, M. (2013). Once burned, twice shy? Financial literacy and wealth losses during the financial crisis. *Review of Finance*. doi: 10.1093/rof/rft05

Bureau of Labor Statistics. (2010). African American history month: BLS spotlight on statistics. Retrieved from http://www.bls.gov/spotlight/2010/african_american_history/pdf/african_american_spotlight.pdf

Carlton B. C. (2011). In the money: African-Americans and financial literacy. Retrieved from http://thyblackman.com/2011/06/15/in-the-money-african-americans-and-financial-literacy/

CareSearch. (2012). Evidence based practice: Cross-sectional studies. *Australian Government Department of Health and Ageing*. Retrieved from http://www.caresearch.com.au/Caresearch/Portals/0/Documents/PROFESSIONAL-GROUPS/Nurses%20Hub/NH_EBP_CrossSecStudies_Jan2012.pdf

Center for Financial Security. (2012). Youth, financial literacy, and learning. The role of in-school financial education in building financial literacy. *Research Brief*. doi:10.1.1.369.3255

Cerarini, D., Johannesson, M., Lichtenstein, P., Sandewall, O., & Wallace, B. (2010). Genetic variation in financial decision-making. *The Journal of Financial, 65*(5), 1725-1754. doi: 10.1111/j.1540-6261.2010.01592.x

Chang, Y. & Lyons, A. C. (2008). Are financial education programs meeting the needs of financially disadvantaged consumers? *Journal of Personal Finance, 7*(2), 84-109. doi: 10.2139/ssrn.985652

Chang, M., & Lui, M. (2010). Lifting as we climb: Women of color, wealth, and America’s future. *Center Community Economic Development,* 1-32. Retrieved from http://www.cunapfi.org/download/198_Women_of_Color_Wealth_Future_Spring_2010.pdf

Christelis, D., Jappelli, T., & Padula, M. (2010). Cognitive abilities and portfolio choice, *European Economic Review 54*, 18–38. doi: 10.1016/j.euroecorev.2009.04.001

Coates, T. (2014). The case for reparation. *The Atlantic*. Retrieved from http://www.theatlantic.com/features/archive/2014/05/the-case-for-reparations/361631/

Collins, J. M. (2010). Effects of mandatory financial education on low-income clients. *Focus, 27*(1), 13-18. Retrieved from http://www.irp.wisc.edu/publications/focus/pdfs/foc271c.pdf

Colmar, B. (2013). Financial knowledge and behaviour survey 2013. *Wellington Commission for Financial Literacy and Retirement Income*. Retrieved from http://www.cflri.org.nz/sites/default/files/docs/FL-2013-Fin-Knowledge-Behaviour-Survey-11-06-2013.pdf

Conger, R. D., Conger, K. J., & Martin, M. j. (2010). Socioeconomic status, family processes and individual development. *J Marriage Fam,* 72(3), 685-704. doi 10.111/i.174-3737.2010.00725.x

Council for Economic Education. (2012). Survey of the States. Economic and personalfinance education in our nation's schools. Retrieved fromhttp://www.councilforeconed.org/wp/wp-content/uploads/2011/11/2011-Surveyof-the-States.pdf

Consumer Financial Protection Bureau. (2013). Financial literacy annual report. Retrieved from http://files.consumerfinance.gov/f/201307_cfpb_report_financial-literacy-annual.pdf

Danes, S. M., & Brewton, K. E. (2012). High school financial planning program. 2007 curriculum evaluation. *National Endowment for Financial Education*, 1-18. Retrieved from http://www.hsfpp.org/Portals/0/Documents/NEFE%20HSFPP%20Impact%20Study%20Summary%202012.pdf

Daniels, T. R. (2011). The debt we owe. Promoting financial literacy among minority groups. Retrieved from http://www.huffingtonpost.com/theodore-r-daniels/financial-literacy_b_817848.html

de Bruin, W.B., Parker, A.M., & Fischhoff, B. (2007). Individual differences in adult decision-making competence. *Journal of Personality and Social Psychology, 92*(5), 938-956. doi: 10.1037/0022-3514.92.5.938.

Deci, E. L., & Ryan, R. M. (2008). Self-Determination theory. A macro theory of human motivation, development, and health. *Canadian Psychological Association*, 49(3), 182–85. doi:10.1037/a0012801

Duca J. V., Muellbauer, J., & Murphy, A. (2010). Housing markets and financial crisis of 2007 -2009. Lessons for the future. ,"SERC Discussion Papers 0049, Spatial Economics Research Centre, LSE. Retrieved from http://ideas.repec.org/p/fip/feddwp/1110.html

Elan, S. L. & Goodrich, M., K. (2011). Financial literacy among retail investors in the United States. *Federal Research Division, The Library of Congress Report*, 1-49. Retrieved from http://www.sec.gov/news/studies/2012/917-financial-literacy-study-part2.pdf

Elliott, W. & Beverly, S. (2011). The role of savings and wealth in reducing "wilt" between expectations and college attendance. *Journal of Children & Poverty, 17*(2), 165-185. Retrieved from http://csd.wustl.edu/Publications/Documents/WP10-01.pdf

Eugster, M. (2013). Financial literacy and participation in risky asset markets: A spurious relationship? *The University of Auckland Business School*, 1-49. Retrieved from http://www.nzfc.ac.nz/archives/2014/papers/programme/I-3d.pdf

FDIC. (2009). National survey of unbanked and underbanked households. Retrieved from http://www.fdic.gov/householdsurvey/2009/executive_summary.pdf

Field, A. (2009). Discovering statistics using SPSS. 3rd Ed. Thousand Oaks, CA: SAGE Publications, Inc.

Financial Literacy and Education Commission. (2010). Why and how. Background report developing the 2011 national strategy. Retrieved from http://www.treasury.gov/resource-center/financial-education/Documents/National%20Startegy%20Background.pdf

Financial Literacy and Education Commission. (2011). Promoting financial success in the United States. National strategy for financial literacy. Retrieved from http://www.treasury.gov/resource-center/financial education/Documents/2012%20Research%20Priorities%20-%20May%2012.pdf

FINRA Investor Education Foundation. (2010). Financial capability in the United States: Report of findings from the 2009 national financial capability study. *FINRA Investor Education Foundation*. Retrieved from http://www.finrafoundation.org/web/groups/foundation/@foundation/documents/foundation/p122257.pdf

FINRA Investor Education Foundation. (2012). National financial capability study. U.S. Survey data at a glance. *Finra Investor Education Foundation*. Retrieved from http://www.usfinancialcapability.org/results.php?region=US

FINRA Investor Education Foundation. (2013). Financial capability in the United States. Report of findings from the 2012 national financial capability study. *Finra Investor Education Foundation.* Retrieved from http://www.usfinancialcapability.org/downloads/NFCS_2012_Report_Military_Findings.pdf

Fonseca, R. et al. (2012). What explains the gender gap in financial literacy? The role of household decision making. *Journal of Consumer Affairs,* 46(1), 90-106. doi: 10.1111/j.1745-6606.2011.01221.x.

Fornero, E. Monticone, C. & Trucchi, S. (2011). The effect of financial literacy on mortgage choices. Working Paper 121/11, 1-38. Retrieved from http://fileserver.carloalberto.org/cerp/WP_121.pdf

Fornero, E. & Monticone, C. (2011). Financial literacy and pension plan participation in Italy. *Journal of Pension Economics and Finance,* 10 (4), 547 - 564. doi: 10.2139/ssrn.1810475

Frankfort-Nachmias, C., & Nachmias, D. (2008). Research methods in the social sciences. 7th ed. New York, NY: Worth Publishers.

Gagne, M. (2014). Oxford handbook of work engagement, motivation and self-determination theory. Oxford, NY: Oxford University Press.

Gaurav, S. Cole, S., & Tobacman, J. (2011) Marketing complex financial products in emerging markets. Evidence from rainfall insurance in India. *Journal of Marketing Research*, 48,150-162. doi: dx.doi.org/10.1509/jmkr.48.SPL.S150

Gerardi, K., L. Goette, & Meier, S. (2010). Financial literacy and subprime mortgage delinquency: Evidence from a survey matched to administrative data. Working Paper 2010-10, Federal Reserve Bank of Atlanta. Retrieved from http://www.frbatlanta.org/documents/pubs/wp/wp1010.pdf

Gill, W. E. (2013). U.S. Department of education chapter of blacks in government's reaction to the EEOC African American workgroup report. Retrieved from http://files.eric.ed.gov/fulltext/ED541273.pdf

Glanz, K, & Bishop, D. B. (2010). The role of behavioral science theory in development and implementation of public health interventions. *Annual Review of Public Health*, 31, 399-418. doi:10.1146/annurev.publhealth.012809.103604

Gouws, D.G. & Shuttleworth, C.C. (2009). Financial literacy: an interface between financial information and decision-makers in organizations. *Southern African Business Review,13(2), 141-165.* Retrieved from

Green, S. B. & Salkind, N. J. (2012). Using SPSS for Windows and Macintosh. Analyzing and understanding data. 6th Ed. Pearson Prentice Hall.

Grinblatt, M, Keloharju, M., & Linnainmaa, J. (2011). IQ and stock market participation. *The Journal of Financial,* 66(6), 1221-2164. doi: 10.1111/j.1540-6261.2011.01701.x

Guiso, L. & Jappelli, T. (2005). Awareness and stock market participation. *Review of Finance* 9(4), 537-567. doi: 10.1007/s10679-005-5000-8

Guiso, L. & Jappelli, T. (2009). Financial literacy and portfolio diversification. Working Paper No. 212 Center for Studies of Economics and Finance. Retrieved from http://www.csef.it/WP/wp212.pdf

Harnisch, T. L. (2010). Boosting financial literacy in America. A role for State Colleges and Universities. *American Association of State Colleges and Universities,*1-24. Retrieved from *http://www.congressweb.com/aascu/docfiles/AASCU_Perspectives_Boosting_Financial_Literacy.pdf*

Harris, A. L. (2010). The economic and educational state of Black Americans in the 21st century: should we be optimistic or concerned?. *The Review of Black Political Economy, 37*(3-4), 241-252. doi: 10.1007/s12114-010-9065-z

Hastings, J.S & Mitchell, O. S. (2010). How financial literacy and impatience shape retirement wealth and investment behaviors. *National Bureau of Economic Research.* Working Paper, wp 233. Retrieved fromhttp://www.mrrc.isr.umich.edu/publications/Papers/pdf/wp233.pdf

Hastings, J.S & Mitchell, O. S. (2011). How financial literacy and impatience shape retirement wealth and investment behaviors. *National Bureau of Economic*

Research. Working Paper, wp 16740. Retrieved from http://www.nber.org/papers/w16740

Hastings, J.S., Madrian, B. C. & Skimmyhorn, W. L. (2012). Financial literacy, financial education and economic outcomes. *National Bureau of Economic Research*. Working Paper 18412. Retrieved from http://www.nber.org/papers/w18412

Hastings, J.S., Madrian, B. C. & Skimmyhorn, W. L. (2013). Financial literacy, financial education and economic outcomes. *Annual Review of Economics*, 5(1), 347-373. doi: 10.3386/w18412

Hogarth, J. M. (2006). Financial education and economic development. Paper prepared for Improving Financial Literacy, International Conference hosted by the Russian G8 Presidency in Cooperation with the OECD. Retrieved from http://www.oecd.org/finance/financial-education/37742200.pdf

Horton, J. O., & Littlefield, D. C. (1995). A history of African-American people. The history, traditions and culture of African Americans. New York, NJ. Smithmark Publications

Hung, A. A., Parker, A. M. & Yoong, J. K. (2009). Defining and measuring financial literacy. Working Paper, WR-708. Retrieved from http://www.rand.org/content/dam/rand/pubs/working_papers/2009/RAND_WR708.pdf

Huston, S. J. (2010). Measuring financial literacy. *The Journal of Consumer Affairs*, 44(2), 296-316. doi: 10.1111/j.1745-6606.2010.01170.x

International institute of education planning. (2007). IIEP Newsletter. Retrieved from http://www.iip.unesco.org/fileadmin/user_upload/pdf/jane07.pdf

Jackson, J. K. (2013). Organization for economic development and cooperation. *Congressional Research Service,* 7-5700. Retrieved from http://fpc.state.gov/documents/organization/217473.pdf

Jappelli, T. & Padula, M. (2011). Investment in financial literacy and saving decisions. *Journalof Banking and Finance,* 37(8). doi: 10.1016/j.jbankfin.2013.03.019

Jappelli, T. & Padula, M. (2013). Investment in financial literacy and saving decisions. *Journal of Baking and Finance,* 37(8), 2779-2792. doi:10.1016/j.jbankfin.2013.03.019

Jiyane, G., & Zawada, B. (2013). Sustaining informal sector women entrepreneurs through financial literacy. *International Journal of Libraries & Information Services*, 63(1), 47-56. doi: 10.151/libri-2013-0004

John, D. C. (2010). Disparities for women and minorities in retirement saving. *Advisory Council on Employee Welfare and Pension Benefit Plans. United States Department of Labor.* Retrieved from http://www.brookings.edu/research/testimony/2010/09/01-retirement-saving-john

Johnston, M. (2011). From exclusion to integration. The N.A.A.C.P.'s legal campaign against educational segregation. *Chapman University Historical Review Journal,* 3(1). Retrieved from http://journals.chapman.edu/ojs/index.php/VocesNovae/article/view/200/546

Jones, T. M. (2013). Shareholder wealth maximization and social welfare. A utilitarian critique. *Business Ethics Quarterly 23(2).*207-238. doi: 10.5840/beq201323215

Josiah, J., Gough, O, Haslam, J., & Shah, N. (2014). Corporate reporting implication in migrating from defined benefit to defined contribution pension schemes: A focus on the UK. Accounting Forum, 38(1), 18-37. doi: 10.1016/j.accfor.2013.10.003

Jullisson, E.A., Karlsson, N., & Garling, T. (2005). Weighing the past and the future in decision making. *European Journal of Cognitive Psychology, 17*(4), 561-575. doi: 10.1080/09541440440000159.

Jump$tart Coalition for Personal Financial Literacy. (2007). National standards in K–12 personal finance education. Retrieved fromhttp://www.jumpstart.org/guide.html.

Jump$tart Coalition for Personal Financial Literacy. (2008). The financial literacy of young American adults. Retrieved from http://www.jumpstart.org/assets/files/2008SurveyBook.pdf

Jump$tart Coalition for Personal Financial Literacy. (2010)**.** Making the case for financial literacy. Retrieved from http://www.jumpstart.org/assets/files/MakingtheCase2010%201.doc

Jump$tart Coalition for Personal Financial Literacy. (2012)**.** Making the case for financial literacy. A collection of personal finance statistics gathered by jump$tart from other sources. Retrieved from http://www.jumpstart.org/assets/StateSites/LA/files/downloads/Making_the_Case_2012.pdf

Katarachia, A. & Konstantinidis, A. (2014). Financial education and decision making processes. *Procedia Economics and Finance,* 9(1), 142–152. doi:10.1016/S2212-5671(14)00015-X

Kim, Y. M. (2011). Minorities in higher education. Twenty-fourth status report. 2011 supplement. *The American Council on Education.* Retrieved from http://diversity.ucsc.edu/resources/images/ace_report.pdf

Kim. E. J., Hanna, S. D. Chatterjee, S. & Lindamood, S. (2012).Who among the elderly owns stocks? The role of cognitive ability and bequest motive. *Journal of Family and Economic issues***,** 33(3), 338-352. doi: 10.1007/s10834-012-9295-2

Kiviat, B. & Morduch, J. (2012). From financial literacy to financial action. *McGraw-Hill Research Foundation*, 1 -20. Retrieved from http://wagner.nyu.edu/faculty/publications/financial-literacy-financial-action

Klapper, L. F., Lusardi, A. & panos, G. A. (2012). Financial literacy and financial crisis. *National Bureau of Economic Research*. NBER Working Paper No. 17930. Retrieved from http://www.nber.org/papers/w17930

Kuan, K. Y., Cullen, M. R. & Modrek, S. (2015). Racial disparities in savings behavior for a continuously employed cohort. *National Bureau of Economic Research.* Working Paper 20937. Retrieved from http://www.nber.org/papers/w20937

Kolundžija K. et al. (2011). Core constructs of the transtheoretical model of behavior change. *Curr Top Neurol Psychiatr Relat Discip 19(1)* 48-52. Retrieved from http://www.aktuelnosti.org/pdf/2011/2011%5B1%5D08.pdf

Lee, A. (2013). What is financial literacy, and does financial literacy education achieve its objectives? Evidence from banks, government agencies, and financial literacy educators in England. *Institute of Education University of London.* Retrieved from http://www.academyfinancial.org/wpcontent/uploads/2013/10/E4-Lee.pdf

Lucey, T. A. (2005). Assessing the reliability and validity of the Jump$tart survey offinancial literacy. *Journal of Family and Economic Issues*, *26*(2), 283–294. doi:10.1007/s10834-005-3526-8

Lusardi, A. (2005,). Financial education and the saving behavior of African-American and Hispanic households. *Department of Economics*, 646-2099. Retrieved from http://www.dartmouth.edu/~alusardi/Papers/Education_African&Hispanic.pdf · PDF

Lusardi, A. (2008,). Financial Literacy: An essential tool for informed consumer choice? *Dartmouth College, Harvard Business School, and NBER*. Retrieved from http://www.dartmouth.edu/~alusardi/Papers/Lusardi_Informed_Consumer.pdf

Lusardi, A. (2010). Financial capability in the United States. Consumer decision-making and the role of social security. MRRC Working Paper No. 2010-226. Retrieved http://www.mrrc.isr.umich.edu/publications/papers/pdf/wp226.pdf

Lusardi, A. (2011). Americans' financial capability. *National Bureau of Economic Research.* Working Paper 17103. Retrieved from http://www.nber.org/papers/w17103

Lusardi, A. (2012). Numeracy, financial literacy, and financial decision-making. *Journal of pension Economics and Finance.* 5(1), 1-14 doi:http://dx.doi.org/10.5038/1936-4660.5.1.2

Lusardi, A., Bumcrot, C., B., & Lin, J. (2011). The geography of financial literacy. Working Paper, WR-893-SSA, *Financial Literacy Center*. Retrieved from http://www.rand.org/content/dam/rand/pubs/working_papers/2011/RAND_WR893.pdf

Lusardi, A., Michaud, P. & Mitchell, O. S. (2011). Optimal financial literacy and saving for retirement. Working Paper, WR-905-SSA Financial Literacy Center. Retrieved from http://www.rand.org/content/dam/rand/pubs/working_papers/2011/RAND_WR905.pdf

Lusardi, A. & Mitchell, O. S. (2010). How ordinary consumers make complex economic decision. CFS Working Paper Series 2010/11, Center for Financial Studies (CFS). Retrieved from http://ideas.repec.org/p/fip/feddwp/1110.html

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy. Implication for retirement security and the financial marketplace. New York, NY: Oxford University Press Inc.

Lusardi, A., & Mitchell, O. S. (2011). The outlook for financial literacy. *National Bureau of Economic Research*. Working Paper 17077. Retrieved from http://www.nber.org/papers/w17077

Lusardi, A., & Mitchell, O. S. (2011a). Financial Literacy and Planning. Implications for retirement wellbeing. *National Bureau of Economic Research*, NBER Working Papers 17078, Inc. Retrieved fromhttp://ideas.repec.org/p/fip/feddwp/1110.html

Lusardi, A., & Mitchell, O. S. (2011b). Financial literacy and retirement planning in the United States. *Journal of Pension Economics and Finance, 10*(04), 509-525. Retrieved from http://www.financialliteracyfocus.org/files/FLatDocs/Paper_USdata.pdf · PDF

Lusardi, A., & Mitchell, O. S. (2011c). Financial literacy around the world: an overview. *Journal of Pension Economics and Finance, 10*(04), 497-508.

Lusardi, A., & Mitchell, O. S. (2012). Financial literacy. Implication for retirement security and the financial marketplace. *Oxford University Press,* doi: http://dx.doi.org/10.1093/acprof:oso/9780199696819.003.0001

Lusardi, A., & Mitchell, O. S. (2013). The Economic importance of financial literacy: Theory and evidence. *National Bureau of Economic Research*. NBER Working Paper No. 18952. Retrieved from http://www.nber.org/papers/w18952

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy. theory and evidence. *Journal of Economic Literature, 52*(*1*)*, 5–44. doi :http://dx.doi.org/10.1257/jel.52.1.5*

Lusardi, A., Mitchell, O. S., & Curto, V. (2009). Financial literacy among the young. Evidence and Implications for Consumer Policy. *National Bureau of Economic Research,* NBER Working Paper No. 15352. Retrieved from http://www.nber.org/papers/w15352

Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, *44*(2), 358-380. Retrieved from http://www.grgsms.com/wp-content/uploads/2014/03/Gowri-WP-201403001.pdf

Lusardi, A., & Scheresberg, C. D. B. (2013). Financial literacy and high-cost borrowing in the United States. *National Bureau of Economic Research.* doi:10.3386/w18969

Lusardi, A., & Tufano, P. (2008). Debt literacy, financial experiences, and over indebtedness. *National Bureau of Economic Research.* doi=10.1.1.164.9853

Lusardi, A., & Tufano, P. (2009). Debt literacy, financial experiences, and over indebtedness. *National Bureau of Economic Research.* Retrieved from http://www.finrafoundation.org/web/groups/foundation/@foundation/documents/foundation/p122329.pdf

Maginn, J. L., Tuttle, D. L., McLeavey, D. W. & Pinto, J. E. (2007). Managing investment portfolios. A dynamic process. 3rd ed. Hoboken, NJ; John Wiley & Sons Inc.,

Mandell, L. (2004). The state of financial literacy of young African-American adults in America. Operation HOPE, Inc. Report. Retrieved from http://www.johnhopebryant.com/john_hope_bryant_/files/the_state_of.pdf

Mandell, L. (2008). The financial literacy of young American adults. Results of the 2008 National Jump$tart Coalition Survey of high school and college students. *Jump$tart Coalition for Personal Financial Literacy.* Retrieved from http://www.jumpstart.org/assets/files/2008SurveyBook.pdf

Mandell, L. (2009). The impact of financial education in high school and college on financial literacy and subsequent financial decision making. *American Economic Association,* 2-38. doi:10.1.1.208.8619

Mandell, L. & Klein, L.S. (2009). The impact of financial literacy education on subsequent financial Behavior. *Journal of Financial Counseling and Planning, 20(1), 15 -34.* Retrieved from http://eric.ed.gov/?id=EJ859556

Maris-Wolf, T. (2009). The abolition of the Atlantic slave trade. Origins, effects, and legacies. A guide for teachers. *Omohundro Institute of Early American History and Culture.* Retrieved form http://uncpress.unc.edu/pdfs/teachersguides/abolitionast_teachersguide.pdf

Massimo, C. & Ornella, R. (2011). Impact of financial education and transparency on borrowing decisions. The case of consumer credit. *Proceedings of ASBBS, 18(1),* 1-19. Retrieved from http://asbbs.org/files/2011/ASBBS2011v1/PDF/C/Caratelli.pdf

Miller, J. J. (2010). Exploring ethnic money knowledge as an aspect of financial literacy among middle class African Americans. (Doctoral Dissertation, Northeastern University of Boston). Retrieved from http://iris.lib.neu.edu/cgi/viewcontent.cgi?article=1006&context=soc_diss&sei-redir=1

Mint.com. (2015). Be good to your money. From the big picture to the details that matter. Retrieved from http//:www.mint.com

Moore, D. (2003) Survey of financial literacy in Washington State. Knowledge, behavior, attitudes and experiences. Technical report 03-39. *Social and Economic Sciences Research Center*, *Washington State University*. Retrieved from http://www.sesrc.wsu.edu/sesrcsite/Papers/files/dfi-techreport-FINAL2-16-04.pdf

National Academy of Engineering. (2014). Summary. Protecting Research Participants (Research Involving Human Participants VI). Retrieved from http://www.onlineethics.org/Topics/RespResearch/ResResources/nbacindex/nbachindex/hsummary.aspx>

National Foundation for Credit Counseling. (2009). The 2009 consumer financial literacy survey final report. *National Foundation for Credit Counseling*. Retrieved from http://www.nfcc.org/Newsroom/FinancialLiteracy/files/2009FinancialLiteracySurveyFINAL.pdf

National Foundation for Credit Counseling. (2011). The 2011consumer financial literacy survey final report. *National Foundation for Credit Counseling*. Retrieved from http://www.nfcc.org/NewsRoom/FinancialLiteracy/files2011/NFCC_2011Financial%20LiteracySurvey_FINALREPORT_033011.pdf

National Endowment for Financial Education. (2010). Your spending, your savings, your future. A beginners' guide to financial readiness. *National Endowment for Financial Education*, 1-53. Retrieved from http://www.smartaboutmoney.org/Portals/0/ResourceCenter/YourSpendingYourSavingsYourFuture.pdf

National Endowment for Financial Education. (2014). Mission and vision. *National Endowment for Financial Education.* Retrieved from http://www.nefe.org/what-we-do/mission.aspx#sthash.ixdLyShq.dpuf

Newsom. (2013). Levels of measurement and choosing the correct statistical test. *USP 634 Data Analysis.* Retrieved from http://www.upa.pdx.edu/IOA/newsom/da1/ho_levels.pdf

Norman, A. S. (2010). Importance of financial education in making informed decision on spending. *Journal of Economics and International Finance*, *2(10),*199-207. Retrieved from http://www.academicjournals.org/JEIF ISSN 2006-9812

Organization for Economic Co-operation and Development. (2006). The importance of financial education. *Organization for Economic Co-operation and Development*. Retrieved from http://www.oecd.org/finance/financial-education/37087833.pdf

Patton, M. Q. (2002). Qualitative evaluation and research methods. 3rd Ed. Thousand Oaks, CA: SAGE Publications, Inc.

PACFC Annual Report. (2008). 2008 annual report to the president. *PACFC Annual Report*. Retrieved from http://www.jumpstart.org/assets/files/PACFL_ANNUAL_REPORT_1-16-09.pdf

PACFC (n.d). Key themes for president's advisory council on financial capability. Retrieved from http://www.treasury.gov/resource-center/financial education/Documents/Key_Themes.pdf

Packard, J. M. (2002). American nightmare. The history of Jim Crow. New York: NY. St. Martin's Press.

Pension Review Board. (2012). A review of defined benefit, defined contribution, and alternative retirement plans. Research paper No. 12-oo1. Retrieved from http://www.texastransparency.org/Special_Features/Reports/Pension_Obligations/pdf/DB-DC_comparisons.pdf

Prudential Insurance Company of America. (2013). The African-American financial experience. *Prudential Research,* 1-20. Retrieved from http://www.prudential.com/media/managed/aa/AAStudy.pdf

Prudential Research Study. (2011). The African-American financial experience. *The 2011 Prudential Research Study.* Retrieved from http://research.prudential.com/media/managed/documents/research_perspective/AAStudy_final_04_04_2011.pdf

Pusey, A. (2014). March 1, 1875. Grant signs the civil rights Act. *The ABA Journal*. Retrieved from http://www.abajournal.com/magazine/article/march_1_1875_grant_signs_the_civil_rights_act/

Rastogi, S., Johnson, T. D., Hoeffel, E. M., & Drewery, Jr M. P. (2010). The Black population. 2010 census briefs. *United States Census Bureau,* 1-20. Retrieved from http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf

Ramasawmy, D., Thapermail, S., Dowlut, A. & Ramen, M. (2013). A study of the level of awareness of financial literacy among management undergraduates. *Proceedings of 3rd Asia-Pacific Business Research Conference.* Retrieved from http://wbiworldconpro.com/uploads/malaysia-conference-2013/management/461-Ramen.pdf

Ryan, R.M., & Deci, E.L. (2011). A self-determination theory perspective on social, institutional, cultural, and economic supports for autonomy and their importance for well-being. *Springer International Publishing* AG, 45-64. doi:10.1007/978-90-9667-8_3

Ryan, R.M., Curren, R.R., & Deci, E.L. (2013). What humans need. Flourishing in Aristotelian philosophy and Self-Determination Theory. In the best within us. Positive psychology perspectives on eudaimonic functioning. *American Psychological Association*57-75. doi:10.1037/14092-004.

Schuchardt, et al. (2007). Personal finance. An interdisciplinary profession. *Journal of Financial Counseling and Planning*, 18(1), 61-69. Retrieved from http://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1008&context=hdf_facpubs

Schuchardt, et al. (2009). Financial literacy and education research priorities. *Journal of Financial Counseling and Planning, 20(1),* 84-95. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2225370##

Shapiro, T., Meschede, T., & Sullivan, L. (2010). The racial wealth gap increases fourfold. *Institute of Assets and Social Policy (IASP)*. Retrieved from iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/THE%20RACIAL%20...

Shapiro, T., Meschede, T., & Osoro, S. (2013). The roots of the widening racial wealth gap: Explaining the Black-White economic divide. *Institute of Assets and Social*

Policy (IASP), 1-8. Retrieved from http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf

Shim, S., Barber, B.L., Card, N.A., Xiao. J. J., & Serido, J. (2010). Financial socialization Of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, *39*, 1457-1470. doi:10.1007/s10964-009-9432-x.

Shockey, S. S., & Seiling, S. B. (2004). Moving into action. Application of transtheoretical model of behavior change to financial education. *Financial Counseling and Planning 15(1),*14-51. Retrieved from http://www.afcpe.org/assets/pdf/vol1515.pdf

Shuttleworth, C. C. (2009). Towards a financial literacy as a coordinating interface between financial information and decision makers. (Doctoral dissertation). Retrieved fromhttp://www.repository.up.ac.za/bitstream/handle/2263/28205/Complete.pdf?sequence=8

Sood, P. B., & Medury, Y. (2012). Investment preferences of salaried individuals towards financial products. *International Journal of Management and Behavioural Sciences,* 1(1), 95-107. Retrieved from http://iasir.net/IJEBEApapers/IJEBEA14-229.pdf

Sprow F. K. (2013). Education for financial literacy. A case study with a sociocultural lens. *Adult Education Querterly*, 63(3) 215-235. Retrieved from http://connection.ebscohost.com/c/case-studies/88417482/educating-financial-literacy-case-study-sociocultural-lens

Stango, V., & Zinman, J. (2007) Fuzzy math and red ink. When the opportunity cost of consumption is not what it seems. Working Paper, Dartmouth College. Retrieved from http://www.iza.org/en/papers/Zinman12072007.pdf

Stanovich, K.E., & West, R. F. (2008). On the relative independence of thinking biases and cognitive ability. *Journal of Personality and Social Psychology, 94*(4), 672-695. doi: 10.1037/0022-3514.94.4.672.

Sucuahi, W. T. (2013). Determinants of financial literacy of micro entrepreneurs in Davao city. *International Journal of Accounting Research,* 1(1), 44 -51. Retrieved from http://www.arabianjbmr.com/pdfs/AC_VOL_1_1/4.pdf

Tannahil, B. A. (2012). The role of financial literacy in retirement decision making. *Journal of Financial Service Professionals*, 66(2), 32-35. Retrieved from http://web.ebscohost.com.ezp.waldenulibrary.org/ehostresuWSZ0eXBIPTEmcz210ZT1IaG9zdCIsaXZUnNib3BIPXNpdGU%3d

Taylor, P., Kochhar, R., Fry, R., Velasco, G., & Motel, S. (2011). Wealth gaps rise to record highs between Whites, Blacks, Hispanics. *Pew Research Center,* 1- 39. Retrieved fromhttp://pewsocialtrends.org/files/2011/07/SDT-Wealth-Report_7-26-11_FINAL.pdf

Tschache, C. A. (2009). Importance of financial literacy and financial literacy content in curriculum. (Master’s thesis). Retrieved from http://scholarworks.montana.edu/xmlui/bitstream/handle/1/2449/TschacheC0809.pdf?sequence=1

Turnham, J. (2010). Attitudes to savings and financial education among low-income Populations. Findings from the financial literacy focus groups. Working Paper WP 10-7, *Center for Financial Security,* 1-127. Retrieved from http://www.cfs.wisc.edu/papers/Turnham2010_AttitudesBrief.pdf

U.S. National Archives and Records Administration. (n.d). 13th Amendment to the U.S. Constitution: Abolition of Slavery. Retrieved fromhttp://www.archives.gov/historicaldocs/document.html?doc=9&title.raw=13th+Amendment+to+the+U.S.+Constitution%3A+Abolition+of+Slavery

van Rooij, M. ., Lusardi, A. & Alessie, R. (2007). Financial literacy and stock market participation. DNB Working Paper No. 146/2007. Retrieved from http://www.dartmouth.edu/~alusardi/Papers/Literacy_StockMarket.pdf

van Rooij, M., Lusardi, A., & Allessie R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics,* 101(2), 449-472. doi: 10.1016/j.jfineco.2011.03.006

Xiao, J. J. (2008b). Applying behavior science theories in financial behaviors. *Handbook of consumer finance research,* 69-81. New York: Springer.

Xiao, J. J., Tang, C., & Shim, S. (2008). Acting for happiness. Financial behavior and life satisfaction of college students. *Social Indicator Research*. doi; 10.1007/s11205-008-9288-6.

Urban Views Weekly. (2014). Top 10 Cities for African American Professionals – Columbus, Ohio. Retrieved from http://urbanviewsweekly.com/2014/03/25/columbus-ohio/U.S.

Wagland, S. P. and Taylor, S. (2009). When it comes to financial literacy, is gender really an issue?, *Australasian Accounting, Business and Finance Journal*, 3(1), 2009. Retrieved from http://ro.uow.edu.au/aabfj/vol3/iss1/3

Way, W. & Holdern, K. (2009). Teachers' background and capacity to teach personal Finance. Results of a national study. *Association for Financial Counseling and Planning Education*. Retrieved from http://www.fdic.gov/about/comein/Mar3.pdf

White House. (2012). Every American financially empowered: A guide in increasing financial capabilities among students, workers, and residents of communities. *The White House Washington*, 1-51. Retrieved from http://www.whitehouse.gov/sites/default/files/financial_capability_toolkit_5.10.2012.pdf

Williams, J. A. (2013). Unemployed and Black need not apply. A discussion of unemployment discrimination, its disparate impact on the Black community, and proposed legal remedies. *Howard Law Journal*, 1-6. Retrieved from http://racism.org/index.php?option=com_content&view=article&id=1682:blackneednotapply&catid=51&Itemid=174

Yoong, J. (2011). Retirement preparedness and individual decision-making. Implications for Canada. *RAND Corporation.* Retrieved from http://www.financialliteracyincanada.com/documents/consultation-2/Yoong-09-02-2011-eng.pdf

Appendix A: Self Assessment Questions

I) Indicate by checking the box if you are a student, entrepreneur or adult worker. ☐ Student ☐ Entrepreneur ☐ Adult worker

II) What is your gender? ☐ Male ☐ Female

Students ONLY

III) What is your high school class level?

( ) Senior.
( ) Junior.
( ) Sophomore.
( ) Freshman.

IV) What is the highest level of your father's or mother's education?

( ) Neither completed high school
( ) Completed high school.
( ) Some college.
( ) College graduate or more than college.
( ) Don't know.

Adults/Entrepreneurs ONLY

V) What is your highest level of education?

( ) High school
( ) Some college level
( ) College level
( ) Graduate level

VI) Which of the following classes have you had in high school (circle **all** that apply)?

( ) An entire course in money management or personal finance.
( ) A portion of a course where at least a week was focused on money management or personal finance.
( ) An entire course in economics.
( ) A portion of a course where at least a week was focused on economics.
( ) A course in which we played a stock market game.
( ) I didn't take a college entrance exam or don't remember my score

VII) Have you ever sought financial expert(s) advice for decision related to savings, buying home/car, or investment?

☐ Yes ☐ No

b) If the answer to (**VIII**) above is "yes" how often?

☐ Once ☐ Occasionally ☐ Often

VIII) What is the annual income level of yourself or parent?

☐ Less than $20,000 ☐ $20,000 to $39,999. ☐ $40,000 to $79,999.

☐ $80,000 or more.

IX) (**Thrifty and spending oriented behavior**) How would you describe your savings behavior?

a) I always save
b) I sometimes save
c) I do not save even though I could
d) I do not save because I don't have a source of income

X) If your answer in IX is "I always or sometimes save" what do you save towards?

a) Investment income

b) College expenses
c) Retirement plan
d) Emergency purposes

XI) How much do you put aside (save) for investment and/or emergency?

☐ Less than 10% ☐ 10 -20% ☐ 20 -30% ☐ Over 30%

XII) What kind of bank accounts do you have? (Circle all that apply).

( ) Checking account.
( ) Savings account

XIII) Which of the following investment products do you have? (Circle **all** that apply)?

( ) CDs
( ) Stocks
( ) Shares
( ) Bonds
( ) Mutual Funds
( ) Money market accounts
( ) None

XIV) Which of the following personal finance tools do you use to manage your checking/saving accounts and investment products? (Circle that apply).

( ) Mint
( ) BudgetSimple
( ) MoneyDance
( ) GnuCash
( ) You Need a Budget (YNAB)
( ) None

XV) Indicate whether or not you consult financial professional

( ) Never consult financial professionals
( ) Sometimes consult financial professionals
( ) Always consult financial professionals

XVI) If you consult financial professional or advisor, specify the reason(s) for which you consult a professional. (Circle all that apply)

- Insurance – auto, life, and health
- Savings and investment
- Advice on mortgage or loan
- Tax planning purpose
- Debt counseling

X) How do you classify your work experience?

a) Less than one year
b) One year
c) 1-2 years
d) 3 or more

XI) Indicate which forms of financial education you have received.

a) Employer-sponsored seminars
b) Financial workshops
c) Formal coursework in finance
d) College degree in finance

Appendix B: IRB Approval Number

10-07-15-0302847

Appendix C: Email Permission to Use Instrument

Me

To lmandell@u.washington.edu

Sep 23 at

9:01 PM

Hi Dr. Mandell,

I am writing to seek permission to use the Jump$tart Coalition for Personal Finance's survey instrument. Am a doctoral student conducting a study involving the financial literacy levels of the minority and i thought i should contact you since you are the author of the JumpStart literacy assessment of high school seniors over the years. Thanks for your invaluable contribution to the personal finance literature.

Robert A

Lewis Mandell
Sept 24 at 10:04 AM

To Me

Robert:

You certainly have my permission to use the JumpStart survey instrument.

Best of luck on your dissertation.

Lewis Mandell
Professor Emeritus and Former Business Dean, University at Buffalo
Author of What to Do When I Get Stupid
http://www.lewismandell.com/
See my recent articles in MoneyWatch:
Why You Might Be Saving Too Much for Retirement
http://www.marketwatch.com/story/why-you-might-be-saving-too-much-for-retirement-2014-09-04
Why Strategic Investors Don't Rebalance Their Portfolios
http://www.marketwatch.com/story/why-strategic-investors-dont-rebalance-their-portfolios-2014-09-12