WEALTH DYNAMICS: EXPLORING THE ROLE OF RISK TOLERANCE IN THE FINANCIAL EMPOWERMENT OF BLACK WOMEN

by

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(Under the Direction of John Grable)

ABSTRACT

This study explores the intersectionality of being Black and female in the context of wealth accumulation. It focuses on the roles of education, gender roles, and risk tolerance in Black women's wealth-building efforts. By examining the intersection of race and gender, the study investigates how risk tolerance mediates wealth status among Black women. Multivariate analyses were used to evaluate the research hypotheses. Findings indicate that income is crucial for wealth accumulation among Black women, and risk tolerance significantly enhances human capital. Key factors such as wealth, education, and gender role attitudes are linked to risk tolerance. Contrary to much existing literature, Black women demonstrate a higher degree of risk tolerance compared to non-Black women. Wealth and education mediate Black women's risk tolerance, which also moderates the relationship between being a Black female and wealth status, directly influencing wealth status. Despite these findings, Black women hold less wealth than their non-Black counterparts, though the wealth gap narrows with increased risk tolerance. The study suggests that financial planners, counselors, and educators should emphasize education and risk literacy for Black women. Researchers should further investigate the socio-economic factors influencing wealth, education, and gender role attitudes among Black women. Policymakers

should consider incentivizing human capital accumulation through tax credits, subsidies, and direct tuition payments for Black women.

INDEX WORDS: Black women, Wealth dynamics, Risk tolerence, Education, Gender roles, Financial empowerment.

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DEDICATION

In loving memory of my mother, Dorothy H. Clement, and mother-in-law, Norma D. Henley. Though no longer with us in the physical realm, your legacies endure, woven into the fabric of this dissertation.

In the following pages, I strive to honor the wisdom and warmth you shared with me. This work is dedicated to you, with profound gratitude for the influence you have had on my life and academic journey.

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CHAPTER 1

INTRODUCTION

This study explores the disparity in wealth accumulation between Black women and non-Black women living in the United States. This chapter describes the aims and motivations underlying this study. This chapter also outlines the theoretical orientation and general concepts examined throughout this dissertation, which are based on the notion of the intersectionality of being Black and female, which has been identified as a specific research need in the literature (Richard, 2014). Specifically, the influence of education on perceived gender roles and, pointedly, the ability of Black women to tolerate risk when making household financial decisions is investigated to determine the associations across these variables with the wealth accumulation of Black women.[1]

Justification of Study

Sarah Breedlove, better known as Madame C.J. Walker, was born on December 23, 1867. Before her death on May 25, 1919, Madame C.J. Walker worked as a field hand, a washerwoman, a domestic, and a cook. Subsequently, with no formal education, she created the

[1] Although this dissertation focuses exclusively on an examination of differences between Black women and non-Black women, it is acknowledged that general gender differences exist in relation to risk tolerance and risk taking. For example, Coleman (2003) noted that women express a higher level of risk aversion than men. When controlling for education and wealth, differences between women and men are less apparent. Nonetheless, gender differences in risk taking have been used to describe income and wealth inequalities across gender types. Previous research, however, provides less guidance in describing differences among women.

Madame C.J. Walker Manufacturing Company, which became an international business that manufactured ethnic beauty and hair care products (Bundles, 2002).

Madame C.J. Walker also started a network of beauty colleges that taught Black women the science, art, and marketing of cosmetology. In a relatively short 15 years, Madame C.J. Walker inspired over 20,000 Black women to join her enterprise, and she became one of the very first Black millionaires in the United States (Bundles, 2002). It is clear that "Madame Walker had not attained her status in life without taking many risks" (Smith, 2007, p. 6). To her, risk-taking was the creative axis of a world spinning with opportunities and possibilities (Smith, 2007).

Madame C.J. Walker's story has direct relevance for researchers, educators, policymakers, and practitioners interested in financial planning, financial counseling, and investment management in the context of gender and racial issues. Consider, for example, a story told by Russell Conwell. Conwell (1915) delivered his famous "Acres of Diamonds" speech over 6,152 times between 1900 and 1925. The gist of the speech tells the story of a man searching for wealth. This man was willing to sell his property and uproot his family to travel to the far reaches of the world in search of riches. Alas, one day, after selling his property, the new owner discovered a vein of diamonds on the land. If the original owner—the man who sought riches in far-off lands—had only explored where he was rather than searching elsewhere, he would have found his treasure. The story's point is that people often dream of fortunes to be made elsewhere. Instead, as the story profoundly points out, care should be taken to extract the opportunities surrounding each of us daily. In much the same way, in search of profitability, the financial services profession, by and large, and individual firms and financial advisors, as well, search far and wide for untapped markets and new ways to serve more clients. If only they explored

markets well within their reach, as Conwell (1915) suggested long ago, they would likely find diamonds in the rough.

As the stories of Madame C.J. Walker and Russell Conwell suggest, Black females[2]—a long underserved segment of the U.S. population represent one of the markets available to present-day practitioners interested in financial planning, financial counseling, and investment management (i.e., financial services) (Grable & Joo, 2003; Shahnaz, 2021; Walters, 2007). It is sometimes argued that Black females[3], as a group, are overlooked as a potential market for financial services—and as potential service providers—because Black women tend to hold less wealth than others. If this is true, then it behooves those interested in social and financial justice to identify mechanisms limiting wealth accumulation among Black women.

The Role of Black Women in the U.S. Economy

Black women are making significant inroads in corporate America as executives, in private businesses, and as successful entrepreneurs. According to Dau-Schmidt and Sherman (2013), "Black women have moved into non-Black collar jobs at a much faster rate than Black men, and faster than either non-Black men or non-Black women" (p. 12). Even so, a gap in income and wealth between Black women and other women in the United States (particularly non-Black women) continues to persist. Much of the extant literature examining economic disparities between and among racial and ethnic groups has focused on income issues. While income disparity between non-Black women and Black women is still significant, there is an "even more startling and consequential gap that often goes unnoticed—the wealth gap" (Chang,

[2] The term "Black" is used in this dissertation in alignment with the U.S. Census Bureau (https://www.census.gov/quickfacts/fact/table/US/IPE120219). The term "Black" is conceptualized in this study to be synonymous with "African American."

[3] Black females comprise approximately 6.70% of the U.S. population.

2010, p. 2). Further, according to Chang (2010), nearly half of all single Black women have no wealth or, worse yet, negative wealth (p. 3).

Along with the income (i.e., wage) disparity already noted, prior and current institutional factors are thought to play a large role in the wealth gap between non-Black women and Black women. The result, according to Chang (2010), is that Black women have accumulated just pennies for every dollar of wealth owned in comparison to non-Black women.

Over the past half-century, numerous researchers have explored the gender gap in income and wealth.[4] There have also been studies that explore racial gaps in income and wealth. However, virtually no studies have delved into the intersectionality of race and gender (Brown, 2011). This suggests that, while there may be impediments to building wealth for Black women, the gap in accumulated wealth between Black women and non-Black women continues to be under-researched and little understood.

Purpose of Study

The research on racial and gender prejudice generally treats racial and gender discrimination as distinct and separate as opposed to being interconnected (Nadal, 2011). The unique experiences of Black women and how being a Black female impacts their ability to build wealth have generally been overlooked and understudied. Even less theoretical and empirical work has been conducted in a way that links gender, race, and risk tolerance as factors describing wealth accumulation. This dissertation was conceptualized to fill this gap in the literature. The dissertation focuses on Black women and the association between risk tolerance and wealth accumulation. The approach herein departs from previous studies by focusing on the intersectionality between race and gender and how risk tolerance relates to being a Black female

[4] Some of these studies will be presented in Chapter 2.

and how risk tolerance may mediate between being a Black woman and wealth status. In other words, this study was designed to determine whether risk tolerance is associated with Black women's wealth-building efforts. An implied outcome of this study is to obtain data that will shed light on the degree to which risk aversion negatively impacts the ability of Black women to build wealth.

As such, the overarching purpose of this study is to provide exploratory insights into the wealth gap (Chang, 2010; Coleman, 2003) between Black females and non-Black, non-Hispanic females. Specifically, the purpose of this study is multifaceted and focuses on addressing the following questions:

(1) To what degree is being a Black female associated with risk tolerance?

(2) To what degree do wealth, education, and gender role attitude mediate the relationship between being a Black female and risk tolerance?

(3) Is the relationship between wealth and being a Black female moderated by risk tolerance?

Study Rationale

Understanding why disproportionate numbers of Black women fail to build wealth at comparable levels of non-Black females is an important research and policy goal. While it is unquestionably true that historically racialized economic inequality in the United States has contributed to issues and outcomes associated with economic injustice (Hero & Levy, 2016), this inequality narrative does not tell a complete story. A core assumption underlying this dissertation is that risk tolerance may be a factor that helps explain what are perceived to be issues of economic inequality, especially wealth discrepancies.

The relative lack of wealth for Black women is an issue that has been demonstrated by researchers for over a century (Chang, 2010; Coleman, 2003; Richard, 2014). It has been shown, for example, that the gap in wealth for single Black women has been, historically, as large as $41,500 (Chang, 2010). Wealth gaps have also been reported by Kitov (2020) and Wolfe and Thomeer (2021). Additionally, nearly half of all single Black women have no objectively defined wealth (Chang, 2010). While non-Black women in the prime working years of ages 36 to 49 have a median wealth of $42,600, the median wealth for women of color is only $5 (Chang, 2010). Wealth discrepancies come into play when considering retirement preparedness. Social Security is the only source of retirement income for more than 25% of Black women, which underscores the challenges these women have in accumulating and maintaining wealth over their lifespan. Additionally, according to Chang (2007), "Wealth is also tied to the well-being of the next generation, as it provides parents with the ability to help pay for their children's college education and can also be passed down from generation to generation" (p. 5).

This does not mean that the outlook for Black women is bleak or hopeless. Black women have been and will continue to be a potent economic force (Kaba, 2005). Whether single or married, Black women often set consumption patterns for their households. They also often set the financial direction for their families (Barnes, 2008). Understanding why Black women fail to build wealth that is equivalent to other racial/ethnic groups can provide valuable insights into the ways Black families can progress financially. The degree to which risk tolerance plays a role in describing wealth building is an essential justification for this study.

Introduction to the Conceptual Framework

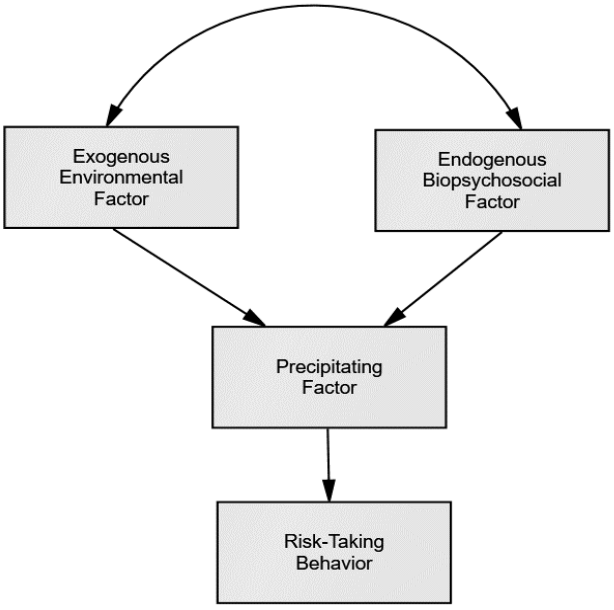
As noted by Hanna and Gutter (1998) and Grable and Joo (2004), very few models or frameworks have been developed to understand the determinants of risk tolerance at the

household level. Of course, theories of risk aversion, particularly as an economic consideration, are extensive and widely reported in the literature (Barsky et al., 1997; Frey et al., 2017; Viceira, 2002); however, these theories tend to focus on the measurement and estimation of risk aversion (the opposite of which is risk tolerance or someone's willingness to take risk) rather than on identifying the factors associated with risk aversion or in describing how risk aversion/tolerance is associated with household-level outcomes like wealth accumulation. Outside of economics, finance, and financial planning, more work has been focused on identifying factors associated with a person's willingness to take risk. Drug- and alcohol-use researchers, for example, have reported observing numerous personal and household characteristics that can be used to describe risk-tolerance attitudes and risk-taking behavior.

An important model in the field is the biopsychosocial model of risk-taking behavior, proposed by Irwin and Millstein (1986). This framework was used to guide this study. The model shown in Figure 1.1 illustrates the Irwin and Millstein framework as conceptualized for this dissertation.

Figure 1.1

Irwin and Millstein's (1986) Biopsychosocial Risk-Taking Framework as Adapted for this Dissertation



Within the Irwin and Millstein (1986) model, which was later refined by Irwin (1993), factors thought to increase the likelihood that a person will exhibit risk tolerance (i.e., a willingness to engage in a behavior in which the outcome is uncertain and potentially negative) and engage in a risk-taking behavior are classified as (a) predisposing endogenous biopsychosocial factors, (b) predisposing exogenous environmental factors, and (c) precipitating factors. Examples of predisposing biopsychosocial endogenous factors include racial/ethnic background and family socialization and attitudes. Income and education are examples of predisposing exogenous environmental factors. Precipitating factors can be categorized as psychological and social/environmental. Risk tolerance is a type of psychological precipitating factor that is hypothesized with the framework to proceed the engagement in risk-taking

behavior. The endogenous and exogenous factors incorporated into the framework are generally considered to be correlated.

The framework was originally designed to describe adolescent risk-taking, particularly about health behaviors. Irwin (1993) concluded that several predisposing factors are associated with risk tolerance. As shown in Figure 1.1, Irwin (1993) classified these predisposing factors into two categories: environmental and biopsychosocial. An environmental factor is something that is imposed on an individual or incorporated into a person's life in the form of financial, human, or social capital, whereas a biopsychosocial factor is more akin to a trait-like factor; that is, biopsychosocial factors include aspects of an individual's life that reflect a subjective individual difference. As illustrated, Irwin (1993) acknowledged that non-causal relationships likely exist between environmental and biopsychosocial factors and that in a linear sense, these factors, individually and in unison, can be used to describe how someone conceptualizes risk.

The framework shown in Figure 1.1 provides a platform to study the interconnectedness of race/ethnicity and gender, risk tolerance, and wealth. As noted by Stacey and Thorne (1985), the role of women in society, compared to men, differs by social context and consciousness. What often appear to be simple behaviors for men and non-Blacks can sometimes be viewed as complex and risky for women and Blacks in general. In this regard, the framework used in this study can be placed within the larger conceptualization of human capital theory (HCT). HCT shifts the focus away from more tangible forms of capital to "assets" that are often non-marketable (i.e., sometimes difficult to measure objectively). HCT, when combined with Irwin and Millstein's (1986) conceptual framework, as later refined by Irwin (1993), may illuminate

the degree to which risk tolerance either hinders or enhances actions taken by Black women when the outcome of interest is wealth accumulation. [5]

HCT explains how human capital, defined as "one's own abilities, innate or acquired" (Ben-Porath, 1967, p. 352), can be developed, improved, or enhanced through personal effort. HCT explains how those with more education (e.g., a college degree) earn more than those with less education (e.g., high school diploma). Comparing high achievers against low achievers, peering through the prism of HCT, differing results can often be traced back to differing levels of formal education, advanced degrees, experience, and demonstrated expertise. Human capital, then, is a form of wealth that cannot be seen or touched but is demonstrated in the capabilities of each individual (Ben-Porath, 1967). Human capital directly influences lives via the disparities in income that develop due to varying investments in human capital. Human capital is also a significant factor in describing wealth disparities. Like other abilities, building the ability to take on risk can be an important addition to one's human capital.

Theory Conceptualization and Research Hypotheses

As noted above, this dissertation adapts Irwin and Millstein (1986) and Irwin's (1993) biopsychosocial model of risk-taking behavior[6] and terminology to better understand the relationships between and among risk tolerance, being a Black woman, and wealth status. Two modifications to the framework were made. First, Irwin's framework was modified as shown in

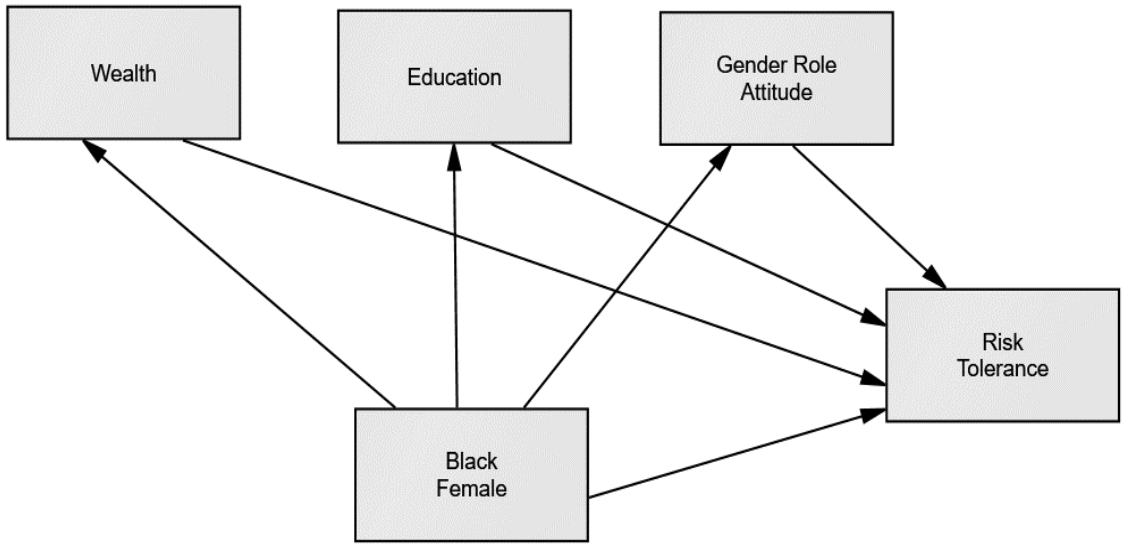
[5] It is important to note that within the framework, the single-headed arrows represent associations between categories of variables. This dissertation is not directly focused on identifying causal linkages between and among variables; however, a rudimentary causal model, based on this framework, will be introduced in Chapter 3.

[6] Although Irwin and Millstein (1986) developed the framework jointly, this dissertation applies primarily the modeling approach proposed directly by Irwin (1993).

Figure 1.2. In the context of this dissertation, wealth (i.e., household net worth) and education—an indicator of human capital—were modeled as environmental factors. Race, sex, and gender role attitude were applied in the model as biopsychosocial factors, with family socialization being indicated by general role attitude.

Figure 1.2

Conceptual Framework for this Dissertation



As illustrated in Figure 1.2, wealth, education, and gender role attitude were hypothesized to be directly associated with risk tolerance (i.e., single-headed arrows running from each variable to risk tolerance). The variable Black Female (reference category: non-Black, non-Hispanic female) is postulated to be directly associated with risk tolerance. The framework differs from Irwin's (1993) original conceptualization in that wealth, education, and gender role attitudes are hypothesized to mediate between Black female and risk tolerance.

Given the propositions shown in Figure 1.2, the following hypotheses were tested in this dissertation:

H_1: Risk tolerance is associated with being a Black female.

H_2: Risk tolerance is associated with wealth.

H_3: Risk tolerance is associated with attained education.

H_4: Risk tolerance is associated with gender role attitude.

H_5: Wealth mediates the association between risk tolerance and being a Black female.

H_6: Education mediates the association between risk tolerance and being a Black female.

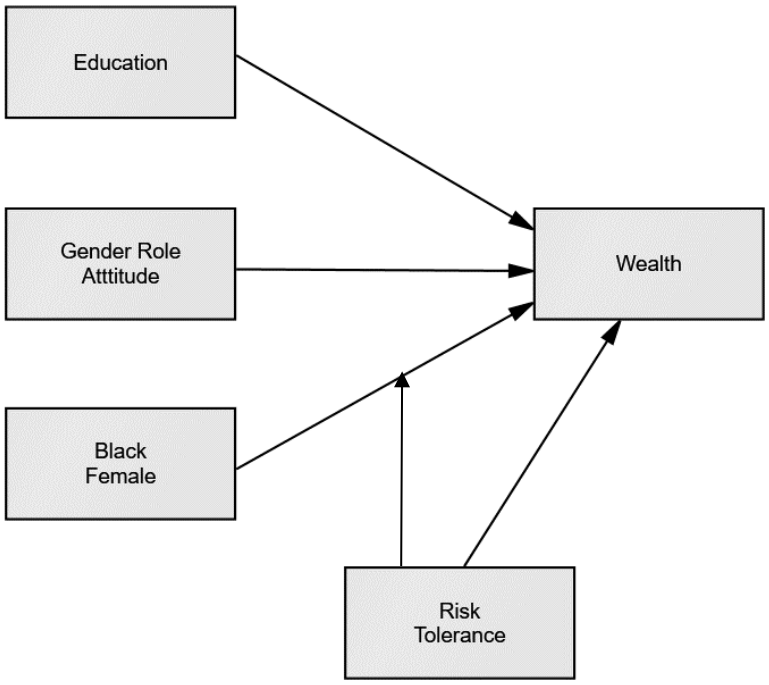
H_7: Gender role attitude mediates the association between risk tolerance and being a Black female.

Tests of these hypotheses were used to determine the indirect, direct, and total effects of being a Black female, as a biopsychosocial factor, on risk tolerance. Test results, as described in Chapter 4, provide useful research, policy, and practice insights into one of the reasons why the wealth gap observed between Black women and non-Black women exists.

A second modification of the Irwin and Millstein (1986) and Irwin (1993) conceptual framework was made and tested in this dissertation. In this regard, the framework was modified to determine whether a relationship between wealth and race (i.e., being a Black female) is moderated by risk tolerance. The adapted framework is shown in Figure 1.3.

Figure 1.3

Modified Conceptual Framework



The following hypotheses were tested in relation to the modified conceptual framework:

H_8: Education is associated with wealth.

H_9: Gender role attitude is associated with wealth.

H_{10}: Being a Black female is associated with wealth.

H_{11}: Risk tolerance is associated with wealth.

H_{12}: Risk tolerance moderates the association between being a Black female and being wealthy.

It was thought, using a modified version of Irwin and Millstein's (1986) and Irwin's (1993) biopsychosocial model of risk-taking behavior, that the relationships between being a Black female, risk tolerance, and wealth can be modeled in a way that leads to a better

understanding of the pathways associated with wealth accumulation. A further adaptation of the model was made to provide deeper insight into the moderating role risk tolerance may play in shaping the manner in which wealth status is achieved for Black women. Overall, as shown in Figures 1.1, 1.2, and 1.3, the variables of interest in this study, which are described in detail in Chapter 3, relate to each other and, in varying degrees, may shed light on how Black women can improve their ability to build wealth.

Terms, Concepts, and Definitions

The following represent terms, concepts, and definitions of importance in this dissertation. It is important to note that while every attempt was made to use definitional constructs that are universally known and applied across studies, some terms and phrases used in this dissertation may conflict with commonly used phraseology. As such, the terms, concepts, and definitions used should be considered unique to this study and the dataset used in the dissertation.

Risk Tolerance

Financial risk tolerance is defined as the "maximum amount of uncertainty that someone is willing to accept when making a financial decision" (Rabbani & Nobre, 2022). The degree to which someone is willing to accept possible losses reaches almost every part of economic and social life (Grable, 2000). In this dissertation, risk tolerance was measured using responses from two questions, which were measured using a Likert-type scale ranging from 0 to 10. In the first question, respondents were asked, "Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?" They rated themselves from 0 to 10, where 0 means "unwilling to take any risks" and 10 means "fully prepared to take risks." The second question asked, "People can behave differently in different situations. How would you rate your

willingness to take risks in financial matters?" Respondents were asked to rate the situation from 0 to 10, where 0 means "unwilling to take any risks" and 10 means "fully prepared to take risks." Responses were combined and used in the tests as an outcome and independent variable.

Wealth

In practice, wealth is defined as a household's assets minus liabilities. In the financial services sector of the economy, wealth is synonymous with net worth (Oliver & Shapiro, 2013). Further, net worth is derived from the difference between what a person or household owns and the dollar amount that is owed. Defining net worth as the difference between what one owns less what one owes is well established in the financial planning profession. The measurement of wealth, using self-reporting of assets and liabilities, is useful for determining wealth status and providing clues about the typical investments (or lack thereof) that lead to wealth accumulation for households. In this dissertation, wealth was more specifically defined as the summed value of all household or family assets less all debts. Any missing values were inputted, with the top 2% of values top coded.

Education

In this dissertation, education was used to define the highest grade or year of regular school that someone had completed at the time of the survey. Education was measured and used as a continuous variable ranging from 1 to 20 years.

Gender Role Attitude

This term (and variable) was defined in this study to be a proxy for family socialization, which is a construct embedded in Irwin and Millstein's (1986) and Irwin's (1993) biopsychosocial model of risk-taking behavior as a biopsychosocial factor. The more substantial level of agreement with the following two statements was used in this dissertation as an

indication of a firmly held gender role attitude: (a) “It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family, and (b) “Women are much happier if they stay at home and take care of their children.”

Race

This dissertation defines race as “a family, tribe, people, or nation belonging to the same common stock, or a class or kind of people unified by shared interests, habits, or characteristics” (Merriam-Webster, 2023). As defined in the National Longitudinal Survey of Youth 1979 (NLSY79), this term is explicitly used as self-identifying as Hispanic, Black, non-Black, or non-White. In this dissertation, race was further defined as a dichotomous variable: (a) Black (coded 1), otherwise non-Black, non-Hispanic (coded 0).

Sex. Sex was used in this study synonymously with gender as originally defined in the National Longitudinal Survey of Youth (NLSY79). This term was used specifically as defining the sex (i.e., male or female) of someone at the time of birth.

Study Limitations

A study of this kind demands appropriate questions matched to the research questions and study hypotheses. To a large extent, questions and data were obtained that corresponded to the study’s questions and hypotheses, but it is acknowledged that a limitation associated with this study is that some of the questions adopted from the NLSY79 dataset (i.e., the data source for all analyses) were not perfect indicators of gender, race, education, wealth, risk tolerance, or family socialization. In some cases, questions asked in the survey, and the resulting answers, were assumed to be approximate proxies for more precise measures. This is particularly true about the race/ethnicity variable. The NLSY79 originally offered only three choices for racial/ethnic

background.[7] Today, it is apparent these classifications were exclusionary and limiting. It is possible, as a result, that some respondents who were classified as 'non-Black' in this study were Asian or another non-Hispanic race. It is also possible that some who were classified as 'Black' were not of African American descent.

Most saliently, this study does not purport to know much about the impact of the experiences of the respondents studied. As such, it is impossible to make any determinations about the influence of important life experiences these women may have had before or after the data analysis date. This means that readers need to be aware that the responses captured in the NLSY79 are considered, for the purposes of this study, to be true and accurate.

Delimitations

To compare the wealth building acumen and demonstrated results of Black women compared to non-Black women, the boundaries of this dissertation are limited the study to Black females juxtaposed against non-Black, non-Hispanic females as defined in the NLSY79. Thus, the study purposefully excluded males of all racial classifications.

Another delimitation is that while the NLSY79 surveys gather information at multiple points in time on the labor market experiences and other significant life events of several groups of men and women, this study specifically evaluated responses from the 2010 NLSY79 dataset. This delimitation was made primarily because the 2010 dataset included mostly complete data from the sample on the variables of interest. Earlier and later panels of the NLSY79 either had missing data or incomplete variables that were relevant to this study. The study, therefore,

[7] To maintain consistency, the NLSY79 continues to classify individuals into these original three racial/ethnic categories.

recognizes that using a single survey year as cross-sectional data may reduce the ability to generalize regarding causality.

Additionally, given the exploratory nature of this study, and sample size limitations, the marital status of respondents was not directly measured.[8] While it is acknowledged that married women, or women who may have been married at some point in the past, may have had greater opportunities to build wealth due to the second income, shared expenses, and increased ability to save that may have resulted from a marriage relationship, differences in wealth were thought to average out across the sample. Similarly, it was deemed impractical to track each respondent's detailed marital records in relation to wealth fluctuations shaped by marriage, separation, divorce, and widowhood. As such, respondents in the study could have been single women, married women, separated/divorced women, or widowed women. Whether married or not, the study assumes risk tolerance is a trait-like factor, with the proclivity to take risk being more a function of education and gender role attitude than the influence of a marriage relationship. However, it is worth noting that it is not possible, in the context of this study, to definitively suggest that marriage does not play a role in the wealth accumulation of Black women. This is a topic worthy of future study.

Chapter Summary

This chapter provided background information regarding the aims and motivations for this study. This chapter also highlighted the disparity in wealth accumulation between Black women and non-Black women, while acknowledging the opportunity for financial services firms—and practicing financial service professionals—to focus on this emerging demographic.

[8] Tests, as described in Chapter 4, were undertaken to quantify any differences across the variables of interest in this study related to the marital status of respondents. No significant differences were noted.

As few studies have explored the intersectionality of being Black and female, this study was designed to cast light on what it means to be Black and female when attempting to build wealth over the lifespan. Specifically, the influence of education, perceived gender roles, and, pointedly, the ability of Black women to tolerate risk was introduced in the context of Irwin and Millstein's (1986) and Irwin's (1993) biopsychosocial model of risk-taking behavior. Finally, this chapter concluded with a review of the basic concepts that were examined throughout this dissertation and a discussion of study limitations and delimitations.

The remainder of this dissertation is structured as follows. Chapter 2 presents a literature review of the key concepts and variables associated with this study's research questions and hypotheses. Chapter 3 presents the methods used to test the research hypotheses. Chapter 4 summarizes key findings. The dissertation concludes with a discussion of results with an emphasis on providing research, practice, and policy implications.

CHAPTER 2

REVIEW OF LITERATURE

As noted in the previous chapter, this study aims to provide exploratory insights into the wealth gap between Black women and non-Black, non-Hispanic women. The purpose of this chapter is to provide a conceptual overview of the variable associations that were tested in this study. The following review of literature describes previous research that sheds light on the three research questions examined in this dissertation:

(1) To what degree is being a Black female associated with risk tolerance?

(2) To what degree do wealth, education, and gender role attitude mediate the relationship between being a Black female and risk tolerance?

(3) Is the relationship between wealth and being a Black female moderated by risk tolerance?

Race/Ethnicity and Risk Tolerance

Coleman (2003) was among the first researchers to explicitly examine the association between risk tolerance and the investment behavior of Black and Hispanic heads of household. Coleman used the 1998 Survey of Consumer Finances to compare attitudes towards risk among Black, Hispanic, and non-Black heads of households. Coleman (2003) also examined differences in investment assets held across racial/ethnic categories. A key finding from the Coleman study was that a wealth gap between non-Black households and Black and Hispanic households exists, which is partially attributed to differences in investment behavior and in the types of assets held (Coleman, 2003, p. 43). Coleman (2003) noted that women hold a lower percentage of risky

assets than men, and older heads of household hold a significantly lower percentage of risky assets (Coleman, 2003, p. 48).

Additionally, Coleman (2003) found that more highly educated heads of household and households with higher net worth hold a higher percentage of wealth in risky assets, probably due to a higher store of human capital (which places them in a better position to recoup potential losses). In relation to the current study, Coleman (2003) noted that after controlling for wealth, there is no significant difference in attitudes towards risk across racial/ethnic groups. Coleman's (2003) work provides a foundation for this dissertation in establishing an apparent wealth gap; however, given that the original work was somewhat exploratory, an opportunity exists to determine whether attitudes towards risk across ethnic/racial groups differ by gender (i.e., in this study self-identified gender classification).

Fisher (2019) expanded on the work of Coleman (2003) by exploring Black and non-Black differences in financial risk tolerance. Fisher's (2019) study, which used data from the 2016 Survey of Consumer Finances, looked into the differences in risk tolerance between Black and non-Black financial decision-makers. Essentially, the study sought to explain the difference in risk tolerance by decomposing factors that influence the degree of risk one is willing to accept. The study looked at human capital variables (e.g., employment, age, education, and health status), financial variables (e.g., intergenerational transfers, income wealth, and financial knowledge), and life-cycle variables (e.g., marriage status and family composition) as explanatory factors in describing the difference in demonstrated risk tolerance between the studied groups. Fisher wanted to know if race explains the difference in financial risk tolerance between non-Black and Black households. Fisher concluded that differences in financial risk tolerance between Black and non-Black households result from disparities in human capital and

financial variables and how those variables relate to financial risk tolerance. Fisher noted that individuals' economic well-being depends upon various events and processes that occur across their lifetime. These events and processes include accumulating human capital, job experience, and parental wealth transfers, among other factors. Within a life-course framework, the concept of cumulative advantage/disadvantage posits that race exerts a differential impact upon various life chances across an individual's lifetime, resulting in widening inequalities. This partially explains why non-Black households generally report a greater willingness to take financial risks compared to Black households.

Hudson et al. (2018), using the 2015 FINRA Financial Capacity Study and a Financial Behavior/Capacity Survey that targeted African Americans, looked at differences in risk tolerance and risk-taking outcomes among Blacks and others through an investment behavior lens. Hudson et al. (2018) noted that African Americans are less likely to own riskier higher yielding investments, such as stocks. This observation matched Coleman's (2003) and Fisher's (2019) observations. The reluctance to invest in higher-risk investments was posited to be a contributing factor in the disparity in Black vs. non-Black wealth. Using family financial socialization theory, Hudson et al. (2018) found that financial knowledge, financial education, financial socialization, and income are positively and significantly related with African American investment behavior. More financial knowledge, being financially socialized by parents, and having higher income were found to equate with investing in higher-risk investments, whereas the opposite portended for a lower likelihood of investing in stocks. It is worth noting that their study did not find risk tolerance to be a significant factor.

Education, Wealth, and Risk Taking

In a follow-up study—one that focused on the associations among education, wealth, and risk taking—Hudson et al. (2021), using a convenience sample drawn from a cross-section of African American women through emails and social media, reviewed the factors that impact African American women's investment behavior. They examined the factors that may be obstacles to African American women investing in risky assets, where the outcome variable was measured by whether African American women had established a brokerage account. Among the impediments explored were (a) sense of commitment to family and community, (b) confidence in money management ability, and (c) holding a positive attitude towards money. In alignment with family financial socialization theory, Hudson et al. (2021) noted that "African American women who felt sure of their ability to manage their finances were more likely to be investors than those who felt unsure of their skills" (p. 16). African American women who felt in control of their finances were also more likely to be investors than those who felt that they were not in control.

Additionally, African American women with a positive attitude about managing finances were more likely to be investors than non-investors, as were those with more financial knowledge. The Hudson et al. (2021) study is significant in adding to the literature because so few papers consider the intersectionality of race, gender, and wealth. One critique of the study is that it relied on a convenience sample, meaning that the study's findings may not be generalizable to the population.

Cupples et al. (2013) tested whether attained education mediates the association between gender and risk tolerance. They found a direct negative association between identifying as a female and risk tolerance. They also noted that the direct effect of gender on risk tolerance is

reduced when education mediates the association. Others have also examined differences in risk taking using mediation tests (e.g., Bark et al. 2016).

In Fisher's (2019) study, as described above, it was noted that financial literacy, which is sometimes used as a proxy for education (Hastings et al., 2013), was positively associated with financial risk tolerance among non-Black households but not for Black households. Fisher (2019) also noted that the association between net worth and risk tolerance differed for Black and non-Black households.

Gender Roles, Wealth, and Risk Tolerance

Historically, according to Evans (2006), "Despite the importance of wealth accumulation to the financial security of families, there is very little analysis of wealth by gender and race" (p. 5). Fisher and Yao (2017) attempted to address this gap in the literature. They tested for gender differences in financial risk tolerance. Their study sought to explain apparent gender differences in risk tolerance by decomposing factors related to risk tolerance, to identify whether observed gender differences are due to gender orientation or whether the factors related to risk tolerance affect men and women differently and thus lead to differences in risk tolerance. Using data from the 2013 Survey of Consumer Finances, Fisher and Yao concluded that women are less risk tolerant than men, but that this difference is not strictly a gender issue but instead brought about by differences in other factors that affect women and men in various ways. Fisher and Yao argued that gender differences in risk tolerance result from differences in the relationship between the independent variables and risk tolerance for men and women rather than gender. They also noted that income uncertainty may negatively impact shaping risk attitudes. In relation to this dissertation, they also found that higher net worth, in their dataset, was positively associated with men exhibiting a high-risk tolerance.

In another study, Lemaster and Strough (2014) sought to determine if men are more risk-tolerant than women. A unique feature of their study was the focus on the social dimensions of gender rather than the biological definition of gender (i.e., sex). Their core finding was that men who are more stereotypically male, and those who adhere to masculine standards, are more risk tolerant than women who exhibit more stereotypically female standards and adhere to traditional feminine criteria. This hints at the important role gender role attitudes may play in shaping risk attitudes.

Other researchers have addressed the topic of gender and risk taking. Yordoniva and Alexandrova-Boshnakova (2010) investigated gender effects on risk tolerance and risk behavior. They found that female entrepreneurs are more likely to exhibit lower risk tolerance than similar male entrepreneurs. They also found that risk propensity (tolerance) mediates the gender effect on risk-taking behavior.

There is, however, a paucity of research linking gender role attitudes and financial risk tolerance. The evidence that is available suggests that the effects of financial socialization occur through attitudinal development. For instance, White et al. (2020) showed how financial messaging and race/ethnicity alters saving and banking behaviors. In their study, African Americans received fewer saving and banking messages. More directly related to the issue of gender role attitude is a study conducted by Hudson et al. (2017). They found that African Americans' top three financial influences were parents, life experiences, and formal influences. In general, the messages Black women receive indicate their role in society as non-financial actors (see van den Horst, 2014). Others have examined gender roles from different perspectives. As noted above, Lemaster and Strough (2013) looked at the role of gender in describing differences in risk tolerance from a stereotypical perspective rather than a self-identification

perspective. They noted that stereotypically masculine traits are associated with greater risk tolerance for men and women. This suggests that the effect of gender on risk tolerance may be role-based rather than purely biological.

Summary

The purpose of this study is multifaceted and focused on addressing the following research questions:

(1) To what degree is being a Black female associated with risk tolerance?

(2) To what degree do wealth, education, and gender role attitude mediate the relationship between being a Black female and risk tolerance?

(3) Is the relationship between wealth and being a Black female moderated by risk tolerance?

This chapter provided a review of literature related to these questions. Specifically, the chapter discussed relevant previous literature published in personal finance, financial planning, and financial services journals related to the relationship between and among risk tolerance, risk taking, and wealth accumulation. As evidenced by this review, the literature is limited. The chapter also reviewed some important studies showing a relationship between wealth and education and wealth and gender role attitude. The next chapter describes the methodology used to answer the research questions of interest in this dissertation, and the related hypotheses. This is followed by a presentation of results and a discussion of findings.

CHAPTER 3

METHODOLOGY

The overarching purpose of this study is to provide exploratory insights into the wealth gap between Black females and non-Black, non-Hispanic females. As discussed previously, the purpose of this study is multifaceted and focused on addressing the following questions:

(1) To what degree is being a Black female associated with risk tolerance?

(2) To what degree do wealth, education, and gender role attitude mediate the relationship between being a Black female and risk tolerance?

(3) Is the relationship between wealth and being a Black female moderated by risk tolerance?

The purpose of this chapter is to introduce the dataset, sample, variables, and analytical methods used to test the following research hypotheses, which were introduced in Chapter 1:

H_1: Risk tolerance is associated with being a Black female.

H_2: Risk tolerance is associated with wealth.

H_3: Risk tolerance is associated with attained education.

H_4: Risk tolerance is associated with gender role attitude.

H_5: Wealth mediates the association between risk tolerance and being a Black female.

H_6: Education mediates the association between risk tolerance and being a Black female.

H_7: Gender role attitude mediates the association between risk tolerance and being a Black female.

H_8: Education is associated with wealth.

H_9: Gender role attitude is associated with wealth.

H_{10}: Being a Black female is associated with wealth.

H_{11}: Risk tolerance is associated with wealth.

H_{12}: Risk tolerance moderates the association between being a Black female and wealth.

The following discussion summarizes the dataset used for this dissertation, the variables of interest, and the statistical methods used in this study. The remaining chapters in this dissertation focus on describing the results of the tests and providing context for applying the results to addressing the wealth gap issue. The last chapter of the dissertation focuses on describing the study's implications for financial planners, financial counselors, financial educators, and policymakers.

Design of the Study and Methods

Sample

Data for this study were obtained from the National Longitudinal Survey of Youth 1979 (NLSY79) dataset. The NLSY79, which is sponsored by the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor, includes a set of surveys designed to gather information at multiple points in time on the labor market experiences and other significant life events of a panel of men and women who were young adults in 1979 (i.e., survey respondents were ages 14 to 22 when first interviewed in 1979). The NLSY79 is a representative sample of 12,686 young men and women born from 1957 through 1964 and living in the United States when the survey began. Data were, and continues to be, gathered via interviews. At the project's outset, data were collected annually from 1979 to 1994. After 1994, data have been collected biennially.

According to the NLSY79 codebook, since the first survey, study respondents typically have finished their schooling, moved out of their parent's homes, made decisions on continuing

education and training, entered the labor market, served in the military, married, started families of their own, and thought about their retirement expectations. Data collected from NLSY79 respondents chronicle these life changes and provide the opportunity to study the life-course experiences of American men and women.

The NLSY79 survey contains detailed information about the training and employment, income and assets, households, family backgrounds, family composition, attitudes and expectations, and health of Americans, which allows researchers to analyze the disparate life course experiences of groups such as women, Hispanics, Blacks, and the economically disadvantaged. Additionally, the survey provides the information necessary to understand what role risk tolerance plays in the accumulation of wealth, or lack thereof, for Black (African American) women.

Data for this study were downloaded from the NLSY79 investigator website in February 2021 (https://www.nlsinfo.org/investigator/pages/login). The dataset was then recoded to include only women (i.e., male respondents were removed from the data). Based on variable limitations (e.g., certain variables of interest were only available with complete data in 2010), the data used for this study represent respondents' responses as of 2010. The final sample size was 3,827. Given the purpose of the dissertation, data were not weighted. [9]

Variables

In accordance with Irwin and Millstein's (1986) and Irwin's (1993) biopsychosocial model of risk-taking behavior, six variables were evaluated in this study: gender, race, risk

[9] Robustness checks of each model were undertaken using the 2010 weighting variable in the NLSY79. As noted in Chapter 4, the core findings reported in this dissertation were observed with and without the weighting variable.

tolerance, wealth, education, and gender role attitude. Risk tolerance was used as the outcome variable in the first model, whereas wealth was used as the outcome variable in the second model. The operationalization of each variable is described in detail below.

Risk Tolerance

The NLYS79 dataset asked a series of questions designed to assess a respondent's willingness to take risk across several domains. Two of these questions were used in this study. The first question asked was, "Are you generally a person who is fully prepared to take risks, or do you try to avoid taking risks?" Each respondent was asked to "Rate yourself from 0 to 10, where 0 means "unwilling to take any risks" and 10 means "fully prepared to take risks." The second question asked, "People can behave differently in different situations. How would you rate your willingness to take risks in financial matters?" They were then asked to rate the situation from 0 to 10, where 0 meant "unwilling to take any risks" and 10 meant "fully prepared to take risks. Given the ordinal nature of the response categories and the desire to create a single measure of risk tolerance, answers were combined into one measure. The combined risk-tolerance measure was developed using a principal components factor analysis, using Promax rotation. Scores were then saved as a regression factor. The resulting factor variable had a mean of 0.00, a standard deviation of 1.00, and a median of .0420. Higher scores were interpreted to indicate a greater willingness to take financial risk.

Wealth

The NLSY79 measured wealth as total net family wealth, estimated by summing each respondent's household asset values and subtracting all their debts. Given possible skewness in the variable, the log of wealth was used in all analyses. Although the nominal variable ranged

from $0 to several million dollars, the log-transformed variable's mean, standard deviation, and median were 4.8581, .8836, and 5.0201, respectively.

Education

Education was measured with the following item: "What is the highest grade or year of regular school that you have completed and gotten credit for?" In 2010, answers ranged from two years to 20 years. The mean and median response for 2010 were 13.34 years and 12.00 years, respectively. Education in 2008 was also estimated, with the mean and median number of years being 13.30 and 12.00, respectively, in 2008. Given possible endogeneity issues in the data, and the relatively similar mean and median data between 2008 and 2010, the 2008 education variable was used in each tested model.

Gender Role Attitude

Irwin (1993) noted that family socialization variables likely play a role in describing someone's willingness to take a risk. Socialization factors may also be associated with wealth accumulation over a person's lifespan. For this study, socialization was proxied with a variable called gender role attitude. This variable was created using two items in a principal components analysis with Promax rotation. In 2004, the NLSY79 asked the following questions that were used in this dissertation as indicative of gender role attitude: (1) "It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family and (2) "Women are much happier if they stay at home and take care of their children." Four choices were provided as response options: (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. For the first item, approximately 4% of respondents strongly agreed with the statement, whereas slightly more than 25% strongly disagreed. For the second item, a little more than 2% of respondents strongly agreed with the statement, whereas approximately 52%

strongly disagreed. The resulting factor variable had a mean of 0.00, a standard deviation of 1.00, and a median of .2326. Higher scores were interpreted to mean that a respondent held a stronger traditional gender role attitude.

Methods of Analysis

Several analytic techniques were used to evaluate the research hypotheses. Descriptive statistics, in the form of means, standard deviations, and correlation coefficients, were calculated to provide insights about the sample and bivariate relationships between and among the variables of interest in this study. This was followed by a series of multivariate tests.

The following ordinary least squares (OLS) regression model was used to estimate the relationship between the Black female variable and risk tolerance, controlling for a respondent's educational level, gender role attitude, and wealth situation:

$$RT_i = \beta_0 + \beta_1 E_1 + \beta_2 GR_2 + \beta_3 BF_3 + \beta_4 W_4 + \varepsilon_1 \qquad \text{Equation 1}$$

where RT_i is a respondent's risk tolerance, E_1 is a respondent's education in years in 2008, GR_2 is gender role attitude, BF_3 is Black female, and W_i is household wealth.

In alignment with Perry and Morris (2005), Sobel (Baron & Kenny, 1986) [as quoted by Perry and Morris (2005)] tests were then used to estimate the degree to which education, gender role attitude, and wealth mediate the relationship between the variables Black female and risk tolerance. The following set of equations were used to test these mediation effects:

$$Y = i_1 + cX \qquad \text{Equation 2}$$

$$M = i_2 + aX \qquad \text{Equation 3}$$

$$Y = i_3 + cX + bM \qquad \text{Equation 4}$$

where, *i* is the intercept coefficient, *Y* is the outcome variable (i.e., risk tolerance), *X* is the independent variable based on the mediation model being estimated, and *M* is the mediating

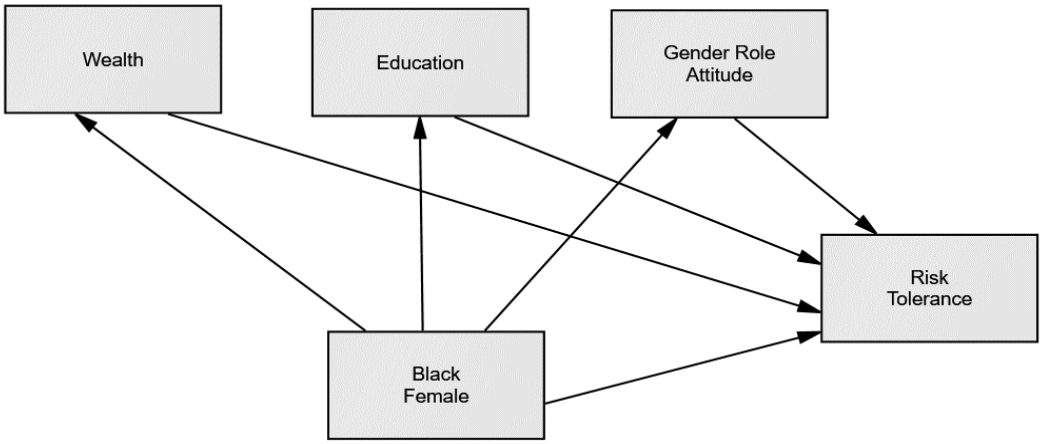
variable. In the context of this study, mediation was thought to be present when the coefficient for *X* in Equation 4 is lower than the *X* coefficient in Equation 2 (see Hayes, 2012; Hayes & Preacher, 2010; Preacher & Hayes, 2004). The effect is called inconsistent mediation in cases where the coefficient for *X* in Equation 4 is greater than the coefficient for *X* in Equation 2. Full mediation occurs when the coefficient for *X* in Equation 4 is zero (Baron & Kenny, 1986; Sobel, 1986).[10]

A robustness check was made using a path model. AMOS 27.0 for SPSS was used to estimate standardized coefficients for Figure 3.1, which is the same as Figure 1.2 in Chapter 1. Direct, indirect, and total effects, as well as fit index scores, were used to determine the mediating role of wealth, education, and gender role attitude.

[10] In order for mediation to be present, the following features must exist. First, household Black female must be significantly associated with the dependent variable. Second, household Black female must be significantly related to risk tolerance. Third, the effect of education, wealth, and gender role attitude, when risk tolerance is included as a mediator, must be significantly associated with the dependent variable. Fourth, the effect of Black female, in the mediated model, must also be statistically significant.

Figure 3.1

Conceptual Framework Tested with Path Model



The following OLS regression was estimated to determine, in an exploratory manner, the degree to which wealth for Black females is moderated by risk tolerance:

$$W_i = \beta_0 + \beta_1 E_1 + \beta_2 GR_2 + \beta_3 BF_3 + \beta_4 RT_4 + \beta_5 BFRT_5 + \varepsilon_1 \quad \text{Equation 5}$$

where W_i is household wealth, E_1 is a respondent's education in years in 2008, GR_2 is gender role attitude, BF_3 is Black female, and RT_4 is risk tolerance, which is hypothesized to be an endogenous variable, and $BFRT_5$ is an interaction term designed to estimate the degree to which risk tolerance moderates the relationship between Black female and wealth.

Given the possibility that an endogeneity effect may have been present in the models (as well as in general and within the dataset) between risk tolerance and wealth, a two-stage least squares (2SLS) regression was estimated. The 2SLS regression was estimated based on Equation 5:

$$\hat{RT} = \gamma_0 + \gamma_1 E_1 + \gamma_2 GR_2 + \gamma_3 BF_3 + \gamma_4 DRT_4 + \gamma_5 BFRT_5 + v_1 \quad \text{Equation 6}$$

where driving risk tolerance (DRT_4) is the instrumental variable.

Driving risk tolerance[11] was chosen as the instrumental variable in the regression because the question meets the following requirements for a such a variable (see Norusis, 2007): the variable is (a) free of causal influence from any of the variables in the equation, (b) correlated with the endogenous variables, and (c) not highly correlated with the outcome variable. The purpose of the regression shown in Equation 6 was to obtain an estimate of $\hat{RT}$. The final 2SLS regression, using fitted values of $\hat{RT}$ derived from Equation 6, was as follows:

$$W_i = \beta_0 + \beta_1 E_1 + \beta_2 GR_2 + \beta_3 BF_3 + \beta_4 \hat{RT}_4 + \beta_5 BFRT_5 + \varepsilon_1 \qquad \text{Equation 7}$$

where ε_1 is a composite error term that is uncorrelated with $E_1, GR_2, BF_3, and \hat{RT}_4$.

Chapter Summary

The purpose of this chapter was to introduce the dataset and sample used in this dissertation. The chapter also provided an overview of how the models described in Chapter 1 were operationalized. The chapter concluded with a description of the statistical tests that were used to evaluate the dissertation's research hypotheses.

The remainder of this dissertation is structured as follows. Chapter 4 summarizes the results from the tests. The dissertation concludes with a discussion of results emphasizing providing research, practice, and policy implications to help address the wealth gap issue.

[11] Driving risk tolerance was assessed in the NLSY79 with the following question: "People can behave differently in different situations. How would you rate your willingness to take risks while driving?" Each respondent's willingness to take risk was measured from 0 to 10, where 0 means "unwilling to take any risks" and 10 means "fully prepared to take risks." The variable was statistically associated with the risk tolerance variable (r = .405) but not statistically associated with wealth (r = -.002).

CHAPTER 4

RESULTS

The purpose of this chapter is to present the results of the statistical analyses. The statistical procedures and outcomes described in this chapter include descriptive statistics for all variables, correlation coefficient estimates across the variables of interest in the study, a modeling of risk tolerance, an estimate of the relationship between Black females and risk tolerance, mediation tests of the relationship between risk tolerance and being a Black female, a path analysis showing the effects of each variable in the path model, and a moderation test that was used to identify the association between being a Black female and wealth status. Finally, the interaction of risk tolerance and being Black female on wealth status was explored.

Table 4.1 provides a summary of the descriptive information for the variables used in this study. The results show the minimum and maximum values for each variable, the means and medians of the variables, and the standard deviation for each variable.

The descriptive statistics in this study provide an overview of the demographic and socio-economic characteristics of Black women living in the United States (i.e., the focus of this study). The descriptive statistics aid in understanding the central tendency, variability, and distribution of each variable, offering valuable insights for further analysis and interpretation in the context of the study. Based on the analysis, it can be seen that 30% of the sample identified as a Black female. The mean risk tolerance was 0. Given the way the variable was scored, a score of zero indicates the average. The range of risk tolerance was from -1.57 to 2.50. The standard deviation of risk tolerance was 1.00, suggesting some variability in risk attitudes among

the respondents. The mean gender role attitude was 0, suggesting a neutral point of view. The range in scores spanned from -1.26 to 3.41, indicating divergent perspectives within the sample. On average, respondents had 13.30 years of formal attained education in 2008, with a median of 12 years. The standard deviation of 2.56 suggests some variability in educational attainment. The range was from 2 to 20 years, reflecting a broad spectrum of educational backgrounds. In 2010, the average education level increased slightly to 13.34 years; however, the median remained at 12 years. The standard deviation of 2.59 indicates some variability in educational progression over the two-year period. The range was consistent with 2008, spanning from 2 to 20 years.

Total net family wealth was estimated by summing each respondent's household asset values and subtracting all their debts. The nominal value ranged from $0 to several million. Due to possible skewness in the data, the variable was transformed into a log estimate. These estimates are shown in Table 4.1 as a mean, standard deviation, and median of the log-transformed variable, which was 4.8581, 0.8836, and 5.0201, respectively. The median suggests that approximately half of respondents had wealth values above 5.02 and half below. The data show a large disparity in wealth among Black women. The data also indicate that there is still a persistent disparity in wealth when comparing the wealth accumulated by Black women versus the wealth accumulated by non-Black women.

Table 4.1

Descriptive Statistics for Variables of Interest in the Study

	Black Female	Wealth	Risk Tolerance	Gender Role Attitude	Education 2008	Education 2010
M	0.30	4.86	0.00	0.00	13.30	13.34
Mdn	0.00	5.02	0.04	0.23	12.00	12.00
SD	0.46	0.88	1.00	1.00	2.56	2.59
Min	0.00	0.00	-1.57	-1.26	2.00	2.00
Max	1.00	6.56	2.50	3.41	20.00	20.00

Given the way in which the variables were coded, non-parametric correlations were estimated to identify associations between and among the variables. Non-parametric correlations are statistical measures of association between variables that do not assume a specific distribution for the underlying data. Unlike parametric correlations, which assume a particular distribution (such as a normal distribution), non-parametric correlations make fewer assumptions about the nature of the data. Non-parametric correlations are generally less sensitive to outliers and extreme values compared to their parametric counterparts. Non-parametric correlations provide a robust measure of association without requiring normality or linearity in the data. Therefore, these estimates are often used when the variables are not normally distributed or when the relationship between variables is non-linear. The two types of non-parametric correlations used in this study were Kendall's Tau b correlation and Spearman's correlation.

Kendall's Tau b is used to measure the strength and direction of the ordinal association between two measured quantities. Kendall's Tau b correlations are based on the ranks of the data rather than the raw data values. Spearman's correlation also assesses the strength and direction of the monotonic relationship between two variables. Monotonic means that as one variable increases, the other variable consistently either increases or decreases, but not necessarily at a

constant rate. Spearman's correlation is also based on the ranks of the data rather than the raw data values.

The bivariate Kendall's Tau b estimates (Table 4.2) indicate that being a Black woman is negatively correlated with wealth (-0.322, $p < .01$) and education (Education 2008, -0.00.122, $p < .01$; and Education 2010, -0.114, $p < .01$). A small positive correlation was noted with gender role attitude (.032, $p < .05$). Similarly, a positive association with risk tolerance was noted (.038, $p < .01$). The correlations suggest that, in general, being a Black woman is associated with lower levels of education and wealth and greater risk tolerance. In this study, Black women were more likely to align with traditional gender roles when assessed in a bivariate manner. As shown in the second panel of Table 4.2, the Spearman's correlation estimates were similar to those estimated with Kendall's Tau b.

Table 4.2

Correlation Coefficient Estimates Across the Variables of Interest in the Study

	Black Female	**Wealth**	**Risk Tolerance**	**Gender Role Attitude**	**Education 2008**	**Education 2010**
			Kendall's Tau b Correlations			
Black Female	1.000					
Wealth	-.322**	1.000				
Risk Tolerance	.038**	.075**	1.000			
Gender Role Attitude	.032*	-.087**	-.029*	1.000		
Education 2008	-.122**	.304**	.092**	-.146**	1.000	
Education 2010	-.114**	.300**	.092**	-.142**	.864**	1.000
			Spearman's Correlations			
Black Female	1.000					
Wealth	-.395**	1.000				
Risk Tolerance	.046**	.106**	1.000			
Gender Role Attitude	.036*	-.119**	-.039*	1.000		
Education 2008	-.137**	.413**	.125**	-.186**	1.000	
Education 2010	-.129**	.409**	.124**	-.179**	.917**	1.000

Note. * $p < .05$ ** $p < .01$

Description of Financial Risk Tolerance

Table 4.3 shows the first multivariate test designed to determine the relationship between being a Black woman and risk tolerance. It was determined that the Black female variable was positively associated with risk tolerance. The positive coefficient suggests that, on average, Black females exhibit higher levels of financial risk tolerance compared to other women. The model was statistically significant, $F_{4,1857} = 12.749$, $p < .01$, with approximately 3% of risk-tolerance scores explained by the model ($R^2 = .027$). The *t* value of 3.596 is the ratio of the estimated coefficient to its standard error. In this case, the estimate is statistically significant.

Other significant relationships were observed. Wealth and risk tolerance were positively associated as was the relationship with education. The association between gender role attitude and risk tolerance was negative, indicating that those who held an affinity for traditional gender roles exhibited lower levels of risk tolerance.

Table 4.3

Estimates of the Relationship Between Being a Black Female and Risk Tolerance

	Unstandardized Coefficients		**Standardized Coefficients**	***t***	**Sig.**
	B	Std. Error	Beta		
(Constant)	-.991	.162		-6.118	.000
Black Female	.175	.049	.089	3.596	.000
Wealth	.104	.029	.096	3.588	.000
Education	.031	.010	T.081	3.235	.001
Gender Role Attitude	-.053	.022	-.056	-2.415	.016

Note. Dependent Variable: Risk Tolerance

Sobel Tests

Sobel mediation tests were used to further examine the relationship between being a Black female and risk tolerance. The mediating roles of wealth, education, and gender role

attitude were examined. The tests (Table 4.4) indicated that mediation is inconsistent across the variables.

The analysis revealed that being a Black female is positively associated with risk tolerance. However, this effect was only partially mediated by wealth. The negative coefficient for "Black Female → Wealth" suggests that Black females tend to hold less wealth. The positive coefficient for "Wealth → Risk Tolerance" indicates that higher wealth is associated with increased risk tolerance. The mediated effect of being a Black female through wealth was statistically significant, suggesting that as wealth increased, so did the degree of risk tolerance exhibited by Black women. Risk tolerance was lowest for those holding the lowermost levels of wealth.

Similarly, while the results continued to show a positive association between being a Black female and risk tolerance, the relationship was partially mediated by education. The negative coefficient for "Black Female → Education" indicates that Black females tend to have lower levels of education. However, higher education was observed to be positively associated with risk tolerance. The mediated effect of being a Black female and having more education was an increased level of risk tolerance. Contrarily, risk tolerance was lowest for those with less formal attained education.

The last Sobel test was not significant, so although the test showed that gender role attitude partially mediates the relationship between being a Black female and risk tolerance, the effect size was not meaningful. This finding suggests that gender role attitude, while important in describing risk tolerance, does not mediate a Black female's risk attitude.

Table 4.4

Mediation Tests of Risk Tolerance as a Function of Being Black Female

Model	Independent Variable	Dependent Variable	Coefficients	Sig.
Wealth				
1	Black Female	Risk Tolerance	.118	.001
2	Black Female	Wealth	-.697	.001
3	Wealth	Risk Tolerance	.086	.001
4	Black Female	Risk Tolerance	.185	.001
	Wealth		.157	.001
Education				
1	Black Female	Risk Tolerance	.118	.001
2	Black Female	Education	-.662	.001
3	Education	Risk Tolerance	.037	.001
4	Black Female	Risk Tolerance	.163	.001
	Education		.048	.001
Gender Role Attitude				
1	Black Female	Risk Tolerance	.118	.001
2	Black Female	Gender Role Attitude	.059	.107
3	Gender Role Attitude	Risk Tolerance	-.030	.080
4	Black Female	Risk Tolerance	.108	.004
	Gender Role Attitude		-.039	.032

Path Model Mediation Robustness Check

While Sobel tests provide a robust indication of potential mediation across variables, the approach fails to account for the simultaneous effects of variables on an outcome. This is the reason the associations among the variables from Table 4.4 were retested with a path model. Figure 4.1 shows the results from the analysis, which was used as a model robustness check.

The circles in the model (i.e., E1, E2, E3, and E4) represent error terms. The single arrow lines represent variable associations. Results from the path model provided support for the Sobel tests. The coefficients in the figure are the standardized coefficients (see Table 4.5). It is important to note, however, that the path model did not fit the data particularly well. The Chi-square statistic was significant ($\chi^2 = 502.695$, df = 3, $p < .001$). The RMSEA, NFI, and CFI

coefficients for the model were .163, .469, and .464, respectively. The key variable of non-significance was gender role attitude. Gender role attitude was not directly associated with risk tolerance, and as such, this variable provided no mediation in the model.

Figure 4.1

Estimated Path Model Used as Robustness Check of Mediation

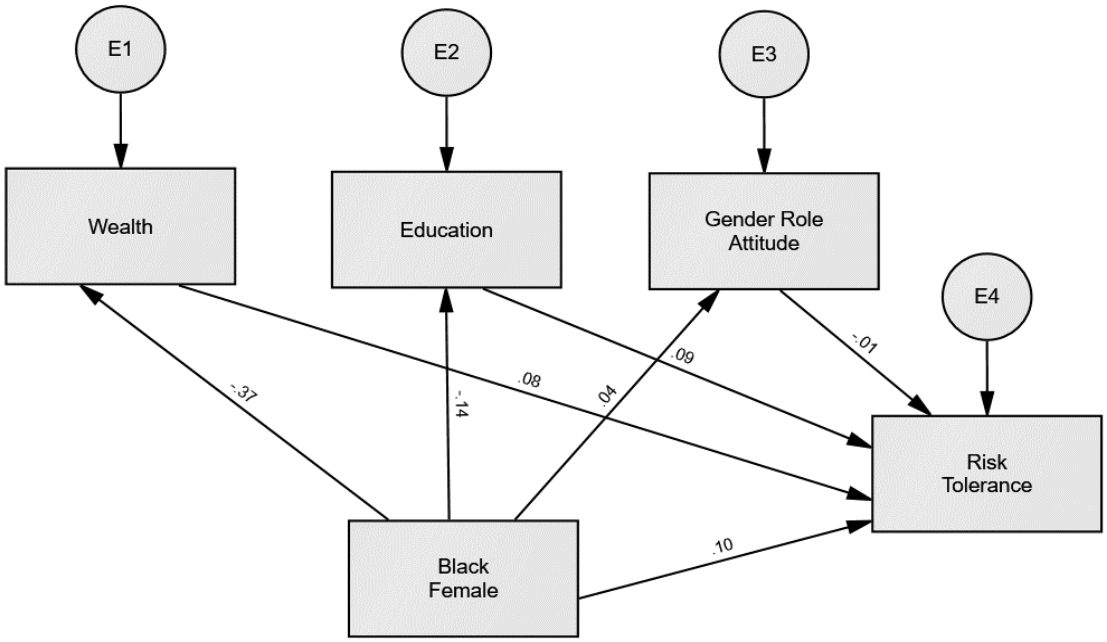


Table 4.5 shows the same information from Figure 4.1 in table format. In alignment with the Sobel tests, wealth and education increased a Black female's risk tolerance. Gender role attitude had no mediation effect.

Table 4.5

Coefficients in the Path Model

			Estimate	**Standardized Estimate**	**S.E.**	***p***
Wealth	<---	Black Female	-.716	-.373	.038	.001
Education	<---	Black Female	-.773	-.138	.096	.001
Gender Role Attitude	<---	Black Female	.081	.037	.039	.037
Risk Tolerance	<---	Wealth	.092	.081	.024	.001

			Estimate	Standardized Estimate	S.E.	*p*
Risk Tolerance	<---	Education	.034	.088	.006	.001
Risk Tolerance	<---	Gender Role Attitude	-.012	-.013	.017	.459
Risk Tolerance	<---	Black Female	.228	.105	.044	.001

Table 4.6 shows the total effects of each variable in the path model. The total effects of each variable are based on standardized direct and indirect effects. Being a Black female was only marginally positively associated with holding a traditional gender role attitude. However, in support of previous findings, wealth and education were negatively associated with being a Black female. Black females, compared to other women, exhibited a higher level of risk tolerance.

Table 4.6

Standardized Total Effects

	Black Female	Gender Role Attitude	Education	Wealth
Gender Role Attitude	.037	.000	.000	.000
Education	-.138	.000	.000	.000
Wealth	-.373	.000	.000	.000
Risk Tolerance	.062	-.013	.088	.081

Table 4.7 shows the direct effects from Figure 4.1 (i.e., the coefficients associated with the single-arrow lines). As shown in Table 4.7, being a Black female was directly and positively associated with risk tolerance. This means that in a bivariate sense, the willingness to take risks among Black females was higher than that of non-Black females. This finding simply confirms what has already been reported.

Table 4.7

Standardized Direct Effects

	Black Female	Gender Role Attitude	Education	Wealth
Gender Role Attitude	.037	.000	.000	.000
Education	-.138	.000	.000	.000
Wealth	-.373	.000	.000	.000
Risk Tolerance	.105	-.013	.088	.081

Table 4.8 shows the indirect effects of each variable on risk tolerance. These indirect effects take into account the paths between variables to risk tolerance. As shown in Table 4.8, the indirect effect of being a Black female on risk tolerance was negative. This means that when the indirect pathways to risk tolerance were estimated jointly, Black females exhibited lower risk tolerance than other women. The indirect effect was produced by the general tendency of Black females to report lower education and wealth levels, both of which were found to be positively associated with risk tolerance and to mediate the relationship between being a Black female and risk tolerance.

Table 4.8

Standardized Indirect Effects

	Black Female	Gender Role Attitude	Education	Wealth
Gender Role Attitude	.000	.000	.000	.000
Education	.000	.000	.000	.000
Wealth	.000	.000	.000	.000
Risk Tolerance	-.043	.000	.000	.000

Moderation Test Results

Table 4.9 shows the results from the regression model that was used to estimate the association between being a Black female and wealth status, as moderated by risk tolerance. The model was statistically significant, $F_{5,1856} = 138.725$, $p < .001$, with approximately 27% of wealth

estimates explained by the model (R^2 = .272). The relationship between wealth and being a Black female was moderated by risk tolerance. Furthermore, gender role attitude was not significant in the model when the interaction term was included. This suggests that while gender role attitude appears to be a significant variable when viewed in a bivariate sense (see Table 4.2), the importance of the variable is diminished when the interaction between being a Black female and risk tolerance is included in the model.

Table 4.9

Estimates of the Relationship Between Being a Black Female and Wealth, Moderated by Risk Tolerance

	Unstandardized Coefficients		**Standardized Coefficients**	***t***	**Sig.**
	B	Std. Error	Beta		
(Constant)	3.544	.102		34.732	.000
Black Female (BF)	-.600	.036	-.332	-16.545	.000
Education	.115	.007	.327	15.932	.000
Gender Role Attitude	-.027	.018	-.032	-1.569	.117
Risk Tolerance	.112	.024	.122	4.585	.000
BF x Risk Tolerance	-.106	.037	-.075	-2.854	.004

Note. Dependent Variable: Wealth

Moderation Robustness Check

One obvious constraint associated with the estimates shown in Table 4.9 relates to the possibility of endogeneity related to the relationship between wealth status and risk tolerance. While the model was premised on the assumption that risk tolerance is a predisposing factor associated with wealth accumulation, it is possible that greater levels of wealth (i.e., increased financial capacity) may explain risk tolerance. If this is true, then the moderation effect observed in Table 4.9 may be spurious. A two-stage least-squares regression was estimated to account for possible endogeneity in the model.

The key to estimating a two-stage least-squares regression is identifying a valid instrumental variable. Characteristics of a useful instrumental variable include: (a) being generally free from causal influence from other variables in the model, (b) being correlated with the endogenous variable(s), and (c) not being conceptually associated with the outcome variable. In the context of this study, driving risk tolerance was selected as the instrumental variable. It was thought that being willing to take driving risks should be associated with the risk-tolerance measure used in this study but not associated with wealth (i.e., someone's wealth status should not cause someone to take more or less risks when operating a motor vehicle). The mean, median, standard deviation, minimum score, and maximum score for the variable were 3.220, 2.00, 3.320, .00, and 10.00, respectively. Table 4.10 shows the correlation between driving risk tolerance and the other variables in the model.

Table 4.10

Correlation Coefficient Estimates Between Driving Risk Tolerance and the Variables of Interest in the Study

	Driving Risk Tolerance	**Black Female**	**Wealth**	**Risk Tolerance**	**Gender Role Attitude**	**Education**
Driving Risk Tolerance	1.000					
Black Female	-.016	1.000				
Wealth	.020	-.322**	1.000			
Risk Tolerance	.281**	.038**	.075**	1.000		
Gender Role Attitude	-.018	.032*	-.087**	-.029*	1.000	
Education	.065**	-.122**	.304**	.092**	-.146**	1.000

Note. * $p < .05$** $p < .01$

As illustrated in Table 4.10, driving risk tolerance was found to be positively associated with risk tolerance, but not significantly associated with either being a Black female or wealth. Given these bivariate relationships, the variable was used as the instrumental variable in the

model shown in Table 4.11. The model was statistically significant, $F_{5,1846} = 72.264$, $p < .001$, with 27% of wealth estimates explained by the model ($R^2 = .270$). Tests results mirrored that of the hypothesized model, suggesting that the path from Black female to wealth status is moderated by risk tolerance.

Table 4.11

Two-Stage Least Squares Analysis Robustness Check of the Moderation Model

	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
	B	Std. Error	Beta		
(Constant)	3.547	.102		34.683	.000
Black Female (BF)	-.595	.036	-.330	-16.370	.000
Education	.115	.007	.327	15.872	.000
Gender Role Attitude	-.027	.018	-.032	-1.563	.118
Driving Risk Tolerance	.111	.024	.121	4.561	.000
BF x Driving Risk Tolerance	-.109	.037	-.077	-2.926	.003

Note. Dependent Variable: Wealth

Figures 4.2 through 4.5 illustrate the general moderation effect of risk tolerance on being a Black female and wealth status.[12] Figure 4.2 shows the partial regression plot of wealth status by the Black female variable. The fitted regression line shows the slope of the effect from non-Black females (i.e., the left side of the figure) to Black females (i.e., the right side of the figure). Black females were, on average, less likely to report high levels of wealth. Figure 4.3 shows the partial regression plot of the interaction term. The moderation effect of risk tolerance can be seen in the reduced slope of the regression line, as compared to the line in Figure 4.2.

Figure 4.4 illustrates the overall interaction effect of risk tolerance and being a Black female on wealth status. As risk tolerance increases, holding the other factors at the sample mean

[12] It is typically recommended that interaction terms be centered prior to analysis. However, this step was not needed in this study because the risk-tolerance variable was originally centered. Similarly, the variable Black female was coded dichotomously, thus reducing the need to center the variable.

or median level, reported wealth is shown to decrease for Black females.[13] The model was estimated again without an interaction effect.[14] In both models, Black females were observed to exhibit a lower wealth status compared to non-Black females. However, the slope of the decline, as noted above, was reduced for Black females with a higher level of risk tolerance. Although risk tolerance did not reverse the wealth gap between Black females and others, risk tolerance did moderate, to some extent, the degree to which the gap was observed.

[13] A separate model was estimated (not shown) that included marital status (1 = single, otherwise 0). The model was statistically significant, with those who were single reporting lower levels of wealth. An interaction term was created to determine if marital status moderated the Black female and wealth association. When this variable was included in the model, no interaction was noted. This suggests that in addition to being a Black female, those who are single are less likely to accumulate wealth but that the association between Black female and marital status is not interacted.

[14] The model was statistically significant, $F_{4,1857} = 90.695$, $p < .001$, with approximately 27% of the wealth estimate explained by the model ($R^2 = .269$). The results were as follows:

	B	Std. Error	Beta	t	Sig.
(Constant)	3.516	.102		34.551	.000
Black Female	-.601	.036	-.333	-16.547	.000
Education	.117	.007	.333	16.245	.000
Gender Role Attitude	-.026	.018	-.030	-1.469	.142
Risk Tolerance	.066	.018	.072	3.588	.000

Figure 4.2

Partial Regression Plot Showing the Wealth Status of Black Females and Non-Black Females

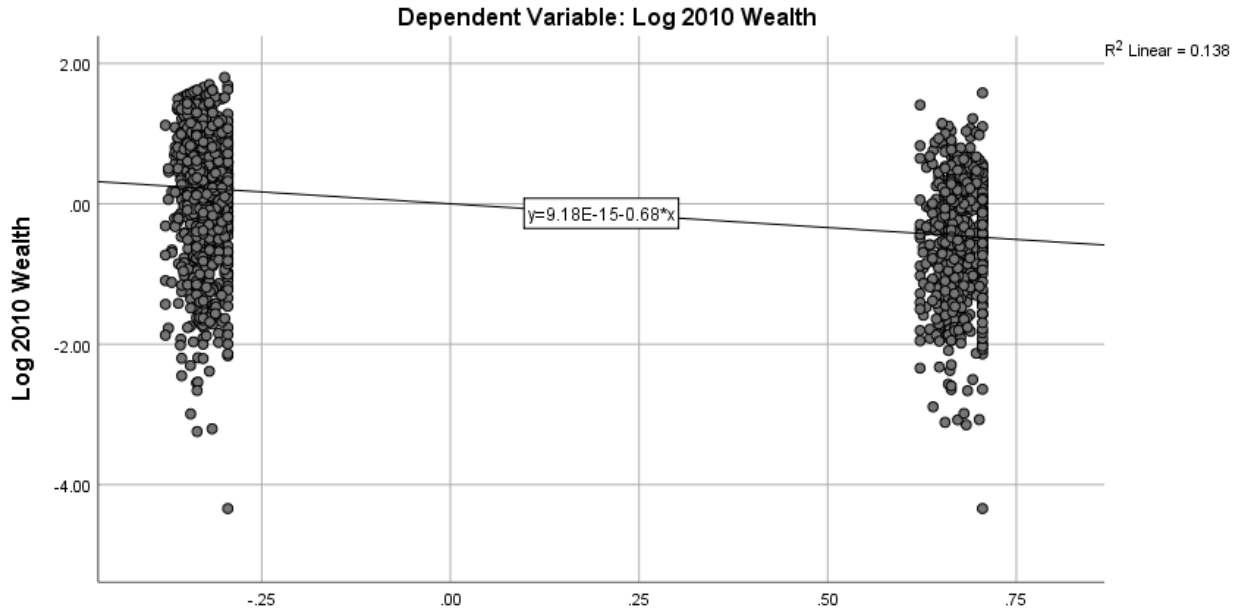


Figure 4.3

Partial Regression Plot Showing the Interaction Effect of Risk Tolerance and Black Female on Wealth Status

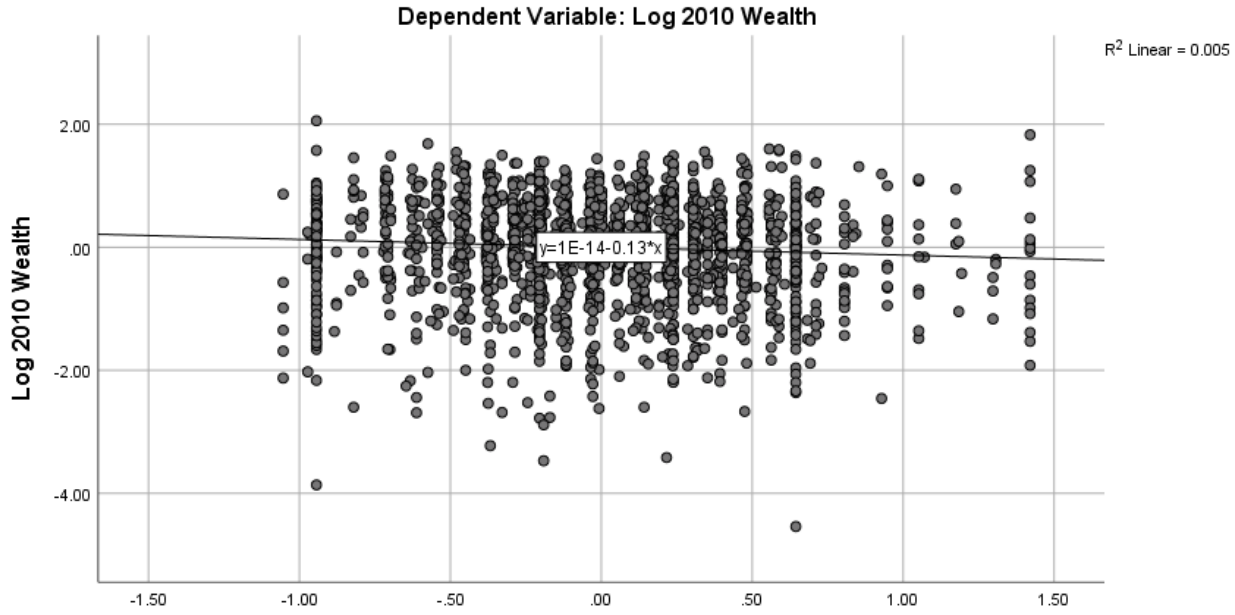


Figure 4.4

Interaction Effect of Risk Tolerance and Black Female on Wealth Status

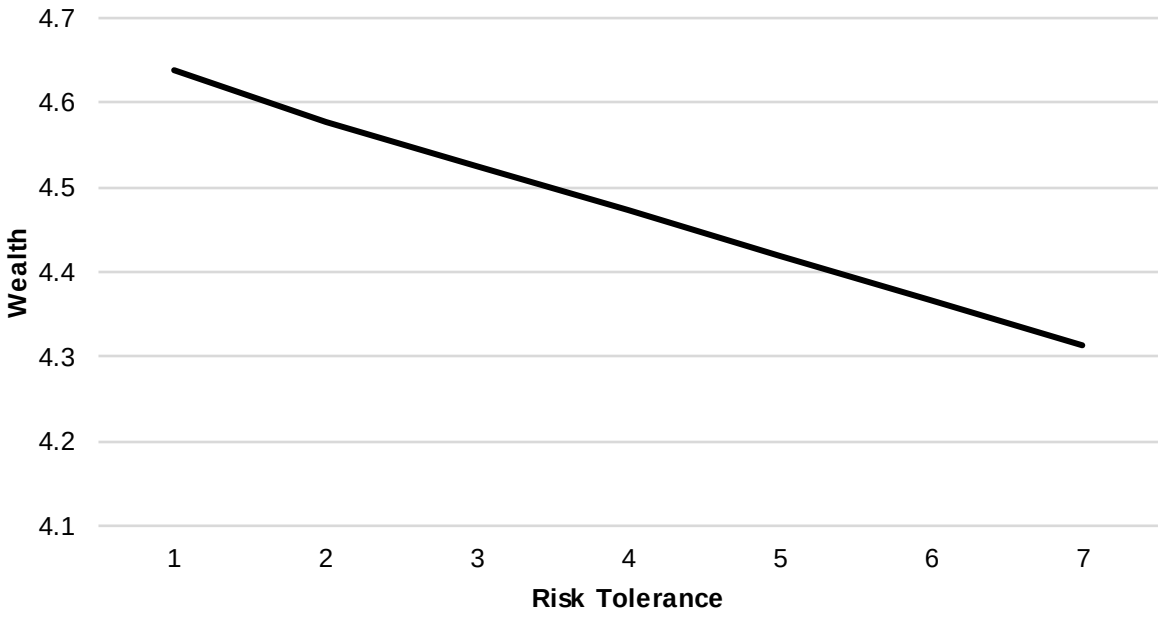


Figure 4.5 illustrates the moderation effect from the perspective of comparing Black females to non-Black females by risk tolerance. The blue line shows that the wealth status of Black females falls below the comparative wealth status of non-Black females. However, when risk tolerance is accounted for (i.e., the relationship between risk tolerance and wealth is positive), an interaction is observed. This means that although Black females have less wealth than similar non-Black females, the gap between the two falls as risk tolerance increases.

Figure 4.5

Illustration of Wealth Gap Closing as Risk Tolerance Increases

Discussion

Table 4.12 provides a summary of results related to the research hypotheses that were introduced earlier in this dissertation. The key takeaways are that a positive association exists between being a Black female and risk tolerance. This result, which was observed in the bivariate and multivariate analyses, is paradoxical in that findings from this study also show that risk tolerance and wealth are positively associated. On the surface, Black females should report holding greater wealth (i.e., have a higher net worth) than other women, however, this is not the case.

Findings from this study address the wealth/risk tolerance paradox by showing that being a Black female and holding wealth is mediated by the indirect pathways to risk tolerance through

education and wealth. When these two factors are accounted for, Black females exhibit lower risk tolerance. So, while the relationship between holding greater wealth and risk tolerance holds true, when important biopsychosocial factors (e.g., education) are included in models of description, the risk tolerance of Black females turns out to be lower than that of other women. In other words, the initial (i.e., bivariate) positive association between being a Black female and risk tolerance disappears when variable mediation is estimated, as does the expected relationship with holding more wealth

The wealth/risk tolerance paradox can also be explained, to some extent, by the moderating role of risk tolerance. As shown in this study, the wealth status of Black females does increase with risk tolerance; however, the rate of increase appears to be offset, to a great extent, by lower levels of education. As shown in this study, risk tolerance does not reverse the wealth gap between Black females and others, but risk tolerance does moderate, to some extent, the degree to which the gap exists in practice.

Table 4.12

Research Hypotheses and Analytical Results

	Hypothesis	Result	Table
H_1:	Risk tolerance is associated with being a Black female.	Positive Association Confirmed	4.2 and 4.3
H_2:	Risk tolerance is associated with wealth.	Positive Association Confirmed	4.2 and 4.3
H_3:	Risk tolerance is associated with attained education.	Positive Association Confirmed	4.2 and 4.3
H_4:	Risk tolerance is associated with gender role attitude.	Negative Association Confirmed	4.2 and 4.3
H_5:	Wealth mediates the association between risk tolerance and being a Black female.	Inconsisent Mediation Confirmed	4.4 and 4.5
H_6	Education mediates the association between risk tolerance and being a Black female.	Inconsisent Mediation Confirmed	4.4 and 4.5

	Hypothesis	Result	Table
H_7:	Gender role attitude mediates the association between risk tolerance and being a Black female.	Hypothesis Not Supported	4.4 and 4.5
H_8:	Education is associated with wealth.	Positive Association Confirmed	4.9 and 4.10
H_9:	Gender role attitude is associated with wealth.	Hypothesis Not Supported	4.9 and 4.10
H_{10}:	Being a Black female is associated with wealth.	Negative Association Confirmed	4.9 and 4.10
H_{11}:	Risk tolerance is associated with wealth.	Positive Association Confirmed	4.9 and 4.10
H_{12}:	Risk tolerance moderates the association between being a Black female and wealth.	Hypothesis Confirmed; Greater Levels of Risk Tolerance Associated with Greater Wealth for Black Females	4.9 and 4.10

Conclusion

The descriptive statistics in this chapter offer an overview of some biopsychosocial characteristics of Black women. Results from a series of tests showed that despite variations in risk tolerance, education, and gender role attitudes, a wealth gap exists between Black women and non-Black women. Black women hold, on average, very low levels of wealth as compared to non-Black women. The non-parametric correlations estimated in this study indicate that being a Black woman is negatively associated with wealth and education. It was also noted, surprisingly, that being a Black female was positively associated with being willing to take on more financial risks. Black females, from a bivariate perspective, were also more likely to support traditional gender role attitudes. Moderation tests demonstrated that risk tolerance does, indeed, moderate the relationship between being a Black women and wealth, but while risk tolerance moderates

the extent to which a wealth gap is observed, risk tolerance does not eliminate the wealth gap. This wealth/risk tolerance paradox sets the stage for a broader discussion and exploration of the implications of the findings. The next chapter focuses on implications of the study for researchers, financial planners, financial counselors, financial educators, and policymakers.

CHAPTER 5

DISCUSSION

The purpose of this chapter is to summarize the findings from Chapter 4, while conceptualizing the results in a way that researchers, financial planners, financial counselors, financial educators, and policymakers can better help Black females, and Black female-headed households, increase lifetime wealth accumulation. This chapter is structured as follows. The chapter begins by addressing the three primary research questions introduced at the outset of the dissertation. Second, the discussion shifts to explaining the study's results from a holistic perspective. Third, the chapter provides specific takeaways for financial planning practitioners and other financial service professionals, researchers, and policymakers. Finally, the chapter concludes with a review of the study's limitations and opportunities for future research.

Review of Research Questions

The purpose of this study was multifaceted. As discussed in Chapter 1, and again in Chapter 3, the study was designed to address the following questions: (1) to what degree is being a Black female associated with risk tolerance? (2) to what degree do wealth, education, and gender role attitude mediate the relationship between being a Black female and risk tolerance?

and (3) is the relationship between wealth and being a Black female moderated by risk tolerance? The following discussion reviews the results of the tests described in Chapter 4 in relation to these questions.

To What Degree is Being a Black Female Associated with Risk Tolerance?

It was determined that Black women, compared to non-Black females, exhibit a greater willingness to take financial risks. This finding hints at what is termed the wealth/risk tolerance paradox in this dissertation. Specifically, it has been documented extensively in the literature, and in this study, that risk tolerance and wealth are positively associated. There is likely an endogeneity factor at play in the relationship. Nonetheless, those who exhibit a greater willingness to take financial risks generally report holding more wealth. This relationship does not hold true for Black women, when compared to non-Black women. This is a paradox that can be addressed with answers to the other research questions posited in this dissertation.

To What Degree do Wealth, Education, and Gender Role Attitude Mediate the Relationship between Being a Black Female and Risk Tolerance?

Wealth was observed to have an inconsistent mediation effect between being a Black female and risk tolerance. Those with more net wealth reported higher levels of risk tolerance. However, the opposite was also true. As wealth decreased, so did risk tolerance. Because Black women tend to hold less wealth than non-Black females, it is not surprising that wealth was observed to have an inconsistent effect in this study.

Similarly, in the mediated models examined in this dissertation, it was determined that education had an inconsistent mediation effect on the relationship between being a Black female and risk tolerance. The attainted educational level of Black women tends to be lower than that of other women. In confirmation with the extant literature, this was observed in this study. Those

with higher levels of attained education reported more risk tolerance. Those with lower levels of attained education reported a lower willingness to take financial risk. This helps explain the wealth/risk tolerance paradox.

Gender role attitude was not a significant meditator in the models examined in this study. While Black women were more likely to hold traditional gender role attitudes, this had no effect in describing higher or lower levels of risk tolerance.

Is the Relationship Between Wealth and Being a Black Female Moderated by Risk Tolerance?

It was determined that risk tolerance does moderate the association between being a Black female and wealth. As noted in Chapter 4, even though Black females hold less wealth than similar non-Black females, the gap between these two groups falls as risk tolerance increases. In this respect, risk tolerance appears to be a key factor in describing the wealth/risk tolerance paradox noted in this dissertation. More specifically, Black women's wealth accumulation status appears to be negatively affected by their generally lower level of education; however, this can be partially offset by a greater willingness to engage in a financial behavior in which the outcome is both uncertain and potentially negative.

General Conclusions

In general, findings from the tests reported in this dissertation confirmed the majority of research hypotheses. Especially with regard to attained education and risk tolerance, Human Capital Theory (HCT) provides an explanation for persistent wealth disparities. HCT explains how those with more education (e.g., a college degree) earn more than those with less education (e.g., high school diploma). This income is a key driver to wealth accumulation. Income and wealth provide a degree of financial capacity that then allows someone to take more risk, which,

in turn, helps that person to build additional wealth. Risk tolerance, like other abilities, appears to be an important addition to one's human capital. Providing Black women with information, skill building development, and practice related to increasing risk tolerance may be the key to helping Black women bridge the wealth gap.

While noteworthy, findings associated with individual hypothesis tests do not provide enough context when attempting to decompose the association between being a Black female and wealth status. It is essential to view the results across hypotheses from a holistic perspective in order to gain a clear perspective on the association between being a Black female and wealth status. In this regard, several insights stand out in this study:

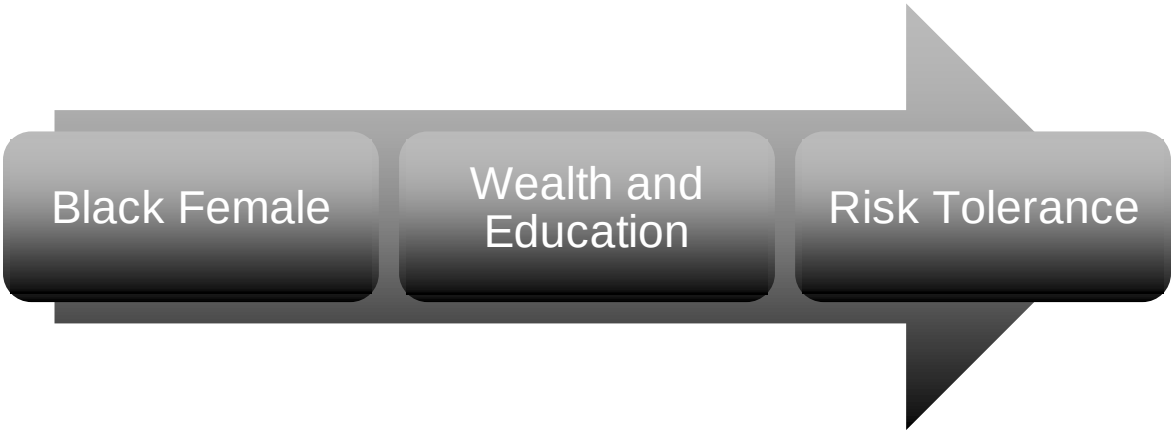
- Wealth, education, and gender role attitude, as predisposing factors in the Irwin (1993) biopsychosocial model of risk-taking behavior, are associated with risk tolerance;
- Black females, contrary to what has been reported in much of the literature, exhibit a higher degree of risk tolerance compared to non-Black females;
- Wealth and education act in a way that mediates the risk tolerance of Black females;
- Black females control less wealth than comparable non-Black women (this is true regardless of marital status); and
- Risk tolerance acts as a moderator between being a Black female and wealth status, while also being directly associated with one’s wealth status.

When viewed holistically, these insights suggest that the relationship between being a Black female and wealth status is nuanced, and that simple bivariate or linear assumptions about the relationship are likely impractical and not particularly useful. As shown in Figure 5.1, the

initial tests conducted in this study showed that for Black females there is a direct and positive association between wealth and risk tolerance and education and risk tolerance. In effect, wealth and education, as predisposing environmental factors, appear to increase a person's capacity to take risk, and as such, increase a person's willingness to take risk.

Figure 5.1

The Direct and Positive Association Between Wealth and Risk Tolerance and Education and Risk Tolerance



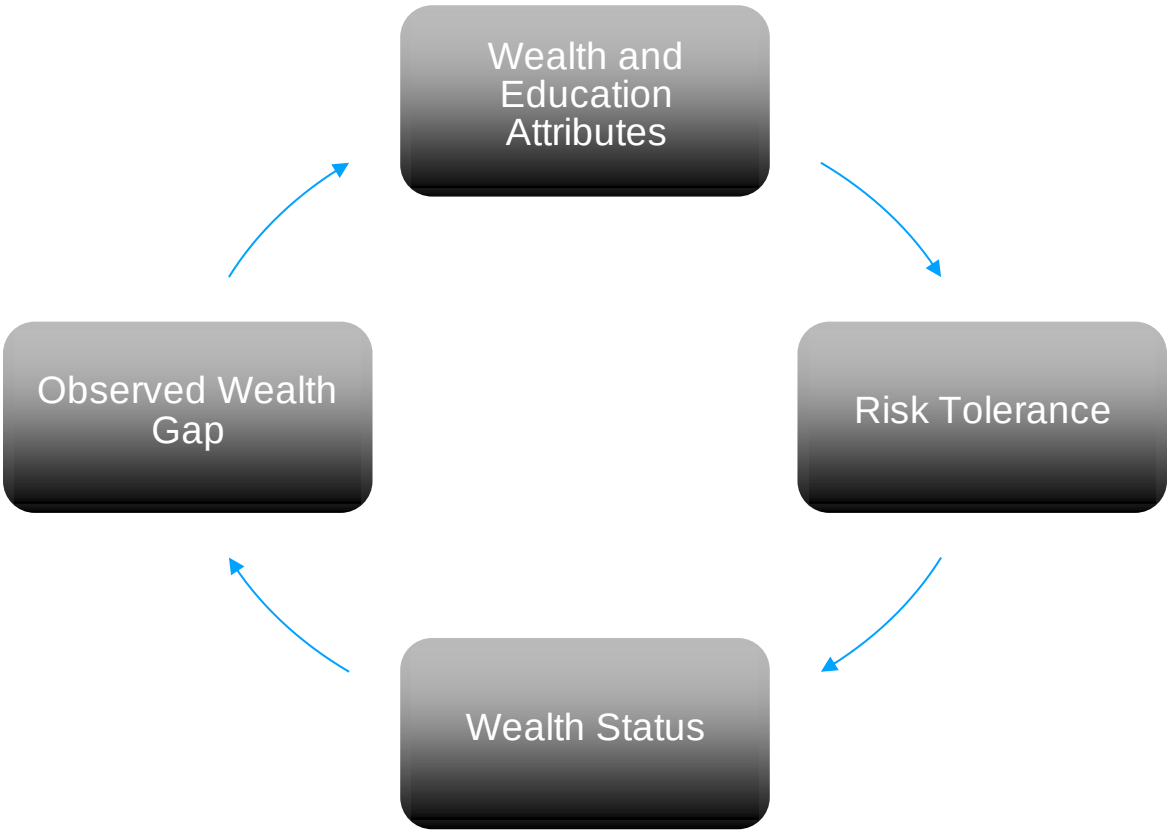
However, the moderation test results showed another pathway when explaining the relationship between being a Black female and wealth status. Risk tolerance was observed to be directly and positively associated with wealth status. That is, the greater someone's willingness to take risks, the more wealth reported at the household level. As noted in Chapters 3 and 4, there is likely an endogeneity effect present in the data, bringing into question the causal nature of this statement. Robustness checks described in Chapter 4 were undertaken to address the endogeneity question. Although the robustness model confirmed the relationship from risk tolerance to wealth, findings across the models hint that the issue for Black females appears to be circular,

rather than linear. This conclusion is based on viewing all of the study's results as a whole rather than as separate parts.

Figure 5.2 shows what appears to be happening, in terms of wealth status, for Black females. To begin with, Black females, although reporting relatively high levels of risk tolerance, tend to, on average, report lower levels of predisposing environmental attributes, such as wealth and education. In this manner, Black females are starting at a relatively weak position in terms of accumulating wealth (i.e., their capacity to take risks is lower than non-Black women). This appears to result in a cycle where low levels of wealth and education dampen the effect of risk tolerance, resulting in a continued gap in wealth when compared to non-Black females.

Figure 5.2

Circular Relationship Between and among Wealth and Education Attributes, Risk Tolerance, and the Observed Wealth Gap Between Black Females and Non-Black Females

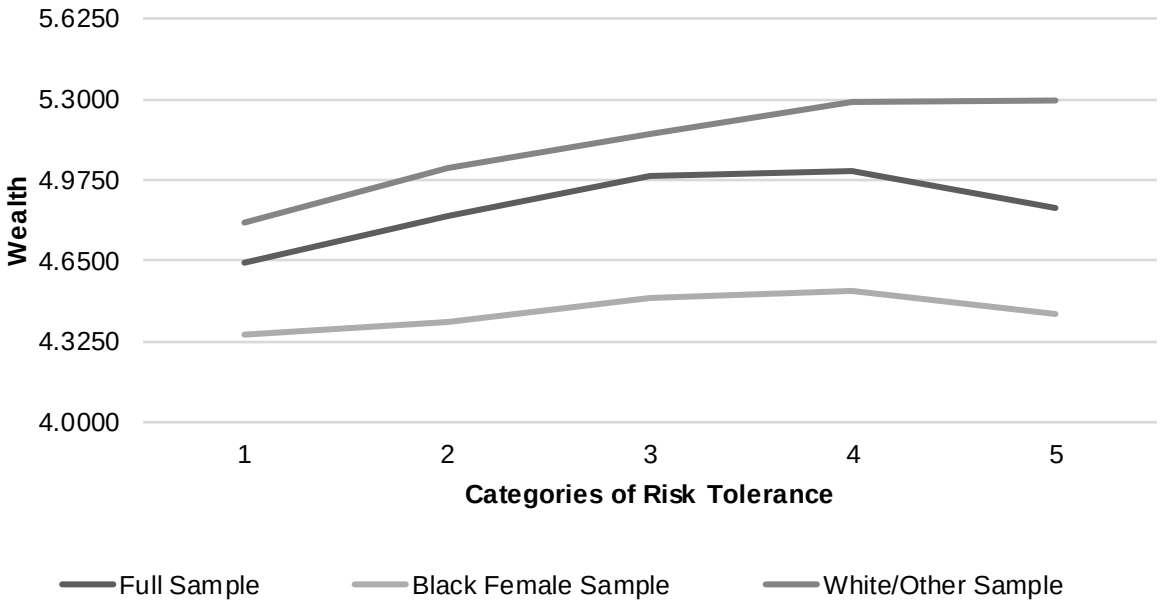


If the circular relationship shown in Figure 5.2 is true, then the type of interventions and policies needed to narrow the wealth gap must be focused on breaking deficits in wealth and education exhibited by Black females. As will be discussed later in this chapter, this implies that adjustments to one environmental factor (e.g., wealth) without an equal adjustment to other environmental factors (e.g., education) may not be enough to address the ongoing wealth gap dilemma.

Figure 5.3 illustrates the role risk tolerance may play in helping explain the ongoing wealth gap between Black females and non-Black females. The horizontal categories represent risk tolerance when recoded from a continuous variable into five equal and distinct categories. The vertical axis represents wealth. Across all categories of risk tolerance, wealth is shown to increase for non-Black females (the gray line in the figure); further, the increase in wealth across categories (i.e., the slope of the line) is rather steep, suggesting that the relationship between risk tolerance and wealth status is pronounced for non-Black females. The situation for Black females is different. Wealth is shown in the figure to increase up to the point of "above-average" risk tolerance and then to fall at the highest level of risk tolerance. This curvilinear effect differs from the observed association between wealth status and risk tolerance seen for non-Black females.

Figure 5.3

The Association Between Categories of Risk Tolerance and Wealth Status



The patterns of wealth status shown in Figure 5.3 hint at the possibility that risk literacy, as much as someone's willingness to take financial risk, may play an important role in explaining the wealth gap between Black females and non-Black females. Risk literacy refers to being more knowledgeable about the relationship between risk and return, which can clearly influence the financial decisions one may make (Lusardi, 2014). Those who are more knowledgeable about risks and uncertainty are more apt to save, plan for retirement, invest in the stock market, and less likely to take on high interest debt (Lusardi, 2014). These are all factors that may explain why low levels of risk literacy for Black women results in the observable wealth gap.

Practitioner Implications

Financial planners, financial counselors, and financial educators who work with Black women clients can play a pivotal role in empowering them through a focus on education and risk literacy. Recognizing the historical disparities and systemic challenges faced by Black women,

financial planners, financial counselors, and financial educators can tailor their approach to address these unique circumstances. Education becomes a key tool in this process, with financial service professionals needing to take the time to thoroughly explain financial concepts, investment strategies, and long-term planning options. By fostering a learning environment, financial planners, financial counselors, and financial educators can empower Black women clients to make informed decisions, demystifying the complexities of the financial landscape.

Moreover, a nuanced emphasis on risk literacy is crucial. Black women, like any other demographic group, have diverse risk tolerances and financial goals. Financial planners, financial counselors, and financial educators should engage in open and honest conversations about the way risk is perceived, both real and imaginary, tailoring their advice to align with the specific needs and aspirations of their Black women clients. This approach goes beyond conventional financial planning, counseling, and education by recognizing the importance of addressing unique life experiences and potential obstacles. Through education and a focus on risk literacy, financial planners, financial counselors, and financial educators can contribute significantly to the financial well-being and empowerment of Black women clients, helping them navigate the complexities of the financial world with confidence and resilience.

Research Implications

To comprehensively understand the relationship between being a Black female and risk tolerance, researchers should delve into the intricate interplay of various socio-economic factors, including wealth, education, and gender role attitudes. Wealth plays a pivotal role in describing an individual's risk tolerance, as financial stability often influences one's ability to absorb potential losses. Black females, who may face systemic barriers in wealth accumulation, could exhibit unique risk tolerance patterns influenced by economic disparities and unique perspectives

of what it means to be a saver and an investor. Moreover, education serves as a crucial determinant, potentially empowering individuals with the knowledge and skills needed to navigate financial complexities. A nuanced exploration of how educational attainment intersects with being a Black female can unveil insights into risk-taking behavior, shedding light on whether education mitigates or exacerbates risk aversion within this demographic. In terms of specific steps researchers can take to inform educational interventions, it will be important for future studies to incorporate mediation and moderation effects in models. It would also be helpful, as illustrated in Figure 5.3, to account for possible curvilinear effects between risk tolerance and wealth and risk tolerance and other factors.

Gender role attitudes further complicate the relationship between being a Black female and risk tolerance. Societal expectations and cultural norms often prescribe specific gender roles that may intersect with racial identities, influencing individuals' perceptions of risk and financial decision-making. By scrutinizing how gender role attitudes are internalized and expressed by Black females, researchers can elucidate whether traditional gender norms amplify or mitigate risk aversion. This multifaceted analysis, considering the mediating roles of wealth, education, and gender role attitudes, is essential for developing targeted interventions and policies aimed at fostering financial inclusivity and empowerment among Black women.

Policy Implications

To comprehensively understand the relationship between being a Black female and risk tolerance, researchers should delve into the intricate interplay of various socio-economic factors, including wealth, education, and gender role attitudes when drafting rules, regulations, and incentives to increase accessibility to investing opportunities for traditionally underrepresented groups. As has been shown in the literature, wealth plays a pivotal role in shaping an individual's

risk tolerance—it is also possible that risk tolerance helps to explain wealth accumulation—as financial stability creates the capacity for someone to absorb potential losses. Black females, who may face systemic barriers in wealth accumulation, might not respond to incentivized rules and regulations in the same way non-Black women react because of divergent perceptions about risk and preferences for certain types of saving and investing products. These perceptions and preferences are likely shaped by the unique economic disparities faced by Black women. Policymaking must go beyond thinking that financial knowledge alone can be the mechanism to help Black women overcome the wealth/risk tolerance paradox. Black women already exhibit a greater tolerance for risk than non-Black women. What is needed is greater access to education (not simply information) and a way to help Black women conceptualize wealth as a factor that enhances a household's financial capacity. Moreover, education can serve as a crucial determinant, potentially empowering individuals with the knowledge and skills needed to navigate financial complexities. A nuanced exploration of how educational attainment intersects with being a Black female can unveil insights into risk-taking behavior, shedding light on whether education mitigates or exacerbates risk aversion within this demographic. An opportunity exists to incentive the accumulation of human capital (i.e., formal education) through the use of tax credits, tax subsidies, refundable tax credits, and direct tuition payments for Black women who can document an educational need. The long-term payoff associated with adopting some or all of these policies, from a household and societal perspective, is potentially quite large and positive (i.e., education increases human capital, which leads to a greater willingness to take risk, which in turn is associated with wealth accumulation that builds risk capacity, that then allows greater wealth accumulation; this wealth can then offset future governmental funding requirements to fund health and retirement needs at the household level).

Policymakers should also keep in mind how gender role attitudes further complicate the relationship between being a Black female and risk tolerance. Societal expectations and cultural norms often prescribe specific gender roles that may intersect with racial identities, influencing individuals' perceptions of risk and financial decision-making. By scrutinizing how gender role attitudes are internalized and expressed by Black females, researchers can elucidate whether traditional gender norms amplify or mitigate risk aversion. This multifaceted analysis, considering the mediating roles of wealth, education, and gender role attitudes, is essential for developing targeted interventions and policies aimed at fostering financial inclusivity and empowerment among Black women.

Limitations

While the findings from this study are noteworthy, some limitations are worth noting. To begin with, this study used a secondary dataset. Utilizing primary data in the study of Black women and wealth building presents a notable advantage over relying solely on secondary sources like the NLSY. One key benefit is the ability to tailor specific questions to the unique experiences and challenges faced by Black women. Secondary data sources often lack granularity and may not capture the nuanced aspects of the Black female experience in wealth-building endeavors. Primary data collection methods, such as surveys or interviews, empower researchers to design inquiries that directly address the cultural, social, and economic factors that impact Black women's financial trajectories. Future studies need to adopt this tailored approach to ensure a more comprehensive understanding of the factors influencing wealth accumulation. Using primary data will allow for a more accurate representation of the diverse pathways to economic success within the Black female demographic. Additionally, primary data collection will enable researchers to engage directly with the community they are studying, fostering a

more collaborative and participatory research process. Building relationships with Black women participants will allow researchers to gain insights that extend beyond quantitative metrics, delving into qualitative aspects such as personal narratives, cultural influences, and community dynamics. This richer, more contextual understanding can contribute to the development of more effective policies and interventions tailored to the specific needs and aspirations of Black women in their pursuit of wealth creation.[15]

Another limitation of this study is that given the way questions were asked across years of the NLSY, it was only possible to utilize an older version of the dataset. Nonetheless, the results do represent the circumstances of Black women at that point in time. Additionally, researchers who are interested in expanding upon the work of this dissertation are encouraged to build upon the Irwin (1993) biopsychosocial model of risk-taking behavior by including other endogenous, exogenous, and predisposing factors to describe the risk tolerance of Black females. The models included in this dissertation were purposely restrained as a way to build a base-level of knowledge on this under-researched topic. Future studies are needed to expand the variety of variables used in similar tests.

Another limitation related to relying on a cross-sectional dataset when studying Black women, risk tolerance, and wealth building, while inclusive of married Black women, raises a concern about the potential confounding influence of spouses on reported wealth. Since wealth in

[15] Furthermore, primary data affords researchers the opportunity to explore emerging trends and issues that may not be adequately reflected in existing datasets. The dynamic nature of socio-economic conditions requires an adaptable research approach, and primary data collection allows for the exploration of evolving circumstances and the identification of new factors influencing wealth-building trajectories for Black women. By staying attuned to the changing landscape, researchers can provide more timely and relevant insights, contributing to a more accurate and actionable body of knowledge for policymakers, educators, and advocates working towards economic empowerment for Black women.

marital partnerships is often shared, attributing financial outcomes solely to the efforts of Black women may not accurately reflect their individual economic contributions. This limitation underscores the necessity of considering alternative approaches, such as focusing specifically on single Black women, to disentangle the impact of individual efforts from marital dynamics in the wealth-building process. Focusing a study on single Black women could offer a more precise understanding of the economic agency and strategies employed by these individuals in isolation from spousal influences. By narrowing the scope to this demographic, researchers can explore the unique challenges and opportunities faced by single Black women in wealth accumulation. Understanding how this subgroup navigates financial decisions, investments, and entrepreneurial endeavors independently provides insights that are directly applicable to policy interventions and support systems tailored to their specific needs. This approach not only addresses the potential confounding factor of shared marital wealth but also sheds light on the resilience and resourcefulness of single Black women in the pursuit of financial success.

However, it is important to acknowledge that focusing exclusively on single Black women may also present challenges. The diversity within the Black female demographic includes variations in educational attainment, employment opportunities, and other socio-economic factors that can impact risk tolerance and wealth building. Therefore, while focusing on single Black women may provide a clearer lens on individual financial agency, it is essential to consider broader contextual factors to avoid oversimplification and ensure the findings are representative of the diverse experiences within the entire spectrum of Black women. A balanced approach that recognizes both the collective and individual aspects of wealth building among Black women could provide a more comprehensive understanding of the dynamics at play.

Conclusion

As noted at the outset of this disseration, the disparity in wealth accumulation between Black women and non-Black women living in the United States is a topic worthy of discussion and study. This dissertation was conceptualized to examine the intersectionality of being Black and female in relation to risk tolerance and wealth accumulation. Specifically, the influence of education, perceived gender roles, and the willingness of Black women to tolerate risk when making household financial decisions was investigated to determine the associations across these variables with the wealth accumulation of Black women. It was determined that contrary to popular belief, Black women are more willing to take financial risks than non-Black women. This willingness, however, has not resulted in greater wealth accumulation. This wealth/risk tolerance paradox can be addressed, to some extent, by understanding how education and wealth mediate the relationship between being a Black female and risk tolerance. The paradox can also be explained by understanding how the wealth accumulation of Black females is moderated by risk tolerance.

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