

INCLUSIVE FINANCIAL WELLBEING AND EMPOWERMENT: AN INTERSECTIONAL
ANALYSIS

by

TIMI JOY JORGENSEN

(Under the Direction of Kenneth White)

ABSTRACT

Using the Inclusive Financial Wellbeing Empowerment Model, this research explored financial wellbeing as the culmination of three dimensions – Access, Action, and Affect, as it interacts with ten unique identity groups including Indigenous, Black, Hispanic, Asian, and White men and women. The model is explored using both hierarchical regression and ANOVA tests on the National Financial Capability Survey. Given the diversity of the U.S. and the complexity of consumer’s financial lives, this research explored the commonalities and divergent trends in financial wellbeing. Results indicated that when using the overall sample, financial stress is the most significant predictor of financial wellbeing. Despite the overall sample supporting existing literature, many divergent results were identified in the intersectional analysis. Identity specific regression analyses showed that each identity group had entirely unique predictors of financial wellbeing. Results suggest that empowerment is the key to improving financial wellbeing. Initiatives should focus on increasing confidence, satisfaction, and self-efficacy while reducing financial stress, including worry, shame, and anxiety.

INDEX WORDS: Financial wellbeing, inclusion, empowerment, intersectional analysis

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DEDICATION

To Mike for being the yin to my yang, the zig to my zag, the Jim to my Pam. I'm so grateful to have a partner in life that has put up with me, my bulldozer drive and insatiable desire to fix the world for 20 years. Thanks for two beautiful kids, for loving our dog, and for supporting me through the most intensely tragic and joyful four years of my life. I cannot thank you enough for the life we have built together. I am who I am because of you.

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PREFACE

My first profession was cosmetology, which allowed me to work in a salon while I pursued my Associate degree in business management, then my Bachelor's degree in financial planning. I worked at Great Clips, so my clients were generally the "average American." I often talked about the exciting new profession I was working toward – financial planning. Almost without exception, people's reaction was some variation of this sentence, "Boy, I could really use that!" or "I'm terrible with money." I got pretty used to hearing that, and interestingly, the response came from everyone, men, women, old, middle-aged, and young. Stress and insecurity about the decisions people were making with their money was fairly universal. I was fascinated by the consistency of this prevailing affectual trend toward doubt, despair, shame, and anxiety around money and financial matters.

After graduating with my bachelor's degree, I worked with a small financial planning firm as an associate advisor and operations manager. I spoke with the clients, sat in on meetings and took notes, prepared sections of the financial plans. My interactions with clients, despite an age difference of more than 40 years in most cases, would result in them disclosing some degree of financial anxiety to me. Outside of work, my own family and friends were reaching out and expressing their anxiety, fear, or shame around their own financial circumstances.

When the opportunity to attend graduate school presented itself, I was eager to learn more about how people think and feel about money. I began my graduate studies with an

assistantship doing community based financial education, Discovering Money Solutions (DMS). I was so excited to work on the project, and was even more excited when I met the team and read the DMS curriculum. The intervention was grounded in both Solution-Focused and Cognitive Behavioral Therapy techniques. Developing, administering, and observing the changes that came from that intervention reinforced and built on my previous experiences. People needed as much help understanding how they could change their negative feelings and unhelpful thought patterns with money as they did with money management or financial education. The new information I understood after DMS was that there was a difference in how men and women processed their relationship with money. I attributed this largely to my own positionality as a woman – but further research into financial wellbeing has confirmed that men and women *do* feel differently about their money.

After working on community financial education, I did one-on-one financial planning with professional students. In 6 months, I was able to meet with over 100 law, pharmacy, and veterinary medicine students to discuss their individual circumstances. The financial planning concerns ranged, but every person that came in was dealing with feelings of anxiety, shame, worry, and stress.

Some of the common stressors for both low-income families and lower SES college students were limited access to optimal financial services, not acting on available financial options, and the increased financial anxiety and stress of limited resources. While working with professional students, there was a stark difference between first generation college students, women, and students of color as compared to the continuing generation college students, men, and white students. Some students would come in and express incredible guilt and shame around their financial situation when they had a grandparent or parent paying for their professional

education. There was incredible pressure to be wise with such a generous gift. On the other hand, I had first generation college students who were trying to figure out how to get access to more student loan funds because they had to assist their family with a financial emergency – which similarly caused incredible stress and anxiety. Although the stress, shame, worry, and anxiety happened with both groups, the underlying causes were different.

In my journey to understand the intellectual puzzle of financial wellbeing, I focused my coursework on critical feminist studies, as it was a commonly indicated trend that people of color and women fared worse in the world of personal finance. Underlying the deconstructionist ideology of critical feminist theories, there is a common thread of humanity, and of the shared struggle of the human experience despite the uniqueness of every individual's life world. Brené Brown, a noted shame researcher, shared that there is a “universality of our most private struggles” (2006, p. 50). My experiences have indeed led me to see the universality of money. Regardless of the specifics of the situation, there was both a universality to money and how people felt about dealing with their money, and a nuance to the uniqueness of each individual's circumstances based on who they were and what social space they occupied.

The culmination of these experiences led me to consider a few questions that have guided this dissertation work. First, was there a framework that could help me understand the duality of a hyper-individual and simultaneously universal experience? Second, were my anecdotal experiences about financial stress, shame, and worry true for the population at large? And third, how do the intersection of gender and racial or ethnic identity impact how people experience money? This dissertation is not just the culmination of my graduate studies, but my fifteen-year pursuit of a more elevated understanding of the nuanced and universal aspects of money.

CHAPTER 1

INTRODUCTION

Americans are more stressed about money than relationships, jobs, or any other stressors (American Psychological Association, 2016; Northwestern Mutual, 2018). Research has shown that financial stressors are not unique to one income bracket (CFPB, 2015). Rich and poor alike are no stranger to financial stress. In the 2019 documentary, “One Nation, Under Stress” Dr. Sanjay Gupta shares the alarming side-effects of constant and relentless financial stress and scarcity on the nation – increased rates of depression and anxiety, heart disease, liver disease, stroke, heart attack, substance abuse, and suicide. The combination of scarcity, both of time and money, as well as financial shocks have deteriorated the financial well-being of the American middle-class (Lurtz, 2019). The White middle class is experiencing the largest increases in stress-based diseases and deaths. Black and Hispanic populations consistently experience stress-induced mortality and wellbeing concerns disproportionately to their White counterparts as a result of systematic classism and racism (Pinkerson & Levin, 2019). Systematic classism and racism result in compounding effects of lower lifetime earnings, limited access to optimal financial services, and additional barriers to achieving financial independence and wealth building. These factors will be explored in greater detail in this chapter.

Financial Stress and Financial Inclusion

Financial stress can lead to significant negative outcomes in health and wellbeing. These concerns include, but are not limited to, family and marital stress and conflict (Archuleta & Grable, 2011), including physical violence and abuse (Atkinson, Greenstein & Lang, 2005),

divorce (Kothokata, 2019), financial exploitation (Yeung, 2018) and financial elder abuse (Jackson & Hafemeister, 2013), depression, anxiety, high blood pressure, heart disease, and suicide (American Psychological Association, 2013b; O’Neill, Sorhaindo, Xiao, & Garman, 2005; Pinkerson & Levin, 2019; Skapinakis, Weich, Lewis, Singleton, & Araya, 2006; Weich & Lewis, 1998).

There is a universality of shared experiences. As one of the few universally shared experienced, finances act as a common stressor for the general public. Attending to the universality of financial stress is central to this analysis, while also using a critical lens to examine how race, gender, and other demographic variables impact financial wellbeing. As financial stress has grown and research has expanded, many researchers and academic minds have found financial empowerment to be the appropriate tool to alleviate that stress in clients. Financial empowerment is “to help individuals who feel inadequate in handling a situation to discover the capabilities that reside within them” (Ford, Baptist, & Archuleta, 2011, p.22). Inclusive financial empowerment must attend to the specificities of each individual. Before diving to the individual level, this research examines the systematic trends that impact individuals based on race, ethnicity, and gender.

There is a significant racial wealth gap and a gender pay gap in the U.S. , and although the gender pay gap has shown signs of improvement, the racial wealth gap is getting worse (Donovan, Labonte, & Dalaker, 2016; Leyshon & Thrift, 1995; Narayan, 2013; Yeung, 2018). Nearly 63% of minimum wage workers are women, while only 5% of CEO’s are women (U.S. Department of Labor, 2017). This severe overrepresentation among the lowest paid position and unbelievable disparity in leadership is true across all industries, with the largest discrepancies occurring in finance related fields (Bureau of Labor Statistics, 2017). According to the most

recent data from the U.S. Census Bureau (2014), the wealth of Black Americans is roughly 7% that of White Americans. The median net worth of American households by race was \$156,500 for Asian, \$130,800 for White non-Hispanic, \$9,590 for Black, \$17,530 for Hispanic, and as of 2000 (the last time it was measured by the Census Bureau), was just \$5,700 for Indigenous households (U.S. Census Bureau). It is important to recognize that significant within-group discrepancies exist for Asian and White households. The wealthiest Asian Americans hold 168 times more wealth than the poorest Asian Americans. The wealthiest 10% of Whites hold 121 times as much wealth as the bottom 10% of Whites (U.S. Census Bureau, 2015). In the sixty year period between 1983-2013 White household wealth grew by 14%, while Black household wealth declined by 75% and the median Hispanic household wealth declined by 50% (Asante-Muhammad, Collins, Hoxie, & Nieves, 2017). The realities of the current moment in history must be considered in the pursuit of academic significance. Financial wellbeing impacts the lives of millions of Americans, and this research strives to make an impact in the space where academic and practical significance overlap.

Inclusion is the intentional and concerted effort to understand and accommodate all identities. Taking into account the systematic divergence between groups, inclusiveness in financial advice is needed in order to explore economic growth and stability, social justice, as well as financial, health and wellness outcomes. In the most recent reports, the U.S. Census Bureau (2015) has published projected demographic changes for the U.S. through 2060, many of which will have significant financial implications for Americans. This changing American demographic makeup is a compelling reason to understand more globally how financial wellbeing is both universal and divergent across-groups.

Projected demographic changes can give insight into how the financial wellbeing research can continue to evolve and contribute in the flux of new socio-political and economic landscapes. Several key findings by year from the U.S. Census Bureau's Projections of the Size and Composition of the U.S. Population: 2014 to 2060 (2015) are outlined and discussed below. The projected demographic shifts and their corresponding dates are listed in Table 1.

Table 1

U.S. Population Projected Demographic Changes

Year	Projected Demographic Changes
2020	Fewer than half of American Children born will be Non-Hispanic White
2028	Highest foreign-born population percentage since 1850
2030	All baby boomers will be 65+, making 1 in 5 Americans retired More population increase due to immigration than birth Women control 2/3 wealth in America
2035	Senior Citizens (65+) will outnumber children (<18) for first time in American history 1 in 5 Seniors will be 85+
2045	Majority Minority Country Fastest growing population segment is multiracial
2060	1 in 6 Americans is foreign-born 33% of children are non-Hispanic white 50% of adults are non-Hispanic white

Note: Assembled using information from the U.S. Census Projections Report (2015).

Beginning in 2020, less than half of the children born will be non-Hispanic White. This is historically significant, both because it is unprecedented, and because it is the first systematic change of many in the sweeping shift of the ethnic and racial makeup of the U.S. (U.S. Census Bureau, 2015).

In 2028, the U.S. will have the highest foreign-born population as a percentage of the country since 1850. The increased foreign-born population is a function of both steady

immigration (of primarily Asian origin) and the steady decline in birthrates. The declining birthrate is also a function of the increased death rate among the Baby Boomer cohort as they transition into older adulthood and the lower rates of birth occurring among White households. As of 2030, one in five citizens will be eligible for Social Security retirement benefits, and with the increased death rate of a large older population, immigration passes natural birth as the driver of population increase. In 2030, women will control 67% of the wealth in the U.S. – a first in American history (U.S. Census Bureau, 2015).

By 2035, one in five senior citizens will be 85 years old or older, and older Americans (65 years old or older) will outnumber children (18 years or younger) for the first time in American history. Racial and ethnic minorities will surpass White non-Hispanic populations for the first time since the colonization of North America by European settlers. From this point on, the group with the largest anticipated growth is Americans who identify as “multiracial”. Growth among all non-White groups will grow, with unique drivers for each group. Black, Hispanic, and multiracial American population growth will occur through natural birth rate increases. Asian American population growth will primarily increase due to immigration. White non-Hispanic population is expected to experience a net decrease of 19 Million people through an increased death rate of older Whites, as well as a declining birth rate among Whites. The culmination of all of the trends is that by 2060 one in six American’s will be foreign-born, one in three children will be non-Hispanic White, and half of adults will be non-Hispanic White (U.S. Census Bureau, 2015).

These projected demographic changes in the next four decades will have a profound impact on future economic growth and stability, social justice, and financial, health, and wellness outcomes. The impact on each of these areas could potentially be mediated by increased

financial wellbeing and inclusion in the financial advice industry, combined with legal, governmental, and social changes.

Income inequality is a growing concern for the U.S. as well as many other countries (Asante-Muhammad, Collins, Hoxie, & Nieves, 2017; United Nations, 2006). Life-time earning trends by race and gender show the results of continued systematic racism and sexism. Figure 1 shows the median and Figure 2 shows the mean earnings across the life span by ethnicity and gender, in the United States, based on U.S. Census income data (2017) and earnings reports from the Bureau of Labor Statistics (2019).

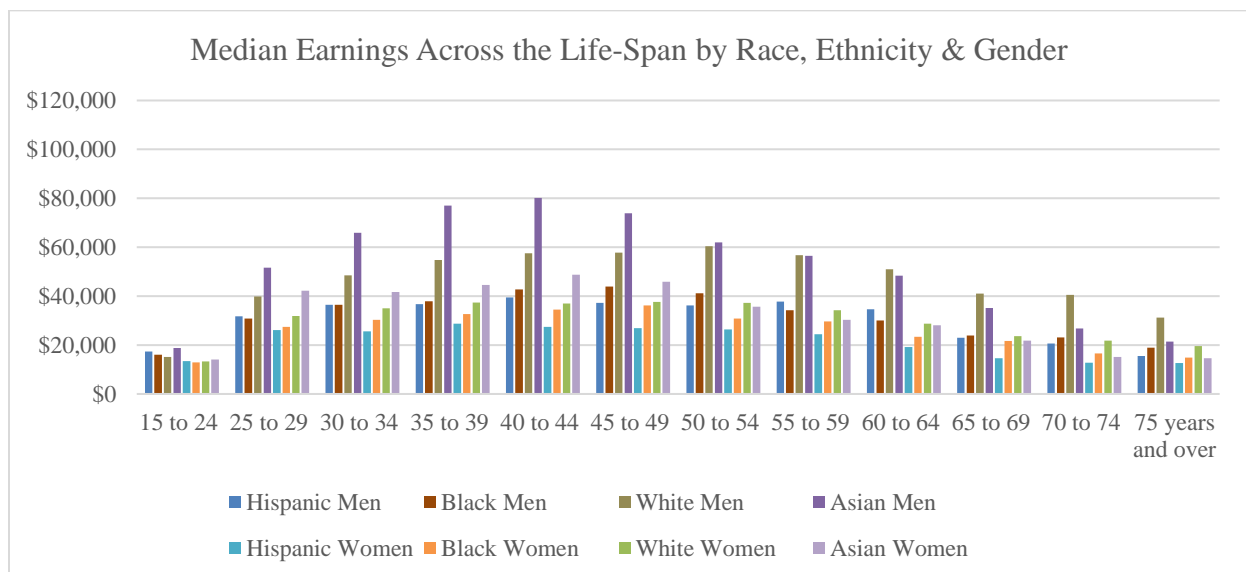


Figure 1. Median earnings across the life-span by race, ethnicity, and gender. Assembled using information from the U.S. Census Projections Report (2017).

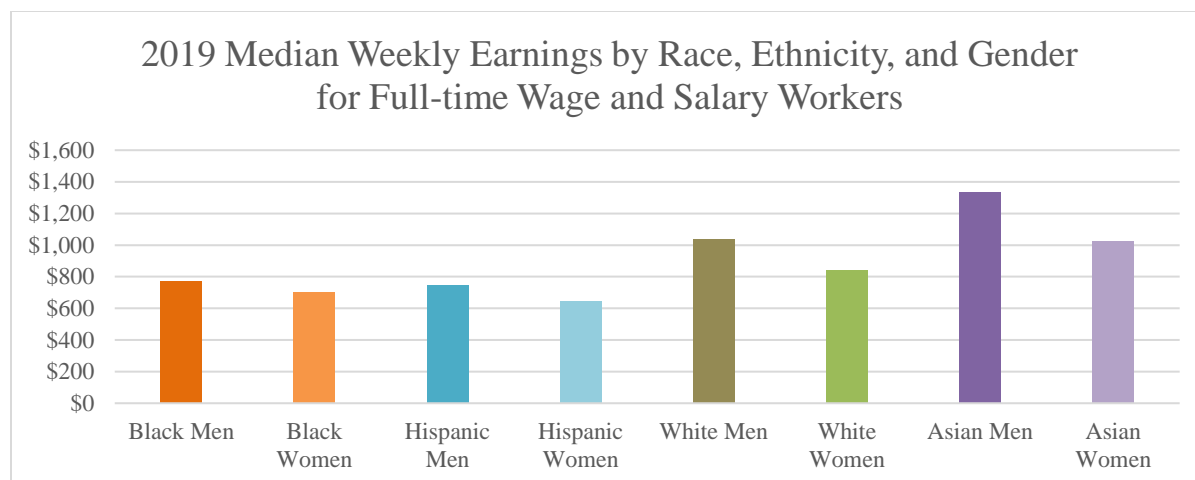


Figure 2. 2019 median weekly earnings by race, ethnicity, and gender for full-time wage and salary workers. Assembled using information from the U.S. Bureau of Labor Statistics (2019).

As shown in Figures 1 and 2, there are significant differences in lifetime earnings based on race and gender. Lifetime income is arguably the most important factor when considering wealth accumulation and the types of financial choices that are available to consumers. Multiple jeopardies exist for women of color. Women of color experience the intersecting disadvantages of the gender wage gap and the race wealth gap resulting in perpetually lower lifetime earnings (Crenshaw, 1989, 1990). Women of color are essentially participating in a third world economy nested within the larger U.S. economic system (Yeung, 2018). Pointing out the inequality that women of color face is not merely to point to a trend, but to call attention to the system that upholds historically situated and consistently perpetuated inequality and exploitation of women of color (Narayan, 2013). As women of color become a majority in the coming three decades, these trends will disproportionately disadvantage the entire country.

In addition to ethno-historical factors, cultural differences exist that impact values, attitudes, and spending patterns among different racial and ethnic groups (Bowen, Lago, & Furry, 1997; Gudmunson & Danes, 2011). Gale, Ross, Thomas and Boe (2020) stated, “Our

relationship with money is not neutral. Money has symbolic and real consequences in our lives. Financial dynamics shape our identity, affect our relationships, and provide the means to attend to personal, familial and community survival, as well as luxuries.” (n.p.) Gale and colleagues call for more critical financial research, focusing intentionally on underserved populations.

Financial outcomes differ in importance and relevance for different wealth and income levels (Robb, Babiarz, & Woodyard, 2012). Areas of advice that attend to financial literacy, wellbeing, or capability are applicable to all wealth levels, such as financial anxiety, credit scores, behavioral adjustments, and debt management. The Consumer Finance Protection Bureau has stated that financial wellbeing is the primary focus of financial education and literacy efforts. “An essential part of the mission of the Consumer Financial Protection Bureau (CFPB or Bureau) is empowering consumers to take control over their financial lives” (CFPB, 2015, p. 8). In an effort to make a contribution to the academic world, and an effort to produce nuanced knowledge that is inclusive of all people, this research uses intersectional analysis as the main tool for exploring and understanding nuance.

Intersectionality

Intersectionality as a formal academic ideology was popularized by Kimberle Crenshaw’s (1991) exploration of violence against women of color, and the term *intersectionality* was originally articulated by Patricia Hill Collins (1990/2000) in her historic articulation of Black feminist thought. Intersectionality is a tool to understand the complexity in people’s lived experiences. Lives are “better understood as being shaped not by a single axis of social division, be it race or gender or class, but by many axes that work together and influence each other” (Collins and Bilge, 2016). The strength of intersectional research is that “it exposed how single-axis thinking undermines legal thinking, disciplinary knowledge production, and struggles for

social justice” (Cho, Crenshaw, & McCall, 2013, p. 787). Collins and Bilge (2016) introduce intersectional analysis this way:

“Rather than seeing people as a homogeneous, undifferentiated mass, intersectionality provides a framework for explaining how social divisions of race, gender, age, and citizenship status, among others, positions people differently in the world, especially in relation to global social inequality. Some people are far more vulnerable to changes in the global economy, whereas others benefit disproportionately from them. For example, income differences that accompany labor market practices of hiring, job security, retirement benefits, health benefits, and pay scales do not fall equally on everyone.” (n.p.)

The strengths of an intersectional analysis are directly in line with understanding the nuance that exists within the financially stressed homogenous mass. There are four specific types of intersectional analysis, including: (a) matrix analysis, which is an exploratory analysis tool to identify which axes should be included in an intersectional analysis; (b) among-intersection analysis, which explores divergent experiences across the chosen intersectional identities; (c) within-intersection analysis, that dives deeply to understand the unique differences within one intersectional identity; and (d) process analysis (i.e. explores how specific intersectional identities are reproduced and altered over time) (Gopaldas & Fischer, 2012).

The current research used among-intersection analysis to identify the divergent experiences across ten intersectional identities. The theoretical model for the paper will be introduced next, followed by the research questions and hypotheses, and finally, the relevance of this analysis will be explored.

Inclusive Financial Wellbeing Empowerment Model

The Inclusive Financial Wellbeing Empowerment Model (IFWEM) guided this research. This model was developed as the first goal of the current research, using inductive methods. Both grounded theory methodology and thematic analysis were used to incorporate financial wellbeing literature (CFPB 2015 & 2017) and seminal financial wellness research (Joo, 2008), social inclusion theory (Gidley, Hampson, Wheeler, & Bereded-Samuel, 2010), intersectionality research on gender, culture, and consumer behavior (Gopaldas & Fischer, 2012), and empowerment intervention research (Ford, Baptist, & Archuleta, 2011). Model development is covered in detail in chapter two.

The IFWEM evaluates financial wellbeing across three nested dimensions that addresses barriers to inclusion. The dimensions, which commonly are used in inclusivity research include macro (access), meso (action), and micro (affect) levels. The first dimension, or the macro level, is access. Access refers to the accessibility of financial services and is measured through the sub-dimensions of banking, access to credit, stability of income, and financial knowledge. Accessibility is conceptualized based on the prerequisite nature of these sub-dimensions for the next dimension of the model. The second dimension, or meso level, is action - referring to financial actions or behaviors, including earning, spending, savings, and planning behaviors. In practice, a consumer would need to be familiar with and have access to banking in order to take action in positive spending and saving behaviors. The accessibility of financial knowledge and credit are prerequisites to positive credit behaviors. Access to a steady source of income is a prerequisite to taking actions toward a balanced budget. The third level is the micro level, and the Affect dimension – or how people think and feel about their money and their relationship with money. This dimension includes both self-perception items and self-reported worry and

anxiety. Once a person has access, and takes action, they still need to feel good about their behaviors in order to achieve optimal financial wellbeing. Figure 3 provides a visual representation of the model.

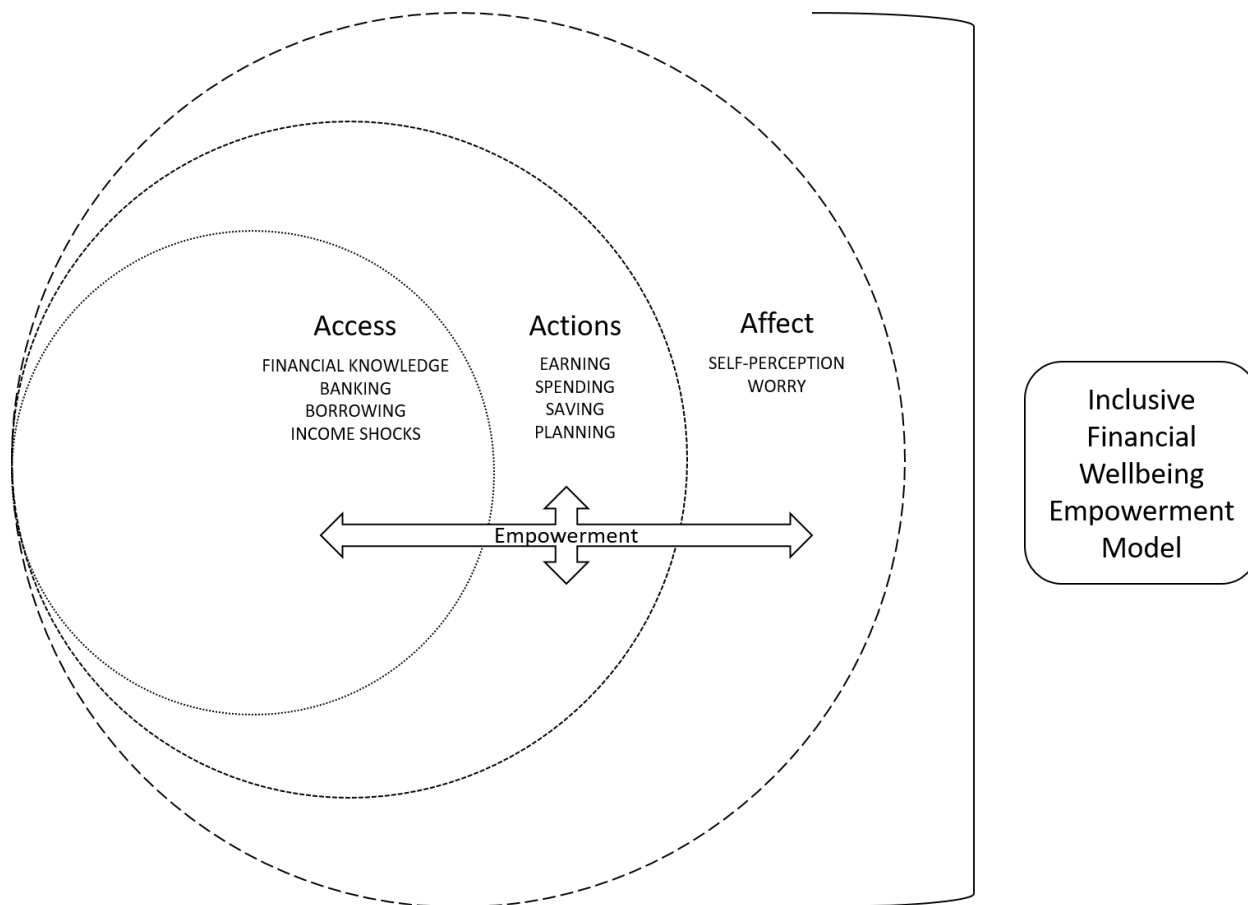


Figure 3. The Inclusive Financial Wellbeing Empowerment Model. Created by Timi Jorgensen, 2020.

The empowerment component of the IFWEM is illustrated by the four-directional arrow. Empowerment is an important part of the model because it brings together the goals of the CFPB

wellbeing research as well as the culmination of inclusive research. The culminating achievement of inclusion research is empowerment, and the CFPB (2015, p. 45) stated,

“practitioners are uniquely positioned to motivate and empower the people they interact with to engage in behaviors to improve their financial well-being—by connecting those behaviors to their personal goals and aspirations, by evoking their personal vision of a ‘good life,’ and by fanning their sense of purpose. Practitioners can empower consumers by helping them develop key skills, offering proven strategies, and sharing the experiences of many others. They can help people connect their goals to financial plans, their plans to day-to-day behaviors, and their behaviors to decisions carried through to completion.”

Empowerment is a four-way arrow in the model to represent that empowerment is an individual effort. Depending on an individual’s needs, empowerment can address concerns of access, action, or affect. The four-way arrow conceptualization was inspired by the Ford Financial Empowerment Model, which reinforces an empowerment standpoint that people are “naturally resourceful, possessing energy, creativity, and power” (Ford, Baptist & Archuleta, 2011, p. 33).

Goals, Research Questions, and Hypotheses

The current research has three goals, (a) conceptualize a more inclusive financial wellbeing model, including dimensions, sub-dimensions, and operationalizing the concepts (i.e., IFWEM); (b) understand the relationship among the dimensions of IFWEM (access, action, and affect); and (c) explore the differences among the 10 intersectional identities across each of the three dimensions of the IFWEM. Based upon previous literature and theoretical orientation, the following research questions and corresponding hypotheses were developed:

RQ1: Which dimension of the Inclusive Financial Wellbeing Empowerment Model is most predictive of financial wellbeing?

H1: Among the three dimensions, affect will be the most predictive of financial wellbeing in the overall sample.

RQ2: How does intersectional identity impact each dimension of the Inclusive Financial Wellbeing Empowerment Model (i.e. access, action, and affect)?

H2: The intersecting identities of race, ethnicity, and gender will significantly differ in mean access scores.

H3: The intersecting identities of race, ethnicity, and gender will significantly differ in mean action scores.

H4: The intersecting identities of race, ethnicity, and gender will significantly differ in mean affect scores.

RQ3: What within-group nuances does the IFWEM reveal about most predictive variables of the financial wellbeing of each intersectional identity?

H5: Model fit will be most predictive of the financial wellbeing of White women and men.

H6: Significance among independent and control variables will be different for the financial wellbeing of each of the 10 intersectional identities.

Summary

The primary strength and most difficult challenge for this research is the breadth of topics and research that it attempts to bring together into one model. The scope is inclusive, and inductive theoretical development combined theoretical components from three disciplines into one inclusive model of financial wellbeing. In this way, “inclusive” refers to both attending to individual identity, as well as to the scope of factors included in model development. This

research responds to a gap in the literature regarding future financial wellbeing concerns among a very diverse population, facing a wide variety of financial concerns - and can impact the field of financial planning, financial education, and financial wellbeing, as well as add to intersectionality research.

This research adds to the literature by exploring financial wellbeing using a critical intersectional analysis, as well as through the development of the Inclusive Financial Wellbeing Empowerment Model. Rapid demographic shifts as well as critical level of financial stress affecting millions of Americans will render the current base of knowledge inadequate.

Financial tasks, such as earning, budgeting, saving, spending, investing, and retiring are not specific to one group of people or income level, but rather, are universal. This consistent interaction with money is one of relatively few universally shared experiences, and although interaction with money is universal, the specifics of those interactions with money are unique and nuanced for each individual. Differences around money exist on many levels, including values, attitudes, and behaviors (Gale, Ross, Thomas & Boe, 2020). The universality of money has incredible untapped potential to be inclusive, empowering, synergistic, and cohesive. Financial empowerment and inclusion can improve wellbeing and foster financially empathetic individuals, families, and communities (Thomas, 2017).

CHAPTER 2

LITERATURE REVIEW

Over the past 25 years, researchers and policy makers have become increasingly concerned about the state of financial wellbeing for American consumers (Financial Literacy and Education Commission, 2003; Lusardi & Mitchell, 2007a; Office of Financial Education, 2003). Financial product markets have become more complex and the burden of decision making has moved from employers to employees (Garman and Kim, 2003; Gonyea, 2007; Krajnak, Burns, & Natchek, 2008; Vitt, Reichbach, Kent, & Siegenthaler, 2005). In addition to the aging population (US Census Bureau, 2015) and several economic crises, economic stability for the general public has been pushed into the spotlight through financial knowledge, literacy, and ultimately financial wellbeing efforts.

During the George W. Bush administration financial literacy and education became a central focus of the federal government, and subsequently became a focus for state and local governments, non-profit organizations and coalitions, practitioners and researchers (Houts & Knoll, 2012). Hundreds of non-profit groups, thousands of researchers, and several hundred governmental agencies that have a vested interest in the financial literacy space (Houts & Knoll, 2012). The U.S. is not alone in our concern about the challenges consumers face as they consistently navigate the complicated financial choices across their life-span. The Organization for Economic Cooperation and Development (OECD) is a collective of 34 governments alongside 70 non-member economies working toward prosperity, economic growth, and sustainable development (CFPB, 2015). Within OECD, the International Network on Financial

Education (INFE), has defined financial literacy as “a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing” (OECD INFE, 2011, p. 3). The OECD INFE membership agreed that although the concepts being studied in different countries and across multiple disciplines were slightly different, they “could be used relatively interchangeably as they reflect similar perceptions of the reality they aim to cover” (OECD INFE, 2011, p. 3). Similarly, the first objective of this research was to assemble a framework that could effectively bring together these relatively interchangeable concepts to create a more global understanding of the reality of financial wellbeing, through the development of the Inclusive Financial Wellbeing Empowerment Model.

Model Development

The first research objective was to conceptualize a more inclusive financial wellbeing model, one that was more fluid and representative of lived experience. The most difficult challenge for this research is the breadth of topics and research that it brings together into one model. Inductive theoretical development brought together existing theories from social inclusion, financial planning, and financial therapy into one inclusive model of financial wellbeing. Social inclusion theories use inclusion to attend to the individual. In this way, “inclusive” refers to both attending to individual identity, as well as to the disciplines considered in model development. The research began with understanding the financial wellbeing framework and models available. Joo (2008) explored a financial wellbeing framework that situates financial wellness as part of overall wellbeing, which is shown in Figure 5. According to Joo, financial wellness is influenced by four main factors. First is objective financial status, second is financial satisfaction, third is financial behaviors across several areas of personal

finance, and fourth is subjective perceptions which includes both financial attitudes and financial knowledge.

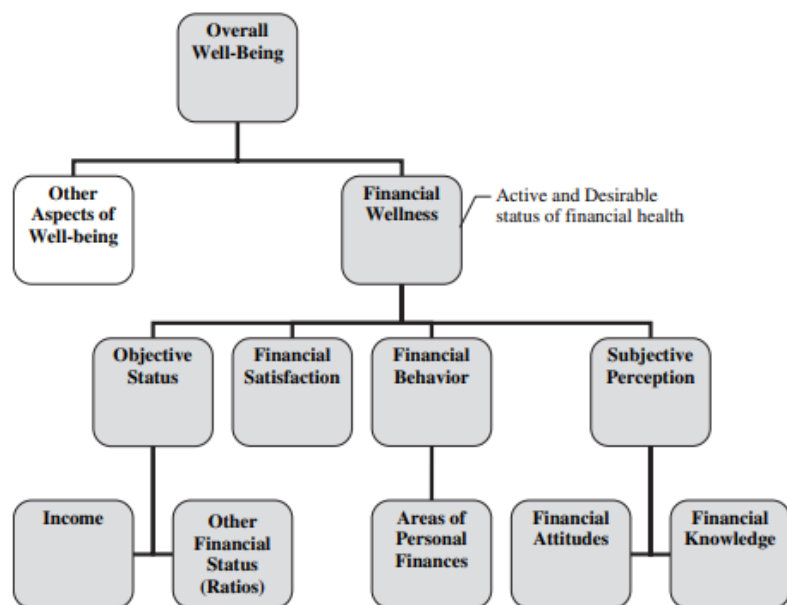


Figure 4 Financial wellness diagram. Original representation found in “Personal Financial Wellness,” by Sohyun Joo, 2008, *Handbook of Consumer Finance Research*, p. 30. Copyright 2008 by Springer.

Taking into consideration all these factors as known antecedents for financial wellbeing, the next step was to consider a framework that focused on the universality of financial matters in a way that could account for intersectional differences among and between groups. The main theoretical guidance for the inclusive requirement came from Social Inclusion Theory (2010), which focuses on the inclusion of underserved groups with the ultimate goal of empowerment. Social inclusion theory is a three level nested model that is influenced by many different ideologies. Figure 6 shows the theoretical model for Social Inclusion Theory (Gidley, et al, 2009), including the contributing theories, and common phrases used in the literature describing each dimension.

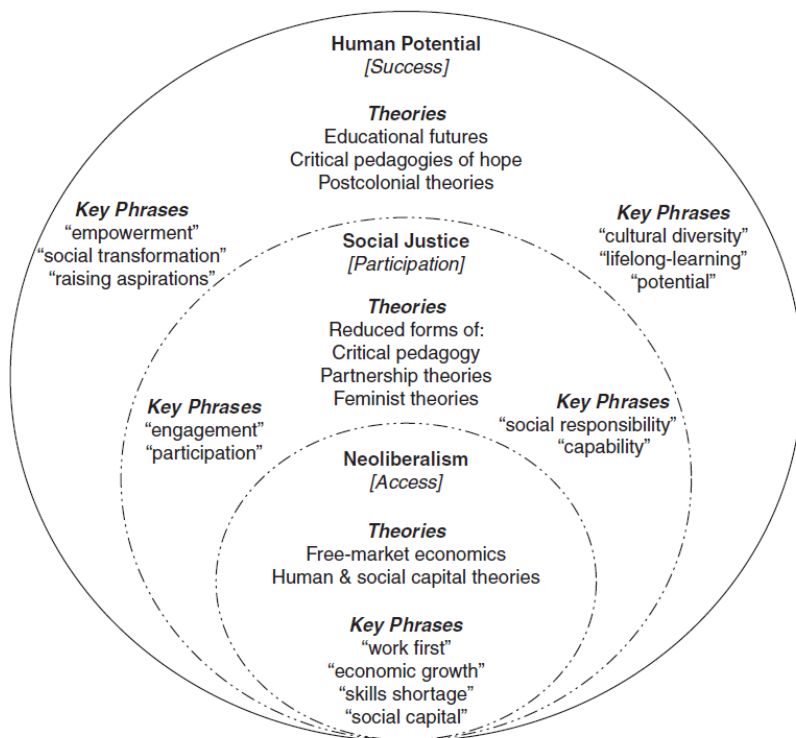


Figure 5. Nested model of Social Inclusion Theory and underlying ideologies. Original representation found in “From access to success: An integrated approach to quality higher education informed by social inclusion theory and practice,” by Jennifer M. Gidley, G. P. Hampson, L. Wheeler, and E. Bereded-Samuel, 2010, *Higher Education Policy*, 23(1), p. 131. Copyright 2009 by Dr. Jennifer M. Gidley.

The ultimate goal of the inclusive financial wellbeing model was to be able to inform practice through empowerment. The Ford Financial Empowerment Model (Ford, B & Archuleta, 2011) from the financial therapy literature informed the practical component that would allow practitioners to work toward financial wellbeing in an inclusive way with all clients.

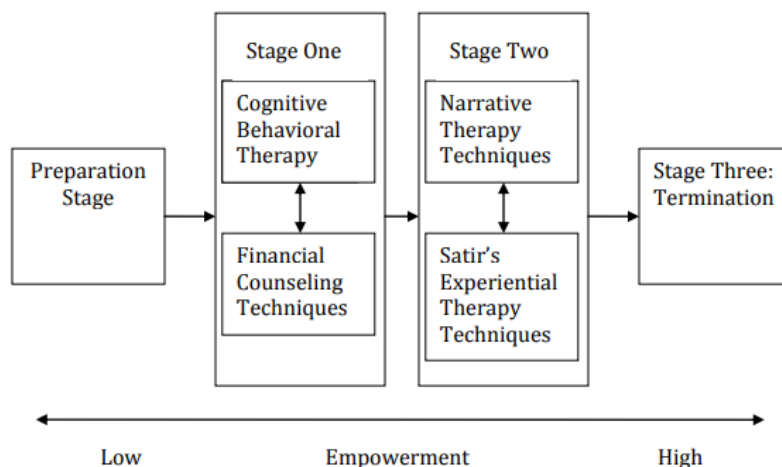


Figure 6. Ford Financial Empowerment Model. Original representation found in “A theoretical approach to financial therapy: The development of the Ford Financial Empowerment Model,” by M. Ford, J. Baptist, & K. Archuleta, (2011). *Journal of Financial Therapy*, 2(2), 1. Copyright 2011 by the Financial Therapy Association.

Primarily using the variables described in the financial wellbeing framework, and the organization and mapping model from social inclusion theory and the Ford Financial Empowerment Model, the Inclusive Financial Wellbeing Empowerment Model was created. Figure 3 illustrates the model, and lists the sub-dimensional constructs that will be explored further in the next sections of this chapter.

Financial Wellbeing

The Consumer Finance Protection Bureau (CFPB) focused on financial literacy and education on financial wellbeing by developing a definition and scale to be used across disciplines to facilitate synergistic research (2015). The CFPB definition and scale have been used widely by national surveys (CFPB data, National Financial Capability Study) practitioners, and researchers (Birkenmaier & Fu, 2016; Haque & Zulfiqar, 2016; Patel & Wolfe, 2019;

Warmath & Zimmerman, 2019) for five years. This research is joining the ranks of researchers using the CFPB definition and scale.

The CFPB defines financial wellbeing as “a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life” (CFPB, 2015). The guiding research question for the development of the financial wellbeing definition and scale was, “Given people’s current financial circumstances, how can they make the best of their situation?” (CFPB, 2015, p. 5).

Financial wellbeing is a continuum from severe financial distress and fragility on one end to financial satisfaction and wellbeing on the other. According to the CFPB (2015), given access to resources and adequate support and encouragement, consumers can move up the continuum and achieve financial wellbeing. The four quadrants that help achieve financial wellbeing are (CFPB, 2015, p. 19):

1. Control of day-to-day, month-to-month finances;
2. The capacity to absorb financial shocks;
3. Being on track to meet financial goals;
4. Financial freedom to make choices that allow one to enjoy their life.

With these four quadrants of financial wellbeing in mind, control variables and independent variables were chosen. Figure 2 cross-references the Four Elements of Financial Wellbeing and the dimensions and sub-dimensions of the IFWEM. The following sections will explore the control variables, independent variables, and the literature linking them back to financial wellbeing.

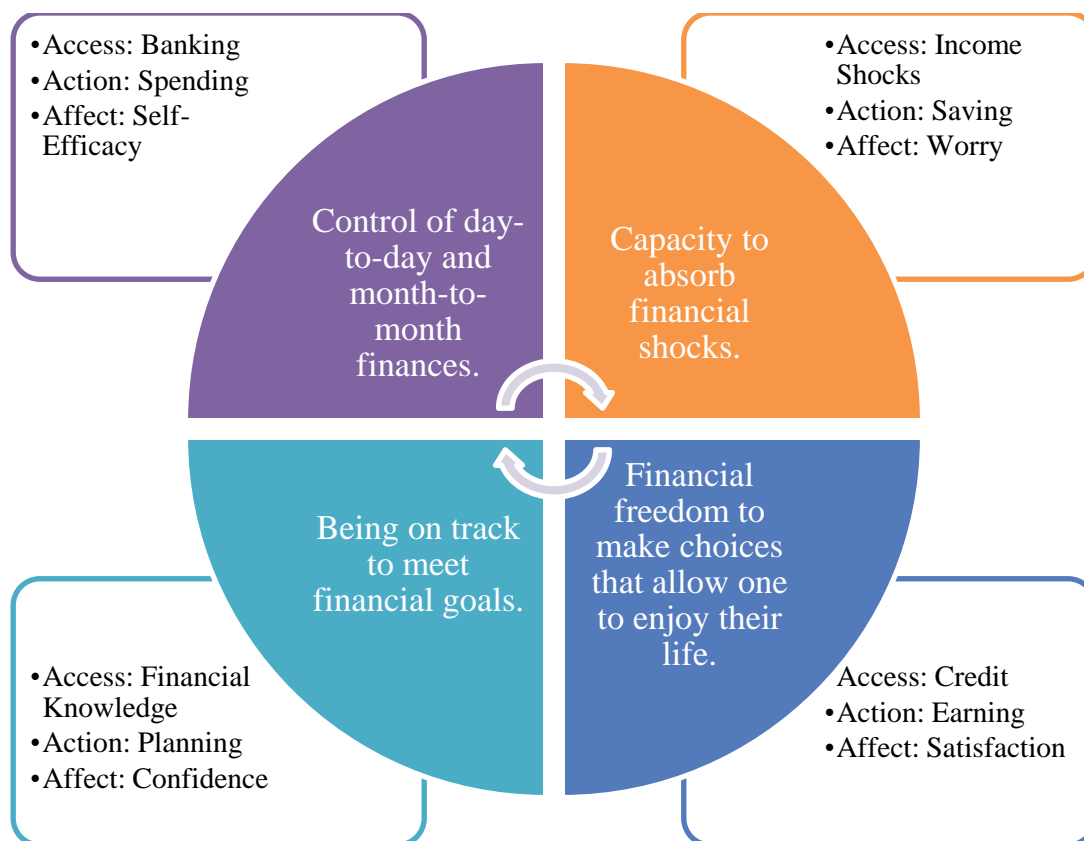


Figure 7. Four Elements of Financial Wellbeing by Dimensions of IFWEM

Socioeconomic Factors

This research will use the following common control variables; gender, race or ethnicity, age, education, income level (Bucher-Koenen, Lusardi, Alessie, & van Rooij, 2014; Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012), marital status (Fonseca, et al., 2012), and risk tolerance (Grable, 2000).

Education, Income, and Age

Education and income are significantly correlated with financial literacy and wellbeing (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012; Lusardi & Mitchell, 2008, 2011; Mahdavi & Horton, 2014; Rowley, Lown, & Piercy, 2012; van Rooij, Lusardi, & Alessie, 2011). It has been widely found that lower levels of income and education are linked to lower levels to

financial wellbeing (CFPB, 2015). Income and education have a compounding impact on access to financial services (Birkenmaier & Fu, 2016), financial actions or behaviors (Babiarz & Robb, 2014; Fonseca et al., 2012; Lyons, Chang, & Scherpf, 2006; Mahdavi & Horton, 2014; Rowley, Lown, & Piercy, 2012). As education increases income increases, creating an abundance of resources and therefore an absence of scarcity, and people feel better about their financial situation (Lurtz, 2019). Although these two can be highly correlated, both are included because with an intersectional analysis, these two interact very differently with different identities. As stated in chapter one, some people are much less likely to experience economic and educational achievements, whereas other people benefit disproportionately from these same achievements, and have disproportionate access to higher education and career training (Collins & Bilge, 2016; Gidley et al., 2010; U.S. BOLS, 2015).

Access, financial Actions, and Affect are all impacted by age. The lifecycle impacts earning trends, and financial stressors fluctuate across the lifecycle (Litwin & Meir, 2013). The CFPB (2015) examined norms across age groups and found that financial wellbeing increases with age, and increases more dramatically at higher income levels for older adults.

Marital Status

Marital status and work force participation are related, and according to the Bureau of Labor Statistics (2017, n.p.), “Labor force participation varies by marital status and differs between women and men. Divorced women had a higher labor force participation rate than married women, 62.5 percent versus 57.9 percent in 2016. By contrast, married men were more likely to participate in the labor force (73.1 percent) than divorced men (66.0 percent).” Marital status is a pivotal variable that impacts so many other aspects of an individual’s life, including

their risk capacity and tolerance (Grable, 2000) and wealth accumulation (Heo, Grable, & O'Neill, 2017; Kothokata, 2019).

Marital status and financial knowledge have also been linked in research. Past and present marital status and its effect on financial knowledge have been explored. For example, Fonseca and colleagues (2012) found that marriage significantly increased financial knowledge for women, and married women had higher financial knowledge than married men. Recently divorced individuals at lower levels of financial literacy than those who had never been married. Controlling for years since the divorce, financial literacy did improve over time. This research supports the national trend in the U.S. that more women are managing the household finances and that two income households are more common than single income households (Bureau of Labor Statistics, 2017).

Gender

Gender is one of the most consistently cited significant control variables in financial research (Bhabha, Khan, Qureshi, Naeem, & Khan, 2014; Demirguc-Kunt, Klapper & Singer, 2013; Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012; Griskevicius, Tybur, Ackerman, Delton, Robertson, & White, 2012; Haque & Zulfiqar, 2016; Lusardi & Mitchell, 2011; Mahdavi & Horton, 2014; Lusardi & Mitchell, 2008; Motolla, 2013; Rowley, Lown, & Piercy, 2012; Schmeiser, & Seligman, 2013; Wood, Conway, Pushkar, & Dugas, 2005; van Rooij, Lusardi, & Alessie, 2011). Research has indicated that women have less access to financial services (Narayan, 2013; Yeung, 2018). Women generally have less optimal financial behaviors, carrying higher balances on credit cards (Allgood & Walstad, 2011; Motolla, 2013), saving and investing less (Stango & Zinman, 2009; van Rooij et al. 2011; Yoong 2011), and feel more stress about

their financial situations (Archuleta, Dale & Spann, 2013; Haque & Zulfiqar, 2016; Lerner, Small, & Loewenstein, 2004; Ricciardi, 2008).

Women's financial behaviors, capability, or skills are an area of concern for researchers and policy makers. Women typically carry higher balances on credit cards (Allgood & Walstad, 2011; Motolla, 2013), and put less toward saving (Stango & Zinman, 2009; Yoong 2011). None of these trends are surprising when considering income, lifetime earning potential, and the difficulty of asset accumulation. Ruel and Hauser (2013, p. 1155) reported that, "a lifetime of lower earnings for women translates into greatly reduced wealth accumulation. A gender wealth gap remains between married men and women that we speculate may be related to gender differences in investment strategies and selection effects". Lower stock market participation among women is a known barrier to wealth accumulation and achieving financial freedom (van Rooij et al. 2011). Women not only feel more stress and worry about their financial situations (Archuleta, Dale & Spann, 2013; Ricciardi, 2008), but they also tend to be more emotionally driven when making financial decisions than men (Lerner, Small, & Loewenstein, 2004). Economic empowerment for women has been studied more in recent years. Research had indicated a need to focus on financial literacy, but also financial wellbeing and financial attitudes to achieve economic empowerment for women. (Haque & Zulfiqar, 2016).

Just as women have been studied extensively, men are generally used as the baseline for financial research. Men are noted to have higher risk tolerance (Grable, 2000), higher objective and subjective financial knowledge (Robb & Woodyard, 2011), higher confidence (Asaad, 2015; Courchane, Gailey, & Zorn, 2008), and lower worry compared to women (Wood, Conway, Pushkar, & Dugas, 2005). Men earn more than their female counterparts by race, with White and Asian men experiencing the highest rates of employment, the highest incomes, and the highest

net worth as compared to all other race/ethnicity and gender identities (Donovan, Labonte, & Dalaker, 2016).

Race and Ethnicity

According to Lee (2003), “the European-American middle class is consistently used as the point of reference from which to compare cultural practices with other national and international ethnic groups.” The financial sector has a complicated power dynamic with minority populations. Opportunities are not expressly denied them through legislative or stated goals of exclusion, but rather of partial exclusion. Communities of color are missing optimal financial services with strong consumer-directed quality standards. This vacuum of optimal financial services results in more check cashing, title loan, and gambling opportunities in minority neighborhoods. The average title loan establishment charges around 400% interest by the time a loan is repaid. Rent to own furniture and appliance stores are generally charging twice the retail price for furniture and appliances (Hilgert, Hogarth, & Beverly, 2003). These types of predatory financial services work to keep people in debt, keep people defeated, and breed mistrust of formalized institutions.

Financial socialization is the combination of spoken and unspoken, direct and observed interactions with money and finances within a family (Davidov & Grusec, 2007). Financial socialization builds the scaffolding on which financial attitudes and beliefs are made (Jorgensen & Savla, 2010). According to Grusec and Davidov (2007) there are strong cultural expectations for parents to socialize their children, and because of the close relationship and interdependence between parents and children, parents have a strong motivation to promote prosocial behavior in their children. Based on the work on culture done in examining education and home culture, research supports that financial socialization a unique experience within and across cultures,

subcultures, and home-cultures (Lareau, 2002; Irwin & Elley, 2011). Recognizing intra-cultural difference in financial socialization is significant, prior research has pointed to some fleeting, shifting, and morphing common grounds around financial socialization in cultural groups. The following five cultural literary narratives identify how Indigenous people, Black, Hispanic, White, and Asian American families organize their financial lives in the home, specifically through personal and family characteristics, as well as a review of the literature that attends specifically to each of the racial and ethnic groups.

Personal and family characteristics include the cultural and individual accumulated traits that may be common, but that cannot be assumed constant or always true for racial and ethnic groups (Gudmunson & Danes, 2011). Similarly, financial access, behaviors, or values that have been researched are not necessarily true of any actual individual, rather they are a baseline for comparison that is helpful in identifying divergent lived experiences between groups. By examining the identities of Indigenous people, Black Americans, Hispanic Americans, White Americans, and Asian Americans this literature review addresses the resilient and unique ways that these identities navigate their financial lives.

The literature used to explore these concepts is primarily pulled from a meta-analysis done by Bowen, Lago, and Furry (1997). They gathered results from dozens of different public interventions and research studies, providing a more robust and generalizable research base of findings in their paper titled, "Money Management in Families: A Review of the Literature with a Racial, Ethnic, and Limited Income Perspective". In addition, for the cultural socialization component, an article by Danes, Lee, Stafford, and Heck was used (2008). The analysis of financial behaviors and competencies was primarily based on a paper by White and Heckman (2016), which uniquely uses race as the dependent variable in an analysis of financial planner

use. The analysis provides invaluable insights into all the racial groups (except Indigenous populations) regarding important divergent experiences with marital status, work status, education, employment, risk tolerance, income, net worth, planning horizon, access to emergency financial assistance, and financial planner use. The combination of financial socialization and access and behavior paints a picture of the divergent experiences that may influence financial wellbeing in unique ways for each intersectional identity.

Indigenous people include Native American, Alaskan Native, Native Hawaiian, and Pacific Islander census groups. This research will use the term Indigenous people, as recommended by Bird (1999) in his article “What We Want to Be Called: Indigenous Peoples' Perspectives on Racial and Ethnic Identity Labels”. Indigenous people are not a monolithic group, but are made up of hundreds of unique and distinct tribal identities, languages, origin stories, histories, behaviors, dress, foods, and geographies.

Indigenous people are frequently referred to as the “forgotten minority” (Valerie, Brinck, Linda, & Murphy, 2010). Very few academic articles focused on financial attitudes, behaviors, or knowledge were found that specifically address Native American or Indigenous populations in the findings sections for research. Commonly, researchers combine race variables into a “White” and “Non-White” demographic variable, or “White, African American, Hispanic, and Other” as the racial breakdown, occasionally including Asian. Chen and Volpe (1998) examined personal financial literacy among college students and used the same five race variables as this research (Indigenous, Black, Hispanic, White, and Asian). Financial literacy was scored across the areas of general knowledge, savings and borrowing, insurance, and investments, and finally compared across the sample. Indigenous students ranked third (of five) for general knowledge, fourth for savings and borrowing, second for insurance, fourth for investments, and fourth for overall

financial literacy. None of the differences were statistically significant. Carlson, Nelson, and Skimmyhorn (2016) included Pacific Islander and Native Hawaiian categories in their demographic breakdown of military personnel by branch, but do not explore the nuance of that specific identity.

Head (2014) researched active learning approaches to teach personal finance to Native communities with a focus on culturally relevant information, in response to a concern over low financial literacy skills among Native American communities. A qualitative study on financial attitudes and values was conducted among the Lac Courte Oreilles Ojibwe Tribal Community (Hertel, Wagner, Phillips, Edwards, & Hale, 2008). This study found that the way that “assets” are defined and understood in the financial sector is different and may even be incompatible with some tribal values and belief systems. A thematic analysis was performed on the responses to questions such as, “What assets do you value as an individual and why?”. Of the 19 response groupings, the top three were education (n=232), family (n=183), and youth (n=177). Financial Security and Money each occurred only 52 times. This important difference points to the importance of understanding the fundamental component of identity in addressing financial wellbeing, as it is value-driven.

More literature focuses on identifying and quantifying the barriers to access that Indigenous communities face. Reservations are typically geographically isolated, and there are few national or state level banking and lending institutions within several miles of reservation towns and cities. This lack of access is referred to as the “buckskin curtain” (Wirtz, 2000), which creates a void filled by payday loan centers, check cashing, and other predatory lenders. Predatory lenders subject Indigenous borrowers to a cycle of high interest debt, over indebtedness, and unfit credit to secure optimal lending terms in the future (Guedel & Colbert,

2016; Smith, 2003). As with other people of color, the issues are not individual behavior, but structural inequality and exclusion that create situations where consumers are stuck choosing between two bad options.

Black American families have a collective approach to financial management and socialization (Danes, Lee, Stafford, & Heck, 2008). Hard work and personal gain are respected, with a strong sense of responsibility to give back. This might look like parents who are incredibly proud of their children who have “made it”, have achieved a college degree, a good paying job, and financial security. This would be reciprocated by grown children caring for their parents’ financial matters, or covering household expenses for aging parents as a way to give back.

Black Americans have strong historical ties to overt racism, and strong current experiences in microaggression and systematized racism in many spaces. Because of this Black American families are more organized in saving and planning for their future with expectations of unforeseen circumstances and limited access to credit. Black Americans tend to save in commercial banks, rather than CD’s or Money Market accounts, and they are regular savers with an expectation of discrimination or misfortune & self-reliance (Baker & Hagedorn, 2008). Short term debt (i.e. auto or payday loans) is more common amongst Black American households, and consumer debt (regardless of the amount) results in more stress for Black Americans than others (Grable & Joo, 2006).

White and Heckman (2016) reported that Black families had comparatively lower risk tolerance and shorter planning horizons as compared to White or Asian groups. Blacks had lower incomes, but significantly lower net worth as compared to White and Asian households. Black households reported lower access to emergency financial assistance than other groups. However,

holding all else constant, all other racial or ethnic groups were less likely than similar Black households to use a comprehensive financial planner. Black Americans disproportionately experience negative work outcomes such as lower salary, less frequent promotion, and are excluded from optimal financial services at higher rates than other racial groups (Narayan, 2013; Yeung, 2018). Black women face an additional caregiving burden, are more likely to be household bread winners than White women. Marriage rates are lower among Black communities, with higher rates of cohabitation than among other racial groups. Black women marry later, are less likely to marry at all, and experience more instability in their marriages compared to White and Hispanic women (Raley, Sweeney, & Wondra, 2015).

Hispanic Americans have a strong collective orientation, and when facing financial or emotional turmoil family is the first source of aid (Danes et al, 2008). Hispanic families advocating for saving. Parents and grandparents express the importance of hard-work and saving above financial management, building credit, or asset accumulation. Danes et al (2008) did find that Hispanic parents did not stress over the details of a budget, perhaps to shield children from the burden of financial stress. Hispanic young adults did report feeling unprepared for handling cash flow when they began making their own money, having little exposure to the basics of formal budgeting outside of knowing the importance of saving (Danes et al).

Generally, Hispanic households report being more risk averse than White or Asian households, but more risk tolerant than Black households (White & Heckman, 2016). Similar to Black households, a lower lifetime income erodes at the net worth of Hispanic individuals. White and Heckman reported that Hispanic households had a shorter planning horizon, but tended to have moderate access to emergency financial assistance. Hispanic households have low financial

planner use, but White and Heckman report that this difference is likely due to wealth accumulation, not a participation choice.

Asian American have been coined the “Model Minority”. This phrase was coined in 1966 by Peterson, referring to Japanese Americans, but has since been used throughout both academic research and popular culture to refer to all Asian Americans. Although it may seem to be a compliment, it is racist both in its assumptions of above average intelligence or interest in STEM fields as well as insinuating that other minorities are somehow missing the mark and should aspire to be as hard-working or intelligent as this group of immigrants who have “made it”. Essentially this concept is praising Asian Americans on their ability to assimilate most closely with white upper-class culture – and a call to other minorities to do the same. The assumed affluence or ability to become affluent has proved both advantageous for Asians as well as putting them in a difficult place. Asian Americans have to incorporate assumptions about their work ethic, educational aspirations, or career interests being placed upon them at very young ages, and throughout their educational and working years (Wong & Halgin, 2006).

Asian cultures begin with a collectivist, or strong “we” orientation. Personal achievement reflects on the family unit, with some personal influence being assumed based on gender, birth order, and age (Danes et al, 2008). Respect and loyalty are expected, especially toward elders and blood family ties (Bowen, Lago, & Furry, 1997).

A strong cultural component of Asian American families is the cultural script of success and of honoring the family with whatever career choice is made (Danes et al, 2008). This potentially can lead to feeling of inadequacy, or an intense focus on making a certain amount of money every year in order to “qualify” as successful. This expectation to appear to the family as successful, hard-working, educated, and affluent can be debilitating. For those family members

who feel they have missed the mark, the shame and embarrassment can be very intense. Even though the culture is collectivist in so many ways, as Asian Americans they also perpetuate the self-sufficiency of the American Dream.

In banking, Asian Americans exhibit similar behavioral trends, receive loans and interest rates very comparable to that of white populations, and in some instances are most engaged with the formal financial sector. Asian Americans have the highest risk tolerance of any race group (White & Heckman, 2016). With the highest educational attainment and income, longest planning horizon, and highest rates of financial planner use, all financial research reinforces the socialized norms for Asian American individuals (Danes et al, 2008; White & Heckman).

White Americans are generally used as the basis for all comparisons (Lee, 2003), and as such, “White consumers” are ubiquitous with “consumers”. So much has been written and studied with predominantly white samples, that there is rarely a stated difference between what “White consumers” have access to, how they behave, and how they feel, than any generally applicable financial research findings. Because White samples are generally the largest subsample of financial data, but rarely the entirety of that sample, there is not a clear delineation made on the specifics of White financial access, behaviors, or attitudes on the large scale. White men and women do have different concerns within the financial wellbeing framework. Generally, the differences in wellbeing for White Americans are based on income, education, gender, and age (CFPB, 2015). Whites enjoy privilege in their interactions with the financial services world, in that they are not actively excluded and can access with more ease the most optimal of products and services without additional barriers outside of creditworthiness. The basis for behavioral norms are centered in White consumer behavioral norms, once again rendering an analysis of specifically White behaviors unproductive. Attitudes for White women

generally are reported to be less confident and more worried than White men (Ricciardi, 2008), but with higher financial wellbeing than White men (CFPB, 2015). White men have been found to have high financial confidence (Robb, Babiarz, & Woodyard, 2012), high risk tolerance (Grable, 2000), and having higher financial knowledge than other groups (Lusardi & Mitchell, 2011).

White Americans tend to have relatively higher risk tolerance than minority populations (Grable, 2000). Research has shown that White individuals have the highest net worth, moderate planning horizon, and high rates of financial planner use as compared to other racial and ethnic groups (Danes et al, 2008; White & Heckman, 2016).

Risk Tolerance

Risk tolerance has been known to correlate with several of the self-perception variables, as well as higher income, gender, race, financial behaviors and knowledge (Calcagno & Monticone, 2015; Finke, Huston, & Winchester, 2011; Heo, Grable, & O'Neill, 2017; Lerner & Keltner, 2001; Lusardi & Mitchell, 2011), and a higher tolerance for insecurity (Ladouceur, Gosselin, & Dugas, 2000). Because risk tolerance is not directly related to any of the dimensions of the IFWEM, but was correlated with many variables included in the model, it was included as a control variable.

IFWEM Constructs

Access Dimension

Promoting access to can stem from one of two theoretical stances. A top-down theoretical approach considers access to financial services necessary as a tool for improving economic growth for the larger system. Conversely, a bottom-up theoretical approach considers access to be necessary for every individual to achieve financial wellbeing. This research is founded on the

second theoretical assumption and works under the premise that access is a critical piece of the puzzle. Alone, access does not have the power to influence financial wellbeing, but its absence does have the power to limit financial wellbeing outcomes. As a working definition for the IFWEM, Access was considered to be the ability to engage meaningfully with the financial marketplace. The Access dimension contains four sub-dimensional constructs; access to banking, access to credit, income shocks, and financial knowledge.

Access to banking. Access to banking is generally considered to be one of the key signifiers of a financially inclusive society around the world (Mader, 2018; McKee, Lahaye, & Koning, 2011; Sarma, 2008; United Nations Capital Development Fund, 2006). Access to banking is defined as the availability of a checking, saving, or investment account. Before credit can be extended, before income shocks can be dealt with, and in order for financial knowledge to lead to financial behaviors, access to formal financial services must be present. Most inclusion measures, such as the index of financial inclusion (Sarma, 2008) consider banking branches per 10,000 citizens as one operationalization for accessibility of financial services. Access to banking in the U.S. is still an area of concern for researchers, community leaders and politicians, and industry leaders. The unbanked or underbanked population in the U.S. was estimated to be 15.6 million individuals as of 2015 (FDIC). Interestingly, being unbanked or underbanked is a fluid state, as Anong and Routh (2019) found that 100% of underbanked persons in the FDIC survey had been banked previously. This indicates that access fluctuates over the lifecycle, possibly in response to technology and the economic climate. Consistently evaluating trends in access is a necessary part of understanding financial wellbeing.

Access to credit. The ability to access credit is a secondary indicator of a financially inclusive economy, after access to formal banking services (Sarma, 2008; United Nations Capital

Development Fund, 2006). Access to credit is defined as the availability of corporate funds to a consumer through secured or unsecured formats (i.e. auto loan and credit cards). Credit scores are known to reflect systematic trends of financial privilege and disadvantage, with the highest credit scores occurring amongst white and Asian men, and lowest for people of color, particularly women of color (Faegin & Feagin, 1978; Morris, 2008; Wong & Halgin, 2006). This trend compounds existing financial hardship or exclusion, often pushing the most vulnerable consumers toward predatory lenders as a last resort (Kear, 2013; Leyshon & Thrift, 1995). Grable and Joo (2006) found that Black Americans were more dramatically influenced by debt than other racial identities, suggesting that access to credit cards and the impact of that level of access are significant topics to consider through an intersectional analysis. Women additionally fare worse in accessing credit, leading to lower “debt literacy” and higher levels of consumer debt (Allgood & Walstad, 2011; Birkenmaier & Fu, 2016; Motolla, 2013).

Income shocks. Significant losses of income and unexpected expenses are types of financial shocks. Financial shocks have a dramatic negative impact on financial, emotional, and physical wellbeing (Archuleta, Dale & Spann, 2013; Horowitz, 1984; Lurtz, 2019; Owen & Wu, 2007; Skapinakis, Weich, Lewis, Singleton, & Araya, 2006; Starrin, Åslund, & Nilsson, 2009; Weich & Lewis, 1998). Large unexpected expenses can place individuals in financial strain (i.e. hospital bills). An unexpected drop in income can make covering regular expenses difficult. For the purposes of this research, income shocks were used because of the availability of data. In future research using this model, either type of financial shock would fulfill the theoretical construct.

Income shocks are a measure of the amount of strain an individual’s financial situation can absorb without material hardship. This is also important to consider as part of the access

dimension because maintaining an ability to cover current and ongoing expenses is the first of the four elements of financial wellbeing (CFPB, 2015). (See Figure 2.)

Income shocks are known to increase worry and anxiety about the future (Archuleta, Dale & Spann, 2013), and increase pessimistic thinking (Owen & Wu, 2007). There is a correlation between financial shocks and increased risks of mental health issues (Horowitz, 1984; Skapinakis et. al., 2006), and physical health problems (Horowitz, 1984). Individuals who have experienced an income shock are at an increased risk of material hardship, increasing the risk of not having access to financial services. For this reason, income shocks are included in the access dimension as a measure of financial fragility or capacity. According to the Bureau of Labor Statistics (2016), underemployment and unemployment are highest among Black Americans, followed by Hispanic Americans, White Americans, and is lowest among Asian Americans. Underemployment and unemployment, lifetime earnings, and Access to financial services are one example of how intersectional analysis points out systematic trends that show the uneven burden that certain identities are faced with – even when all groups are facing the same sets of circumstances. Income shocks, saving behaviors, and stress are the sub-dimensions of IFWEM that relate to the capacity to absorb financial shocks, as a financial wellbeing element.

Financial knowledge. Rather than financial literacy, the concept of financial knowledge is used in this research. Financial knowledge is utilized primarily because of the availability of variables in the dataset. Financial knowledge is one aspect of the overall construct of financial literacy. According to Huston, 2010 “Financial knowledge is an integral dimension of, but not equivalent to, financial literacy. Financial literacy has an additional application dimension which implies that an individual must have the ability and confidence to use his/her financial knowledge to make financial decisions” (p. 307).

Financial knowledge is considered a prerequisite to making optimal financial decisions, as well as a factor that grows as decisions are made and learned from – which can then be used to inform future decisions. An individual knowing the components of a credit score is not the same thing as an individual who knows and acts on the components of a credit score to achieve a favorable credit score. Knowing that retirement saving is important is not as important as actually saving for retirement. In many, if not most instances the behavior is actually far more important than the knowledge (Warmath & Zimmerman, 2019); however, the behavior generally depends on the knowledge. Huston (2010) in her meta-analysis of financial literacy research found that most research operated without a definition. Huston (2010) also analyzed and discussed the definitions in use and suggested the following definition, “measuring how well an individual can understand and use personal finance-related information” (p. 306). Based on this definition, both the knowledge and application components of financial literacy are required for someone to be considered “financially literate”.

Financial knowledge has been seen to differ dramatically between men and women (Bhabha, Khan, Qureshi, Naeem, & Khan, 2014; Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012; Lusardi & Mitchell, 2008; Mahdavi & Horton, 2014; van Rooij, Lusardi, & Alessie, 2011). Men typically have higher financial knowledge, but women are far more likely to select “I don’t know” rather than guess. This gender difference also extends to self-assessed financial knowledge, with both the subjective and objective measures contributing to overall financial wellbeing (Robb & Woodyard, 2011).

The focus of financial literacy and education efforts is to improve financial wellbeing. Deconstructing these measurements and teasing apart some of the nuances of the relationships among financial education, financial behaviors, financial affect, and financial wellbeing is an

important aspect of research. Financial knowledge relates to financial wellbeing through the element of being on track to meet financial goals, along with planning behaviors and self-efficacy.

Action Dimension

According to social inclusion theory, participation is the second level of inclusion and revolves around ideals of social justice. Social justice focuses on human rights, equal opportunity, dignity, and fairness. A socially just view of participation would indicate that participation is measured in ways that capture the positive behaviors of all parties involved. Financial participation has been categorized within the Action dimension of the IFWEM, and includes earning, spending, saving, and planning behaviors. Financial behaviors are an extensive field of research, covering several sub-domains within academia. Financial literacy (including both knowledge and skill) is domain specific (Finke, Huston, & Winchester, 2011; Hung, Parker, & Yoong, 2009), meaning that people can have knowledge and skills in one domain and none in another domain. For example, it would not be uncommon for a person to be proficient in their understanding and behaviors regarding credit scores, while being vastly underfunded in their retirement.

In order to account for this domain specificity, the Action dimension has been divided up into four sub-dimensions that include earning, spending, saving, and planning actions (Griskevicius, Tybur, Ackerman, Delton, Robertson, & White, 2012; Lusardi & Mitchell, 2011; Rowley, Lown, & Piercy, 2012). These domains are supported extensively in the literature, and also correspond with the CFPB financial wellbeing definition in that earning corresponds with the element of financial freedom, spending corresponds with controlling current and ongoing

finances, saving corresponds with a capacity to absorb financial shocks, and planning corresponds with meeting financial goals.

Earning actions. Earning behaviors include work status and participation in the gig economy. Work status was evaluated as full time, part time, as well as retirement income. This behavior is included as a major component of financial action, as income is the single most crucial determinant of all other positive financial behaviors. Income is also something that generally is within the control of each individual. Gig economy participation was also included as a way of being more intentionally inclusive, as research suggests that Black Americans are more likely to participate in the gig economy (NCFS, 2019). As noted by White and Heckman (2016), neither income nor employment status were statistically significant in predicting financial planner use, “suggesting that the lack of actual planner use among Black households and Hispanic households is probably less a labor participation issue and more of a wealth issue” (p. 48). Earning relates to the financial freedom element of financial wellbeing (see Figure 2), as well as access to credit and financial satisfaction.

The Bureau of Labor Statistics (2017) reported that among married couples, 54% are dual-earner households. Only 19% of married households report a single income with only the man working outside the home. As of 2015, the percentage of married couples where the wife earned more than her husband was 29%. As of 2016, 3.8 million U.S. women worked multiple jobs, accounting for 51.6% of all multiple job holders. Women with multiple jobs account for 5.5% of all employed women in the U.S. . With the shift from the “provider, homemaker” dichotomy, work status is an increasingly important factor in understanding the financial wellbeing of individuals and households.

Spending actions. Spending behaviors include living within one's means, making ends meet, and credit card behaviors (Henager & Cude, 2016; Robb & Woodyard, 2011; Woodyard, Robb, Babiarz, & Jung, 2017). Spending is another significant measurement of financial behavior and financial wellbeing, as it is reflective of the capacity within any income level to achieve and maintain standards of living (CFPB, 2015). Unhealthy spending behavior also has the potential of sabotaging savings behaviors, investing capacity, and mental and emotional health (Robb & Woodyard, 2011). Spending behaviors also relate to scarcity, which as noted by Lurtz (2019) can place consumers in a disadvantaged mental state where spending is handled as a triage situation. Control of day-to-day and month-to-month finances is the financial wellbeing element that incorporates the sub dimensions of spending behavior, access to banking, and financial confidence.

Saving actions. Saving behaviors include emergency savings (Babiarz & Robb, 2014), retirement saving & investing behaviors (Henager & Cude, 2016), and education savings (Ma, 2004). The CFPB (2015) found that savings behaviors were indicative of increased financial wellbeing. Saving is an important behavior not only because of the necessity of saving to achieve positive financial outcomes, but because it is a proxy for capacity to save. At lower income levels, savings behaviors are not realistic because the income for the household does not even cover the basic necessities. For households in this situation, savings behaviors may be lower, while they are not necessarily an indication that an individual is not maximizing their financial resources to achieve positive outcomes. As Lurtz (2019) stated, they may be forced into a "now, soon, later" framework that prioritizes current expenses over future savings. Saving behaviors, income shocks, and stress are the sub-dimensions of IFWEM that relate to the capacity to absorb financial shocks, as a financial wellbeing element.

Planning actions. Planning actions include having a plan for unexpected expenses (Babiarz & Robb, 2014; Henager & Cude, 2016), planning for retirement (Lusardi & Mitchell, 2007a, 2007b, 2007c, 2008, 2011), and estate planning (Finke, Huston, & Winchester, 2011; Hanna, 2011). Planning here refers to action, not intent to plan. The planning sub-dimension is intended to measure the extent to which individual consumers take advantage of the access they have to financial services. Individuals have a great responsibility to attend to their own financial future, where responsibility has historically been shared with the government and employers (Lusardi & Mitchell, 2007a, 2007b, 2007c). Finke, Huston and Winchester (2001, p. 19) stated that “financial planning information and skill can be used to create a more optimal investment portfolio, improve borrowing and saving behaviors, decrease tax payments, enhance estate planning, and maximize other financial resource allocation decisions.”

Planning behaviors are generally correlated with higher income and more education, with a significant lack of targeted professionals geared at middle and lower income households (Calcagno & Monticone, 2015; Finke, Huston, & Winchester, 2011; Hanna, 2011; Marsden, Zick, & Mayer, 2011). Planning, financial knowledge, and self-efficacy correspond with financial wellbeing through the element of being on track to meet financial goals (see Figure 2).

Affect Dimension

Success is the culmination of human potential. This level of inclusion is more integrative than economic access or equal participation. Success for inclusive financial wellbeing would be financial empowerment. Financial empowerment is helping consumers develop key skills, offering proven strategies, and connecting their goals to financial plans, their plans to day-to-day behaviors, and their behaviors to decisions carried through to completion (CFPB, 2015). The CFPB has shared that the goal of all practitioners should be to empower consumers (CFPB,

2015). Financial wellbeing through empowerment is the culmination of the IFWEM.

Empowerment on an individual level would promote increased access, increased positive financial behaviors, and sustained positive thoughts and feelings about money and interactions with money.

Confidence. Financial confidence refers the self-perception of skills or behaviors. This research uses three confidence scales based on previous literature; confidence in achieving a financial goal, confidence about financial knowledge, and confidence in day to day financial management tasks (Asaad, 2015; Robb, Babiarz, & Woodyard, 2012). These three were chosen because they reflect a confidence measurement for each dimension of the IFWEM, and Courchane, Gailey, and Zorn (2008, p. 137) note that “optimistic self-assessments, not accurate ones, lead to better financial outcomes.” Knowledge confidence corresponds with the Access dimension, confidence in day to day management refers to the Action dimension, and confidence in accomplishing a goal more generally corresponds with the Affect dimension. Financial confidence is predictive of positive financial behaviors (Asaad, 2015), indicating that how people think and feel about their financial situation is as important as their actual situation on their behavioral outcomes. Control of current and ongoing expenses is one of the four elements of financial wellbeing, which is linked with confidence, spending, and access to banking as sub-dimensions of the IFWEM.

Satisfaction. Financial satisfaction is self-perceived contentment with one’s financial circumstances. Satisfaction is negatively correlated with consumer debt (Archuleta, Dale & Spann, 2013; Sages, Britt, & Cumbie, 2013), and positively correlated with asset-based debt such as mortgages (Asaad, 2015; Robb, Babiarz, & Woodyard, 2012). Higher financial satisfaction is positively correlated with positive financial behaviors, including seeking advice with investing

and tax planning (Robb, Babiarz, & Woodyard). Financial satisfaction, earning, and access to credit are the sub dimensions that relate to the financial freedom element of financial wellbeing.

Self-Efficacy. Financial self-efficacy is the confidence to act on financial knowledge. Unique from confidence in achieving a goal, self-efficacy measures confidence in completing specific behaviors necessary for achieving long-term goals. Self-efficacy has been suggested as determinant of financial inclusion (Mindra, Moya, & Kodongo, 2017). Similar to financial knowledge, self-efficacy is domain specific, with consumers who have high self-efficacy in one area of finance having low self-efficacy in another area (Mindra, Moya, & Kodongo). For example, a person could be very comfortable in the world of banking and lending, while feeling very unsure about navigating investments or insurance. Self-efficacy, with planning and financial knowledge are the sub-dimensions that correspond with the financial wellbeing element: being on track to meet financial goals. Self-efficacy relates to financial wellbeing through the element of being on track to meet financial goals, along with planning behaviors and financial knowledge.

Financial Stress. Within the broader concept of financial stress are worry, shame, and anxiety. All financial stress can potentially spur an individual toward changing problematic behavior – however; the continued presence and persistence of any of these feelings or thought patterns has been found to contribute to negative outcomes (Ladouceur, Gosselin, & Dugas, 2000; Rios & Zatura, 2011; Wood, Conway, Pushkar, & Dugas, 2005). The language used in the research included financial worry (Litwin & Meir, 2013; Owen & Wu, 2007; Ricciardi, 2008), financial stress (Ackert, Church, & Deaves, 2003; Grable & Joo, 2006; Kothokata, 2019; O’Neill, Sorhaindo, Xiao, & Garman, 2005; Weich & Lewis, 1998), financial shame (April & Soomar, 2013; Brown, 2006; Gabler, 2016; Hastings, Northman, & Tangney, 2002; Starrin,

Åslund, & Nilsson, 2009; Thomas, 2017), and financial anxiety (Ackert, Church & Deaves, 2003; Archuleta, Dale & Spann, 2013; Burchell, 2003; Gasiorowska, 2014; Grable, Heo & Rabbani, 2015; Sages, Britt, & Cumbie, 2013; Shapiro & Burchell, 2012). All of these constructs were included in the final assessment, and all were highly correlated, and are referred to throughout the rest of the paper as financial stress. Worry, saving behaviors, and income shocks are the sub-dimensions of IFWEM that relate to the capacity to absorb financial shocks, as a financial wellbeing element.

Financial stress strongly predicted the onset and severity of common mental health disorders, regardless of socio-economic status (Weich & Lewis, 1998). Among lower-income individuals, the presence of income shocks and scarcity are a primary driver for financial worry (Lurtz, 2019; Owen & Wu, 2007; Rios & Zatura, 2011). Among those at higher income levels, an increased financial capacity also includes additional saving, investing, and planning tasks that are often very technical and stressful (Gasiorowska, 2014).

Financial Shame can be either internally or externally driven, as described by Starrin, Åslund, and Nilsson (2009, p. 285), stating that “the internal form of shame derives from how the self judges the self. In external shame the focus is on the outside world and how one is seen by other people.” Starrin and colleagues reported that single younger women with children under the age of 18 are far more likely to experience high levels of external shaming and have high levels of mental illness, anxiety, and depression. Older cohabitating men with higher salaries and no dependent children are most likely to experience low levels of financial shame and have the highest mental health, and lowest levels of anxiety and depression.

Financial Anxiety in high levels leads to a reported difficulty processing financial information, and an increase in avoidance behaviors (Shapiro & Burchell, 2012). Archuleta, Dale

and Spann (2013) found that financial satisfaction was strongly negatively correlated with financial anxiety, regardless of amount or type of debt, when controlling for demographic variables. Without controlling for demographic differences, student loan debt had a significant relationship with financial anxiety – indicating that certain groups (first generation college students, people of color, women) may feel a disproportionate level of anxiety around student debt and the ability to repay, where other demographic groups were not concerned about their level of indebtedness for their education.

Financial worry. Financial worry depends largely on the circumstances and identity of the group asked. Litwin and Meir (2013) found that for those 65 and older, the largest financial worry was about income security in retirement. Research has shown that generally women are more worried about their finances than men (Rios & Zatura, 2011; Ricciardi, 2008). Interestingly, in a study about people’s perceptions of women and men’s worries, men were perceived to be more likely to worry about finances than women (Wood, Conway, Pushkar, & Dugas, 2005). Research out of China has indicated that higher incomes does not necessarily increase happiness, but does decrease financial stress (Li, Li, Wang, & Hou, 2016). Worry is also mediated by an individual’s ability to tolerate uncertainty, as researched by Ladouceur, Gosselin, and Dugas (2000).

Summary

“Financial wellbeing is a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life” (CFPB, 2017, p. 6). Connections between financial wellbeing and several control variables, as well as access, actions, and affect regarding one’s financial situation have been explored. Chapter three will explore the operationalizing of these

variables and explore the methodology chosen to test the research questions and hypotheses outlined in chapter one. Chapter four reports the results of the testing, and chapter five discusses findings and implications of this research, as well as next steps.

CHAPTER 3

METHODOLOGY

The methodology for this research was guided by three goals, (a) conceptualize a more inclusive financial wellbeing model, including dimensions, sub-dimensions, and operationalizing the concepts (i.e., IFWEM); (b) understand the relationship among the dimensions of IFWEM (access, action, and affect); and (c) explore the differences among the 10 intersectional identities across each of the three dimensions of the IFWEM. Model development was covered in the previous chapters and this chapter (a) introduces the dataset, including an explanation of sampling procedures; (b) outlines operationalizing the concepts through variable selection for the IFWEM and (c) covers methodological justification, including coding procedures for intersectional identities and composite dimension scores. The chapter closes (d) with an overview of basic statistical assumptions and tests that were conducted to ensure validity and appropriate application of the methods. The second and third goals of the current research will be addressed in chapters four and five.

Data

Study Design and Methods

Several important criteria were used to identify an appropriate dataset. First, the dataset had to include ethnicity and race options that were comparable with Census data, as that was the basis for the final step of the analysis. Second, the dataset needed to include the CFPB Financial Wellbeing scale, as well as the other common scales used in the literature when researching financial wellbeing. Third, the dataset needed to be as current as possible in order to make a

timely and relevant contribution to the literature and industry. With these criteria in mind, the data used in this research is the 2018 wave of National Financial Capability Study (NFCS).

NFCS data is cross-sectional, and new participants are recruited and surveyed every three years. The first wave of NFCS was collected in 2009, with subsequent waves in 2012, 2015, and 2018. The dataset is publicly available, but without detailed race and ethnicity variables. In order to test the research questions involving intersectional identity, the NFCS data with detailed race and ethnicity responses was obtained from the Financial Industry Regulation Authority (FINRA) Investor Education Foundation. A copy of the disclosure agreement and permission parameters are included in the appendix.

Sampling procedures

The NFCS data is commissioned by FINRA's Investor Education Foundation, who commissioned and designed the survey instrument with the input of industry experts. Data collection is performed by a third-party research firm, Arc Research. Arc Research is a research firm out of New York who specializes in recruiting participants and administering surveys using tech based methodology. Each state as well as the District of Columbia provides 500 respondents, with oversampling in Oregon and Washington, which contributed 1,250 respondents each. The 2018 wave has a total of 27,091 respondents.

Data collection is an online process, with exclusively self-administered surveys. All responses were fielded between June and October of 2018. NFCS uses established online panels that recruit millions of individuals to participate in surveys in exchange for payment. In order to accomplish the difficult task of recruiting and obtaining completed surveys from such a large number of participants, three panels were used to recruit. Specifically, NFCS pulls possible participants from Survey Sampling International, EMI Online Research Solutions, and Research

Now. All three panels adhere to rigorous industry standards to verify valid and current demographic information for participants.

Participant recruitment and retention is monitored throughout the process by Arc Research, to meet set quotas based on Census distributions for age by gender, race and ethnicity, education level, and income. These quotas guided the process in an effort to replicate nationally representative results. Across the three panels, a total of 1,410,923 invitations were emailed to potential respondents, of which 100,611 people followed the link to participate in the survey. Among those who started the survey, 59,207 participants were terminated because they did not qualify for inclusion by refusing to disclose demographic information or because of target quotas that were already full. Additionally, 14,313 people dropped out of the survey without finishing, leaving a total of 27,091 completed surveys. Of those who were emailed an invitation, 1.92% completed the survey. Of those who began the survey, 26.93% completed the survey.

Taking into account that the sample size is over 25,000 observations, the overall survey has an estimated margin of error of plus or minus 0.5 percent, with that estimate increasing for subgroupings. NFCS data is not corrected for coverage error, nonresponse error, or measurement error. Data collection is on the individual level, with no efforts to recruit heads of household or household decision-makers. NFCS data comes with weighting variables for use in data that will allow for a probability sampling analysis. Weighting variables for region, state, and national levels were included. Only the national weighting variable is used for this analysis.

Income, education level, marital status, race, ethnicity, and gender are controlled for missingness and had 100% valid responses. However, NFCS respondents are allowed to choose “Don’t know” or “Prefer not to say” on all other questions. Because the NFCS data is not corrected for nonresponse error, and the sample size was large, this research uses listwise

elimination to handle missing data. Table 4, at the end of this chapter, shows in detail how all 98 – “Don’t know” and all 99 – “Prefer not to say” answers were recoded, including how prevalent these answer choices were for each question. In most cases, these answers were recoded as missing data, but in a few exceptions there were appropriate recode options to keep as many data points as possible. None of the questions had higher than a 5% combined rate of 98 and 99 response choices. The response error was determined to be uncorrelated with any specific demographic traits of the respondents. Because missing values were missing completely at random, and occurred at minimal rates among each variable, listwise elimination was determined to be an appropriate way to treat the data (Little, 1988; Li, 2013).

Variable Selection

Variables were evaluated on a theoretical level, with strong theoretical guidance from Social Inclusion Theory and Joo’s Financial Wellbeing model. Because the model ultimately was measuring financial wellbeing, the CFPB financial wellbeing scale development guide (2017) was used to ensure that the results were loading as expected, (i.e., expected positive correlations between financial knowledge and financial wellbeing were examined in the preliminary stages of the data cleaning process).

Items that theoretically fit the “objective financial status” or “access” constructs were brought into the preliminary analysis. The same was true for the action and affect dimensions. After variables were selected, Principal Component Analysis and correlation were used to select the questions that worked best for the most parsimonious model.

Using the dimension reduction Factor Analysis and Scale Reliability functions in SPSS, groups of potential variables were run to check for correlation, collinearity, and appropriate grouping. Using Chronbach’s Alpha, Bartlett’s Test, and the Kaiser-Meyer-Olkin Measure of

Sampling Adequacy the variables were curated down from a starting pool of 40 potential survey questions and 10 demographic control variables to 23 independent variables and 5 control variables. When the possible questions were used in a factor analysis, a clear demarcation became clear – they were loading into two constructs of actions and affect. This delineation between behaviors and thoughts/feelings was incorporated into the final model (see Figure 6). The variables that were used at the beginning of the modeling vs. the final model are included in the Appendix.

Overall, 29 variables are included in the final hierarchical regression. Of those 29, seven are control variables, six measure affect, 12 measure action, and six measure access. Table 2 shows the dimensions, sub-dimensions, and content that correspond with each. The specific questions and possible answer choices are covered in the next section.

Table 2

Dimensions of IFWEM

Dimension / Control	Sub-Dimension	Content
Control	Age	What is your age?
	Race/Ethnicity	What is your race/ethnicity?
	Gender	What is your gender?
	Education	What is the highest level of education you have completed?
	Income	What is your household's approximate annual income, including wages, tips, investment income, public assistance, income from retirement plans, etc.?
	Marital Status	What is your marital status?
	Risk Tolerance	When thinking of your investments, how willing are you to take risks?
Access	Banking	Do you have a checking account?
		Do you have a savings, investment, or money market account?
	Borrowing	Do you have a credit card? ¹
		Do you have an auto loan?
Financial Knowledge	Financial Knowledge Score (# correct out of 6)	
Income Shocks	In the past 12 months, have you [has your household] experienced a large drop in income which you did not expect?	
Action	Earning	Do you work for pay, not work for pay, or are you retired?
		In the past 12 months, have you taken on a work assignment through a website or mobile app, such as Uber, Task Rabbit, Care.com, etc.?
	Spending	Over the past year, would you say your [household's] spending was less than, more than, or about equal to your [household's] income? In a typical month, how difficult is it for you to cover your expenses and pay all your bills? I always paid my credit cards in full over the last 12 months.
	Saving	Have you set aside emergency or rainy day funds that would cover your expenses for 3 months, in case of

		sickness, job loss, economic downturn, or other emergencies?
		Do you [or your spouse/partner] regularly contribute to a retirement account like a [Thrift Savings Plan (TSP),] 401(k) or IRA?
		Are you setting aside any money for your children's college education?
		Not including retirement accounts, do you [does your household] have any investments in stocks, bonds, mutual funds, or other securities?
	Planning	How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?
		Have you ever tried to figure out how much you need to save for retirement?
		Do you currently have a will?
Affect	Self-perception	If you were to set a financial goal for yourself today, how confident are you in your ability to achieve it?
		Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?
		How strongly do you agree or disagree with the following statements? - I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses
		How would you assess your overall financial knowledge?
		How strongly do you agree or disagree with the following statement? - I would feel comfortable going to a bank or credit union branch to ask a question about a product or service
	Stress	I worry about running out of money in retirement.
		Discussing my finances can make my heart race or make me feel stressed.
		Thinking about my personal finances can make me feel anxious.
		How strongly do you agree or disagree with the following statement? - I have too much debt right now

Note: ¹Number of Credit Cards was not included in the hierarchical multivariate regression analysis due to low variability (only 16% of participants responded that they did not have a credit card). It was used only in the summed dimension scores that were used in the ANOVA as a measure of access to credit.

Operationalizing IFWEM

Dependent variable

As outlined in the IFWEM, the ultimate result of financial access, action, and affect is financial wellbeing, as measured by the CFPB Financial Wellbeing scale. The scores for each participant were scored as suggested by the CFPB (2017), using the Item Response Theory (IRT) scoring tables. Because NFCS only uses 5-item shortened version of the CFPB Wellbeing survey, the IRT software-code was determined to be an inappropriate fit for the data. Table scoring was ultimately a better representation of the data, and satisfied the normality requirements for regression. IRT has several advantages to a summed or average score. The scores are forced into a normal distribution, satisfying assumptions for hierarchical regression analysis. The scores are normalized and directly comparable across age groups, self-administered or phone administered surveys, and between data sets. The universally comparable nature of this scale allows for quicker and more synthetic academic research. The complete description of the IRT process is available through the CFPB scale development technical report (2017).

Independent variables

As outlined in the model development section of this chapter, IFWEM is the combination of three nested dimensions of financial wellbeing; Access, Action, and Affect (see Figure 3).

Access in the IFWEM refers to the accessibility of formal financial services. Access to formal financial services has four sub-dimensions. The sub-dimensions are access to banking (do you have a checking account; do you have a savings or investment account), credit (do you have a credit card; do you have an auto loan), financial knowledge (score correct out of 6), and the presence of income shocks (experiencing an unexpected drop in household income in the past 12 months). Aside from financial knowledge, all variables in the access dimension are binary, with

the answer indicating accessibility coded as one, and the answer indicating inaccessibility coded as zero. Summed access scores have a range from 0 – 11.

Action dimension refers to financial behaviors or skills that indicate participation with formal financial services. The action dimension is broken down into four sub-dimensions; earning (working for pay, not working for pay, or retired work status; participating in the gig economy to earn extra money), spending (is your annual spending more than, the same as, or less than earnings; how difficult is it to cover your monthly expenses; and do you pay your credit cards in full every month), saving (do you have an emergency fund equal to 3 months of fixed expenses; are you saving for your child's education; do you regularly contribute to your retirement account; do you invest outside of your retirement account), and planning (do you have a will; could you handle an unexpected expense of \$2000 in the next month; have you tried to figure out how much you need in retirement). All questions in the Action dimension are binary variables, with a score of one indicating the optimal financial action. Summed action scores have a range from 0 – 20.

Affect dimension refers to how people think and feel about their money and about their interactions with money. Affect has two sub-dimensions; self-perception, and worry.

Self-perception is the combination five questions: self-efficacy, self-reported financial knowledge, self-perception of financial management, confidence, and satisfaction. The self-efficacy, self-reported financial knowledge, and self-perception of financial management questions use a seven-item Likert-type scale. Answer choices ranged from 1 meaning “Strongly disagree” or “Very Low” to 7 meaning “Strongly agree” or “Very High” with 4 indicating “Neither agree nor disagree” or “Neutral”. Financial self-efficacy was measured in response to the prompt, “I would feel comfortable going to a bank or credit union branch to ask a question

about a product or service.” Self-reported financial management was measured in response to the prompt, “I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.” Self-reported financial knowledge was measured as the response to, “How would you assess your overall financial knowledge?”.

Financial confidence is measured using a four-point scale in response to the question, “If you were to set a financial goal for yourself today, how confident are you in your ability to achieve it?”. Responses range from 1 = Not at all confident, to 4 = Very confident.

Financial satisfaction is measured in response to the following prompt; “Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?”. Choices are a ten-point Likert-type scale, where 1 means “Not at all satisfied” and 10 means “Extremely satisfied”

Stress consists of four questions covering financial worry, anxiety, and perceptions of debt burden. All the worry questions use a seven-item Likert-type scale from 1 meaning “Strongly agree” to 7 meaning “Strongly disagree” with 4 indicating “Neither agree nor disagree”. The four questions are: “I worry about running out of money in the future”, “Thinking about my finances can make me feel anxious”, “Discussing my finances can make my heart race or make me feel stressed”, and “I have too much debt right now”. The complete codebook is included in the appendix. Summed affect scores have a range from 2 – 63.

Statistical Tests

The nested IFWEM guided the choice of methods, as the regression analysis needed to (a) measure the effectiveness of the overall model while also (b) accurately test the three dimensions individually. These two analysis requirements were met through a hierarchical regression analysis, using the following formula:

$$\text{FinancialWellbeing}_i = \beta_0 + \beta_1 \text{Affect}_i + \beta_2 \text{Action}_i + \beta_3 \text{Access}_i + \beta_4 \text{Covariates}_i + \varepsilon_i$$

A multiple regression analysis methodology requires that the sample meet certain assumptions regarding sample size, singularity, correlation and collinearity, as well as normality, linearity, and homoscedasticity. The ANOVA analysis requires assumptions of normality and independence of sampling groups. The results of these preliminary tests are included at the end of this chapter.

The first goal of this research was to apply the IFWEM to the National Financial Capability Survey data. Once the model was tested on the overall sample, special attention to the intersection of gender and ethnicity was examined to identify variation among the 10 intersectional identities as subsets of the population. A complete list of the intersectional identities and their respective sample sizes is listed in Table 5.

Hierarchical regression was used to test the nested theoretical model. The hierarchical model included four levels. First was control variables, including race, ethnicity, age, gender, marital status, income, education, and risk tolerance. The affect dimension was added next; third, the action dimension was added, and finally, the access dimension. This allowed for each of the additional dimensions to be evaluated for improvement of the model. After the original model was run, the hierarchical order was run with the three dimensions in every variation (i.e. affect, access, then action) until all six variations of the model were compared. The results of the validity analysis will be highlighted in chapter four.

To answer the second research question, regarding intersectional identity and the dimensions of the IFWEM, the test was a one-way ANOVA. This allows for comparison of a continuous dependent variable against at least three groups of an independent variable. In the

case of the intersectional identity analysis, there were ten groups, five race and ethnicity categories by two gender categories.

After the ANOVA was run, each identities financial wellbeing were used as the dependent variable, with the complete regression model run for each identity group. The following formula illustrates the unique identity wellbeing dependent variables, with the same independent and control variables as described previously.

$$\text{Identity*Gender* FWBi} = \beta_0 + \beta_1 \text{Affect}_i + \beta_2 \text{Action}_i + \beta_3 \text{Access}_i + \beta_4 \text{Covariates}_i + \varepsilon_i$$

This comparative multivariate regression analysis allowed for a more comprehensive analysis of how the financial wellbeing of specific intersectional identities is predicted by different independent and control variables.

Table 3

Statistical Tests by Research Question

Research Question	Statistical Test
1 Which dimension of the Inclusive Financial Wellbeing Empowerment Model is most predictive of financial wellbeing?	Hierarchical Regression
2 How does intersectional identity impact each dimension of the Inclusive Financial Wellbeing Empowerment Model (i.e. access, action, and affect)?	One-way ANOVA, repeated for each dimension
3 How does the IFWEM fit as a predictive tool for the financial wellbeing of each intersectional identity?	Multivariate Regression for each Identity*FWB

In order for the dimensions to be tested as continuous variables, summed dimension scores were used. Access scores are a sum of all the questions within the access dimension; with the same computation used for the action and affect dimensions. The frequency distributions are shown in Table 3. All three dimension scores are normally distributed across the full sample.

Coding Procedures

Intersectional identities are 10 groupings by ethnicity and gender, and are used to explore the significant differences in variance across the model dimensions. Because no individual can exist outside of intersectional identity, (i.e. every woman also has a racial or ethnic identity), the importance of intersectional work is to find differences that can be applied to practice more seamlessly than gender or race work alone. Research that can speak to the unique way that ethnicity and gender work together is more likely to be relevant for specific audiences.

Intersectional work can speak to the realities of gender as well as specific cultural norms, which can be applied to clients in a very unique way that cannot be achieved with single axis analyses.

Participants were categorized by intersectional identity through a dummy coding process, resulting in 10 distinct intersectional identities. The intersectional identities (listed in Table 4) allow for an ANOVA to determine identities that were significantly different across each of the three domains of the IFWEM, and are used in the identity specific wellbeing regression to identify divergence among the groups.

Intersectional identity variables were created in SPSS under transform, with the “compute variable” command. Each intersectional identity was created by copying the ethnicity variable and using the *IF* function to use only specific gender codes. All race and gender combinations were used except those who selected multiple race and ethnicity categories, or who selected “prefer not to respond” to the race/ethnicity prompt. This specific code was only used for the

ANOVA methodology. The hierarchical regression used gender, race, and ethnicity as control variables, but included the entire data set.

Table 4

Intersectional Identities & Sample Sizes

Intersectional Identities	N	% of overall sample
Indigenous Women	447	3%
Black Women	1,582	10.5%
Hispanic Women	1,395	9.2%
White Women	11,985	79.2%
Asian Women	728	4.8%
Total Women	15,135	52%
Unused Female Respondents	13,959	48%
Indigenous Men	243	2%
Black Men	1,253	10.5%
Hispanic Men	943	7.9%
White Men	9,456	79.2%
Asian Men	789	4.8%
Total Men	11,956	41.1%
Unused Male Respondents	17,138	58.9%

Composite Dimension Scores were calculated by summing the values within each dimension. Because the data analysis is focused on relationships between the constructs, it was necessary to create dimension scores for a simplified analysis after the initial hypothesis tests were completed. All questions were scored to have the highest numeric response correspond with the optimal financial outcome. In this way, a summed score was able to be created for each dimension by adding all answers for the dimension together. These summed scores were used in the ANOVA for easier comparison between intersectional identities and average score. Table 3 shows the frequency distributions and Figures 8, 9, and 10 show the distribution each of the summed dimension scores. Affect, action, and access score values for asymmetry and kurtosis

between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2010).

Table 5

Frequency Distribution for Summed Dimension Scores

Summed Dimension Scores	Minimum	Maximum	Mean	Median	Std. Deviation	Skewness	Kurtosis
Access	0	11	6.37	7	2.567	-.375	-.774
Action	0	20	10.69	11	3.198	-1.198	1.541
Affect	2	63	39.86	39	11.556	-.005	-.568

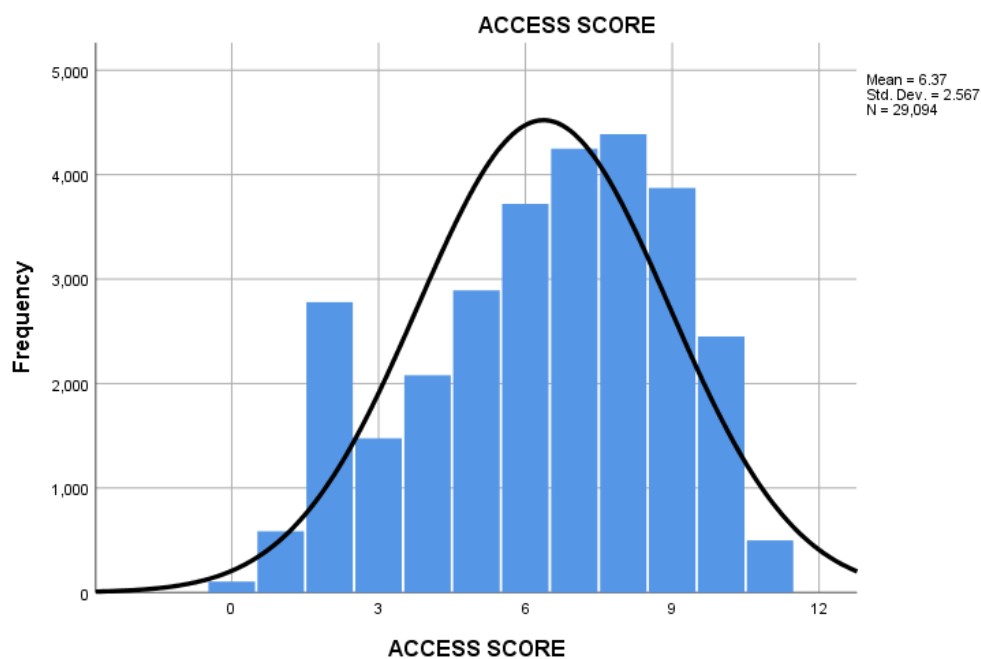


Figure 8. Summed Access dimension score frequency distribution.

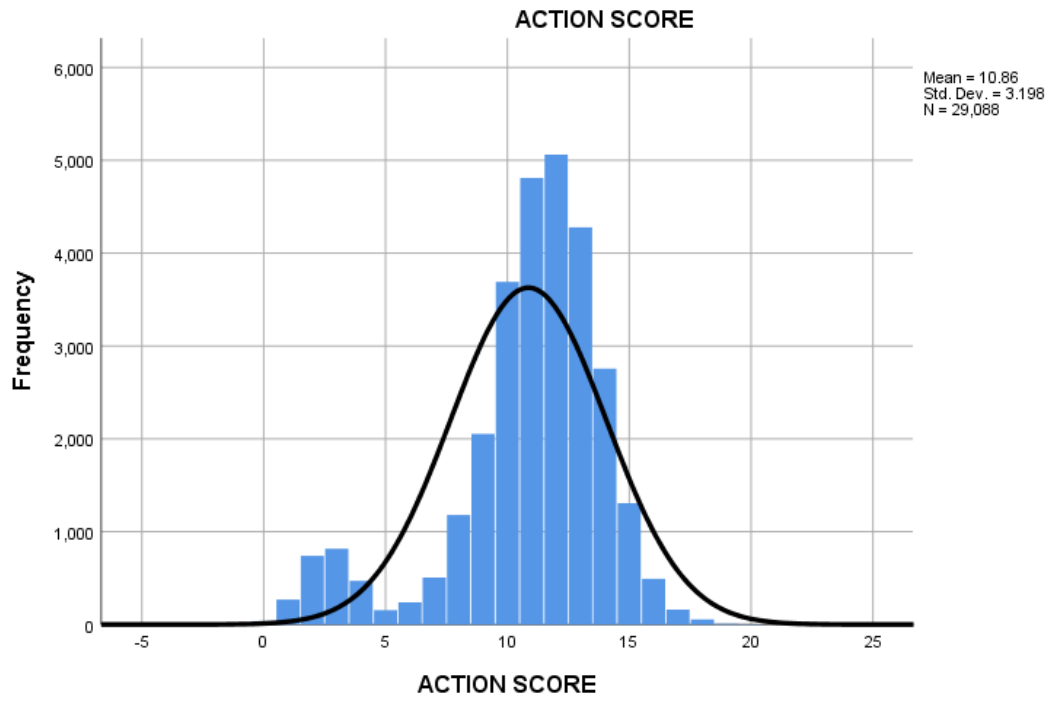


Figure 9. Summed Action dimension score frequency distribution.

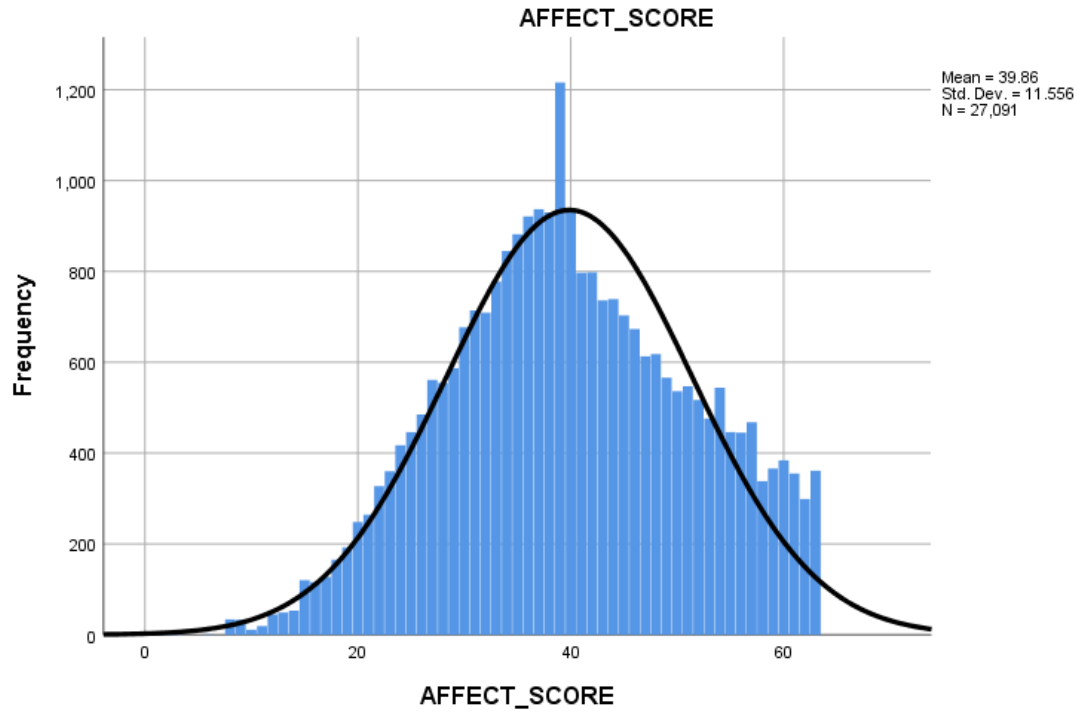


Figure 10. Summed Affect dimension score frequency distribution.

Summed dimension scores were used to determine the differences among intersectional identities for each dimension of the IFWEM. When testing the model fit and overall model application, regression analysis was used. These methods require that variables not be highly correlated. The stress variables were very highly correlated, even to the point of measuring the same overall construct. Because the data was a significant portion of the theoretical model, the underlying items within the stress construct were combined using a principal component analysis – which creates a single financial stress score using all the stress, worry, and anxiety questions.

Stress scores were also created in addition to the simple summed scores using Principal Component Analysis with promax rotation (Gorsuch, 1983; Henson & Roberts, 2006; Thompson & Daniel, 1996). An Eigenvalue of greater than one was used as the standard for extraction (Kaiser, 1960). The sub-dimension score extracted with this method was stress in order to address the correlation and collinearity in the affect dimension.

The four stress questions loaded very well into one latent factor. The Eigenvalue for the single factor extracted was 2.781. Again, all factor loadings were larger than 0.6 (Bagozzi & Yi, 1998). Chronbach's alpha was 0.845, with a composite reliability of 0.780, and variance explained of 0.695, both exceeding the recommended levels of 0.7 and 0.5 respectively (Bagozzi & Yi, 1998; Cortina, 1993; DeVellis, 2016).

Preliminary Testing

Meeting assumptions for multivariate hierarchical regression requires that the sample meet certain assumptions regarding sample size, singularity, correlation and collinearity, as well as normality, linearity, and homoscedasticity. The sample size of 3,650 (after listwise elimination for missing values) is adequate given 27 independent variables (Tabachnick & Fidell, 2001). The independent variables were not combinations of other independent variables, meeting the assumption of singularity. Correlations were all within acceptable ranges, with the exception of the four worry variables, which were reduced into one variable for the subsequent analysis. The collinearity statistics (i.e., VIF and Tolerance) were within conservative accepted limits of Tolerance larger than 0.2 and Variance Inflation Factor values less than 5 (Hair, Black, Babin, Anderson, & Tatham, 1998). No extreme outliers were encountered, as the data was cleaned and modified as described in the variable creation section above. Reviewing the dimension score frequency tables (including skewness and kurtosis data) and histograms show that the data meets assumptions of normality, linearity and homoscedasticity (Pallant, 2001).

Table 7

Correlation and Collinearity

Variable	Correlations			Collinearity	
	Zero-order	Partial	Part	Tolerance	VIF
Model 4					
Indigenous	-0.015	-0.004	-0.002	0.963	1.039
Black	0.120	-0.016	-0.010	0.362	2.762
Hispanic	-0.043	-0.023	-0.015	0.558	1.793
White	-0.054	0.012	0.008	0.286	3.493
Asian	-0.026	0.034	0.022	0.523	1.913
Gender	-0.081	-0.091	-0.060	0.800	1.249
Age	-0.255	0.018	0.012	0.608	1.645
Education	-0.113	0.040	0.026	0.775	1.290
Income	-0.203	-0.055	-0.036	0.626	1.598
Marital Status	0.172	0.059	0.038	0.839	1.192
Risk Tolerance	0.214	0.039	0.025	0.588	1.700
AFFECT					
mgmt_conf	-0.094	-0.008	-0.005	0.724	1.381
know_conf	0.057	0.046	0.030	0.599	1.669
confidence	-0.147	-0.025	-0.016	0.588	1.699
satisfaction	-0.093	-0.040	-0.026	0.430	2.325
self-efficacy	0.002	0.013	0.008	0.813	1.230
worry	0.713	0.539	0.417	0.526	1.902
ACTION					
online_gig	0.008	-0.005	-0.003	0.979	1.021
work_status	0.387	0.132	0.087	0.522	1.917
yr_spend	0.103	-0.008	-0.005	0.894	1.118
cover_exp	-0.381	-0.057	-0.037	0.665	1.503
cc_paid_full	0.042	-0.062	-0.040	0.621	1.610
will	-0.070	-0.012	-0.008	0.725	1.380
unex_expense	0.240	0.006	0.004	0.600	1.666
retire_need	0.023	0.015	0.010	0.810	1.234
emergency	-0.136	-0.013	-0.009	0.557	1.796
kid_edu	0.043	-0.029	-0.019	0.699	1.431
nonret_invest	0.010	-0.047	-0.030	0.717	1.394
ret_regular	0.028	-0.014	-0.009	0.845	1.184
ACCESS					
checking_acct	-0.030	0.020	0.013	0.947	1.056
savings_acct	-0.044	0.020	0.013	0.909	1.101
auto	0.219	0.008	0.005	0.822	1.217
income_shock	-0.484	-0.146	-0.096	0.590	1.696
fin_knowledge	-0.289	-0.049	-0.032	0.636	1.573

Meeting Assumptions for ANOVA requires a normal distribution for the test variable, and that the groups being tested are independent samples, or use mutually exclusive criteria. All three dimensions have skewness within the -1 to 1 guidelines, and kurtosis between the -2 to 2 guideline (George & Mallery, 2010). ANOVA is appropriate for a continuous dependent variable (i.e. the summed dimension scores), and at least three mutually exclusive independent groups. The one-way ANOVA is conducted with 10 independent groups, exceeding the basic requirements.

Summary

The first main goal of this research is to explore a new model for understanding financial wellbeing, which was accomplished by building out the inclusive financial wellbeing empowerment model (IFWEM). The IFWEM was built out on theoretical models that included known antecedents of Financial Wellbeing as well as considerations for a model of social inclusion, and an empowerment model.

The second focus of this research is to understand the relationship between Access, Action, and Affect as the dimensions of IFWEM. These dimensions were created using sub-dimensions which were operationalized through the National Financial Capability Survey questions, and were tested to meet the preliminary requirements for a hierarchical multivariate regression.

The final goal of this research is to explore the differences in financial wellbeing through the IFWEM across 10 intersectional identities. This analysis will be executed through an ANOVA of the dimensions of IFWEM by the ten intersectional identities, followed by separate multivariate regression analyses for the financial wellbeing of each of the 10 intersectional identities. The preliminary assumptions for ANOVA and regression analysis were satisfied. Chapter four will explore the results of both the hierarchical multivariate regression and the ANOVA tests.

CHAPTER 4

RESULTS

The three goals of this research are to (a) conceptualize a more inclusive financial wellbeing model, including dimensions, sub-dimensions, and operationalizing the concepts (i.e., IFWEM); (b) understand the relationship among the dimensions of IFWEM (access, action, and affect); and (c) explore the differences among the 10 intersectional identities across each of the three dimensions of the IFWEM. This chapter outlines the results of the statistical tests described in the previous chapter. This chapter also states whether the hypotheses stated in chapter one are supported or not.

Demographic Characteristics

The Indigenous sample was 64% female, with an average age of 47, 55% were married, and 34% were single, 47% have graduated from college, have a median income of \$50,000 - \$74,999, and have an average risk tolerance of 4.38. The Black sample was 55% female, with an average age of 41, was 58% single, 63% did not graduate from college, have a median income of \$35,000 - \$49,999, and the distribution of risk tolerance has 16% at not willing to accept any risk and 15% at very willing to accept risk, with an average risk tolerance of 5.36. The Hispanic subset was 59% female with an average age of 38, was 45% married, 59% did not graduate from college, have a median income of \$35,000 - \$49,999, and have an average risk tolerance of 5.04. The Asian subset was 47% female with an average age of 40, was 45% married, 57% have graduated from college, have a median income of \$50,000 - \$74,999, and the average risk

tolerance is 5.59. The White subset was 55% female with an average age of 49, was 56% married, 46% have graduated from college, have a median income of \$50,000 - \$74,999, and the average risk tolerance is 4.79. Table 8 shows the demographic breakdown of each of the five race and ethnicity variables used in this analysis.

Table 8

Control Variable Descriptive Statistics by Race and Ethnicity

Demographic Variable	Indigenous	Black	Hispanic	Asian	White
Gender					
Women	447	1,582	1,395	728	11,985
Men	243	1,253	943	789	9,456
Age	47.57	41.03	38.71	40.37	49.53
Marital Status					
Married	380	883	1,070	689	12,189
Living with Partner	68	292	282	98	1,641
Single	241	1,660	986	517	7,621
Income					
Less than \$15,000	68	579	343	147	2,091
\$15,000 - \$24,999	60	370	262	89	2,162
\$25,000 - \$34,999	72	344	314	96	2,264
\$35,000 - \$49,999	111	398	396	149	3,128
\$50,000 - \$74,999	147	496	437	267	4,228
\$75,000 - \$99,999	101	366	276	199	3,114
\$100,000 - \$149,000	89	198	201	221	2,911
\$150,000+	42	84	109	136	1,552
Education					
Did not complete HS	20	87	74	18	531
High School/GED	152	757	609	173	5,426

Some college	189	966	697	244	2,616
Associate's degree	76	308	289	138	2,243
Bachelor's degree	135	492	448	440	4,735
Post graduate degree	118	225	221	291	2,899
Risk Tolerance					
Not At All Willing 1	125	456	335	101	3,300
2	53	177	129	62	1,602
3	100	212	240	110	2,385
4	67	257	249	130	2,199
5	97	367	344	197	2,950
6	73	227	254	179	2,410
7	79	264	270	20	2,637
8	47	201	187	141	1,668
9	12	108	88	61	670
Very Willing - 10	19	445	166	90	1,034

Note: *Indigenous populations are the combination of Native American, Alaska Native, Native Hawaiian, and Pacific Islander.

Representativeness of the sample

Because the survey and data collection was designed to closely mimic the demographic breakdown of the U.S. population, the sample is representative of the population (NCFS, 2019). For the hierarchical regression analysis, the national weighting variable was used to ensure a representative analysis. Cases were eliminated list wise for missing values, and the final sample size for the hierarchical regression was 3,650.

Hierarchical Regression Results

The first statistical test run was a four-stage hierarchical multiple regression with financial wellbeing scores as the dependent variable. The first stage included the demographic variables, as this is an intersectional analysis – and the variation accounted for by race, ethnicity,

gender was relevant to the analysis. This first stage of the analysis showed that the control variables contributed significantly to the regression model, $F(3638) = 54.151$, $p < .00$, and accounted for The Affect variables were entered in step two, with Action entered in step three, and Access entered as step four. The variables were entered in this order to follow the theoretical mapping, which posits that Affect has the largest impact on the financial wellbeing, with actions having the second most impact, and access having the least impact on wellbeing, although a significant impact in the other two dimensions. It may also be that because access is required for action to be taken with financial services, that affect should be entered first. Because of this fluid theoretical framework, where the nested dimensions could impact each other in any permutation, all six possible variations were run. Findings from all six models are in Table 9.

Table 9

Results of 6 Possible Iterations of Hierarchical Regression

Hierarchical Regression	First	Second	Third	Fourth	R ²
1	Covariates	Affect	Action	Access	.575
F Change	54.151	533.990	13.944	19.152	
R ² Change	.141***	.403***	.020***	.011***	
2	Covariates	Affect	Access	Action	.575
F Change	54.151	533.990	31.779	8.8695	
R ² Change	.141***	.403***	.019***	.012***	
3	Covariates	Action	Access	Affect	.575
F Change	54.151	73.422	82.770	276.772	
R ² Change	.141***	.168***	.071***	.195***	
4	Covariates	Action	Affect	Access	.575
F Change	54.151	73.422	352.468	19.152	
R ² Change	.141***	.168***	.255***	.011*	
5	Covariates	Access	Action	Affect	.575

F Change	54.151	156.616	42.077	276.772	
R ² Change	.141***	.152***	.087***	.195***	
	6	Covariates	Access	Affect	Action
F Change	54.151	156.616	372.508	8.695	.575
R ² Change	.141***	.152***	.270***	.012***	

Note. N =3,650; *p < .05, **p < .01, ***p< .001

RQ1: Which dimension of the IFWEM is most predictive of financial wellbeing?

H1: Among the three dimensions, affect will be the most predictive of financial wellbeing.

The results of the hierarchical regression support the first hypothesis. Affect is by far the most significant predictor of financial wellbeing. Regardless of how it is ordered in the regression, affect had the highest F-change indicating more significant predictive power than either action or access. In an effort to explore the two sub-dimensions of affect, a Principal Component Analysis was performed to reduce affect to self-perceptions and stress. For the overall model, when comparing the two sub-dimensions of affect, ceteris paribus, only stress was significantly predictive of financial wellbeing. For the full sample, stress was more predictive than actions or access on financial wellbeing.

When the Principal Component Analysis factor of stress is regressed on wellbeing, it produces an R² of .462. In other words, this single factor regression accounted for 46% of the variability in financial wellbeing of the overall sample, as compared to the full model (29 variables) that accounted for 57% of the variability in financial wellbeing. The addition of 28 variables only accounted for an additional 11% of the variability in financial wellbeing scores across the full sample.

Table 10

Detailed Results of Hierarchical Regression

Variable	β	t	P -value	R	ΔR^2	R^2
Model 1			0.000	.375	.141	.141
Indigenous	-0.011	-0.010	0.992			
Black	0.874	1.109	0.267			
Hispanic	-1.372	-2.250	0.025			
White	0.838	1.251	0.211			
Asian	0.462	0.531	0.596			
Gender	-0.945	-2.564	0.010			
Age	-0.165	-10.932	0.000			
Education	-0.233	-2.120	0.034			
Income	-1.093	-8.697	0.000			
Marital Status	1.507	6.236	0.000			
Risk Tolerance	0.701	9.562	0.000			
Model 2			0.000	.737	.403	.543
Indigenous	-0.160	-0.205	0.838			
Black	0.048	0.083	0.934			
Hispanic	-0.814	-1.824	0.068			
White	0.344	0.704	0.482			
Asian	1.335	2.095	0.036			
Gender	-1.756	-6.461	0.000			
Age	-0.030	-2.637	0.008			
Education	0.070	0.870	0.385			
Income	-0.616	-6.626	0.000			
Marital Status	0.907	5.130	0.000			
Risk Tolerance	0.243	4.028	0.000			
AFFECT						
mgmt_conf	-0.174	-1.597	0.110			
know_conf	0.590	4.381	0.000			
confidence	-0.201	-0.980	0.327			
satisfaction	0.067	1.040	0.298			
self-efficacy	0.039	0.385	0.700			
worry	7.277	52.078	0.000			
Model 3			0.000	.751	.020	.564
Indigenous	0.079	0.102	0.918			
Black	-0.262	-0.461	0.644			
Hispanic	-0.599	-1.361	0.173			
White	0.346	0.718	0.473			
Asian	1.126	1.796	0.073			
Gender	-1.429	-5.280	0.000			
Age	-0.001	-0.111	0.911			

Education	0.073	0.921	0.357			
Income	-0.405	-4.179	0.000			
Marital Status	0.681	3.897	0.000			
Risk Tolerance	0.158	2.594	0.010			
AFFECT						
mgmt_conf	-0.066	-0.610	0.542			
know_conf	0.388	2.913	0.004			
confidence	-0.245	-1.197	0.231			
satisfaction	-0.115	-1.636	0.102			
self-efficacy	0.065	0.649	0.516			
worry	6.695	43.968	0.000			
ACTION						
online_gig	-0.067	-0.367	0.714			
work_stat	3.563	9.976	0.000			
yr_spend	-0.157	-1.052	0.293			
cover_exp	-0.748	-4.543	0.000			
cc_paid_in_full	-1.300	-4.212	0.000			
will	-0.544	-1.916	0.055			
unexpected_expense	0.158	0.895	0.371			
retirement_need	0.212	0.726	0.468			
emergency	-0.096	-0.276	0.783			
kid_edu	-0.395	-1.347	0.178			
non_ret_invest	-0.687	-2.389	0.017			
ret_regular	-0.432	-1.191	0.234			
Model 4			0.000	.758	.011	.575
Indigenous	-0.168	-0.221	0.825			
Black	-0.532	-0.945	0.345			
Hispanic	-0.594	-1.362	0.173			
White	0.337	0.705	0.481			
Asian	1.287	2.073	0.038			
Gender	-1.498	-5.509	0.000			
Age	0.013	1.062	0.288			
Education	0.193	2.377	0.017			
Income	-0.320	-3.293	0.001			
Marital Status	0.613	3.539	0.000			
Risk Tolerance	0.141	2.332	0.020			
AFFECT						
mgmt_conf	-0.051	-0.473	0.636			
know_conf	0.363	2.747	0.006			
confidence	-0.300	-1.479	0.139			
satisfaction	-0.167	-2.380	0.017			
self-efficacy	0.078	0.782	0.434			
worry	6.176	38.467	0.000			
ACTION						

online_gig	-0.057	-0.315	0.753
work_status	2.900	8.004	0.000
yr_spend	-0.072	-0.488	0.625
cover_exp	-0.560	-3.416	0.001
cc_paid_in_full	-1.151	-3.717	0.000
will	-0.210	-0.743	0.458
unexpected_expense	0.067	0.384	0.701
retirement_need	0.258	0.882	0.378
emergency	-0.279	-0.809	0.419
kid_edu	-0.500	-1.724	0.085
non_ret_invest	-0.800	-2.801	0.005
ret_regular	-0.296	-0.824	0.410
ACCESS			
checking_acct	1.494	1.195	0.232
savings_acct	0.550	1.185	0.236
auto	0.126	0.469	0.639
number_cc	NA	NA	
income_shock	-3.136	-8.898	0.000
fin_knowledge	-0.297	-2.968	0.003

Note. N =3,650; *p < .05, **p < .01, ***p< .001

Table 11

Summary of Hierarchical Regression for IFWEM Dimensions on Financial Wellbeing

Model	df1	df2	F	F Change	R	R ²	ΔR^2	P-value
1	11	3638	54.151	54.151	.375	.141	.141***	.000
2	17	3632	254.306	533.990	.737	.543	.403***	.000
3	29	3620	161.221	13.944	.751	.564	.020***	.000
4	34	3615	143.776	19.152	.758	.575	.011***	.000

Note. N =3,650; *p < .05, **p < .01, ***p< .001

Table 12

PCA Worry Regressed on Financial Wellbeing

Model	B	t	F	R	R ²	P-value
AFFECT: Worry	7.030	150.510	22653.346	.680	.462	.000

Note. N =26,344; *p < .05, **p < .01, ***p< .001

ANOVA Results

RQ2: How does each dimension (i.e., access, action, and affect) of the Inclusive Financial Wellbeing Empowerment model differ across intersecting identities of race/ethnicity and gender?

Three separate one-way between subjects ANOVAs were conducted to compare the impact of intersectional identity on (1) Affect, (2) Action, and (3) Access, in ten unique combinations of race, ethnicity, and gender.

In each of the three dimensions of the IFWEM, some intersectional identities significantly impacted the dimension scores. The final three hypotheses will be evaluated first, followed by a more detailed results description for each of the ten intersectional identities across the three dimensions.

H2: The intersecting identities of race, ethnicity, and gender will significantly differ in mean Access scores.

A one-way between subjects ANOVA was conducted to compare the impact of Access on 10 intersectional identities. Intersectional identity had a significant impact for eight of the ten identities at the $p < .001$ level.

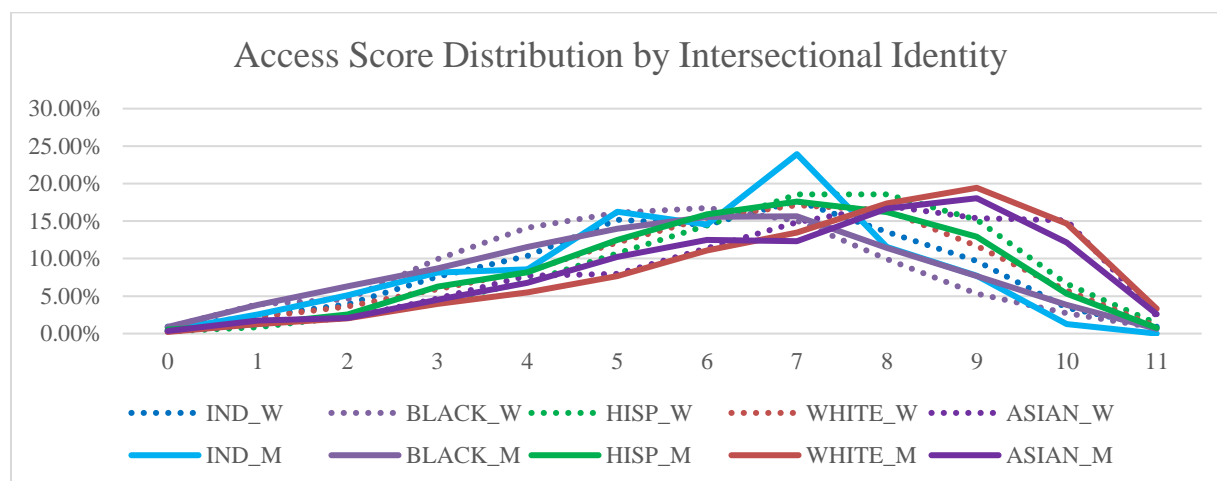


Figure 11. Summed access score distribution by intersectional identity.

As indicated in Figure 11, access to financial services was skewed toward high accessibility for the overall sample, with significant between-group differences. For the majority of the sample, accessibility does not appear to be a barrier. However, as has been indicated by previous literature, both race and gender interact in the expected manner to increase or decrease access to formal financial services. Black men had the lowest access mean Access scores, with White men experiencing the highest access. The distribution of the mean scores for Black men was significantly different from White men, with Black men's scores peaking at a score of 7, while White men's Access scores peak at 9. The results mimic the Income across the lifespan graph in Figure 1, showing the expected correlating trends between income and access.

H3: The intersecting identities of race, ethnicity, and gender will significantly differ in mean Action scores.

Intersectional identity had a significant impact for two of the ten identities at the $p < .01$ level, and three of the ten identities at the $p < .05$ level for the Action dimension.

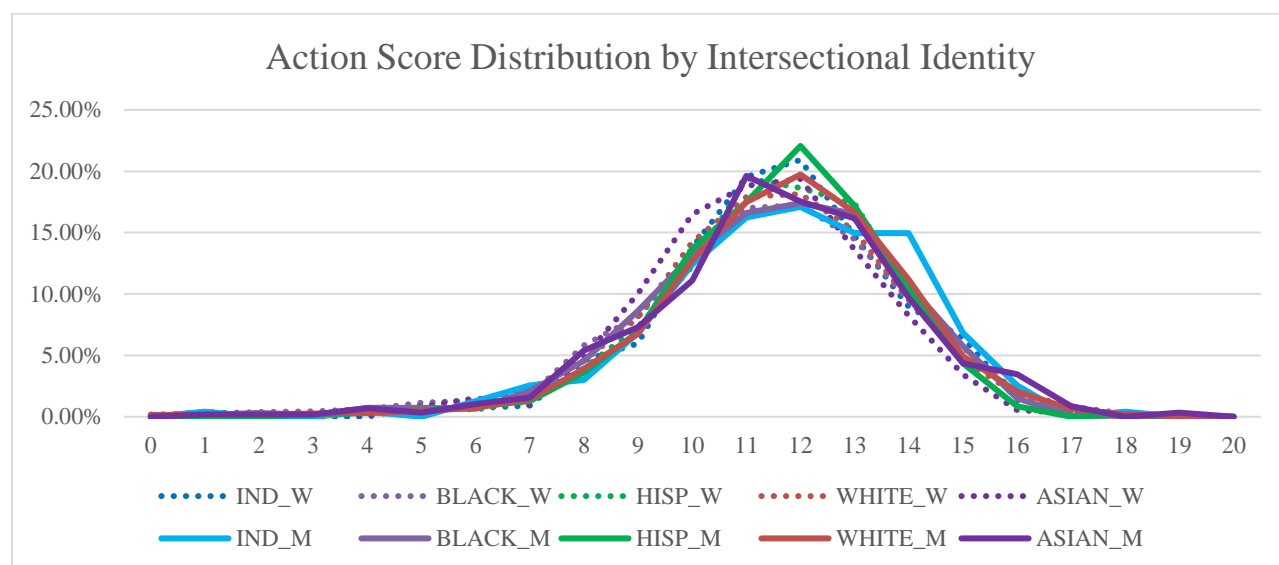


Figure 12. Summed action score distribution by intersectional identity.

Action score distributions were more similar across intersectional identity groups than Access or Affect dimension scores. A visual inspection of the data shows that trends among the action dimension are more symmetrical. Five identities showed statistically significant difference, including Black women and men, Hispanic women, and Asian women and men.

H4: The intersecting identities of race, ethnicity, and gender will significantly differ in mean Affect scores.

Hypothesis four is supported. The Affect dimension showed significance across six out of ten intersectional identities at the $p < .001$ level, and one at the $p < .01$ level.

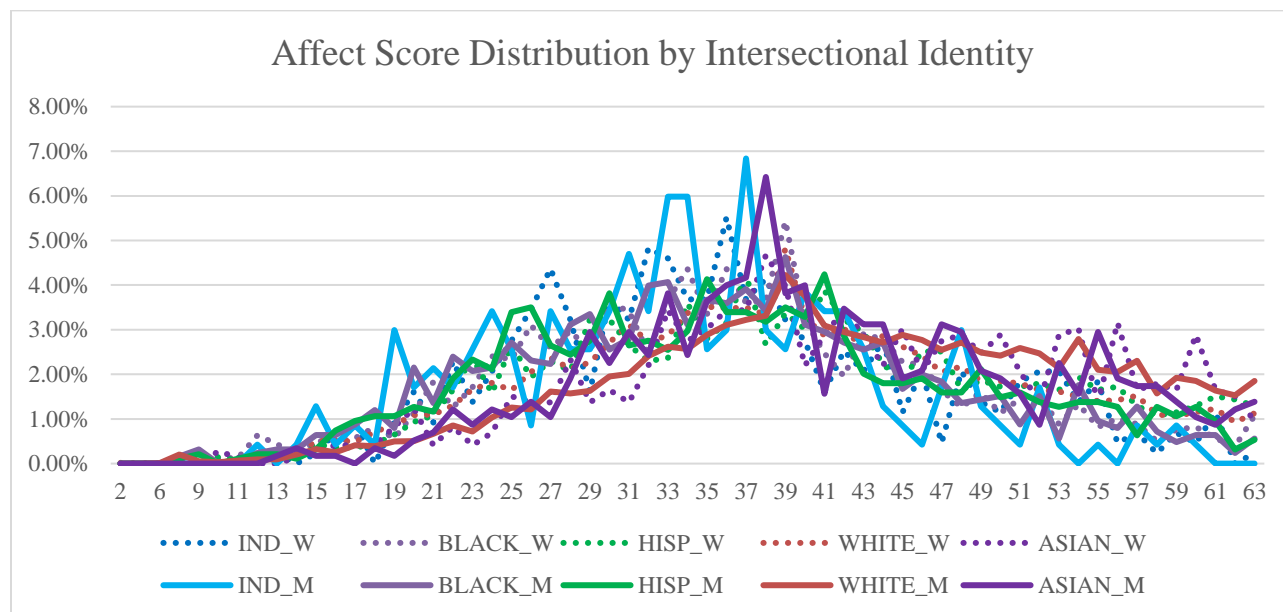


Figure 13. Summed affect score distribution by intersectional identity.

As shown in Figure 13, the affect dimension shows significant difference in trends between groups. The range of answers is much larger for this dimension, so additional variability is to be expected. Women trend toward lower scores (increased worry, anxiety, and lower self-perception) which are consistent with previous literature. Men's scores trend toward higher affect scores (decreased worry and anxiety, and higher self-perception). Significant impact was seen in all male identities except Asian men, and in Indigenous, Black, and Asian female identities for the Affect dimension.

Table 13

ANOVA for Dimensions by Intersectional Identities

Intersectional Identity/ df	Affect		Action		Access	
	F	Sig.	F	Sig.	F	Sig.
Between Groups	57		20		11	
Within Groups (W)	15,077		15,112		15,123	
Within Groups (M)	11,899		11,933		11,944	
Indigenous Women	1.530	.006	0.867	.631	1.420	.156
Black Women	2.241	.000	1.571	.050	26.728	.000
Hispanic Women	1.203	.141	1.913	.008	6.449	.000
White Women	1.146	.211	0.861	.638	3.652	.000
Asian Women	2.419	.000	1.604	.043	15.635	.000
Indigenous Men	2.880	.000	0.816	.690	9.211	.000
Black Men	6.707	.000	1.662	.035	51.607	.000
Hispanic Men	4.251	.000	1.262	.197	12.250	.000
White Men	6.710	.000	1.256	.201	42.102	.000
Asian Men	1.161	.193	2.060	.004	0.434	.942

Note: Affect Total N =27,089; Action Total N =27,084; Access Total N =27,089

RQ3: How does the IFWEM fit as a predictive tool for the financial wellbeing of each intersectional identity?

H5: Model fit will be most predictive of the financial wellbeing of White women and White men.

Hypothesis 5 was partially supported. When intersectional identity wellbeing was used as the dependent variable in a regression analysis, model fit was different for each intersectional identity (see Table 14). Model fit was highest for Black men, followed by White women and Black women. The model fit for Black men was more than double that of White men. White women were hypothesized as one of the top two, however, Black men were not.

H6: Significance among independent and control variables will be different for the financial wellbeing of each of the 10 intersectional identities.

Hypothesis six is supported. When the intersectional identity wellbeing was used as the dependent variable in a regression analysis, the independent and control variables that were statistically significant predictors of financial wellbeing were unique for each of the 10 identities. Each intersectional identity was unique from the identities of the same gender, as well as the identity that shared a race or ethnicity identifier. Some trends were consistent across racial or ethnic groups, but none that were true across gender without exception.

Intersectional Identity Results

The following section will evaluate the differences by intersectional identity. Table 13 shows the F statistics and significance levels for each of the identities across each dimension from the ANOVA. The top three rows have the degrees of freedom for the dimension, followed by the sample size of the group comparisons. Table 14 illustrates the 10 intersectional identity financial wellbeing scores as the dependent variable in the multivariate regression with the complete IFWEM control and independent variable list. The table shows which variables were estimated to be significant predictors of financial wellbeing at the $p < .001$ (***) , $p < .01$ (**), and $p < .05$ (*) levels. Also included in Table 7 is a comparison of the number of significant variables for each identity that was a control, Access, Action, or Affect variable. The R^2 is listed directly underneath each identity. Results from both the ANOVA and regression analysis are reported for each intersectional identity.

Table 14

Identity Specific Regression Results Comparison

IdentifyFWB	Indigenous Women	Indigenous Mer	Black Women	Black Me	Hispanic Women	Hispanic Me	Asian Women	Asian Mer	White Women	White Mer	%	Overall Sample
R ²	0.018	0.021	0.093	0.225	0.081	0.072	0.071	0.043	0.12	0.087		0.575
GENDER												***
AGE	***		*	***	***	**	***	***	***	***	0.7	***
EDU			***		***	***	***	***	***	***	0.4	*
INCOME				***	*	*	**	**	**	**	0.6	***
MARSTAT		**	***	***			***	***	***	***	0.5	***
RISK_TOL			***				**	*	*	*	0.4	*
CHECK_ACCT			*	*	*	*	*	*	*	*	0.4	
SAVE_ACCT				**	*		*	*	*	*	0.2	
AUTO		*	***	***	***	**	**	**	**	**	0.5	
NUM_CC	*	*	***	*	*	***	***	**	***	***	0.7	
INCOME_SHOCKS		**	***	*	*	***	***	**	***	***	0.5	***
FIN_KNOW			***	***	***	***	***	***	***	***	0.4	**
ONLINEG			***	***	***	**	***	***	***	***	0.6	
WORK_STAT			***	***	***	*	*	***	***	***	0.4	***
YR_SPEND			***	***	**	*	*	***	***	***	0.2	
COVER_EXP											0	**
CC_PAIDFULL	*		***	**	***	***	***	***	***	***	0.6	***
WILL	*	**	**	*	**	***	***	***	*	*	0.9	
UNEXP			*	*	**	*	*	*	*	*	0.3	
RET_NEED				*	**	*	*	*	*	*	0.3	
EMERGENCY		**			*		*	*	*	*	0.3	
KIDS_EDU						***					0	
NON_RET_INVEST				**		***		***			0.2	**
RET_REGULAR			*	***	*		**	***			0.3	
MGMT_CONF				*	*	**	**	**	***	***	0.4	
KNOW_CONF			*	**	***	**	*	**	*	*	0.4	**
CONFIDENCE	*	*	*	*	*	**	**	**	***	***	0.8	
SATISFACTION		***	**	**	**	*	**	**	**	**	0.3	*
SELF_EFFICACY			***	***	***	*	**	**	***	***	0.4	
WORRY			***	***	**	*	*	***	***	***	0.6	***

Each intersectional identity results section includes a graph that shows the mean distribution for each identity subgroup compared to the entire sample mean distribution. The entire sample mean distributions are illustrated with a solid grey distribution, and the subgroup distributions are displayed on top of those with a checkered distribution overlaying the group.

Indigenous women did not show significantly different rates of access to financial services, or financial actions taken. Indigenous women did show significant differences in affect scores at the $p < .01$ level for the three conditions $F(57, 15077) = 1.530, p = .006$. The ANOVA does not indicate the direction of difference for distributions, but a visual inspection of the distribution of scores for Indigenous women in Figure 13 shows that affect scores are lower compared to women in general. In other words, Indigenous women feel significantly more worry and anxiety and report lower self-perceptions as compared to other identity groups.

The Indigenous Women's financial wellbeing regression analysis had an R^2 of 0.018. This was the lowest of all 10 identities. Age was significant at the $p < .001$ level. Number of credit cards, credit cards paid in full, having a will, and financial confidence were significant at the $p < .05$ level.

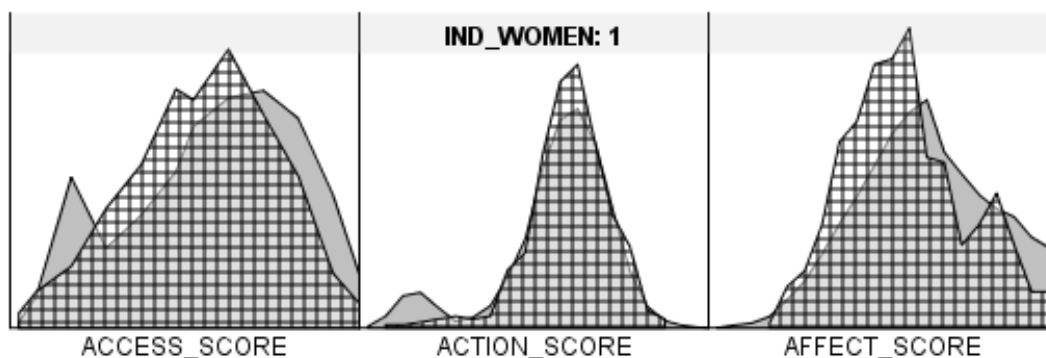


Figure 14. Indigenous women's mean scores across IFWEM dimensions.

Black women's scores were significantly different in Access and Affect at the $p < .001$ level, and Action scores at the $p < .05$ level. Black women's Access scores were significantly different for the three conditions $F(11, 15123) = 26.728, p = .000$. Figure 7 shows that Black women have the highest frequency of the lowest levels of Access of all identity groups. Figure 11 shows that the mean distribution for Black women is significantly lower than the entire sample mean. Action scores were different for the conditions $F(20, 15112) = 1.571, p = .050$. Inspecting Figure 11 shows again that Black women's distribution of financial Actions taken has no loading toward the lowest end, which is the distribution for women as a group. Affect scores were different for the conditions $F(57, 15077) = 2.241, p = .000$. Figure 16 shows that there is a high grouping of mean scores in the center, which occurs at higher rates with this group.

The results for Black Women's financial wellbeing regression analysis was an R^2 of 0.093. Marital status, risk tolerance, income shocks, financial knowledge, gig work, work status, and paying credit cards in full were significant at the $p < .001$ level. Financial satisfaction and self-efficacy were significant at the $p < .01$ level. Income, being able to handle an unexpected expense, regularly contributing to retirement, and financial confidence were significant at the $p < .05$ level.

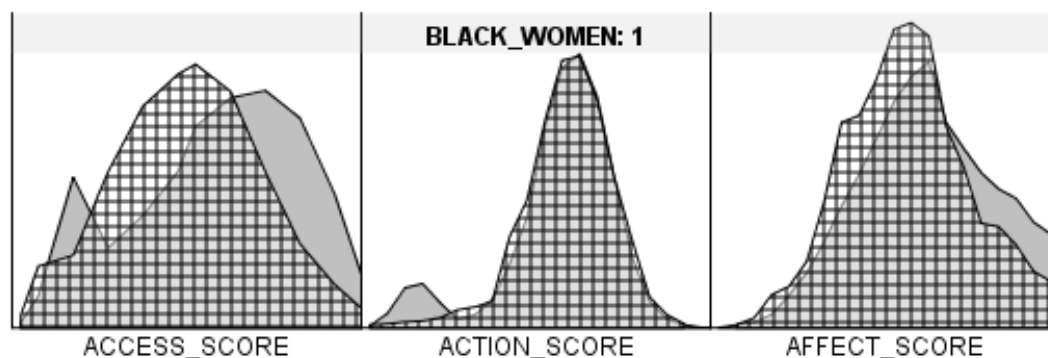


Figure 12. Black women's mean scores across IFWEM dimensions.

Hispanic women scored significantly different in the dimensions of Access at the $p < .001$ level and Action at the $p < .01$ level. Hispanic women's Access scores were significantly different for the three conditions $F(11, 15123) = 6.449, p = .000$. Action scores were different for the conditions $F(20, 15112) = 1.913, p = .008$. Looking at Figure 8 shows that Hispanic women take financial actions at a rate that exceeds that of about half the other identity groups. Again, they are significantly different, but they are participating at higher rates. Affect scores were not significantly different.

The results for Hispanic Women's financial wellbeing regression analysis was an R^2 of 0.081. Age, income, gig work, regularly contributing to retirement, financial satisfaction and worry were significant at the $p < .001$ level. Subjective financial knowledge, investing outside of retirement, having a will, paying credit cards in full, and having a savings account were significant at the $p < .01$ level. Having a checking account, number of credit cards, income shocks, knowing retirement need, and confidence in managing day-to-day finances were significant at the $p < .05$ level.

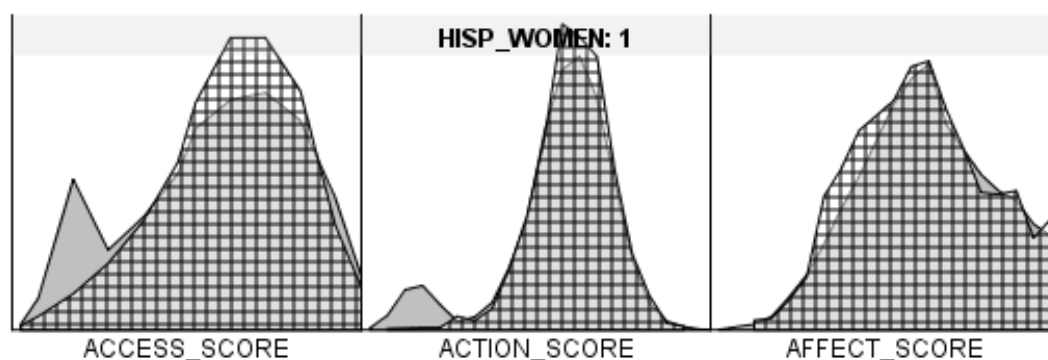


Figure 13. Hispanic women's mean scores across IFWEM dimensions.

White women only differed in Access to financial services at the $p < .001$ level, but did not significantly differ in Affect or Action scores. White women's Access scores were significantly different for the three conditions $F(11, 15123) = 3.652, p = .000$. White women were the largest identity subset of the sample, and as such their distribution is smoother than the others. Interestingly, Figure 9 shows the difference between White women and men is dramatic.

The results for White Women's financial wellbeing regression analysis was an R^2 of 0.120. Age, education, marital status, financial knowledge, gig work, work status, having a will, regularly contributing to retirement, and worry were significant at the $p < .001$ level. Number of credit cards and confidence were significant at the $p < .01$ level. Risk tolerance was significant at the $p < .05$ level.

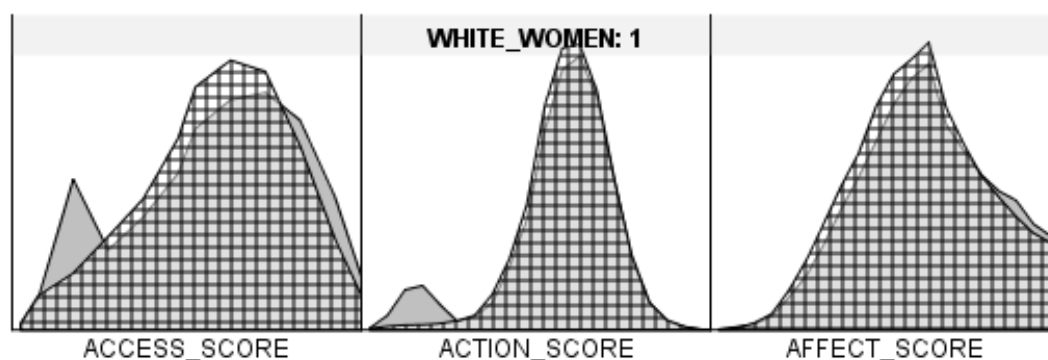


Figure 14. White women's mean scores across IFWEM dimensions.

Asian women's scores were significantly different in Access and Affect at the $p < .001$ level, and Action scores at the $p < .05$ level. Asian women's Access scores were significantly different for the three conditions $F(11, 15123) = 15.635, p = .000$. Figure 7 shows that Asian women experience the highest levels of Access of all women, and are only lower than Asian men and White men. Action scores were different for the conditions $F(20, 15112) = 1.604, p = .043$. Inspecting Figure 14 shows again that Asian women's distribution of financial Actions taken has a lower-skewed distribution, indicating that the average action score for Asian women is higher when compared to other identities. Affect scores were different for the conditions $F(57, 15077) = 2.419, p = .000$. Asian women are one of only three identities that showed significant difference across all three dimensions, with Black men and women.

The results for Asian Women's financial wellbeing regression analysis was an R^2 of 0.071. Education, number of credit cards, paying credit cards in full, having a will, and investing outside of retirement were significant at the $p < .001$ level. Confidence, gig work, having an auto loan, and age were significant at the $p < .01$ level. Having a checking account, self-efficacy, and income were significant at the $p < .05$ level.

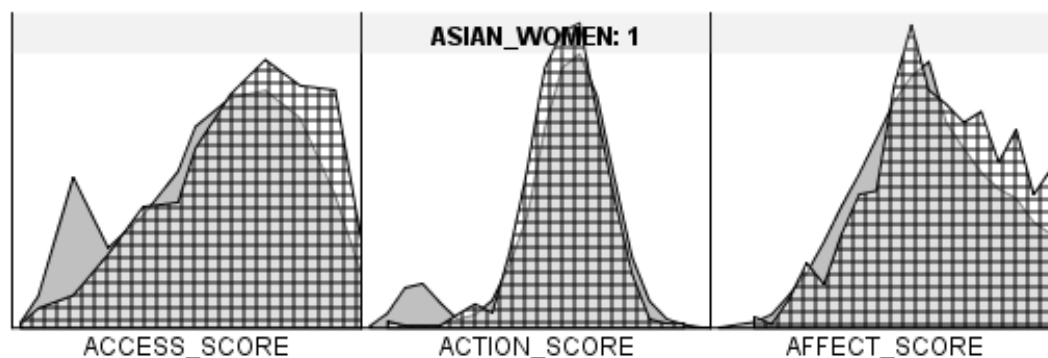


Figure 15. Asian women's mean scores across IFWEM dimensions.

Indigenous men scored significantly different in the dimensions of Access and Affect at the $p < .001$ level. Indigenous men's Access scores were significantly different for the three conditions $F(11, 11944) = 9.211, p = .000$. Indigenous men's distribution of Access scores shows mean scores are lower than the general sample. Affect scores were different for the conditions $F(57, 11899) = 2.880, p = .000$. Looking at Figure 15 shows that Indigenous men on average feel more worry and anxiety and report lower self-perceptions. Action scores were not significantly different.

The Indigenous men's financial wellbeing regression analysis had an R^2 of 0.021. Financial satisfaction was significant at the $p < .001$ level. Having a will, having an emergency fund, income shocks, and marital status were significant at the $p < .01$ level. Number of credit cards, having an auto loan, and financial confidence were significant at the $p < .05$ level.

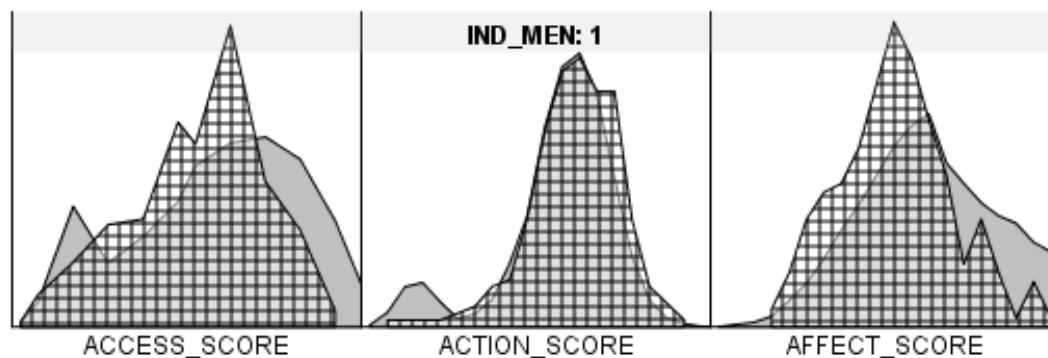


Figure 16. Indigenous men's mean scores across IFWEM dimensions.

Black men's scores were significantly different in Access and Affect at the $p < .001$ level, and Action scores at the $p < .05$ level. Black men's Access scores were significantly different for the conditions $F(11, 11944) = 51.607, p = .000$. Figure 16 shows that Black men's mean distribution is much lower than the entire group mean for Access. Action scores were different for the conditions $F(20, 11933) = 1.662, p = .035$. Inspecting Figure 8 shows that Black men's frequency of Action scores is skewed to the lower end, indicating that fewer Black men fully engage with financial services. This is not surprising, as access to financial services is significantly lower for Black men, which is a prerequisite to taking Action. Affect scores were different for the conditions $F(57, 11899) = 6.707, p = .000$. The distribution of Black men's Affect scores in Figure 9 is indicative of more feelings of worry and anxiety, as well as lower reported positive self-perceptions.

Black men's financial wellbeing regression analysis R^2 was 0.225. Education, marital status, having an auto loan, number of credit cards, income shocks, financial knowledge, gig work, annual spending compared to annual income, confidence, self-efficacy, and worry were significant at the $p < .001$ level. Having a will was significant at the $p < .01$ level. Age, having a checking account, and subjective financial knowledge were significant at the $p < .05$ level.

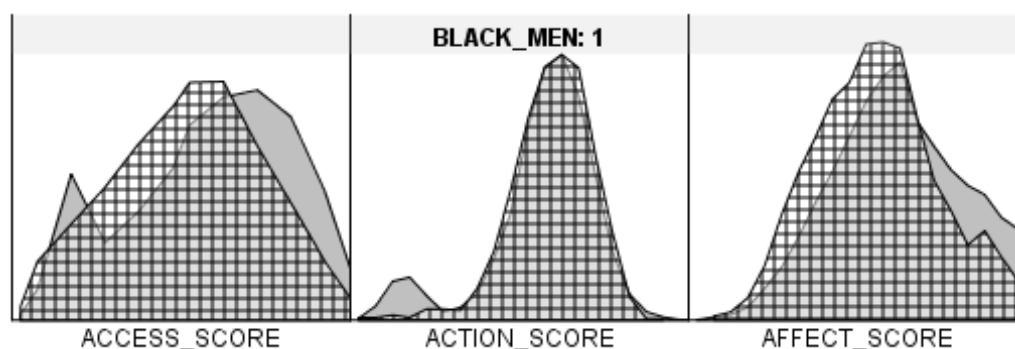


Figure 17. Black men's mean scores across IFWEM dimensions.

Hispanic men scored significantly different in the dimensions of Access and Affect at the $p < .001$ level. Hispanic men's Access scores were significantly different for the three conditions $F(11, 11944) = 12.250, p = .000$. Figure 17 illustrates the mean Access score for Hispanic men is skewed lower than the entire sample mean. Affect scores were different for the conditions $F(57, 11899) = 4.251, p = .000$. Looking at Figure 17 shows that Hispanic men have lower mean Affect scores than the sample as a whole. Action scores for Hispanic men were not significantly different.

The results for Hispanic men's financial wellbeing regression analysis was an R^2 of 0.072. Age, having an auto loan, financial knowledge, work status, and paying credit cards in full were significant at the $p < .001$ level. Worry, having a will, being able to handle an unexpected expense, knowing retirement need, and annual spending compared to annual income were significant at the $p < .01$ level. Income, having a savings account, income shocks, having an emergency fund, confidence in managing day-to-day finances, and confidence in accomplishing a financial goal, and confidence in accomplishing a financial goal were significant at the $p < .05$ level.

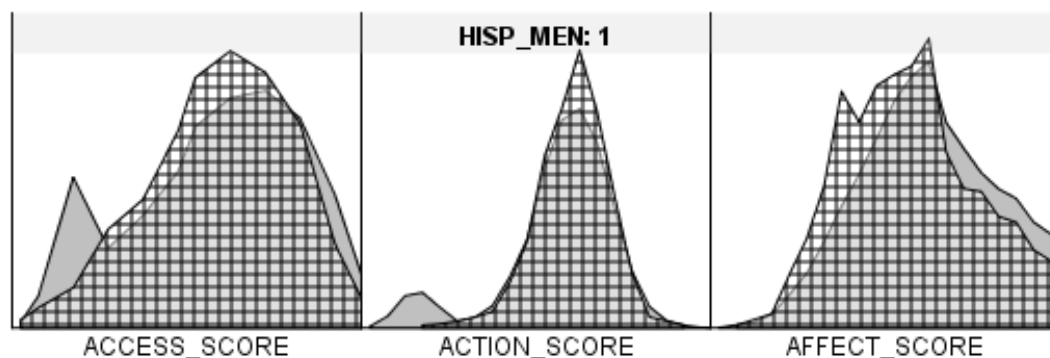


Figure 18. Hispanic men's mean scores across IFWEM dimensions.

White men scored significantly different in the dimensions of Access and Affect at the $p < .001$ level. White men's Access scores were significantly different for the three conditions $F(11, 11944) = 42.102, p = .000$. Figure 18 illustrates the mean Access score for White men is skewed much higher than the general sample mean. Affect scores were different for the conditions $F(57, 11899) = 6.710, p = .000$. Looking at Figure 18 shows that White men have higher mean Affect scores than the sample as a whole. Higher affect scores indicate decreased worry and anxiety, and higher reported self-perceptions. Action scores for White men were not significantly different.

The results for White men's financial wellbeing regression analysis was an R^2 of 0.087. Age, marital status, number of credit cards, financial knowledge, gig work, income, confidence in managing day-to-day finances, confidence in achieving a financial goal, and worry were significant at the $p < .001$ level. Income was significant at the $p < .01$ level. Risk tolerance, having a will, knowing retirement need, and having an emergency fund were significant at the $p < .05$ level.

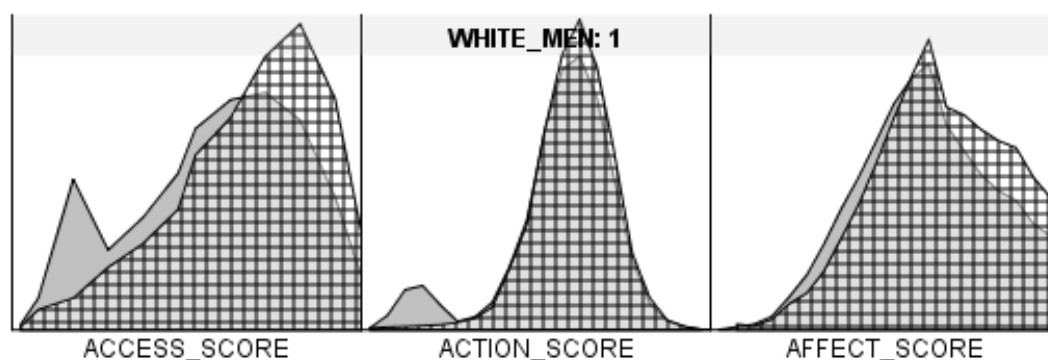


Figure 19. White men's mean scores across IFWEM dimensions.

Asian men did not show significantly different rates of access to financial services, or Affect scores. Asian men did show significant differences in Action scores at the $p < .01$ level for the three conditions $F(20, 11933) = 2.060, p = .004$. Both Figure 8 and Figure 19 show increased financial actions for Asian men as compared to the other identity groups.

The results for Asian men's financial wellbeing regression analysis was an R^2 of 0.043. Education, paying credit cards in full, and having a will were significant at the $p < .001$ level. Self-efficacy, confidence in achieving a financial goal, confidence in managing day-to-day finances, having an auto loan, risk tolerance, and income were significant at the $p < .01$ level. Having a checking account, work status, being able to handle an unexpected expense, self-assessed financial knowledge, and worry were significant at the $p < .05$ level.

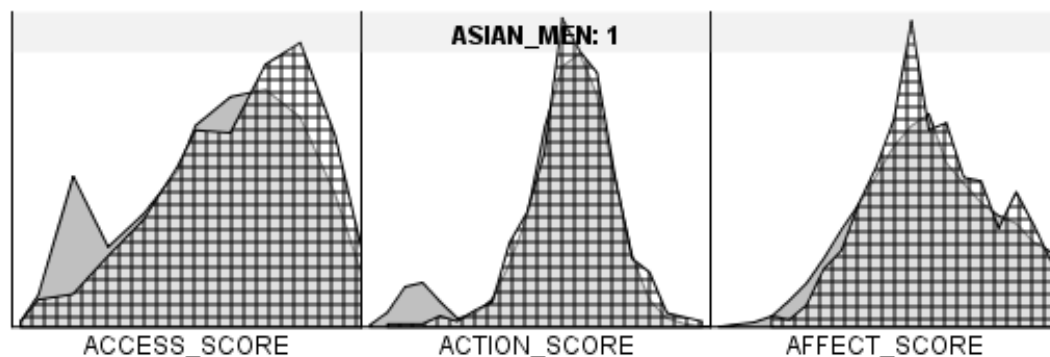


Figure 20. Asian men's mean scores across IFWEM dimensions.

Summary

All hypotheses were supported, hypothesis five was only partially supported. Affect, specifically financial stress is the most predictive component of financial wellbeing in the overall sample. Stress is a better predictor than access to financial services or financial actions. The ANOVA test compared the summed dimension scores of each of the ten intersectional identities for the three dimensions. Significant differences among the intersectional identities were present

in all three dimensions. This supported hypotheses two through four. Results indicated that access to financial services was highly variable among identities, as was affect. Actions taken showed the least variability among intersectional identities. When testing the IFWEM for each intersectional identities financial wellbeing, the model was most predictive for Black men and White women, partially supporting hypothesis five. The combination of constructs and variables that significantly predicted financial wellbeing was unique for each of the ten identities. This result confirmed hypothesis six. Chapter five will cover discussions and implications of these findings with possible applications for practice, policy, and research.

CHAPTER 5

DISCUSSIONS

The Inclusive Financial Wellbeing Empowerment Model was applied using two statistical methodologies – a regression analysis, and an ANOVA. The regression analysis was applied to the overall sample, as well as individually to the ten intersectional identities. The ANOVA was used to detect unique differences between the dimensions of the IFWEM. The Overall sample regression analysis was used to test the first hypotheses regarding which of the dimensions would be most predictive of financial wellbeing. Financial stress was most predictive when looking at the overall sample.

The second research question looked at how intersectional identity impacted each dimension of the IFWEM, and compared the ten intersectional identity summed dimension scores using an ANOVA. Those results showed great variability in access to financial services and affect among the intersectional identities, with lower variability in action. These results indicate that the accessibility of financial services and the way consumers think and feel about their money are more divergent for the identities. The action scores showed less variability, and fewer statistically significant differences. The lack of difference in the action dimension scores shed light on a compelling trend. Identity significantly impacts the accessibility of financial services – meaning there is a hierarchy of privilege and disadvantage at the first stage of financial wellbeing. Financial actions are being engaged in at similar rates regardless of identity, which indicates a normal range of financial engagement that most consumers participate in. The identities that were significantly different in action scores were those identities that experienced

the most privilege or disadvantage in accessibility of financial services. Affect scores varied widely among the identity groups, showing another divergence similar to that of access. The affectual trends of the individual identities trended with their access to financial services. These results indicate that consumers feel financial stress more in response to their position in relation to financial services than they do in response to their actions. The results indicate that financial stress may have more to do with not being able to take more action than having the ability but choosing to remain inactive. Generally, consumers are resourceful and are taking a reasonable amount of action based on the accessibility of financial services to them.

Universality of Money

When using the full sample, Affect (specifically Worry) was most predictive of financial wellbeing. These results confirm the association between financial stress and financial wellbeing. Affect was more predictive of financial wellbeing more than the Action or Access dimensions. With wellbeing as the stated goal of all financial literacy and education efforts, there may be some benefit to starting education efforts in the emotional realm, moving into specific actions and only including targeted knowledge, with direction to additional resources.

Based on the universality of financial affect, empowerment is the key to successful financial wellbeing interventions (CFPB, 2015; Ford, Baptist, & Archuleta, 2011). Best practices can be informed by an affectual focus, focusing on increasing confidence, satisfaction, and self-efficacy, while tackling worry, shame, guilt, stress, and anxiety. Drawing on the interdisciplinary strengths of financial therapy, planning, coaching, and education would point to the necessity of having at least some one-on-one interactions with participants in order to provide a quality financial empowerment experience. Most of the trends in the Access dimension and even some in the Action dimensions are the results of systematic structural inequality, but thoughts and

feelings are things that can be addressed through practice or educational interventions. Identity matters, and defining the population will really help identify a starting point about possible affectual concerns; however, addressing financial shame, worry, stress and anxiety as well as building in opportunities to grow financial confidence, satisfaction, and goal setting skills will be beneficial for every population.

Divergence among Identity Groups

The results of this study indicate that intersectional identity mean scores across the Access, Action, and Affect dimensions were significantly different. High levels of Access to financial services consistently impacted Affect. Low levels of Access impacted Actions and Affect. In other words, those identity groups who enjoyed easily accessible financial services felt better about their financial situation, and even about their own behaviors and knowledge. On the other hand, those who had limited access to financial services engaged in fewer optimal financial behaviors and felt less confident and more worry about their financial situation and their perceived financial knowledge and their ability to achieve goals.

Interestingly, no groups showed independently bad scores in the Action dimension. In other words, people are generally making the same level of positive financial decisions, which is remarkable considering the widely differing levels of Access across the identity groups. These results are consistent with Lurtz's (2019) finding that consumers are generally resourceful, innovative, and doing the best with what they have. Even when considering the limited access that many identity groups are coping with, people are trying to make the best choices they know how to make with their available resources.

The few instances of significantly lower Action, or financial behaviors, were all preceded by significantly lower Access. All but one instance of significantly higher Action were preceded

by significantly higher Access. The only exception to this was Asian men, who did not differ in Access, but did have the highest rates of positive actions, which can be attributed to having both the highest education and incomes of all ten identities, both of which were significant predictors of their financial wellbeing.

Black women were unique in that they are one of only three identities that showed significant difference across all three dimensions, alongside Black men and Asian women. Black women, alongside Black men reported much lower levels of Access to financial services, which has implications into the Action dimension, where limited opportunities to take action result in lower mean scores and skewed frequency distributions. The distribution of Black women's Affect scores shows a distribution that is indicative of more feelings of worry and anxiety, as well as lower reported positive self-perceptions.

Black men's access to financial services was the most divergent statistic among all 10 intersectional identities across all three dimensions, indicating financial services are less accessible for Black men than any other group. White men's access to financial services is the second most divergent statistic among all 10 intersectional identities across all three dimensions, making access to optimal financial services almost ubiquitous for White men. These results together paint a picture of systematic financial exclusion of Black men, and systematic financial inclusion of White men.

The distribution of Asian women's affect scores shows a higher distribution that is indicative of fewer feelings of worry and anxiety, as well as higher reported positive self-perceptions. Asian women have the highest frequency of positive affect scores among women, and as well as the highest median education and income among all women. Again, how people think and feel about their situations has a lot to do with the available resources and the presence

of worry, shame, stress, and anxiety, as well as confidence, satisfaction, self-perceived knowledge, and ability to achieve a goal.

Hispanic women experience higher access than Hispanic men, and also show higher rates of financial behavior. Hispanic women did not differ from women as a whole, who experience a lower average affect score than men. Hispanic men have lower affect scores, indicating increased worry and anxiety, and lower reported confidence, satisfaction, self-efficacy, and financial knowledge. These results further support the idea of nuanced analyses that point to the unique challenges and strengths of specific intersectional identities.

Intersectional Identity and IFWEM

This study shows that significant predictors of identity specific financial wellbeing were unique across all ten identity groups. This section will take another look at the identity specific financial wellbeing regression results, beginning with Indigenous populations, then working through all the variables and the trends across the 10 identities as compared to each other and the overall sample.

The results of the Indigenous women and Indigenous men financial wellbeing regression analyses support the idea that Indigenous populations are the “forgotten minority” in financial services (Valerie, Brinck, Linda, & Murphy, 2010). Although the IFWEM had an acceptable model fit across the overall sample, the model fit for Indigenous identities was very low. Compared to the rest of the intersectional identities, Indigenous populations had the lowest R^2 , the lowest number of significant variables, only reporting one variable that was significant at the $p < .001$ level for men (confidence in accomplishing a financial goal) and one for women (age). Interestingly, Indigenous men were one of only three identities where age was not a significant predictor of financial wellbeing, alongside Black women and Asian men. Indigenous men and

women were also unique in that worry was not significant for either group. Only four identities did not show worry as a significant predictor, of which two were Indigenous. These findings support Hertel et al (2008), who stated that cultural definitions and understanding of financial concepts, as well as closely held values, are very different for sovereign Indigenous nations as compared to other racial or ethnic groups. The results support that further research and exploration are needed in order to understand the relevance and importance of financial wellbeing among sovereign Indigenous peoples.

Among the identity specific regression analyses, the IFWEM most accurately measured wellbeing for Black men, followed by White women, then Black women. Interestingly, the focus on Access to financial services resulted in the most explanatory model of financial wellbeing for the group that is most significantly excluded from financial services.

Socio-economic factors

In the overall sample, none of the race or ethnicity categories were significant, but gender was, which is borne out in trends across the ten identity wellbeing regression analyses. Women face unique challenges as they are more likely to experience frequent and invasive financial transitions across their adult life. Transitions like college, graduate school, career interruption, income trends, marriage, child-bearing and rearing, divorce, death of a spouse, caregiving, and loss of parents with an inheritance or financial burden of closing an estate are some examples of transitions that women commonly encounter throughout adulthood.

One gender-specific result was that investing outside of retirement accounts was significant for Hispanic and Asian women. Regularly contributing to retirement accounts was significant only for Black, Hispanic, and White women. Confidence in managing day to day finances was significant for Hispanic, Asian, and White men. Subjective financial knowledge

was significant for Hispanic women and men, Asian and Black men, as well as the overall sample. These results match those observed in earlier studies that indicated that subjective financial knowledge is a very predictive measure against models that include financial behavior (Robb & Woodyard, 2011).

Only three identities, Black women, Indigenous men, and Asian men, did not indicate age as a significant variable. For Indigenous women, Hispanic women and men, and White women and men age was significant at the $p < .001$ level. Age was significant at the $p < .01$ level for Asian women, and at the $p < .05$ level for Black men. The overall sample did not show age to be a significant predictor of financial wellbeing, despite 70% of the identities indicating significance. According to the CFPB (2015) when looking at a cross-section of the U.S., as age increases, there is a corresponding increase in financial wellbeing. However, for Black women, Indigenous men, and Asian men, this strong and previously supported trend is not true. The reason for this is not clear but it may have something to do with the different ways that age is valued for different identity groups. Perhaps for Indigenous men and Black women, a consistent deficiency in accessible resources is compounded in older age by decreased mobility, or isolation, resulting in lower financial wellbeing. It is also possible that Asian men see a decrease in financial wellbeing after transitioning from high salary jobs into a fixed income in retirement. Further research is required to fully understand these findings.

Level of education was only significant for four identities; Black men, Asian women and men, and White women, all at the $p < .001$ level. Income was significant for six identities, and was not a significant predictor of financial wellbeing for Indigenous women and men, Black men, and White women. It seems possible that these results for Black men and White women are

due to the significance of educational attainment on financial wellbeing. For both Black men and White women, it seems an increase in education is a more powerful predictor of increased financial wellbeing than an increase in income. Unlike every other racial or ethnic identity group, where either education or income or both were significant predictors of financial wellbeing, for Indigenous peoples, neither education nor income were significant predictors of financial wellbeing. This finding indicates that financial wellbeing is not dependent on increasing the education level or annual income for an Indigenous household, but the variables that would increase wellbeing are unknown for Indigenous populations.

Marital status was significant in the overall sample, but only showed up in 50% of the identity regressions. For Black and White men and women marital status was significant at the $p < .001$ level and was significant at the $p < .01$ level for Indigenous men. Marital status was not significant for Indigenous women, Hispanic women and men, and Asian women and men. It seems possible that these results are due to cultural norms as the significance or insignificance primarily coincided with race and ethnicity groups.

Risk tolerance was significant for four of the identity groups, including Black women at the $p < .001$ level, Asian men at the $p < .01$ level, and White women and men at the $p < .05$ level. This data must be interpreted with caution because the use of a single item risk tolerance self-perception question, while widely used in research, does not necessarily measure financial domain risk tolerance. Future research should consider more robust risk tolerance measures, perhaps across multiple domains, such as social, investment, and career.

Access dimension

Having a checking account was a significant predictor of financial wellbeing for Black men, Hispanic women, and Asian identities at the $p > .05$ level. Having a savings account was a

significant predictor of financial wellbeing only for the Hispanic identity groups. Neither having a checking nor a savings account was a significant predictor of financial wellbeing for the overall sample. Black men and Hispanic women have been identified in previous literature as groups at higher risk for being unbanked or underbanked (Anong & Routh, 2019). Asian Americans are more likely to be immigrants, and the transition to becoming immersed in the banking and credit system in the U.S. may be a necessary component to achieving increased financial wellbeing.

Having an auto loan was a significant predictor of financial wellbeing for 50% of the sample, and was predictive for Indigenous, Black, Hispanic, and Asian men, as well as Asian women. Having an auto loan was not a significant predictor in the overall sample. Having an auto loan significantly predicted financial wellbeing for four out of five male identity groups, indicating a trend toward the importance of a car in the wellbeing of non-White male identities. This could be understood as a prerequisite to consistent work, or the ability to travel outside of one's immediate community to find suitable or competitive work options.

Number of credit cards was predictive of financial wellbeing for 70% of the identities, but not significant in overall model. It was not significant for Black women, Hispanic men, or Asian men. The consistency across so many of the identity groups, including four of the five female identities is supported by previous research around debt literacy and credit behaviors among women by Motolla (2013).

Income shocks were particularly significant for both genders in the Black (at the $p > .001$ level) and Hispanic (at the $p > .05$ level) identities, as well as Indigenous men at the $p > .01$ level. Income shocks were a significant predictor of financial wellbeing in the overall sample. Although only half of the identities indicated that income shocks were significantly predictive, the majority of the population live in the lower income earning sectors of our society, making

this a widespread concern – which is supported in the overall sample. These findings are in agreement with those obtained by Owen and Wu (2007) and Lurtz (2019). It seems possible that these results are likely a result of financial fragility that is a result of lower average incomes among Black, Hispanic, and Indigenous identities.

Financial knowledge was only a significant predictor for Black and White identities at the $p > .001$ level. Financial knowledge was a significant predictor of financial wellbeing in the overall sample at the $p > .01$ level. The reason for this is not clear but it does not seem to be coincidental that the significance clearly applies to only two racial groups. These results leave some unanswered questions about the validity of the widely used financial knowledge scale for Hispanic, Asian, and Indigenous populations. This also supports the need to be intentionally inclusive in national data collection efforts in order to more completely understand the true impact of financial knowledge on financial wellbeing for the population at large.

Action dimension

Online gig was significant for all identities except Indigenous people, Hispanic and Asian men, and despite being a significant predictor for 60% of identity specific financial wellbeing, it was not a significant for the overall sample. Work status was only significant for Black and White women, and Hispanic and Asian men. Work status was significant for the overall sample at the $p > .001$ level. It seems possible that these results for Black and White women are correlated with marital status being significant only for these two groups of women. Work status is highly correlated with the marital status of women (Bureau of Labor Statistics, 2017). Single women are far more likely to work multiple jobs, and have to juggle the responsibilities of child rearing alone, requiring the flexibility that part time work offers, without the safety or security that full time or salaried work affords (BLS, 2017). Economically speaking, marriage allows for synergy

in income generation and parenting responsibilities, and has been known to impact financial literacy (Fonseca, et al., 2012).

Annual spending as compared to annual earnings was a significant predictor of financial wellbeing for Black and Hispanic men, but not for the overall sample. Black and Hispanic men are more likely to be seasonal or part-time employees, which would make their income volatile by nature. Ease of covering monthly expenses was not a significant predictor for any single identity, but was significant in the overall model at the $p > .01$ level. Consistently being able to cover monthly expenses is one of the four elements of financial wellbeing, so this relationship was expected. Paying credit cards in full every month was significant for all identities except Indigenous and Black men, and White women and men. Paying credit cards in full was significant in the other six identities, and in the overall sample at the $p > .001$ level. These findings are in agreement with those obtained by the CFPB (2015), that suggest one of the best ways to improve financial wellbeing is to lower consumer debt and eliminate credit card debt.

Having a will was a significant predictor for 90% of the individual financial wellbeing regression analyses, all except Black women. Interestingly, it was not a significant predictor of financial wellbeing for the overall sample. Having a will seems to be a strong predictor of a longer planning horizon at the group level, but the overall sample did not bear out the relationship.

Ability to handle an unexpected \$2000 expense was significant for Hispanic and Asian men, and Black women. It is not a significant predictor for the overall sample. This relationship does not support the findings of the CFPB (2015) who indicate that being able to handle unexpected expenses is predictive of financial wellbeing. This relationship is not clear, but may have something to do with cultural and familial norms of support.

Having tried to calculate retirement need was a significant predictor of financial wellbeing for White men and Hispanic women and men. Retirement may not be the planning horizon that many of the identity groups are using to measure their wellbeing by, as many of the indications show that more immediate financial needs and insecurity take precedence over future financial need, as indicated by Lurtz (2019).

Having an emergency fund was only significantly predictive for three male identity groups, Indigenous, Hispanic and White. Having an emergency fund has been linked with increasing confidence and decreasing worry – both of which were significant in different ways for all three male identities. Investing for children's education was not a significant predictor for any single identity, nor for the overall model. Future studies may consider removing this from the IFWEM completely, and incorporating another savings or planning behavior instead.

Investing outside of a retirement account was significant only for Hispanic and Asian women at the $p > .001$ level, as well as the overall sample at the $p > .01$ level. Regularly contributing to retirement accounts was significant only for Black, Hispanic and White women. These findings support the importance of women being invested as it relates to increasing their confidence and decreasing their worry (Lusardi & Scheresberg, 2017).

Affect dimension

Subjective financial knowledge was significant for Hispanic women at the $p > .01$ level and men at the $p > .001$ level, Asian and Black men at the $p > .05$ level, as well as the overall sample at the $p > .01$ level. Subjective and objective financial knowledge were significant in the overall sample, which matches the findings of Robb and Woodyard (2011).

Confidence in achieving a financial goal was a significant predictor for 80% of the individual financial wellbeing regression analyses, all except Black men and Hispanic women. It

was not a significant predictor of financial wellbeing for the overall sample. However, confidence in managing day to day finances was significant for Hispanics at the $p > .05$ level, as well as Asian and White men. Self-efficacy was significant for Black men and women and Asian men and women. It was not significant in the overall sample. Because self-efficacy was significant among Black and Asian groups, it seems likely that it is a cultural driver of financial wellbeing, and could be incorporated into interventions designed for these communities.

Financial satisfaction was significant for 30% of the identity groups, including Hispanic and Indigenous men, and Black women. It was also significant in the overall sample at the $p > .05$ level. Financial satisfaction could also be incorporated into interventions to improve financial wellbeing, particularly among identities of color.

Worry was significant for Black men, Hispanic women and men, White women and men, Asian men, as well as the overall sample at the $p > .001$ level. Divergence in worry is significantly telling because it accounted for so much of the model fit and significance in every variation of the hierarchical regression, yet it does not translate to four of the identity specific regression results. The identities that did not show worry as a significant predictor were Black men, Asian women, and Indigenous men and women. The financial wellbeing of these four identities was significantly predicted by confidence, which reinforces the importance of both addressing negative affect, and building positive affect in financial wellbeing initiatives.

The picture that emerges from the analysis above is one of identity based nuance intrinsic to financial access, actions, and affect. This research points to a link between intersectional identity and the uniqueness of predictive variables for financial wellbeing. What is striking is that the gender and race or ethnicity specific trends reported in previous research can be seen

interacting through the intersectional identity wellbeing regression results. However, each identity also trends in unique and newly informative ways.

Implications

Research

Using an intersectional analysis to investigate financial wellbeing has uncovered a rich vein of nuance. The determinants of financial wellbeing are unique for all ten identities in this analysis. A within-intersection analysis for each intersectional identity to explore how age, income, and education impact wellbeing is the next step for this research.

The CFPB (2015) financial wellbeing research indicated that the ability to cover expenses was one of the largest predictive variables for the overall sample. When looking at the full sample, this research duplicated this finding. The unexpected result of this research was that despite being significant in the overall model, none of the ten intersectional identities showed the ability to cover expenses as a significant predictor of financial wellbeing. This implies that being able to cover expenses was picking up unique differences that when teased apart were differences in gender, race, and across the dimensions of the IFWEM.

Practice

Financial literacy initiatives have had mixed results, with several studies indicating that financial education initiatives do not improve financial wellbeing (Knoll & Houts, 2012). From those unsuccessful attempts, best practices arose that ultimately led to the focus on financial wellbeing. The CFPB financial wellbeing scale came out of decades of academic and applied knowledge. We know that financial literacy initiatives generally are working towards improved knowledge or financial capabilities. With many financial literacy initiatives targeting low income Americans, and looking at the demographic breakdown of these populations, there is a need to

look through a more inclusive lens, to tease apart the levels of inclusion (macro, meso, and micro) to identify barriers and strengths at every level. For example, many financial education and wellbeing initiatives focus on Black Americans, without differentiating between men and women. The results of this intersectional analysis would indicate that separate approaches are necessary to adequately attend to the specific financial wellbeing determinants of Black men as compared to Black women. The implications for practice do not lend themselves to requiring unique content for every identity, but by focusing on the dimensions, important concepts can be addressed in a more inclusive way.

The overlay of the Ford Financial Empowerment Model onto the IFWEM is shown below. For practitioners, the modality outlined in the FFEM gives practical application guidance. The application of FFEM to the IFWEM would guide practitioners to consider as part of client engagements the individual identity of each client, as well as their relationship to the financial services industry across the dimensions of access, action, and affect. With empowerment techniques, the modality could be used as a scaffolding to identify where a client may be experiencing the most stress. A combination of therapeutic techniques as well as avenues to access additional financial services or take action with clients could all be used to empower clients and improve their financial wellbeing.

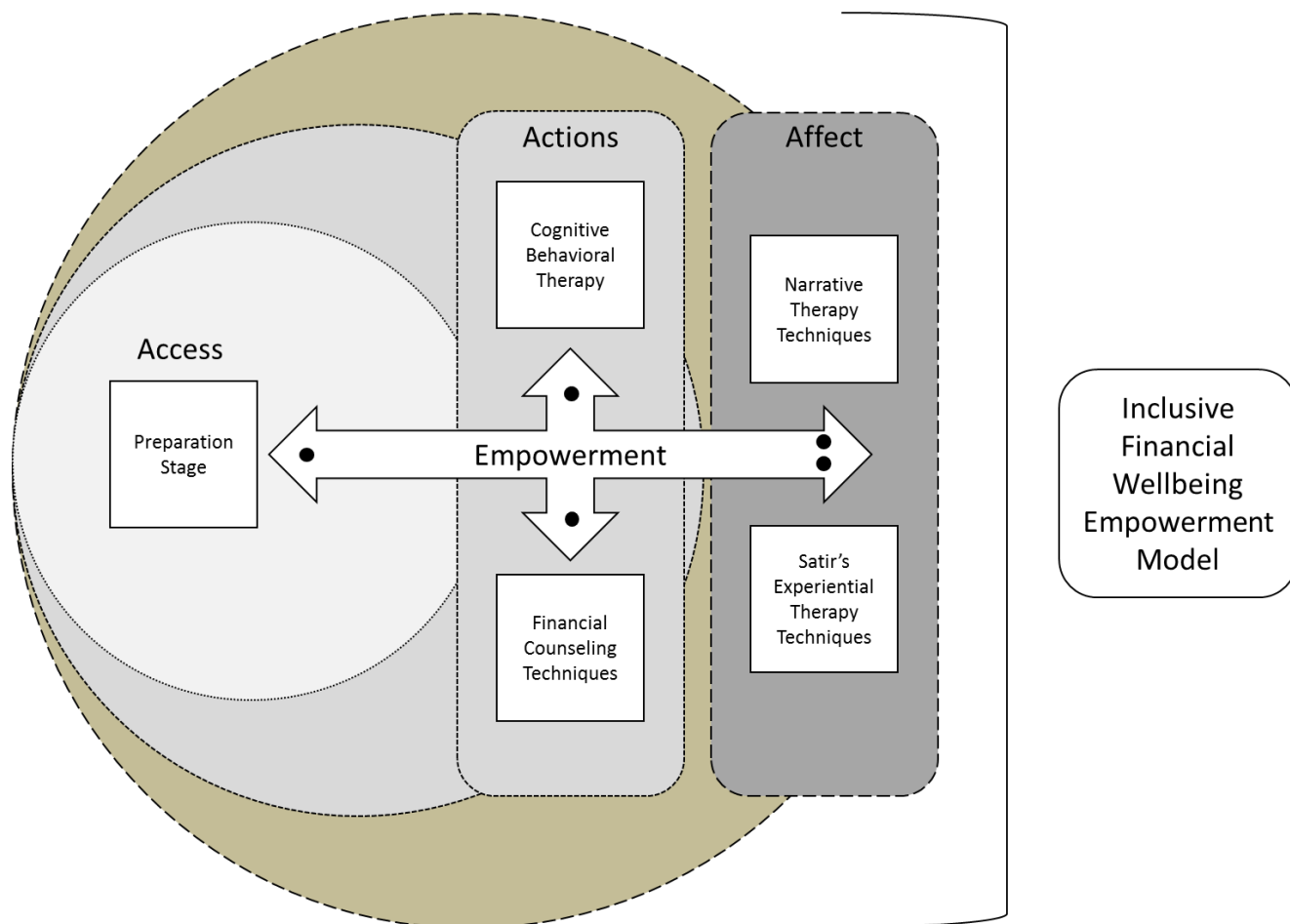


Figure 24. IFWEM and FFEM Practitioner Modality.

The link between affect and action imply that financial wellbeing is highly dependent on addressing negative affect, mobilizing perception and confidence, and empowering people about the choices they are making. Increased financial knowledge does significantly improve the financial wellbeing of the overall sample. This connection likely stems from ambiguity driving much of the worry and anxiety around money. When financial knowledge is increased, there is less ambiguity, and more of an understanding of the power and control every person has to impact their own financial circumstances. As indicated in much qualitative work, an increase in financial knowledge results in a shift from an external locus of control to an internal locus of control, an increase in risk tolerance, and in turn, an increased sense of financial wellbeing. This

was illustrated by the divergent trends among Asian women, who have the highest education among women, and were the only female identity that did not indicate worry was a predictor of financial wellbeing.

Indigenous financial wellbeing warrants further research. The IFWEM could be examined across subgroups within Indigenous populations to understand further if it is perhaps the Native American or Alaska Native and Pacific Islander or Native Hawaiian groups that should be separated out to identify more cultural trends, or if a regional analysis, rural versus metropolitan location, or one based on specific Indigenous nations would be the best next step to uncover more information.

Hispanic and Asian identities had lower model fit than Black or White identities, indicating more research is needed to understand the underlying financial wellbeing drivers for Hispanic men and women, as well as Asian women and men. These trends, alongside the Census projections (2015) indicate that birthrate is predicted to be the main population driver for Hispanic families, and immigration will be the driving force for the population growth of Asian Americans. These projections indicate that it is especially important to look at the family socialization and culturally driven factors of financial wellbeing for Hispanic and Asian Americans.

Hispanic women were the only identity for which every saving, investing, and retiring variable was a significant predictor for financial wellbeing. This would indicate that much of the worry for Hispanic women could be addressed through targeted financial wellbeing initiatives focused on savings, investment, and retirement. A goal based approach that has a retirement focus may prove especially effective for Hispanic women in particular.

Identity groups with low Access and Affect but similar Action scores tells us that the difference isn't happening in behavior – it is much more driven by how inclusive or exclusive the financial sector is, and how people feel about that inclusion or exclusion. Interestingly, financial wellbeing is not driven by Actions, or financial behaviors, which is important to understand as the industry strives to build more impactful interventions and empower individuals.

Policy

Much of the research and practical application of financial literacy and education is funded by federal and state governments. Governmental interest in financial literacy is ultimately what has driven much of the progress made in this area, including consumer protection work. Moving forward, policy should take special care to attend to the wide range of needs and consumer concerns. Financial wellbeing scores may need to be incorporated into funded financial education projects – particularly with communities of color. Many of the findings in this paper are exploratory and preliminary. Policy in financial literacy, education, and wellbeing could benefit from funding specifically for unique and innovative research in this area. The application of the IFWEM could be used as an evaluation tool to measure the inclusiveness of current initiatives, ensuring that current efforts will continue to be effective in light of the changing demographic makeup of the U.S.

Limitations

This research was conducted with cross-sectional data, and does not account for changes over time. A panel data set could be used to perform a within-identity analysis, to explore the nuance inherent in each of the specific identities. This research was the pilot test for the IFWEM, and this model warrants further application to be validated and tested against other populations, data sets, and using variations on operationalizing of the sub-dimensional concepts.

Because NFCS data only has male and female gender identities, this research is not directly applicable to transgender communities. This research is based on secondary quantitative data and lacks the specificity and richness of qualitative data. A qualitative study is recommended for future research, and would allow for thick, rich description that could provide much more nuanced and multidimensional exploration within each of the specific identities. This research only addresses the specificity of five ethnicities and races, and two genders. Although there is a growing number of citizens who identify as multi-racial, this research did not to address that group for data reasons, primarily because multi-racial groups were not easily identifiable.

Summary

This research addresses timely concerns of financial stress and worry, low financial wellbeing and literacy, and diversity and inclusion in financial services. The universality of money is found in the thoughts and feelings that each person interacts with around their financial situation, and their financial behaviors. “Recognizing the universality of our most private struggles often leads to a second important benefit of reaching out to others” (Brown, 2006, p. 50). Using the universality of money, and the framework for empowerment, the Inclusive Financial Wellbeing Empowerment Model identifies the unique aspects of money that are universal, as well as nuance among identities.

By focusing on empowerment, financial wellbeing interventions can tap into the broader scope of resource management. Rather than constricting literacy and education solely on money, leaning into the universality of wellbeing can make interventions more universally applicable. Considering time, energy, self-control, human capital, and money, all as resources that have to be budgeted could help participants identify where they are already using effective strategies.

Empowerment would strive to help them transfer existing skills, feelings, and thought patterns to their financial life, in order to grow confidence, satisfaction, and self-efficacy while also building sustainable affectual resilience against financial worry, stress, shame, and anxiety.

Inclusive financial wellbeing and empowerment, although an individual effort, has the potential to impact families, communities, and the country in sustainable and significant ways.

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Appendix A: Control Variable Descriptive Statistics

Demographic Variable	#	%	Census %
Gender			
Men	13959	48	48
Women	15135	52	52
Race / Ethnicity			
Indigenous*	711	2.4	2.7
Asian	1304	4.5	4.8
Hispanic	2338	8.0	8.6
Black	2835	9.7	10.5
White	21450	73.7	79.2
Age			
18-24	2795	9.6	10.3
25-34	4686	16.1	17.3
35-45	4522	15.6	16.7
45-54	4669	16.0	17.3
55-64	4907	16.9	18.1
65+	5512	18.9	20.3
Marital Status			
Married	14457	49.7	53.4
Living with Partner	2213	7.6	8.2
Single	10427	35.8	38.5
Income			
Less than \$15,000	3041	10.5	11.2
\$15,000 - \$24,999	2804	9.6	10.4
\$25,000 - \$34,999	2934	10.1	10.8
\$35,000 - \$49,999	3917	13.5	14.5
\$50,000 - \$74,999	5259	18.1	19.4
\$75,000 - \$99,999	3856	13.3	14.2
\$100,000 - \$149,000	3439	11.8	12.7

	\$150,000+	1841	6.3	6.8
Education				
	Did not complete HS	697	2.4	2.6
	High School/GED	6819	23.4	25.1
	Some college	7263	25.0	26.8
	Associate's degree	2864	9.8	10.6
	Bachelor's degree	5905	20.3	21.8
	Post graduate degree	3543	12.2	13.1
Risk Tolerance				
	Not At All Willing - 1	4078	14.0	15.5
	2	1910	6.6	7.3
	3	2827	9.7	10.8
	4	2727	9.4	10.4
	5	3739	12.9	14.2
	6	2985	10.3	11.4
	7	3296	11.3	12.5
	8	2149	7.4	8.2
	9	894	3.1	3.4
	Very Willing - 10	1685	5.8	6.4

Note: *Indigenous populations are the combination of Native American, Alaska Native, Native Hawaiian, and Pacific Islander.

Appendix B: Codebook

Variable (SPSS Naming)	Coding
<u>Dependent Variable</u>	
Financial Wellbeing Score (FWB)	=based on Item Response Theory for 5 questions
<i>This statement describes me</i>	
1. I am just getting by financially	0=Completely, 1=Very well, 2=Somewhat, 3=Very little, 4=Not at all
2. I am concerned that the money I have or will save won't last	0=Completely, 1=Very well, 2=Somewhat, 3=Very little, 4=Not at all
3. Because of my money situation, I feel like I will never have the things I want in life	0=Completely, 1=Very well, 2=Somewhat, 3=Very little, 4=Not at all
<i>This statement applies to me</i>	
4. My finances control my life	0=Always, 1=Often, 2=Sometimes, 3=Rarely, 4=Never
5. I have money left over at the end of the month	4=Always, 3=Often, 2=Sometimes, 1=Rarely, 0=Never
<u>Control Variables</u>	
<i>Gender</i>	=1 if respondent is Female; =0 if respondent is Male
<i>Race/Ethnicity</i>	
Indigenous	=1 if respondent is Native American, Alaska Native, Hawaii Native or Pacific Islander
Black	=1 if respondent is African American or Black
Hispanic	=1 if respondents is Hispanic
Asian	=1 if respondents is Asian
White	=1 if respondents is Caucasian/ White
<i>Income</i>	
Less than \$15,000	=1 if annual household income is less than \$15,000
\$15,000 - \$24,999	=1 if annual household income is between \$15,000 - \$24,999
\$25,000 - \$34,999	=1 if annual household income is between \$25,000 - \$34,999
\$35,000 - \$49,999	=1 if annual household income is between \$35,000 - \$49,999
\$50,000 - \$74,999	=1 if annual household income is between \$50,000 - \$74,999
\$75,000 - \$99,999	=1 if annual household income is between \$75,000 - \$99,999
\$100,000 - \$149,000	=1 if annual household income is between \$100,000 - \$149,000
\$150,000+	=1 if annual household income is more than \$150,000
<i>Highest level of Education</i>	
Did not complete HS	=1 if respondent did not complete high school; =0 otherwise
High School/GED	=1 if respondent is a high school graduate / GED; =0 otherwise
Some college	=1 if respondent has some college experience; =0 otherwise
Associate's degree	=1 if respondent completed an associate's degree; =0 otherwise

Bachelor's degree	=1 if respondent completed a bachelor's degree; =0 otherwise
Post graduate degree	=1 if respondent completed post graduate degree; =0 otherwise
<i>Marital Status</i>	
1. What is your marital status?	=1 "Married", =2 "Living with partner", =3 "Single"
<i>Risk Tolerance</i>	
1. When thinking of your financial investments, how willing are you to take risks?	=1 "Not at all willing" through =10 "Very willing"
<u>Independent Variables</u>	
Access Dimension	
<i>Banking</i>	
1. Do you have a checking account?	=1 if yes; =0 if no
2. Do you have a savings, investment, or money market account?	=1 if yes; =0 if no
<i>Borrowing</i>	
Do you have a credit card?	=1 if yes; =0 if no
Do you have an auto loan?	=1 if yes; =0 if no
<i>Work Status</i>	
Do you work for pay?	=1 if full-time, part-time, or military; =2 if retired; =0 if homemaker, disabled.
<i>Financial Knowledge</i>	
Sum of correct answers to the following 6 questions:	
1. Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	=1 "More than \$102," =0 "Exactly \$102," or "Less than \$102" or "Don't know" or "Prefer not to say"
2. Imagine that the interest rate on your savings account was 1% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	=1 "Less than today," =0 "Exactly the same," or "More than today" or "Don't know" or "Prefer not to say"
3. If interest rates rise, what will typically happen to bond prices?	=1 "They will fall," =0 "They will rise," or "They will stay the same," or "There is no relationship between bond prices and interest rates" or "Don't know" or "Prefer not to say"

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4. Suppose you owe \$1,000 on a loan and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double? =1 "At least 2 years but less than 5 years" =0 "Less than 2 years" or "At least 5 years but less than 10 years" or "At least 10 years" or "Don't know" or "Prefer not to say"
5. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less. =1 "True," =0 "False," or "Don't know" or "Prefer not to say"
6. Buying a single company's stock usually provides a safer return than a stock mutual fund. =1 "False," =0 "True," or "Don't know" or "Prefer not to say"

Action Dimension

Earning

1. In the past 12 months, have you taken on a work assignment through a website or mobile app, such as Uber, Task Rabbit, Care.com, etc.? =1 Yes, =0 No
2. In the past 12 months, have you [has your household] experienced a large drop in income which you did not expect? =1 No, =0 Yes

Spending

1. Over the past year, would you say your [household's] spending was less than, more than, or about equal to =1 "Spending more than income," =2 "Spending is about equal to income," =3 "Spending less than income"
-

your [household's]
income?

2. In a typical month, how difficult is it for you to cover your expenses and pay all your bills? =1 "Very difficult," =2 "Somewhat difficult," =3 "Not at all difficult"
3. I always paid my credit cards in full =1 Yes, =0 No

Saving

1. Have you set aside emergency or rainy day funds that would cover your expenses for 3 months, in case of sickness, job loss, economic downturn, or other emergencies? =1 Yes, =0 No
2. Are you setting aside any money for your children's college education? =1 Yes, =0 No
3. Not including retirement accounts, do you [does your household] have any investments in stocks, bonds, mutual funds, or other securities? =1 Yes, =0 No
4. Do you [or your spouse/partner] regularly contribute to a retirement account like a [Thrift Savings Plan (TSP),] 401(k) or IRA? =1 Yes, =0 No

Planning

1. Do you currently have a will? =1 Yes, =0 No
2. How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month? =1 Yes, =0 No
3. Have you ever tried to figure out how much
-

you need to save for retirement?

Affect Dimension

Worry

1. I worry about running out of money in retirement. Answers ranged from 1 = *“Strongly agree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly disagree”*
2. Thinking about my personal finances can make me feel anxious. Answers ranged from 1 = *“Strongly agree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly disagree”*
3. Discussing my finances can make my heart race or make me feel stressed. Answers ranged from 1 = *“Strongly agree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly disagree”*
4. How strongly do you agree or disagree with the following statement?
- I have too much debt right now
Answers ranged from 1 = *“Strongly agree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly disagree”*

Self-Perceptions

1. If you were to set a financial goal for yourself today, how confident are you in your ability to achieve it? Answers ranged from 1 = *“Strongly disagree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly agree”*
 2. Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition? Answers ranged from 1 = *“Not at all satisfied,”* to 10 = *“Extremely Satisfied”*
 3. How strongly do you agree or disagree with the following statement?
- I would feel comfortable going to a bank or credit union branch to ask a question about a product or service
Answers ranged from 1 = *“Strongly disagree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly agree”*
 4. How strongly do you agree or disagree with the following
Answers ranged from 1 = *“Strongly disagree,”* 4= *“Neither agree nor disagree,”* and 7= *“Strongly agree”*
-

statements? - I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses

5. How would you assess your overall financial knowledge? Answers ranged from 1 = *“Very Low,”* to 7= *“Very High”*

Note: All variables are coded so the higher score corresponds with the most positive outcome. In this way, all composite dimension scores are directionally indicative.

Appendix C: Missingness Coding

Variable	Recode 98			Recode 99		
	(don't know)	N	%	(prefer not to say)	N	%
DV						
FWB	All 5 FWB questions had to be answered to compute a final score.*					
FWB_getby	System Missing	688	2.4%	System Missing	230	0.8%
FWB_concern	System Missing	570	2.0%	System Missing	256	0.9%
FWB_never	System Missing	778	2.7%	System Missing	238	0.8%
FWB_control	System Missing	349	1.2%	System Missing	231	0.8%
FWB_left	System Missing	516	1.8%	System Missing	225	0.8%
IVs						
Access Dimension						
<i>Banking</i>						
CHECKING	System Missing	381	1.3%	System Missing	363	1.2%
SAVE_INVEST	System Missing	393	1.4%	System Missing	364	1.3%
<i>Borrowing</i>						
NUM_CC	System Missing	249	0.9%	System Missing	304	1.0%
AUTO	System Missing	372	1.3%	System Missing	198	0.7%
Action Dimension						
<i>Earning</i>						
ONLINE_GIG	System Missing	487	1.7%	System Missing	162	0.6%
DROP_INCOME	System Missing	558	1.9%	System Missing	194	0.7%
<i>Spending</i>						
YR_SPEND	System Missing	896	3.1%	System Missing	178	0.6%
COVER_EXP	System Missing	487	1.7%	System Missing	240	0.8%
CC_PAID	System Missing	297	1.0%	System Missing	179	0.6%
<i>Saving</i>						
EMERGENCY	System Missing	849	2.9%	System Missing	385	1.3%
KIDS_EDU	System Missing	248	0.9%	System Missing	179	0.6%
NON_RET_INV	System Missing	1028	3.5%	System Missing	456	1.6%

RET_REGULAR	System Missing	234	0.8%	System Missing	75	0.3%
<i>Planning</i>						
WILL	System Missing	550	1.9%	System Missing	408	1.4%
UNEXP	System Missing	863	3.0%	System Missing	208	0.7%
RET_NEED	System Missing	1021	3.6%	System Missing	305	1.0%
Affect Dimension						
<i>Worry</i>						
WORRY	4 – neutral	510	1.8%	System Missing	194	0.07%
ANXIOUS_THINK	4 – neutral	222	0.8%	System Missing	168	0.6%
ANXIOUS_TALK	4 – neutral	249	0.9%	System Missing	172	0.6%
T_MUCH_DEBT	System Missing	249	0.9%	System Missing	198	0.7%
<i>Self-Perceptions</i>						
CONFIDENCE	1– disagree	1067	3.7%	System Missing	160	0.5%
SATISFIED	System Missing	325	1.1%	System Missing	204	0.8%
SELF_EFFICACY	System Missing	299	1.0%	System Missing	155	.05%
MGMT_CONF	1 – not at all	181	0.6%	4 – neutral	153	0.5%
KNOW_CONF	1 – not at all	137	0.5%	4 – neutral	136	0.5%

*Note: *As per the CFPB (2017) table-based IRT coding guidelines.*

Appendix D: SPSS Output Files

Oneway

		Notes
Output Created		16-FEB-2020 15:49:42
Comments		
Input	Data	C:\Users\tjj79811\Desktop\Dissertation\Data\Final Data\1. JORGENSEN DISSERTATION - FINAL DATA - SIMPLE - CLEANED.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	29094
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		<pre> ONEWAY IND_WOMEN BLACK_WOMEN HISP_WOMEN WHITE_WOMEN ASIAN_WOMEN IND_MEN BLACK_MEN HISP_MEN WHITE_MEN ASIAN_MEN BY AFFECT_SCORE /STATISTICS DESCRIPTIVES /PLOT MEANS /MISSING ANALYSIS. </pre>
Resources	Processor Time	00:00:01.28
	Elapsed Time	00:00:01.19

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
IND_WOMEN	Between Groups	2.429	57	.043	1.530	.006
	Within Groups	420.068	15077	.028		
	Total	422.498	15134			
BLACK_WOMEN	Between Groups	11.902	57	.209	2.241	.000
	Within Groups	1404.738	15077	.093		
	Total	1416.640	15134			
HISP_WOMEN	Between Groups	5.734	57	.101	1.203	.141
	Within Groups	1260.688	15077	.084		
	Total	1266.422	15134			
WHITE_WOMEN	Between Groups	10.758	57	.189	1.146	.211
	Within Groups	2483.642	15077	.165		
	Total	2494.400	15134			
ASIAN_WOMEN	Between Groups	6.280	57	.110	2.419	.000
	Within Groups	686.703	15077	.046		
	Total	692.983	15134			
IND_MEN	Between Groups	3.068	56	.055	2.880	.000
	Within Groups	226.353	11899	.019		
	Total	229.420	11955			
BLACK_MEN	Between Groups	34.322	56	.613	6.707	.000
	Within Groups	1087.363	11899	.091		
	Total	1121.684	11955			
HISP_MEN	Between Groups	17.037	56	.304	4.251	.000
	Within Groups	851.586	11899	.072		
	Total	868.623	11955			
WHITE_MEN	Between Groups	60.366	56	1.078	6.710	.000
	Within Groups	1911.641	11899	.161		
	Total	1972.007	11955			
ASIAN_MEN	Between Groups	2.979	56	.053	1.161	.193
	Within Groups	545.272	11899	.046		

Total	548.250	11955		
-------	---------	-------	--	--

CROSSTABS

```

/TABLES=AFFECT_SCORE ACTION_SCORE ACCESS_SCORE BY IND_WOMEN
BLACK_WOMEN HISP_WOMEN WHITE_WOMEN
  ASIAN_WOMEN IND_MEN BLACK_MEN HISP_MEN WHITE_MEN ASIAN_MEN
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/CELLS=COUNT
/COUNT ROUND CELL
/BARCHART.

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Oneway

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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	29094
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.

Syntax		ONEWAY IND_WOMEN BLACK_WOMEN HISP_WOMEN WHITE_WOMEN ASIAN_WOMEN IND_MEN BLACK_MEN HISP_MEN WHITE_MEN ASIAN_MEN BY ACTION_SCORE /STATISTICS DESCRIPTIVES /PLOT MEANS /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.81
	Elapsed Time	00:00:01.11

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
IND_WOMEN	Between Groups	.484	20	.024	.867	.631
	Within Groups	422.012	15112	.028		
	Total	422.496	15132			
BLACK_WOMEN	Between Groups	2.939	20	.147	1.571	.050
	Within Groups	1413.679	15112	.094		
	Total	1416.618	15132			
HISP_WOMEN	Between Groups	3.198	20	.160	1.913	.008
	Within Groups	1263.207	15112	.084		
	Total	1266.405	15132			
WHITE_WOMEN	Between Groups	2.840	20	.142	.861	.638
	Within Groups	2491.474	15112	.165		
	Total	2494.314	15132			
ASIAN_WOMEN	Between Groups	1.468	20	.073	1.604	.043
	Within Groups	691.511	15112	.046		
	Total	692.978	15132			

IND_MEN	Between Groups	.298	19	.016	.816	.690
	Within Groups	229.121	11933	.019		
	Total	229.419	11952			
BLACK_MEN	Between Groups	2.960	19	.156	1.662	.035
	Within Groups	1118.692	11933	.094		
	Total	1121.651	11952			
HISP_MEN	Between Groups	1.742	19	.092	1.262	.197
	Within Groups	866.863	11933	.073		
	Total	868.605	11952			
WHITE_MEN	Between Groups	3.937	19	.207	1.256	.201
	Within Groups	1967.940	11933	.165		
	Total	1971.877	11952			
ASIAN_MEN	Between Groups	1.793	19	.094	2.060	.004
	Within Groups	546.451	11933	.046		
	Total	548.243	11952			

```

ONEWAY IND_WOMEN BLACK_WOMEN HISP_WOMEN WHITE_WOMEN
ASIAN_WOMEN IND_MEN BLACK_MEN HISP_MEN
WHITE_MEN ASIAN_MEN BY ACCESS_SCORE
/STATISTICS DESCRIPTIVES
/PLOT MEANS
/MISSING ANALYSIS.

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Oneway

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	Weight	<none>
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	N of Rows in Working Data File	29094

Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY IND_WOMEN BLACK_WOMEN HISP_WOMEN WHITE_WOMEN ASIAN_WOMEN IND_MEN BLACK_MEN HISP_MEN WHITE_MEN ASIAN_MEN BY ACCESS_SCORE /STATISTICS DESCRIPTIVES /PLOT MEANS /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.89
	Elapsed Time	00:00:01.13

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
IND_WOMEN	Between Groups	.436	11	.040	1.420	.156
	Within Groups	422.062	15123	.028		
	Total	422.498	15134			
BLACK_WOMEN	Between Groups	27.015	11	2.456	26.728	.000
	Within Groups	1389.624	15123	.092		
	Total	1416.640	15134			
HISP_WOMEN	Between Groups	5.913	11	.538	6.449	.000
	Within Groups	1260.510	15123	.083		
	Total	1266.422	15134			

WHITE_WOM EN	Between Groups	6.609	11	.601	3.652	.000
	Within Groups	2487.791	15123	.165		
	Total	2494.400	15134			
ASIAN_WOM EN	Between Groups	7.659	11	.696	15.365	.000
	Within Groups	685.324	15123	.045		
	Total	692.983	15134			
IND_MEN	Between Groups	1.930	11	.175	9.211	.000
	Within Groups	227.490	11944	.019		
	Total	229.420	11955			
BLACK_MEN	Between Groups	50.893	11	4.627	51.607	.000
	Within Groups	1070.791	11944	.090		
	Total	1121.684	11955			
HISP_MEN	Between Groups	9.690	11	.881	12.250	.000
	Within Groups	858.933	11944	.072		
	Total	868.623	11955			
WHITE_MEN	Between Groups	73.609	11	6.692	42.102	.000
	Within Groups	1898.398	11944	.159		
	Total	1972.007	11955			
ASIAN_MEN	Between Groups	.219	11	.020	.434	.942
	Within Groups	548.031	11944	.046		
	Total	548.250	11955			

FREQUENCIES VARIABLES=ACCESS_SCORE ACTION_SCORE AFFECT_SCORE
 /STATISTICS=STDDEV VARIANCE MEAN MEDIAN SKEWNESS SESKEW KURTOSIS
 SEKURT
 /HISTOGRAM NORMAL
 /ORDER=ANALYSIS.

Frequencies

Notes

Output Created	16-FEB-2020 19:48:27
Comments	

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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	29094
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		<p>FREQUENCIES VARIABLES=ACCESS_SCORE ACTION_SCORE AFFECT_SCORE</p> <p>/STATISTICS=STDDEV VARIANCE MEAN MEDIAN SKEWNESS SESKEW KURTOSIS SEKURT /HISTOGRAM NORMAL /ORDER=ANALYSIS.</p>
Resources	Processor Time	00:00:00.25
	Elapsed Time	00:00:00.36

		Statistics		
		ACCESS SCORE	ACTION SCORE	AFFECT SCORE
N	Valid	29094	29088	27091
	Missing	0	6	2003
Mean		6.37	10.86	39.86
Median		7.00	11.00	39.00
Std. Deviation		2.567	3.198	11.556
Variance		6.587	10.228	133.542

Skewness	-.375	-1.198	-.005
Std. Error of Skewness	.014	.014	.015
Kurtosis	-.774	1.541	-.568
Std. Error of Kurtosis	.029	.029	.030

Frequency Table

ACCESS SCORE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	104	.4	.4	.4
	1	585	2.0	2.0	2.4
	2	2780	9.6	9.6	11.9
	3	1475	5.1	5.1	17.0
	4	2080	7.1	7.1	24.1
	5	2892	9.9	9.9	34.1
	6	3720	12.8	12.8	46.9
	7	4249	14.6	14.6	61.5
	8	4388	15.1	15.1	76.6
	9	3873	13.3	13.3	89.9
	10	2450	8.4	8.4	98.3
	11	498	1.7	1.7	100.0
	Total	29094	100.0	100.0	

ACTION SCORE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	36	.1	.1	.1
	1	268	.9	.9	1.0
	2	740	2.5	2.5	3.6
	3	817	2.8	2.8	6.4
	4	470	1.6	1.6	8.0
	5	155	.5	.5	8.5
	6	240	.8	.8	9.4
	7	507	1.7	1.7	11.1
	8	1179	4.1	4.1	15.2
	9	2054	7.1	7.1	22.2
	10	3690	12.7	12.7	34.9
	11	4810	16.5	16.5	51.5
	12	5061	17.4	17.4	68.8
	13	4278	14.7	14.7	83.6
	14	2757	9.5	9.5	93.0

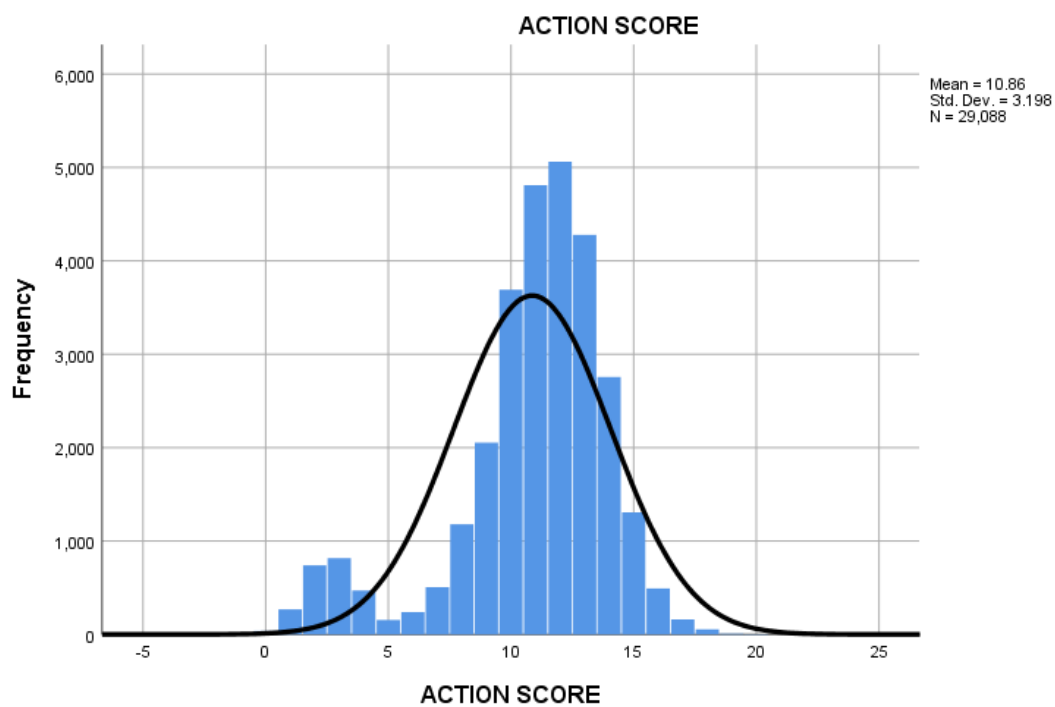
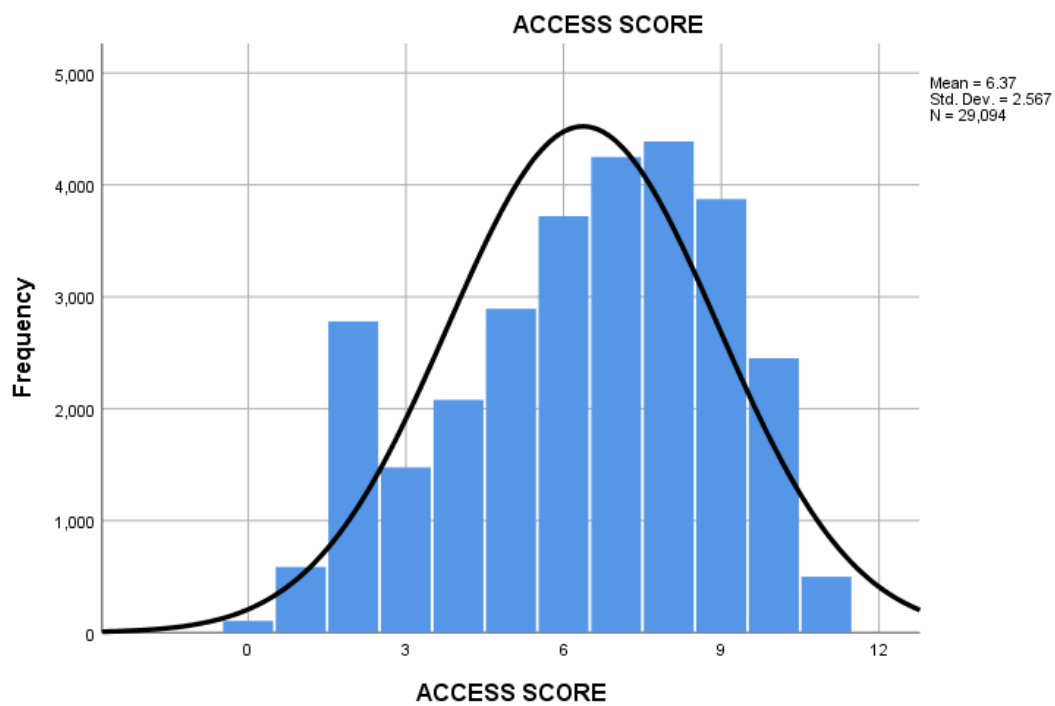
	15	1307	4.5	4.5	97.5
	16	493	1.7	1.7	99.2
	17	160	.5	.6	99.8
	18	55	.2	.2	100.0
	19	7	.0	.0	100.0
	20	4	.0	.0	100.0
	Total	29088	100.0	100.0	
Missing	System	6	.0		
Total		29094	100.0		

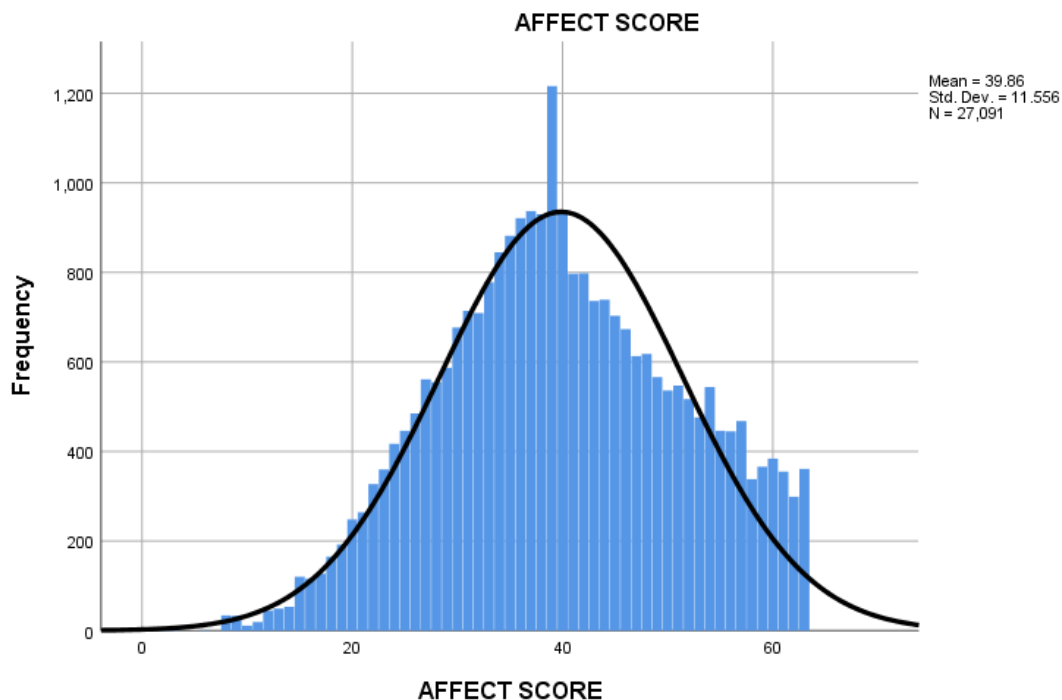
AFFECT SCORE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	.0	.0	.0
	3	1	.0	.0	.0
	6	1	.0	.0	.0
	8	34	.1	.1	.1
	9	33	.1	.1	.3
	10	11	.0	.0	.3
	11	19	.1	.1	.4
	12	45	.2	.2	.5
	13	49	.2	.2	.7
	14	53	.2	.2	.9
	15	120	.4	.4	1.4
	16	116	.4	.4	1.8
	17	127	.4	.5	2.3
	18	165	.6	.6	2.9
	19	192	.7	.7	3.6
	20	248	.9	.9	4.5
	21	264	.9	1.0	5.5
	22	327	1.1	1.2	6.7
	23	360	1.2	1.3	8.0
	24	417	1.4	1.5	9.5
	25	446	1.5	1.6	11.2
	26	485	1.7	1.8	13.0
	27	561	1.9	2.1	15.0
	28	555	1.9	2.0	17.1
	29	587	2.0	2.2	19.3
	30	677	2.3	2.5	21.8
	31	714	2.5	2.6	24.4
	32	709	2.4	2.6	27.0
	33	778	2.7	2.9	29.9

34	845	2.9	3.1	33.0
35	882	3.0	3.3	36.3
36	921	3.2	3.4	39.7
37	937	3.2	3.5	43.1
38	930	3.2	3.4	46.6
39	1216	4.2	4.5	51.0
40	939	3.2	3.5	54.5
41	797	2.7	2.9	57.4
42	798	2.7	2.9	60.4
43	736	2.5	2.7	63.1
44	739	2.5	2.7	65.8
45	703	2.4	2.6	68.4
46	673	2.3	2.5	70.9
47	613	2.1	2.3	73.2
48	618	2.1	2.3	75.5
49	566	1.9	2.1	77.5
50	536	1.8	2.0	79.5
51	547	1.9	2.0	81.5
52	517	1.8	1.9	83.5
53	476	1.6	1.8	85.2
54	544	1.9	2.0	87.2
55	446	1.5	1.6	88.9
56	445	1.5	1.6	90.5
57	468	1.6	1.7	92.2
58	338	1.2	1.2	93.5
59	366	1.3	1.4	94.8
60	384	1.3	1.4	96.3
61	355	1.2	1.3	97.6
62	299	1.0	1.1	98.7
63	361	1.2	1.3	100.0
Total	27091	93.1	100.0	
Missing System	2003	6.9		
Total	29094	100.0		

Histogram





REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/REGWGT=wgt_n2
/STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT FWB
/METHOD=ENTER INDIGENOUS BLACK HISPANIC WHITE ASIAN GENDER AGE
EDU INCOME MARSTAT
/METHOD=ENTER MGMT_CONF KNOW_CONF CONFIDENCE SATISFACTION
SELF_EFFICACY AFFECT_WORRY
/METHOD=ENTER WORK_STAT ONLINEGIG YR_SPEND COVER_EXP
CC_PAIDFULL WILL_UNEXP RET_NEED EMERGENCY
KIDS_EDU NON_RET_INVEST RET_REGULAR
/METHOD=ENTER CHECK_ACCT SAVE_ACCT AUTO_NUM_CC DROP_INCOME
FIN_KNOW.

```

Regression

Descriptive Statistics^a

Mean	Std. Deviation	N
------	-------------------	---

FINANCIAL WELLBEING	51.56	10.910	3650
INDIGENOUS	.03	.158	3650
BLACK OR AFRICAN AMERICAN	.15	.349	3650
HISPANIC OR LATINO/A	.16	.363	3650
WHITE	.67	.462	3650
ASIAN	.08	.264	3650
GENDER	1.42	.486	3650
AGE	42.88	11.935	3650
EDUCATION	4.88	1.657	3650
INCOME	5.86	1.539	3650
MARITAL STATUS	1.39	.745	3650
RISK TOLERANCE	6.33	2.548	3650
DAY-TO-DAY FINANCIAL MANAGEMENT	6.07	1.288	3650
SELF-RATED FINANCIAL KNOWLEDGE	5.61	1.158	3650
CONFIDENCE IN ACHIEVING FINANCIAL GOAL	3.28	.760	3650
SATSIFIED WITH FINANCIAL CONDITION	6.66	2.567	3650
FINANCIAL SELF-EFFICACY	6.11	1.319	3650
AFFECT: WORRY	.1280954	1.01632761	3650
WORK FOR PAY, NOT WORKING FOR PAY, RETIRED	.98	.659	3650
ONLINE GIG WORK	.30	.452	3650
ANNUAL SPENDING / INCOME	1.83	.848	3650
DIFFICULTY COVERING EXPENSES	2.24	.885	3650
PAY CREDIT CARDS IN FULL	1.41	.485	3650
WILL COVER \$2000 UNEXPECTED EXPENSE	1.52	.491	3650
	1.60	.870	3650

CALCULATED RETIREMENT NEED	.70	.450	3650
3 MONTH EMERGENCY FUND	.68	.460	3650
CHILDREN'S COLLEGE EDUCATION	.57	.487	3650
NON-WORK INVESTOR	.55	.489	3650
REGULARLY CONTRIBUTE TO RETIREMENT	.84	.359	3650
CHECKING ACCOUNT	.99	.097	3650
SAVINGS ACCOUNT	.92	.267	3650
AUTO LOAN	.57	.487	3650
NUMBER OF CREDIT CARDS	1.00	.000	3650
UNEXPECTED DROP IN INCOME	.73	.437	3650
FINANCIAL KNOWLEDGE SCORE	3.50	1.485	3650

a. Weighted Least Squares Regression - Weighted by NATIONAL WEIGHTING VARIABLE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.375 ^a	.141	.138	10.129	.141	54.151	11
2	.737 ^b	.543	.541	7.389	.403	533.990	6
3	.751 ^c	.564	.560	7.236	.020	13.944	12
4	.758 ^d	.575	.571	7.147	.011	19.152	5

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			
2	Regression	236051.087	17	13885.358	254.306	.000 ^d

	Residual	198310.452	3632	54.601		
	Total	434361.539	3649			
3	Regression	244812.416	29	8441.807	161.221	.000 ^e
	Residual	189549.123	3620	52.362		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

		Coefficients ^{a,b}										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics		
		B	Std. Error				Beta	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	60.483	1.449		41.737	.000						
	INDIGENOUS	-.011	1.068	.000	-.010	.992	-.015	.000	.000	.983	1.018	
	BLACK OR AFRICAN AMERICAN	.874	.788	.028	1.109	.267	.120	.018	.017	.371	2.695	
	HISPANIC OR LATINO/A	-1.372	.610	-.046	-2.250	.025	-.043	-.037	-.035	.573	1.744	
	WHITE	.838	.670	.036	1.251	.211	-.054	.021	.019	.293	3.409	
	ASIAN	.462	.870	.011	.531	.596	-.026	.009	.008	.534	1.873	
	GENDER	-.945	.369	-.042	-2.564	.010	-.081	-.042	-.039	.874	1.144	
	AGE	-.165	.015	-.181	-10.932	.000	-.255	-.178	-.168	.865	1.156	
	EDUCATION	-.233	.110	-.035	-2.120	.034	-.113	-.035	-.033	.849	1.178	
	INCOME	-1.093	.126	-.154	-8.697	.000	-.203	-.143	-.134	.752	1.330	

	MARITAL STATUS	1.507	.242	.103	6.236	.000	.172	.103	.096	.867	1.154
	RISK TOLERANCE	.701	.073	.164	9.562	.000	.214	.157	.147	.805	1.242
2	(Constant)	52.412	1.303		40.222	.000					
	INDIGENOUS	-.160	.781	-.002	-.205	.838	-.015	-.003	-.002	.979	1.021
	BLACK OR AFRICAN AMERICAN	.048	.576	.002	.083	.934	.120	.001	.001	.369	2.710
	HISPANIC OR LATINO/A	-.814	.446	-.027	-1.824	.068	-.043	-.030	-.020	.570	1.755
	WHITE	.344	.489	.015	.704	.482	-.054	.012	.008	.292	3.420
	ASIAN	1.335	.637	.032	2.095	.036	-.026	.035	.023	.530	1.886
	GENDER	-1.756	.272	-.078	-6.461	.000	-.081	-.107	-.072	.856	1.168
	AGE	-.030	.012	-.033	-2.637	.008	-.255	-.044	-.030	.790	1.265
	EDUCATION	.070	.080	.011	.870	.385	-.113	.014	.010	.842	1.187
	INCOME	-.616	.093	-.087	-6.626	.000	-.203	-.109	-.074	.731	1.368
	MARITAL STATUS	.907	.177	.062	5.130	.000	.172	.085	.058	.862	1.160
	RISK TOLERANCE	.243	.060	.057	4.028	.000	.214	.067	.045	.631	1.585
	DAY-TO-DAY FINANCIAL MANAGEMENT	-.174	.109	-.021	-1.597	.110	-.094	-.026	-.018	.759	1.317
	SELF-RATED FINANCIAL KNOWLEDGE	.590	.135	.063	4.381	.000	.057	.073	.049	.616	1.623

	CONFIDENCE IN ACHIEVING FINANCIAL GOAL	-.201	.205	-.014	-.980	.327	-.147	-.016	-.011	.618	1.617
	SATISFIED WITH FINANCIAL CONDITION	.067	.064	.016	1.040	.298	-.093	.017	.012	.554	1.806
	FINANCIAL SELF-EFFICACY	.039	.102	.005	.385	.700	.002	.006	.004	.830	1.204
	AFFECT: WORRY	7.277	.140	.678	52.078	.000	.713	.654	.584	.742	1.348
3	(Constant)	56.316	1.784		31.574	.000					
	INDIGENOUS	.079	.770	.001	.102	.918	-.015	.002	.001	.965	1.036
	BLACK OR AFRICAN AMERICAN	-.262	.568	-.008	-.461	.644	.120	-.008	-.005	.364	2.747
	HISPANIC OR LATINO/A	-.599	.440	-.020	-1.361	.173	-.043	-.023	-.015	.562	1.780
	WHITE	.346	.483	.015	.718	.473	-.054	.012	.008	.288	3.469
	ASIAN	1.126	.627	.027	1.796	.073	-.026	.030	.020	.526	1.903
	GENDER	-1.429	.271	-.064	-5.280	.000	-.081	-.087	-.058	.828	1.207
	AGE	-.001	.013	-.002	-.111	.911	-.255	-.002	-.001	.639	1.564
	EDUCATION	.073	.079	.011	.921	.357	-.113	.015	.010	.829	1.207
	INCOME	-.405	.097	-.057	-4.179	.000	-.203	-.069	-.046	.645	1.551
	MARITAL STATUS	.681	.175	.047	3.897	.000	.172	.065	.043	.845	1.183
	RISK TOLERANCE	.158	.061	.037	2.594	.010	.214	.043	.028	.592	1.689

DAY-TO-DAY FINANCIAL MANAGEMENT	-.066	.108	-.008	-.610	.542	-.094	-.010	-.007	.735	1.361
SELF-RATED FINANCIAL KNOWLEDGE	.388	.133	.041	2.913	.004	.057	.048	.032	.602	1.660
CONFIDENCE IN ACHIEVING FINANCIAL GOAL	-.245	.205	-.017	-1.197	.231	-.147	-.020	-.013	.593	1.686
SATISFIED WITH FINANCIAL CONDITION	-.115	.070	-.027	-1.636	.102	-.093	-.027	-.018	.442	2.262
FINANCIAL SELF-EFFICACY	.065	.100	.008	.649	.516	.002	.011	.007	.820	1.220
AFFECT: WORRY	6.695	.152	.624	43.968	.000	.713	.590	.483	.599	1.669
WORK FOR PAY, NOT WORKING FOR PAY, RETIRED	-.067	.184	-.004	-.367	.714	.008	-.006	-.004	.980	1.020
ONLINE GIG WORK	3.563	.357	.148	9.976	.000	.387	.164	.110	.550	1.818
ANNUAL SPENDING / INCOME	-.157	.149	-.012	-1.052	.293	.103	-.017	-.012	.898	1.114
DIFFICULTY COVERING EXPENSES	-.748	.165	-.061	-4.543	.000	-.381	-.075	-.050	.676	1.479
PAY CREDIT CARDS IN FULL	-1.300	.309	-.058	-4.212	.000	.042	-.070	-.046	.641	1.560
WILL	-.544	.284	-.025	-1.916	.055	-.070	-.032	-.021	.737	1.357

COVER \$2000 UNEXPECTED EXPENSE	.158	.176	.013	.895	.371	.240	.015	.010	.609	1.64 3
CALCULATE D RETIREMEN T NEED	.212	.292	.009	.726	.468	.023	.012	.008	.833	1.20 1
3 MONTH EMERGENC Y FUND	-.096	.348	-.004	-.276	.783	-.136	-.005	-.003	.561	1.78 4
CHILDREN'S COLLEGE EDUCATION	-.395	.293	-.018	- 1.34 7	.178	.043	-.022	-.015	.702	1.42 5
NON-WORK INVESTOR	-.687	.287	-.031	- 2.38 9	.017	.010	-.040	-.026	.725	1.37 9
REGULARL Y CONTRIUBU TE TO RETIREMEN T	-.432	.363	-.014	- 1.19 1	.234	.028	-.020	-.013	.849	1.17 8
4 (Constant)	55.914	2.120		26.3 79	.000					
INDIGENOU S	-.168	.761	-.002	-.221	.825	-.015	-.004	-.002	.963	1.03 9
BLACK OR AFRICAN AMERICAN	-.532	.563	-.017	-.945	.345	.120	-.016	-.010	.362	2.76 2
HISPANIC OR LATINO/A	-.594	.436	-.020	- 1.36 2	.173	-.043	-.023	-.015	.558	1.79 3
WHITE	.337	.478	.014	.705	.481	-.054	.012	.008	.286	3.49 3
ASIAN	1.287	.621	.031	2.07 3	.038	-.026	.034	.022	.523	1.91 3
GENDER	-1.498	.272	-.067	- 5.50 9	.000	-.081	-.091	-.060	.800	1.24 9
AGE	.013	.013	.015	1.06 2	.288	-.255	.018	.012	.608	1.64 5
EDUCATION	.193	.081	.029	2.37 7	.017	-.113	.040	.026	.775	1.29 0

INCOME	-.320	.097	-.045	-3.293	.001	-.203	-.055	-.036	.626	1.598
MARITAL STATUS	.613	.173	.042	3.539	.000	.172	.059	.038	.839	1.192
RISK TOLERANCE	.141	.061	.033	2.332	.020	.214	.039	.025	.588	1.700
DAY-TO-DAY FINANCIAL MANAGEMENT	-.051	.108	-.006	-.473	.636	-.094	-.008	-.005	.724	1.381
SELF-RATED FINANCIAL KNOWLEDGE	.363	.132	.038	2.747	.006	.057	.046	.030	.599	1.669
CONFIDENCE IN ACHIEVING FINANCIAL GOAL	-.300	.203	-.021	-1.479	.139	-.147	-.025	-.016	.588	1.699
SATISFIED WITH FINANCIAL CONDITION	-.167	.070	-.039	-2.380	.017	-.093	-.040	-.026	.430	2.325
FINANCIAL SELF-EFFICACY	.078	.099	.009	.782	.434	.002	.013	.008	.813	1.230
AFFECT: WORRY	6.176	.161	.575	38.467	.000	.713	.539	.417	.526	1.902
WORK FOR PAY, NOT WORKING FOR PAY, RETIRED	-.057	.182	-.003	-.315	.753	.008	-.005	-.003	.979	1.021
ONLINE GIG WORK	2.900	.362	.120	8.004	.000	.387	.132	.087	.522	1.917
ANNUAL SPENDING / INCOME	-.072	.148	-.006	-.488	.625	.103	-.008	-.005	.894	1.118
DIFFICULTY COVERING EXPENSES	-.560	.164	-.045	-3.416	.001	-.381	-.057	-.037	.665	1.503

PAY CREDIT CARDS IN FULL	-1.151	.310	-.051	-3.717	.000	.042	-.062	-.040	.621	1.610
WILL	-.210	.283	-.009	-.743	.458	-.070	-.012	-.008	.725	1.380
COVER \$2000 UNEXPECTED EXPENSE	.067	.175	.005	.384	.701	.240	.006	.004	.600	1.666
CALCULATE D RETIREMENT NEED	.258	.292	.011	.882	.378	.023	.015	.010	.810	1.234
3 MONTH EMERGENCY FUND	-.279	.345	-.012	-.809	.419	-.136	-.013	-.009	.557	1.796
CHILDREN'S COLLEGE EDUCATION	-.500	.290	-.022	-1.724	.085	.043	-.029	-.019	.699	1.431
NON-WORK INVESTOR	-.800	.285	-.036	-2.801	.005	.010	-.047	-.030	.717	1.394
REGULARLY CONTRIBUTE TO RETIREMENT	-.296	.359	-.010	-.824	.410	.028	-.014	-.009	.845	1.184
CHECKING ACCOUNT	1.494	1.250	.013	1.195	.232	-.030	.020	.013	.947	1.056
SAVINGS ACCOUNT	.550	.464	.013	1.185	.236	-.044	.020	.013	.909	1.101
AUTO LOAN	.126	.268	.006	.469	.639	.219	.008	.005	.822	1.217
UNEXPECTED DROP IN INCOME	-3.136	.352	-.126	-8.898	.000	-.484	-.146	-.096	.590	1.696
FINANCIAL KNOWLEDGE SCORE	-.297	.100	-.040	-2.968	.003	-.289	-.049	-.032	.636	1.573

Regression
R

Change Statistics

Model	R	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.375 ^a	.141	10.129	.141	54.151	11
2	.737 ^b	.543	7.389	.403	533.990	6
3	.750 ^c	.563	7.237	.019	31.779	5
4	.758 ^d	.575	7.147	.012	8.695	12

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			
2	Regression	236051.087	17	13885.358	254.306	.000 ^d
	Residual	198310.452	3632	54.601		
	Total	434361.539	3649			
3	Regression	244374.282	22	11107.922	212.059	.000 ^e
	Residual	189987.257	3627	52.381		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

Regression

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
	R	R Square		R Square Change	F Change	df1
1	.375 ^a	.141	10.129	.141	54.151	11
2	.556 ^b	.309	9.100	.168	73.422	12
3	.616 ^c	.380	8.627	.071	82.770	5
4	.758 ^d	.575	7.147	.195	276.772	6

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			

2	Regression	134077.562	23	5829.459	70.392	.000 ^d
	Residual	300283.978	3626	82.814		
	Total	434361.539	3649			
3	Regression	164877.295	28	5888.475	79.122	.000 ^e
	Residual	269484.244	3621	74.423		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.375 ^a	.141	.138	10.129	.141	54.151	11
2	.556 ^b	.309	.304	9.100	.168	73.422	12
3	.751 ^c	.564	.560	7.236	.255	352.468	6
4	.758 ^d	.575	.571	7.147	.011	19.152	5

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			
2	Regression	134077.562	23	5829.459	70.392	.000 ^d
	Residual	300283.978	3626	82.814		
	Total	434361.539	3649			
3	Regression	244812.416	29	8441.807	161.221	.000 ^e
	Residual	189549.123	3620	52.362		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.375 ^a	.141	.138	10.129	.141	54.151	11

2	.541 ^b	.293	.290	9.193	.152	156.61 6	5
3	.616 ^c	.380	.375	8.627	.087	42.077	12
4	.758 ^d	.575	.571	7.147	.195	276.77 2	6

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			
2	Regression	127299.397	16	7956.212	94.134	.000 ^d
	Residual	307062.143	3633	84.520		
	Total	434361.539	3649			
3	Regression	164877.295	28	5888.475	79.122	.000 ^e
	Residual	269484.244	3621	74.423		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.375 ^a	.141	.138	10.129	.141	54.151	11
2	.541 ^b	.293	.290	9.193	.152	156.61 6	5
3	.750 ^c	.563	.560	7.237	.270	372.50 8	6
4	.758 ^d	.575	.571	7.147	.012	8.695	12

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61113.084	11	5555.735	54.151	.000 ^c
	Residual	373248.455	3638	102.597		
	Total	434361.539	3649			
2	Regression	127299.397	16	7956.212	94.134	.000 ^d

	Residual	307062.143	3633	84.520		
	Total	434361.539	3649			
3	Regression	244374.282	22	11107.922	212.059	.000 ^e
	Residual	189987.257	3627	52.381		
	Total	434361.539	3649			
4	Regression	249703.938	34	7344.233	143.776	.000 ^f
	Residual	184657.601	3615	51.081		
	Total	434361.539	3649			

Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.680 ^a	.462	.462	7.543	.462	22653.346

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1288988.431	1	1288988.431	22653.346	.000 ^c
	Residual	1498874.968	26342	56.901		
	Total	2787863.399	26343			

a. Dependent Variable: FINANCIAL WELLBEING

b. Weighted Least Squares Regression - Weighted by NATIONAL WEIGHTING VARIABLE

c. Predictors: (Constant), AFFECT: WORRY

Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.684 ^a	.468	.468	7.483	.468	22691.531
2	.695 ^b	.483	.483	7.377	.015	68.413

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	1270557.339	1	1270557.339	22691.531	.000 ^c
	Residual	1443264.700	25776	55.993		
	Total	2713822.039	25777			
2	Regression	1311515.924	12	109292.994	2008.074	.000 ^d
	Residual	1402306.115	25765	54.427		
	Total	2713822.039	25777			

Appendix E: FINRA Data Release Documentation

DocuSign Envelope ID: 8671CAC7-0FCF-46FE-B500-CD68F6773BE1



December 16, 2019

Timi Jorgensen
University of Georgia
305 Sanford Drive
Athens, GA 30602

Dear Ms. Timi Jorgensen:

The purpose of this Letter Agreement is to set forth the terms and conditions of your access to and use of customized data from the National, Military, and State-by-State Survey of the FINRA Investor Education Foundation's National Financial Capability Study ("Data").

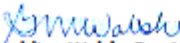
You acknowledge and agree that the Foundation is the owner of the Data and is hereby granting you a limited right to use the Data for the purpose of academic research and publication. Additionally, you agree that you will not use, disclose, market, release, show, sell, rent, lease, loan, or otherwise grant access to the Data, except as expressly permitted by this Letter Agreement or as otherwise required by law.

You further acknowledge and agree that no one having access to the Data will attempt to learn the identity of the any survey respondents. In the event that you discover or are able to deduce the identity of a specific survey respondent, you agree that you will not attempt to contact the respondent.

Finally, you acknowledge and agree that this Letter Agreement applies to all past, current and future sets of the Data.

If this Letter Agreement is satisfactory to you, please sign and return it to me at 1735 K Street NW, Washington, DC 20006.

Sincerely,


Geraldine Walsh, President
FINRA Investor Education Foundation

ACKNOWLEDGED AND AGREED BY:

Name: Timi Joy Jorgensen

Signature: 

Title: Ph.D. Candidate

Date: December 16, 2019

cc: Corporate Transactions Group, OGC

FINRA Investor Education Foundation

1735 K Street, NW
Washington, DC
20006-1506

T 202 728 6964
www.finrafoundation.org

Appendix F: Professional Vita

Timi Joy Jorgensen
190 Northcrest Drive, Athens GA 801.851.0088
timijoy@gmail.com

EDUCATION

University of Georgia, Athens GA

Estimated Graduation May 2020

PhD Financial Planning

GPA 3.76

Dissertation Topic: Inclusive Financial Wellbeing and Empowerment

Chair: Dr. Kenneth White

Utah Valley University, Orem UT

Graduated December 2014

B.S. Personal Financial Planning

RESEARCH EXPERIENCE

Discovering Money Solutions Coach, Project FREE August 2016 – May 2018

UGA

- Operationalized Cognitive Behavioral Therapy (CBT) and Solutions Focused Therapy (SFT) techniques to develop financial literacy tools for low-income participants.
- Built out curriculum based on CBT, SFT, and following specific grant requirements.
- Developed presentations, handouts, and interactive activities with special attention to diversity & inclusion.
- Developed evaluations to accurately test the validity of the content when delivered as an intervention.

Research Assistant August -December 2018

UGA

- Worked on a qualitative research project examining how people understand risk as it relates to finances. Edited and peer reviewed articles for the Journal of Financial Therapy.
- Coordinated with industry professionals and authors to meet deadlines and ensure quality work. Guest lectured for the Introduction to Financial Planning class (FHCE 3250).

TEACHING & OUTREACH

Instructor of Record January 2018- May 2018

UGA

- Taught one undergraduate section of Capstone in Financial Planning (FHCE 5250) with 24 students.
- Lectured, engaged in small group work, individual activities, and online collaboration.

Discovering Money Solutions Coach, Project FREE August 2016 – May 2018

UGA

- Engaged with community members to create realistic solutions to their individual financial concerns. Taught large groups of adults with diverse backgrounds.
- Developed presentations, handouts, and interactive activities to encourage sharing & participation. Administered evaluations to class participants to test the validity of the class as an intervention.

Volunteer Income Tax Assistance (VITA) Site Coordinator, January 2017 – May 2017

UGA

- Worked with community members to prepare and file their tax returns.
- Oversaw the tax preparation for returns performed by undergraduate tax planning students.
- Engaged in promotional activities to encourage community participation in the free service.
- Worked on a special case involving amending and filing of 3 years of previous returns.

ASPIRE Clinic, Financial Planning Graduate Student January 2018 – May 2018

UGA

- Engaged one-on-one with community members to create specific financial solutions.
- Researched case-specific financial planning issues and presented solutions to clients.
- Used footage of client sessions to improve interpersonal & planning skills.
- Prepared a class presentation detailing the challenges and techniques implemented with clients.

GRA to Professional Schools, Financial Planner August 2019 – May 2020

UGA

- Engaged one-on-one with professional students to address individual financial concerns.
- Taught large groups of Pharmacy, Veterinary, and Law students.
- Developed presentations, handouts, and interactive activities to encourage sharing & participation. Developed & administered evaluations to participants to ensure positive results for students.
-

PUBLICATIONS

- Lurtz, M., Kothakota, M., Jorgensen, T., Archuleta, K., & Heckman, S. (2019) Do financial planners really assess financial risk tolerance? An inquiry about perceptions of risk. *Submitted to Financial Planning Review*.
 - Jorgensen, T. (2018). Book Review: Financial Counseling. *Journal of Financial Therapy, 9*(2), 6.

PRESENTATIONS

- Lurtz, M., Kothakota, M., Magwegwe, F., Archuleta, K., Jorgensen, T., & Adams, J. *Do financial planners really assess financial risk tolerance? An inquiry about perceptions of risk*. CFP Academic Research Colloquium. Arlington, VA. February 19-21, 2019.
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 - Jorgensen, T. *Finding Your Expertise*. Women of the Woodbury School of Business: PoliSHEd. Orem, UT. September 28, 2019.

PROFESSIONAL AFFILIATIONS

Financial Planning Association

- Member 2012-current
- American Counsel on Consumer Interests*
- Member 2018-current
- FHCE Graduate Student Association*
- Member 2018-current