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THESIS

AN ANALYSIS OF THE IMPACT OF FINANCIAL FACTORS ON THE WELL-BEING OF MILITARY OFFICERS

by

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LIST OF ACRONYMS AND ABBREVIATIONS

APA	American Psychiatric Association
DOD	Department of Defense
DON	Department of the Navy
FINRA	Financial Industry Regulatory Authority
NPS	Naval Postgraduate School
PCS	Permanent Change of Station
PTSD	Post-Traumatic Stress Disorder
USD (P&R)	Under Secretary of Defense for Personnel and Readiness

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I. INTRODUCTION

The United States relies on the strength, health, and well-being of its uniformed service members to ensure the nation's safety and security around the globe. Many resources from the public and private sectors flow to the U.S. military, and using those resources to do the most good is vital to keeping faith with the taxpayers and private citizens who provide that support. When viewed as a resource, the well-being of the service member may be as important to manage wisely as any tangible resource. One aspect of overall well-being is individual psychological well-being. While many factors affect psychological well-being, financial management behaviors seem to have an especially important role (Bell et al., 2014). In 2011, President Barack Obama declared that the federal government would "enhance the well-being and psychological health of the military family, by protecting military members and families from unfair financial practices and helping families enhance their financial readiness" (White House, 2011).

The Department of Defense (DOD) and private organizations spend countless resources educating service members about sound financial management, and yet some problems remain. According to the Government Accountability Office's (GAO's) 2004 forum on the federal government's role in improving financial literacy:

> Research has shown that many Americans lack the knowledge of basic personal economics they need to make informed financial judgments and manage their money effectively. Yet financial literacy is increasingly important in a world where consumers must choose from an array of complicated financial products and services and employees must take on more responsibility for their retirement savings. (GAO, 2004)

A better understanding of the link between individual financial factors and individual well-being may help shape future decisions about financial education within the military. Contrasting the different impact of these factors on officers and enlisted service members may highlight what type of education is most important for each audience.

This research study attempts to measure self-reported financial factors, nonfinancial factors, and constraints on resources of military officers to assess their impact on the officers' subjective well-being. Previous studies have looked at similar questions, primarily focused on enlisted populations (Bell et al., 2014). Understanding the components of an officer's well-being as it relates to financial management may offer insights into the areas where the DOD could make the best return on investment concerning education for officers.

DOD Instruction 1344.09 (2008) states, "Members of the Military Services are expected to pay their just financial obligations in a proper and timely manner. A service member's failure to pay a just financial obligation may result in disciplinary action under the Uniform Code of Military Justice" (p. 2). This policy makes it clear that there is a high standard for personal financial management in the DOD. The failure of service members to properly manage personal finances can have dire consequences, including military criminal charges and loss of security clearances (Bell et al., 2014; DOD, 2008, 2012).These directives substantiate the importance of this study.

A. PURPOSE OF RESEARCH

The purpose of this research study is to survey resident Naval Postgraduate School (NPS) students to determine which factors have the most significant impact on officers' subjective well-being. This research replicates a previous study conducted primarily with enlisted soldiers. This research study may benefit the Navy by highlighting which financial factors have the most significant impact on subjective well-being. Additionally, the results may highlight differences between the enlisted population previously surveyed and the officers at NPS.

The research questions for this research study are as follows:

- Which financial factors, if any, have a significant impact on the subjective well-being of military officers?
- Which financial factors, if any, identified in the previous study of primarily enlisted service members also affect officers?

B. BENEFITS AND LIMITATIONS

Every year, Department of the Navy (DON) training and education dollars are spent on improving financial readiness among military populations. Very few studies have examined the needs of officers and how they differ from the needs of enlisted populations. With some additional insight into the financial factors most significant to the officer population, it may be possible to spend resources more efficiently in the area of personal financial management training and education.

The limitations of this research study include the voluntary participation in the survey. NPS students were solicited via e-mail, and students self-selected to participate. Additionally, the survey instrument was copied as closely as possible from the original study; however, it was modified in very minor ways to adjust for the circumstances of the two different groups surveyed. For example, the ranks of the current participants are generally higher, and many questions related to deployment do not currently apply to many of the participants. Finally, because this study is an attempt to replicate previous research, some questions, such as the employment status of the spouse for example, were not asked.

C. IMPORTANCE OF RESEARCH

This research is important because in a time of fiscally constrained resources, the DON must try to invest in training and education with measurable results. The general body of research regarding officer well-being has been limited, and little is known about the financial factors that impact an officer's well-being. Military members, and indeed virtually everyone in the United States, engage in financial behaviors every day. These behaviors range from basic decisions such as purchasing items for cash or credit, to more complex decisions like saving, investing, and borrowing. Many Researchers are interested in financial management behaviors for a variety of reasons, including the positive financial benefits, as well as psychological, personal, interpersonal, and even physical effects (Dew & Xiao, 2011). A more thorough understanding of the differences between the enlisted and officer populations may allow decision-makers to allocate resources to programs that will lead to the largest net increases in not only knowledge, which is measurable, but also well-being, which is subjective.

D. METHODOLOGY, SCOPE, AND ORGANIZATION

This research includes a literature review, a previously developed survey, deployment of the voluntary anonymous survey online to NPS students using LimeSurvey, and an analysis of the data collected. The survey asked a number of questions about debt, financial knowledge, perceived well-being, and various demographic factors. The research team from a previous study granted permission to administer the same survey questions that they developed or to modify them as needed.

This research report contains five Chapters. Chapter I is this introduction, which offers background information and the rationale for conducting the research. Chapter II is a literature review of financial factors that impact well-being and a review of the previous study. Chapter III covers the methodology used, including the development and deployment of the survey instrument. Chapter IV is an analysis of the data collected. The final chapter, Chapter V, includes a summary, conclusions, and areas for further research.

E. SUMMARY

In this chapter, a background was provided to establish the importance of personal financial management in the DOD. Additionally, this chapter covered the purpose of the research, the research questions, the benefits and limitations of the research, the methodology, and the scope and organization of this paper. The following chapter provides a literature review of important financial factors, other resources, resource constraints, and their relevance to individual subjective well-being.

II. LITERATURE REVIEW

In the future, personal financial readiness may become an even more important aspect of well-being for a military service member as economic stressors inside and outside the military increase. After 13 years and two major conflicts, the U.S. military is beginning to scale down its number of international commitments and to downsize its total active force. This downsizing is being accomplished with reduced recruiting, early retirements, and slow promotions. These shifts in personnel policy are happening inside the context of an all-volunteer force that has its roots in the 1970s (Clever & Segal, 2013). These changes have the potential to impact many actively serving military members.

A report was published in January 2015 that specifically addressed the changing compensation needs of the current military force (Military Compensation and Retirement Modernization Commission, 2015). This report recognizes the 42-year history of the all-volunteer force and recommends efficient ways to change the compensation structure while maintaining the current force structure (shape of the organizational pyramid). The commission specifically looked at total compensation, health benefits, education benefits, retirement structure, and the mobility of younger members. On the last point, the commission recognized that most service members do not ever become eligible for a full defined benefit military pension, and because of this sought to increase the benefits to those who serve less than the traditional 20 years of active duty (Military Compensation and Retirement Modernization Commission, 2015). Another recommendation by the commission was to increase the financial literacy of service members. This recommendation comes in the context of a shrinking total force, proposals to change the retirement system, and complex health care coverage choices (DOD, 2013b). The general economic environment, along with the current proposals, may have both subjective and objective impacts on service members, requiring a thorough understanding of personal financial management.

A key study was published in the *Journal of Financial Counseling and Planning* in 2014. “The Impact of Financial Resources on Soldiers’ Well-Being” considered financial factors from a group of over 1,000 soldiers prior to deployment and analyzed the link between their behaviors, resources, and well-being (Bell et al., 2014). This current research study replicates many of their methods, draws heavily from their approach, and generally follows their framework for both gathering survey data and analyzing the results. The following literature review highlights key studies, links between financial factors and well-being, impacts on both employees and employers, ways to measure well-being, the role of financial knowledge, and the current DOD policy regarding personal financial management.

A. BACKGROUND

The Financial Industry Regulatory Authority (FINRA) is a nonprofit organization authorized by Congress to ensure the securities industry operates fairly and honestly (FINRA, n.d.). In a 2012 survey, FINRA examined key aspects of financial well-being among military members, including making ends meet, planning ahead, managing financial products, and financial knowledge ("FINRA Investor Education Foundation," 2013). While the FINRA survey indicated some areas of strength, it also highlighted the lower enlisted ranks as the most vulnerable population in the military. Intuitively, it makes sense that the troops earning the least would have the most difficulty with a range of financial issues. However, the reasons are not clear. Lack of connection between rank and well-being, given that higher ranks earn higher pay, leads to the question of what influences well-being among different populations (Bell et al., 2014).

Subjective well-being is sometimes informally referred to as "happiness" (Diener, 2000). In general, it is a measure of how people feel about their lives at a given point in time. It can be the result of many different forces, but it is generally higher when people have more pleasure and less pain or unpleasant emotions (Diener, 2000). Additionally, according to Diener, subjective well-being can be difficult to measure because it can be impacted by the respondent's mood at the time the survey is administered or even the order of the survey questions. Much research is still required in the area of subjective well-being. Diener (2000) points out that subjective well-being can be influenced by many factors, including adaptation to one's situation, temperament, and national origin.

However, subjective well-being may be useful as an outcome variable for research and can help indicate areas where interventions might be needed (Diener, 2000). In fact, between 2001 and 2005, over 100 economic studies used subjective well-being as a measure of happiness (Plagnol, 2010).

Many measures and definitions of well-being have been proposed. Subjective well-being is generally measured by asking an individual about his or her satisfaction or happiness with life (Plagnol, 2010). According to behavioral economics expert Anke Plagnol, the areas considered most important to happiness typically center around family, finances, and health (2010). Plagnol explains the subjective well-being is often measured with surveys, using scales with numerical ranges, and that survey participants tend to have high response rates on these questions and rarely refuse to answer (2010). Subjective measures are often used because objective measures may be problematic. According to Plagnol (2010), objective measures do not measure well-being any better than subjective ones. For example, incomes generally decline after retirement, but people often report increased satisfaction, even though objectively their finances may be more strained than prior to retirement. Plagnol also explains that objective measures may change throughout a person’s lifespan. Additionally, the subjective effects of any given objective measure may decrease over time as an individual adapts to an objective state (Plagnol, 2010). For example, the satisfaction produced from a large bank account balance might wear off after a person becomes accustomed to it. Given that valid measures of well-being exist, testing changes in well-being against chosen factors may shed light on the relationship between the factors tested and subjective well-being. The following section discusses the financial environment of military service members.

B. FINANCIAL ENVIRONMENT OF MILITARY SERVICE MEMBERS

Military members operate in the same financial environment as their civilian counterparts, but with some unique challenges and unique benefits. Benefits include relative job stability, adequate pay, full health insurance, life insurance, retirement savings plans, a defined benefit pension plan, tax advantaged portions of pay, and early retirement ages. However, these benefits are balanced with challenges such as deployments, permanent change of station (PCS) orders, family separations, difficulty with spousal employment, and difficulty building home equity, among others (FINRA Investor Education Foundation, 2010).

According to FINRA, military members are better at making ends meet and planning than their civilian counterparts. However, FINRA found that military members were less able to manage financial products, including home ownership and debt (FINRA Investor Education Foundation, 2013). Another difference between the military population and the civilian population is that military members receive paychecks via direct deposit, so virtually every member has some sort of savings or bank account (Bell, Gorin, & Hogarth, 2009). Additionally, many members have government-issued credit cards, although their use is restricted to government business (FINRA Investor Education Foundation, 2013; Bell et al., 2009). The following section discusses the DOD policy on personal financial management.

C. DEPARTMENT OF DEFENSE POLICY ON PERSONAL FINANCIAL MANAGEMENT

The DOD has taken an explicit position on the importance of personal financial planning (DOD, 2008). DOD Instruction 1342.22 states that the family readiness system

> shall offer proactive personal life cycle financial management services that provide Service members and their families with the tools and information they need to develop individual strategies to achieve financial goals and address financial challenges. Information shall address the effects of financial decisions on personal and professional lives, resources needed to make prudent consumer decisions, and related services and support. (DOD, 2012, p. 15)

The instruction goes on to state that personal financial management services shall support the commander, promote readiness and retention, include education and counseling, conduct outreach to children and spouses, and incorporate the DOD Financial Readiness Campaign pillars (DOD, 2012, p. 15). The DOD Financial Readiness Campaign pillars include eight items that are aimed at helping “service members reach their financial goals and achieve financial freedom” (DOD, 2012, p. 16). The eight items are as follows:

> (a) Maintain good credit. (b) Achieve financial stability. (c) Establish routine savings. (d) Participate in the Thrift Savings Plan and Savings Deposit Program. (e) Sustain the Service member's Group Life Insurance and other insurance. (f) Encourage low-cost loan products as an alternative to payday lending and predatory loans. (g) Use low-cost MWR programs. (h) Preserve security clearances. (DOD, 2012, p. 16)

The DOD instruction covers many other areas, including money management, financial planning, and legal affairs. The instruction sets forth the minimum qualifications for staff members working in these areas, including a baccalaureate degree and a nationally recognized certification.

Although these recent policies at the DOD level make it clear that personal finance is an area of concern and should be a priority for investment, reports from the GAO indicate that not all service members are receiving the currently required training (GAO, 2005). In the same report, the GAO stated, "Senior Army officers said PFM training had not been a priority given the need to prepare for current operations" (p. 2). The GAO went on to recommend four actions: ensuring that military members are paid properly, allow deployed members to better communicate with creditors, formalizing the DOD oversight role for personal financial management, and track and ensure that junior enlisted members receive required financial training. The following section provides some of the demographic characteristics of military service members.

D. CHARACTERISTICS OF MILITARY SERVICE MEMBERS

1. General Demographics

Demographic information about service members comes from multiple sources, including the DOD, research organizations that study the military (such as RAND), and general academic sources. Clever and Segal (2013) have examined the demographics of military members and their families, and they advocate for more research to improve the well-being of military members and, particularly, their families.

Military service members are different from the general society from which they are recruited in various ways. For instance, they tend to marry younger. In addition, the military generally has more high school graduates, fewer college graduates, more marriages, fewer divorces, and about the same number of children as its civilian counterparts (Clever & Segal, 2013). However, Clever and Segal conclude that military service members are generally younger than civilians when they begin having children. Additionally, military family members outnumber military personnel 1.4 to 1 (Clever & Segal, 2013). Because of the current military retirement system where a service member can retire after 20 years of service (although most do not stay that long), service members tend to be under 40 years old, with two-thirds of the military population being 18–30 years old (Clever & Segal, 2013). Military members also tend to move 2.4 times as often as a comparable civilian (Clever & Segal, 2013). These frequent moves often distance military members from parents, grandparents, and other extended family who might offer emotional, financial, or child-rearing help.

Moving frequently with a military service member can also have an impact on the work life of the spouse. Studies have found lower wages, underemployment, and higher unemployment among spouses of active duty service members (Clever & Segal, 2013; FINRA Investor Education Foundation, 2013). Clever and Segal state that "while fewer than 10 percent of civilian married women work in a job mismatched with education level, nearly 40 percent of military wives do so" (2013, p. 28). This prevalence of underemployment may be another area of financial strain on service members.

2. Characteristics of Military Officers

Despite many similarities, not all ranks are the same demographically. In several important ways, military officers are quite different from the enlisted forces that they manage. For example, most commissioned officers are college graduates (82 percent), have higher average incomes, and have better employment opportunities after leaving active duty (DOD, 2013a). Additionally, their spouses may have better employment opportunities or less need to enter the workforce. Officers are more often married, 72 percent for males and 52 percent for females, as compared with 55 percent for enlisted males and 45 percent for enlisted females (Clever & Segal, 2013). In addition to understanding the differences between officers and enlisted service members, it is important to note that some factors cause financial strain regardless of rank. Financial factors, behaviors, and other factors are explored in the next section.

E. FINANCIAL FACTORS, BEHAVIORS, AND OTHER FACTORS

Financial factors—including debt, savings, financial knowledge, and others—are linked to individual well-being (Dew & Xiao, 2011). For example, higher debt levels have been shown to result in difficulty repaying loans and are negatively correlated with starting an individual retirement account (Dew & Xiao, 2011). Some of these factors are explored in the following sections.

1. Behaviors

Dave Ramsey (2013) contends that personal financial management is 80 percent behavior. If such a high percentage of financial management depends on behavior, it may be important to understand which behaviors are important in the area of financial management.

A 2003 study entitled "Household Financial Management: The Connection between Knowledge and Behavior" looked at financial behaviors in a unique way (Hilgert, Hogarth, & Beverly, 2003). The authors studied household financial management and divided financial behaviors into four categories: cash-flow management, credit management, saving, and investing (Hilgert et al., 2003). This hierarchy indicated that failing at a lower level, such as running out of cash, would likely prevent financial success at a higher level, such as investing, since there may be no resources available for the higher-level activities. Dew and Xiao (2011) even recommended a lower level on the hierarchy called "shopping and purchases" that would rank beneath cash flow management. These basic behaviors could include comparison shopping or making purchases at the proper time. At the other extreme, Dew and Xiao (2011) noted that some very advanced behaviors, such as estate planning, might indicate a very high level of financial well-being. However, so few people use some of these very advanced behaviors that they are difficult to incorporate into measurement scales. Dew and Xiao found this to be particularly true of young people with otherwise healthy behaviors.

Dew and Xiao (2011) had mixed results in their study with regard to the hierarchy of financial behaviors; however, they did find that savings and investing were the least likely behaviors, while cash flow management and credit management were the most likely behaviors. In their analysis, they mention that the timing of the study during the 2007–2009 recession may have impacted their results and altered consumers' patterns of consumption (Dew & Xiao, 2011).

2. Financial Knowledge

According to FINRA (2013), "financial literacy is found to be strongly correlated with behavior that is indicative of financial capability. Specifically, those with higher financial literacy are more likely to plan for retirement and to have an emergency fund and less likely to engage in expensive credit card behaviors" (p. 24). Based on the FINRA survey (2013), military officers performed the best on objective tests of financial literacy, which correlated to their overall higher education levels.

Sinclair, Sears, Zajack, and Probst (2010) indicated that as people increase their financial knowledge, their ability to make sound financial decisions increases. There also seems to be some indication that the less people know about finances, the less they worry about them (Archuleta, Dale, & Spann, 2013). However, that may not make ignorance the best course of action. There seems to be a general acceptance that financial education is important, and the literature seems to support the idea that better-informed consumers make better choices with credit, debt, and spending (FINRA Investor Education Foundation, 2013).

While training and education programs may not change an individual's subjective psychological responses, Sinclair et al. (2010) noted that they could help an employee make the best of his or her objective situation. For example, an education program may not make an individual feel great about losing his job, but it may give him some tools to deal with the situation and move past the negative event.

According to the FINRA survey, only 33 percent of military members have participated in financial education through the military, and only 28 percent of officers reported any financial education from the military. While officers may have participated less in military-sponsored financial education, their higher scores on financial literacy likely predict higher subjective well-being and lower debt (Archuleta et al., 2013; FINRA Investor Education Foundation, 2013).

Other studies have attempted to quantify the impact of financial education. A study from Indiana State University (2008) reached several conclusions about financial education. This research study is relevant because it was conducted on a group of soldiers and measured similar behaviors as the current research study. The Indiana State researchers concluded that a soldier who had taken financial education was different in multiple ways, including planning further into the future, paying bills late less often, and saving on a more regular basis. The Indiana State University researchers compiled a list of the impact of financial education on soldiers. Soldiers who participated in financial education were also likely to demonstrate the behaviors in Figure 1.

Figure 1. Impact of Financial Education on Soldiers

- More likely to use an informal versus formal budget for spending
- More likely to understand the differences between discretionary and non-discretionary spending
- More likely to comparison shop for credit and major purchases
- More likely to read about money management in magazines
- More likely to have a longer planning horizon
- More likely to save on a regular basis
- More likely to have retirement savings plans and participate in the thrift savings plan for retirement
- More likely to engage in moderate to high levels of good behaviors
- More likely pay off their credit card balances
- Less likely to pay an overdraft fee
- Less likely to pay bills late
- Less likely to buy supplemental life insurance
- Less likely to use car title loans

Adapted from Bell, C., Gorin, D., & Hogarth, J. (2009). *Does financial education affect soldiers' financial behavior?* Terre Haute, IN: Networks Financial Institute.

However, Bell et al. (2009) concluded that education alone does not change behavior, and that educational effectiveness can be difficult to measure. While financial education may have some positive effects, it does not provide immediate relief for all issues, like debt, as discussed in the following section.

3. Debt

Payment of debt is a serious issue for the military. DOD Instruction 1344.09 states, "Members of the Military Services are expected to pay their just financial obligations in a proper and timely manner. A Service member's failure to pay a just financial obligation may result in disciplinary action under the Uniform Code of Military

Justice" (DOD, 2008, p. 2). The knowledge that personal financial matters may injure a person's career can add to financial anxiety and have negative impact on well-being.

Drentea & Lavrakas (2000a) conducted a study which offered credit use as a proxy to measure well-being. The authors contended that income is only capable of measuring well-being at a point in time, whereas debt tended to be accumulated over time and was generally used when income was insufficient to meet an individual's needs. The authors also note that the desire to accumulate material goods has grown faster than the individual ability to earn more income, revealing why credit card debt is problematic in America (Drentea & Lavrakas, 2000a).

Credit card debt is a particular concern, as it is typically seen as a way of financing a standard of living beyond current income (Drentea & Lavrakas, 2000b). Drentea & Lavrakas (2000b) proposed that high levels of credit card debt can be bad for a person's health due to credit card use during extended financial hardship, the tendency to buy inferior goods when highly indebted, and the general stress of owing high interest debt and the related collection efforts by creditor.

According to a 2013 survey, military members carry various types of debt, including auto (63 percent), credit card (52 percent), home equity loan or mortgage (42 percent), student loans (38 percent), non-bank borrowing (35 percent), and unpaid medical bills (16 percent) (FINRA Investor Education Foundation, 2013). Twenty-one percent of respondents carried four or more types of debt. FINRA reported that 42 percent of military officers W1-O10 indicated "I have too much debt right now" (FINRA Investor Education Foundation, 2013). While that is the lowest of all the rank groupings in the FINRA study and below the group average of 50 percent, it still indicates a significant awareness of debt by service members.

Debt may come from many different sources, including personal habits or situational factors (Norvilitis, Merwin, Osberg, Roehling, Young, Kamas, 2006). When awareness of debt turns to concern, it may have a negative impact on individual well-being. However, on a positive note, only 5 percent of officers indicated having declared bankruptcy in the last two years, compared to 12 percent for all military members (FINRA Investor Education Foundation, 2013).

4. Savings

FINRA made an observation that the income statements of America's service members seem to be healthy, while the "balance sheets are more likely to be stressed" (FINRA Investor Education Foundation, 2013, p. 33). This framework might indicate that while the benefits of a steady paycheck, health care, and housing are very beneficial, service members may be stressed due to either lack of financial management knowledge or poor financial management behaviors. Increased savings rates tend to decrease the need for emergency loans and the overall dependence on credit (GAO, 2005).

5. Age

Bell et al. (2014) found age and rank to be unrelated to subjective well-being. This finding was unexpected given the high correlation between age, salary, experience, and overall resources. Some studies have suggested that well-being may be less related to age and more related to life events such as marriage, divorce, child birth, or retirement (Plagnol, 2010). Since some of these life events tend to happen around predictable age points, such as retirement around age 65, it may appear that a change in well-being is related to age when in fact it is more closely related to life circumstances (Plagnol, 2010). Other research indicates that well-being and age may not be related because people adapt to their age, or even have illusions about being somewhat younger than they really are (Westerhof & Barrett, 2005). The following section discusses financial factors and the workplace.

F. FINANCIAL FACTORS AND THE WORKPLACE

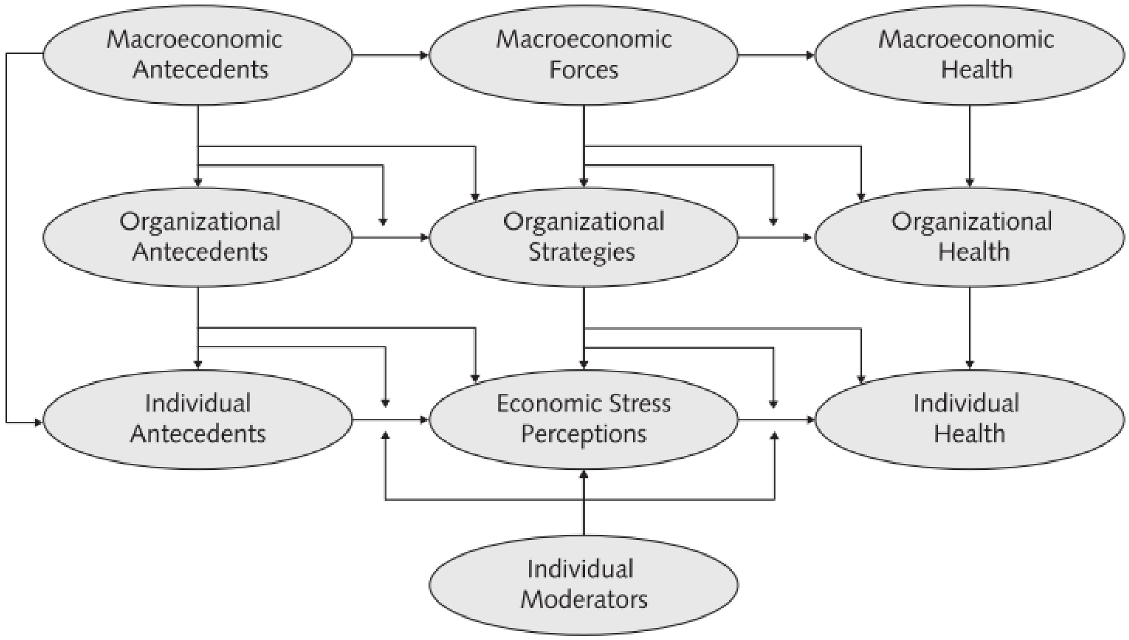
1. Employee Impact

Financial stress has been defined in research under many different names, including economic stress, economic strain, and economic pressure (Kim & Garman, 2003). While authors certainly differentiate these terms, they generally point to the same idea. The essence of economic stress is that an individual is experiencing stress from a financial condition or situation.

Sinclair, Sears, Zajack, and Probst (2010) suggest that economic stress results from multiple levels, including individual, organizational, and macroeconomic. These researchers cite multiple financial factors that threaten well-being, including job insecurity, unemployment, underemployment, household income, household debt, worries about finances, and medical expenses (Sinclair et al., 2010). Their research divides economic stressors into two sources, income-related and employment-related. Each category is further divided into objective and subjective stressors. In their view, an objective stressor would include an event like losing a job, whereas a subjective stressor would be the perception that one is underemployed (Sinclair et al., 2010). Likewise, not being able to meet financial obligations would be objective, while feeling underpaid would be subjective. However, both objective and subjective stressors are thought to have an impact on the employee. Sinclair et al. (2010) found that economic stressors have multiple effects, including poor job performance, physical and psychological impact, and increased employee turnover.

The model shown in Figure 2, which comes from the 2010 research study, was used to shape the framework by Sinclair et al. (2010). Figure 2 shows that the macroeconomic environment, the organizational environment, and the individual all have an impact on the individual’s health. Based on this general model, financial stressors on the service member could originate from the general economy, the DOD, and his or her own actions.

Figure 2. A Multilevel Model of Economic Stress



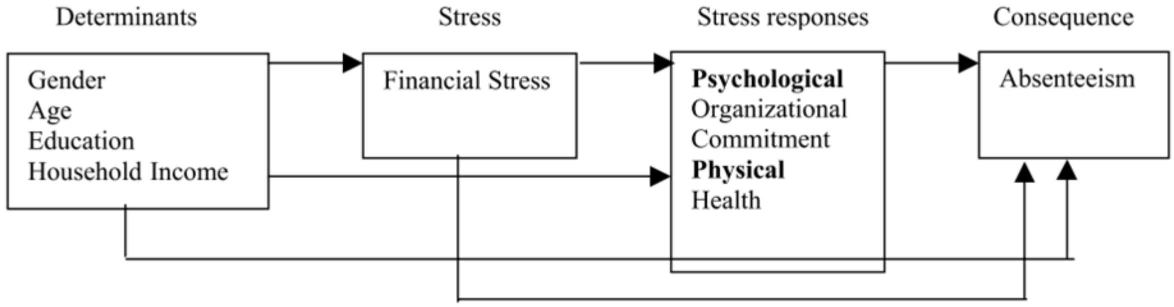
Source: Sinclair et al. (2010) A Multilevel Modelmultilevel model of Economic Stresseconomic stress and Employee Well-Beingemployee well-being. *Contemporary Occupational Health Psychology: Global Perspectives on Research and Practice*, *1*, 1–20. http://doi.org/http://dx.doi.org/10.1002/9780470661550.ch1

The following section discusses some of the specific impacts of financial stress on the employer.

2. Employer Impact

Research has found that employee well-being (or lack thereof) may have multiple impacts on the employer (Kim & Garman, 2003). In a profit-oriented company, the impact may be measured in profit and loss, higher turnover, or low morale. Financial stress on the individual has also been negatively correlated with organizational commitment and positively correlated with absenteeism (Kim & Garman, 2003). The same study suggests that reducing financial stress on employees, perhaps through financial education, could benefit the organization. Figure 3 is a framework developed to show absenteeism as the result of demographic factors (determinants), stress, and stress responses.

Figure 3. Financial Stress and Absenteeism



Source: Kim, J., & Garman, E. (2003). Financial stress and absenteeism: An empirically derived research model. *Financial Counseling and Planning, 14*(1), 1–13.

The focus of Figure 3 was absenteeism. In the military, employee well-being may affect unit readiness and retention (Adams, Hall, & Thomson, 2009). Clever and Segal (2013) indicate that service members' decisions to reenlist is linked to his or her happiness with military life. While it may be difficult to directly link individual readiness to military unit readiness, some factors certainly play a role. For example, organizational commitment includes acceptance of the organization's goals, willingness to exert effort toward them, and a desire to remain in the organization (Kim & Garman, 2003).

Sinclair et al. (2010) note that interventions for reducing psychological stressors could occur on three levels. On the primary level, interventions such as personal financial management education are targeted at the general population (all service members). The secondary level would target at-risk populations with things like retraining or economic incentives for retraining (perhaps service members likely to be downsized). The tertiary intervention level would be last-resort interventions, such as unemployment counseling, psychological counseling, or programs for dislocated workers (service members forced to leave active duty against their desire). All three of these levels attempt to improve the situation of the individual. The first two may be of particular interest to the employer since the worker is still in the organization, and productivity, attitude, and turnover may be important. Given the framework of these three levels, it offers some insight into providing financial education to general audiences, those the employer may suspect need help in the future, and those already in trouble. Employers could consider tailoring education for the needs of different workers. The first level would be more preventative, the second level would produce a course correction for those at risk, and the third level would attempt to help an individual recover from an event that has already happened. The following section discusses financial anxiety.

G. FINANCIAL ANXIETY

Some personality traits affect the way individuals deal with stress, including their anxiety dealing with financial issues, their sense of control over those issues, and their sense of self-worth (Sinclair et al., 2010). The techniques used by individuals to deal with these psychological issues result in how much stress is felt, leading to a change in subjective well-being. There are several possible outcomes from financial stress on the individual, including psychological strain, physical problems, strained relationships, marital distress, mental distress, poor job performance, and absenteeism (Bell et al., 2014; FINRA Investor Education Foundation, 2013; Kim & Garman, 2003; Sinclair et al., 2010).

Bell et al. (2014, p. 42) proposed, "From a stress and coping perspective, the more coping strategies/resources an individual has, the less stress they will experience and, consequently, this will increase well-being." Bell et al. (2014) used a five-point scale to measure financial anxiety. The questions used to determine financial anxiety were derived from a study entitled "College Students and Financial Distress: Exploring Debt, Financial Satisfaction, and Financial Anxiety" (Archuleta et al., 2013; Bell et al., 2014). While college students differ from young service members in some respects, their lives are parallel in many ways. The scale developed by Archuleta et al. (2013) was designed for use by counselors and financial educators, based on generalized anxiety disorder criteria found in the American Psychiatric Association's (APA's) *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2000). The scale developed used scores to assess a student's well-being, with higher scores representing more anxiety. The study self-identified several limitations, including a limited sample, self-selection of participants, and perceived financial knowledge (versus objective testing for knowledge) (Archuleta et al., 2013). Because of its development for college students, it may be a good fit for the military population. It is likely that other factors also make the life of the military member equally or more complex than that of a college student, including marrying young, making multiple moves early in their careers, and participating in deployments (Clever & Segal, 2013; DOD, 2013a).

H. SUMMARY

This literature review provided an introduction and background for the current research. It also reviewed the current financial environment for service members and some DOD policies related to personal financial management. Additionally, it covered some characteristics of the military service member, financial factors and behaviors, impacts of financial stress on the workplace, and approaches to measuring anxiety. The next chapter, Chapter III, covers the methodology, including the development and deployment of the survey instrument.

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III. METHODOLOGY

This chapter provides an overview of the methodology used for this study. It covers the adaptation of the survey from previous research, deployment of the survey at the Naval Postgraduate School (NPS), and the process used for analysis of the data collected from the survey.

A. SURVEY DEVELOPMENT AND DEPLOYMENT

This research used, with permission from the lead author, a previous survey administered to approximately 1,000 soldiers and used as the basis for research published in the *Journal of Financial Counseling and Planning* (Bell et al., 2014). The survey from the original research contained 51 questions. Minor changes to the survey instrument deployed at NPS were required to accommodate the different circumstances under which it was previously administered. The participants in the Bell et al. study were on the verge of deployment, and many of the questions asked about anticipated financial decisions while deployed. The current research surveyed NPS students, the vast majority of whom are not likely to deploy in the near future. For these types of deployment-oriented questions, an attempt was made to remain as consistent with the original survey as possible by adding an answer choice such as "not applicable." Another adjustment included changing the rank scale, since this survey targeted officers instead of enlisted service members. In the original paper and pencil survey, age was a continuous variable, however age was collected as a categorical variable in the current research study. As much of the original structure was retained as possible while adjusting for the circumstances of the participants and the survey tool used.

The survey used in this research was deployed using LimeSurvey, an online survey tool used at NPS. Prior to deployment of the survey, all appropriate Institutional Review Board (IRB) procedures were followed. Upon IRB approval, current NPS students were recruited online. The survey was available for a two-week period. One initial announcement and one reminder were e-mailed to the target participants. No personally identifiable information was collected, and all participation was voluntary.

After the close of the survey period, the data were retrieved from LimeSurvey for analysis.

B. DATA ANALYSIS METHOD

This study uses both descriptive statistics and regression analysis. All analysis was conducted using Stata after importing the data from LimeSurvey. The results are provided in table format in the analysis section. The regression analysis uses subjective well-being as the dependent variable. The independent variables were grouped into three categories: financial resources, other resources, and resource constraints. Financial resources measured included rank (as a proxy for socioeconomic status), savings, and perceived net worth. Other resources measured on the survey included age, financial knowledge, and education level. Resource constraints were measured with questions about credit card debt, automobile debt, marital status, number of children, and use of emergency loans. Other demographic questions were included in the online survey instrument, and the results were analyzed using descriptive statistics.

C. SUMMARY

This chapter provided an overview of the survey instrument development, its deployment on LimeSurvey, and the approach to the data analysis. The next chapter, Chapter IV, provides an analysis of the data gathered during the survey.

IV. ANALYSIS

A. INTRODUCTION

This chapter analyzes the data collected from Naval Postgraduate School resident students. The descriptive data is presented in table form, and key items of interest are shown as graphs. Where relevant, the mean scores are reported, as well as the range and standard deviation. Not all questions are relevant to the regression analysis because this study is primarily a replication of prior research. The results of the regression are shown in table format, with the statistically significant variables identified. Finally, potential implications of this research and recommendations made based on the analysis are discussed.

B. SURVEY RESPONSE

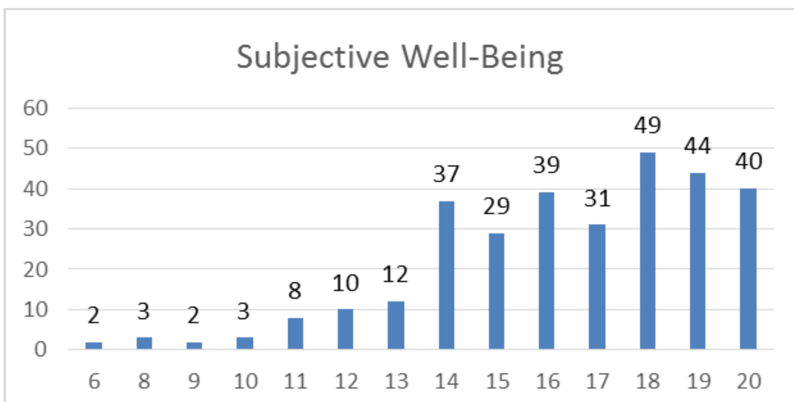
The survey was open from October 26, 2015, to November 6, 2015. The survey recruitment was sent to 1,557 Naval Postgraduate School resident students via e-mail. The e-mail provided a link to a web-based survey with 51 questions. There were 368 responses to the survey, a response rate of 23.6%. However, not all responses were usable. Thirty-eight responses were dropped because the survey was not fully complete, many having quit on the first of three pages. An additional 21 observations were dropped because the respondents indicated they were international officers, which was not the population of interest for this research study. A total of 309 fully completed surveys were analyzed, which is 19.8% of the targeted participants. The survey contained Likert-type questions about demographics, subjective well-being, financial and non-financial factors, and constraints on resources such as debt. The next section discusses the descriptive statistics related to the survey responses. Complete descriptive data can be found in Appendix A.

C. ANALYSIS OF DESCRIPTIVE STATISTICS

1. Subjective Well-being

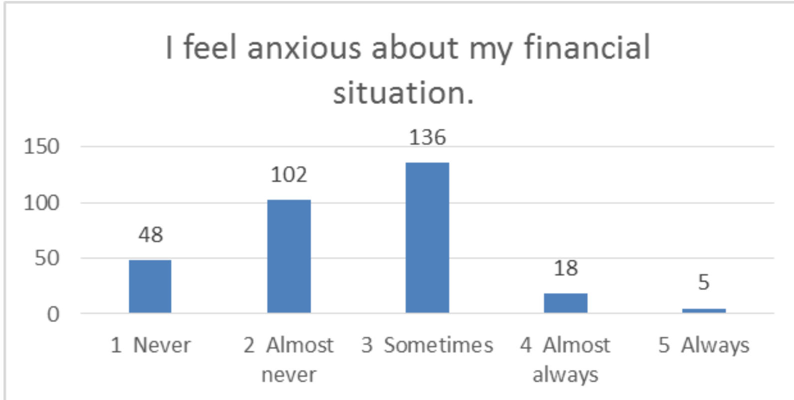
Subjective well-being, represented by Figure 4, was assessed by four questions. Each question had a range of 1 to 5, with 1 indicating less of a characteristic and 5 indicating more. In order to test overall subjective well-being, the four questions, represented by Figures 5–8 were summed to create a composite variable with a range of 5 to 20 shown in Figure 4. Subjective well-being was reverse coded, in order to make Figure 4 more intuitive. Of a possible 20 points, the average score was 16.4, with a standard deviation of 2.8. As seen in Figure 4, the responses ranged between 6 and 20, with higher numbers indicating greater subjective well-being.

Figure 4. Subjective Well-Being



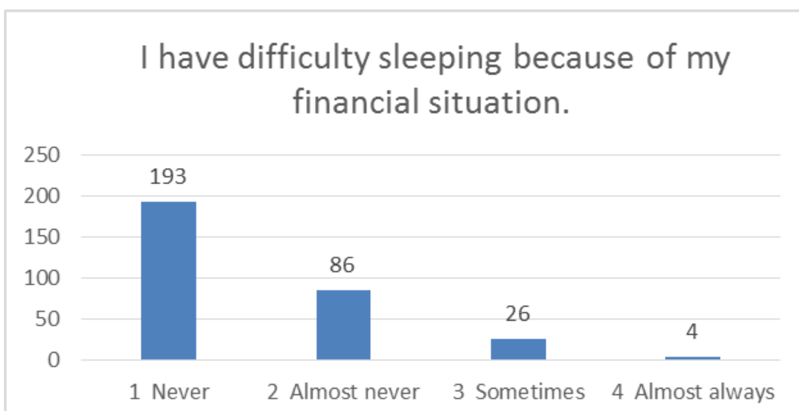
Each of the next four questions had a response range of 1 to 5. In Figure 5, approximately 8 percent of respondents always or almost always feel anxious about their financial situations. Approximately 49% of the respondents never or almost never feel anxious about their financial situation. The mean response was 2.45 with a standard deviation of 0.88.

Figure 5. Responses to “I Feel Anxious about My Financial Situation”



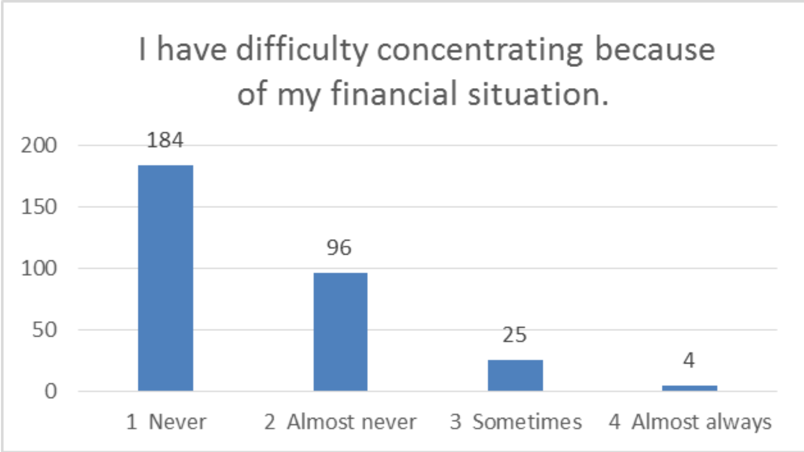
In response to “I have difficulty sleeping because of my financial situation,” Figure 6 indicates that 9.7% of the respondents answered that they sometimes or almost always have trouble sleeping. The mean response was 1.49 with a standard deviation of 0.71. No respondents selected answer choice 5, always.

Figure 6. Responses to “I Have Difficulty Sleeping Because of My Financial Situation”



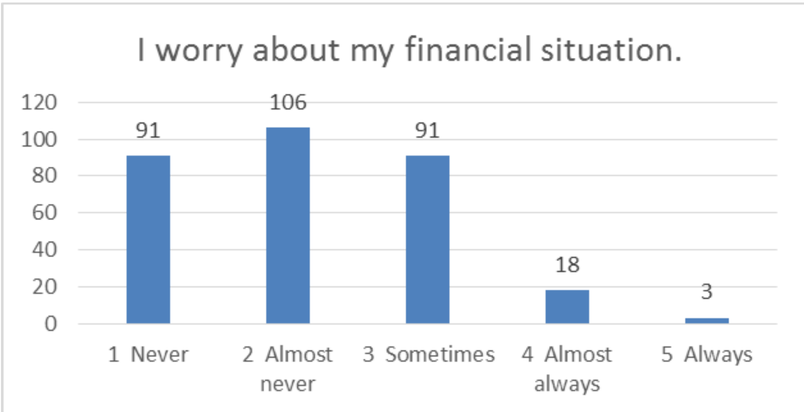
In response to “I have difficulty concentrating because of my financial situation,” Figure 7 indicates that 9.38% of the respondents answered that they sometimes or almost always have trouble concentrating. The mean response was 1.51 with a standard deviation of 0.70. No respondents selected answer choice 5, always.

Figure 7. Responses to "I Have Difficulty Concentrating Because of My Financial Situation"



In response to "I worry about my financial situation," Figure 8 indicates that 6.8% of the respondents answered that they almost always or always worry about their financial situations. The mean response was 2.15 with a standard deviation of 0.94.

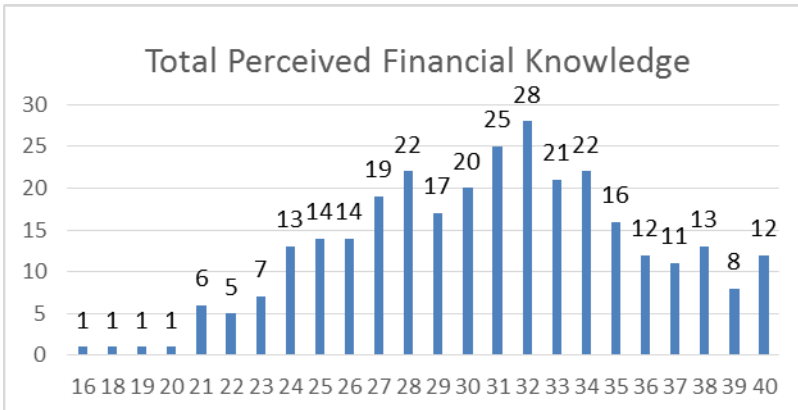
Figure 8. Responses to "I Worry about My Financial Situation"



2. Perceived Financial Knowledge

Perceived financial knowledge was measured with eight questions. Each question had a range of 1 to 5, with 1 indicating little or no knowledge and 5 indicating a great deal of knowledge. The questions were summed to determine a composite score representing knowledge. The underlying questions asked about knowledge of interest rates, credit reports, managing finances, investing money, life insurance, retirement accounts, and taxes. The possible range of the composite variable was 8 to 40. The mean score was 30.8 with a standard deviation of 4.96. The range of response was between 16 and 40; higher answers indicated more perceived financial knowledge (see Figure 9).

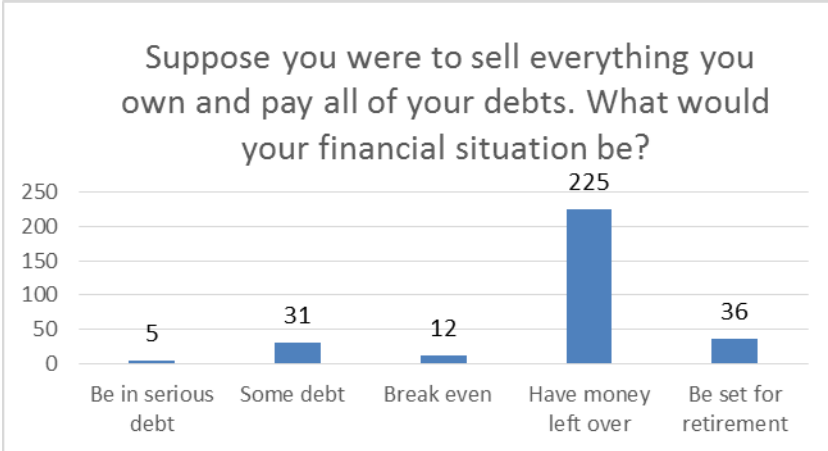
Figure 9. Participants' Total Perceived Financial Knowledge



3. Net Worth

To approximate net worth status, the following question was asked: "Suppose you were to sell everything you own and pay all of your debts. What would your financial situation be?" The answer choices included: be in serious debt, break even, have some money left over, or be set for retirement. Figure 10 shows the results of the question. 11.65% of the respondents answered that they would have some debt or be in serious debt, 72.82% indicated they would have money left over, and 11.65% indicated they would be set for retirement.

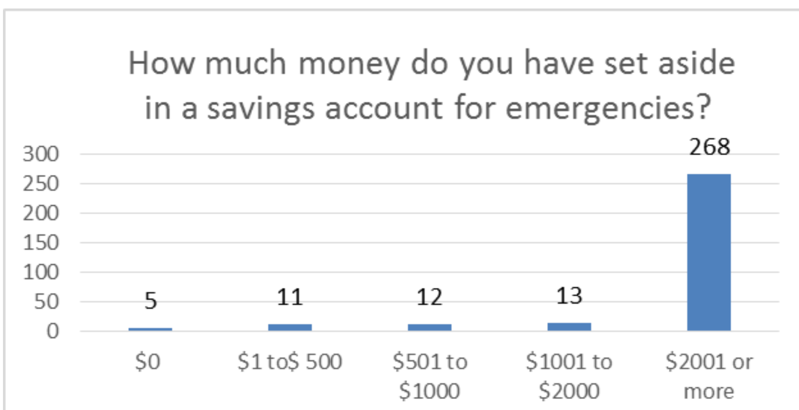
Figure 10. Responses to Net Worth Question



4. Emergency Savings

Emergency savings were measured by asking: "How much money do you have set aside in a savings account for emergencies?" The responses are shown in Figure 11. 96.12% of the respondents answered that they have $2001 or more in emergency savings.

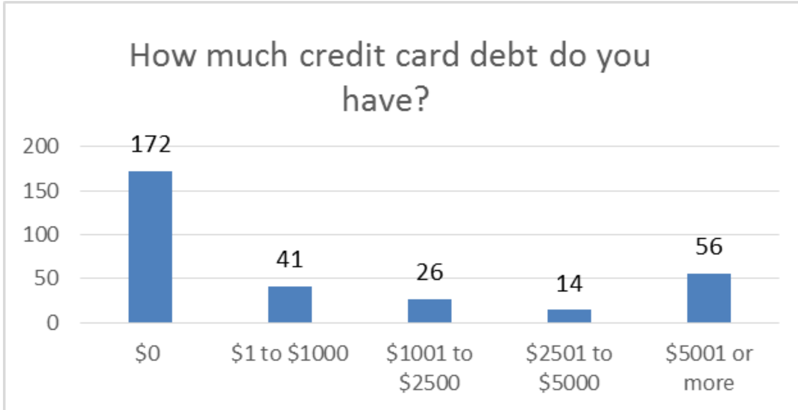
Figure 11. Responses to Emergency Savings Question



5. Debt

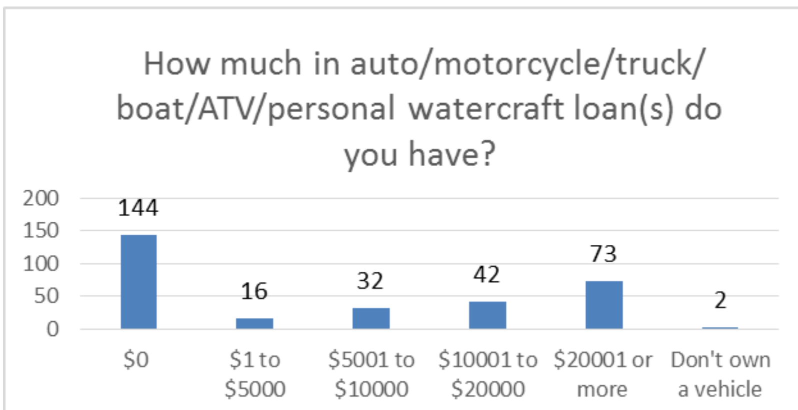
Two questions were asked about debt. One question asked about credit card debt, and the other asked about vehicle debt (to include all personal vehicles). Nearly 69% of the respondents had less than $1,000 in credit card debt, as Figure 12 indicates.

Figure 12. Responses to "How Much Credit Card Debt Do You Have?"



However, over 37% had more than $10,000 in vehicle debt, while 46.6% had zero personal vehicle debt (see Figure 13).

Figure 13. Responses to Vehicle Debt Question



6. Demographic Data

Multiple demographic questions were asked, including rank, age, sex, race, military branch, occupation, education, and marital status, and number of dependents. The results are shown in Figures 14–22. Figure 14 indicates that 97% of the respondents were the rank O-3 or higher.

Figure 14. Rank of Participants

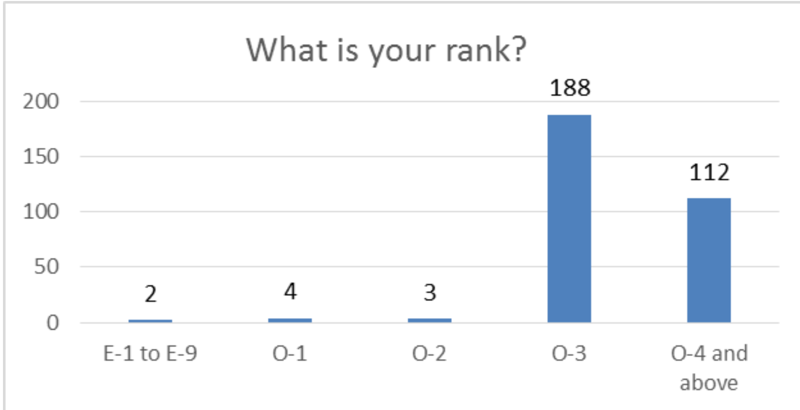


Figure 15 shows the age distribution of the survey participants. 6.5% of the respondents were 41 years old or older, and 69.9 percent were 35 years old or younger.

Figure 15. Age of Participants

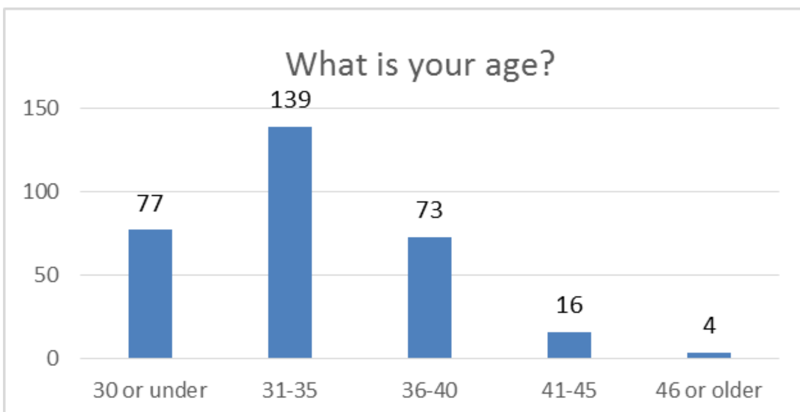


Figure 16 indicates the sex break down of the respondents. Of the respondents, 85.44% were male and 14.56% were female.

Figure 16. Sex of Participants

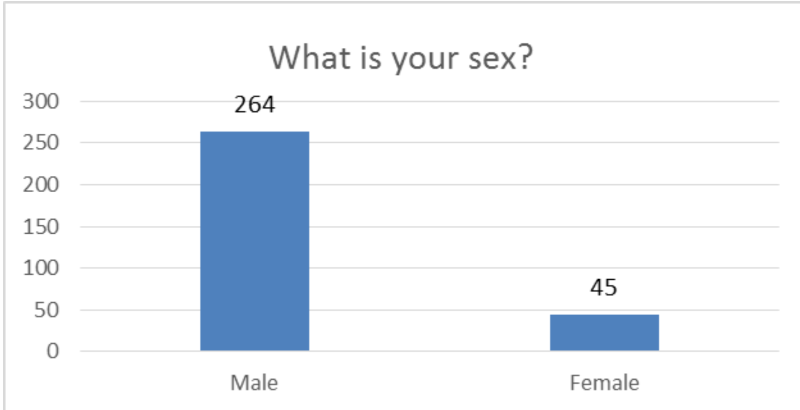
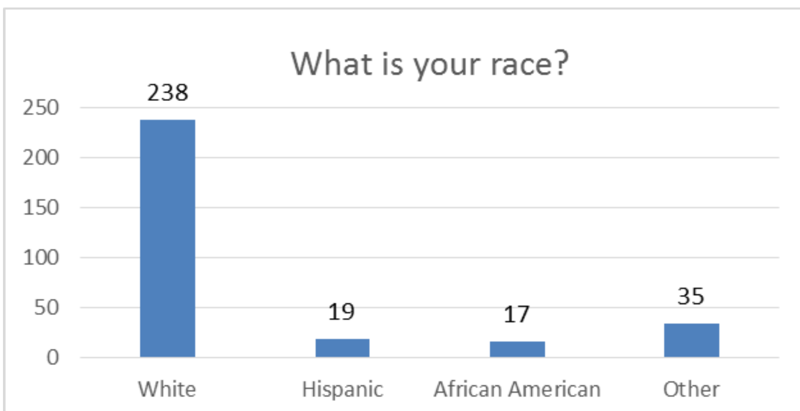


Figure 17 indicates the racial breakdown of the respondents. Of the respondents, 77% were white, 11.33% were other, 6.15% were Hispanic, and 5.5% were African American.

Figure 17. Race of Participants



Over 75% of the respondents were in the Department of the Navy as indicated in Figure 18. 48% of the respondents were in the Navy, and 28% were in the Marine Corps. The other 25% were divided among the Army, Air Force, and Other.

Figure 18. Service Affiliations of Participants

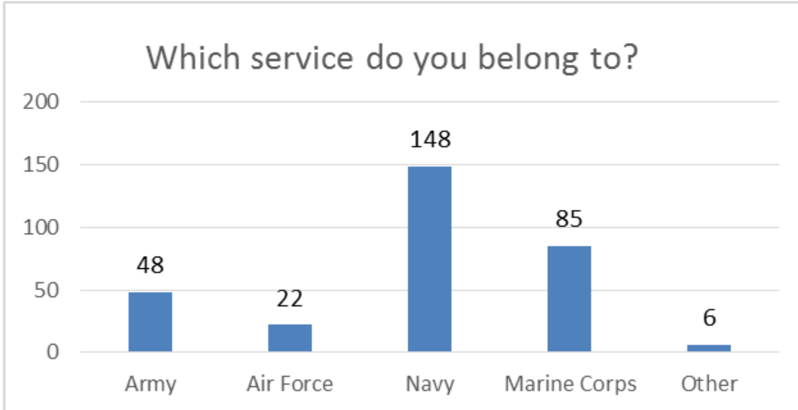


Figure 19 indicates that the respondents were fairly evenly distributed among job fields, with 26% in combat arms of surface warfare, 21% in support roles, 28% in service support, 15.8 % in aviation, 10% in other fields.

Figure 19. Job Fields of Participants

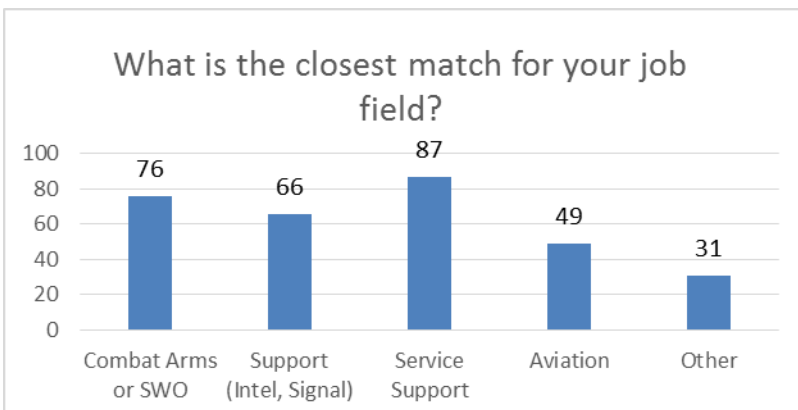


Figure 20 shows the education levels of the respondents. 100% of the respondents indicated they had college degrees, with over 28% indicating they had a graduate degree.

Figure 20. Education Level of Participants

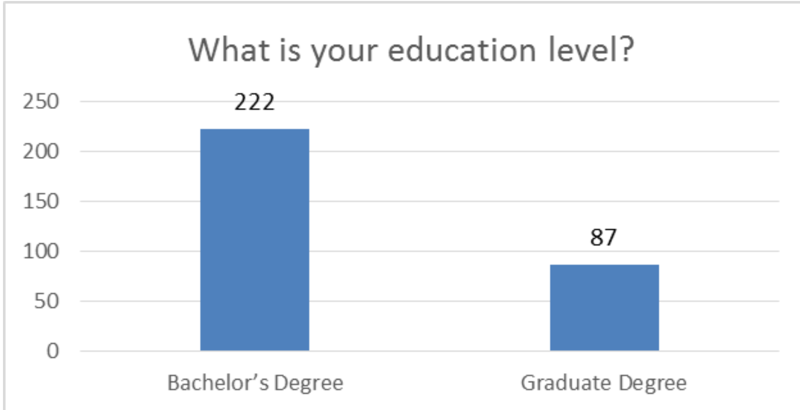


Figure 21 shows the marital status distribution of the participants. 21% indicated that they are they are single, 65% in a first marriage, 8% are remarried, and approximately 5% are separated or divorced.

Figure 21. Marital Status of Participants

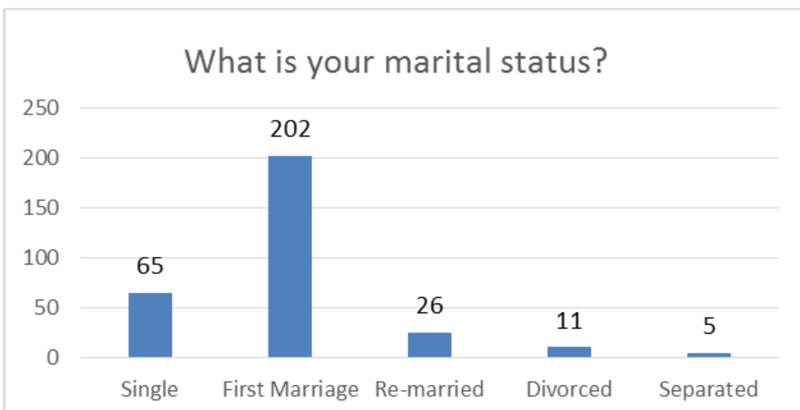
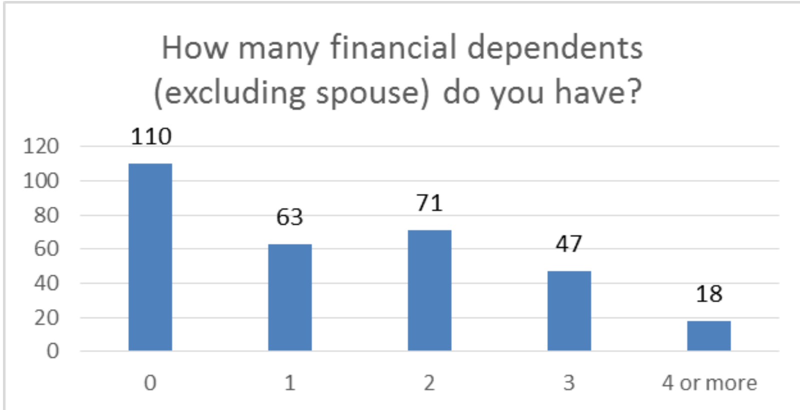


Figure 22 indicated that the most common number of dependents (excluding spouse) among the respondents was zero; however over 64% of the respondents had at least one financial dependent (excluding spouse).

Figure 22. Financial Dependents of Participants



D. REGRESSION ANALYSIS

An ordinary least squares analysis was conducted to determine the influence of financial, non-financial, and constraints on resources on subjective well-being. The total model explained 28% of the variation of the officer's subjective well-being. However, the adjusted R^2 was reduced to 19% after accounting for the number of variables. The general equation used in the regression analysis was:

$$Subjective\ Well\ Being = \propto + \beta_1 Rank_i + \beta_2 Net\ Worth_i + \beta_3 Emergency\ Savings_i + \beta_4 Age_i + \beta_5 Education_i + \beta_6 Credit\ Card\ Debt_i + \beta_7 Vehicle\ Debt_i + \beta_8 Emergency\ Funding_i + \beta_9 Marital\ Status_i + \beta_{10} Number\ of\ Dependents_i + \varepsilon$$

Each of the independent variables represents multiple categorical variables. The regression statistics for all tested variables can be found in Appendix B, and a proposed framework for officer subjective well-being can be found in Appendix C. Table 1 shows the overall results of the model.

Table 1. Regression Model Results Predicting Increased Subjective Well-Being

Source	SS	df	MS
Model	699.98	36	19.44
Residual	1,754.64	272	6.45
Total	2,454.62	308	7.97

Number of obs	=	309
F(36, 272)	=	3.010
Prob > F	=	0.000
R-squared	=	0.285
Adj R-squared	=	0.191
Root MSE	=	2.540

Three variables, having enough net worth to be set for retirement, having emergency savings of $1,000 to $2,000, and having financial knowledge were all statistically significant at the 0.05% level. Three other variables, having a neutral net worth, having a positive net worth (money left over after selling everything), and having $500 to $1000 set aside were all marginally positive and statistically significant at the 0.10% level. Table 2 shows all the variables that were found to be significant or marginally significant.

Table 2. Predictors of Increased Subjective Well-Being

Variable	Coefficient estimate	*t*-Statistic	*P*-value
Net Worth Neutral	2.59	1.79	0.075
Net Worth Money Left Over	2.37	1.95	0.052
Net Worth Set For Retirement	3.91	3.02	0.003
$500 to $1000 Set Aside	2.70	1.84	0.067
$1000 to $2000 Set Aside	3.18	2.07	0.039
Perceived Financial Knowledge	0.09	2.65	0.009

n=309 $R^2 = 28.5\%$

E. IMPLICATIONS OF FINDINGS RELATED TO RESEARCH QUESTIONS

The purpose of this research study is to survey resident Naval Postgraduate School (NPS) students to determine which factors have the most significant impact on officers' subjective well-being. The primary research question, which financial factors, if any, have a significant impact on the subjective well-being of military officers, is answered primarily by regression analysis. Having enough net worth to be set for retirement, having emergency savings of $1,000 to $2,000, and having perceived financial knowledge were all statistically significant variables affecting an individual's subjective well-being at the 0.05% level. While less statistically significant, marginal positive effects at the .10% level were shown for having $500 to $1000 in emergency savings, and having a neutral to positive net worth. Marginal positive effects were also seen for those having zero credit card debt, and having zero dependents. Marginal negative effects were seen for having higher vehicle debt and being separated from a spouse.

The second question, which financial factors, if any, identified in the previous study of primarily enlisted service members also affect officers, showed some minor differences. For example, credit card debt in the original study was a marginally stronger negative predictor than in the current research study. In the current study of officers, all levels of credit card debt were marginal positive predictors of subjective well-being, and not statistically significant. The previous study was conducted with over 90% enlisted service members. It is possible that credit card debt has more impact on their subjective well-being due to their lower incomes and greater impact on monthly expenses.

Age was found to be insignificant in the original study; however, in this research, age marginally predicted less well-being with the exception of those aged 36–40. Rank was not found to be statistically significant in either study, although marginal positive effects were seen for officers in both studies.

Vehicle debt was negative at all levels in the original study, and it was a negative predictor in this study at levels above $5,000. As with credit card debt, it may be that officers can manage low levels of debt with less stress because of higher incomes.

Marriage and children were marginal negative predictors in the original study. Marriage was a marginal positive predictor in the current study; however, any number of dependents (excluding spouse) were negative predictors.

Increased education level was a positive predictor in the previous study; however, in this study it was a marginal negative predictor. In the previous study, there was more diversity of education level among participants. All respondents to the current survey had bachelor's degrees, and 100% were in some stage of completing a master's degree. With only two categories of education so tightly grouped, it was difficult to determine any effect of general higher education.

Finally, the use of emergency funding was a marginally positive predictor of well-being in the previous study. Although it was marginally negative in this one, neither study found the use of emergency funding to be statistically significant. The next section offers recommendations based on these findings.

F. RECOMMENDATIONS BASED ON FINDINGS

These recommendations are based on the three factors that were found to have statistical significance. These recommendations fit with the DOD goals of increasing financial literacy and offer a specific target for the education of officers.

1. Increase Education Geared toward Retirement

Having a net worth that is perceived to be enough to be "set" for retirement was the strongest positive predictor of increased well-being in the study. As such, focusing education beyond day-to-day budgeting and household finances is a possible way to increase the well-being of military officers. With over 55% of respondents to this study having zero credit card debt, it may indicate that many officers have their monthly spending budgets in order. Having a more secure future seems to be a strong predictor of increased subjective well-being. Directly targeting how much to save, how to invest, and how to reach net worth or retirement goals may be effective strategies to increasing well-being.

2. Increase Emergency Savings

Any amount of savings above zero was a positive predictor of well-being, and it was strongly positive between $1000 and $2,000. While most officers had over $2,000 in savings, the positive effects on well-being, and the relationship between savings and net worth in the previous recommendation, make education about increased emergency funding an area to consider for investment. Additionally, using sources of emergency funding was a negative predictor of well-being. By saving more for emergencies and avoiding emergency relief, there is the potential to positively increase one predictor and decrease a negative one at the same time.

3. Increase Overall Financial Knowledge

While perceived financial knowledge was not a strong positive predictor, it was a statistically significant one. Given the relationship between saving for retirement and budgeting to increase emergency saving, increasing financial knowledge is compatible with the two previous recommendations and has the potential to increase subjective well-being in officers.

G. SUMMARY

In this chapter, analysis of the survey data of NPS resident students was presented. The survey response rate was discussed, as well as individual statistics for the primary questions of interest. Descriptive statistics were provided covering the subjective well-being, perceived financial knowledge, net worth, emergency savings, credit card and vehicle debt, and various demographic data. Additionally, the results of a regression using subjective well-being as the dependent variable were discussed. Recommendations for potential areas of education to improve the subjective well-being of officers was discussed, as well as some of the differences in the findings between the prior research and this research. The next chapter, Chapter V, provides a discussion of the summary, conclusions, and areas for further research.

V. SUMMARY, CONCLUSIONS, AND AREAS FOR FURTHER RESEARCH

The universe of financial literature is vast. While the topic is not new, there is a great deal of research about how objective factors, including financial factors, affect subjective well-being. Additionally, as a result of two intense wars, the all-volunteer force, high reported levels of post-traumatic stress disorder (PTSD), and general interest in the psychology of service members, much effort has been put into analyzing the education service members receive in the area of financial management.

While the exact impacts of the education are difficult to measure, most researchers have agreed that the net benefit of financial education is better than the alternative of not having it. Although it may be hard to get a person to want less material wealth, having concrete budgeting tools available, making retirement plans, and increasing financial education in the military environment are strategies for increasing subjective well-being.

A. CONCLUSIONS

Given the emphasis from President Obama, support from the GAO, data from the Congressional Research Service, a wealth of information from academia, and the hard data from FINRA, studying the link between financial behaviors and knowledge and individual well-being is undoubtedly important. Subjective well-being is important to consider for both officers and enlisted service members. This research attempts to strengthen the understanding of the financial, non-financial, and constraints on resources important to the well-being of the officer population. The DOD has explicit goals to improve financial readiness among service members. The results of this study indicate that among the officer population, increasing education for retirement, increasing emergency savings rates, and increasing financial knowledge are areas to consider for future investment in financial management training and education.

The answers to the research questions for this study indicated that having enough net worth to be set for retirement, having emergency savings of $1,000 to $2,000, and having financial knowledge were all statistically significant at the 0.05% level. Three other variables, having a neutral net worth, having a positive net worth (money left over after selling everything), and having $500 to $1000 set aside were all marginally positive, and statistically significant at the 0.10% level. Additionally, there were some differences between this study and the prior research. The impact of credit card debt and vehicle debt was less for officers in this current research. Marriage had a marginally positive effect for the officers in this study, however, it was marginally negative in previous research.

B. AREAS FOR FURTHER RESEARCH

One area for further research is to explore the general officer population outside of the Naval Postgraduate School. Since every respondent was involved in a master's degree program, this survey may not be typical of the normal officer population. In particular, this survey did not determine how many of the respondents were in the business school, where accounting and financial management are heavily emphasized.

Another area for research is to explore these issues using objective measures—such as credit scores, calculated net worth, or actual bank account balances—to determine financial fitness. While self-reported values have been found reliable in previous studies, objective data would strengthen any conclusions drawn.

Finally, a more through psychological instrument could be used to determine subjective well-being. While the four questions used to determine subjective well-being were previously found useful, there may be room for improvement with a more robust measurement tool.

APPENDIX A. DESCRIPTIVE STATISTICS

Subjective well-being (Higher is better)	Mean	Std. Dev.	Range
(Composite of the next 4 questions)	16.41	2.82	20-Jun
	Frequency	Percent	Cumulative
6	2	0.65	0.65
8	3	0.97	1.62
9	2	0.65	2.27
10	3	0.97	3.24
11	8	2.59	5.83
12	10	3.24	9.06
13	12	3.88	12.94
14	37	11.97	24.92
15	29	9.39	34.3
16	39	12.62	46.93
17	31	10.03	56.96
18	49	15.86	72.82
19	44	14.24	87.06
20	40	12.94	100
Total	309	100	

I feel anxious about my financial situation.	Mean	Std. Dev.	Range
(Lower is better)	2.45	0.88	1 to 5
	Frequency	Percent	Cumulative
1 Never	48	15.53	5.83
2 Almost never	102	33.01	38.83
3 Sometimes	136	44.01	40.45
4 Almost always	18	5.83	55.99
5 Always	5	1.62	100
Total	309	100	

I have difficulty sleeping because of my financial situation.	Mean	Std. Dev.	Range
(Lower is better)	1.49	0.71	1 to 4
	Frequency	Percent	Cumulative
1 Never	193	62.46	1.29
2 Almost never	86	27.83	29.13
3 Sometimes	26	8.41	91.59
4 Almost always	4	1.29	100
Total	309	100	

I have difficulty concentrating because of my financial situation.	Mean	Std. Dev.	Range
(Lower is better)	1.51	0.7	1 to 4
	Frequency	Percent	Cumulative
1 Never	184	59.55	1.29
2 Almost never	96	31.07	32.36
3 Sometimes	25	8.09	91.91
4 Almost always	4	1.29	100
Total	309	100	

I worry about my financial situation.	Mean	Std. Dev.	Range
(Lower is better)	2.15	0.94	1 to 5
	Frequency	Percent	Cumulative
1 Never	91	29.45	5.83
2 Almost never	106	34.3	40.13
3 Sometimes	91	29.45	41.1
4 Almost always	18	5.83	70.55
5 Always	3	0.97	100
Total	309	100	

What is your rank?	Mean	Std. Dev.	Range
	4.31	0.62	1 to 5
	Frequency	Percent	Cumulative
E-1 to E-9	2	0.65	0.65
O-1	4	1.29	1.94
O-2	3	0.97	2.91
O-3	188	60.84	63.75
O-4 and above	112	36.25	100
Total	309	100	

What is your education level?	Mean	Std. Dev.	Range
	2.28	0.45	2 to 3
	Frequency	Percent	Cumulative
Bachelor’s Degree	222	71.84	71.84
Graduate Degree	87	28.16	100
Total	309	100	

Suppose you were to sell everything you own and pay all of your debts what would your financial situation be?	Mean	Std. Dev.	Range
	3.83	0.82	1 to 5
	Frequency	Percent	Cumulative
Be in serious debt	5	1.62	1.62
Some debt	31	10.03	100
Break even	12	3.88	17.15
Have money left over	225	72.82	89.97
Be set for retirement	36	11.65	13.27
Total	309	100	

How much money do you have set aside in a savings account for emergencies?	Mean	Std. Dev.	Range
	3.71	0.83	0 to 4
	Frequency	Percent	Cumulative
$0	5	1.62	1.62
$1 to$ 500	11	3.56	5.18
$501 to $1000	12	3.88	100
$1001 to $2000	13	4.21	9.39
$2001 or more	268	86.73	96.12
Total	309	100	

What is your age?	Mean	Std. Dev.	Range
	2.13	0.89	1 to 5
	Frequency	Percent	Cumulative
30 or under	77	24.92	24.92
31-35	139	44.98	69.9
36-40	73	23.62	93.53
41-45	16	5.18	98.71
46 or older	4	1.29	100
Total	309	100	

How much credit card debt do you have?	Mean	Std. Dev.	Range
	1.16	1.56	0 to 4
	Frequency	Percent	Cumulative
$0	172	55.66	55.66
$1 to $1000	41	13.27	68.93
$1001 to $2500	26	8.41	77.35
$2501 to $5000	14	4.53	81.88
$5001 or more	56	18.12	100
Total	309	100	

How much in auto/motorcycle/truck/boat/ATV/personal watercraft loan(s) do you have?	Mean	Std. Dev.	Range
	1.64	1.71	0 to 5
	Frequency	Percent	Cumulative
$0	144	46.6	46.6
$1 to $5000	16	5.18	51.78
$5001 to $10000	32	10.36	99.35
$10001 to $20000	42	13.59	65.37
$20001 or more	73	23.62	89
Don't own a vehicle	2	0.65	100
Total	309	100	

What is your marital status?	Mean	Std. Dev.	Range
	1.99	0.76	1 to 5
	Frequency	Percent	Cumulative
Single	65	21.04	100
First Marriage	202	65.37	68.93
Re-married	26	8.41	77.35
Divorced	11	3.56	3.56
Separated	5	1.62	78.96
Total	309	100	

How many financial dependents (excluding spouse) do you have?	Mean	Std. Dev.	Range
	1.35	1.26	0 to 4
	Frequency	Percent	Cumulative
0	110	35.6	35.6
1	63	20.39	55.99
2	71	22.98	78.96
3	47	15.21	94.17
4 or more	18	5.83	100
Total	309	100	

Total Perceived Financial Knowledge	Mean	Std. Dev.	Range
(Composite of 8 questions)	30.79	4.96	16 to 40
	Freq.	Percent	Cum.
16	1	0.32	0.32
18	1	0.32	0.65
19	1	0.32	0.97
20	1	0.32	1.29
21	6	1.94	3.24
22	5	1.62	4.85
23	7	2.27	7.12
24	13	4.21	11.33
25	14	4.53	15.86
26	14	4.53	20.39
27	19	6.15	26.54
28	22	7.12	33.66
29	17	5.5	39.16
30	20	6.47	45.63
31	25	8.09	53.72
32	28	9.06	62.78
33	21	6.8	69.58
34	22	7.12	76.7
35	16	5.18	81.88
36	12	3.88	85.76
37	11	3.56	89.32
38	13	4.21	93.53
39	8	2.59	96.12
40	12	3.88	100
Total	309	100	

Which service do you belong to?	Mean	Std. Dev.	Range
(International officers removed from data set)	2.95	1.07	1 to 6
	Freq.	Percent	Cum.
Army	48	15.53	15.53
Air Force	22	7.12	22.65
Navy	148	47.9	70.55
Marine Corps	85	27.51	98.06
Other	6	1.94	100
Total	309	100	

What is your sex?	Mean	Std. Dev.	Range
	1.15	0.35	1 to 2
	Freq.	Percent	Cum.
Male	264	85.44	85.44
Female	45	14.56	100
Total	309	100	

What is your race?	Mean	Std. Dev.	Range
	1.51	1.02	1 to 4
	Freq.	Percent	Cum.
White	238	77.02	77.02
Hispanic	19	6.15	83.17
African American	17	5.5	88.67
Other	35	11.33	100
Total	309	100	

What is the closest match for your job field?	Mean	Std. Dev.	Range
	2.65	1.28	1 to 5
	Freq.	Percent	Cum.
Combat Arms or SWO	76	24.6	24.6
Support (Intel, Signal)	66	21.36	45.95
Service Support	87	28.16	74.11
Aviation	49	15.86	89.97
Other	31	10.03	100
Total	309	100	

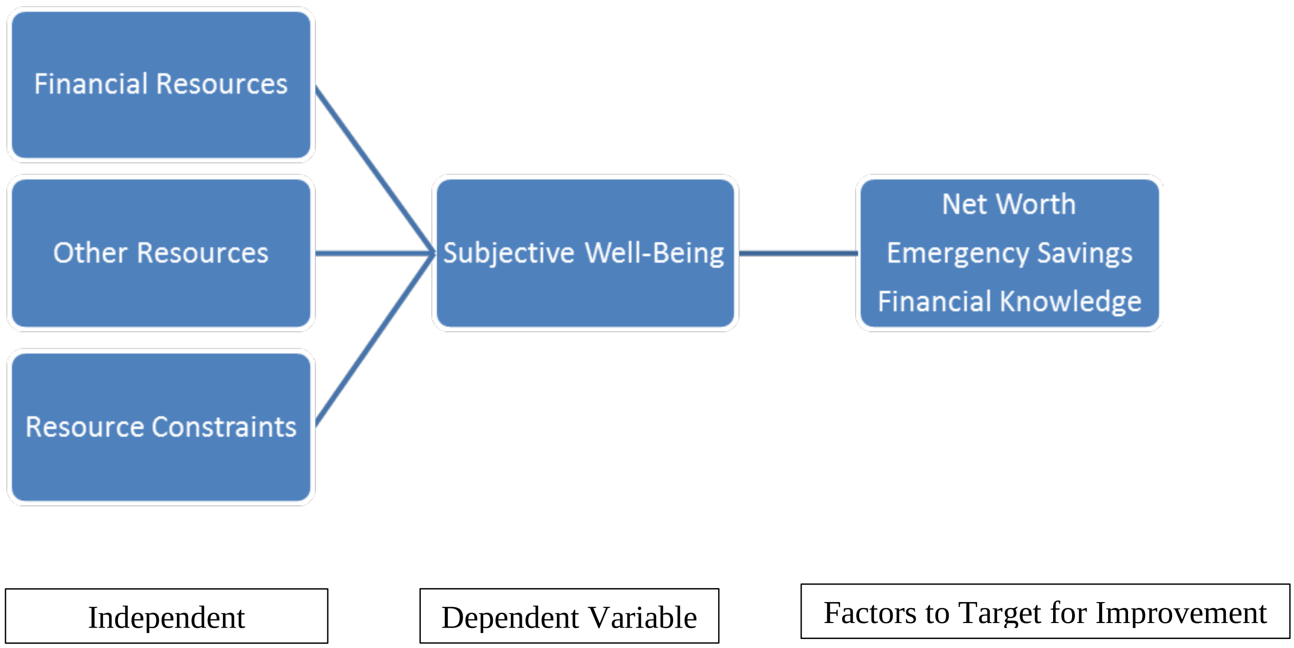
APPENDIX B. REGRESSION RESULTS

Regression results predicting increased subjective well-being (N=309)				
Financial Resources				
Rank		**β**	**t-Stat**	**P>|t|**
	E-1 to E-9	0		
	O-1	2.16	0.92	0.358
	O-2	3.46	1.4	0.163
	O-3	2.76	1.45	0.147
	O-4 and above	2.75	1.45	0.147
Net Worth				
	Be in serious debt	0.00		
	Some debt	1.53	1.18	0.239
	Break even	2.59	1.79	0.075
	Have money left over	2.37	1.95	0.052
	Be set for retirement	3.91	3.02	0.003
Emergency Savings				
	$0	0.00		
	$1 to$ 500	0.01	0.01	0.993
	$501 to $1000	2.70	1.84	0.067
	$1001 to $2000	3.18	2.07	0.039
	$2001 or more	1.97	1.49	0.138
Non-Financial Resources				
Age				
	30 or under	-0.74	-0.51	0.613
	31-35	-0.15	-0.11	0.914
	36-40	0.09	0.06	0.952
	41-45	-1.12	-0.72	0.47
	46 or older	0.00		
Education Level				
	Bachelor's Degree	-0.44	-1.26	0.21
	Graduate Degree	0.00		
Perceived financial knowledge score		0.09	2.65	0.009

Regression Table Cont.				
Constraints on Resources				
Credit Card Debt				
	$0	1.13	1.38	0.169
	$1 to $1000	0.15	0.16	0.869
	$1001 to $2500	0.88	0.93	0.352
	$2501 to $5000	0.00		
	$5001 or more	0.57	0.67	0.501
Vehicle Debt				
	$0	0.84	0.42	0.673
	$1 to $5000	0.19	0.09	0.928
	$5001 to $10000	-0.31	-0.15	0.88
	$10001 to $20000	-0.22	-0.11	0.91
	$20001 or more	-0.36	-0.18	0.858
	Don't own a vehicle	0.00		
Used Emergency Funding in last 12 Months?		-0.06	-0.07	0.943
Marital Status				
	Single	0.21	0.23	0.822
	First Marriage	0.51	0.59	0.559
	Re-married	0.11	0.11	0.914
	Divorced	0.00		
	Separated	-0.71	-0.48	0.63
Number of Dependents				
	0	0.55	1	0.316
	1	-0.49	-0.92	0.359
	2	-0.32	-0.65	0.517
	3	0.00		
	4 or more	-0.15	-0.21	0.833

Note. Model > .000, R^2 =.28; *p < .05, **p < .01

APPENDIX C. PROPOSED FINANCIAL WELL-BEING FRAMEWORK



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