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Examination of Objective and Subjective Financial Factors in Predicting Financial and Retirement Satisfaction in Male Retirees

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EXAMINATION OF OBJECTIVE AND SUBJECTIVE FINANCIAL FACTORS IN
PREDICTING FINANCIAL AND RETIREMENT SATISFACTION
IN MALE RETIREES

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Industrial–Organizational Psychology

by
Janet Donnelly
December 2017

Accepted by:
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ABSTRACT

As the Baby Boomer generation ages and transitions into retirement, interest has grown in better understanding what impacts post-retirement adjustment. The present study examined the role of various financial considerations in retirement and financial satisfaction among retired men with a partner or spouse. We hypothesized that objective and subjective financial variables would predict retirement satisfaction and post-retirement financial satisfaction. Furthermore, we expected that these effects would be moderated by the nature of retirement (voluntary or involuntary) and the timing of retirement (pre or post-recession).

A total of 245 retirees recruited from a retiree association participated in the study. Results suggested that subjective financial measures did indeed provide a significant incremental prediction over that offered by objective indices in most of the hypotheses. Furthermore, analyses revealed that the nature of retirement moderated the relationship between subjective financial adequacy and retirement satisfaction. A number of exploratory analyses, limitations of the current study, and suggestions for future research are also discussed.

DEDICATION

Of all the seemingly infinite number of pages I've written throughout my academic career, I never guessed this dedication would be the most difficult to write. First and foremost, this dissertation is dedicated to my parents: to my father, who has never wavered in his belief that I could achieve my goal and graduate with a PhD. His support and determination has helped me power through all of life's setbacks, and words cannot express how thankful I am for him. This dissertation is also dedicated to my late mother, whose eternal love and character has shaped me into the person I am today. I would also like to dedicate this dissertation to my loving husband, who has stood by my side through it all. Lastly, I'd like to dedicate this to all of my incredible family and friends who have endured this process with me. I am forever thankful for you all. To infinity and beyond.

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CHAPTER ONE

INTRODUCTION

Retirement is a life event that is impacted by a number of variables at the personal, social and economic level. On the most basic personal level, shifts in retirement age have resulted from advances in medicine and technology that have extended potential working life. Global life expectancy has increased significantly—from 1950 to 2005, global life expectancy increased from 46 years to 65 years. By 2045, global life expectancy is expected to reach 75 years. With increased life expectancy and continued medical advances, it is estimated that one in eight individuals in the world will be 65 or older by 2030 (Rix, 2014). Thus, individuals may have the opportunity to return to work if dissatisfaction with finances or with their retirement experience is an issue.

There are a number of reasons why these demographic shifts are important at a social and organizational level. Examining the decision to retire has many practical implications for employers. As a result of many of these personal, psychological, and socioeconomic factors, older individuals are remaining in the workforce longer. Due to the aging population and the increased participation of older employees, the U.S. labor force itself is aging. In 2013, approximately one-third of the workforce was aged 50 or over, and it is estimated that the proportion of older employees will continue to rise in the next decade (Toossi, 2013). Some researchers estimate that the proportion of workers over age 55 will grow four times the rate of the labor force overall (Alley & Crimmins, 2007). This Baby Boomer generation (defined by those born between 1946 and 1964)

will comprise a significant segment of the population. Understanding the factors that lead to a happy retirement experience has relevance to this broad audience. This research is also crucial for a broader application, as government and policy makers must strategize how to supply healthcare and pension to the influx of retirees while being burdened with a smaller workforce (Griffin, Loh, & Hesketh, 2013). Thus, an understanding of the financial well-being of retirees has real world implications for future policy formation. Furthermore, financial well-being has long been considered an important factor in retiree adjustment, so understanding how finances impact post retirement adjustment is a central area of research in this area.

In the current study, our dependent variables are financial and retirement satisfaction measured in a sample of male retirees that have a significant other, either a partner or a spouse. The core of our study revolves around relatively objective as well as subjective financial predictors relevant to financial and retirement satisfaction, measured on both an individual and joint level. We also examine the impact of the Great Recession on adjustment, given the relevance of this event to financial well-being. Finally, we include a consideration of whether the retirement was voluntary or involuntary as a moderator of these financial factors on well-being.

The inclusion of objective and subjective finances for both the individual male and his partner is an addition to traditional models of retirement well-being. Despite findings that the retirement behavior and financial assets of the spouse is a significant factor in retirement decision-making of each individual in the relationship, there is limited research on how the financial satisfaction of couples impacts their well-being

(Kim & Moen, 2002; Smith & Moen, 2004). Thus, this study contributes to the literature by examining the utility of including both individual and joint financial factors in predicting the post-retirement satisfaction of individuals.

Additionally, the present study examines whether subjective measures of financial assets add incremental prediction to that offered by more objective measures of assets. We examine both objective and subjective estimates of financial adequacy and their relationship to overall retirement satisfaction and financial satisfaction. We take the perspective that objective indices of financial well-being are important, but that subjective assessments of finances are more likely to predict retirement satisfaction and financial satisfaction. The objective financial predictors consist of a global assessment of total annual income based on Social Security benefits, pensions, and other assets. This is examined at the level of the male retiree and joint income with their spouse or partner. Additionally, we examine the individual's total net worth and the extent to which the couple's assets are pooled. In terms of subjective finances, we examine an individual's self-reported financial adequacy and the self-reported financial adequacy of the couple (partner and self combined).

Lastly, the present study examines the relative impact of retiring before, during, or after the Great Recession, both in terms of the subjective impact and whether the year of retirement preceded this event or not. Although retirement researchers have acknowledged the importance of the recession on retirement behavior (Munnell, Webb, & Golub-Sass, 2012), much of the existing research relies heavily on archival data. While archival data allows researchers to examine shifts in retirement patterns, this type

of data does not facilitate a consideration of both objective and subjective financial factors that may contribute to overall well-being (Tang & Burr, 2015). In this study, we examine the impact of the recession along with the additional objective and subjective financial variables. Finally, we treat the nature of retirement, voluntary or involuntary, as a potential moderator of the effects of financial and recession-related predictors on financial and retirement satisfaction. Involuntary retirement is associated with poor post-retirement adjustment, and we expect involuntary retirement will exacerbate the negative effects of low financial well-being and retirement during the recession. Thus, as part of this examination, we gather data on whether the retirement was voluntary or involuntary. The inclusion of this variable is particularly important given our inclusion of recession related variables in this study, since layoffs increased during the recession (Dingemans & Henkens, 2014).

The dependent variables of interest are retirement satisfaction and financial satisfaction. Adjustment, well-being, and life satisfaction are alternate dimensions of adaptation to retirement that have proven useful in understanding the course of this transition (Muratore & Earl, 2015). The current research, which incorporates both the global measure of overall retirement satisfaction and the more specific measure of financial satisfaction, are essential to understand in order to appreciate the nature of this major life course transition (Wang, Henkens, & van Solinge, 2011). As such, there is a pressing need to enhance our knowledge of the personal and economic attributes that may be associated with more positive post-retirement outcomes.

In the first segment, we explore the nature of retirement in order to fully appreciate how this experience has evolved over time, along with the complexity of the decision to retire and post-retirement adjustment. Next, we explore how an individual's objective and subjective assessment of their own financial well-being as well as that of their partner drives retirement decision making and retirement satisfaction.

The Evolution of Retirement: Retirement Theories

Due to the influx of an aging population and the changing nature of retirement, it is imperative that research re-examines and adjusts outdated conceptualizations of older workers. While some contemporary career theories acknowledge middle-aged and older workers, there is still much to be done. The development of comprehensive theories of retirement behavior and post-retirement satisfaction is a relatively recent phenomenon. Many researchers note that the very operationalization of retirement needs to be altered to address contemporary shifts in the nature of full and partial retirement options (i.e., Sterns & Huyck, 2001; Sterns & Sterns, 2005). Markert (2008) goes so far as to state that the changing socioeconomic conditions may indeed alter Baby Boomers' retirement process from that of previous generations. Furthermore, the idea that retirement is a discrete event is outdated. Wang, Adams, Beehr, and Shultz (2009) note that contrary to traditional views, retirement is not a single event that occurs in an individual's lifetime. Instead, retirement is a dynamic process that should be viewed as a new, additional career stage. In addition, it is clear that societal events such as the Great Recession may impact

retirement patterns, so it is important to develop models of the process that take these events into account.

Operationalizing Retirement

To better understand late careers and the retirement transition, it is critical to operationalize exactly what is meant by the term “retirement.” As Ekerdt (2010) notes, times have changed in that there is less distinction between work and retirement, as many older individuals do not make an abrupt transition from work to leisure and instead may engage in part-time work in the same or a different occupation. Thus, the retirement experience differs both in terms of the amount of employment and the nature of the work itself. In the current study, we are interested in individuals who have fully retired. In Ekerdt’s definition, and that proposed by newer multi-dimensional definitions of retirement, this would mean that the individual does not engage in paid employment (Denton & Spencer, 2009). Although retirement as a dependent variable has been extensively researched (Dew & Yorgenson, 2010), early work did not differentiate between partial and full retirement. In terms of full retirement, we believe there are gaps in understanding the factors that determine retirement and financial satisfaction.

The distinction between full and partial retirement merits further examination. While retirement is typically conceptualized as lacking paid employment, receipt of pension, and exiting from one’s main employer, this notion does not fully encompass retirees. For example, a study conducted by Brown and colleagues (2010) found that over 20% of workers aged 50 and over self-identified as retired yet were still working for pay (Brown et al., 2010). Suffice it to say, retirement is a more fluid concept than

previously believed and researchers need to carefully define retirement when identifying participants for an investigation of the variables that predict retirement satisfaction (Wang et al., 2009). Again, in this study, we focus on clearly defining full retirement as full withdrawal from work, since merely asking people to self-identify as “retired” may produce misleading results. This builds on the recommendation of researchers to take greater care in defining this construct (Adams & Rau, 2011).

Lastly, we acknowledge that retirement is a process which incorporates envisioning retirement as a possibility; deducing when it is an appropriate and feasible time to retire; and, finally, actually transitioning into retirement (Feldman & Beehr, 2011). In this third phase of the retirement process, an individual’s expectations regarding retirement are brought to light and retirement outcomes become concrete. In the current study, we focus on this final stage and examine post-retirement satisfaction and the predictors that are most relevant to this phase.

Given the growing proportion of older individuals, it is necessary both for organizations and society at large to better understand what underlying factors shape one’s decision to retire and ability to adjust to retirement. While a number of individual, job, and occupational factors have been found to influence older workers’ retirement transition, there is a push for future research to examine this phenomenon through a broad, interdisciplinary lens that incorporates variables that extend beyond traditional perspectives on retirement (i.e., Gunz, Mayrhofer, & Tolbert, 2011). Financial stability is a factor that is well-established as a predictor of life and retirement satisfaction, and operationalizations of this critical predictor range from purely empirical estimates, typical

of economic research, to more subjective reports of financial adequacy gathered in psychosocial research. In the next segment, we examine theories that emphasize the importance of finances from a joint and individual perspective in post-retirement adjustment, incorporating both of these types of measures within this evolving area of research.

Theoretical Support for Incorporating Financial Considerations in Retirement

It was not until the dawn of the 21st century that researchers began to re-formulate the conceptualization of a career and place emphasis on examining subjective occupational factors in the treatment of retirement adjustment (Wang, Olson, & Shultz, 2012). A theory that is prominent and relevant to the present study is the Lifespan Developmental Career Model conceptualized by Feldman (2002). The model is unique in that it highlights family dynamics, organizational structure, and macro-level influences such as the economy. Thus, Feldman's perspective would suggest that it is important to incorporate both objective and subjective factors that impact the retirement transition and to also look at economic variables that may influence the well-being of certain cohorts. Feldman states that, "Careers, then, are neither static nor self-encapsulating in nature. Rather, they evolve over time and are influenced by both past events and future aspirations" (p. 7). As such, the Lifespan Developmental Career Model is especially relevant as it provides a more fluid and dynamic way to examine the motivations of older individuals while taking into account external influences such as the economic climate and resultant fluctuations in individual income.

More current conceptualizations of the retirement experience also emphasize the importance of economic factors based on personal finances and macroeconomic changes in post-retirement satisfaction. According to Feldman and Beehr (2011), two theories related to this final retirement transition phase are rational-economic and motivational-instrumental. Rational-economic theory posits that individuals are motivated by money; therefore, retirement and later financial decisions are based on one's belief that he or she has the funds to accomplish their goal. The confidence with which one feels able to manage expenses from retirement onwards is affected by a myriad of variables, including inflation rates, the current economy, etc. Motivational-instrumental theory, more central to the current study, builds upon the rational-economic theory and includes psychological factors and need satisfiers. Motivational-instrumental theory is particularly relevant to the present study as it includes subjective assessments of the partner as well as the individual. Thus, the emphasis on the relevance of objective financial predictors, subjective financial predictors, and contextual financial considerations such as broad economic shifts in the environment on post-retirement adjustment are supported by Lifespan Developmental Career theory and Motivational-Instrumental theory.

As outlined in these theories, one's financial status is a significant predictor of retirement decisions (i.e., Gruber & Wise, 1999), although the relationship seems dependent on the nature of the variables measured, which extend well beyond an objective measure of wealth. In fact, Wang, Zhan, Liu, and Shultz (2008) found that an individual's total wealth was not a significant predictor of engaging in bridge employment and this variable alone typically does not predict satisfaction post-

retirement. As such, the researchers posited that simple financial indices alone are not sufficient in determining post retirement affect. A more considered definition of financial well-being should incorporate not only objective wealth of the individual but should also take into account resources of the spouse or partner, and subjective measures of financial adequacy. We explore these variables in the next segment.

Financial Considerations for Retirement: Objective and Subjective Factors

There are a plethora of factors that influence an individual's decision to retire. Beyond increased longevity, socioeconomic shifts have also had an impact on anticipated retirement ages. Significant changes in Social Security and private pensions have affected older employees in the United States (DeVaney & Chiremba, 2005); individuals are extending their working life to compensate for the recession and for these shifts in other sources of economic support. This suggests that individuals may draw on information about their personal finances as well as more broad-based financial information when making their retirement decision. Additional objective considerations that individuals must closely examine include income, pensions and retirement savings plans, Social Security benefits, and current market conditions. The following sections provide a review of theories tailored to financial decision-making in retirement and identifies objective and subjective factors that may predict retirement and financial satisfaction.

Objective Finances

In our discussion of the empirically based variables that impact retirement well-being in our model, we incorporate different sources of financial liabilities and assets. Typical of this approach, Hatcher (2003) proposes that the life-cycle model of savings (Ando & Modigliani, 1963) illustrates some financial aspects that come into play when one voluntarily retires. Essentially, this model proposes that an individual's retirement should correspond to a, "permanent income measure...based on the considerations to the life cycle of income and consumption 'needs' of households" (Ando & Modigliani, 1963, p. 55). This perspective emphasizes the importance of understanding finances at the household level while incorporating their partner's liabilities/assets, and thus supports the use of spousal information in the current study. Zorn and Gerner (1986) provide additional insight into qualifying permanent income, which are the culmination of current resources as well as the value of future income entitlements at the present time (i.e., salary, pension). However, it is important to reiterate that this model is based on the assumption that the individual is retiring voluntarily. This also suggests that individuals are basing retirement decisions on empirical models that optimize retirement well-being. Unfortunately, this is not always the case.

These rational economic predictors of retirement behavior rely on the ability of individuals to be conscientious, objective, rational, and knowledgeable in regards to their finances and the true cost of retirement. Although objective factors may contribute to our understanding of retirement, research suggests that their utility in prediction of post retirement satisfaction is somewhat limited. Ultimately, while

objective measures of wealth are important, individuals do not tend to make objective financial decisions when planning for retirement and, in general, do not financially plan long-term. Studies have shown that pure financial rationality does not predict retirement planning or subsequent adjustment (i.e., Reimers & Honig, 1996; Blendon, Benson, Brodie, & Wainess, 1998). However, it is important to establish the predictive validity of a relatively objective measure of finances in terms of household and individual income. This provides a basis for comparing the predictive strength of more purely subjective estimates of financial adequacy. We do not believe these relatively objective indices will be as powerful in the prediction of retirement and financial satisfaction as subjective estimates.

We do acknowledge that even our more objective indices are based on estimates of finances by participants rather than purely empirically derived data regarding their financial well-being. While we ask participants to provide their individual and joint annual income as well as their total net-worth and degree to which they pool their assets, there is a possibility that the estimates provided by participants may be slightly inflated or inaccurate. Thus, while these are imperfect indices of objective finances, they should be more closely tied to actual post-retirement funds than our affective or subjective measures, which capture feelings regarding financial adequacy. There are a number of sources from which a retiree's annual income may contribute to. One significant source of income is Social Security benefits. Social Security has a significant impact both on retirement age and on workforce participation. Despite the steady rise of older employees, labor force participation rates still fall sharply as one moves further above the

traditional retirement ages of 62 and 65. This is not surprising, given that these ages are associated with receipt of Social Security benefits and with restrictions on the amount of employment one may have while receiving social security. In the past, individuals who were over 65 years old were discouraged from working by reducing social security benefits and incorporating a pay limit (i.e., reducing \$1.00 for every \$2 earned if they were between 62 and 64) (Burke, 2000). The Senior Citizens' Freedom to Work Act of 2000 reversed this restriction (Baum, Hannah, & Ford, 2002). This suggests that empirical variables such as Social Security income may be limited in their ability to predict post-retirement affect or the return to work. However, given that Social Security benefits contribute to overall income, we will ask participants to include their Social Security benefits when calculating their annual income.

Another influential factor that must be taken into consideration is an individual's pension or retirement plan. A pension is a fund that accumulates money throughout the span of employment and is dispensed to the individual in period payments to provide support during retirement. As such, individuals are asked to consider their pensions (if applicable) when reporting their individual annual income.

As previously discussed, the present study also seeks to investigate the assets of both the individual as well as their partner. Unfortunately, much of the past research examines only a single individual and his/her expenditures. In today's time, it is much more common for more than one person in a household to work and therefore assets are pooled. Thus, it is important to examine both decision-makers in a household in order to acquire a more comprehensive view of a household's assets. In the current study, we

examine not only an individual's assessment of his or her financial well-being, but expand the construct of financial well-being to incorporate perceptions of pooled resources with their spouse or partner.

This perspective is justified based on research that has found that one's decision to retire is also impacted by the actions of his or her partner. Hurd (1990) found that for every year difference in the age of a couple, their retirement ages differ by approximately .25 years. Thus, Hurd posits that retirement research should incorporate households with shared wealth and individual labor force participation in what is referred to as a two-person static model (Hurd, 1990). In the current study, we include a measure of annual individual income as well as joint annual income in order to acquire an objective measure of the partner's income. Additionally, we asked the degree to which assets are pooled and asked participants to provide an estimate of their total net-worth. At the subjective level, we assess financial adequacy both as an individual and as a partnership with their significant other.

Subjective Financial Adequacy

While early theorists based their work on the idea that individuals are rational in terms of finances and that this rationality may drive post-retirement satisfaction, more modern theories suggest that this is not the case. Although there is some data supporting the importance of objective financial resources in retirement, additional work suggests that individual's subjective ideas regarding their financial well-being are important as well (Xiao, Chen, & Chen, 2014). This is especially salient given that financial satisfaction is a measure comprised of both objective (i.e., income) and subjective

perceptions (i.e., standard of living) (Porter & Garman, 1993). Research has shown that the most significant determinants of financial satisfaction during retirement are financial behavior, financial stress, and financial knowledge (Joo & Grable, 2004). Seay and colleagues (2015) examined various objective and subjective financial predictors and their relationship to financial satisfaction in retirement. Specifically, subjective financial knowledge significantly predicted financial satisfaction levels among individuals (Seay, Asebedo, Thompson, Stueve, & Russi, 2015). While this study did not focus specifically on subjective financial adequacy as a predictor of retirement satisfaction, Seay et al. (2015) implored future researchers to examine subjective financial concerns given that these seem critical in shaping retirement well-being.

The applicability of subjective financial assessments has been seen in a number of other studies as well. For example, Ackerman and Paolucci (1983) examined both objective and subjective income adequacy and compared the relationship of both factors to several life quality measures. Overall, their findings indicated that as income adequacy increased, satisfaction with overall life quality, family income, and level of consumption increased. This relationship was found in both objective and subjective measures. However, subjective adequacy was able to explain more of the variation in each of the three life quality measures than did objective adequacy. In their discussion of implications for future research, the researchers stress the importance of exploring subjective income adequacy, as it was the stronger predictor of life quality and satisfaction measures. In their conclusion, they reinforce the gains of gathering individual subjective data in the present study by stating, “When economic conditions are

changing rapidly, as they were during the inflationary period when these 1974 data were collected, recognizing that subjective assessments of income adequacy may differ from objective judgments of income adequacy is critical” (Ackerman & Paolucci, 1983, p. 46). As we are looking at retirees’ financial and retirement satisfaction in the context of the Great Recession, it is important to examine subjective financial assessments in addition to objective measures. In addition, a consideration of subjective estimates of joint financial adequacy is critical.

Subjective Joint Financial Adequacy

As the importance of gauging one’s subjective assessment of finances has been discussed, it is now time to turn our attention to joint subjective finances. As previously discussed, it is imperative for researchers to consider a more comprehensive view of retirees’ circumstances. Due to the increase in dual-earner households and the fact that many important financial decisions are made within the context of existing relationships, it does not seem prudent to focus solely on individual-level financial assessments. Additionally, since the Great Recession affected a large number of retirees either directly (i.e., reduced income, depleted savings) or indirectly (i.e., exacerbated concerns of those already experiencing financial strain) (Moore & Palumbo, 2009) it is important to subjectively assess joint financial adequacy as well. A more comprehensive view of joint financial adequacy will provide additional insight into retirement and financial satisfaction, given that financial strain tends to create marital distress (i.e., Robila & Krishnakumar, 2005), which may impact satisfaction. As past research has shown that many large financial decisions (i.e., purchasing a home) are made jointly and with both

partners in mind (i.e., Ferber & Lee, 1974; Pew Research, 2008), we seek to examine the influence of joint financial adequacy on retirement and financial satisfaction.

Austrom, Perkins, Damush, and Hendrie (2003) investigated predictors of life satisfaction in retired physicians and their spouses. Through their research, they found that for both physicians and their spouses, better life satisfaction was associated with a sense of financial security. The methodology for this study involved financial questions focused on feelings of financial security rated on a 5-point Likert scale. Interestingly enough, the physicians in the study were predominantly male (approximately 95% of respondents) and the majority of spouses were female (91% of respondents). Although the present study involves retirees from a large electric company rather than physicians, the proportion of males to females in both occupations are very similar. Additionally, it is important to note that the couple's financial security was associated with higher levels of life satisfaction for both partners, which lends credence to examining financial adequacy on a joint level.

Ultimately, the present study sought to examine the role of subjective and objective financial considerations in post-retirement satisfaction among men with a spouse or a partner. We included a range of objective and subjective measures, which are assessed on a single and joint level. Our rationale for examining the predictors in such a manner is because we believe, based on the research presented, that subjective measures will add a significant and beneficial viewpoint in understanding retirement and financial satisfaction. Additionally, we sought to include both single and joint financial indicators

to better understand dual-earner households and further retirement research from these changing dynamics.

In keeping with the first two goals of the study, we believe that a consideration of *joint* financial adequacy will add to the prediction offered by *individual* financial adequacy. We also believe that subjective measures of individual and joint financial adequacy will add incremental prediction over that offered by more objective measures.

Hypothesis 1: Objective measures of both overall individual annual resources and overall joint annual resources will be positively related to financial and retirement satisfaction.

Hypothesis 2: Subjective measures of both joint and individual finances will add significant incremental prediction of these dependent variables over that offered by objective indices.

Although we will examine the role of objective and subjective financial adequacy for the individual and the couple as important factors, we also believe a consideration of the impact of the Recession will predict financial and retirement well-being.

The Impact of the Great Recession

While the importance of these individualized empirical variables are frequently recognized in research, contextual socio-economic factors may also significantly impact well-being after retirement. For some of the current set of participants, the recent economic recession may have been a powerful influence on retirement and post retirement satisfaction. The current study seeks to investigate if individuals who retired

during or after the Great Recession have lower retirement satisfaction and financial satisfaction than those who retired before the recession took place. In keeping with our measurement of other financially relevant variables, we measure both subjective estimates of the importance of the recession and objective measures (year of retirement).

The economic recession, often referred to as the Great Recession, began in December of 2007 and is considered to be the worst economic downturn since the Great Depression (Bureau of Economic Analysis, 2011). According to the U.S. National Bureau of Economic Research, the recession ended in June 2009, which means that the recession lasted for approximately 19 months (US Business Cycle Expansions and Contractions, n.d.). The Dow Jones Industrial Average, a highly recognized stock market index, suffered tremendous declines during this time--dropping almost 54% from its peak between October 2007 and March 2009. During this tumultuous time, many Americans experienced repercussions from the market downturns and foreclosure, unemployment, and poverty rates skyrocketed. It is estimated that the net worth of nearly 60% of U.S. households decreased (Bricker, Bucks, Kennickell, Mach, & Moore, 2011). Employees' pensions, retirement accounts, and stocks also suffered: it is estimated that about half of Americans reported their assets declined by 30%. Consequently, these difficult times caused a great deal of economic uncertainty for Americans, both in terms of their lifetime savings and the capriciousness of Social Security benefits.

The National Retirement Risk Index (NRRI) deduced that 53% of American households were considered at risk for being unable to maintain their pre-retirement standard of living during retirement between 2007-2010 (Munnell, Webb, & Golub-Sass,

2012). The economic recession also negatively impacted retirement adequacy; Kim and Hanna (2013) found that between 2007-2010, the overall proportion of working households that had the proper financial means to be adequately prepared for retirement reached an all-time low of 26%.

In terms of the impact of the economic downturn on the aging workforce and retirees, many posit that the Great Recession negatively affected retirees in a number of seemingly contrasting ways. The unstable job market and household wealth loss may have caused some workers to delay retirement in order to replenish retirement resources. Indeed, for those workers without access to pensions, there was a significant increase in delayed retirement during the period of the recession (Szinovacz, Davey, & Martin, 2015). These researchers state that the recession was a “macroeconomic” influence on retirement that should be considered in any investigation of the impact of finances on post-retirement well-being.

Conversely, the lack of job security and economic turmoil led to an increase in workers who retired earlier than expected, with layoffs increasing during the recession (Bosworth, 2012; Hurd & Rohwedder, 2010). Thus, if one only examines the year of retirement as an influence on post-retirement adjustment and satisfaction, the important influence of both the subjective analysis of how the recession impacted finances and whether retirement was voluntary or not is overlooked. These additional variables are incorporated in the current study. As such, the hypotheses focus on investigating the Great Recession, both as a catalyst impacting outcome variables and as a means to adding incremental prediction over that offered by the other financial variables.

The significant impact of the recession on post-retirement well-being is evidenced by existing research that suggests it is as important in driving the retirement decision as objective estimates of household wealth. When researching the economic consequences of the Great Recession, Bosworth (2012) found that retirement decisions were influenced by variations in labor market conditions and by the value of household wealth, but labor market conditions exert a larger impact on the decision-making process. Additionally, other researchers deduce that the full extent of the effects of the economic downturn has yet to be seen, and these effects will continue to impact future retirees significantly (Tang & Burr, 2015).

Based on available information, the Great Recession had a significant impact on both empirically based and self-assessed financial security (Munnell & Rutledge, 2013). Because of personal economic losses and the resulting financial insecurity, individuals experienced more financial stress than they may have anticipated, and this may have long lasting effects. Researchers suggest that the recession may have impacted self-perceived abilities to extend the work life well-beyond traditional retirement age because of financial fears associated with financial losses during the recession (Leicht & Fitzgerald, 2014). Whitaker and Bokemeier (2014) also acknowledge the importance of psychologically based, rather than empirically based, assessments of these factors. This suggests that assessment of finances and subsequent adjustment can be informed by empirically identified variables such as overall assets and liabilities, as well as the presence of contextual variables such as the Great Recession. In the current study, we expand the scope of existing research by examining subjective and objective assessments

of personal and joint finances as well as subjective and objective assessments of the effects of the recession.

In keeping with the third goal of the study, which is to examine the impact of the recession on financial and retirement well-being, we add objective and subjective measures of this variable to the model.

Hypothesis 3: Objective and subjective measures of the impact of the Great Recession will add incremental prediction of financial and retirement well-being over that offered by individual and joint financial adequacy. We believe that subjective measures of the impact of the recession will be more powerful as a predictor than the objective measure (retiring before or after the recession).

While the model above suggests that retirement well-being may be predicted not only by subjective and objective estimates of financial adequacy and the recession, the well-being of retirees is also impacted by a consideration of the nature of retirement. In the next segment, we explore the impact of retirement (voluntary or involuntary) as a moderator of some of the financial variables.

Involuntary and Voluntary Retirement as Moderators of Financial Variables

As noted earlier, the Great Recession had a significant impact on retirement behavior. In addition, this event and the accompanying downturn in corporate profit led to an increase in the number of involuntary retirements due to layoffs within companies during these challenging economic conditions (Munnell & Rutledge, 2013). Past

research has established that involuntary retirement is associated with poorer post-retirement self-efficacy and life satisfaction (Dingemans & Henkens, 2015). For those who can find bridge or partial employment, this relationship is mitigated, but for the many Americans who could not find employment, involuntary retirement due to layoffs during the recession are associated with significant and lasting impacts on life satisfaction (Dingemans and Henkens, 2015). Bonsang and Klein (2012) note that the impact of involuntary retirement also has a negative effect on post-retirement financial satisfaction, in part due to the inability to plan for the shift in lifestyle. In addition, they found that involuntary retirement through layoffs had a more global and general effect, decreasing satisfaction with the increased leisure time.

On a broader scale, Gallo et al. (2006) investigated the association between involuntary job loss and long-term changes in depressive symptoms among employees who are close to retirement with data from the Health and Retirement Study (HRS). Gallo et al. found that older employees who have a lower household wealth —below \$25,000—experienced greater depressive symptoms than those with a higher household wealth post job loss. Also, when taking other socioeconomic factors into consideration, net worth was the only determinant that had a significant impact on depressive symptoms. As this study demonstrated, wealth is an important factor for people to avoid the negative consequences of job loss. This could be because those who are in the lower class may not have the financial resources to take care of themselves or their families and in turn become depressed due to the stress and strain of the job loss.

To assess the health consequences of involuntary job loss of older workers, Gallo, Bradley, Siegel, and Kasl (2000) found that physical disability—hypertension, cancer, heart disease, smoking, drinking— and poorer mental health is significantly associated with involuntary job loss. Their research also suggests that individuals who are older and unmarried may be more vulnerable to the negative mental health consequences that relate to involuntary job loss. Additionally, for those who involuntarily lose their job and suffer mental health problems after, those problems may diminish if the individual is able to secure a new place of employment. While these health consequences are not the focus of this study, this line of research demonstrates the impact of unanticipated job loss on both physical and mental well-being.

Szinovacz and Davey (2005) investigated the gender differences to how retirees perceived their retirement as forced under certain conditions. Results showed that men were more likely to perceive their retirement as voluntary if they were still covered by their spouse's health insurance or their spouse was enrolled in a pension plan. Regarding human capital and finances, higher education and higher earnings/net assets are substantial factors in men for not perceiving that their retirement was forced. For women, the only significant factor in influencing women to not see their retirement as forced was net assets. As long as people had some form of monetary or health resources to rely on after retirement, they tended to view their retirement as something they chose willingly and in turn are satisfied with the decision (Szinovacz & Davey, 2005). However, during layoffs it is not likely that individuals will perceive their job loss as under their control. The impact of the voluntary/involuntary nature of retirement on

global and financial well-being suggests that it may be a moderator of the importance of financial variables. Although monetary resources do play a role in how one views their retirement, there are other determinants that are just as important in aiding one to cope with retirement. Involuntary retirement robs one of the opportunity to plan for the transition, both economically and psychologically. Thus, it is important to assess whether retirement was voluntary or involuntary from a subjective standpoint, rather than simply asking individuals if they were laid off or fired or retired when planned.

As noted earlier, we acknowledge that objective and subjective indices are important in retirement adjustment but anticipate that subjective variables will emerge as the stronger predictors of well-being. Thus, our investigation of the moderating role of retirement type (voluntary/involuntary) will be limited to these subjective factors. Given the lack of prior research in this area, we investigate the moderating role of retirement type separately for the individual/joint subjective financial adequacy variables and the impact of recession variables. While there is some prior research that allows us to make predictions regarding the interaction of retirement type with subjective individual/joint financial adequacy, the research on the recession effects is much more limited.

We anticipate that the subjective impact of finances and of the Great Recession will be moderated by the nature of retirement (voluntary or involuntary), with adjustment disproportionately negative when indices of financial adequacy are low and retirement was involuntary. In addition, we believe outcomes will be particularly negative for those who retired involuntarily during or after the recession. As the Great Recession is a relatively recent phenomena with potentially long-ranging impact, the present study will

provide a much-needed examination of the relationship between retirement at the time of the Great Recession and retirees' well-being.

Based on the research reviewed, it seems likely that retirement during the recession will be associated with negative retirement and financial satisfaction, with the most negative outcomes experienced by those who retired involuntarily. As such, the following hypotheses are derived using the subjective financial indices of individual and joint financial adequacy:

Hypothesis 4: Retirement and financial satisfaction will be disproportionately more negative when subjective individual finances are low and retirement is involuntary.

Hypothesis 5: Retirement and financial satisfaction will be disproportionately more negative when joint subjective finances are low and retirement is involuntary.

Hypothesis 6: Retirement and financial satisfaction will be disproportionately more negative when the subjective impact of the recession is negative and retirement is involuntary.

CHAPTER TWO

RESEARCH DESIGN AND METHODS

Data was gathered from the retiree association of one of the largest investor-owned energy companies in the United States. The energy company provides electric, gas, and steam service for 10 million people in the New York City area. The retiree association was formed in 1999 by several retirees who wanted to keep in touch with fellow members. The group has grown significantly over the years and currently has over 2,300 active members. As membership is completely voluntary, the retiree association contains only a small portion of retirees: it is estimated that there are over 13,000 retirees in total. The retiree association is comprised of former employees from a number of different occupations within the company. However, an overwhelming majority of retiree members are male: therefore, the present study and subsequent analyses were geared towards male retirees with a partner or a spouse.

Participants

All participants for the present study were former employees of the energy company who were active members of the retiree association. A total of 456 individuals participated in the study. A strict screening process was employed in order to ensure that all participants were aged 55 or older, in relatively good health, and had either a partner or a spouse. Those who did not meet the screening criteria were directed to the end of the survey. One hundred ninety participants did not meet the screening criteria and were

removed from the study. In line with previous discussions regarding the demographic composition of the retiree association, only 29 participants identified as female. As such, their data will not be included in the main analyses and will be analyzed separately in exploratory analyses.

The final sample consisted of 245 participants. According to apriori power analyses, the number of participants surpassed the proposed minimum number of participants (200) needed for the study to have adequate power (Cohen, 1992).

All of the participants were male and the average age of participants was 70 years ($M = 70.25$, $SD = 5.93$). The vast majority of respondents (95.4%) identified as Caucasian, with the remainder identifying as African American (2.1%), Asian (1.7%), or Hispanic/Latino (.8%). Most of the participants (97.1%) were married to their partner, while 2.9% were currently living with their partner. In terms of health, 7.8% reported their health as fair, 30.6% reported average health, 45.7% reported very good health, and 15.9% reported their health as excellent. When asked about the number of financial dependents, 23.6% said they had no financial dependents, 43.8% reported one dependent, and 22.3% reported two dependents. Only 10.3% of respondents reported having three or more financial dependents.

To understand the significance of the recession to participants, we asked them to rate the importance of the recession in their retirement and also how they thought the recession had impacted their retirement. When examining those who said the recession was important, 36.7% noted that it had a negative influence on them, and only 2.4% said it had a positive influence on their retirement. For those who said the recession was not

important in their retirement, 40.8% felt neutral toward this event, 3.3% felt it positively impacted their retirement, and 16.7% said it negatively influenced their retirement. Thus, regardless of the importance of the Great Recession on retirement, over half the participants (53.4%) felt it had a negative influence on their retirement experience.

In terms of education and career, .8% of participants reported completing some high school, while slightly more than 18% of participants completed high school or trade school. Eighteen percent of respondents reported completing some college, 10.7% attained an Associate's degree, while 20.9% attained a Bachelor's degree. Over 30% of the total participants reported attending graduate school—of those individuals, 9.4% reported completing some graduate school, 20.9% of participants reported attaining a Master's degree, and 1.2% of participants reported attaining a PhD or terminal degree.

The number of years worked at the organization ranged from 8 to 52, and the average number of years worked was 35 years ($M = 35.73$, $SD = 6.07$). The majority of respondents (54.3%) reported working in a managerial position, while 18.4% reported working in a professional setting (i.e., professional certification and practicing such as an accountant). Over 14% of respondents reported working in various other settings such as construction, floor operation, and emergency dispatch. Approximately 11% of participants reported working in the production and service sector of the corporation. In terms of retirement, 48.2% of participants had retired within the last 10 years.

Procedure

Initially, the vice president of the retiree association was contacted to ascertain if the retiree association would be interested in participating in the present study. The vice president agreed to participate and sent out information about the current study as well as the survey link to the retiree mailing list. This was done in order to ensure that no identifying information from the participants would be collected (i.e., email addresses) and the participants who chose to complete the survey would remain anonymous.

If individuals chose to participate in the survey, they clicked on the link provided in the email and were taken to the survey in Qualtrics. After reading through the information, participants provided informed consent by clicking on an “Agree” or “Disagree” button at the bottom of the informed consent page. If the participants chose “Agree”, they were taken to the first page of the survey. If they chose “Disagree” they were taken to the end of the survey and no information was collected. A copy of the informed consent form can be found in Appendix A.

For most participants, the survey took no more than 20 minutes to finish. Participants first completed a number of screening questions to ensure that all respondents were fully retired individuals over age 55 with a spouse or partner and were in relatively good health. Any participant not meeting the screening criteria was directed to the end of the survey and thanked for their time. Additionally, participants had the option to not respond to questions should they so desire. A “request response” validation technique was employed in order to remind participants that a certain question was not

answered before continuing onward with the survey, but ultimately a participant could choose to not respond to certain questions and still complete the survey.

Measures

The present study required participants to complete several questionnaires as well as demographic questions pertaining to themselves and their partner. A number of measures were developed for the purposes of this study. Although some of the measures were not central to this dissertation and were gathered for purposes of additional research, they are listed below for transparency. A copy of all measures can be found in Appendices B-I, and the correlation matrix for all predictor variables can be found in Table 1.

Screening questions. Participants were asked several questions to ensure that they met the desired qualifications. This included questions relating to the participant's age, current relationship status, and retirement status. A single self-rated health measure was used to as a screening tool, as past research has shown such measures to be a valid representation of an individual's health status (Krause & Jay, 1994; Bailis, Segall, & Chipperfield, 2003). A complete list of screening questions can be found in Appendix B.

Demographic questions. Demographic information was also collected as a means to describe the sample, such as race/ethnicity, education, type of occupation, and number of years worked for the organization. A complete list of demographic questions can be found in Appendix C. Additionally, we asked the individual to provide information about their partner's work experience and whether or not their partner was

retired. These were not part of the current study but were included for further exploratory research.

Predictor Variables

Objective finances. Objective individual finances was assessed by asking the participant to select the income range that best reflected their individual annual income before taxes based on individual Social Security benefits, pensions, and other assets. A complete list of all objective finance measures can be found in Appendix D. The income ranges were divided into 10 categories: under \$15,000; \$15,000-\$29,999; \$30,000-\$44,999; \$45,000-\$59,999; \$60,000-\$74,999; \$75,000-\$89,999; \$90,000-\$104,999; \$105,000-\$119,999; \$120,000-\$134,999; over \$135,000.

Objective joint finances was assessed by asking the participant to select the income range that best reflected their joint annual income before taxes based on joint Social Security benefits, pensions, and other assets. Similar to the objective individual finances, the income ranges were divided into 10 categories: under \$15,000; \$15,000-\$29,999; \$30,000-\$44,999; \$45,000-\$59,999; \$60,000-\$74,999; \$75,000-\$89,999; \$90,000-\$104,999; \$105,000-\$119,999; \$120,000-\$134,999; over \$135,000.

Additionally, participants were asked the degree to which household assets are pooled: completely pooled assets; partially pooled assets; or completely separate assets. Lastly, participants were asked to estimate their household's total net worth including savings, net house value, business assets, and direct stock holdings by selecting the corresponding amount range. The ranges were divided into 10 categories: Under \$100,000; \$100,000-\$199,999; \$200,000-\$299,999; \$300,000-\$399,999; \$400,000-

\$499,999; \$500,000-\$599,999; \$600,000-\$699,999; 700,000-\$799,999; \$800,000-\$899,999; over \$900,000.

Due to the high intercorrelation among objective individual financial ranges and objective joint financial ranges ($r = .74$), these two items were averaged together to form a composite measure, which will henceforth be referred to as objective finances. Values for the new composite measure range from a minimum of 0 and a maximum of 9. The participants' net worth ranges and degree of pooled assets were assessed separately as there was not much variability among the items. In order to provide more detail, they are included as potential control variables, which can be found in Table 2.

Subjective financial adequacy. Subjective individual financial adequacy was assessed using two measures: "Compared to other retirees similar to me, I think my financial situation is" and responses were collected using a seven-point Likert scale ranging from "Much worse" to "Much better". Additionally, participants were asked to assess their financial adequacy by rating the statement, "When I think about how adequate my finances are to meet my needs, I would say they are" using a seven-point Likert scale ranging from "Extremely inadequate" to "Extremely adequate". A complete list of all subjective financial adequacy measures can be found in Appendix E. As this measure only consists of two items, Eisinga, Grotenhuis, & Pelzer (2013) proposed that it is best to report the Spearman-Brown reliability estimate, which is the most appropriate given that the coefficient is on average less biased even if there is a strong correlation between the two items. As such, reliability estimates for all two-items measures will be reported using Spearman-Brown. For subjective individual finances, the Spearman-

Brown reliability estimate was .712. The two items were averaged together to form an overall individual financial adequacy score for each participant.

Subjective joint financial adequacy was assessed using similar scales as individual financial adequacy, but the participants were also asked to consider their partner in their answer and to answer as a couple. One additional question developed by the authors was also used to assess subjective joint financial adequacy. An example statement is, “In general, I would say that my partner and I have enough money to meet our needs”. Cronbach’s alpha yielded relatively high reliability ($\alpha = .841$) for the present study. The three items were averaged together to form an overall joint financial adequacy score for each participant.

Due to the high intercorrelation between the individual subjective financial adequacy and the joint subjective financial adequacy ($r = .85$) and the fact that people tended to “collapse” estimates of objective finances and subjective financial adequacy, individual subjective financial adequacy and joint subjective financial adequacy were combined to form a composite measure. The composite measure, which will be referred to as subjective financial adequacy, was formed by averaging individual subjective adequacy and joint subjective financial adequacy scores. Values for the new composite measure range from a minimum of 1.0 and a maximum of 7.0. The correlation between the newly formed measures of objective finances and subjective financial adequacy was .52.

Voluntary/involuntary nature of retirement. The nature of retirement was assessed with one question generated by the authors of the present paper, which was, “Do

you perceive your retirement from your career job as voluntary?” and can be found in Appendix F. The nature of retirement was grouped into three categories based on their response: those who stated that their retirement was completely voluntary, those who noted that their retirement was partly involuntary, and those who stated that their retirement was completely involuntary. Due to the lack of participants who identified their retirement as completely involuntary ($n = 11$), the participants were categorized into only one of two categories: voluntary retirement or involuntary retirement. However, even with this reclassification, the groups remained unequal. The vast majority (83.7%) of respondents stated that their retirement was voluntary, while the remainder comprised of those who stated that their retirement was involuntary. The data was split by nature of retirement in order to gain insight into any significant changes between the two groups. For those who voluntarily retired, their average health rating was 3.79 ($SD = .79$) and reported relatively high financial ($M = 5.98$, $SD = 1.07$) and retirement ($M = 5.73$, $SD = .75$) satisfaction scores. In contrast, involuntary retirees had an average health rating of 3.25 ($SD = .90$) and their financial ($M = 4.96$, $SD = 1.46$) and retirement ($M = 4.82$, $SD = 1.35$) scores were lower than voluntary retirees. Additional information on both groups can be found in Table 3. Issues surrounding these unequal sample sizes will be discussed further in the results and discussion.

Individuals who perceived their retirement as involuntary were asked to provide their reasoning by selecting one option from a list of pre-written options (health-related issues, layoff, caregiver responsibilities) or by writing in an alternate explanation by choosing the option titled “other”. All “other” written responses were examined and one

common theme emerged from the qualitative data: all of the written-in responses described instances that involved issues that occurred within the organization. A number of participants described a hostile work environment and felt that the organization was pushing them to retire. Other participants mentioned issues relating to co-worker or supervisor conflict. Taken together, these responses were categorized as “Organization-Based Constraints”. Therefore, a total of four categories were used to distinguish the nature of involuntary voluntary for the participants. Thirty-eight out of 40 participants indicated a reason why they perceived their retirement as involuntary. 52.6% of individuals stated that their retirement was involuntary due to health-related issues. Almost 40% of individuals stated that their involuntary retirement was caused by various organizational-based constraints. The remainder of participants stated that their retirement was involuntary due to caregiver responsibilities (5.3%) or a layoff (2.6%).

Objective impact of recession. The objective impact of the recession was assessed by asking the month and year the participant retired. Each participant’s retirement date was coded and assigned to one of three groups: retirement occurred pre-recession (before December 2007), during the recession (December 2007- June 2009), or post-recession (after June 2009). These dates are in accordance with the official start and end dates of the recession provided by the U.S. National Bureau of Economic Research (NBER). The NBER concluded that the economy entered a “trough” during June 2009, meaning that various financial indicators (GDI, GDP, aggregate hours of work in total economy, real income, household employment, etc.) stopped declining and a financial recovery began during that time (Business Cycle Dating Committee, 2010). However,

due to the limited number of participants (15) who fit into the category of retiring during the recession, the categories were modified into either pre-recession (retiring before December 2007, which comprised 55.5% of the sample) or during/post-recession (retiring after December 2007, which comprised 44.5% of the sample). This ensured that the two groups were roughly equivalent. In order to ensure that there were no inherent differences between those who retired during the recession and those who retired after the recession, all analyses were run with and without the 15 participants who retired during the recession. There were no significant differences in any of the analyses when the participants who retired during the recession were removed; therefore, all participants were included in the analyses and the participants who retired during the recession remained in the during/post-recession group.

Subjective impact of recession. The subjective impact of the recession was assessed with two statements generated by the authors of the present paper and the measure can be found in Appendix G. The first statement is, “When I think about the impact of the recession on my retirement, I would describe it as”. Responses were rated on a 5-point Likert scale ranging from “Very negative” to “Very positive”. The other statement, “Overall, when I think about how important the impact of the recession was on my retirement, I would describe it as” was rated on a 5-point Likert scale ranging from “Very unimportant” to “Very important”. Each item was intended to measure whether or not the economic recession was an important factor on their retirement, and if they perceived the recession as positive or negative. The Spearman-Brown reliability estimate for the two items was -.209, so the items were not be combined. Instead, only the first

statement relating to the perception of how negative or positive the impact of the recession was will be used. This was decided on because this variable matches the criterion more closely, as the present study predicted subjective aspects such as affect toward the variables of interest.

Outcome variables

Retirement satisfaction. Retirement satisfaction was assessed with three questions generated by the authors of the present paper and a copy of the measure can be found in Appendix H. An example question is, “Overall, how satisfied are you with your retirement right now?”, which was rated on a 7-point Likert scale ranging from “Extremely dissatisfied” to “Extremely satisfied”. Cronbach’s alpha for the composite scale of these three items yielded a relatively high internal reliability of .829. The three items were averaged together to form an overall retirement satisfaction score for each participant.

Financial satisfaction. Financial satisfaction was assessed with two statements generated by the authors of the present paper and a copy of the measure can be found in Appendix I. Financial satisfaction was collected on both an individual and joint level. An example statement is, “When I think about my level of financial satisfaction, I would say that I am”. Both statements were rated on a 7-point Likert scale ranging from “Extremely dissatisfied” to “Extremely satisfied”. Due to the high intercorrelation between individual and joint financial satisfaction ($r = .796$), the two variables were combined to form a composite measure by averaging the two items. Values for the new

composite measure range from a minimum of 1.0 and a maximum of 7.0 and will be referred to as financial satisfaction.

CHAPTER THREE

RESULTS

Data Cleaning and Preparation

Data cleaning and data preparation was conducted using SPSS 24.0 and Microsoft Excel 2011, and all subsequent statistical analyses were conducted using SPSS 24.0. After data was screened for those who did not meet aforementioned criteria (fully retired healthy male aged 55 or older with a partner/spouse), the data was then screened to diagnose potential outliers through examining leverage values. Leverage values are an invaluable tool to diagnose outliers because leverage values inform us how far the observed values are from mean values and ultimately reflect any discrepancies in the data (Stevens, 1984). Leverage values for each independent variable were computed using Mahalanobis Distance and cutoff values were established according to Tabachnick and Fidell (2001) using Chi Square distribution with $\alpha = .001$ and $df =$ the number of independent variables (5). Leverage values for each independent variable were plotted and contrasted against the cutoff value (20.515). Additionally, global influence values were examined by Cook's D. All values were within normal limits (i.e., there were no values over 1; Stevens, 2002); therefore, no additional variables were screened out. Lastly, the independent scale variables were mean centered prior to hypothesis testing involving interactions in order to reduce multicollinearity (Cronbach, 1987).

Hypothesis Testing

It is important to note that given the strong and significant correlation between certain variables, certain variables were combined in order to form a composite measure. Additionally, these changes made several hypotheses posited prior to data collection no longer relevant or simplified. Despite efforts to make the groups equivalent, the number of participants who stated that their retirement was voluntary ($n = 205$) far surpassed those who viewed their retirement as involuntary ($n = 40$). As this is a prominent feature in Hypothesis 4 and Hypothesis 6, these results should be regarded with caution due to unequal samples. Hypothesis 5 (“retirement and financial satisfaction will be disproportionately more negative when subjective joint finances are low and retirement is involuntary”) was excluded hypothesis testing given the combination of the individual and joint measures. Additionally, some hypotheses were slightly altered in order to account for these changes in measurement. All hypotheses are provided in their original format with explanations detailing any necessary changes in their description.

Hypothesis 1

Objective measures of both overall individual annual resources and overall joint annual resources will be positively related to financial and retirement satisfaction.

Given the strong and significant correlation between the individual and joint objective income measures, ($r = .74$), these predictors were combined and the relationship between this overall objective index of financial resources was used as a single predictor. Similarly, the subjective measure of individual financial adequacy was combined with the subjective measure of joint financial adequacy given the high intercorrelation ($r = .85$).

This simplified the earlier planned analyses. The relationship between the new composite measure of objective finances, the new composite measure of subjective financial adequacy, and the two dependent measures were assessed in a single analysis.

A multivariate linear regression was used to assess the effects of objective finances and subjective financial adequacy (the two independent variables) on retirement and financial satisfaction (the two dependent variables). Multivariate tests revealed a significant main effect on subjective financial adequacy, $F(2,240) = 35.47, p < .001, \eta^2 = .228$, objective finances, $F(2,240) = 3.21, p = .042, \eta^2 = .026$, and the interaction term, $F(2,240) = 3.55, p = .030, \eta^2 = .029$, on both dependent variables. While subjective financial adequacy, $B = .81, SE_b = .17, p < .001$ was a significant predictor of retirement satisfaction, it seems that objective finances was not significant, $B = .29, SE_b = .16, p = .066$. However, both subjective financial adequacy, $B = 1.17, SE_b = .15, p < .001$, and objective finances, $B = .29, SE_b = .14, p = .048$, were significant predictors of financial satisfaction. The interaction term was significant for retirement satisfaction, $B = -.06, SE_b = .03, p = .031$, but not significant for financial satisfaction, $B = -.05, SE_b = .03, p = .066$.

Hypothesis 2

Subjective measures of both joint and individual finances will add significant incremental prediction of these dependent variables over that offered by objective indices.

As noted, we combined the individual/joint objective financial measures into one composite measure, and combined the individual/joint subjective financial measures into a separate composite measure. A two-block hierarchical regression was used to assess

the incremental prediction offered by subjective financial adequacy on retirement satisfaction. The first block of independent variables included objective finances, while the second block of independent variables included subjective financial adequacy. Analyses revealed that while the initial model of objective finances was a significant predictor of retirement satisfaction, $F(1,243) = 7.794, p = .006$, this model accounted for only 2.7% of the variation in retirement satisfaction. However, the inclusion of subjective finances provided a significantly better model for prediction of retirement satisfaction, $F(2,242) = 33.526, p < .001$, and accounted for a statistically significant increase of 18.6% of the variation in retirement satisfaction, which lends support to hypothesis 2. When subjective financial adequacy, $B = .50, SE_b = .06, p < .001$, was included, objective finances, $B = -.09, SE_b = .03, p = .197$, was no longer a significant predictor of retirement satisfaction. Additional information can be found in Table 4.

A two-block hierarchical regression was used to assess the incremental prediction offered by subjective financial adequacy on financial satisfaction. The first block of independent variables included objective finances, while the second block of independent variables included subjective financial adequacy. Analyses revealed that the initial model of objective finances was a significant predictor of financial satisfaction, $F(1,243) = 56.709, p < .001$, and the model accounted for 18.9% of the variation in financial satisfaction. However, the inclusion of subjective finances provided a significantly better model for prediction of financial satisfaction, $F(2,242) = 187.213, p < .001$, and accounted for a statistically significant increase of 41.8% of the variation in financial satisfaction, which again lends support to hypothesis 2. When subjective financial

adequacy, $B = .76$, $SEb = .06$, $p < .001$, was included, objective finances, $B = .04$, $SEb = .03$, $p = .383$, was no longer a predictor of financial satisfaction. This is particularly interesting since financial satisfaction isolates financial affect but still is more strongly related to subjective financial adequacy than objective finances. Additional information can be found in Table 5.

Hypothesis 3

Objective and subjective measures of the impact of the Great Recession will add incremental prediction of financial and retirement well-being over that offered by individual and joint financial adequacy. We believe that subjective measures of the impact of the recession will be more powerful as a predictor than the objective measure (retiring before or after the recession).

As previously noted, individual and joint subjective financial adequacy were combined to form a composite measure due to the high intercorrelation between the two measures. A two block hierarchical regression was used to assess the incremental prediction offered by the impact of the Great Recession on retirement satisfaction. The first block of independent variables included subjective financial adequacy, while the second block of independent variables included the objective impact and subjective impact predictors for assessing the impact of the Great Recession.

In order to assess the objective impact of the recession, participants were divided into two groups based on their year of retirement (pre-recession, which is characterized as retiring before December 2007; during/post-recession, which is characterized as retiring after December 2007). Participants' subjective impact of the recession was assessed with

one question asking if they viewed the recession as positive or negative. Analyses revealed that the initial model of subjective financial adequacy was a significant predictor of retirement satisfaction, $F(1,243) = 65.193, p < .001$ and accounted for 21.2% of the variation in retirement satisfaction. The second block of independent variables included the objective impact of the recession, which was detrimental to the model: it did not provide a better model for prediction of retirement satisfaction, $F(3,241) = 22.584, p < .001$, and neither the objective, $B = .07, SE_b = .11, p = .207$, nor subjective, $B = .06, SE_b = .07, p = .359$, recession variables were significant predictors of retirement satisfaction. Additional information can be found in Table 6. This is particularly interesting given that the impact of the Great Recession was reported as being important and negative to 36.7% of the participants. As such, this part of the hypothesis was not supported.

A two-block hierarchical regression was used to assess the incremental prediction offered by the impact of the Great Recession on financial satisfaction. The first block of independent variables included subjective financial adequacy, the second block of independent variables included the objective (retiring before or during/after the recession) and subjective (how positive or negative they perceived the recession) predictors for assessing the impact of the recession. Analyses revealed that the initial model of subjective financial adequacy was a significant predictor of financial satisfaction, $F(1,243) = 374.026, p < .001$, and the model accounted for 60.6% of the variation in financial satisfaction. The addition of the second block of objective and subjective recession predictors in predicting financial satisfaction, $F(3,241) = 135.1042, p < .001$, revealed an interesting finding. While the objective impact of recession measure did not

significantly predict financial satisfaction, $B = -.05$, $SE_b = .10$, $p = .211$, the subjective impact of recession measure was a significant predictor of financial satisfaction, $B = .14$, $SE_b = .07$, $p < .001$. Additional information can be found in Table 7. However, the inclusion of recession predictors only accounted for a 2.1% increase in the variation in financial satisfaction. Taken together, hypothesis 3 was only partially supported. Although the inclusion of subjective recession variables did not provide a better model in predicting retirement satisfaction, it was a significant predictor of financial satisfaction in retirees.

Hypothesis 4

Retirement and financial satisfaction will be disproportionately more negative when subjective individual finances are low and retirement is involuntary.

The new composite measure that included both individual and joint subjective financial adequacy was used in the analysis. Participants were first coded by the perceived nature of their retirement and divided into two categories: completely voluntary or partly/completely involuntary. The independent variable, subjective financial adequacy, was mean centered prior to hypothesis testing. We first examined whether the main effects (subjective financial adequacy and nature of retirement) and interaction were significant predictors of retirement satisfaction. A two block hierarchical regression was conducted with the two independent variables placed in the first block and the computed interaction term (subjective financial adequacy * nature of retirement) placed in the second block. There was a significant main effect of the two independent variables on retirement satisfaction, $F(2,242) = 40.628$, $p < .001$ and the

model accounted for 25.1% of the variance in retirement satisfaction. The inclusion of the interaction term in the second step of the regression was also significant, $F(3,241) = 32.883, p < .001$, which indicates that the nature of retirement impacts the relationship between subjective financial adequacy and retirement satisfaction. The complete model accounted for 29% of the variance in retirement satisfaction, which means that the inclusion of the interaction term provided an additional 3.9% of the variance in retirement satisfaction ($f^2 = .039$). See Table 8 for additional information.

The file was then split in order to test each retirement group (voluntary/involuntary) in follow-up analyses. Subjective financial adequacy was a significant predictor for those who voluntarily retired, $F(1,203) = 17.864, p < .001$, as well as those who retired involuntarily, $F(1,38) = 20.544, p < .001$. However, as the nature of retirement goes from involuntary, $B = .59, SE_b = .16, p < .001$ to voluntary, $B = .28, SE_b = .06, p < .001$, the relationship between subjective financial adequacy and retirement satisfaction decreases. Additionally, subjective financial adequacy accounts for 35.1% of the variation in retirement satisfaction for involuntary retirees, while subjective financial adequacy only accounts for 8.1% of the variation in retirement satisfaction for voluntary retirees. A visual depiction of the interaction can be found in Figure 1. Taken together, this means that for retirees who retired involuntarily, their subjective financial adequacy is a much better predictor of their retirement satisfaction than if they retired voluntarily. Although this result shows support for Hypothesis 4, the unequal sample sizes are problematic.

Next, we examined whether the main effects (subjective financial adequacy and

nature of retirement) and the interaction were significant predictors of financial satisfaction. A two block hierarchical regression was conducted with subjective financial adequacy and nature of retirement placed in the first block and the interaction term (subjective financial adequacy * nature of retirement) placed in the second block. The purpose of this analysis was to examine whether the interaction between the predictors added incremental prediction of financial satisfaction over that offered by the simple effects of predictors.

There was a significant main effect of the two independent variables on financial satisfaction, $F(2,242) = 186.554, p < .001$ and the model accounted for 60.7% of the variance in financial satisfaction. It is important to note that the nature of retirement was not a significant predictor in this step, $p = .621$. There was no significant change when the interaction term was included in the second step of the regression, $B = .11, SE_b = .12, p = .056$. As such, the only significant predictor in this analysis was subjective financial adequacy. Full results related to this analysis may be found in Table 9.

Ultimately, Hypothesis 4 was only partially supported, as the nature of retirement moderated the relationship between subjective financial adequacy and retirement satisfaction, but the nature of retirement did not moderate the relationship between subjective financial adequacy and financial satisfaction.

Hypothesis 6

Retirement and financial satisfaction will be disproportionately more negative when the subjective impact of the recession is negative and retirement is involuntary.

Participants were coded by the perceived nature of their retirement and divided into two categories: completely voluntary or partly/completely involuntary. The independent variable, subjective impact of the recession, was mean centered prior to hypothesis testing.

We first examined if there were any main effects of the subjective impact of the recession and the nature of retirement (voluntary or involuntary) on retirement satisfaction. A two block hierarchical regression was conducted with subjective impact of the recession and the nature of retirement placed in the first block and the interaction term (subjective impact of recession * nature of retirement) placed in the second block. The results revealed significant main effects for the two predictors, $F(3,242) = 19.022, p < .001$. However, the interaction term was not significant. Full results related to this analysis may be found in Table 10.

Next, we first examined if there were any main effects of the subjective impact of the recession and the nature of retirement (voluntary or involuntary) on financial satisfaction. A two block hierarchical regression was conducted with subjective impact of the recession and the nature of retirement placed in the first block and the interaction term (subjective impact of recession * nature of retirement) placed in the second block. The results revealed significant main effects for the two predictors, $F(2,242) = 20.173, p < .001$. However, there was no significant interaction between the voluntary nature of retirement and the subjective impact of the recession on financial satisfaction. Full results relating to this analysis may be found in Table 11. Ultimately, Hypothesis 6 was not supported.

Exploratory Analyses

Subjective Financial Adequacy and Subjective Impact of Recession on Retirement Satisfaction

While Hypothesis 3 allowed us to examine the potential incremental prediction of the recession over and above subjective finances, we examined the possibility that the recession would interact or moderate the effects of subjective finances in the following exploratory analyses. Another significant difference between this exploratory analysis and other analyses from our apriori hypotheses is that this analysis only looks at subjective factors (i.e., we have not included objective finances or objective impact of the recession in this analysis). We analyzed the potential significance of the interaction between the subjective effects of the recession and subjective financial adequacy in the prediction of both retirement satisfaction and financial satisfaction.

We first examined whether the main effects (subjective financial adequacy and subjective impact of the recession) and the interaction were significant predictors of retirement satisfaction. Both independent variables were mean centered prior to analysis. A two block hierarchical regression was conducted with the two independent variables placed in the first block and the computed interaction term (subjective financial adequacy * subjective impact of recession) placed in the second block. There was a significant main effect of the two independent variables on retirement satisfaction, $F(2,242) = 33.011, p < .001$ and the model accounted for 21.4% of the variance in retirement satisfaction. The interaction was also significant, $B = -.21, SEb = .06, p < .001$. Simple slopes were calculated and analyses revealed the slope of subjective financial adequacy

predicting retirement satisfaction was significantly different from zero at negative ($B = .50, SE_b = .09, t = 8.69, p < .05$), neutral ($B = .40, SE_b = .07, t = 7.57, p < .05$), and positive ($B = .30, SE_b = .10, t = 4.77, p < .05$) levels of the subjective impact of the recession. There was a cross-over interaction: at low levels of subjective financial adequacy, people who reported a positive impact of the recession had the highest levels of retirement satisfaction. This relationship was inverted at high levels of subjective financial adequacy, as individuals who reported a positive impact of the recession had the lowest levels of retirement satisfaction. Individuals who reported a negative impact of the recession had the strongest relationship between subjective financial adequacy and retirement satisfaction than do individuals who reported a neutral or positive impact of the recession. See Figure 2 for a visual depiction. Ultimately, it seems that for individuals who reported that the impact of the recession was negative, their subjective financial adequacy is the strongest predictor of retirement satisfaction than those who reported a neutral or positive impact of the recession.

Next, we examined whether the main effects (subjective financial adequacy and subjective impact of the recession) and interaction were significant predictors of financial satisfaction. Both independent variables were mean centered prior to analysis. A two block hierarchical regression was conducted with the two independent variables placed in the first block and the computed interaction term (subjective financial adequacy * subjective impact of recession) placed in the second block. There was a significant main effect of the two independent variables on financial satisfaction, $F(2,242) = 195.202, p <$

.001, and the model accounted for 61.7% of the variance in financial satisfaction;

however, the interaction was not significant, $B = -.10$, $SE_b = .05$, $p = .067$.

Subjective Financial Adequacy and Number of Financial Dependents on Retirement and Financial Satisfaction

A two block hierarchical regression was used to assess the incremental prediction offered by including the number of financial dependents on retirement satisfaction. Four participants chose not to respond to this question, and were therefore removed from the analysis. As previously established, subjective financial adequacy is a significant predictor of retirement satisfaction. The number of financial dependents was a significant predictor of retirement satisfaction in this model, $B = -.16$, $SE_b = .04$, $p < .001$ and provided an additional 4.1% of the variance accounted for in retirement satisfaction. As the number of financial dependents increases, retirement satisfaction decreases.

A two block hierarchical regression was used to assess the incremental prediction offered by including the number of financial dependents on the second dependent measure, financial satisfaction. As previously established, subjective financial adequacy is a significant predictor of financial satisfaction. The number of financial dependents was a significant predictor of financial satisfaction in this model, $B = -.09$, $SE_b = .04$, $p = .043$, but only provided an additional .7% of the variance accounted for in financial satisfaction. Again, as the number of financial dependents increase, financial satisfaction decreases. An especially interesting finding is that the relationship between number of financial dependents and the dependent variables is stronger for retirement satisfaction than financial satisfaction.

Joint Retirement

As previously mentioned, participants were also asked about their partner's employment status. Of the 245 responses, 160 participants stated that their partner has been employed in a career and of those, 131 participants stated that their partner was fully retired. The difference in retirement dates was calculated in order to ascertain if the participant and their partner retired jointly. On average, the difference in retirement differed by around 5 years ($M = 4.91$, $SD = 6.78$) and ranged from zero to 37. Analyses revealed that joint retirement was not a significant predictor of retirement satisfaction, $F(1,129) = .005$, $p = .946$, or financial satisfaction, $F(1,129) = .264$, $p = .608$.

Female Retirees

There were a total of 29 female participants used in the current exploratory analyses. These participants were approximately 65 years old ($M = 65.52$, $SD = 4.41$) and all participants were married. Approximately 86% of participants identified as Caucasian, while the rest identified as African American (10.3%) or Hispanic (3.4%). In terms of health, 3.4% of participants reported their health as fair, 20.7% reported average health, and the remainder reported their health as either very good (48.3%) or excellent (27.6%). The majority of participants (41.4%) reported that they had no financial dependents, while the remainder reported one (24%), two (24%) or three (4%) financial dependents.

In terms of education and career, 10.3% reported attaining a high school diploma, while 24.1% reported completing some college. A total of 27.6% of respondents attained an undergraduate degree while 24.1% attained a Master's degree. The number of years

worked at the organization ranged from 15 to 42 ($M = 33.66$, $SD = 6.66$) and the majority of female respondents (51.7) reported working in a managerial position. Approximately 14% of respondents reported working in sales or a clerical position, 31% of respondents reported working in various other settings such as construction, floor operation, and emergency dispatch. In terms of retirement, a vast majority (72.4%) reported retiring within the last 10 years.

A multivariate linear regression was used to assess the effects of objective finances and subjective financial adequacy (the two independent variables) on retirement and financial satisfaction (the two dependent variables). Multivariate tests only revealed a significant main effect on subjective financial adequacy, $F(2,24) = 10.953$, $p < .001$, $\eta^2 = .982$. There were no significant findings for objective finances on either dependent variable and there was no significant interaction. Interestingly enough, subjective financial adequacy was a better predictor of retirement satisfaction, $F(1,25) = 13.275$, $p = .001$, $\eta^2 = .938$, than financial satisfaction, $F(1,25) = 6.783$, $p = .015$, $\eta^2 = .707$. This runs counter to what was found with male retirees. While there is a limited sample size available, the results are aligned with one of the main premises of this study: subjective indices are beneficial and offer additional insight over objective measures.

CHAPTER FOUR

CONCLUSIONS AND DISCUSSION

The present study sought to examine the importance of objective and subjective financial factors measured on both an individual and joint basis in order to predict retirement and financial satisfaction in male retirees. We placed great importance on the relevance of subjective financial predictors and contextual financial considerations and modeled our theory based on the Lifespan Developmental Career theory and Motivational-Instrumental theory. Our analyses revealed that subjective financial measures did indeed provide a significant incremental prediction over that offered by objective indices in most of our hypotheses. This was not the case for the impact of the recession variables, as the inclusion of subjective effects of the Great Recession did not provide a better model for prediction of retirement satisfaction. However, subjective impressions of the impact of the recession served as a significant predictor of financial satisfaction in retirees. As the importance of subjective factors was a main tenant to the present study, this result bolsters our main research question and provides support for inclusion of subjective constructs in addition to objective financial measures in retirement research.

A number of potential moderators were also examined in the current research. For example, Hypothesis 4 posited that retirement and financial satisfaction would be disproportionately more negative when subjective financial adequacy is low and retirement is involuntary. This hypothesis was only partially supported, as the nature of

retirement moderated the relationship between subjective financial adequacy and retirement satisfaction, but the nature of retirement did not moderate the relationship between subjective financial adequacy and financial satisfaction. As the nature of retirement goes from involuntary to voluntary, the relationship between subjective financial adequacy and retirement satisfaction decreases. Taken together, this means that for retirees who retired involuntarily, their subjective financial adequacy is a much better predictor of their retirement satisfaction than if they retired voluntarily.

One possible explanation for our finding is that losing a job involuntarily may have affected the way the retiree views his financial situation. The loss of control over the outcome of retirement could have majorly affected the retiree in a number of ways (i.e., lack of financial preparation for retirement, loss of income, etc.) and it is plausible to understand why the relationship between subjective financial adequacy and retirement satisfaction is stronger for involuntary retirees. Additionally, involuntary retirees were not provided with time to go through any sort of adjustment process prior to retirement unlike those who retired voluntarily. It seems that retirement may take both a financial and mental toll on individuals and a lack of financial adequacy would be particularly detrimental to those who retired involuntarily (van Solinge & Henkens, 2008; Szinovacz & Davey, 2005).

However, not all of our main hypotheses were supported. In particular, hypothesis 6, which stated that retirement and financial satisfaction would be disproportionately more negative when the subjective impact of the recession was negative and retirement was involuntary, was not supported. One possible explanation

for a lack of results may be the sample. As previously discussed, an overwhelming majority (83.7%) of participants reported that they voluntarily retired. As such, we did not have an adequate number of participants who involuntarily retired to properly test this hypothesis. Additionally, one potential explanation for the lack of impact from the recession may be due the sample itself. An overwhelming majority of the participants resided in New York, and there is no research available to show how individuals from certain parts of the country reacted to or felt impacted by the economic recession. Another possible reason why there was a lack of support for recession variables may be from the way in which we measured objective recession impact may be due to the established cutoff date. Although the dates were in accordance with the official start and end dates of the recession provided by NBER, the arbitrary dates do not necessarily correspond with or equate to an individual fully understanding the recession or suffering any effects and its aftermath.

A number of exploratory analyses were conducted that yielded interesting findings. One non-significant finding that was surprising was that there was no support for joint retirement or retiring near the same date as the spouse, on retirement or financial satisfaction. There has been a great deal of research on the topic of joint retirement outlining the impact of retiring jointly on outcomes such as retirement and life satisfaction. Several studies have supported this notion, demonstrating that couples prefer to retire together unless adverse circumstances prohibit joint retirement (i.e., Blau, 1998; Szinovacz & Schaffer, 2000). In cases of separate retirement, the relationship among spouses (particularly husbands) tends to suffer when one partner retires before the

other (i.e., Davey & Szinovacz, 2004; Szinovacz & Schaffer, 2000). As this analysis was conducted using only males, it seems surprising that there was no impact of joint retirement on either of the outcome variables. It may be the case that joint retirement is a more significant predictor of retirement timing than retirement affect.

Another interesting finding was deduced when comparing the demographic makeup of the current sample to the general population. According to Economic Policy Institute (EPI), the median savings for U.S. households aged 56-61 is \$17,000, while the average savings is \$163,577. Taking these numbers into account, the author posited that over the course of a 20-year retirement, \$163,577 amounts to \$8,178 annually (Morrissey, 2016). Additionally, the US Census Bureau's 2017 Current Population Survey (CPS) Annual Social and Economic Supplement reports that the median and mean income for households aged 65-74 is \$47,432 and \$68,905, respectively, while the median and mean income for households aged 75 and older is \$30,635 and \$45,989, respectively (United States Census Bureau, 2017). In contrast, the median net worth reported in the present study was between \$800,000- \$900,000 and 57.2% of participants reported over \$900,000 as their total net worth. Additionally, the average participant reported their annual income as being between \$90,00-\$104,999. As such, participants in the present study were far wealthier than the average retiree population. Even with greater wealth, the variability in subjective finances was still related to retirement and financial satisfaction in the present sample.

There are a plethora of explanations for why there is such a drastic difference in wealth between average retirees and the current population. While this topic will be

addressed again while discussing limitations of the study, some potential reasons should be outlined. One important matter to take into account is strict screening process enforced in the study. All participants included in the main analyses were healthy males aged 55 or older and were either married or living with a partner. By incorporating such a strict screening criteria, large portions of individuals were excluded from the study. According to Mather, Jacobsen, & Pollard (2015) the percentage of divorced women ages 65 and older has increased from 3% to 13% in the past 35 years, and similar increases in divorce rates have been seen in men. Additionally, 27% of women ages 65 to 75 lived alone, while 42% of women ages 75 to 84 lived alone in 2014 (Mather, Jacobsen, & Pollard, 2015). As the present study and main analyses excluded both women and singles, these significantly different findings between the current sample and the U.S. retiree population at large start to become more understandable.

Lastly, we were unable to compare any differences or changes on an individual versus joint level. This is because we ultimately chose to collapse any variable measured at both the individual and joint level and combined it into one composite measure due to the high correlation amongst these variables. While this did alter some of the originally proposed hypotheses, we believe that this study still holds significant contributions to retirement literature. Limitations and future research on this topic will be further elaborated on in later sections.

Limitations and Future Research

Limitations of the study include the potential for method variance, given that both

predictors and dependent variables are gathered via the same method. Although this type of error may inflate observed relationships between variables, it is difficult in practice to obtain retirement data across participants with other methodologies. Additionally, as we only measured our outcome variables through affective measures, there may be an inherent existing relationship between the subjective predictor variables and the dependent variables. One suggestion for future research is to include both objective and subjective outcome variables. By doing so, researchers will be able to assess if the predictive strength of subjective financial variables found in the present study can also be utilized in more objective outcome variables.

The potential for response bias is also a limitation in a number of ways. First and foremost, there may be some inherent differences between those who chose to participate in the current study and those who chose not to participate. It is possible that individuals who felt uncomfortable about their financial status may have self-selected out of the study. Additionally, there may be some differences between those who were screened out of the study. Due to the rigorous selection criteria, participants were screened out of the survey if they did not meet the desired age, health, marital status, or retirement status criteria. Lastly, there is a possibility that participants felt uncomfortable about disclosing sensitive financial information such as income ranges and may have either self-selected out of the survey or inflated their financial estimates.

As previously mentioned, there is some concern for how generalizable the current study and results are to the aging population at large. Although several general

explanations have been proposed, the present section will delve deeper into potential methodological issues that may limit the generalizability of the data. One limitation that we faced was the inability to truly compare individual and joint differences. This may have been caused in part by the wording of our questions. Another more methodological issue stems from the fact that we asked only the individual to think about him or herself and then imagine answering for both themselves and their partner. Future research should expand upon this by incorporating both the individual and his or her partner into the study in order to truly gain insight into the joint retirement experience.

Additionally, another limitation of the present study is the relative overlap between subjective financial adequacy and financial satisfaction measures. Both scales were developed for the purposes of this study, with subjective financial adequacy focusing on measuring the extent to which the participants' present finances met their needs. In contrast, financial satisfaction sought to measure the participants' level of satisfaction with their finances overall. While there is an inherent difference between the levels in which one is adequately able to make ends meet and the general happiness associated with their finances, there is some overlap in constructs. Future research should continue to expand upon these constructs by adding additional measures and more finely tuning these constructs.

Another limitation was the lack of variability throughout our sample. Our sample reported higher than average income, retirement satisfaction ($M = 5.58$, $SD = .94$), financial satisfaction ($M = 5.58$, $SD = 1.20$), and a majority of participants reported that they retired voluntarily. One potential explanation for this is the organization from which

the retirees were sampled from. The organization, one of the largest investor-owned energy companies in the United States, has a strong union presence, and offers a competitive salary and benefits. Another viable explanation is that the strict screening process limited the range of responses, as all participants had to be fully retired (i.e., not engaging in any form of paid employment) in order to be eligible for the study. While this strict criterion was enacted at the behest of research suggestions, future research should instead focus on the demographics from which we were unable to sample: females, older individuals who are engaged in paid employment, single households, etc. Future research can compare results from this study to the portions of the population that were unexamined in order to note any significant differences. Additionally, future research should build upon the present study by examining these constructs from retirees not affiliated with any specific organization in order to acquire a more representative view of the retiree experience.

Conclusion

The present study provides support for including subjective financial variables in addition to objective measures in retirement research. Additionally, we attempted to fill gaps in the literature by examining the effects of the recession, as little is known about the impact of the Great Recession on post-retirement satisfaction, particularly from a psychological or subjective perspective. Taken together, the results provide support for researchers to continue looking into these variables in populations that we did not have access to in order to examine the differences among groups.

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TABLES

Table 1: Correlation matrix of all predictor variables.

	M	SD	1	2	3	4	5	6
1.Subj Finan Adeq	5.5							
2.Objective Finances	6.24	1.86	.52**					
3.Subj Recession	2.44	0.76	.29**	.24**				
4.Obj Recession	0.44	0.5	-.11	.128*	-.03			
5.Voluntary Retire	0.16	0.37	-.381**	-.137*	-.286**	.07		
6.Retire Sat	5.58	0.94	.46**	.18**	.18**	.02	-.36**	
7.Finan Sat	5.82	1.2	.78**	.44**	.36**	-.134*	-.315**	.44**

Note: $N = 245$, * = $p < .05$, ** = $p < .001$

Table 2: Correlation matrix of potential control variables.

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1.Age	70.25	5.93												
2.Marital	2.06	0.33	.03											
3.Health	3.7	0.83	-.04	.00										
4.Recess	3.17	0.98	.11	.00	.01									
					-									
5.YrsRetire	11.18	6.79	**	.05	.15	.00								
				.43	*									
6.PAssets	0.29	0.57	.10	**	-.03	.03	.12							
						-								
7.NetWorth	7.25	2.53	.00	-.06	.27	.13		-						
					**	*	-.07	.02						
8.Race	0.08	0.4	-.01	-.04	-.03	.07	-.08	* .14	.04					
							-							
9.Education	5.31	2.16	.01	-.07	.18	.09	.17	-	.45					
					**		*	.01	**	.12				
					-			-						
10.FiDepen	1.29	1.19	-.09	.04	.14	.16		-	.13		-			
					*	*	-.07	.07	*	.03	.04			
11.Work	35.73	6.07	-.03	.08	.07	.01	-.13	.03	-.03	.08	.08	.11		
						-				-	-			
12.RetirSat	5.78	0.94	-.06	.03	.26	.13		-	.35			.32		
					**	*	-.06	.12	**	.04	.09	**	.00	
					-						-			
13.FinaSat	5.82	1.2	.17	-.05	.24	.17	.14	-	.50	-	.21	.28		.44
			**		**	**	*	.06	**	.08	**	**	-.11	**

Note: $N = 245$, $* = p < .05$, $** = p < .001$

Complete list of variables:

1. Age (in years)
2. Marital status
3. Health status
4. Subjective impact of recession rated in terms of importance
5. Number of years retired
6. Degree of pooled assets
7. Total net worth
8. Race
9. Highest education achieved
10. Number of financial dependents
11. Number of years employed at organization
12. Retirement satisfaction
13. Financial satisfaction

Table 3: Means and standard deviations of predictor and outcome variables separated by nature of retirement.

	Voluntary Retirees	Involuntary Retirees
Age	70.24 (5.93)	70.33 (6.04)
Health	3.79 (.79)	3.25 (.90)
Objective finances	6.35 (1.85)	5.66 (1.81)
Subjective financial adequacy	5.67 (.89)	4.63 (1.14)
Subjective impact of recession	2.54 (.73)	1.95 (.71)
Financial satisfaction	5.98 (1.06)	4.96 (1.46)
Retirement satisfaction	5.73 (.75)	4.82 (1.35)

Note: *N* voluntary retirees = 205, *N* involuntary retirees = 40; standard deviation reported in parentheses

Table 4: Hierarchical regression of objective finances and subjective financial adequacy as predictors of retirement satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	<i>p</i> -value
Model 1	Constant	5.02	.21	.031		.000
	Objective finances	.09	.03			.006
Model 2	Constant	3.27	.30	.217	.186	.000
	Objective finances	-.04	.03			.197
	Subjective financial adequacy	.47	.06			.000

Table 5: Hierarchical regression of objective finances and subjective financial adequacy as predictors of financial satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	<i>p</i> -value
Model 1	Constant	4.06	.24	.189		.000
	Objective finances	.28	.04			.000
Model 2	Constant	.70	.27	.607	.418	.011
	Objective finances	.03	.03			.383
	Subjective financial adequacy	.90	.06			.000

Table 6: Hierarchical regression of subjective financial adequacy and recession variables as predictors of retirement satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	3.23	.30	.212		.000
	Subjective financial adequacy	.43	.05			.000
Model 2	Constant	3.05	.32	.219	.008	.000
	Subjective financial adequacy	.42	.06			.000
	Objective	.14	.11			.207
	Recession					
	Subjective Recession	.07	.07			.359

Table 7: Hierarchical regression of subjective financial adequacy and recession variables as predictors of financial satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	.72	.27	.606		.008
	Subjective financial adequacy	.93	.05			.000
Model 2	Constant	.53	.28	.622	.021	.062
	Subjective financial adequacy	.87	.05			.000
	Objective	-.12	.10			.211
	Recession					
	Subjective Recession	.22	.07			.001

Table 8. Moderated regression of subjective financial adequacy and nature of retirement as predictors of retirement satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	5.67	.06	.251		.000
	Subjective financial adequacy	.35	.06			.000
	Nature of retirement	-.55	.15			.000
Model 2	Constant	5.69	.06	.290	.039	.000
	Subjective financial adequacy	.24	.06			.000
	Nature of retirement	-.26	.17			.128
	Subjective financial adequacy *	.47	.13			.000
	Nature of retirement					

Table 9. Moderated regression of subjective financial adequacy and nature of retirement as predictors of financial satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	5.83	.05	.607		.000
	Subjective financial adequacy	.92	.05			.000
	Nature of retirement	-.07	.14			.621
Model 2	Constant	5.84	.05	.613	.006	.000
	Subjective financial adequacy	.86	.06			.000
	Nature of retirement	.07	.16			.641
	Subjective financial adequacy*	.23	.12			.056
	nature of retirement					

Table 10. Moderated regression of the subjective impact of the recession and nature of retirement as predictors of retirement satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	5.72	.06	.136		.000
	Subjective impact of recession	.11	.08			.183
	Nature of retirement	-.87	.15			.000
Model 2	Constant	5.72	.06	.143	.007	.000
	Subjective impact of recession	.05	.09			.572
	Nature of retirement	-.80	.16			.000
	Subjective impact of recession* nature of retirement	.28	.20			.161

Table 11. Moderated regression of the subjective impact of the recession and nature of retirement as predictors of financial satisfaction.

	Predictors	Unstandardized B	SE _B	R ²	Δ R ²	p-value
Model 1	Constant	5.96	.08	.143		.000
	Subjective impact of recession	.35	.10			.001
	Nature of retirement	-.89	.20			.000
Model 2	Constant	5.97	.08	.154	.011	.000
	Subjective impact of recession	.26	.11			.019
	Nature of retirement	-.78	.20			.000
	Subjective impact of recession* nature of retirement	.44	.25			.077

FIGURES

Figure 1: Interaction of subjective financial adequacy and voluntary/involuntary groups on retirement satisfaction

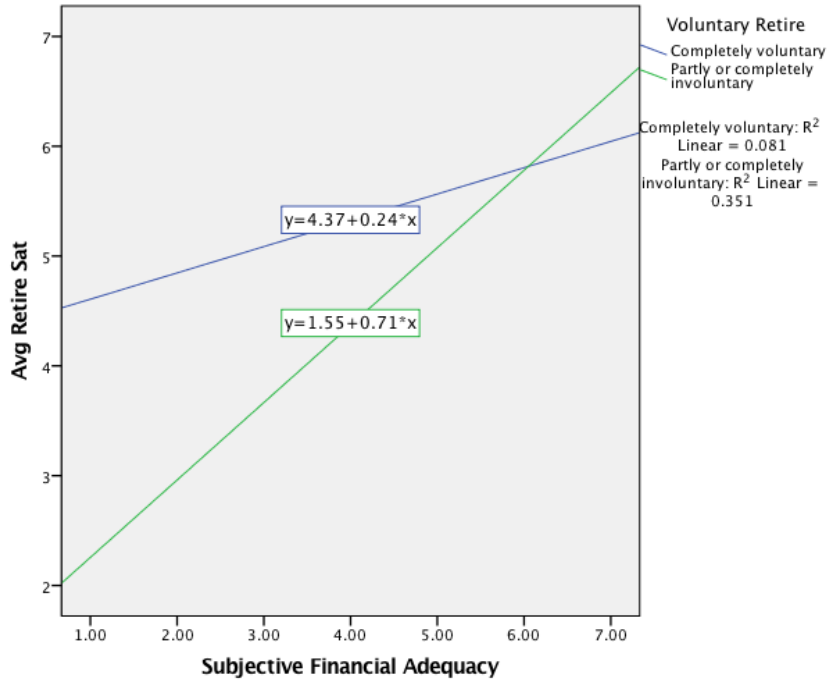
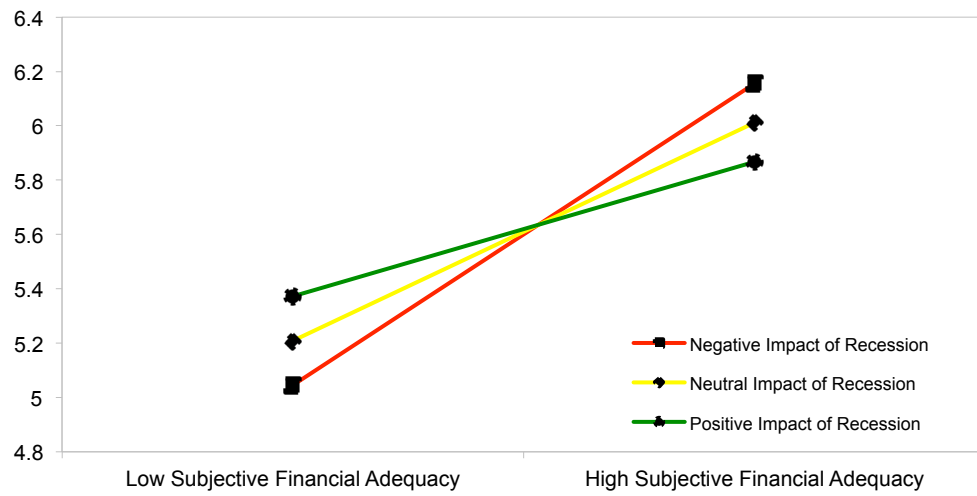


Figure 2: The moderating effect of impact of the recession on the relationship between subjective financial adequacy and retirement satisfaction



APPENDICES

Appendix A

Consent Form

Information about Being in a Research Study

Dr. Mary Anne Taylor, along with Janet Donnelly, a doctoral student at Clemson University, invite you to take part in a research study. Together, we are gathering information from retirees with a partner or a spouse so we can better understand what impacts retirement satisfaction.

As part of the research procedures, you will be asked to answer questions about your retirement for yourself and your partner, including past work experience, finances, and basic demographic questions. This study will be conducted using the on-line survey website “Qualtrics” and it will take no more than 30 minutes to complete.

There are no risks or discomforts to you in this research study. We do not know of any way you would benefit directly from taking part in this study; however, this research may help us to better understand and provide valuable insight into the retirement experience.

We will do everything we can to protect your privacy and confidentiality. All of your responses will be reported in aggregate form, so there will be no way to link any individual identifying data.

As this survey is completely voluntary, you do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time.

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Mary Anne Taylor at Clemson University at taylorm@clemson.edu or Janet Donnelly at donnel4@clemson.edu.

If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-0636 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC’s toll-free number, 866-297-3071.

Please acknowledge the following:

I have read the information above and agree to participate in this research study. By selecting "Agree" you will be taken to the beginning of the survey. Please take this survey on a desktop computer.

Appendix B

Screening Questionnaire

This survey requires that participants are retirees aged 55 or older with a partner or spouse. Please answer the following questions in order to ensure you meet the eligibility criteria for completing the survey.

Please select your gender.

- a. Male
- b. Female

What is your age?

What is your current relationship status?

- a. Single
- b. Married
- c. Domestic Partner
- d. Living with Partner
- e. Separated/Divorced
- f. Widowed

On a scale from 1 to 5, with 1 being poor and 5 being excellent, how would you rate your health at this time?

- 1. Poor
- 2. Fair
- 3. Average
- 4. Very good
- 5. Excellent

Are you currently engaging in any type of paid employment (e.g., part-time/seasonal work)?

- a. Yes
- b. No

Do you consider yourself to be fully retired?

- a. Yes
- b. No

Appendix C

Demographic Questionnaire

What is your race and ethnicity? Please select all that apply

- a. White/Caucasian
- b. Black/African American
- c. Hispanic or Latino
- d. Asian
- e. Native American
- f. Native Hawaiian or other Pacific Islander
- g. Other: Please list _____

What is the highest degree or level of school you have completed?

- a. Some high school, no diploma
- b. High school graduate
- c. Some college, no degree
- d. Associate degree
- e. Bachelor's degree
- f. Some graduate school
- g. Master's degree
- h. Professional/Doctorate degree

How many people are financially dependent on you (including children, parents, etc.)

Long-term career employment is defined as a full-time position held for at least 10 years in your career vocation, either with the same employer or in an equivalent position with a different employer.

In years, how long were you employed by Con Edison? _____

What was your occupation in your most recent full-time career at Con Edison? Please choose one:

- a. Professional (professional certification and practicing such as accountant, nurse, engineer)
- b. Managerial (leader/manager of employees)
- c. Sales and clerical
- d. Production and service
- e. Other _____

In the past, has your **partner** been employed in a career? Long-term career employment is defined as a full-time position held for at least 10 years in a career vocation, either with the same employer or in an equivalent position with a different employer.

- a. Yes
- b. No

Is your partner currently employed?

- a. Yes
- b. No

What was your partner's approximate date of retirement? Please provide the month and year.

Is your partner currently engaging in any type of paid employment (e.g., part-time/seasonal work)?

- a. Yes
- b. No

Does your partner consider him/herself to be fully retired?

- a. Yes
- b. No

Appendix D

Objective Finances

Objective Individual Finances

For the following question, please report your **own individual annual** income before taxes based on your **individual** Social Security benefits, pensions, and other assets.

- a. Under \$15,000
- b. \$15,000-\$29,999
- c. \$30,00-\$44,999
- d. \$45,000-\$59,999
- e. \$60,000-\$74,999
- f. \$75,000-\$89,999
- g. \$90,000-\$104,999
- h. \$105,000-\$119,999
- i. \$120,000-\$135,000
- j. Over \$135,000

Objective Joint Finances

For the following question, please report your **total joint annual income** before taxes based on **you and your partner's** Social Security benefits, pensions, and other assets.

- a. Under \$15,000
- b. \$15,000-\$29,999
- c. \$30,00-\$44,999
- d. \$45,000-\$59,999
- e. \$60,000-\$74,999
- f. \$75,000-\$89,999
- g. \$90,000-\$104,999
- h. \$105,000-\$119,999
- i. \$120,000-\$135,000
- j. Over \$135,000

Do you and your partner pool (or group together) your assets?

- a. Our assets are completely pooled
- b. Our assets are partially pooled
- c. Our assets are kept completely separate

Please estimate your household's total net worth. This includes savings, net house value, business assets, direct stock holdings, etc.

- a. \$100,000-\$200,000

- b. \$200,000-\$300,000
- c. \$300,000-\$400,000
- d. \$400,000-\$500,000
- e. \$500,000-\$600,000
- f. \$600,000-\$700,000
- g. \$700,000-\$800,000
- h. \$800,000-\$900,000
- i. Over \$900,000

Appendix E

Subjective Financial Adequacy

Subjective Individual Financial Adequacy

Please respond to the following statements with the response that best represents your opinion. Use the rating scale provided below:

Compared to other retirees similar to me, I think my financial situation is:

- a. Much worse
- b. Moderately worse
- c. Somewhat worse
- d. Neither worse nor better
- e. Somewhat better
- f. Moderately better
- g. Much better

When I think about how adequate my finances are to meet my needs, I would say they are:

- a. Extremely inadequate
- b. Moderately inadequate
- c. Somewhat inadequate
- d. Neither adequate nor inadequate
- e. Somewhat adequate
- f. Moderately adequate
- g. Extremely adequate

Subjective Joint Financial Adequacy

Please respond to the following statements with the response that best represents your opinion for yourself and your partner. Use the rating scale provided below:

Compared to other retirees similar to us, I think our joint financial situation is:

- h. Much worse
- i. Moderately worse
- j. Somewhat worse
- k. Neither worse nor better
- l. Somewhat better
- m. Moderately better
- n. Much better

When I think about how adequate our finances are to meet our needs as a couple, I would say they are:

- h. Extremely inadequate
- i. Moderately inadequate
- j. Somewhat inadequate
- k. Neither adequate nor inadequate
- l. Somewhat adequate
- m. Moderately adequate
- n. Extremely adequate

Please rate the extent of your agreement with the following statement:

In general, I would say that my partner and I have enough money to meet our needs

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Appendix F

Nature of Retirement

Do you perceive your retirement from your career job as voluntary?

- a. Yes, completely voluntary
- b. No, partly involuntary
- c. No, completely involuntary

If your retirement was perceived as involuntary, please indicate the reason:

- a. Health-related issues
- b. Layoff
- c. Caregiver responsibilities
- d. Other reasons—Please list: _____

Appendix G

Impact of Recession

Objective Impact of Recession

What was your approximate date of retirement? Please provide the month and year.

Subjective Impact of Recession

Please respond to the following statement with the response that best represents your opinion. Use the rating scale provided below:

When I think about the impact of the recession on my retirement, I would describe it as:

- a. Very negative
- b. Somewhat negative
- c. Neither negative nor positive
- d. Somewhat positive
- e. Very positive

Overall, when I think about how important the impact of the recession was on my retirement, I would describe it as:

- a. Very unimportant
- b. Somewhat unimportant
- c. Neither important nor unimportant
- d. Somewhat important
- e. Very important

Appendix H

Retirement Satisfaction

Please respond to the following statements with the response that best represents your opinion.

Overall, how does your life since retirement compare with your life before retirement?

- a. Much worse
- b. Worse
- c. Somewhat worse
- d. Somewhat better
- e. Better
- f. Much better

Overall, how satisfied are you with your retirement right now?

- a. Very dissatisfied
- b. Somewhat dissatisfied
- c. Dissatisfied
- d. Neither satisfied nor dissatisfied
- e. Satisfied
- f. Somewhat satisfied
- g. Very satisfied

Relative to your expectations about retirement, how do you feel about your retirement experience now?

- a. Much worse than expected
- b. Worse than expected
- c. Somewhat worse than expected
- d. Somewhat better than expected
- e. Better than expected
- f. Much better than expected

Appendix I

Financial Satisfaction

When I think about my level of financial satisfaction, I would say that I am:

- a. Extremely dissatisfied
- b. Moderately dissatisfied
- c. Somewhat dissatisfied
- d. Neither dissatisfied nor satisfied
- e. Somewhat satisfied
- f. Moderately satisfied
- g. Extremely satisfied

The following question asks you to consider both yourself and your partner. Please consider their opinion in your answer, and choose a response that best represents **both** you and your partner jointly.

Overall, thinking of your combined assets, debts, and savings, I would rate our level of satisfaction over our joint financial income as:

- a. Extremely dissatisfied
- b. Moderately dissatisfied
- c. Somewhat dissatisfied
- d. Neither dissatisfied nor satisfied
- e. Somewhat satisfied
- f. Moderately satisfied
- g. Extremely satisfied