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HEALTH FACTORS AND THE TO-WORK, AT-WORK, AND TO-RETIRE GOALS OF OLDER WORKERS

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HEALTH FACTORS AND THE TO-WORK, AT-WORK, AND TO-RETIRE GOALS OF OLDER WORKERS

A Thesis

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

in

Psychology:

Industrial/Organizational

---

by

Thomas John Borawski Jr.

March 2016

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Approved by:

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ABSTRACT

Our workforce continues to gray due to advances in medical science and new technology, which allows workers to remain in the workforce longer. Furthermore, we need our current workforce to remain motivated and work until an older age due to decreased birth rates and the smaller size of the post baby boomer cohorts. An in-depth examination of the motivation of our aging workforce is necessary to determine how we can increase motivation and keep older workers (those 55 and older) in the workforce longer, while remaining productive. In this study, three divisions of health (i.e., Major Illnesses, Functional Impairments, and Psychosomatic Illnesses) were related to three work goals (i.e., To-Work, At-Work, and To-Retire), combining aspects of the works of Feldman (1994), Shultz and Wang (2007), and Kanfer, Beier, and Ackerman (2012), using archival data extracted through the National Heath and Retirement Study (HRS). A two-step hierarchical regression was conducted with age, gender, wealth, education level, marital status, financial control, and ethnicity as covariates. Most hypotheses were partially supported, with Functional Impairments exhibiting a small effect on To-Work, At-Work, and To-Retire goals. Major Illnesses exhibited some unexpected relationships, however, as they were not positively related to To-Work and To-Retire goals. All health factors exhibited a negative relationship with a small effect on At-Work goals.

DEDICATION

Completing this study has certainly been a worthwhile journey, which never would have come to fruition without the fervent support of multiple parties, not least of all Dr. Kenneth Shultz. I would certainly like to thank Dr. Shultz, my family, friends, and all of the people that have continued to support me as I have completed this adventure. This body of work is dedicated to them.

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CHAPTER ONE

INTRODUCTION

Why Study The Work Motivation of our Aging Work Force

With recent advances in science and technology, the average human life expectancy is ever increasing. Currently, humans have an average life expectancy of 67 years, with many people living well beyond this age, particularly in developed countries (e.g., in the U.S. the average life expectancy is now 78). How does this affect our workforce? More specifically, with retirement looming in front of them, what kind of goals are older workers directing motivation toward? Are older workers focusing their energy on staying employed, being productive at work, retiring, or a combination of all of these? Finally, what can organizations and co-workers do to foster motivation toward goals beneficial to organizations? – This is not to say that older workers are not highly motivated, this is a common misperception that this paper will address.-These are all questions that are becoming prominent in both the popular press and research literature as we rely more on older workers due to a declining birth rate, increased longevity (as well as worker mean age), and the impending retirement of the baby boomers (OECD, 2006). Keeping older workers in the workforce, while remaining engaged, should have a strong positive impact on organizations.

The baby boomer generation (those born between 1946 and 1964) is entering the age that has traditionally meant mandatory retirement in the U.S. (i.e., age 65), until the 1980s (Shultz & Wang, 2011). However, even after we

lose this large segment of the workforce to retirement, our society will be older in terms of percentage, as well as median age (Shultz & Adams, 2007). In Belgium alone, half of the individuals who will be over the age of 65 in 2050 are projected to be employed (OECD, 2003). With all of these startling statistics, it's not hard to comprehend why companies in western European countries, along with the United States, are re-assessing their organizational policies towards retirement and staffing concerning older workers (Shultz & Morton, 2000). Furthermore, due to technological advances and a shifting labor market, jobs requiring manual labor are not nearly as widespread as they once were. Most positions now focus on knowledge and professional services (Wang, Olson, & Shultz, 2013). Essentially, this means older workers can and will be needed to work until an older age. With the baby boomer cohort (including those in important managerial positions and those possessing special skills) on the edge of retirement though, how can we continue to solicit strong work performance from older workers rapidly approaching retirement?

Ekerdt (2010) states that career cessation and reduced work effort are precursors to retirement, therefore leading to lower work performance. It is our job as organizational psychologists to understand in what context this assertion is valid and to strive to foster a conducive environment for older workers, which in turn should increase their motivation to continue to work and be productive at work in such situations. Organizations need their workers to be productive. If older workers are not productive (which may include passing along valuable

knowledge and experience to younger workers), there will not be a reason for organizations to continue to employ them. As will be shown in this paper, however, older workers may remain very productive, depending upon their circumstances. In the end, the dividends from the retention and increased productivity of these older workers will be seen through a larger, more motivated and experienced workforce, knowledge and skill transfer to younger employees, as well as positive retirement adjustments of employees once they finally decide to retire on their own terms (Shultz & Wang, 2011). It is unacceptable for organizations to under-utilize such an important part of our working population, as Peterson and Spiker (2005) argue is currently happening. Boumans, De Jong, and Janssen (2011) also recognize that we need to retain aging workers to prevent the loss of the experience and knowledge they possess

Who is an “Older Worker”?

In light of the obvious benefits of studying the motivation of our older workers, specificity is needed. What actually constitutes the aging workforce? When examining the literature on this subject, it is readily apparent that the term “older worker” means something different depending on whom you ask. Across the various research studies focused on the aging workforce, there is little agreement as to what constitutes an older worker. To some researchers, 45 and older constitutes an “older worker,” while for others the age is 55 and older. Other researchers simply state that those who could be receiving a pension, but are currently working (this age varies depending on the organization) are older

workers. As the nature of work changes, the age of retirement and what constitutes an older worker changes as well. An example of this would be Germany setting the retirement age at 70 in 1889 and then reducing it to 65 in 1916 (Shultz & Wang, 2011).

Workers may also feel older or younger than their chronological age depending on their physical health, technological aptitude, and level of experience (Adams & Shultz, 2007). This is important because feeling older than your chronological age could lead to a focus on retirement goals. If we can reliably relate our research on aging issues to workers possessing similar levels of these variables, our research will become more generalizable. Our research field as a whole needs to determine a standard with which we can apply to determine what constitutes the aging workforce. Without consistently examining the same population, our research results will surely vary greatly (Shultz & Wang, 2011).

Having said this, when the “aging workforce” is referred to hereafter, you may presume it is in reference to workers 55 and older. Those 55 and older have been legally recognized as older workers at various points in the past, including the Older American’s Act (1965), Job Training Partnership Act (1982) and the Workforce Investment Act (2000) (Sterns & Doverspike, 1989). This parameter allows us to conduct research on and generalize to a large population who will most likely be in the workforce for another decade or more. Therefore, the results of this research may become more meaningful to organizations, since it is

relevant to a large segment of their workforce. It's worth noting that the number of workers over age 55 is growing at four times the rate of the overall workforce (Alley & Crimmins, 2007).

How are Older Workers Motivated?

With a clear idea of what constitutes our target group, we can now discuss motivational sources of older workers. Throughout this section, it is necessary to understand that like psychology in general, there is no singular theory that encompasses all the aspects leading to older workers being highly motivated (Kanfer & Ackerman, 2004). In actuality, many factors play a role, such as working conditions, affective reactions to work, working environment, rewards available, and opportunity for advancement (Barnes-Farrell & Matthews, 2007). Individual differences have also been shown to have a major role in the equation, such as physical health and age. Throughout the literature there is dispute of whether or not age should be seen as the most indicative characteristic of older workers' motivation or if the other individual and situational factors presented above are more telling.

According to Barnes-Farrell and Matthews (2007), a combination of working conditions, affective reactions to work, working environment, rewards available, and opportunity for advancement is determinant of the level of engagement and activity in the organization displayed by all workers. These authors actually suggest that we will increase our knowledge of the motivational sources of aging workers by treating age as a filter to examine other variables

with, and not as a cause of how efforts are focused. They espouse that older workers experience working conditions, affective reactions to work, working environment, rewards available, and opportunity for advancement through this filter. Among many other factors, physical health, organizational policy, and societal stereotypes all determine how the filter is shaped. With this basic understanding of a multi-dimensional perspective among the aging workforce, we now have an idea of where to begin if we want to refocus older workers on staying in the work force longer, while being highly productive at work. So, with age as a filter let's examine intrinsic and extrinsic motivation.

Intrinsic and Extrinsic Motivation

Motivational sources for those in the aging workforce are influenced by multitudes of factors. Some of these are external factors (e.g., job enrichment, rewards available, working environment) and some of these are internal factors (e.g., affective reactions to work, physical health, work-family perspective). One of the questions researchers have been searching for an answer to is: which set of factors affect motivation more, intrinsic or extrinsic?

Workers' views change as they age and their filter changes. According to research by Boumans et al. (2011), new workers trying to improve their skill-sets may be extrinsically fueled. Their argument is that improving these skills will lead to more opportunities (external rewards). That is to say, younger workers are more motivated by extrinsic rewards. Conversely, Boumans et al. (2011) state that older workers are more intrinsically motivated and experience more job

satisfaction through intrinsic rewards. This may be directly related to the fact that career opportunities decline with age (Mehrabian & Blum, 1996; Wright & Hamilton, 1978). Physical health may also play an important role in the equation, since workers must be healthy in order to continue to focus on work (Chung, Domino, Stearns, & Popkin, 2009). In any case, the finding is informative as it can help organizations decide how to shape the working environment and address their employees' motivational needs.

Since most current evidence supports an intrinsic focus for older workers, let's examine Boumans et al. (2011) in more depth. Their particular study used the Job Diagnostic Survey (JDS), made famous by Hackman and Oldham (1980) measuring the five task characteristics of autonomy, skill variety, feedback, task identity, and task significance. These five task characteristics were combined into one number known as the Motivational Potential Score (MPS). This MPS was supposed to represent work content and Boumans et al. (2011) attempted to relate this variable to work motivation. Results showed that older workers with a high MPS were highly motivated; the same was not true of younger workers. Given that the MPS was based on intrinsically motivating task characteristics, we may surmise that older workers focus on more intrinsic motivators. This is thought to be true because as older workers age, their career opportunities decline and some become comfortable with their current position. Thus, there are few externally motivating rewards for these workers to garnish. In fact, as career

opportunities increased older workers did not score higher on the motivation scale.

Growth Need Strength (GNS) is an example of the power intrinsic factors have on the motivation of older workers. GNS was found to be a moderator in the original study conducted by Hackman and Oldham (1975). Growth Need Strength is defined as an individual difference that determines “how positively an employee will respond to a job with objectively high motivating potential” (Hackman & Oldham, 1975, p. 163). It explained a large portion of the relationship between job characteristics, critical psychological states, and outcomes. It was found in the original study that those with higher GNS experienced a stronger correlation between job characteristics and various outcomes (e.g., higher motivation, less absenteeism, higher work performance). In a study by Lord (2002), GNS was found in higher levels in older workers and it moderated the correlation between job characteristics and motivation.

This finding supports theories that state older workers are more motivated than younger workers under the same circumstances. We may even be able to surmise that highly enriched jobs held by a population with high GNS (the aging workforce) may lead to increased satisfaction and thereby motivation. In order for this to be relevant, however, we must first fulfill basic needs, such as physical health (Chung et. al 2009).

Maslow's Hierarchy of Needs

Knowing that internal factors are important to older workers, what internal factor can organizations attempt to control for that will also largely impact the goal focus of older workers? Before we can answer this question, we need to understand the needs of older workers, specifically their basic needs. These basic needs must be met before GNS can play an important role in the motivation of older workers. The aging workforce clearly gravitates toward challenging tasks that provide an inner satisfaction upon completion, fulfilling an achievement orientation that becomes stronger with age (Boumans et al., 2011). This magnified need for achievement is part of a shift workers undergo as they age. This shift involves focusing on fulfillment of higher order needs, rather than the basic necessities (if the basic necessities are met). For example, Lord (2002) conducted a study of younger and older engineers and found that older engineers, with financial security in their planned retirement, continue to work to fulfill the higher levels of Maslow's Hierarchy of Needs. This means that older engineers were more focused on self-esteem needs, such as achievement. This is in direct contrast to the younger engineers who were found to focus on fulfillment of needs lower on the hierarchy, for instance, security needs (in the organizational sense this may mean having job security) and physiological needs (such as general physical health).

Lord's (2002) study clearly shows that as we age, we climb Maslow's Hierarchy of Needs, which drastically changes what motivates us, as long as we

are able to meet those lower level needs. Therefore, with so many different generations in the workplace today (e.g., Early Boomers, Middle Boomers, Late Boomers, Generation X, Generation Y), managers need to be aware of the differences in motivating younger versus older workers. As previously stated, one approach will successfully motivate a certain group, yet will be ineffective in motivating a different group (Carter-Steward, 2009). This is not to say that all older workers are intrinsically motivated and all younger workers are extrinsically motivated. In fact, the key purpose of including Maslow's Hierarchy of Needs in this literature review is not to say that older workers are all fulfilling their higher level needs. Actually, it is to show that workers climb the hierarchy and will focus on the lowest level of needs if they are not met. This leads to an understanding that workers must have met their health needs in order to focus on garnering higher level achievements.

Variables

Health

Understanding that lower level physiological needs, such as physical health, need to be met before older workers will focus on achievement needs, we can now examine health in-depth. Physical health is an important variable in this study due to the major effect it has on worker motivation and retirement planning (Albert, 2006; Barnes-Farrell, 2003). Palmore, Fillenbaum, and George (1984), report that poor health is a precursor of retirement. Subsequently, health may have a strong effect on psychological commitment to work. Decreasing

psychological commitment to work may lead to a shift or decrease in worker motivation (Kanfer, Beier, & Ackerman, 2012). As we will discuss later, work motivation of older workers can be divided into three different goal focuses, To-Work, At-Work, and To-Retire (Kanfer et. al, 2012).

The current study has focused on several propositions from Kanfer, Beier, and Ackerman (2012) and their model of work motivation and goals for older workers. As discussed throughout this paper, previous research has mostly supported that older workers are usually intrinsically motivated. Furthermore, workers must focus on fulfilling their basic physiological needs before they will focus on self-esteem level needs, such as achievement. This leads us to propose that physical health is an integral variable, strongly related to the aforementioned three goal focuses, as suggested by Kanfer, Beier, and Ackerman's model (2012). In this model, physical health is considered a "person-context transaction variable" with a proposed relationship to these goal focuses. To-Work goals focus on staying in a job arrangement that fits the employee and At-Work goals focus on accomplishing things at work, such as being productive or receiving recognition for a job well done. To-Retire goals focus on retirement planning and exiting the work force.

If workers are in good health, they may not necessarily be focusing on To-Retire goals as they age. They may instead be more focused on To-Work and At-Work goals, having already met their basic physiological need of physical health (Lord, 2002). Conversely, those workers who begin to experience a health

decline are more likely to start planning for retirement and therefore shifting their efforts toward To-Retire goals. Albert (2006) believes that retirement planning may be a coping mechanism to deal with stress brought on by health decline.

Declining physical health is something that many older workers worry about, with some entering retirement sooner than expected due to a fear that physical health limitations may affect their enjoyment of retirement. Health is one of the most important topics concerning older workers (Albert, 2006; Zhan, Wang, & Shultz, 2009). Our study included measures of physical health in order to examine whether physical health has a positive or negative correlation with the above mentioned goal types. We have assessed physical health as many previous studies have done using an archival data set (the Health and Retirement Study), by taking into account physical conditions (hypertension, heart disease, cancer, lung disease, hearing loss, etc.). Using this method to assess physical health has given us an objective view of physical health, rather than relying on subjective measures, such as “Would you say your health is excellent, very good, good, fair, or poor?” (Ailshire, Beltrán-Sánchez, & Crimmins, 2011; Chung, Domino, Stearns, & Popkin, 2009).

Feldman (1994) hypothesized that health would predict three different retirement-related decisions, much as this study has attempt to do. Feldman (1994) examined the decisions of workers to pursue bridge employment in their current occupation and/or industries, pursue bridge employment in different occupations and/or industries, and retire early. Although focused mainly on

bridge employment, these decisions all involve our current definition of retirement, which no longer refers to exiting the workforce altogether (Wang, Olson, & Shultz, 2013). Furthermore, the definition of physical health in this study was approached in a novel manner. As Jex, Wang, and Zarubin (2007) state, there is a need for more research which examines specific health conditions and their effect on the retirement/employment of older workers. Feldman (1994) and Shultz and Wang (2007) both assert that the “global self-rating” of health that is generally used in many studies does not provide us with a knowledge base of the effects specific health conditions have on retirement-related decisions. Therefore, Feldman (1994) recommended dividing physical health into three specific categories (major physical illnesses, functional impairments, and psychosomatic illnesses).

Since relating the singular variable of physical health provides relatively little specificity and therefore applicability to our findings, we have categorized health in the same fashion as Feldman’s hypothesis 4, which stated, “Individuals with major physical illnesses and functional impairments will be more likely to retire early and will be less likely to accept bridge employment; individuals with psychosomatic illnesses will be less likely to retire early and more likely to accept bridge employment” (Feldman, 1994, p. 296). This gives us three different categories of health, major illnesses (e.g., cancer, stroke, etc.), functional impairments (e.g., hearing or memory loss, etc.), and psychosomatic illnesses (e.g., difficulty sleeping, migraines, etc.). According to Feldman (1994), major

illnesses are related to workers retiring, functional impairments are related to workers entering retirement (which includes a general loss of psychological commitment to work), and psychosomatic illnesses are related to seeking out work with fewer demands/responsibilities. Each division of health affects the decision to retire, achieve at work, and seek out a work arrangement, in a unique manner.

More recently, Shultz and Wang (2007) examined various health effects on retirement decisions by using Feldman's hypothesis 4 definition of physical health. Using longitudinal data from the American's Changing Lives (ACL) data set, Shultz and Wang predicted that workers who retired would have higher instances of major physical impairments, those that kept the same job would report the least amount of major physical impairments and the least amount of minor health conditions, and those who changed jobs would report high amounts of minor health conditions. Shultz and Wang found support for all of these predictions, but stated that major physical impairments were not very prevalent, possibly due to the fact that their sample was small. The present study has attempted to further this research by examining retirement-related goal focuses with the same emphasis placed on the specificity of health conditions, examining psychosomatic illnesses (as suggested by the researchers for future endeavors), and measuring health with objective measures (also suggested by the researchers). With the hypotheses that Feldman (1994) and Shultz and Wang (2007) examined, we have expanded our knowledge of specific health conditions

related to retirement and bridge employment situations. Now, we will focus on the relationship between these specific health conditions and motivation in older workers. While similar to Feldman (1994) and Shultz and Wang (2007), framing our hypotheses from a motivational perspective will help us determine how to keep our older workers engaged and productive, active members in their current positions. This will foster an understanding of where and how we need to intervene to affect the work motivation of older workers.

Overall Motivation to Work

In addition to our earlier finding that older workers are generally more intrinsically motivated than younger workers, older workers are also more motivated overall than younger workers. This is very surprising considering most people would think that younger workers would be more ambitious and motivated to begin their career successfully and advance rapidly through the ranks. However, Paynter (2004) completed a study which scored both the intrinsic and extrinsic motivation of teachers over 50 years old and those between 20-39 years old. Those workers over 50 years old scored higher on overall motivation to work (selective attrition is a possible cause). Surprisingly, the older working population was more motivated to work than those just starting out. Boumans et al. (2011) surmised that context played a significant role in this finding. In their study, they actually found that in addition to being more intrinsically motivated, older workers relied upon context to boost their motivation. Specifically, social support from co-workers and supervisors was significantly and positively related to work

motivation. This may mean that with appropriate social support, older workers may find their health issues easier to cope with, thereby keeping them engaged in the work force.

Kanfer, Beier, and Ackerman Model

Even if older workers are highly motivated, it is important to direct their energy in a beneficial direction at work. Kanfer, Beier, and Ackerman (2012) have recently proposed a model that may explain why older workers may be perceived as unmotivated. According to these researchers, work motivation may be divided between three different goals that older workers develop. Each of these goals involves work, but energy directed toward some of these "work" goals may benefit an organization, whereas energy directed toward others will not necessarily help an organization continue to garner productivity from those employees. This model is outlined in Figure 1 below.

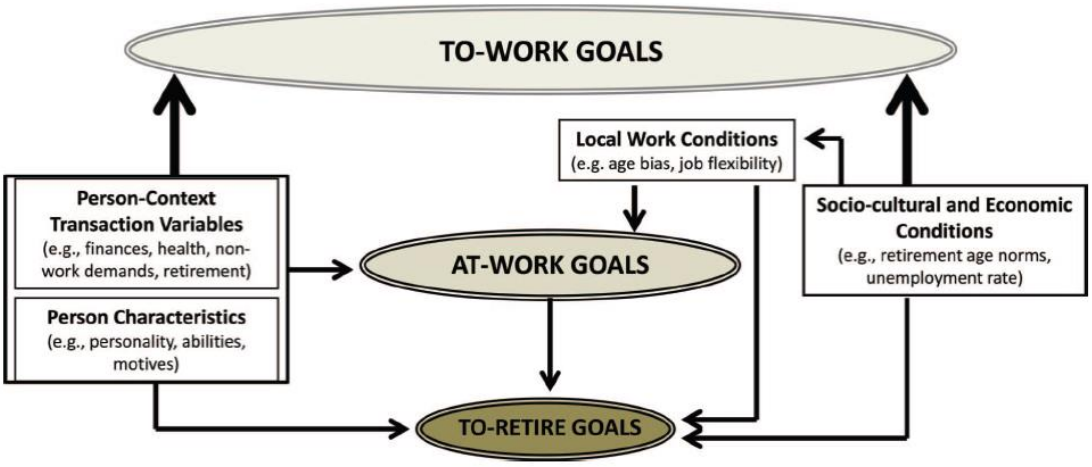

Figure 1. An organizing framework of work-related goals and their determinants in later adulthood.

Figure 1. An Organizing Framework of Work-Related Goals and Their Determinants in Later Adulthood

Kanfer, R., Beier, M.E., and Ackerman, P.L. (2012). Goals and motivation related to work in later adulthood: an organizing framework. *European Journal of Work and Organizational Psychology, 22(3),* 253-264.

The three main categories of goals in Kanfer et al.'s model are motivation toward To-Work goals, At-Work goals, and To-Retire goals. Motivation is directed toward each of these goals depending on several factors, person-context transaction variables, person characteristics, local work conditions, and socio-cultural and economic conditions. The only one of these factors which does not affect all three goal categories is local work conditions. To understand this and the overall flow of the model, we will need to describe it in-depth.

To-Work. Our definition of To-Work goals consists of directing energy toward finding work and retaining a work arrangement. Older workers focused on To-Work goals will be motivated to find a position, possibly with little preference as to what the position entails. The key here is that the position will provide either some sort of financial benefit or fill an intrinsic need. Unfortunately, individuals who are focused on To-Work goals are not necessarily focused on working very hard once they find a position. Moreover, individuals focused on these goals are looking for the benefits of having a steady work arrangement, but are not necessarily motivated to fulfill the responsibilities of that arrangement (Kanfer et al., 2012).

We may find that older workers may be focusing more energy on To-Work goals as the economy is not that strong and retirement funds and pensions are attacked on a daily basis. For organizations, the positive side of goals such as these is that older workers motivated to achieve these goals will be looking for positions (or choosing to stay in their current positions longer), giving organizations many experienced, knowledgeable candidates from which to choose. As discussed earlier, this will be necessary to keep the management structure of organizations intact as organizations begin to experience the exodus of the Baby Boomer cohort (Boumans, De Jong, & Janssen, 2011). The key is that older workers with these goals must also direct energy to the next set of goals in the model, At-Work goals.

At-Work. Our definition of At-Work goals focuses on job accomplishments, the drive to continue achieving and performing highly at work. According to Kanfer et al. (2012), At-Work goals consist of intrinsic (continuing to hone important job skills) and extrinsic (maintaining high performance at work) outcomes. Essentially, older workers who direct energy toward At-Work goals will continue to strive for high performance and productivity at their positions. Ideally, organizations want older workers (and all workers for that matter) to focus on these goals, thereby allowing us to maximize utilization of their valuable experience and knowledge. If workers focus some energy on To-Work goals, it is extremely important that organizations try to focus them on At-Work goals as well. Since these individuals work in an organization, they are clearly meeting

their To-Work goals at a basic level, since they are employed. Once in this job arrangement, their motivational focus needs to include At-Work goals (productivity, notable accomplishments, innovation, etc.), and they will either apply effort to reach these goals, or will be satisfied with simply remaining employed. If workers apply effort toward At-Work goals, organizations would have workers who are motivated to keep working at a high level.

Many factors determine whether or not older workers will in fact focus their energy toward At-Work goals. The most notable in this model are person-context transaction factors. If older workers feel that their ability to perform on the job is declining with age, their self-efficacy will decline as well (Kanfer & Ackerman, 2004). This will also affect work attitudes and may lead to a decline in performance and eventual exit from the workforce. Similarly, if workers are not pleased with the conditions under which they must perform their job (conditions may adversely affect their health, family life, etc.), they may not perform well and may even focus more energy on To-Work goals with another company. As we know, physical health is strongly related to work decisions made by older workers (e.g., bridge employment, retirement, etc.), so it should be a major factor that determines how and where older workers allot their energy (Chung et al., 2009; Feldman, 1994; Jex et al., 2007; Shultz & Wang, 2007). Simply put, if workers are not healthy and do not enjoy their jobs, they may not be very focused on At-Work goals. Furthermore, company policies and co-workers influence At-Work goals in a major way. This being said, age bias is considered an adverse working

condition which, if present, may influence older workers toward our last set of goals.

To-Retire. Our definition of To-Retire goals consists of an exit from the current work arrangement, with little desire for continued full time employment. This may be seen as the direct opposite of To-Work goals, however, this is not necessarily true. As we will discuss, the definition of retirement has changed over the years. To-Retire goals refer to worker motivation to leave their current position, but not necessarily the workforce at large. As organizations, we must appeal to older workers in ways that will keep their energy focused away from To-Retire goals, if we wish to retain their knowledge and experience at our company. This is not to say that focusing more energy toward To-Retire goals will take away from At-Work goals, however, this is a possibility. Organizations need to place special importance on figuring out how to retain their workers and at the same time, keep them working hard and being productive. The entirety of factors we have discussed affect both To-Work goals and To-Retire goals with the most salient factor being physical health, as it lies at the base of the need hierarchy. As can be seen in Maslow's Hierarchy, physical health must be satisfied before moving on to the higher order needs.

When considering health-related factors, there may not be an obvious trend, but it is generally expected that better health will lead to a focus on To-Work goals and away from To-Retire goals. This does depend on many factors, however, with some older workers focusing on To-Retire goals even though they

are physically healthy. These workers may wish to retire while they still have their health, so that they may engage in the leisure activities of their choosing. The hypotheses of our current study will expand our knowledge base on this subject and with the addition of At-Work goals, we may better understand how to keep our older workers engaged and productive.

Hypotheses

Our study will also focus on the relationship of specific health conditions with these goals. Major illnesses are major life events for older workers (or workers of any age, for that matter) as they can be life-threatening (Feldman, 1994), and should thusly lead to a major shift in work-related goals, such as leaving the work force. Functional impairments (e.g., hearing loss) are not necessarily as poignant as major illnesses, but may contribute to difficulty interacting with co-workers and performing work. These functional impairments may thereby lead to a decrease in the motivation to keep working, as well as a decrease in productivity at work. Finally, psychosomatic illnesses as suggested by Feldman (1994), which are rarely examined in this area of research, are not life-threatening and may not impair the ability to complete work. Inclusion of these factors in future research has been suggested by other researchers as well (Shultz & Wang, 2007). However, in the instance of Shultz and Wang (2007), the ACL data set did not include data on psychosomatic illnesses, but fortunately the Health and Retirement Study does include such conditions. As most workers can relate, completing the same amount of work with a migraine headache is a much

more arduous task than completing it without a migraine headache (Feldman, 1994). This lends credence to the theory that psychosomatic illnesses may be related with productivity at work.

In studying these specific health conditions and goal focuses, we seek to answer several important questions on a detailed level. Will those with poor physical health focus less on At-Work goals than those with adequate or superior physical health? Such a relationship would mean that poor physical health is related to lower productivity in older workers. Will poor physical health lead to an increased focus on retirement and away from job seeking behavior? How are these relationships affected by specific health conditions? These questions look to be answered by the following hypotheses:

Hypothesis 1 - To-Work Goals

1a. Major physical illnesses will be negatively related with To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

1b. Functional impairments will be negatively related with To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

1c. Psychosomatic illnesses will be unrelated to To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

Hypothesis 2 - At-Work Goals

2a. Major physical illnesses will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

2b. Functional impairments will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

2c Psychosomatic illnesses will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

Hypothesis 3 - To-Retire Goals

3a. Major physical illnesses will be positively related with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

3b. Functional impairments will be positively related with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

3c. Psychosomatic illnesses will be unrelated with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

CHAPTER TWO

METHOD

Participants

Participants were gathered through the well-known Health and Retirement Study (HRS), consisting of a collection of U.S. workers and retirees, as well as their spouses. Recognizing that factors affecting retirement occur prior to traditional retirement age, the HRS first interviewed participants aged 51-61 years old in 1992. After this initial interview, participants were re-interviewed every other year, even as they entered retirement, with new cohorts periodically added (see Figure 2 below for the data collection flow of the HRS). Since this is a nationally representative and longitudinal data set, the participants vary greatly in background and demographics, and many different careers are able to be examined.

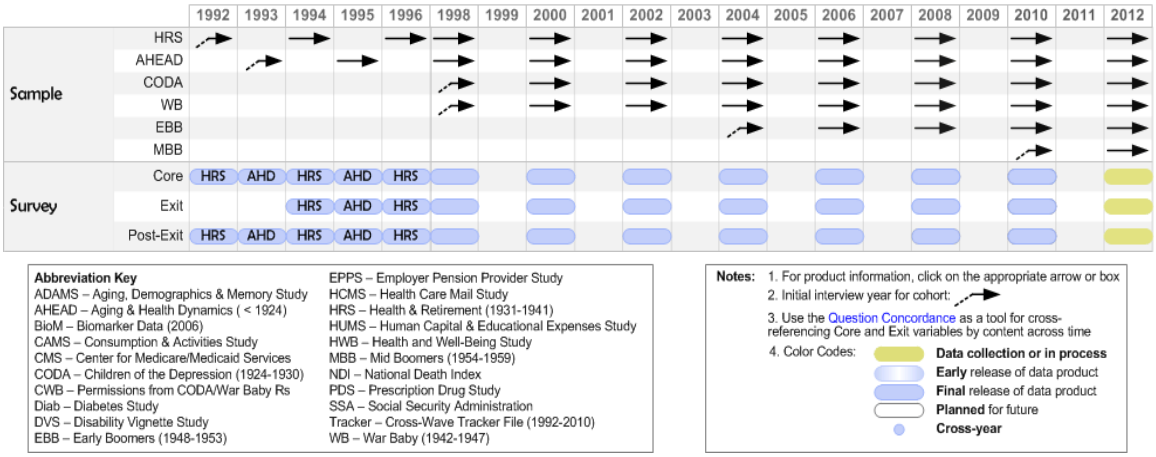

Figure 2. HRS Data Collection Flow
Health and Retirement Study, (HRS 2010 Core FINAL V5.0) public use dataset. Produced and distributed by the University of Michigan with funding from the

National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, (2010).

Specifically, this study used a sample from Wave 10 (2010) which consisted of 22,037 respondents that comprised 15,282 households. This wave was chosen as it encompasses the HRS transition to an “Enhanced Face-to-Face Interview.” This new interview included biomarkers, physical performance measures, and a psychosocial scale. These new features were integral in assessing our At-Work criterion variable. Only those participants aged 55 and older in 2010 who did not consider themselves retired in Wave 10 were used in this study, since older workers have traditionally been recognized at this age. This resulted in a sample size of 1,921 workers.

Procedure

The HRS began in 1992 and at times has been administered to cohorts of up to 26,000 people currently residing in the United States. This number varies up and down depending on how many new participants are interviewed each year, and how many existing participants dropout. It is given to individuals age 51 and older, every two years, with each administration referred to as a “wave”. Information is gathered on participants through an interview lasting several hours. The same interview is conducted with the same respondents to produce a longitudinal data set that extensively examines retirement-related factors. The study is conducted at the University of Michigan under an on-going grant funded by the National Institute on Aging (NIA).

The data from all waves of this study, starting in 1992, is available for public download at the HRS website (http://hrsonline.isr.umich.edu/). As stated above, we examined data from Wave 10 (2010), focusing on specific health conditions and the worker's goal focus. This wave was chosen to be used in this study since it makes use of the Enhanced Face-to-Face Interview. In this Enhanced Face-to-Face Interview, the psychosocial scale provided many items that are able to measure our criterion variables, most notably, the At-Work variable. Among the variables measured by the HRS are demographics, finances (involving income and wealth), various levels of functioning, health, and motivation to continue working. All variables can be related to an individual's transition through the workforce to retirement and the success of that transition. Much of the data is analyzed for use in retirement policies, pensions, and insurance policies (Zhan et al. 2009). For the purposes of this study, health and motivation to continue working were the focal points.

This data set has been used by many researchers to determine the effects of health, financial, and psychosocial variables on older workers. It provides a large, longitudinal sample that is representative of the U.S. population and therefore provides excellent generalizability. Furthermore, use of this data set provides several important advantages to collecting new data. Limited resources were required to obtain this data, permission was not needed to access participants in specific organizations or special populations, and the types of variables assessed represent multiple disciplines. These advantages of archival

data have simplified the research process and provided meaningful enhancements to our research. The disadvantages of using the HRS as a data set are far outweighed by the advantages, but must be addressed nonetheless.

The HRS is an extremely large, complex data set with thousands of variables. This means that extensive data management is required, such as merging and data cleaning. In addition, the scales that represent our variables have been chosen based on expert review and a careful operational definition of our constructs. These are not the most desirable methods used to develop a scale, but with careful consideration our constructs have been represented well. The HRS has such a large quantity of items that meaningful scales are not difficult to derive.

Health

Health is a continuous variable. The HRS questionnaire section that pertains to health is 70 pages, thus extensive health data was gathered. There are both subjective measures “Would you say your health is excellent, very good, good, fair, or poor,” and objective measures “Has a doctor ever told you that you have cancer or a malignant tumor, excluding minor skin cancer?” For the HRS, the definition of a doctor does not include a nurse/nurse practitioner, dentist, or chiropractor. For the purposes of assessing health in the present study, we have used the more objective measures as much as possible. The objective measures should be the most accurate in determining the health of our sample, but some health characteristics do require certain subjective measures to be used.

Specifically, we would have lost a multitude of information on functional impairments if we excluded subjective measures altogether. Responses to these questions were compiled into a composite score for each division of health. The health questions in the HRS interview are situated at the beginning, before any questions relating to work and retirement are asked. This is thought to keep those who retired in good health from citing adverse health conditions as a reason of retirement.

Health conditions were classified according to Feldman's (1994) hypothesis 4. This includes three divisions of health conditions, the first being "major physical illnesses" which includes issues such as diabetes, heart disease, cancer (except minor skin cancer), lung disease, angina, and congestive heart failure, among others (Feldman, 1994; Chung et al., 2009). All of the health conditions in this part of the interview are deemed similar in terms of severity. The next health factor is "functional impairments," which includes work disabilities such as hearing loss and memory loss (Feldman, 1994). These health conditions were determined by responses to subjective questions such as, "Because of a health problem do you have any difficulty with sitting for about two hours?" These conditions impair a worker's ability to function at a high level on a day-to-day basis. Finally, "psychosomatic illnesses" include conditions such as irregular sleeping patterns and headaches (Feldman, 1994). An example of such a measure would be "Have you had persistent headaches?" These conditions, while not necessarily severe, are seen as a nuisance to workers, making tasks

more difficult to complete due to discomfort and may therefore lead to lower productivity. For an exhaustive list of all the health measures that were used in the present study, refer to Appendix E.

Criterion Variables

To-Work Goals

To-Work motivational focus is a continuous variable, defined as the motivation of a person to enter into a formal or informal working arrangement where they receive desired outcomes in exchange for their effort toward organizational goals (Kanfer et al., 2012). To measure this, responses to questions about whether or not a worker is willingly employed, currently looking for a job, or would like to reduce their work hours were assessed. One example of such a question would be, “Are you looking for part-time or full-time work? Answers: Part-Time, Full-Time, Either Kind, DK, RF.” For one reason or another, workers with a To-Work goal focus are looking to maintain a work arrangement of some sort. This may be in part because of a lack of major physical illnesses and functional impairments, or these workers may also enjoy the routine and sense of purpose that may come with a job arrangement. For an exhaustive list of the To-Work goals measures that were used in the present study, refer to Appendix E.

At-Work Goals

At-Work motivational focus is a continuous variable, defined as the motivation of a worker to achieve accolades and recognition at their work due to high performance (Kanfer et al., 2012). To measure this, responses to questions

about moving to a less demanding job, and enjoying going to work were assessed. An example of such a question would be, “I really enjoy going to work. (Do you strongly agree, agree, disagree or strongly disagree with that statement?).” Statements assessing how hard people think they work were also used. An example of such a statement would be, “I do not work as hard as the majority of people around me.” Workers who do not enjoy their work and want to seek a job that is less demanding do not look to achieve great things while in their position. These workers will more likely be focusing on just retaining their current position or seeking out a new one. They will attempt to maintain the status quo and are not looking to be the highest performer. These workers do not usually receive accolades at work, and may in fact be cited for poor performance. For an exhaustive list of the At-Work goals measures that were used in the present study, refer to Appendix E.

To-Retire Goals

To-Retire motivational focus is a continuous variable, defined as the motivation of a worker to exit a current job arrangement, not necessarily exit the entire workforce altogether (Kanfer et al., 2012). To measure this, how much they think about retirement and whether or not they want their work hours reduced were assessed. An example of such a question would be, “How much have you thought about retirement - a lot, some, a little, or hardly at all?” Workers focusing most of their motivation on To-Retire goals may have many major physical illnesses, or functional impairments. These health conditions may be making

work difficult, leaving workers pondering how to exit their current job arrangement, possibly to engage in bridge employment. Retirement continues to become more of a transition, rather than a singular, static event, which is evidence that To-Retire goals are especially important (Wang et al., 2013). There is also the possibility that there may be a relationship between At-Work and To-Retire goals, but that remains to be seen. For an exhaustive list of the To-Retire goals measures that were used in the present study, refer to Appendix E.

Sample

Given that the HRS contains a multitude of branch points in the design, an initial assessment of the data proved troublesome. Depending on the response to a certain item, many participants would be excluded from future items, which were representative of the To-Work, At-Work, and To-Retire constructs. Additionally, participants were randomly selected to complete the Participant Lifestyle Questionnaire (which is derived from the Enhanced Face-to-Face Interview), which provides the items that are most representative of the At-Work construct, specifically. Therefore, the sample (N = 1,921) was selected to only include those individuals who completed the Participant Lifestyle Questionnaire and contained no more than 5% missing data. Additionally, there was no pattern to the missing data and the data was missing completely at random (Tabachnick & Fidell, 2013).

Table 1 in the appendix lists the N, mean, standard deviation, and correlations for all control, predictor, and criterion variables. Demographics of the

sample were as follows: Men (N = 900, 46.9%), Women (N = 1021, 53.1%), White/Caucasian (N = 1,521, 79.2%), Black/African-American (N = 292, 15.2%), and Pacific Islander (N = 106, 5.5%). Categorical variables were dummy coded as follows: Females as “1” and Males as “2”; White/Caucasian was the reference group from which to compare Black/African-Americans and Pacific Islanders. Participants varied in age from 55 - 84 years old (Mean = 62.74, SD = 6.41, Mode = 61), with the age frequency distribution being positively skewed. In regards to marital status the data was proportioned as follows: Married legally and living with spouse (N = 1,311, 68.2%), Separated (N = 38, 2%), Divorced (N = 318, 16.6%), Widowed (N = 148, 7.7%), Never Married (N = 102, 5.3%), and Other (N = 3, 0.2%). Education level ranged from 0 - 17 years in school (Mean = 13.67, SD = 2.68, Mode = 12), with the frequency distribution for education level being negatively skewed. Financial control, which was determined via a 10 point scale with 1 representing no control and 10 representing full control, was proportioned as follows: (Mean = 7.23, SD = 2.31, Mode = 8).

Screening Analyses

All data were subjected to parametric screening to assess normality, univariate and multivariate outliers, linearity, homoscedasticity, and multicollinearity. A missing values analysis was conducted to determine the extent of missing data, of which all variables contained less than 5%. In order to assess univariate outliers, a standard of Z-score +/- 3.3 was used, resulting in the removal of 41 univariate outliers.

The distribution of data for the continuous variables was skewed as follows: Major Illnesses was positively skewed, Psychosomatic Illnesses was positively skewed, Functional Impairments was positively skewed, To-Work goals was negatively skewed, At-Work goals was leptokurtic, Education Level was negatively skewed, Financial Control was negatively skewed, and Age was positively skewed (reiterate min and max ages and explain what positively skewed means in this case). Multivariate outliers were assessed through Mahalanobis distance. Mahalanobis distance was conducted on the data and 8 multivariate outliers were removed. Homoscedasticity and linearity were assessed through scatter-plots, with all variables exhibiting linearity and homoscedasticity. Multicollinearity was assessed through correlations, with no multicollinearity existing based on a Pearson correlation of $r < 0.9$. Finally, VIF and tolerance were assessed, with data meeting the standards of VIF < 10 and Tolerance > 0.10 (Tabachnick & Fidell, 2013).

When assessing the effect sizes, the standards put forth by Keith (2006) were applied. Those standards are as follows: below .05 = too small to be considered meaningful, above .05 = small but meaningful effect, .10 = moderate effect, .25 = large effect.

CHAPTER THREE

RESULTS

Hypothesis 1 - To-Work Goals

1a. Major physical illnesses will be negatively related with To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

1a. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.113$, $F(7, 1833) = 34.51$, $p < .05$. When Major Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.114$, $F(1, 1832) = 2.35$, $p > .05$. This indicated that there was not a significant change in the R^2 value, demonstrating that Major Illnesses did not predict above and beyond the covariates. Results showed that Age, $t = 8.13$, $p < .05$, $\beta = 0.189$ (medium effect size); Financial Control, $t = 11.33$, $p < .05$, $\beta = 0.253$ (medium effect size); and the difference between Black/African-American and White/Caucasian, $t = -2.75$, $p < .05$, $\beta = -0.062$ (small effect size) were significant predictors of To-Work goals. Major Illnesses, $t = -1.53$, $p > .05$, $\beta = -0.035$ (minimal effect size) was not a significant predictor of To-Work goals. The relationship between Major Illnesses and To-Work goals was negative, as predicted. As a result, Hypothesis 1a was not supported, as R^2 was not significant, despite the large sample size.

1b. Functional impairments will be negatively related with To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

1b. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.114$, $F(7, 1760) = 33.51$, $p < .05$. When Functional Impairments was added to the model at Step 2, the overall model fit was $R^2 = 0.120$, $F(1, 1759) = 12.43$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Functional Impairments predicted above and beyond the covariates. Results showed that Age, $t = 8.36$, $p < .05$, $\beta = 0.195$ (medium effect size); Financial Control, $t = 11.04$, $p < .05$, $\beta = 0.251$ (medium effect size); the difference between Black/African-American and White/Caucasian, $t = -2.41$, $p < .05$, $\beta = -0.055$ (small effect size); and Functional Impairments, $t = -3.52$, $p < .05$, $\beta = -0.083$ (small effect size); were significant predictors of To-Work goals. Furthermore, the relationship between Functional Impairments and To-Work goals was negative, as predicted. As a result, Hypothesis 1b was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

1c. Psychosomatic illnesses will be unrelated to To-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

1c. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.112$, $F(7, 1789) = 33.43$, $p < .05$. When Psychosomatic Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.116$, $F(1, 1788) = 8.29$, $p < .05$. This showed that there was a significant change in the

R^2 value, demonstrating that Psychosomatic Illnesses predicted above and beyond the covariates. Results showed that Age, $t = 7.70$, $p < .05$, $\beta = 0.176$ (medium effect size); Financial Control, $t = 10.49$, $p < .05$, $\beta = 0.241$ (medium effect size); the difference between Black/African-American and White/Caucasian, $t = -2.97$, $p < .05$, $\beta = -0.068$ (small effect size); and Psychosomatic Illnesses, $t = -2.88$ $p < .05$, $\beta = -0.067$ (small effect size); were significant predictors of To-Work goals. However, the relationship between Psychosomatic Illnesses and To-Work goals was negative, when no significant relationship was predicted. As a result, hypothesis 1c was partially supported in that while a significant change in R^2 was reported, this was largely due to the large sample size, as the effect size was very small. In fact, given the large sample size and small effect size, one could argue that Psychosomatic Illnesses and To-Work goals were unrelated in terms of the magnitude of the effect.

Hypothesis 2 - At-Work Goals

2a. Major physical illnesses will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

2a. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.057$, $F(7, 1845) = 16.86$, $p < .05$. When Major Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.059$, $F(1, 1844) = 6.071$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Major Illnesses predicted above and beyond the covariates.

Results showed that Age, $t = 3.13$, $p < .05$, $\beta = 0.075$ (small effect size); Financial Control, $t = 6.64$, $p < .05$, $\beta = 0.152$ (medium effect size); Education Level $t = 6.73$, $p < .05$, $\beta = 0.155$ (medium effect size); Gender $t = 3.20$, $p < .05$, $\beta = 0.075$ (small effect size); and Major Illnesses $t = -2.46$, $p < .05$, $\beta = -0.058$ (small effect size); were significant predictors of At-Work goals. Furthermore, the relationship between Major Illnesses and At-Work goals was negative, as predicted. As a result, Hypothesis 2a was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

2b. Functional impairments will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

2b. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.057$, $F(7, 1775) = 16.51$, $p < .05$. When Functional Impairments was added to the model at Step 2, the overall model fit was $R^2 = 0.063$, $F(1, 1774) = 11.71$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Functional Impairments predicted above and beyond the covariates. Results showed that Age, $t = 2.93$, $p < .05$, $\beta = 0.070$ (small effect size); Financial Control $t = 6.67$, $p < .05$, $\beta = 0.156$ (medium effect size); Education Level $t = 6.32$, $p < .05$, $\beta = 0.150$ (medium effect size); Gender $t = 3.58$, $p < .05$, $\beta = 0.086$ (small effect size); and Functional Impairments $t = -3.42$, $p < .05$, $\beta = -0.083$ (small effect size); were significant

predictors of At-Work goals. Furthermore, the relationship between Functional Impairments and At-Work goals was negative, as predicted. As a result, Hypothesis 2b was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

2c. Psychosomatic illnesses will be negatively related with At-Work goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

2c. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.059$, $F(7, 1807) = 17.10$, $p < .05$. When Psychosomatic Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.062$, $F(1, 1806) = 6.91$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Psychosomatic Illnesses predicted above and beyond the covariates. Results showed that Age, $t = 2.43$, $p < .05$, $\beta = 0.057$ (small effect size); Financial Control $t = 6.13$, $p < .05$, $\beta = 0.145$ (medium effect size); Education Level $t = 6.57$, $p < .05$, $\beta = 0.154$ (medium effect size); Gender $t = 3.94$, $p < .05$, $\beta = 0.093$ (small effect size); and Psychosomatic Illnesses $t = -2.62$, $p < .05$, $\beta = -0.063$ (small effect size); were significant predictors of At-Work goals. Furthermore, the relationship between Psychosomatic Illnesses and At-Work goals was negative, as predicted. As a result, Hypothesis 2c was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

Hypothesis 3 - To-Retire Goals

3a. Major physical illnesses will be positively related with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

3a. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.050$, $F(7, 1832) = 14.78$, $p < .05$. When Major Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.053$, $F(1, 1813) = 7.22$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Major Illnesses predicted above and beyond the covariates. Results showed that Age, $t = -5.10$, $p < .05$, $\beta = -0.122$ (small to medium effect size); Education Level $t = 8.24$, $p < .05$, $\beta = 0.192$ (medium effect size); and Major Illnesses $t = 2.68$, $p < .05$, $\beta = 0.064$ (small effect size); were significant predictors of To-Retire goals. Furthermore, the relationship between Major Illnesses and To-Retire goals was positive, as predicted. As a result, Hypothesis 3a was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

3b. Functional impairments will be positively related with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

3b. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.045$, $F(7, 1760) = 12.85$, $p < .05$. When Functional Impairments was added to the model at Step 2, the overall model fit was $R^2 =$

0.053, $F(1, 1759) = 16.76$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Functional Impairments predicted above and beyond the covariates. Results showed that Age, $t = -4.63$, $p < .05$, $\beta = -0.112$ (small to medium effect size); Education Level $t = 8.22$, $p < .05$, $\beta = 0.196$ (medium effect size); and Functional Impairments $t = 4.09$, $p < .05$, $\beta = 0.100$ (small to medium effect size); were significant predictors of To-Retire goals. Furthermore, the relationship between Functional Impairments and To-Retire goals was positive, as predicted. As a result, Hypothesis 3b was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small.

3c. Psychosomatic illnesses will be unrelated with To-Retire goals when prior health and demographic factors of age, gender, wealth, education level, marital status, financial control, and ethnicity are controlled.

3c. Once the covariates were added at Step 1 of the model, the overall model fit was $R^2 = 0.050$, $F(7, 1831) = 14.81$, $p < .05$. When Psychosomatic Illnesses was added to the model at Step 2, the overall model fit was $R^2 = 0.055$, $F(1, 1830) = 11.04$, $p < .05$. This showed that there was a significant change in the R^2 value, demonstrating that Psychosomatic Illnesses predicted above and beyond the covariates. Results showed that Age, $t = -4.53$, $p < .05$, $\beta = -0.106$ (small to medium effect size); Education Level $t = 8.48$, $p < .05$, $\beta = 0.199$ (medium effect size); the difference between Pacific Islander and White/Caucasian, $t = -2.19$, $p < .05$, $\beta = -0.051$ (small effect size); and

Psychosomatic Illnesses $t = 3.32$, $p < .05$, $\beta = 0.079$ (small effect size); were significant predictors of To-Retire goals. However, the relationship between Psychosomatic Illnesses and To-Retire goals was positive, which was an unexpected relationship. As a result, Hypothesis 3c was partially supported, in that while the change in R^2 was significant, this was largely due to the large sample size, as the effect size was rather small. In fact, given the large sample size and small effect size, one could argue that Psychosomatic Illnesses and To-Retire goals were unrelated in terms of the magnitude of the effect.

CHAPTER FOUR

DISCUSSION

As evidenced by much of the recent literature on retirement, the definition of the word retirement has changed immensely over the years (Jex et al. 2007; Kanfer et al. 2012; Shultz &Wang 2007; Shultz & Wang, 2011; Wang & Shultz, 2010; Wang et al. 2013). Workers are more than ever engaging in bridge employment and changing jobs late in their career. Many may consider themselves “retired” before they fully exit the workforce. Furthermore, as the workforce continues to gray, research needs to continue to focus on retaining workers longer (De Wind, Geuskens, Reeuwijk, Westerman, Ybem, Burdorf, & Van der Beek, 2013). This is why the results of this study are so important, in that we must determine specific factors that organizations can influence to keep workers in our work force longer and still maintain their engagement and workability. This may include increasing healthcare coverage, the advent of preventive healthcare, providing reasonable accommodations or awareness campaigns for issues that relate to psychosomatic illnesses. A better understanding of these health factors may also strengthen the ability of organizations and researchers to predict the retirement process (Shultz & Wang, 2007). This section of the study will begin with an examination of findings, followed by implications for both research and practice. Throughout the next section of the paper, it is important to keep in mind that all of the predictor effect sizes are categorized as small, according to Keith (2006), other than Hypothesis

3b (Functional Impairments related to To-Retire goals) – which some would consider “small to medium.” That being said, the results may still translate into worthwhile change, as a small effect applied across a large population (national reform) could have a meaningful outcome. For instance, a small uptick in focus toward At-Work goals could produce a noticeable productivity outcome if applied across the tech industry, or administrative work at large.

Hypothesis 1 - To-Work Goals

1a: Major Illnesses

Major Illnesses were delineated as Feldman (1994) recommended, which has been replicated through many additional studies, such as Shultz and Wang (2007), as well as Zhan et al. (2009). Once again, the present study supports that Major Illnesses have a negative effect on a worker’s propensity to remain in the workforce. In this study, it was shown that workers are less motivated to remain in a working arrangement, due in part to Major Illnesses. While the results have shown that this relationship remains fairly consistent, it is troublesome that the effect was rather small. This may be due to the fact that Major Illnesses were examined as a composite variable, rather than on a case-by-case basis. Major Illnesses can be serious, life changing events (as described by Feldman, 1994), which could mean that one Major Illness is all a worker may need to change the focus of their work motivation. If a multinomial logistical regression were to be used to examine the relationship going forward, it may yield stronger results, which would be in line with previous findings (such as Shultz and Wang, 2007),

but again, it is important to keep in mind that a small effect could have a meaningful outcome across a large population.

In terms of the control variables, Financial Control had a medium effect size, which seems to fit in line with Wang, Zhan, Liu, and Shultz (2008), as well as Weckerle and Shultz (1999), whom related that financial pressure was a strong motivator regarding bridge employment. In the sense that other studies have discussed “financial pressure,” it is interesting that the control variable in the current study is the perception of Financial Control. Future studies may want to examine how dependents factor into the relationship, and the difference between measureable financial control and perceived financial control.

1b: Functional Impairments

Functional Impairments were again delineated as Feldman (1994) recommended, which has likewise been replicated through such additional studies as Shultz and Wang (2007) and Zhan et al. (2009). Such a definition of functional impairments encompasses work disabilities such as hearing loss and memory loss (Feldman, 1994), as well as other health factors that may functionally limit a worker from completing daily activities. Our current study found that functional impairments exhibited a negative relationship with To-Work goals, which would seem to fit with other previous findings of the relationship between functional impairments and the continuing desire to work.

In the previously mentioned study that Zhan et al. (2009) conducted regarding health factors (and functional impairments specifically), which also

relied on HRS data, the researchers found that “maintaining a working status might be beneficial in terms of slowing down the declines in daily functions,” (p. 377). This could be due to the fact that remaining in a work arrangement allows workers to stay engaged cognitively and physically in a daily routine to which they have become accustomed. However, just as remaining working may limit or slow a functional decline, for those who exhibit a functional decline already, it seems reasonable to predict that those workers will be less willing to remain in a working arrangement. Although the effect size was small ($\beta = -0.083$), the findings of this current study seem to support that result, and possibly that argument. Once again, small effects applied across a large population can have a noticeable change. Not surprisingly, those workers whom have difficulty completing the daily activities required of them in their working arrangement, seem to be less motivated to remain in a working arrangement. Ironically, if workers with functional impairments choose to exit the workforce for this reason, in keeping with the findings of Zhan et al. (2009), their functional limitations may actually become more pronounced. As Barnes-Farrell and Matthews (2007) relate, research shows that the well-being of workers in retirement is significantly based on their sense of personal control over the decision to retire. As we will all hopefully become an older worker at some point in our lives, anything we can do to slightly influence a more positive adjustment to retirement is a worthy endeavor.

In terms of the control variables, Financial Control had a medium effect size, which seems to fit in line with Wang, Zhan, Liu, and Shultz (2008), as well as Weckerle and Shultz (1999), whom related that financial pressure was a strong motivator regarding bridge employment. In the sense that other studies have discussed “financial pressure,” it is interesting that the control variable in the current study is the perception of Financial Control. Future studies may want to examine how dependents factor into the relationship, and the difference between measureable financial control and perceived financial control.

1c: Psychosomatic Illnesses

Psychosomatic Illnesses have long been identified as a specific health factor that needs to be studied (Feldman, 1994). Psychosomatic Illnesses, however, have not always been included in studies concerning older workers and retirement outcomes. However, studies such as Shultz and Wang (2007) have acknowledged the need for their inclusion in such studies. In the case of Shultz and Wang (2007), the longitudinal data set used (Americans’ Changing Lives) did not collect information regarding Psychosomatic Illnesses.

Psychosomatic Illnesses are not believed to greatly influence retirement decisions, however, their importance may be as it relates to the motivation of older workers at work (Feldman, 1994). Given the small effect of our finding and the large sample size, our results seem to be somewhat consistent with Feldman’s (1994) assertion. For this study, the much more interesting results concerning Psychosomatic Illnesses, were related to At-Work goals. Including

Psychosomatic Illnesses (as they relate to remaining in a work arrangement) in a study focused on bridge employment, may yield much more rewarding information (Zhan et al., 2009).

In terms of the control variables, Financial Control had a medium effect size, which seems to fit in line with Wang, Zhan, Liu, and Shultz (2008), as well as Weckerle and Shultz (1999), whom related that financial pressure was a strong motivator regarding bridge employment. In the sense that other studies have discussed “financial pressure,” it is interesting that the control variable in the current study is the perception of Financial Control. Future studies may want to examine how dependents factor into the relationship, and the difference between measureable financial control and perceived financial control.

Hypothesis 2 - At-Work Goals

2a: Major Illnesses

As expected, workers experiencing Major Illnesses (i.e., heart attack, stroke, cancer) were less likely to focus on At-Work goals. Workers dealing with such major health issues may be focused on other aspects of their life, with work as a potential after-thought. Once again, however, our effect size was small (β = -0.058). This may be due to the fact that Major Illnesses were examined as a composite variable, rather than on a case-by-case basis. It Major Illnesses can be serious, life changing events (as described by Feldman, 1994), which could mean that one Major Illness is all a worker may need to change the focus of their work motivation. If a multinomial logistical regression were to be used to examine

the relationship going forward, it may yield stronger results, which would be in line with previous findings (such as Shultz and Wang, 2007), but again, it is important to keep in mind that a small effect could have a meaningful outcome across a large population.

Feldman (1994) originally hypothesized that workers experiencing Major Illnesses would be likely to retire. Our current finding continues to show that workers with Major Illnesses are not focused on accomplishing great things at work. They may instead be focused on treatment for their serious condition(s), as well as finalizing their retirement to ensure the financial stability of their family's future. As related by Wind et al. (2013), employees who have health problems may retire early as they are afraid of a further health decline. Thusly, this does not leave much room for focusing motivation toward achieving At-Work goals. As previously discussed, older workers have a magnified need for achievement (Boumans et al., 2011). This magnified need for achievement is part of a shift workers undergo as they age. This shift involves focusing on fulfillment of higher order needs, rather than the basic necessities (if the basic necessities are met). As Lord (2002) found, once workers had financial security in their planned retirement, they continued to work to fulfill the higher levels of Maslow's Hierarchy of Needs. In the present study, without having the basic necessity of physical health met, workers are not focusing on higher level needs.

In terms of the control variables, Financial Control and Education Level had a medium effect size, which could further support continuity theory. Perhaps

those seeking higher education may find themselves in higher paid positions, and remain focused on achievement throughout their careers.

2b: Functional Impairments

Although there have not been many studies involving specific health factors and their effect on retirement outcomes, out of the studies that have been conducted, functional impairments are measured somewhat frequently (Shultz & Wang, 2007; Zhan et al., 2009). These conditions impair a worker's ability to complete tasks at a high level on a daily basis. This may lead to lower productivity, and possibly a self-fulfilling prophecy wherein workers believe that their limitations exclude them from being productive. Our current finding supports that conclusion.

This finding may also be examined through the lens of continuity theory (Atchley, 1989), which relates that as people grow older and experience a decline in physical health and daily functioning, they remain the same person in a number of aspects. This may mean that despite a loss of daily functioning, older workers have plenty of potential to remain highly motivated to achieve great things at work. Organizations may have been able to influence these workers' motivation to focus on At-Work goals at an earlier stage in their career, which could then translate to a continued focus on At-Work goals in the later stages of their careers (Bal, De Jong, Jansen, & Bakker, 2012). As a continued disclaimer, however, the effect size was small in this relationship ($\beta = -0.083$), and therefore it should be understood that this finding may provide meaningful change – if

implemented from a systematic perspective. It may be worthwhile to note that implementing change regarding functional impairment may not be all that expensive for large employers, as Gold, Oire, Fabian, and Wewiorski (2012) relate that first line supervisors with knowledge of specific job functions can mitigate the cost of reasonable accommodations. In terms of the control variables, Financial Control and Education Level had a medium effect size, which could further support continuity theory. Perhaps those seeking higher education may find themselves in higher paid positions, and remain focused on achievement throughout their careers.

2c: Psychosomatic Illnesses

While further exploring Psychosomatic Illnesses and their relationship to At-Work goals, it was found that the relationship between the two variables was negative. Psychosomatic Illnesses, while not necessarily severe, are seen as a nuisance to workers, making tasks more difficult to complete due to discomfort, which may therefore lead to lower productivity. This is not difficult to believe, as most workers can relate that completing the same amount of work with a migraine headache is a much more arduous task than completing it without a migraine headache (Feldman, 1994). This simple example just continues to lend credence to the theory that Psychosomatic Illnesses may be related with productivity at work.

Again, examining this finding through the lens of continuity theory (Atchley, 1989), it may be that organizations can impact this relationship by

providing workers with reasons (recognition programs, pay for performance, etc.) to strive to achieve great things at work, throughout their career. Although, it may be that older workers will be focused on At-Work goals, despite Psychosomatic Illnesses, simply when their current position provides the intrinsic motivation older workers frequently want (Boumans et al., 2011). As Kanfer, Beier, and Ackerman (2012) relate, focusing motivation toward At-Work goals is often reliant on job specific conditions. As a continued disclaimer, however, the effect size was small in this relationship, and therefore it should be understood that this finding may provide meaningful change – if implemented from a systematic perspective. Putting this finding in the context of continuity theory and the idea that the near the end of a worker's career, their achievement focus will not necessarily mirror that of earlier in their career, but may be to an extent contingent upon it, is helpful. Given the small effect size associated with this finding, that is the type of large scale career span change that could yield meaningful results. In terms of the control variables, Financial Control and Education Level had a medium effect size, which could further support continuity theory. Perhaps those seeking higher education may find themselves in higher paid positions, and remain focuses on achievement throughout their careers.

Hypothesis 3 – To-Retire Goals

3a: Major Illnesses

Major Illnesses demonstrated a positive relationship with To-Retire goals, which is not surprising. Major Illnesses have been related positively to retirement

(in this case, the focus on the motivation To-Retire) rather consistently, as Feldman (1994) originally hypothesized. A Once again, however, our effect size was small. This may be due to the fact that Major Illnesses were examined as a composite variable, rather than on a case-by-case basis. It Major Illnesses can be serious, life changing events (as described by Feldman, 1994), which could mean that one Major Illness is all a worker may need to change the focus of their work motivation. If a multinomial logistical regression were to be used to examine the relationship going forward, it may yield stronger results, which would be in line with previous findings (such as Shultz and Wang, 2007), but again, it is important to keep in mind that a small effect could have a meaningful outcome across a large population. Education Level, although a control variable, had a medium effect size, and could serve as a possible moderator in the relationship. As Education Level may be related with the type of industry a worker pursues, it could be useful to conduct a more in-depth analysis the specific industry workers are in, and how that effects their focus on To-Retire Goals.

As related earlier, Wind et al. (2013) surmised that employees that have health problems may retire early as they are afraid of a further health decline. Our finding simply provides further support of previous findings (Shultz & Wang, 2007), with poor health continuing to “push” older workers into retirement, as Shultz, Morton, and Weckerle (1998) relate. With workers “pushed” into focusing on retirement, the adjustment of these workers to retirement may be in jeopardy. As mentioned in the discussion of Hypothesis 1b, Barnes-Farrell and Matthews

(2007) relate that research shows that the well-being of workers in retirement is significantly based on their sense of personal control over the decision to retire, as echoed by Drentea (2007).

3b: Functional Impairments

As mentioned previously, although upon first glance focusing on To-Work goals and To-Retire goals may seem to be dichotomous constructs, this is not necessarily the case. Wang, Olson, and Shultz (2013) relate that the current definition of retirement has expanded to one that does not simply include exiting the workforce altogether. With this in mind, workers could be focused on maintain a work arrangement, through bridge employment, and thus reasonably consider themselves retired while remaining in the workforce. That being said, with our current study finding that there is a positive relationship between Functional Impairments and To-Retire goals, it may not be that limitations in the daily functioning of workers may be leading to a complete exit of the workforce. This relationship may actually signify that workers are transitioning to a lessened or different role through bridge employment opportunities.

As found in the study that Zhan et al. (2009) conducted regarding health factors (and functional impairments specifically), which also relied on HRS data, the researchers found that “maintaining a working status might be beneficial in terms of slowing down the declines in daily functions” (pg. 377). This could be due to the fact that remaining in a work arrangement allows workers to stay engaged cognitively and physically in a daily routine to which they have become

accustomed. However, just as remaining working may limit or slow a functional decline, for those who exhibit a functional decline already, it seems reasonable to predict that those workers will be less willing to remain in the same working arrangement. Our finding supports this assertion. Of further interest is the medium effect size of Education Level, which could serve as a possible moderator in the relationship. As Education Level may be related with the type of industry a worker pursues, it could be useful to conduct a more in-depth analysis the specific industry workers are in, and how that effects their focus on To-Retire Goals.

3c:Psychosomatic Illnesses

The relationship between Psychosomatic Illnesses and To-Retire goals was positive. Although our hypothesis originally predicted that there would not be a relationship between these variables, this finding can be easily explained. These conditions, while not necessarily severe, are seen as a nuisance to workers, making tasks more difficult to complete due to discomfort. While Feldman (1994) originally hypothesized the opposite of our finding (workers would be less likely to retire), he also related that workers suffering from Psychosomatic Illnesses would be likely to seek bridge employment. Our construct of To-Retire goals, does not delineate bridge employment from exiting the workforce fully. That being said, we simply do not have enough information to support Feldman's hypothesis. This issue is brought up in the research implications section below, however, it should be noted that the effect between

Psychosomatic Illnesses and To-Retire goals was minimal, and therefore may be a product of our large sample size, more than anything else. Of note, however, was the medium effect size of Education Level, which could serve as a possible moderator in the relationship. As Education Level may be related with the type of industry a worker pursues, it could be useful to conduct a more in-depth analysis the specific industry workers are in, and how that effects their focus on To-Retire goals. As Wang, Shultz, and Olson (2013) relate, most positions now focus on knowledge and professional services, which subsequently allows workers to remain in the workforce longer. Within this more common office environment, the type of work completed may effect the relationship between specific health factors and their goal focus.

Research Implications

Previously, researchers such as Shultz and Wang (2007) found that workers who retired have higher instances of major physical impairments, those that keep the same job report the least amount of major physical impairments and the least amount of minor health conditions, and those who change jobs report high amounts of minor health conditions. The present study has extended their findings by using a larger data set from the national Health and Retirement Study (HRS), which contains information on psychosomatic illnesses. Shultz and Wang were not able to assess psychosomatic illnesses at all in their 2007 study. Also, since the sample in this study is larger, major physical illnesses were present more often. In the Shultz and Wang study, major physical impairments

were not very prevalent. Finally, while the Shultz and Wang study examined bridge employment, retirement, and job changes, these are all outcomes that usually leave an organization without their workers. The present study examines the problem from a motivational focus, therefore gathering information that organizations may be able to employ to maintain their older workers' motivation to continue working at a productive level without changing jobs and/or employers. Further, based on the results pertaining to several key control variables, such as Education Level in relation to At-Work goals and To-Retire goals, as well as Financial Control related to To-Work goals and At-Work goals, there are many other avenues to explore pertaining to older workers and their motivational focus. It would be interesting to look into Financial Controls effect on the motivation of older workers based on industry. Finally, as Age was a significant control variable in all hypotheses, further exploration of this variable could prove interesting as well. Perhaps future studies can assess motivational focus as predicted by variables that may or may not be related to age, such as years of work experience, or years of work experience in a specific or current industry. Certainly, there is much more to be examined when it comes to understanding the older workforce and how to best utilize their knowledge, skills, and abilities.

Practical Implications

In examining the practical implications of this study, we would caution you to keep in mind that the effect sizes found in this study were small, but even small changes made on a large scale can have far reaching returns on

investment. By relating specific health factors to different goal motivations that older workers have, we may be able to determine how organizations can adapt their jobs to the needs of older workers. Such knowledge may lead organizations to increase their overall healthcare benefits for senior positions, in an effort to keep older workers focused on To-Work goals, or reduce noise or offer enhanced ear protection in their work environment so that hearing loss is less likely to occur. This could also be very useful knowledge when dealing with At-Work goal problems related to major illnesses, functional impairments, and psychosomatic illnesses. For example, organizations may find that solutions to their employee engagement and productivity problems are increased healthcare initiatives or organizational programs designed to prevent health conditions before they happen. By rewarding their employees for having a healthier lifestyle, organizations may simultaneously be increasing the longevity and engagement of their work force, thus enhancing their return on investment (ROI). Even though impairments such as hearing loss and memory loss are inevitable for some workers, organizations may still be able to minimize their impact by promoting healthier lifestyles. Workers who are not exhibiting the specific health problems related with To-Retire goals will be more likely to remain in the work force and forego a retirement focus.

Located at the base of the need hierarchy, health is a critical need for workers to satisfy if they are going to stay engaged and productive within their organizations. Health is also at the base of the work ability model that describes

work ability as a house. As Tuomoi, Huuhtanen, Nykyri, and Ilmarinen (2001) state, good work ability is related to high quality of work and productivity at work. Therefore, it would behoove organizations to attempt to intervene on employees' health as much as possible. One way organizations can do this is by changing the operational environment for older workers. Any way that organizations can increase the work ability of older workers will be important because it may lead to an increase in productivity and quality of work. Health is an integral part of this effort.

If major physical illnesses are the most salient health conditions in determining how older workers focus their energy, then we will be able to assess which of these conditions (e.g., congestive heart failure, cancer, lung disease) have the greatest impact. We will then know whether we need to focus on employing aerobic exercise programs in organizations to combat heart disease or dieting regimens to combat diabetes. If functional impairments are very salient in determining how an older worker focuses their energy, then we will be able to assess which of these conditions (e.g., hearing loss, memory loss) have the greatest impact. Then we will know whether we need to increase healthcare benefits related to hearing aids and reduce noise levels at work to prevent such impairments or promote exercises that increase memory power.

Knowing that these health conditions are related with To-Work, At-Work, and To-Retire goals may also lead to required medical check-ups by employers, with an increased understanding of what conditions to look for. Maybe

organizations need to make employment contingent on these required medical check-ups. When discovered quickly, major physical illnesses may be resolved through surgery or appropriate exercise and diet, yet many do not see the necessity of frequent check-ups. Making employment contingent upon these check-ups would certainly cause more people to heed them.

As we have discussed, older workers may have high motivation to work and we need to find ways to drive that motivation in a direction beneficial to organizations. By satisfying the lower level needs on the motivation hierarchy, we will be able to use workers' GNS to increase engagement and productivity, if we can develop positions that are intrinsically motivating to these older workers. Therefore, organizations need to consider the specific job characteristics of positions held by older workers and adjust them as necessary. This could include providing more mentor opportunities or more training opportunities.

Limitations

Although this study furthers the research conducted on specific health factors related to retirement and the older worker population, as suggested by numerous researchers, such as Shultz and Wang (2007) and Zhan et al. (2009), and relates these specific health factors to Kanfer, Beier, and Ackerman's (2012) model, it does have limitations. Using an archival data set certainly involves many advantages, such as the fact that limited resources were required to obtain the data, permission was not needed to access participants in specific organizations or special populations, and the types of variables assessed

represent multiple disciplines. With those advantages, come distinct disadvantages as well. In the current study, the specific health factors scales were developed using Feldman's (1994) criteria without much issue, however, the scales for To-Work, At-Work, and To-Retire goals were developed based on operational definitions, without as much ease. Specifically, the Participant Lifestyle Questionnaire (exclusively used in the 2010 wave of HRS data) was the only tool that could be used to assess At-Work goals, leaving this study no option to use the longitudinal advantage of the Health and Retirement Study. Using longitudinal data could solidify long-term health trends and establish clear motivational focus baselines across time, therefore giving the conclusions rendered from this study more weight.

Furthermore, while the items used to comprise the scales fit with the operational definitions of each criterion variable, it would be ideal to develop new items specifically to match the constructs of To-Work, At-Work, and To-Retire goals, and pilot the scales to ensure that they are psychometrically sound. Additionally, although the sample for this study encompassed a broad range of participants, and is therefore generalizable, this yields relatively little information on how a specific type of work factors into the Kanfer, Beier, and Ackerman (2012) model. It was stated earlier in the literature review that due to technological advances and a shifting labor market, jobs requiring manual labor are not nearly as widespread as they once were. Most positions now focus on knowledge and professional services (Wang, Olson, & Shultz, 2013), which

subsequently allows workers to remain in the workforce longer. Within this more common office environment, the type of work completed may effect the relationship between specific health factors and their goal focus. More research on how the type of work factors into the relationship will yield more specific practical implications for various industries. Future studies may be able to expand our knowledge base in this area.

Concluding Remarks

This study has expanded upon past research concerning older workers, examining how specific health factors can be tied to goal focuses. By adding to the understanding of the interplay between specific health factors and the goal focuses of older workers, this study can act as a guide to organizations to help focus their attention on the successful retention of an extremely knowledgable, fundamental section of the workforce. By focusing on preventive health programs, and advocating for continuous use of health care benefits, organizations may be able to minimize the negative health conditions for their works and maximize motivation toward To-Work and At-Work goals, while minimizing the focus on To-Retire goals until succession planning can be completed. Given that older workers are a large and important population of the workforce, it is unacceptable for organizations to under-utilize these individuals, as Peterson and Spiker (2005) argue is currently happening in applied settings. Boumans, De Jong, and Janssen (2011) also recognize that we need to retain aging workers to prevent the loss of the experience and knowledge they

possess. As workers remain in the workforce longer and longer, we cannot continue to take older workers for granted and must tailor our organizational practices to meet the needs of this population.

APPENDIX A

TABLE 1. CORRELATION MATRIX

Table 1

Means, Standard Deviations, and Corrleations

	Variables	N	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Gender	1,921	1.53	0.5	1												
2	Black	1,919	0.1522	0.36	0.102**	1											
3	Pacific Islander	1,919	0.0552	0.23	0.008	-.102**	1										
4	Years In School	1,921	13.67	2.68	-.053*	-.103**	-.092**	1									
5	Age	1,921	62.74	6.42	-.111**	-.078**	-.106**	-.075**	1								
6	Marital Status	1,920	2.12	1.71	.223**	0.149**	-.004**	-0.079**	0.008	1							
7	Financial Situation	1,896	7.23	2.31	0.016	0.029	-0.011	-0.023	.107**	0.028	1						
8	Major Illnesses	1,920	1.0281	0.98	-.062**	.073**	-.040**	-.117**	.233**	0.011		1					
9	Functional Impairments	1,846	1.9296	2.02	.172**	.069**	-.009**	-.171**	.170**	.039**	-.101**	.314**	1				
10	Psychosomatic Ilnesses	1,875	0.7456	0.98	.081**	.083**	.077**	-.172**	-.048*	.060**	-.215**	0.195	.450**	1			
11	To Work	1,868	3.0725	0.71	-0.041	-.081**	-0.03	0.026	.215**	-0.028	.275**	-0.025	-.083**	-0.14	1		
12	At Work	1,880	4.4032	0.66	.052*	-0.024	-0.028	.157**	.062**	-0.029	.163**	-.080**	-.101**	-.120**	.304**	1	
13	To Retire	1,868	2.5605	1.17	-0.021	0.015	-.050*	.198**	-.114**	-0.01	-0.042	0.024	0.041	0.045	-.154**	-.053*	1

Notes:

1 Correlations are based on pair-wise deletion;

2 * Correlation is significant at the 0.05 level (2-tailed);

3 ** Correlation is significant at the 0.01 level (2-tailed).

APPENDIX B

TABLE 2. HIERARCHICAL REGRESSION RESULTS FOR PREDICTING TO-WORK GOALS

Table 2

Hierarchical Regression Results for Predicting To-Work Goals

	Step I			Step 2		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*
Intercept	1.172**	0.199		1.165**	0.199	
Gender	-0.014	0.032	-0.01	-0.017	0.032	-0.012
Black/African American	-0.132**	0.045	-0.066	-0.125**	0.045	-0.062
Pacific Islander	-0.03	0.07	-0.01	-0.031	0.07	-0.01
Years In School	0.01	0.006	0.037	0.009	0.006	0.034
Age	0.020**	0.003	0.18	0.021**	0.003	0.189
Marital Status	-0.009	0.009	-0.022	-0.009	0.009	-0.022
Financial Situation	0.079**	0.007	0.257	0.078**	0.007	0.253
Major Illnesses				-0.026	0.017	-0.035
R^2		0.113**			0.114	
F		34.511**			30.51**	
ΔR^2		0.116**			0.001	
ΔF		34.511**			2.35	
Intercept	1.153	0.206		1.130**	0.205	
Gender	-0.027	0.033	-0.019	-0.006	0.033	-0.004
Black/African American	-0.119**	0.046	-0.06	-0.11*	0.046	-0.055
Pacific Islander	-0.029	0.07	-0.009	-0.029	0.07	-0.009
Years In School	0.009	0.006	0.034	0.006	0.006	0.023
Age	0.021**	0.003	0.179	0.022**	0.003	0.195
Marital Status	-0.006	0.01	-0.015	-0.007	0.01	-0.018
Financial Situation	0.081**	0.007	0.262	0.078**	0.007	0.251
Functional Impairments				-0.029**	0.008	-0.083
R^2		0.114**			0.120**	
F		33.511**			31.067**	
ΔR^2		0.118**			0.006**	
ΔF		33.511**			12.432**	
Intercept	1.168**	0.202		1.273**	0.205	
Gender	-0.01	0.033	-0.007	-0.003	0.033	-0.002
Black/African American	-0.146**	0.046	-0.073	-0.137**	0.046	-0.068
Pacific Islander	-0.023	0.072	-0.007	-0.009	0.072	-0.003
Years In School	0.011	0.006	0.042	0.009	0.006	0.032
Age	0.02**	0.003	0.177	0.020**	0.003	0.176
Marital Status	-0.009	0.009	-0.021	-0.008	0.009	-0.019
Financial Situation	0.079**	0.007	0.256	0.074**	0.007	0.241
Psychosomatic Illnesses				-0.049**	0.017	-0.67
R^2		0.112**			0.116**	
F		33.43**			30.41**	
ΔR^2		0.116**			0.004**	
ΔF		33.43**			8.29**	

Notes:

1. N = 1,920 (Major Illnesses); N = 1,846 (Functional Impairments); N = 1,875 (Psychosomatic Illnesses); *p < .05; **p < .01.

APPENDIX C

TABLE 3. HIERARCHICAL REGRESSION RESULTS FOR PREDICTING AT-WORK GOALS

Table 3

Hierarchical Regression Results for Predicting At-Work Goals

	Step I			Step 2		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*
Intercept	3.013**	0.19		3.002	0.19	
Gender	0.103**	0.031	0.078	0.099**	0.031	0.075
Black/African American	-0.018	0.043	-0.01	-0.009	0.043	-0.005
Pacific Islander	-0.003	0.067	-0.001	-0.007	0.067	-0.002
Years In School	0.040**	0.006	0.161	0.039**	0.006	0.155
Age	0.006**	0.002	0.061	0.008**	0.002	0.075
Marital Status	-0.015	0.009	-0.039	-0.015	0.009	-0.039
Financial Situation	0.046**	0.007	0.16	0.044**	0.007	0.152
Major Illnesses				-0.039*	0.016	-0.058
R^2		0.057**			0.059*	
F		16.86**			15.55**	
ΔR^2		0.060**			0.003*	
ΔF		16.86**			6.07*	
Intercept	3.034**	0.196		3.010**	0.196	
Gender	0.095**	0.031	0.072	0.114**	0.032	0.086
Black/African American	-0.013	0.043	-0.007	-0.005	0.043	-0.003
Pacific Islander	-0.001	0.067	0.001	-0.004	0.067	-0.001
Years In School	0.040**	0.006	0.162	0.037**	0.006	0.15
Age	0.006*	0.003	0.054	0.008**	0.003	0.07
Marital Status	-0.015	0.009	-0.039	-0.016	0.009	-0.041
Financial Situation	0.048**	0.007	0.167	0.045**	0.007	0.156
Functional Impairments				-0.027**	0.008	-0.083
R^2		0.057**			0.063**	
F		16.51**			15.99**	
ΔR^2		0.061**			0.006**	
ΔF		16.51**			11.71**	
Intercept	2.997**	0.191		3.084**	0.193	
Gender	0.116**	0.031	0.089	0.122**	0.031	0.093
Black/African American	-0.032	0.043	-0.018	-0.024	0.043	-0.013
Pacific Islander	-0.01	0.068	-0.003	0.001	0.069	0.001
Years In School	0.041**	0.006	0.164	0.038**	0.006	0.154
Age	0.006*	0.002	0.058	0.006**	0.002	0.057
Marital Status	-0.012	0.009	-0.031	-0.011	0.009	-0.03
Financial Situation	0.045**	0.007	0.159	0.041**	0.007	0.145
Psychosomatic Illnesses				-0.042**	0.016	-0.063
R^2		0.059**			0.062**	
F		17.10**			15.87**	
ΔR^2		0.062**			0.004**	
ΔF		17.10**			6.91**	

Notes:

1. N = 1,920 (Major Illnesses); N = 1,846 (Functional Impairments); N = 1,875 (Psychosomatic Illnesses); *p < .05; **p < .01.

APPENDIX D

TABLE 4. HIERARCHICAL REGRESSION RESULTS FOR PREDICTING TO-RETIRE GOALS

Table 4

Hierarchical Regression Results for Predicting To-Retire Goals

	Step I			Step 2		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*
Intercept	2.824**	0.34		2.838**	0.339	
Gender	-0.057	0.055	-0.024	-0.048	0.055	-0.021
Black/African American	0.082	0.077	0.025	0.063	0.077	0.019
Pacific Islander	-0.241*	0.121	-0.046	-0.236	0.12	-0.045
Years In School	0.082**	0.01	0.185	0.085**	0.01	0.192
Age	-0.019**	0.004	-0.107	-0.022**	0.004	-0.122
Marital Status	0.009	0.016	0.013	0.009	0.016	0.013
Financial Situation	-0.014	0.012	-0.027	-0.01	0.012	-0.019
Major Illnesses				0.077**	0.028	0.064
R^2		0.050**			0.053**	
F		14.78**			13.88**	
ΔR^2		0.053**			0.004**	
ΔF		14.78**			7.22**	
Intercept	2.718**	0.351		2.754**	0.349	
Gender	-0.065	0.056	-0.028	-0.105	0.057	-0.045
Black/African American	0.075	0.078	0.023	0.053	0.078	0.016
Pacific Islander	-0.238*	0.121	-0.047	-0.235	0.121	-0.046
Years In School	0.081**	0.011	0.181	0.088**	0.011	0.196
Age	-0.017**	0.004	-0.092	-0.021**	0.005	-0.112
Marital Status	0.006	0.016	0.009	0.008	0.016	0.012
Financial Situation	-0.012	0.012	-0.024	-0.005	0.012	-0.01
Functional Impairments				0.058**	0.014	0.1
R^2		0.045**			0.053**	
F		12.85**			13.44**	
ΔR^2		0.049**			0.009**	
ΔF		12.85**			16.76**	
Intercept	2.818**	0.34		2.617**	0.345	
Gender	-0.057	0.055	-0.024	-0.069	0.055	-0.029
Black/African American	0.077	0.077	0.024	0.059	0.077	0.018
Pacific Islander	-0.241*	0.121	-0.046	-.264*	0.121	-0.051
Years In School	0.083**	0.01	0.186	0.088**	0.01	0.199
Age	-0.019**	0.004	-0.107	-0.019**	0.004	-0.106
Marital Status	0.009	0.016	0.013	0.007	0.016	0.01
Financial Situation	-0.013	0.012	-0.027	-0.005	0.012	-0.009
Psychosomatic Illnesses				0.095**	0.029	0.079
R^2		0.050**			0.055**	
F		14.81**			14.41**	
ΔR^2		0.054**			0.006**	
ΔF		14.81**			11.04**	

Notes:

1. N = 1,920 (Major Illnesses); N = 1,846 (Functional Impairments); N= 1,875 (Psychosomatic Illnesses); *p < .05; **p < .01.

APPENDIX E

ITEMS

ITEMS

*Unless specified, all questions have the following response choices “yes, no, don’t know, refused to answer.”

**If this is a re-interview, the measure will be phrased “Since we last talked to you, has a doctor told you that you have ‘blank’ ?”

Major Illnesses

C005 Has a doctor ever told you that you have high blood pressure or hypertension?

C006 In order to lower your blood pressure, are you now taking any medication?

C010 Has a doctor ever told you that you have diabetes or high blood sugar?

C018 Has a doctor ever told you that you have cancer or a malignant tumor, excluding minor skin cancer?

C030 Has a doctor ever told you that you have chronic lung disease such as chronic bronchitis or emphysema?

C036 Has a doctor ever told you that you have had a heart attack, coronary heart disease, angina, congestive heart failure, or other heart problems?

C037 Are you now taking or carrying medication for your heart problem?

C040 Since (month, year of original interview) have you had a heart attack or myocardial infarction?

C048 In the last two years, has a doctor told you that you have congestive heart failure?

C053 Has a doctor ever told you that you have had a stroke?

Functional Impairments

C070 Have you ever had, or has a doctor ever told you that you have arthritis or rheumatism?

C102 Do you ever wear a hearing aid?

Because of a health problem do you have any difficulty with: (Yes, No, Can't Do, Don't Do, Don't Know, Refused To Answer).

G004 sitting for about two hours?

G005 getting up from a chair after sitting for long periods?

G006 climbing several flights of stairs without resting?

G008 stooping, kneeling, or crouching?

G009 with reaching or extending your arms above shoulder level?

G010 pulling or pushing large objects like a living room chair?

G011 lifting or carrying weights over 10 pounds, like a heavy bag of groceries?

G012 picking up a dime from a table?

Psychosomatic Illnesses

C065 Have you ever had or has a doctor ever told you that you had any emotional, nervous, or psychiatric problems?

C104 Are you often troubled with pain?

Much of the time during the past week: (Would you say yes or no?)

D110 you felt depressed.

D111 you felt that everything you did was an effort.

D112 your sleep was restless.

To-Work

Q48 pg. 29 Because of my job, I am in a better mood at home. Rarely, Sometimes, Most of the time, Often.

Q50 pg. 31 All things considered, I am satisfied with my job. Strongly disagree, disagree, agree, strongly agree, does not apply.

At-Work

J546 My job requires me to do more difficult things than it used to. Do you Strongly Agree, Agree, Disagree or Strongly Disagree with that statement?

Q34i pg. 20 I do not work as hard as the majority of people around me. Strongly Disagree, Somewhat Disagree, Slightly Disagree, Slightly Agree, Somewhat Agree, Strongly Agree.

Q34j pg. 21 I do what is required, but rarely anything more. Strongly Disagree, Somewhat Disagree, Slightly Disagree, Slightly Agree, Somewhat Agree, Strongly Agree.

Q34k pg. 21 I have high standards and work toward them. Strongly Disagree, Somewhat Disagree, Slightly Disagree, Slightly Agree, Somewhat Agree, Strongly Agree.

Q34l pg. 21 I make every effort to do more than what is expected of me. Strongly Disagree, Somewhat Disagree, Slightly Disagree, Slightly Agree, Somewhat Agree, Strongly Agree.

Q50p pg. 32 I have too much work to do everything well. Strongly Disagree, Disagree, Agree, Strongly Agree, Does Not Apply.

J552 I really enjoy going to work. Do you Strongly Agree, Agree, Disagree or Strongly Disagree with that statement?

To-Retire

J550 As I get older, I would prefer to gradually reduce the hours I work on this job, keeping my pay per hour the same. Do you Strongly Agree, Agree, Disagree or Strongly Disagree with that statement?

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