

Assessing the Impact of Retirement Resources on U.S. Older Female Workers'
Retirement Timing: A Theory of Planned Behavior Model

By
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Abstract

Retirement is an important life event for all workers. Most older workers look forward to retirement and having a retirement plan is important for a successful transition. Those who plan also demonstrate a more positive attitude and greater confidence in their retirement. Much previous work on retirement and related policies or programs has focused on male workers. Consequently, social awareness of the problems encountered by older women during retirement remains low. Women have limited retirement resources (Vrdoljak & Rappaport, 2018) and are more likely to live in poverty than older men. Many older women who lack financial security depend on Social Security benefits. Moreover, the gender gap increases with age and is closely associated with quality of life and health (James, Matz-Costa, & Smyer, 2016). Unequal work experience and access to fewer retirement resources can postpone older women's retirement, leading to a higher retirement age for women.

Therefore, I examine the relationship between older women's retirement resources and the timing of their retirement. I also examine the relationship between older women's marital status and retirement timing. In this study, I investigated these questions with a sample of women aged between 50 and 62 years old who worked either full - or part - time, using data from the RAND Corporation and the University of Michigan Health and Retirement Study (2017). Guided by the theory of planned behavior, multiple regression analysis was used to examine older adults' expected retirement timing. Factors that might influence this timing included attitudes toward retirement, subjective norms about retirement, and perceived behavioral control (retirement security). My analyses also examined gender differences in predicting retirement timing. Subsequent analyses were conducted with women only, primarily to examine a potential linear relationship between retirement timing and marital status, one of the "background factors" in the

theory of planned behavior. Additionally, logistic regression analyzed the effects of respondents' expectations of retirement (i.e., comparing respondents with an expected timing of their retirement with those who did not).

The study findings indicated that theory of planned behavior factors are useful for predicting retirement timing. The model works similarly for men and women, but there is a difference according to marital status. Unmarried women are likely to anticipate a later retirement than married women and are less likely to set an expected timing for retirement.

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CHAPTER 1

INTRODUCTION

1. The Implication of Older Adults' Retirement Security

(1) Life Expectancy and Retirement Security

Life expectancy is the average expected length of life for an individual within a certain population (Chetty et al., 2016). Life expectancy for older adults has increased over time. For example, in 1920 life expectancy in the United States was 55.4 years but by 2019 it had increased to 78.9 years (UN Population Division, 2019). Also, adults over 65 years in 2016 were expected to live an additional 18 years for men and an additional 20.6 years for women (U.S. Department of Health and Human Services, 2018). Longer life expectancy brings many changes in older adults' lives.

First, labor force participation of older adults is increasing. U.S. Bureau of Labor Statistics (2012) found that labor force participation of persons over 55 was less than 20% in 1970, but the rate had increased to 22% by 2015 and is expected to reach around 30% in 2020. At the same time, older adults work much longer and delay their retirement longer compared to earlier cohorts. According to the Munnell, Webb, Delorme & Golub-Sass (2012), a national survey found that 25% of older adults felt that they needed to work at least 1-3 years more while 9% answered that they needed to work for 7 years or longer. The Retirement Confidence Survey (Helman, Copeland & VanDerhei, 2009) identified reasons why older adults want to work longer. Some do so in order to earn more income so they can retire comfortably, while others are motivated to maintain access

to health insurance. But some people also want to work longer because they enjoy being productive, interacting with other people, and staying physically fit or mentally healthy.

Second, older adults also require more health services after retirement. According to the National Council on Aging (2018), 80% of older adults were diagnosed with more than one chronic disease such as cancer, heart disease, and diabetes, while over 70% were diagnosed with more than two chronic diseases. These older adults' conditions contributed to over 60% percent of health care costs, including most of Medicare spending (Centers for Disease Control and Prevention, 2013). Thus, health expenditures can pose a significant financial burden for older adults, one likely to increase with age due to long-term care needs. According to Fahle, McGarry and Skinner (2016), the median older adult spent around \$3,504 out of pocket on health care in 2014. Moreover, 10% of older adults spent over \$10,088 a year. The main out-of-pocket expenditures went to long-term care systems such as nursing homes or other medical institutions because Medicare only covers limited long-term care services. Even though they had Medicare or other health insurance, older adults still needed to pay additional out-of-pocket expenses, increasing their financial burden late in life. This financial burden is especially heavy for those approaching the end of life, have chronic diseases (Kelley, McGarry, Gorges & Skinner, 2015), live alone, or live in poverty (Hwang, Weller, Ireys & Anderson, 2001).

Lastly, older adults may have an increased cost of living. Rising inflation rates or unexpected economic conditions contribute to increases in older adults' cost of living. Older adults' primary financial resources after retirement include Social Security benefits, pension plans, or savings accounts which can fluctuate with the economy. Foster (2016) reported that the total annual expenditures of older adults between the ages of 55 and 64 were \$56,267, and this amount decreased with age. The total annual expenditure of individuals aged 65-74 years was \$48,885,

while those 75 and over spent \$36,673 on average. Living expenses declined with age but longer life expectancy requires more total expenditures in old age. Most importantly, these problems are more likely to affect older women than men.

(2) Older Women and Life Expectancy

Three factors affect older women's problems with longer life expectancy. The average life expectancy of older women who reach age 65 is around 85.3 years, and some of them will live to be more than 90 years old (Poterba, 2014). Moreover, women's higher life expectancy has changed their social roles and lifestyle. First, more women participate in the labor force to earn greater financial resources to support their long life expectancy. According to the U.S. Bureau of Labor Statistics (2017), labor force participation of women aged 25 to 54 years was 75% in 2016, and for women over 55 years it is expected to be 59.4% in 2020.

Even though many women are active participants in the labor force, they face various obstacles. Due to the demands of family care, they are more likely to work in part-time positions with low wages in less-skilled occupations, and they have higher rates of discontinuous work experience than men (Division for Social Policy and Development Aging, 2017). Therefore, women earn substantially less income from employment. Inequality in job opportunities and job positions increases the income gap between women and men, which leads to inequality in future wealth (Ginn & Arber, 1996). For example, Social Security Administration (2016) found that the median earnings of full-time working women were around \$39,000 in 2013, less than the comparable earnings of full-time working men at \$50,000. Consequently, older women had accumulated far smaller retirement accounts than older men. While the retirement accounts of older women aged 55-64 years had a median value of \$65,000 and for those over 65 it was \$55,000,

those of older men were \$70,000 and \$79,000, respectively (United States Census Bureau, 2014). Additionally, older women receive much less in Social Security benefits compared to older men. For example, women aged 65 and over received on average \$14,353 in Social Security benefits compared to \$18,041 for men in the same age group in 2017 (Social Security Administration, 2019). For this reason, many older women are dependent on their spouse's Social Security benefits. In contrast, among single older women, Social Security benefits made up 47% of their total income compared to 34% among single men and 29% among married couples (Social Security Administration, 2016).

Second, greater life expectancy increases older women's health expenditures as well. Longer life spans raise the risk of poor health in the later years, with its attendant costs (Crimmins, Kim & Hagedorn, 2002). Older women also have more comorbidities with chronic disease than men (Hwang, Weller, Ireys & Anderson, 2001), such as arthritis, depression, and cancer (Gorman & Read, 2006), requiring more health services and long-term care. According to Cubanski, Swoope, Damico and Neuman (2014), older women aged 65 and over spent around \$47,000 on health care costs, and women over 85 spent around \$8,574 for health care services and premiums, more than same-aged men in 2014. Also, Houser (2007) found that in 2015 over 65% of nursing home residents were women, with the typical annual cost of a private room at about \$92,000 and a shared room at \$82,000 (Genworth Financial, 2015). The average cost of assisted living was \$46,000 per year. These statistics show that older women need more health care services than older men, leading to higher health care costs (Owens, 2008; Cohen, Ezzati-Rice, & Yu, 2006). Older women who are married may have better economic status than single and divorced women (Houser, 2007). However, over 70% of older women live alone as widows, divorced persons, or single, never-married women (National Council on Aging, 2018).

Last, due to older women's longer life expectancy, the subsistence costs of older women are higher than that of their male counterparts. Older women spend more not only on health care and long-term care but also on housing, including mortgages, taxes, utilities, home maintenance, and insurance. Adults over 65 spend 28% of their income on housing (Richard, 2015). However, low income older adults (living in households with combined incomes below 125% of the federal poverty level) spend 36% of their income on housing. Therefore, older women who live longer or have an insecure financial status spend proportionately more on living expenses than older men. Furthermore, all these problems may adversely affect older women's life or even increase their poverty level. According to DeNavas-Walt & Proctor (2015), older women have a higher rate of poverty, especially if they are single or belong to a racial or sexual minority. In 2015, more than 10% of older women lived in poverty compared to men (7%).

Older women and men experience different social roles and life-course changes that may affect their retirement plans. For instance, older women may have different perceptions of the timing or meaning of retirement than men. They may want to work longer than men because of their longer life expectancy, or they may want to retire earlier than men due to health problems or family responsibilities. This is an important factor in understanding the relationship between older women's work experiences and their retirement process. This research will focus on older women and their retirement issues to better prepare for the future with increases in the older female population (Lin, Brown, & Hammersmith, 2017).

CHAPTER 2

LITERATURE REVIEW

1. Retirement and Retirement Security

(1) Decision-making about Retirement

Many researchers define retirement as reducing older workers' psychological dedication to work as well as behaviorally leaving the workplace (Shultz & Wang, 2007). After retirement, work activities that provided regular income decrease, but there may be more time to spend on leisure, family members, and community (Smith & Moen, 2004). Ekerdt (2010) created a simple conceptual map of work and retirement with three factors that explain the timing of retirement. First is age, because workers' level of income and type of occupations often change with age progression and may affect retirement decisions. Second, replacement income such as pensions, private savings, and other financial resources are necessary to support life in retirement. Third, job satisfaction may play a role; when they are satisfied with their job, workplace, and co-workers, older adults are more likely to have sustained work motivation. Other factors such as the country's welfare system, family relationships, the labor market, and cultural norms also affect older adults' retirement motivation.

Many theories explain the individual decision to retire. Rational theory hypothesizes that older workers choose to retire when they have sufficient financial resources to support future consumption (Gustman & Steinmerier, 1986). Image theory emphasizes that older workers decide on retirement when they anticipate less of a gap between pre-retirement and post-retirement life (Beach & Mitchell, 1987). Using similar concepts, role theory hypothesizes that, given the

inevitable role changes after retirement, older workers who have guaranteed roles in retirement are more likely to want to retire (Ashforth, 2001). Expectancy theory states that when older workers realize that they are going to receive fewer benefits or have less satisfaction in their work, they are likely to decide to retire (Devaney & Kim, 2003). Finally, the theory of planned behavior (Ajzen, 1991) includes three main factors that determine individuals' behavioral intention: attitude toward the behavior (favor or do not favor of performing behavior), relevant social norms, and perceived behavioral control (possibility or impossibility of performing behavior). If people have a positive attitude toward the behavior (i.e., retirement), perceive a supportive subjective norm, and have access to resources to perform the new behavior, these factors will increase one's intention to perform the behavior. People who have a stronger intention are more likely to actually achieve the desired behavior change. In this project, I will apply the theory of planned behavior to explain older women's and men's different intentions regarding retirement using three sub-factors.

Retirement is a lifestyle choice, that is, it is a voluntary decision about when to retire (Jex & Grosch, 2013). The various retirement theories offer propositions and logical predictions about the retirement decision-making process. These theories often mention that people do not want to experience a huge gap between pre- and post-retirement life, and such gaps can affect older adults' retirement decisions. Every worker may consider a unique set of factors when they decide about retirement; people do not always follow a similar decision process. For example, financial security, working environments, employment careers, age of retirement, information from friends or family members, and health conditions may influence one's retirement decisions (Ekerdt, Kosloski & DeViney, 2000). In this project, I will focus on voluntary retirement because I am using the conceptual terms of the retirement decision as an outcome of individual choice (Wang & Shultz, 2010).

(2) Retirement Plan and Retirement Financial Security

Older adults who have participated in the workforce for a long time may lose their identity, social roles, social networks, and regular income after they retire. They face potential stress when trying to adjust to a new stage of life. Van Solinge and Henkens (2008) found that retirement adjustment is influenced by the older worker's level of anxiety regarding retirement. Those who experience more anxiety and stress during retirement will be less satisfied with the experience. To reduce retirement anxiety, older workers may need better retirement planning. The process of planning can also be likened to making preparations for unexpected change, including helping the individual make adjustments to behavior (Beehr & Adams, 2003). The terms “planning” and “behavior adjustment” are closely associated. According to Wang and Shultz (2010), a retirement plan should incorporate a relationship between adjustment to retirement and satisfaction with retired life. This is because a good retirement plan provides details relating to the retiree’s practical expectations and shows older adults how to make arrangements for their retirement in the future. To be more specific, older workers worry not only about their intended retirement age, but also about their future living place, social identity, the possibility of loneliness or social isolation, leisure activities, health conditions, family responsibilities, chances of bridge employment, and financial security. Therefore, a well-thought-out retirement plan can facilitate one’s retirement decisions and provide a successful road map for older adults.

In this context, the current study views success as having a positive attitude toward the retired life, good health, supportive social networks, essential retirement security, and enjoyment of leisure activities, all of which can contribute to a good quality of life. Older adults with a specific plan for retirement are more likely to be ready and attuned to retirement than those who do not. Research by Jex and Grosch (2013), suggests there are three key decision points in the retirement

process: making the decision to plan ahead for retirement, the actual decision to retire, and choosing the form of retirement (p. 269) (Figure 2.1). Jex and Grosch (2013) describe a retirement plan as including the preparation of financial resources for retirement, health-related planning, and determining the desirable social activities such as hobbies, volunteer work, and leisure activities such as travel. The plan may elicit a retirement intention, which can be a powerful predictor of an individual's actual retirement behavior (Schultz & Taylor, 2001).

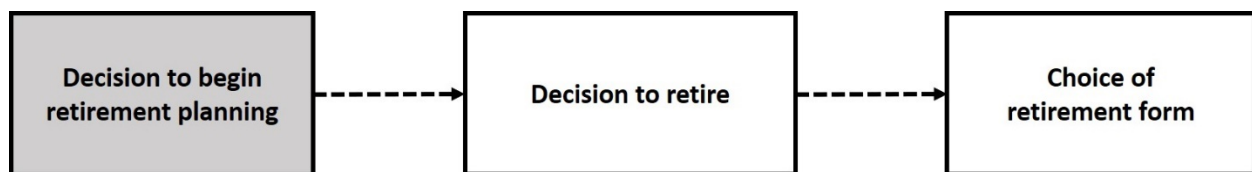


Figure 2. 1. Three key decision points in the retirement process

In this project, retirement intention is operationalized as one's expected retirement timing, defined as the specific age or point at which older workers will withdraw from their workplace or career (Fisher, Chaffee, & Sonnega, 2016) (Figure 2.2). In other words, people who have determined a specific time for retirement are likely to have considered the practical expectations for their future retirement. Many researchers have found a direct relationship between various factors and retirement plans, which can have important consequences for the future. Retirement planning helps to achieve greater satisfaction for the individual and enables them to adjust successfully to retired life (Moen, 1996). Ekerdt, Kosloski and DeViney (2000), describe retirement as a decision-making process that is affected by personal, psychological, workplace, and environmental factors (Beehr, Glazer, Nielson, & Farmer, 2000). Also, if older adults have a positive attitude towards retirement or motivation to engage with leisure and social activities, the

likelihood of older adults' voluntary retirement could increase. Lee and Law (2004) found that older workers who studied information about retirement or consulted with a retirement counselor were more likely to have a retirement plan in place compared to those who did not do any such research. This type of effort has a positive effect on retirement adjustment. Also, several researchers have found that one of the most important factors in the retirement decision is the older adult's financial resources (Gruber & Wise, 2005). Conversely, Desmette and Gaillard (2008) found that workers aged 50 to 59 years who thought about early retirement experienced increased stress when they suddenly realized that they were older than their co-workers, had poor health, or were dissatisfied with their available financial resources for the future. Van Solinge and Henkens (2014) emphasized that the individual's social support system plays an important role in retirement planning. Lack of social interaction is negatively associated with full retirement. For example, single workers tend to remain in the workforce longer than married workers because they want to maintain their social networks with others. Other non-economic factors, too, may affect the retirement process (Gustman & Steinmeier, 2009), such as poor health or weak job prospects for older workers in poor health, which can negatively affect work careers and increase the chances of involuntary retirement (Shultz, Morton, & Weckerle, 1998).

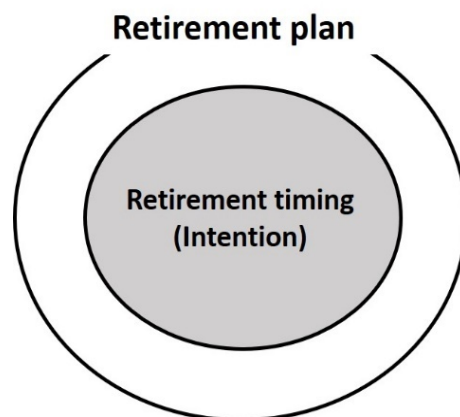


Figure 2. 2. Retirement plan and retirement intention

(3) The Definition of Retirement Financial Security

Many factors are associated with an individual's retirement plan and the retirement decision-making process. But future financial resources are particularly important as older workers prepare for retirement. Older adults' retirement security depends on the financial resources accumulated throughout the course of their lives, something that is highly related to their socioeconomic status (Grable, 2013). That is, if a person is in a higher socioeconomic bracket, that person may accumulate sufficient financial resources for retirement to a greater degree than a person of low socioeconomic status (Prokos & Keene, 2012). Moreover, this financial security gap increases with age. Therefore, adequate financial resources can be the most important factor in determining the timing of retirement. Lusardi and Mitchell (2007) analyzed retirement security using the wealth accumulation model, which views people as accumulating their income or assets during their working years in anticipation of using them to support their retirement.

Retirement security in the United States has also been characterized as a "three-legged stool," which includes Social Security benefits, private pensions, and private savings (Befort, 2006). To be more specific, the U.S. provides Social Security benefits to older adults to support their retirement expenses, but the amount received varies depending on how much they have paid into the Social Security system through employment over the years. Older workers also may have private pensions of the defined benefit (DB) and defined contribution (DC) type. However, many older workers do not have a private pension plan. Also, these pension plans are affected by economic inflation or financial risks. Older workers may or may not have private savings, but this factor can make a big difference in retirement financial resources. According to Poterba (2014), only the upper 25% of the older population has a meaningful pension income, and the bottom 25%

of the older population depends mainly on Social Security benefits. These limitations are likely to affect older women more than men.

2. Older Women's Retirement Security

(1) Women's Changing Social Roles and Aging Life

The life course perspective predicts that later lives are determined by early life experiences such as important decisions, opportunities, or historical events (Elder, 1998). In this view, we can expect older women and men to have different life courses because they have experienced different educational opportunities, work experiences, and social roles. For example, the traditional female social role was taking care of the family and household, while men were considered the main breadwinners. Because of this gender-based division of labor, women depended mainly on their spouses' retirement benefits. However, since World War II the traditional social roles of women and men have changed. As the U.S. economic situation developed rapidly, many companies needed more employees, giving women a chance to work outside of the home (Toossi, 2002). The percent of women in the labor force grew quickly between 1960 and the 1980s, peaking in 1999 (U.S. Bureau of Labor Statistics, 2017). Women aged 25-34 years participated in the workplace at a rate of 34% in 1950, but participation had increased to 81.4% by 2010 and was expected to increase through the 2030s (Toossi, 2002). The higher labor force participation of women had a huge impact on the status of women and their life course. At the same time, women were earning higher education degrees and getting higher-paying jobs. For example, 13% of those who earned doctoral degrees from 1969-1970 were women, but in 2008-2009 more than half of those who earned doctoral degrees were women (Health Resources and Services Administration, 2013). Women with higher education degrees have a greater chance of securing a high-paid job than

women with a high school degree. Studies show that full-time female workers who have a bachelor's degree or higher earn \$1,064 as a median weekly income compared to women who have an associate's degree (\$703) or a high school diploma (\$686) (Vincent & Velkoff, 2017).

In tandem with such changes in earnings, women's traditional roles have changed. As the labor force participation of women has increased and more women have achieved higher education degrees, the average age of marriage and childbirth has increased more than ever before. For example, the initial marriage age for women increased from an average of 25.3 years in 2003 to 27.8 years in 2018 (United States Census Bureau, 2018). At the same time, birth rates at later ages have been increasing. The birth rate for women aged 20-29 has been decreasing steadily since the 1990s, but for women over 30 the birth rate increased between 1990 and 2015 (Martin, Hamilton, Ventura, Osterman, Driscoll, & Mathews, 2017). Likewise, women's marital status has changed over this period. The percent of married women is lower than before as more women remain single or get divorced. Married women made up 66% of the population in 1960, but by 2018 the percentage had declined to 51%. Concurrently, the proportion of never-married women increased from 19% to 29% and the proportion of divorced women increased from 3% to 11% (United States Census Bureau, 2018). Indeed, women's divorce rates have been increasing steadily and are significantly related to their labor force participation (Toossi, 2002). Not surprisingly, such changes in women's marital status are highly correlated with older women's living arrangements. Older men are more likely to have a spouse (53%) than older women (41%), and older women are less likely to remarry than men after getting divorced or widowed. Older women make up two-thirds of U.S. nursing home residents (Cubanski, Swoope, Damico, & Neuman, 2014).

(2) Four Obstacles to Older Women's Retirement Security

Although female labor force participation is increasing, women are less likely than men to accumulate resources during their lives. Not surprisingly, this inequality in accumulation of resources affects older women's retirement security, and by extension, their retirement decisions. The theory of cumulative advantage and disadvantage is relevant in understanding women's financial security. People who have more resources have a greater chance of accumulating resources for the future compared to people who have fewer resources (O'Rand, 1996; Crystal & Shea, 1990). Dannefer (2003) defines cumulative advantages and disadvantages as a "systemic tendency for inter-individual divergence such as financial, health, or social status" (p.327). Another way of saying this is the aphorism, "the rich get richer and the poor get poorer."

There are four main reasons why women are less likely to accumulate financial resources. First, women are more likely to work in sex-segregated jobs. That is, women tend to occupy lower-income jobs such as nursing (89%), dental assisting (94%), and teaching (89%). Conversely, men tend to work in jobs that provide higher incomes, such as construction (90%) (Hartmann & English, 2009). Even though women have more opportunities to work outside the home, many work in part-time jobs that provide temporal flexibility for meeting family obligations. Likewise, women are more likely to experience career discontinuity than men (Berger & Denton, 2004). According to U.S. Bureau of Labor Statistics (2017), 25% percent of women were working part-time in 2015 compared to 12% for male part-time employment. The problem with part-time work for women is that it generally provides less income and no health insurance or pension plans, which contributes to wealth inequality between women and men (Denton & Boos, 2007; Richard, 2014; Warren, Rowlingson, & Whyley, 2001). The median income for women in 2016 was \$18,250 much less than their male counterparts (\$31,372) (U.S. Department of Health and Human Services, 2016).

Second, older women and men tend to receive different levels of Social Security benefits, one of the most important income resources for older people. Social Security supplements older adults' basic retirement income and helps to prevent poverty in older populations. Retirees who have contributed to Social Security, disabled persons, and widows whose spouses were eligible for benefits receive monthly benefits from Social Security (Staubli & Zweimüller, 2013). In fact, many low-income older adults greatly depend on Social Security benefits to get by. According to the Federal Interagency Forum on Aging-Related Statistics (2016), 67% of lower-income older adults aged 65 and older receive Social Security benefits as their main source of income, followed by earnings (13%), assets (6%), and pensions (4%). Social Security is accumulated based on workers' payroll taxes.

Older women and men receive different amounts of Social Security for several reasons. Women are less likely to participate in the workplace at all, as noted above, or they work for lower wages in less-skilled occupations or experience more discontinuous work than men (Division for Social Policy and Development Aging, 2017). Solis & Galvin (2012) found that white women receive Social Security benefits at an average of \$734 per week, significantly less than \$897 for white men, and the disparities are even greater for black women (\$611 per week) and Hispanic women (\$548 per week). Moreover, divorced women and single women receive fewer Social Security benefits than married couples (Tamborini, Iams, & Whitman, 2009). Consequently, single older women are four times poorer than married women, and more single older women live in poverty than their male counterparts (Lin & Brown, 2012). When policymakers designed the Social Security system in 1935, they focused more on married couples and men because women were more likely to receive Social Security spousal benefits. Widows especially became increasingly reliant on Social Security benefits, which are much lower than those of older men

(Butrica & Smith, 2012). Social Security policy focused less on divorced or never-married women because they constituted a minority of the population at that time. The proportion of women receiving spousal benefits or widow's benefits has been decreasing over time (Lin, Brown, Wright & Hammersmith, 2016). Although single and divorced older women are more dependent on Social Security for their needs than married women and men, they receive less Social Security benefits than those groups.

Third, older women and men have a different rate of participation in retirement pensions, which are generally categorized as either a traditional defined benefit (DB) plan or a defined contribution (DC) plan (Bovbjerg, 2012). A defined benefit plan provides monthly benefits for retirees that are guaranteed (U.S. Department of Labor, 2017). These programs typically involve individuals who have been working for many years at a steady job for a regular income. For the reasons outlined above, this pension system is more likely to assist male full-time workers. Participants in DB pension plans receive automatic pension benefits from their workplaces (Tamborini & Purcell, 2016). A defined contribution benefit plan, on the other hand, does not provide guaranteed benefits and is also known as an employer-sponsored retirement plan (U.S. Department of Labor, 2017). The employee receives benefits from their retirement accounts but the value of the account is changeable due to inflation or investment risks. Often referred to as 401(k) plans, DC plans are related more to an individuals' own contributions and their investment skill and knowledge (Tamborini & Purcell, 2016). To be successful, an employee might need significant financial knowledge or investment skill when they contribute to the plan (Bucher-Koenen, Lusardi, Alessie, & Van Rooij, 2017). For those dependent on them, these retirement pensions are a vital income resource (Bovbjerg, 2012). This is especially relevant for employees deciding on the terms of their retirement based on their financial resources (Tamborini & Purcell,

2016). As the rate of women's labor force participation has increased, full-time female workers also began to earn and receive pension benefits from their workplaces (Bovbjerg, 2012). However, women working full-time typically receive smaller pensions than men from an employer's pension plan, and many women who work part-time have fewer opportunities to participate in an employer-sponsored pension plan or retirement savings account. Employees who earn high salaries, have longer job tenure, work for a large company or the government, or belong to a union are more likely to receive a pension plan than those with part-time jobs (Shaw & Hill, 2002). Even when women work for employers with pension plans, they are less likely to participate in such plans because they don't work long enough or remain in part-time positions (Shaw & Hill, 2002).

Lastly, older women have less accumulated savings than men. The median value of women's savings in retirement accounts was \$55,000 in 2014, while that of men was \$79,000. Not surprisingly, retirement savings are highly correlated with individuals' employment situation and socioeconomic status. People under 65 and disabled (\$58,000) or who have part-time work (\$57,000) have lower retirement savings than those working full-time (\$64,700) (United States Census Bureau, 2014). Moreover, women's shorter work histories are negatively associated with their wealth accumulation, which, in turn, significantly affects their retirement plans (Ginn & Arber, 1996; O'Neill, 2003). Recognizing this, a large proportion of older women in the labor force are moving rapidly to strengthen their financial resources (Kromer & Howard, 2013). Differential wealth accumulation profoundly affects later life and is associated with other social issues. In 2017, 26% of single older women, 18.4% of divorced women, 16.3% of widowed older women who are over 65 were living below the poverty level compared to 4.9% of married older women (Justice in Aging, 2018). Therefore, the obstacles to women's retirement income security lead to a higher rate of poverty after retirement, especially for the unmarried.

(3) The Importance of a Retirement Plan for Older Women

Women and men may have similar worries about planning for retirement but women face more obstacles in preparing for retirement than men. Older adults' eventual retirement decisions may be guided by their retirement plans, so having a retirement plan is especially important for older women. As women age, they need more financial resources to prepare for unexpected situations that entail increased health care costs, long term care expenses, and other living costs. Research findings document that older adults' financial security is highly associated with their retirement plans and decision processes (Lusardi & Mitchell, 2011). Choi (2002) noted that older adults' financial security can be the most important factor in making decisions about retirement and, therefore, having a retirement plan is vital to maintaining a healthy and secure life post-retirement (Brucker & Leppel, 2013). In contrast, older adults who perceive a lack of financial security or other resources experience decreased motivation for retirement (Ekerdt, Hackney, Kosloski, & DeViney, 2001). In fact, the most important reason for delaying retirement is inadequate household assets (Levanon & Cheng, 2011). Other reasons for delaying retirement include deferring Social Security benefits in order to receive the maximum amount or the desire to continue one's employer-sponsored health care coverage (Brown, Saad-Lessler, & Oakley, 2018). Ghilarducci, Saad-Lessler, & Bahn (2015) also found that the average household income of pre-retirees and the type of retirement plan they have produces different outcomes. Among pre-retirees who had a DB plan, average household income was \$98,861, higher than that of pre-retirees with a DC plan (\$95,476). Additionally, those without retirement plans (\$47,312) are more likely to rely on Social Security benefits than other groups (Ghilarducci, Saad-Lessler, & Bahn, 2015).

This study assumes that workers' intentions and preparations for retirement are critical factors in the decision-making process. The annual Retirement Confidence Survey (RCS) measured workers' preparations for and confidence about retirement. RCS used participants' levels of retirement security to measure older adults' retirement plans or confidence in retirement. For example, to assess workers' attitudes toward retirement preparation, the question was asked, "How confident are you that you will have enough money to live comfortably throughout your retirement years? How confident are you about that?" (Employee Benefit Research Institute, 2019). The RCS found that 59% of workers felt stressed when they needed to prepare for retirement. Notably, almost 40% of the workers reported that they were not confident in preparing for retirement, and 33% answered that they lacked confidence because of inadequate financial resources. This lack of confidence among older adults may affect their retirement plans and intentions, particularly for women. Older women usually do not have enough retirement security and are less likely to prepare a retirement plan than men (Sullivan & Meschede, 2016). Also, other economic, psycho-social, and socio-cultural factors negatively affect women's retirement planning (Choi, 2002). Higher poverty rates, inequality in job opportunities, and gender-segregated roles all contribute to the problem. Nevertheless, older women are going to make up the majority of the aging population, and they will constitute the main beneficiaries of Social Security, Medicare, and Medicaid services in the future.

Therefore, strengthening retirement plans for older women is important in order to make the best of their retirement resources and expectations and enable them to enjoy a long and comfortable life after retirement (Orel, Ford, & Brock, 2004). Thus, it is important for aging research to fill the gaps in our understanding of older women's retirement behavior and planning, given that most retirement research has focused so heavily on the situation of men.

CHAPTER 3

A MODEL OF RETIREMENT INTENTION

1. The Concept of Theory of Planned Behavior (TPB)

Ajzen (1991) insisted that when people decide to perform a specific behavior, its performance may depend on individual motivation. His theory of planned behavior (TPB) postulated that behavior is shaped to an individual's "behavioral belief" (Miller, 1956) and that this determines the intent of individual behavior (Ajzen, 1991). TPB posits that three considerations guide behavior. First, beliefs about the likely consequences or other attributes of a behavior (behavioral beliefs) produce favorable or unfavorable attitudes. Second, beliefs about others' normative expectations (normative beliefs), result in perceptions of social pressure or subjective norms. Third, beliefs about factors that may further or hinder performance-related behavior (control beliefs) give rise to perceived behavioral control, or the apparent ease or difficulty of carrying out a behavior (Ajzen, 1991).

The theory of planned behavior encompasses attitudes toward the behavior, as well as perceptions of social norms and factors affecting perceived behavioral control, which form behavioral intention (Figure 3.1). This concept originated from the theory of reasoned action (Ajzen, 1991), which also explained that individual behavior is affected by intention and attitude toward behavior and subjective norms (Fishbein & Ajzen, 1975). Norms arise from beliefs about social groups' agreement or disagreement with behaviors (Ajzen, 2011). People may thus make decisions based on others' opinions or experiences (Desmette & Gaillard, 2008) as social groups affect individual decision making (Schlossberg, 1995). Therefore, the subjective normative component of the theory of reasoned action strongly predicts behavioral intention (Van Dam, Van

der Vorst, & Van der Heijden, 2009). In an example of the theory of reasoned action, a man may want to retire at age 60. He has worked for 15 years and has become tired of it as well as his coworkers, and he has a favorable attitude toward retirement. Despite this, his co-workers expect to retire around 65 years old, he re-considers the relevance of retiring to his situation. Moreover, his intention to retire may change because of a subjective norm (Hawkins, Best, & Coney, 2001; Hansen, Jensen, & Solgaard, 2004).

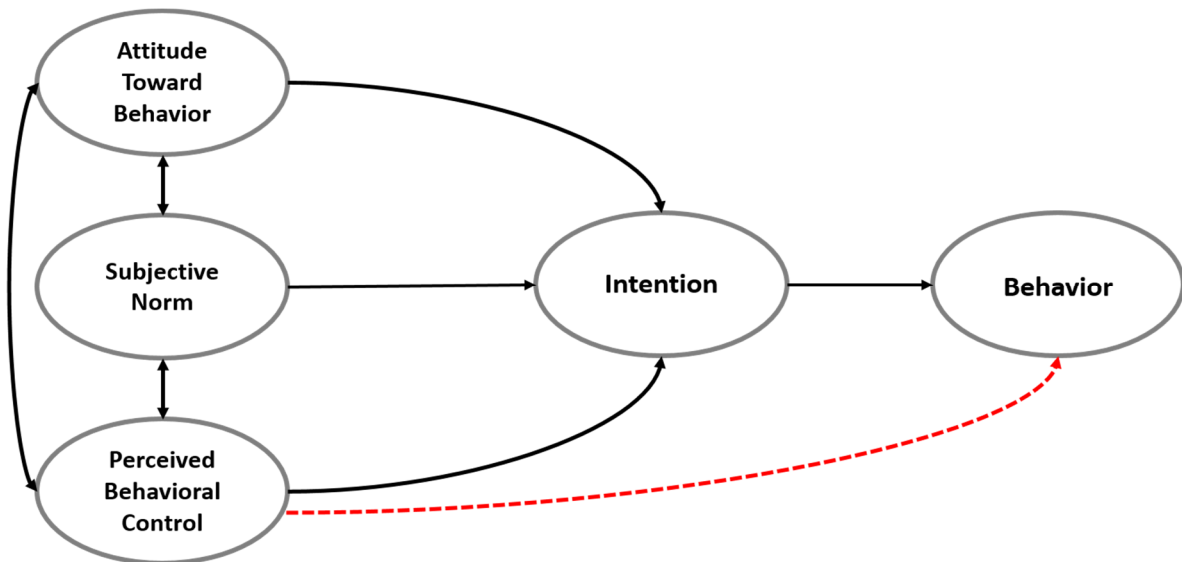


Figure 3. 1. The theory of planned behavior model

The theory of reasoned action has claimed that an individual can control their behavior through their attitudes toward behavior and subjective norms. However, many researchers have criticized this assumption, believing that individual behavior is affected not only by attitude and subjective norms but by unexpected situations not under personal control (Sheppard, Hartwick, & Warshaw, 1988; Hansen, Jensen, & Solgaard, 2004). The theory of planned behavior added the factor of perceived behavioral control to explain individual behavioral decisions. Behavioral

control arises from the person's control beliefs about the level of difficulty associated with specific behaviors. Behavioral intentions are affected by the perceived ease or difficulty of their performance. People expect certain obstacles to a behavior's performance and control them when they perform it (Ajzen, 1991). Some research has explained perceived behavioral control as an individual's confidence in behavior performance. According to Bandura (1991), self-efficacy significantly impacts the preparation and execution of an activity. For example, two people may similarly intend to retire and are highly motivated. Still, a person highly confident about retirement is more likely to prepare for it than a person lacking confidence in their retirement plan.

These interrelated factors (concerning attitudes toward behavior, subjective norms, and perceived behavioral control) can predict the intention of individual behavioral performance. However, the theory of planned behavior has asserted that perceived control of behavior dually influences behavioral intention and performance (Ajzen, 2011). Consider the example of a man who has a favorable attitude about retiring at age 60, does not have family obligations, and has many friends and coworkers who have retired at that age. However, when he realizes that he does not have enough financial resources and that it would be difficult to pay for health insurance or cover living costs in later life, he may reconsider his intention to retire.

Ajzen's theory of planned behavior only used behavioral intention to predict one's actual behavior. In this project, I added the term, retirement plan, which includes behavioral intention as a sub-category. Individual retirement planning directly affects actual behavior, especially when it is carried out by older adults (Figure 3.2). The theory of planned behavior (TPB) has been used in various research areas. Researchers use TPB to predict consumer food consumption decisions (Ajzen, 2015), green product consumption (Paul, Modi, & Patel, 2016), or alcohol consumption (Cooke, Dahdah, Norman, & French, 2016). However, there is no research about its applicability

to retirement decisions. This project will use the theory of planned behavior to predict older adult's intentions about retirement.

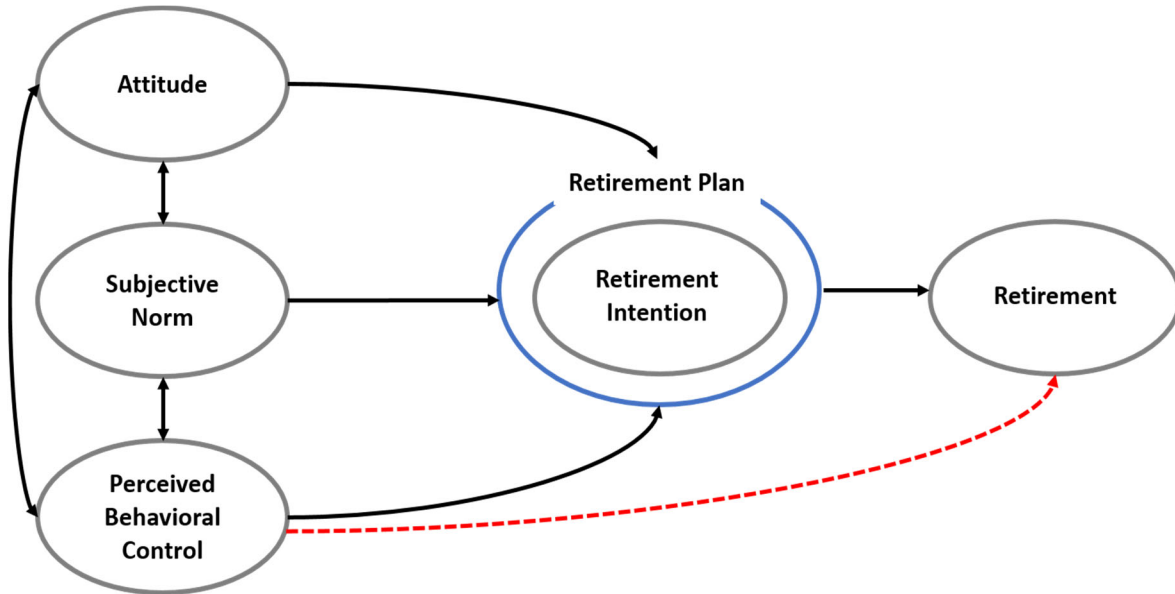


Figure 3. 2. Modified the theory of planned behavior model

(1) Theoretical Perspectives that Support the Theory of Planned Behavior

Several important theories support the theory of planned behavior. Continuity theory, created by Atchley (1989), highlighted the importance of a positive attitude toward behavior. Development is a continual process and past experiences can ease future adjustment. If people can continue their usual activities in the future, it helps them adjust to aging and retirement. For example, for those who before retirement had actively engaged in community roles, such as through church or volunteer work, the related social connections will support adjustment to retirement. Image theory has also explained how attitude affects older adult retirement intentions (Beach & Mitchell, 1987). At the beginning of the retirement process, older workers imagine their

future life. Those who had positive self-images before they retired are more likely to be engaged and socially active after they retire. Older adults who are in poor health, or lack a fulfilling social life such as engaging in volunteer works or leisure activities with other people and future goals are less likely to retire (Brougham & Walsh, 2007).

In the TPB model, behavioral intention is also affected by subjective norms. Social identity theory and social normative theory explain the subjective norms of TPB. Social identity theory was developed by Tajfel and Turner (1985). It postulates that people identify themselves as members of social groups, and they seek a positive self-image through group membership but may experience stress if they have a negative image in a group. Johnson (2012) has also defined social norms as the commonly held ideas, or behavioral standards of an individual's coworkers and other peers. To be more specific, labor participation is a social activity and an intragroup process. There is pressure to fit in with others, and people want to form a positive group identification. Therefore, workers' behaviors can be impacted by coworker opinions or experiences. The decision to retire could be one such behavior. For example, if most coworkers retired at age 65, pre-retirees might follow their peer group's average retirement age. But if most people work longer than that age and the company provides a good environment for older workers, pre-retirees may delay retirement.

Perceived control of behavior is determined by the factors inhibiting or facilitating it (Ajzen, 1991), and financial factors can play an important role in older adults' retirement. To retire, according to Newman, Jeon, and Hulin (2013), people need to decide that they can have a good quality of retirement life with manageable retirement costs. Older workers cannot choose retirement if they cannot support their desired standard of living or have a negative perception of retirement life (Feldman & Beehr, 2011). If inflation is high, it will impact their savings or retirement financial resources, and older adults will be less likely to retire. However, for older

adults who earn high interest, inflation would positively impact their retirement investments or deposits (Rust & Phelan, 1997). Also, because health care expenditures are increasing, older workers may try to remain employed longer than they expected to receive full Medicare or Social Security benefits (Feldman & Beehr, 2011).

Life cycle theory, which emerged from economics, asserts that individuals spend money throughout their life cycle. Because consumption needs continue, if there are no income resources, savings are the main financial resource for individual retirement (Baranzini & Cencini, 2005). If people have sufficient financial resources, they can prevent unexpected problems relating to earnings, tax rates, health care expenditures, or longer than expected lives (Mitchell & Utkus, 2004). An alternative theory asserts that people's decisions can be restricted when they realize that their retirement will not be secure (Mullainathan & Thaler, 2000). In one example, 25% of US retirees do not have any retirement savings (Helman, Copeland & VanDerhei, 2009). The financial insecurity of these older adults differs for older men in contrast to women, and this insecurity might affect their future retirement decisions.

(2) The Implications of a TPB Perspective on Older Women's Retirement Planning

The theory of planned behavior (TPB) has explained that when people have strong behavioral intentions or motivations, they will experience a positive behavior change (Ajzen, 1991). Before they decide to act out specific behaviors, people evaluate the availability of future life resources, such as social networks, social roles, time, money, and activities. This cost-benefit framework predicts that people will retire when they have enough retirement benefits as compared to those from a working situation (Feldman & Beehr, 2011). Individuals who do not have a focused

plan for retirement or lack confidence in it will be less motivated to retire (Brucker & Leppel, 2013). TPB breaks down older women's retirement intentions and the decision to retire into three categories. First, the attitude towards a behavior may explain older women's favorable or unfavorable attitudes towards retirement and influence their related motivation and intentions. These attitudes are associated with the timing of their first childbirth and the responsibility for providing child care. Women who have had late first childbirth have higher levels of education and earlier work experience than women who had their first child early (Dykstra et al., 2000). According to Damman, Henkens, and Kalmijn (2015), women who have experienced late childbirth have a stronger work motivation than women who experienced early childbirths. Thus, the former are more likely to retire later than women who had an early first child. However, if women still have responsibility for taking care of children or older parents, they might retire either earlier or later than women who have experienced an empty nest or are without caregiving responsibilities (Choi, 2002).

Older women's marital status may also influence their attitudes toward retirement-related behavior. Married older women are likely to retire earlier than single or divorced women because marriage and family relationships provide more security for retirement adjustment (Mutran, Reitzes, & Fernandez, 1997). Married women can receive emotional support from spouses when they consider retirement, and substantial research indicates that married women experienced heightened psychological well-being while spending leisure time with their spouses (Blau & Riphahn, 1999). Thus, married older women are more likely to enter earlier retirement (Kim & Moen, 2002). In contrast, single or divorced women may have limitations in choosing earlier retirement because divorced women are less likely to have suitable levels of income as compared to married women (Poortman, 2000). Another study has found that they may have more social

interaction in their workplace, which extends divorced women's working lives more than those of married older working women (Bossé et al., 1990).

Second, the subjective norm of behavior indicates that retirement intention is affected by other people's views or opinions of retirement (Ajzen, 1991). Planning for retirement is conditioned by such social norms, and they affect retirement timing. In our society, there are two types of age-related norms, formal and social. People retire at certain ages because their formal retirement age or its timing was built in by Social Security or a private pension system (Karpinska, Henkens, & Schippers, 2013). The informal age norm refers to when people decide to take part in an age-related behavior, a decision influenced by other group members' expectations or opinions (Shultz, Morton, & Weckerle, 1998). This is because people try to engage with a specific group to identify themselves within a particular social circle and community (Tajfel & Turner, 1985).

Interestingly, research suggests that older men have greater opportunities than older women to receive a variety of retirement advice or financial information from coworkers. For example, older men can discuss their retirement intentions with coworkers by making such comments as, "Most of my coworkers retired when they became 65 years old" or "My close friends told me that I should retire when I can receive the maximum amount of Social Security benefits" (Newman, Jeon, & Hulin, 2013). These can affect older men's retirement intentions because people have shared opinions and expectations concerning age-related behavior. However, older women who work part-time jobs, or have discontinued their careers due to family obligations are less likely to build secure social connections with their coworkers or working groups. Older women are also less likely to receive the same level of retirement advice or necessary financial information from their workplaces as male fellow workers (Bucher-Koenen, Lusardi, Alessie, & Van Rooij, 2017). In addition, women who do not have access to retirement financial literature

and who do not receive appropriate financial advice or retirement information are less likely to have a retirement plan and are more likely to make poor economic decisions in their retirement years (Bucher-Koenen et al., 2017). Furthermore, older women who lack retirement or financial information will accumulate less retirement wealth because they most likely do not have a retirement pension in place or other retirement resources as compared to people who have a retirement plan (Lusardi & Mitchell, 2007).

Last, older women's perceived behavioral control is what in a specific situation they consider to be possible or impossible (Ajzen, 1991). In this research, I used older adult financial security - including assets or savings, income, and pension benefits -- as a perceived behavioral control factor-- . Several studies have provided evidence of the relation between financial security and retirement motivation. Taylor and Doverspike (2003) have stated that wealth is the most critical factor in a successful retirement, as it positively affects an older adult's adjustment to retirement. Also, many research investigations have supported that measurement of retirement planning can be based on an individual's financial preparation, level of wealth or assets planning, insurance, Social Security, retirement pension, and retirement savings (Helman & Paladino, 2004; Kim, Kwon, & Anderson, 2005; Noone, Alpass, & Stephens, 2010). In addition, older adults who have satisfactory Social Security benefits, health insurance coverage, and adequate pension plans, are typically the same older workers who have retirement intentions (Fronstin, 1999). Therefore, one's financial resources are strongly connected with one's retirement planning (Kim, Kwon, & Anderson, 2005) and decision making process (Helman & Paladino, 2004). This contrasts with those people who may have postponed retirement because they have worried about inflation, financial security, and health insurance coverage. These people, most likely, will not retire from their jobs to compensate for their lack of retirement security (Kim, Kwon, & Anderson, 2005).

According to Warren, Raymo, Halpern-Manners, & Goldberg (2010), the theory of cumulative stratification states that the experience of opportunity or resource inequality likely impacts people's retirement resources or financial security and leads to varying retirement decisions. In addition, family size, unexpected longevity, irregular income, medical expenditures, taxes, pension, or Social Security benefits often affect one's financial situation (Scholz et al, 2006).

However, these financial considerations are more challenging in single households as compared to married households. Those in single households likely have lower net worth, Social Security benefits, defined benefit pensions, financial assets, retirement account benefits, and real estate wealth than married households. Social Security and pension benefits are the primary retirement financial resources for older adults (Bender, 2007). However, higher-income earners receive higher Social Security payments compared to lower-income earners. Moreover, single households, especially those occupied by single women who work part-time or have discontinuous work experience, receive less generous Social Security benefits compared to men or women who have higher-earning spouses who makes more money. Therefore, women are more likely to experience economic hardship during their retirement than men; single people and women from minority groups are most vulnerable in comparison to other groups.

Favorable and unfavorable factors relating to retirement greatly affect older women's retirement planning and decision-making processes (Taylor & Shore, 1995). Marital status highly correlates with women's economic condition and psychological well-being during their later years (Angel, Jimenez, & Angel, 2007; Butrica, Smith & Iams, 2012). For example, in an Employee Benefit Research Institute study (2019), around 27% (men) and 28% (women) of unmarried adult respondents answered that their current savings and investments amounts were less than \$1,000, fewer savings than that found among married women (16%) and men (10%). According to research

by Lee and Rowley (2009), single, divorced, and widowed women had lower net worth in terms of stocks, IRA, or other investments and this affected wealth accumulation. Additionally, women with low educational attainment, poor health, and women from minority groups lack retirement security in comparison with their counterparts. This is because the level of financial literacy is positively associated with retirement planning. Lusardi and Mitchell (2014) found that women, less educated people, and minority groups are less likely to have financial literacy and they are more likely to have a higher debt load as compared to men. These inequalities may increase the gap between older women and men's retirement age. In the Employee Benefit Research Institute study (2019), 46% of unmarried persons and 37% of older women answered that they would retire at age 70 or older or never retire, but only 27% of married couples and 32% of men answered that they would late retire at age 70 or never retire at all. Thus, people who prepare for their retirement have more confidence and a positive perception of post-retirement life than people who do not prepare for it (Helman & Paladino, 2004).

There are many possible reasons for the differences in retirement planning between older women and older men. Retirement plans are affected by factors that may include not only financial resources, but individuals' attitudes toward retirement, leisure activities, family and friends, caregiving responsibilities, and so on. Women and men may have different reasons for retiring, but these factors may also affect individuals' security in later life. Unequal work experience and fewer resources can postpone older women's retirement or increase the age at which it begins as compared to older men. Consequently, in this research I will use the theory of planned behavior model to examine the relationship between older women and men's retirement resources and their differential retirement timing. Furthermore, I examine retirement timing for older women with

reference to their marital status such as whether they belong to a married or unmarried older women group. In both cases, the intention to retire is considered to operate as retirement timing.

The hypotheses to be tested are the following:

H₁. Attitudes toward behavior, subjective norms and retirement security affect older adults' retirement timing. Retirement security is more likely to affect older adults' retirement timing compared to attitudes about behavior and subjective norms.

H₂. Older adults who have less retirement security expect to retire later than their counterparts who have more retirement security.

H₃. Older women are less likely to have retirement security as compared to older men.

H₄. Older women are more likely to have later retirement timing than male counterparts.

H₅. Unmarried older women are less likely to have retirement security as compared to married older women.

H₆. Unmarried older women are more likely to have later retirement timing than married older women.

CHAPTER 4

METHOD

1. Data Source

This research used data from the 2014 Health and Retirement Study (HRS) (<https://hrs.isr.umich.edu/about>), which was sponsored by the National Institute on Aging and the Social Security Administration. HRS began to collect data in 1992 at the University of Michigan. It is a national longitudinal study of older adults and deals with their economic and health-related information. HRS is the most extensive comprehensive panel study of older Americans. Respondents represent American older adults who are over 50 years old when interviewed and they and their spouse continue as study participants until their death. Every six years, the panel is updated with a new cohort.

The HRS conducts an approximately two- hour interview with participants every two years. Respondents' first interviews were conducted face-to-face, and follow-up interviews were performed either face to face or by phone. After 2006, HRS began to conduct both face-to-face and phone interviews from the start of respondent participation, measuring various factors such as demographics, health, cognition, family structure and transfers, functional limitations, housing, physical measures, employment and pensions, disability, and health services. Insurance, assets and income, asset changes, widowhood, and divorce statuses, wills and trusts are also examined.

The RAND HRS is a user-friendly version of a sub-set of an HRS data subset; it provides cleaned and processed derived topic variables, which cover topics within respondent data (<https://www.rand.org/well-being/social-and-behavioral-policy/centers/aging/dataproduct/hrs->

data.html). The RAND data has “Fat files” which contain most of the original HRS data including files from 1992-2016. The RAND data includes computed income, wealth, and medical expenditures variables. For this study, I used 2014 HRS data that had been collected from April 2012-April 2013, the final data released in 2014, and RAND data. If I used a respondents’ economic status variable such as their total assets, pension plan, and income, I would merge RAND data with HRS raw data and use both data sets. I employed both 2014 HRS and RAND data because the respondents had more distance from the Great Recession of 2008-2009. This crisis impacted home mortgages, savings, and income, which were related to economic resources. Thus, using the 2014 data set could reduce respondents’ financial crisis bias in this study.

2. Sample

The complete 2014 data set included 18,747 respondents, of whom 11,043 were female (58.9%). The HRS is a household survey. If there was more than one age-eligible individual in the household, a primary respondent was randomly selected. I examined primary respondents only because an answer concerning married couples’ retirement resources, such as assets, or level of income and retirement timing, could be affected by a respondent’s spouse as it is highly correlated with spouse decisions. These variables could not be independently measured. Therefore, I used primary respondents’ answers to reduce redundancy.

Because I focused on the pre-retiree population, this study targeted respondents aged 50 to 62 years old, who were working full- or part-time. I excluded unemployed respondents, partly retired, retired, disabled, or not in the labor force. I excluded respondents over 62 years old as this population could claim early Social Security benefits and could already be early retirees.

After I performed case select, the total sample was 3,593, and female respondents made up 55.8% of the total sample (Figure 4.1).

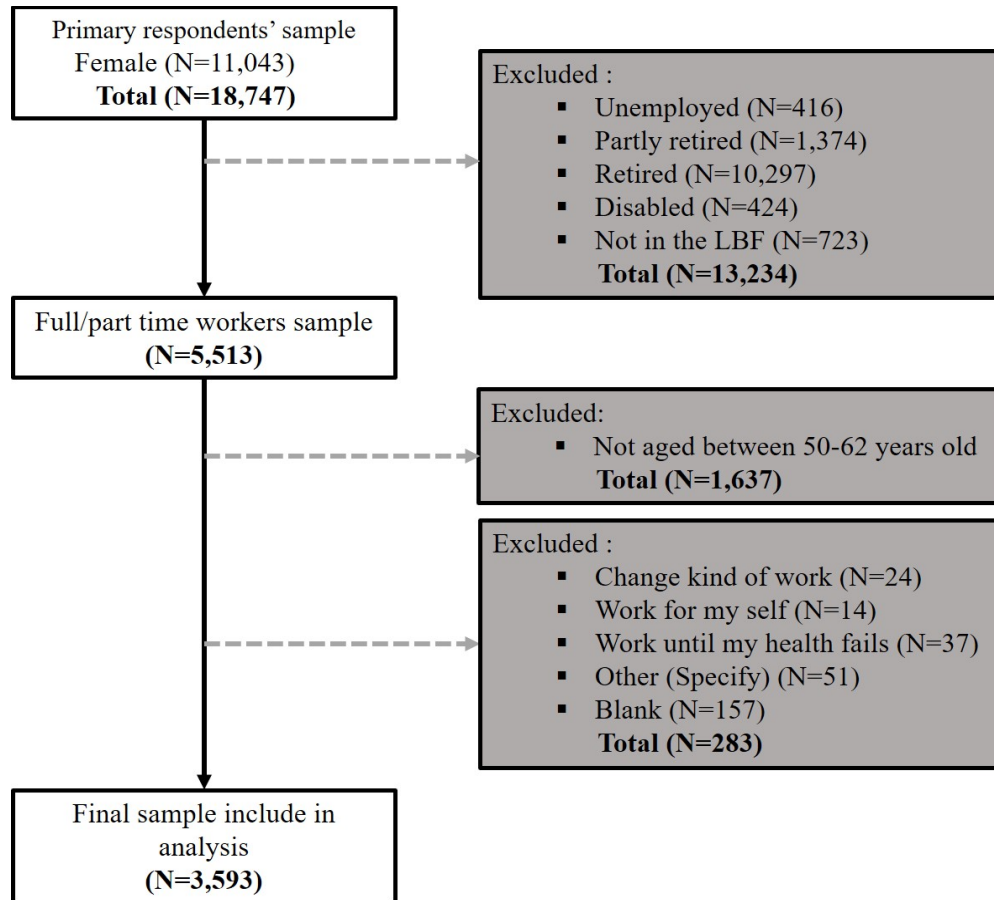


Figure 4. 1. Schematization of sample

Descriptive statistics for the sample are shown in Table 4.1. The descriptive statistics represent independent variables: age, gender, race, level of education, marital status, labor force status, subjective health, number of children, plan for retirement, attitude toward retirement, subjective norm, pension, and level of assets as well as the dependent variable (expected retirement plan). The total 2014 wave of data set included 3,593 individuals with a mean respondent age of

57.35 ($SD = 2.91$). Female respondents accounted for 55.8% of the full sample. Most participants were white (63.2%), followed by African Americans (22.4%), and other ethnicities (13.7%). Most participants were married (69.8%) and possessed more than a high school degree (92.6%). Most respondents worked full time (82.4%) and had one or two children (41.2%); 34.2% had three or four children. Only 8.6% of the respondents had no children and no familial responsibility. Participants tended to have good (35.5%), or very good (35.5%) health status; less than 20% answered that they had a fair (15.7%) or poor (1.7%) health status. When asked the following question, “*How much have you thought about your retirement?*” respondents answered: hardly at all (27.3%), sometimes (27.1%), and a lot (26.2%). For the following question, “*My coworkers make older workers feel that they ought to retire before age 65,*” respondents answered that they disagreed (63.1%), strongly disagreed (19.5%), and agreed (13.5%). More than half of respondents had a pension (57%), and the mean asset level (in thousands) was 409.2590 ($SD = 4216.49$). In addition, 43.5% of participants indicated that they had not given retirement much thought, 21.3% were considering stopping work altogether, 29.1% desired reduced work hours, while 3% had no plans at the time or did not know about their retirement plans (0.4%). The mean expected retirement age was 66.07 years ($SD = 6.99$). Respondents who answered that they had a specific retirement age comprised 89.2% of respondents, while 10.7% did not have a particular retirement age.

Table 4. 1. Descriptive statistic from health and retirement study samples

Variables	All respondents
	N=3,593
Age, M, (SD)	57.35 (2.91)
Gender %	
Female	55.8
Race %	
White	63.2
Black	22.4
Other	13.7
Missing	0.7
Level of education %	
Less than HS	6.4
High school	34.2
Some college	45.7
College +	12.7
Missing	1.0
Marital status %	
Married (1)	69.8
Unmarried (0)	30.1
Missing	0.1
Labor force status %	
Work full time (1)	82.4
Work part time (0)	17.6
Subjective health %	
Poor	1.7
Fair	15.7
Good	35.5
Very good	35.5
Excellent	11.6
Number of children %	
No children	8.6
1 or 2	41.2
3 or 4	34.2
More than 5	15.1
Missing	0.8
Attitude toward behavior (thought about retirement) %	
Hardly at all	27.3
A little	19.1
Some	27.1
A lot	26.2
Missing	0.2

Subjective norm (ought to retire before age 65) %	
Strongly disagree	19.54
Disagree	63.12
Agree	13.46
Strongly agree	3.86
Perceived behavior control %	
1) Pension	
Yes (1)	57.0
No (0)	41.9
Missing	1.1
2) Level of assets (in thousands), <i>M</i> , (<i>SD</i>)	409.2590 (4216.49)
Plan for retirement %	
Stop work altogether	21.3
Never stop work	2.8
Not given much thought	43.5
No current plans	3.0
Reduce work hours	29.1
Don't know	0.4
Expected retirement age, <i>M</i>, (<i>SD</i>)(N=3,205)	66.07 (6.99)
Missing (N=388) %	10.8
Expected retirement age dummy variables %	
Have an expected retirement age (1) (N=3,205)	89.2
Don't know or never think about retirement age (0) (N=383)	10.7
Missing (N=5)	0.1

3. Variables

The *dependent variable* was the participants' expected retirement age, which was this study's measure of "retirement timing." The HRS had a set of questions about the retirement plan (see the last three items of Table 4.1). The first question was, "*Do you plan to stop working altogether or reduce work hours at a particular date or age, have you not given it much thought, or what?*" Respondents could choose an answer from these options: 1- Stop work altogether, 2- Never stop work, 3- Not given much thought, 4 - No current plans, continue as is, 5 - Reduce work hours, 6 - Change kind of work, 7 - Work for myself, 8 - Work until my health fails, 97 - Other, 98- Don't

know and 99- Refuse. In this study, only answers from respondents who selected 1, 2, 3, 4, 5, and 98 from the plan for retirement questions were used, and other values were excluded, as shown in Figure 4.1.

Next, the HRS inquired about the specific retirement age or year. The question was, “*At what age do you plan to stop working?*” Respondents who had a specific age or year in mind provided the number, but those who did not have a specific plan answered “I don’t know” or “never.” The latter respondents were still likely to be potential future retirees. Therefore, I included these respondents among my dependent variables as a dummy value (0- Don’t know, never think about retirement age, 1- Has an expected retirement timing). Altogether, 3,205 respondents replied with expected retirement age, and this was the analytic sample for models of retirement timing. In the logistic regression analysis will compare those with and without an expected retirement age.

Independent variables operationalized the theory of planned behavior, including the attitude toward behavior, the subjective norm, and perceived behavior control. These variables were based on the planned behavior model and could predict respondents’ retirement intentions.

- (1) Attitude toward behavior was assessed through the question, “How much have you thought about your retirement?” The question used a four-point Likert scale (1- Hardly at all to 4 - A lot). Those who answered, “don't know,” "not certain," or refused to answer/ left it blank were assigned as "missing."
- (2) The question of a subjective norm consisted of respondents being asked their level of agreement with the statement, "My coworkers make older workers feel that they ought to retire before age 65" through the use of a four-point Likert scale (1- strongly disagree to 4 - strongly agree). Respondents who answered, "does not apply," "don't know," "not certain," or who refused to answer/ left it blank were assigned as "missing."

(3) Perceived behavior control was divided into two categories - pension coverage and respondents' assets - because these could be their retirement security.

Pension: The question asked whether respondents had any pension from their current job. If the respondents answered that they had a pension from their current job, they had an active pension plan, or that they were currently enrolled in a plan, it was anticipated that they would choose Yes (=1). If the respondents did not have a pension, or the number of pension plans was "0", they would select No (=0). If the respondents had a current job but did not respond to the question, it was marked as a missing response.

Total assets: The respondent assets variable was the net value of total wealth, excluding their second home. It was calculated as the sum of all wealth components: primary residence, real estate, vehicles, businesses, IRA/Keogh, stocks and mutual funds, checking, savings, money market accounts, CDs, government savings bonds, treasury bills, bonds or bond funds, and all other savings, minus all debt. It was a continuous variable. The calculation of assets which consisted of the respondent's mortgage, home loans, the balance on an equity line of credit, and consumer debt.

Covariates Age, gender, race, marital status, labor status, level of education, subjective health, and the number of children were covariates potentially associated with retirement timing. Age was measured in years as a continuous variable, and gender was a dummy variable (0-Male, 1-Female). Race had three categories (White, Black, and Other), and I recoded them into two dummy variables (0-White & Other, 1-Black), (0-White& Black, 1-Other). The level of education was measured by educated years as a continuous variable. Marital status had 5 categories (1-Married, spouse absent, separated; 2-Partnered; 3-Divorced & separated; 4-Widowed; 5-Never married) and I recoded

them as a dummy variable (0-Unmarried & 1-Married). Labor status had several categories (work full time, work part time, unemployed, partly retired, retired, disabled, not in labor force), and I only used respondents who are 0-Working part-time, 1-Working full-time. Subjective health was measured on a 5-point Likert scale (1-Poor, 2-Fair, 3-Good, 4-Very good, 5-Excellent). The number of children consists of 4 categories (1-No children, 2-One or two, 3-Three or four, 4-More than 5).

4. Missing data

Excluded cases: I used the primary respondents' sample from the HRS, which included a total of 18,747 respondents (Figure 4.1). My focus was on older adults working in full- or part-time jobs. More specifically, I looked at research respondents whose age was between 50 to 62 years, whereas respondents who did not fall into this age range (n=1,637) were not considered. Thus, a total of 13,234 respondents (unemployed, partly retired, retired, disabled, and not in the labor force) were excluded from my data analysis. In the plan-for-retirement question, respondents were excluded who did not express an intention to retire – chose the answer option 'change kind of work', 'work for myself', 'work until my health fails', 'other' or they left the response blank (n=283). Some respondents (Table 4.1) answered 'don't know' or 'never think about their retirement age' (n=383), but these individuals were retained in the sample. The respondents who refused the answer (n=5), were not included.

Missing values: The subjective norm variable included 16.3% missing data largely because the HRS skipped this question for self-employed workers. Race, level of education, number of children, and pension had less than 1% missing values. All of these cases were excluded listwise from regression models among the respondents who did express the intention to retire

(n=3,205), reducing the sample to 2,656 cases. Individuals who did not have a specific time in mind regarding retirement will nevertheless be included in a later phase of the analysis.

5. Analysis Plan

The data was analyzed using SPSS version 25. Variables in the analysis are shown in table 4.1. The demographic information included the primary respondents' age, gender, race, marital status, level of education, subjective health, labor status, and the number of children. A descriptive analysis was conducted to examine all study variables. I evaluated frequencies, percentage, skewness, outlier mean, and standard deviation for the covariate variables, independent variables and the dependent variable.

I used univariate analysis to check distribution of variables and normality distribution. To check the normality distribution of a variable, I checked frequency distributions and the outliers with box plots and scatter plots. I used skewness, kurtosis and the Shapiro-Wilks test to check the normality of the data. I used a Pearson correlation analysis to check multicollinearity among the predictor variables (attitude toward retirement behavior, subjective norm about retirement, and measures of financial security; pension coverage and assets) for multiple regression. Multicollinearity checks high correlations between the predicted variables in a multiple regression. The predictor variables can linearly predict the other values with degree of coefficient estimate, but if it has high correlation, it can create redundant and skewed results in a regression model. If the correlation is close to +1 or -1, the researcher may need to exclude the variables from the regression model. Further analysis with variance inflation factors (VIF) and tolerance was also conducted to judge the multicollinearity of the variables. The bivariate analysis (t-test, correlation) compared basic relationships of gender and marital status for the dependent variable (retirement

timing) and the independent variables such as attitude toward retirement behavior, subjective norm about retirement, and measures of financial security (pension coverage, and assets).

Models predicting retirement timing were conducted using hierarchical multiple regression. \hat{Y} of multiple regression is the predicted value of Y for a given set of X value. β_1 is the estimated slope which is the amount of increase in Y when the unit of X changed. β_0 is the Y intercept, it is the value of Y when X is zero. How well the equation fits the data is shown by R^2 ; it is called by "coefficient of multiple determination." R^2 is amount of variation in Y, it can range from 0 to 1. $R^2 = 0$ means no relationship between Y and the X variables and $R^2 = 1$ represents no difference between the observed and expected Y values. Also, the data will have a variability around the regression line, and the error around the regression line are called as residuals. The small residuals represent the best regression fit. It can be calculated by $Y - \hat{Y}$. To test the hypothesis of the theory of planned behavior (TPB) and retirement timing, the retirement timing was regressed on the attitude toward retirement, subjective norms, and perceived control behavior (pension and assets). Other covariates were controlled. I split the sample and ran regression models separately for men and women. To check for a moderating effect of marital status on retirement timing, I maintained the separate men's and women's samples, using analysis of variance and the TPB regression model to compare retirement timing across five categories of marital status.

$$\hat{Y}_{\text{Retirement timing}} = \beta_0 + \beta_1 X_{\text{Attitude toward behavior}} + \beta_2 X_{\text{Subjective norm}} + \beta_3 X_{\text{Perceived behavior control}}$$

I used logistic regression to study respondents who do not have a planned retirement age. The main difference from multiple regression is that the dependent variable is a dummy value (0- Has a retirement age, 1- Don't know, never think about retirement age) rather than a continuous variable. This analysis proceeded in the same way as multiple regression. Logistic regression analysis predicts the relationship between the dichotomous dependent variable and independent

variables by estimating the likelihood that the odds differ between categories of the outcome variable given a unit increase in the predictor variable.

$$P_{\text{Retirement timing don't know or never}} = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_{\text{Attitude toward behavior}} + \beta_2 X_{\text{Subjective norm}} + \beta_3 X_{\text{Perceived behavior control}} + \varepsilon)}}$$

CHAPTER 5

FINDINGS

This research aimed to determine which factors predict early or later expected retirement timing among older American workers, using data from the Health and Retirement Study. The total sample comprised 3,593 older adults working as full or part-time workers in 2014 (Table 4.1). To test the six hypotheses, bivariate analysis was used to check the multicollinearity of independent variables before using multiple regression. Hypotheses 1 and 2 were tested with multiple regression to determine the linear relationship between the three subfactors of the theory of planned behavior and older adults' expected retirement timing. To examine Hypotheses 3 and 4, one-way ANOVA and multiple regression were used to predict older women's and men's different expected retirement timing and to establish a theory regarding planned behavior factors. To determine the linear predictors of married or unmarried older women's expected retirement timing (Hypotheses 5 and 6), I performed multiple regression. Logistic regression was used to compare people with a specific and expected retirement timing with those who did not have a particular retirement plan, using the three subfactors of the theory of planned behavior.

1. Bivariate Relationships

This section of my analysis will show bivariate relationships among the factors of the theory of planned behavior, the control variables, and expected retirement. A Pearson correlation analysis (Table 5.1) was conducted to evaluate multicollinearity among the independent variables before multiple regression. Among the independent variables, there were moderate correlations between level of education and subjective health ($r = .296 ; p < .05$), level of education and pension

($r = .252 ; p < .05$), and full-time labor force status and pension ($r = .244 ; p < .05$). Determining multicollinearity can be difficult when independent variables have high correlations (Lind et al., 2008). However, if the bivariate correlations are below the 0.7 or 0.8 cut off values, the multicollinearity would not pose a challenge for multiple regression analysis (Judge et al., 1982).

The dependent variable was not normally distributed. The Shapiro-Wilk test, which evaluates the null hypothesis that a sample comes from a normally distributed population, rejected the hypothesis of normality because the p-value was less than 0.05. This was because older adults' retirement timing was concentrated at specific ages. Most respondents' expected retirement ages were 62 years (eligible for earlier Social Security benefits), 65 years (eligible for Social Security benefits and Medicare), and 70 years (eligible for maximum Social Security benefits).

Examining correlations in the bottom row of the matrix helped anticipate findings of the regression models explored below. Respondents' later retirement timing was significantly associated with being male, less educated, unmarried, working part-time, having a low priority attitude toward retirement, not perceiving a norm about retirement age, and not receiving a pension from their current place of work ($p < .05$).

Table 5. 1. Correlation coefficients among covariates, independent variables, and retirement timing

	Age	Female	Black	Other	Education	Married	Full time	Health	# of children	Attitude	Subjective norm	Pension	Assets	Retirement timing
Age	1													
Female		1												
Black			1											
Other				1										
Education					1									
Married						1								
Full time							1							
Health								1						
# of children									1					
Attitude										1				
Subjective norm											1			
Pension												1		
Assets													1	
Retirement timing														1
N	3205	3205	3187	3187	3172	3204	3205	3205	3181	3200	2744	3179	3205	3205

* $p < .05$, ** $p < .01$, *** $p < .001$

2. Predicting Expected Retirement Timing: Women and Men

Hypothesis 1 posited that *attitude toward behavior, subjective norms, and retirement security affect older adults' retirement timing; retirement security is more likely to affect older adults' retirement timing compared to their attitude towards behavior and subjective norm.* Factors associated with the theory of planned behavior were tested using a multiple regression analysis with expected retirement timing as the dependent variable. The control variables of age, gender, marital status, racial ethnicity, years of education, full-time labor status, subjective health, and number of children were included.

The independent variables were examined in the linear regression analysis to determine which were strong predictors of expected retirement timing. Table 5.2 shows the results of the multiple regression analysis for the prediction of expected retirement timing. Model 1 shows the direct effect of covariates on the expected retirement timing. The variance of Model 1 in the multiple regression model was $R^2 = 0.018$, or 1.8% of the variance (Table 5.2). There was a statistically significant positive effect between expected retirement timing and age ($b = 0.101, p < .05$). Older respondents were more likely to retire later than younger respondents. However, female ($b = -0.539, p < .05$), married ($b = -1.310, p < .05$), and more educated people ($b = -0.149, p < .05$) were significantly expected to retire earlier than male, unmarried, and less educated people. There was no significant effect on expected retirement timing from race, labor status, subjective health, and number of children ($p > .05$).

Table 5. 2. TPB measures as predictors of expected retirement timing

	Model 1				Model 2			
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
(Constant)	63.155	2.544	24.830	0.000	63.070	2.475	25.488	0.000
Age	0.101	0.041	2.444	0.015	0.171	0.040	4.321	0.000
Female	-0.539	0.250	-2.152	0.031	-0.522	0.239	-2.181	0.029
Married	-1.310	0.275	-4.754	0.000	-1.079	0.264	-4.094	0.000
Black	-0.504	0.298	-1.689	0.091	-0.517	0.285	-1.812	0.070
Other	-0.672	0.380	-1.770	0.077	-1.052	0.365	-2.881	0.004
Years of education	-0.149	0.045	-3.311	0.001	-0.010	0.045	-0.215	0.830
Full-time	-0.400	0.353	-1.132	0.258	0.365	0.345	1.060	0.289
Subjective health	0.099	0.137	0.724	0.469	0.009	0.132	0.066	0.948
Number of children	0.069	0.149	0.466	0.641	-0.097	0.142	-0.678	0.498
Attitude toward behavior	-	-	-	-	-1.403	0.107	-13.168	0.000
Subjective norm	-	-	-	-	-0.492	0.168	-2.929	0.003
Pension	-	-	-	-	-1.713	0.266	-6.436	0.000
Level of Assets	-	-	-	-	-1.249E-05	0.000	-0.526	0.599
<i>R</i> ²		0.018				0.106		
<i>R</i> ² change		0.018				0.088		
<i>F</i>		5.403***				24.183***		
<i>N</i>		2656				2656		

Note : Model 1 regressed expected retirement timing on covariates, Model 2 added factors from the theory of planned behavior, **p*<.05, ***p*<.01, ****p*<.001

After controlling for covariates, the R^2 of Model 2 was 0.106, or 10.6% of the variance (Table 5.2), an R^2 increase of 0.088. This confirmed Hypothesis 1 that attitude toward behavior, subjective norm, and retirement security would collectively affect older adults' retirement timing. Model 2 results indicated that there were significant negative relationships between expected retirement timing and attitude toward behavior ($b = -1.403, p < .05$), subjective norm ($b = -0.492, p < .05$), and pension ($b = -1.713, p < .05$).

Specifically, when respondents gave much consideration to their plans to leave the workforce permanently, they expected to retire earlier than respondents who had hardly thought about retirement. Also, respondents who agreed with coworker opinions favoring early retirement expected to retire earlier than respondents who did not perceive a norm about retirement age. The respondents who collected a pension from their current workplace expected to retire 1.713 years earlier than those without a pension plan. This finding provides support for Hypothesis 2, that older adults who have less retirement security expect to retire later than their more financially secure counterparts. However, the asset level had no significant effect on respondents' expected retirement timing ($p = 0.599$).

The explanatory variable with the strongest ability to predict older adults' expected retirement timing was attitude toward behavior ($t = -13.168, p < .05$), followed by pension ($t = -6.436, p < .05$), and subjective norm ($t = -2.929, p < .05$). Thus, the supposition of Hypothesis 1 that retirement security would be more likely to affect older adults' expected retirement timing, as compared to attitude toward behavior and subjective norm, was not supported. Hypothesis 3 stated that older women would be less likely to have security in retirement as compared to older men. As observed in the correlation coefficient table, the association between gender and pension ($r = 0.026$) and assets ($r = -0.027$) was low and not significantly correlated ($p > .05$) (Table 5.1). Also,

testing Hypothesis 3 by conducting a one-way ANOVA (Table 5.3) determined that there was no significant difference in pension coverage ($p = .115$) and level of assets (in 1,000s) ($p = .111$) between older women and men. The mean assets were not statistically different for older women ($M = 309.40$, $SD = 675.79$) and older men ($M = 535.20$, $SD = 6293.68$) (Table 5.3).

Table 5. 3. One-way ANOVA for both gender's retirement security and retirement timing

	Female			Male			F	p
	M	SD	N	M	SD	N		
Pension	.59	.49	1979	.56	.50	1575	2.480	.115
Level of Assets	309.40	675.79	2004	535.20	6293.68	1589	2.543	.111
Expected retirement timing	65.71	6.63	1802	66.53	7.40	4103	10.940**	.001

* $p < .05$, ** $p < .01$, *** $p < .001$

Therefore, Hypothesis 3 was not supported, nor was the prediction of Hypothesis 4 that older women would be more likely to have later retirement timing than their male counterparts (Table 5.3). On the contrary, there was a significant difference between older women and men's expected retirement timing ($F = 10.940$, $p < .05$) (Table 5.3). Older men ($M = 66.53$, $SD = 7.40$) were more likely to retire later than older women ($M = 65.71$, $SD = 6.63$). In addition, the full regression model in Table 5.2 shows that older women expect, on average, to retire a half-year earlier than men ($b = -.522$, $p < .05$).

Hypotheses 5 and 6 suggest that marital status may affect the timing of retirement in different ways for men and women. To investigate this possibility, an interaction term, female by married, was created and added to Model 2 in Table 5.2. (full results not shown). The interaction

terms was significant ($b = .001, p < .05, R^2 \text{ changes} = .001$), leading next to a comparison of the full model in Table 5.2 for women and men.

The overall regression model was run separately for men and women, with results shown in Table 5.4. For women, Model 1 shows that older women's attitude toward behaviors ($b = -1.425, p < .05$), subjective norm ($b = -0.469, p < .05$), and pension ($b = -1.784, p < .05$) has statistically significant predictors of the expected retirement timing (Table 5.4). However, older women's level of assets did not significantly influence expected retirement timing. The explanatory variable with the strongest ability to predict older women's retirement timing, was attitude toward behavior ($t = -10.397, p < .05$), followed by pension ($t = -5.152, p < .05$), and subjective norm ($t = -2.204, p < .05$).

In addition, older women ($b = 0.190, p < .05$) expected to retire later than younger women. Married women ($b = -1.404, p < .05$) and those racial-ethnically self-defining as "other" ($b = -1.174, p < .05$) women had significantly earlier expected retirement timing than unmarried, white, and older black women. Other covariates were not statistically significant. For men, Model 2 regressed older men's factors relating to the theory of planned behavior on expected retirement timing (Table 5.4). Model 2 has similar outcomes to Model 1. Older men's attitude toward behavior ($b = -1.418, p < .05$), subjective norm ($b = -0.568, p < .05$), and pension ($b = -1.521, p < .05$) has statistically significant predictors of expected retirement timing, but asset level is not a significant predictor of the dependent variable ($p > .05$). As it was for women, the strongest explanatory variable among older men's factors from the theory of planned behavior is attitude toward behavior ($t = -8.339, p < .05$) to predict the expected retirement timing, followed by pension ($t = -3.619, p < .05$) and subjective norm ($t = -2.060, p < .05$). Both Model 1 ($R^2 = 0.095$) and Model 2 ($R^2 = 0.085$) show similar effects for the factors associated with the theory of planned behavior.

Table 5. 4. TPB measures as predictors of older women and men's expected retirement timing

	Model 1 - Women				Model 2 - Men			
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
(Constant)	61.454	3.118	19.708	0.000	64.782	4.061	15.952	0.000
Age	0.190	0.050	3.829	0.000	0.136	0.066	2.058	0.040
Married	-1.404	0.336	-4.178	0.000	-0.276	0.441	-0.625	0.532
Black	-0.538	0.366	-1.469	0.142	-0.694	0.463	-1.500	0.134
Other	-1.174	0.477	-2.460	0.014	-0.923	0.568	-1.626	0.104
Years of education	0.039	0.060	0.643	0.520	-0.055	0.069	-0.799	0.425
Full-time	0.334	0.388	0.862	0.389	0.140	0.751	0.187	0.852
Subjective health	-0.055	0.170	-0.323	0.747	0.203	0.213	0.951	0.342
Number of children	-0.086	0.187	-0.461	0.645	-0.125	0.223	-0.559	0.576
Attitude toward behavior	-1.425	0.137	-10.397	0.000	-1.418	0.170	-8.339	0.000
Subjective norm	-0.469	0.213	-2.204	0.028	-0.568	0.276	-2.060	0.040
Pension	-1.784	0.346	-5.152	0.000	-1.521	0.420	-3.619	0.000
Level of Assets	0.000	0.000	-1.672	0.095	-5.270E-06	0.000	-0.216	0.829
<i>R</i> ²		0.118				0.097		
<i>R</i> ² change		0.095				0.085		
<i>F</i>		17.199***				9.774***		
<i>N</i>		1,550				1,105		

Note : Model 1 regressed women's expected retirement timing on covariates and factors of the theory of planned behavior, Model 2 regressed men's expected retirement timing on these same predictor variables.

p*<.05, *p*<.01, ****p*<.001

One important difference between Model 1 and Model 2 is the effect of male and female marital status. There is no statistically significant effect for men ($b = -0.276, p > .05$), only for women ($b = -1.404, p < .05$); married older women retire 1.4 years earlier than unmarried older women. Does the marital status of older women workers affect their retirement income security and, therefore, the expected timing of retirement? The next section pursues this question with an analysis of women only. Female workers may be apparent if the analysis separates married women from unmarried women.

3. Predicting Expected Retirement Timing: Women's Marital Status

Hypotheses 3 and 4 suggested that female workers would have a disadvantage in retirement security, and thus expect to retire later. However, Hypotheses 3 and 4 were not supported. The disadvantage to I analyzed the relationship between older women's marital status and their expected timing of retirement to check Hypothesis 5, that unmarried older women would be less likely to have retirement security as compared to married older women. I analyzed one-way ANOVA to examine the relationship between older women's marital status and their expected age of retirement and to check the two hypotheses that unmarried older women would be less likely to have retirement security as compared to married older women (Hypothesis 5), and that unmarried older women would be more likely to expect a later retirement age than married older women (Hypothesis 6).

Table 5. 5. One-way ANOVA for marital status and older women's retirement security & retirement timing

	Unmarried older women			Married older women			<i>F</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>		
Pension	0.58	0.49	677	0.59	0.49	1302	0.479	0.489
Level of Assets	147.80	474.16	690	394.25	746.85	1314	62.005***	0.000
Expected retirement timing	66.70	7.56	610	65.21	6.05	1192	20.570***	0.000

* $p < .05$, ** $p < .01$, *** $p < .001$

Married and unmarried older women had significantly different levels of assets ($F = 62.005$, $p < .05$) and retirement plans ($F = 20.570$, $p < .05$). Specifically, married older women had thousands of dollars more in assets ($M = 394.25$, $SD = 746.85$) than unmarried older women ($M = 147.80$, $SD = 74.16$). As a result, unmarried older women were more likely retire later ($M = 66.70$, $SD = 7.56$) than married older women ($M = 65.21$, $SD = 6.05$). Therefore, the two hypotheses were supported. However, a pension was not significantly different between the married and the unmarried older women ($F = .479$, $p > .05$) (Table 5.5). Figure 5.1. depicts unmarried women's later expected retirement timing at every quartile level of assets.

Hypothesis 6 stated that unmarried older women would be more likely to have later retirement timing than married older women. Unmarried women had significantly later retirement timing: 1.5 years later than married older women (Table. 5.5). Also, the full regression model in Table 5.4 shows that unmarried older women are more likely to retire 1.404 years later than married older women ($b = -1.404$, $SE = 0.336$).

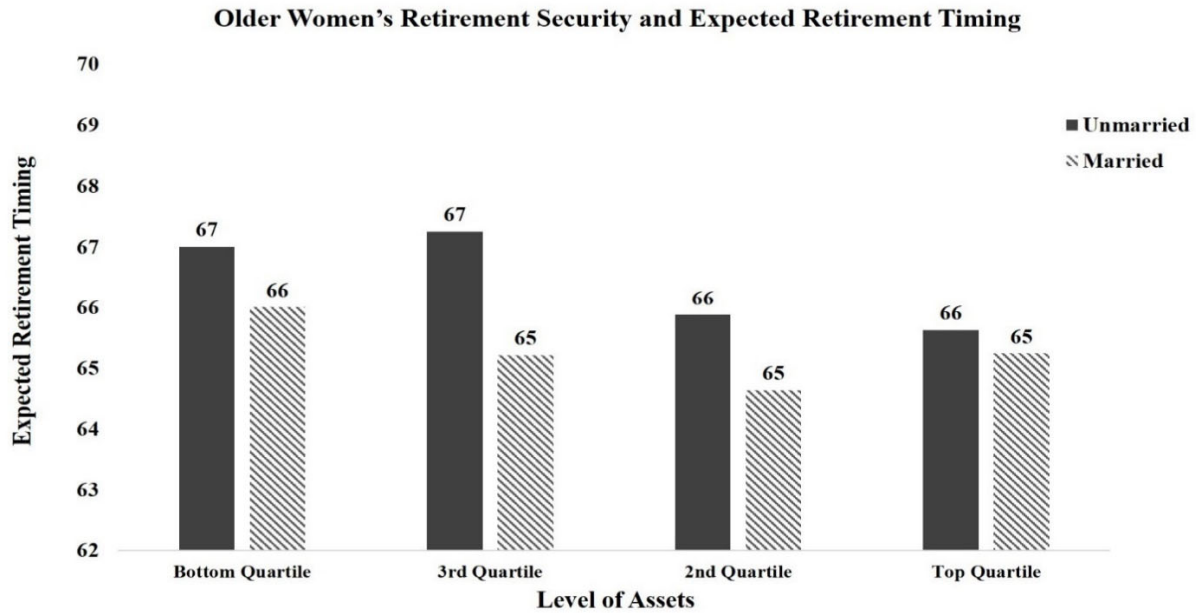


Figure 5. 1. Married and unmarried women's expected retirement timing at every quartile level of assets

Older women and marital status one-way ANOVA was conducted to determine whether the older women's marital status significantly influenced expected retirement timing. Older women who were married ($M = 65.21$, $SD = 6.05$), partnered ($M = 67.50$, $SD = 8.71$), divorced ($M = 66.48$, $SD = 7.08$), widowed ($M = 66.32$, $SD = 8.07$), and single ($M = 66.75$, $SD = 7.38$) had significantly different expected retirement timing ($F = .5664$, $p < .05$) (Table 5.6).

Table 5. 6. One-way ANOVA for older women and men's marital status and retirement timing

	Marital status	M	SD	N	F	Dunnnett T3	p
Female	Married ^a	65.21	6.05	1192	.5664***	c > a	.000
	Partnered ^b	67.50	8.71	105			
	Divorced ^c	66.48	7.08	300			
	Widowed ^d	66.32	8.07	72			
	Single ^e	66.75	7.38	133			
Male	Married	66.27	6.815	1067	1.835		.120
	Partnered	67.80	9.312	121			
	Divorced	66.55	8.054	121			
	Widowed	67.21	9.69	28			
	Single	67.86	9.30	65			

Note: Dependent variables - Expected retirement timing, a: married, b: partnered, c: divorced, d: widowed, e: single
 * $p < .05$, ** $p < .01$, *** $p < .001$

Figure 5.2. depicts mean expected retirement timing by marital status for men and women separately. Though women expected to retire earlier than men, the critical comparison is between categories of women. The post-hoc analysis (Table 5.6) reveals that divorced older women significantly expected to retire later than married older women. Thus, Hypothesis 6, which claimed that unmarried older women would be more likely to have later than expected retirement timing as compared to married older women, was accepted.

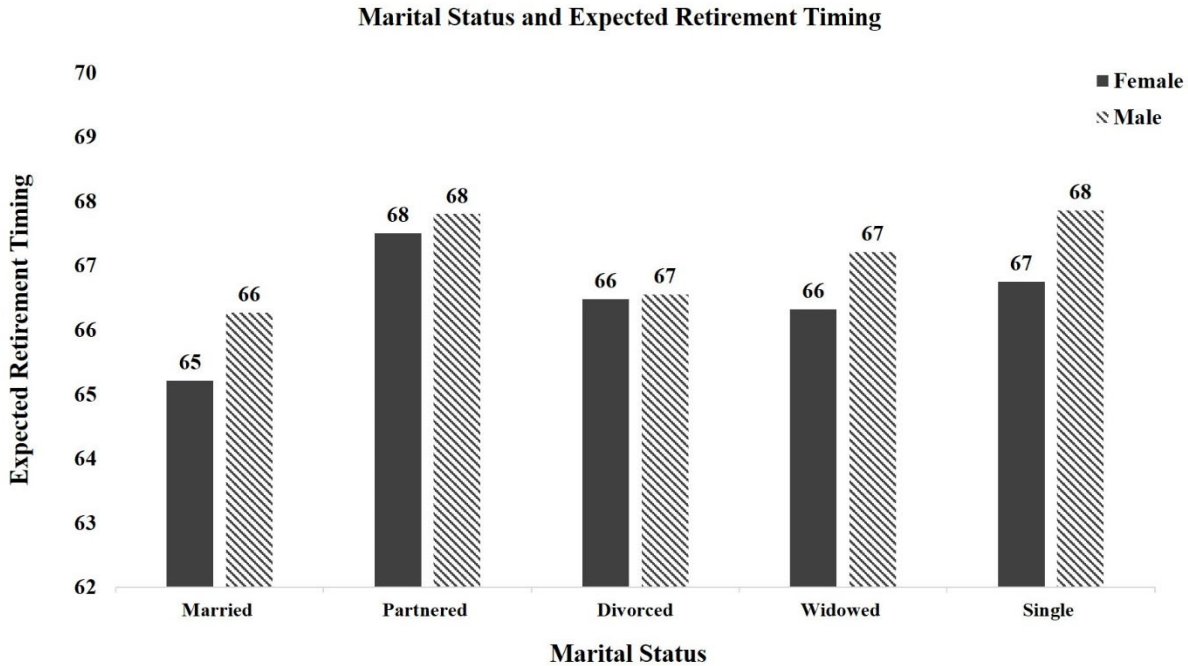


Figure 5. 2. Mean expected retirement timing by marital status for men and women separately

To specify the effect of older women's marital status on expected retirement timing, I created more detailed marital variables and replaced the two category variables (from Model 1 of Table 5.4) with four categories in the regression analysis; partnered, divorced, widowed, and single (Table 5.7). The regression coefficients show that compared to married women, partnered, divorced, widowed, and single older women had later expected retirement timing. There are significant effects among partnered, divorced, and single older women and their expected retirement timing compared to married older women.

Table 5.7 shows that older women's attitudes toward behavior ($b = -1.426, p < .05$), subjective norm ($b = -0.463, p < .05$), and pension ($b = -1.799, p < .05$) had a significantly negative linear relationship with expected retirement timing. These are the same effects observed in previous regression models examining women's TPB factors. As mentioned, older women's marital status had a significantly positive relationship with expected retirement timing. Partnered

($b = 2.066, p < .05$), divorced ($b = 0.939, p < .05$), and single ($b = 2.142, p < .05$) older women had significantly later than expected retirement timing than married older women. It was significant that partnered older women expected to retire two years later than married older women, followed by divorced older women (one year), and single older women (two years), all of whom expected to retire later than married older women ($p < .05$). Also, older women workers were ($b = 0.202, p < .05$) more likely to have later expected retirement timing than young women, and women who identified as belonging to the "other" category of racial-ethnic groups ($b = -1.209, p < .05$) had significantly earlier retirement timing than women from white and black racial-ethnic groups.

Table 5. 7. TPB measures as predictors of older women' marital status and retirement timing

	Expected retirement timing			
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
(Constant)	59.268	3.110	19.060	0.000
Age	0.202	0.050	4.017	0.000
Partnered	2.066	0.647	3.193	0.001
Divorced	0.939	0.423	2.222	0.026
Widowed	1.086	0.754	1.441	0.150
Single	2.142	0.609	3.517	0.000
Black	-0.606	0.372	-1.628	0.104
Other	-1.209	0.477	-2.533	0.011
Years of education	0.042	0.060	0.693	0.488
Full-time	0.312	0.388	0.804	0.421
Subjective health	-0.044	0.170	-0.255	0.798
Number of children	-0.056	0.192	-0.290	0.772
Attitude toward behavior	-1.426	0.137	-10.411	0.000
Subjective norm	-0.463	0.213	-2.178	0.030
Pension	-1.799	0.346	-5.195	0.000
Level of Assets	0.000	0.000	-1.745	0.081
<i>R</i> ²		0.121		
<i>F</i>		14.102***		
<i>N</i>		1,551		

Note: Dependent variable is expected retirement timing. For the marital status categories, "married" was the reference category. **p*<.05, ***p*<.01, ****p*<.001

4. Predicting Expected Retirement Timing vs. No Retirement Timing

This analysis was performed to examine the impact of the theory of planned behavior factors on the likelihood that the respondents who do or do not plan for expected retirement timing. Among members of the sample, 89.2% (n=3,205) answered that they had an expected retirement timing, and 10.7% of respondents answered that they did not know or never thought about retirement timing.

Further, this research investigated which retirement predictors have a positive or negative effect on individual retirement timing, as compared to people who do not have a retirement plan or never think about their retirement, according to planned behavior theory. This was attributable to the fact that older adults' retirement planning is positively associated with the quality of retirement life. Here, the dummy dependent variable was coded as 1 (respondents who have a specific expected retirement timing), or 0 (respondents who never consider retirement timing or do not have expected retirement timing).

Table 5.8 reproduces the predictive model from Table 5.2, this time using logistic regression to predict the outcome. According to the r^2 increase between Model 1 (Nagelkerke $r^2 = 0.035$) and Model 2 (Nagelkerke $r^2 = .122$), adding the theory of planned behavior factors improves prediction of the outcome. According to Model 2, controlled for age, gender, marital status, race, level of education, work status, health, and the number of children, the three sub-factors of the theory of planned behavior increased the odds of people to express expected retirement timing. Specifically, respondents had a more attentive attitude towards retirement-related behavior ($OR = 5.744$, 95% CI = 3.608 - 9.145). Those who received a pension ($OR = 1.698$, 95% CI = 1.257 - 2.294) had greater odds of expressing the desired time for retirement.

There were no significant effects for the subjective norm and level of assets (Table 5.8). In other words, respondents who devoted a lot of thought to their retirement or who had an employer-provided pension plan had more expected retirement timing than their counterparts. Respondents who had more children ($OR = 1.735$, 95% $CI = 1.055 - 2.852$) exhibited significantly more expected retirement timing than those with fewer or no children ($p < .05$).

Model 1 reveals that respondents who had a higher level of education ($OR = 1.050$, 95% $CI = 1.004 - 1.098$), and worked full time ($OR = 1.671$, 95% $CI = 1.185 - 2.355$) had significantly greater odds of an expected retirement timing ($p < .05$). In addition, I analyzed gender differences associated with expected retirement timing. Model 1 includes older women, controlling for age, marital status, race-ethnicity, level of education, work status, health, and the number of children. As a result, the three sub-factors of planned behavior theory increased the odds of older women with specific expected retirement timing. Model 1 revealed that the odds of having expected retirement timing for older women was positively associated with attitudes toward behavior ($OR = 7.972$, 95% $CI = 3.845 - 16.53$) and pension plans ($OR = 1.686$, 95% $CI = 1.112 - 2.556$). Moreover, married older women were ($OR = 1.529$, 95% $CI = 1.015 - 2.305$) was significantly associated with greater odds of having expected retirement timing ($p < .05$).

Table 5. 8. Logistic analysis of TPB and having an expected retirement timing

DV	IV	Model 1			Model 2		
		Exp (B)	<i>p</i>	95% CI	Exp (B)	<i>p</i>	95% CI
Expected retirement age	(Constant)	0.417	0.556		2.125	0.626	
	Age	1.028	0.238	(0.982, 1.077)	0.996	0.863	(0.950, 1.044)
	Female	1.261	0.106	(0.952, 1.670)	1.221	0.177	(0.914, 1.630)
	Married	1.340	0.059	(0.989, 1.815)	1.197	0.259	(0.876, 1.636)
	Black	1.041	0.816	(0.740, 1.466)	1.092	0.625	(0.766, 1.557)
	Other	0.711	0.073	(0.490, 1.032)	0.807	0.272	(0.550, 1.184)
	Education	1.050	0.034	(1.004, 1.098)	0.991	0.720	(0.944, 1.041)
	Full time	1.671	0.003	(1.185, 2.355)	1.225	0.279	(0.849, 1.767)
	Health	1.393	0.505	(0.526, 3.691)	1.360	0.574	(0.466, 3.969)
	Children	1.430	0.144	(0.885, 2.312)	1.735	0.030	(1.055, 2.852)
	Attitude	-	-	-	5.744	0.000	(3.608, 9.145)
	Subjective norm	-	-	-	1.736	0.269	(0.652, 4.622)
	Pension	-	-	-	1.698	0.001	(1.257, 2.294)
	Assets	-	-	-	1.000	0.585	(1.000, 1.000)
	Nagelkerke <i>R</i> ²			0.035		.122	
	χ^2			44.069***		112.020***	
N			2,893		2,893		

Note. Dependent variables: 1- have expected retirement timing (n=2,657), 0 - don't know or never think about retirement timing (n =236). Mod 1 regressed expected retirement timing on age, gender, marital status, racial ethnicity, level of education, labor status, subjective health and number of children. Mod 2 added factors of the theory of planned behavior. **p*<.05, ***p*<.01, ****p*<.001

Put another way, older women who pondered and planned for their retirement and had pension plans were more likely to have expected retirement timing. In fact, the odds of married older women having expected retirement timing were 1.529 times greater than the odds for unmarried older women (Table 5.9). The positive effect for older men was manifested in their attitude towards retirement ($OR = 4.559$, 95% CI = 2.431 - 8.55), subjective norm ($OR = 2.368$, 95% CI = 1.083 - 5.18), and pension plan ($OR = 1.767$, 95% CI = 1.128 - 2.77). Also, the number of children ($OR = 2.510$, 95% CI = 1.016 - 6.20) increased the odds of older men's expected retirement timing (Model 2). To be more specific, older men who thought about retirement strongly perceived a norm about retirement age, and those who had pension plans had higher rates of expected retirement timing than did their counterparts. Older men who had family responsibility were more likely to have retirement timing than those who did not have a family responsibility (Table 5.9). Additionally, the regression analysis tested the women's and men's models from Table 5.9 with expanded marital status categories (full results not shown). For women and for men, there were no significant differences among the detailed marital status categories in the prediction of having a retirement plan. However, divorced women did have lower odds of having a retirement plan ($OR = 0.606$, 95% CI = 0.365 - 1.005) an effect that was nearly significant.

Table 5. 9. Logistic analysis of TPB and having an expected retirement timing: Women and men

		Model 1 - Women			Model 2 - Men		
DV	IV	Exp (B)	<i>p</i>	95% CI	Exp (B)	<i>p</i>	95% CI
Expected retirement age	Constant	1.108	0.960		9.688	0.364	
	Age	1.022	0.492	(0.961, 1.087)	0.953	0.227	(0.881, 1.03)
	Married	1.529	0.042	(1.015, 2.305)	0.915	0.733	(0.551, 1.52)
	Black	1.178	0.499	(0.733, 1.892)	0.898	0.699	(0.520, 1.55)
	Other	0.739	0.253	(0.441, 1.240)	0.822	0.513	(0.457, 1.48)
	Education	0.965	0.321	(0.899, 1.036)	1.019	0.604	(0.950, 1.09)
	Full time	1.432	0.101	(0.932, 2.200)	0.782	0.551	(0.349, 1.75)
	Health	0.955	0.945	(0.265, 3.450)	4.679	0.091	(0.781, 28.05)
	Children	1.786	0.090	(0.913, 3.492)	2.510	0.046	(1.016, 6.20)
	Attitude	7.972	0.000	(3.845, 16.53)	4.559	0.000	(2.431, 8.55)
	Subjective norm	1.848	0.428	(0.404, 8.448)	2.368	0.031	(1.083, 5.18)
	Pension	1.686	0.014	(1.112, 2.556)	1.767	0.013	(1.128, 2.77)
	Assets	1.000	0.605	(1.000, 1.001)	1.000	0.812	(1.000, 1.00)
	Nagelkerke R^2			0.132			0.151
	χ^2			95.742***			84.865***
N			2,004			1,589	

Note. Model 1 regressed the binary dependent variable for women (1- have an expected retirement timing, 0-don't know or never think about retirement timing) on covariates and factors of the theory of planned behavior. Model 2 regressed the binary dependent variable for men on these same variables. * $p < .05$, ** $p < .01$, *** $p < .001$

In response to a retirement expectation timing question in the 2014 health and retirement study, almost 11% of respondents answered that they did not know when they were retiring, that they had never thought about retirement, or that they would never retire. A total of those 383 respondents were included in this study, and they are included in the missing data category. Respondents who did not know their specific retirement timing or year or had never thought to consider their retirement will nevertheless retire someday in the future. Therefore, these missing values could be meaningful in this dissertation research to compare people who do and do not have expected retirement timing, using factors associated with the theory of planned behavior. Therefore, the logistic regression was worthwhile because the missing data (n=383) were identified and analyzed, except for the refused or blank answers (n=5).

CHAPTER 6

DISCUSSION

This research investigated the relationship between motivational factors and older adults' retirement planning. A secondary goal was to expand upon how gender affects retirement to examine older women's and men's different motivational factors and their expected retirement timings. Additionally, the research examined the influence of marital status by comparing married and unmarried older women's motivational factors and expected retirement timings. Finally, the effect of setting a specific time for retirement on retirement factors was addressed.

The study employed the theory of planned behavior to explain individual behavior according to three subcategories: attitudes toward retirement, subjective norms for retirement, and retirement security. Several outcomes of interest were found. First, all three of the model constructs were found to reliably predict older adults' expected retirement timings. Older adults who invest much thought into retirement, agree with the social norms of retirement age, and who possess pension plans from their employers had earlier expected retirement timings than their counterparts. Several prior studies support these findings. (1) Talib and Manaf (2017) found that older adults who had been thinking a great deal about retirement were more likely to plan for retirement (Price-Bonham & Johnson, 1982) and have greater life satisfaction during retirement (Szinovacz, 1987) compared to those who never contemplated the retirement process. (2) Older adults who followed a socially normalized retirement age tended to set earlier expected retirement timings. This might be explained by the fact that peer group norms can affect individual behavior. If older adults hold similar retirement expectations to their peer group, such commonality can influence both individual and peer group members' retirement decisions (Vermeer, Van Rooij, & Van Vuuren,

2014). To be more specific, certain individuals may be able to obtain helpful guidance from similarly aged peers, such as information from retirement conferences, educational events, Medicare or Medicaid programs, and financial investment sources. Also, these individuals may have a greater opportunity to continue their social interactions after retirement by participating in voluntary associations, recreational activities, or leisure travel. Atchley's continuity theory supports this proposition, asserting that a smaller gap between pre-retirement and post-retirement life is correlated with a positive view of retirement (Atchley, 1989). Moreover, retirees may possess a desire to maintain their pre-retirement lifestyle while also participating in new activities or meetings. (3) Retirement security, usually based on assets and pension plans, is a critical factor influencing older persons' ability to enjoy their retirement. Older adults with access to DB or DC pensions, a form of substitute income after retirement, are more likely to hold a positive view of retirement and expect earlier retirement than those without such assets. In other words, retirement planning and financial security are highly correlated (Murphy & Mckenna, 2011). Being unprepared or not possessing a plan directly affects older adults' financial insecurity after they retire (Talib & Manaf, 2017).

Second, this study hypothesized that older women would be more likely to retire later in life than older men due to their lack of retirement security. Lusardi and Mitchell (2016) stated that older women who have a higher education level, diverse marital status, fewer family obligations, and fewer financial resources (for example, higher debts) tend to postpone their retirement. However, this hypothesis was not supported. In fact, the results indicated that older women were more likely to plan an earlier retirement than older men. Several factors may help to explain this outcome. Older women whose spouses retired early (Henkens & Van Solange, 2002), have family responsibilities (Talaga & Beehr, 1995), experience financial issues (Von Bonsdorff, Huuhtanen,

Tuomi & Seitsamo, 2010), or have poor health (Pozzebon & Mitchell, 1989) tend to retire early. Also, Bosworth, Burtless, and Zhang (2016) found that people with lower socioeconomic status are more likely to claim Social Security benefits earlier. In contrast, people with higher socioeconomic status tend to claim Social Security benefits later and retire later.

In this research, older men were more likely to expect later retirement timing than older women. Bosworth, Burtless, and Zhang (2016) found that older men who are family heads were more likely to retire later. Traditionally, men are viewed as the primary breadwinners in their households, with a higher proportion of men than women working full time, earning better incomes, or possessing employer pension plans. Moreover, older men receiving a higher salary or with a higher position typically work more and tend to receive more financial incentives and prestige from workplaces. They might have higher job satisfaction which leads older men to delay retirement more than their female equivalents (Johnson, 2002).

Third, throughout this research, no significant differences were found between older women's and men's retirement security levels (level of assets and pension). This can be partly explained by the fact that only 30% of older women and men in our sample were unmarried, and we did not separate older women and men by marital status during our analysis of gender differences in retirement security. In a regression analysis, attitudes toward retirement, subjective norms about retirement, and retirement security had a significant effect on older women and men's expected retirement timings. However, the primary difference between older women and men's retirement factors and expected retirement timings was the effect of marital status. Marital status was a highly significant predictor of expected retirement timing for women, but not for men. This finding suggests that marital status is an important predictor of older women's expected retirement timing and other retirement factors.

Unmarried older women had significantly lower levels of retirement security and later expected retirement timings than their married counterparts. Specifically, older women who are partnered, divorced, or single are more likely to expect later retirement timings than older married women. This can be attributed to the fact that married women typically have greater access to financial resources from their husband's earnings, in addition to their own income (Clare, 2004). Also, if married women continue to work through married life, they have an opportunity to accumulate greater financial resources following retirement.

In contrast, widowed women receive their husband's Social Security benefits at a lower rate on average than married couples, and may even receive fewer or no pension benefits after losing their husband (Clare, 2004). Divorced women can receive Social Security benefits or pension benefits from their ex-husband, depending on their marital history. Moreover, divorced women's spousal benefits or retirement benefits from their ex-husbands are significantly lower than comparable benefits for married women (Clare, 2004). Divorced women are vulnerable to experiencing more financial hardship than divorced men. Moreover, women who are single or have experienced shorter marriages usually lack access to spousal benefits or pension plans from their husbands (Noone, Alpass, & Stephens, 2010). They must rely on retirement income from their own earnings, pensions, or savings (Hartmann & English, 2009). Consequently, unmarried older women with less retirement security often postpone retirement and work longer than married older women or men (Smeaton & McKay, 2003).

In contrast, married older women are likely to retire earlier than unmarried older women, with retirement factors for married older women including not only their spouse's retirement age or spousal benefits, but also greater opportunities to enjoy leisure activities or travel with their

spouses. A married couple can prepare for retirement together, or they may both receive an employer pension or Social Security benefits that reduce the financial burden of retirement.

These gaps between unmarried and married older women can be a major factor exacerbating inequality and poverty late in life for women. Much research has addressed the risk of poverty among single older women. Unmarried older women experience higher levels of poverty, which in turn negatively affects their health, retirement security, and quality of life (Barrera, et al, 2017). Proportionately more unmarried older women depend on Social Security, Medicare, or Medicaid benefits. This disparity becomes an even more serious issue for older women from racial minorities. According to Hartmann and English (2009), 32% of African American, 27% of Hispanic, and 15% of unmarried white women aged 65 and older live in poverty.

Finally, asset levels had no significant effect on respondents' expected retirement timing. Boerma and Heathcote (2019) state that United States older adults possess various illiquid assets and experience problems with debt management, which have a negative effect on preparing for retirement. Also Lusardi, Mitchell, and Oggero (2016) mentioned that the liquidity of assets significantly impacts an individual's retirement decisions. However, income can affect an individual's level of financial resources, but this did not include respondents' potential financial resources such a house, stock, or savings. Asset levels included various household financial resources and it could be a better measurement for anticipating an individual's future financial resources.

Married older women's retirement timing is highly correlated with their spouse's retirement decisions, and higher household assets may affect married older women's earlier retirement timing. When logistic regression compared gender differences between those with specific expected retirement timings and those without, married older women were more likely to

have specific expected retirement timings than those who were unmarried. This is not surprising given that women have typically been the primary care providers for children or other family members in their households (Lawton, Silverstein, & Bengtson, 1994).

Conversely, unmarried older women without family obligations or a spouse, have a strong work ethic and lack social connections, or who wish to earn more economically are less likely to make retirement plans than married older women (O'Rand, 1996). Furthermore, married women's retirement planning and decision-making processes are highly correlated with their spouses' retirement decisions. A husband may lead his spouse to plan an earlier retirement or to retire together. A spouse provides not only emotional support but also valuable retirement advice in many cases (Waite, 1995). Therefore, married older women are more likely to have earlier or later retire plans and they are less likely to work after retirement (Szinovacz, 2013). Henkens and Van Solinge (2002) reported that married couples who retired in similar time frames are more likely to enjoy their retirement time together, and married couples who both earn salaries are more likely to retire earlier than unmarried individuals. Older men with greater family responsibilities are also more likely to have a retirement plan than their counterparts.

There were some limitations to our research. The HRS asked additional questions about attitudes towards retirement and subjective norms about retirement. However, skip patterns for these items yielded too much missing data to be of use as independent variables in the analysis, as proposed by the theory of planned behavior. The absence of these variables constrained the overall interpretation of the findings. Also, this research only focused on gender and marital status as independent variables. Another limitation of the research was the relatively small sample size. I only used the 2014 HRS data set, making it difficult to generate a broader outcome that would apply to multiple HRS waves since the Great Recession, especially as the U.S. economy

strengthened over the following years. Table 5.2 indicates that people's retirement plans in other racial ethnicity groups are statistically significant after adding motivational factors.

In future research, I hope to examine older women's racial differences and sexual identity factors in relation to expected retirement timings. Additionally, I would like to investigate the relationship between older adults' expected retirement timings and their actual retirement ages through longitudinal studies. Such a research design would permit a further examination of the relationship between variable retirement plans and actual retirement age. Also, I would like to add caregiving responsibilities for aging parents which also impact on older women's expected retirement timings. The difference in older women's and men's retirement factors and expected retirement timings could provide a valuable direction for future retirement research and policy.

Notably, this study found evidence of important gender differences in retirement motivation and expectations. This is a critical issue for establishing a baseline of knowledge about older women's retirement security. If retirement researchers and policymakers consider older women's retirement, research outcomes suggest that they should assess older women's retirement needs more comprehensively, including the life course, work experience, and marital status as important factors affecting older women's retirement planning. For example, increasing female labor force participation and addressing unmarried women's lack of Social Security benefits are issues that need attention.

A gender perspective on retirement will offer a wealth of guidance on the retirement of cohorts of women to come. Moreover, communities could think about developing retirement finance workshops or training programs (pension or savings) in public places for older women or provide free financial literacy programs for women to teach how to prepare for a secure retirement in the future. Also, policymakers should consider developing a pay equity policy for women who

have family responsibilities or enhanced Social Security benefits for unmarried older women who do not receive spouse benefits. Society needs to provide more job opportunities for older women who need extra financial resources for various reasons because people with low incomes might need jobs after they have retired. A macro gender perspective on retirement could reduce older women's poverty rate and support older women's secure retirement and consequently, enhance their quality of life in their later years.

CONCLUSION

Retirement is a huge life transition for older adults. Having a carefully informed plan to assist older adults in navigating the transition successfully is extremely beneficial. Retirement planning can be influenced by various factors such as an individual's life course, career, work environment, social interactions, caregiving obligations, financial security, and marital status. Older adult retirement planning can vary between older women and men. However, most retirement policies and research studies have been male-focused and have not considered older women's unique issues. This research conducted a comparative analysis of factors involved in older women's and men's retirement and their respective timings to contribute to an informed gender perspective on the retirement process. Moreover, the results indicated that different motivational factors and retirement timings affect married and unmarried older women differently, providing scientific evidence about the insecurity of unmarried older women's retirement processes. This is important when assessing and considering older women's retirement process.

Older women are going to make up the majority of the aging population and will be the main beneficiaries of Social Security, Medicare, and Medicaid services in the future. Therefore, having sufficient retirement resources and strengthening retirement plans for older women are important to enable them to enjoy a long and comfortable life after retirement. Future studies should also address racial or sexual minority issues among women. Prospective studies could also help to determine the relationship between older women's expected retirement timing and actual retirement age. Such follow-up research will enlarge the gender perspective on retirement in fruitful ways. Such a robust research agenda would provide key information for government agencies and policymakers and contribute to the development of retirement planning models or retirement education programs for older women.

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