AS THE BOOMERS RETIRE:
FACTORS AFFECTING THE FUTURE OF THE U.S. WORKFORCE

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By

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THE AIMS OF THE PRESENT STUDY IS TO PINPOINT THE FACTORS THAT MOTIVATE RETIREEs TO LEAVE THE WORKFORCE AND SEE HOW THOSE VARIABLES AFFECT THE AGES AT WHICH PEOPLE CHOOSE TO RETIRE. IT IS HYPOTHESIZED THAT WORKERS RETIRE AT YOUNGER AGES DUE PRIMARILY TO INVOLUNTARY FACTORS SUCH AS FAILING HEALTH, INHOSPITABLE WORK ENVIRONMENTS AND CONCERN ABOUT A DEFINED BENEFIT PENSION PLAN. LIKewise, involuntary factors such as insufficient savings often force retirees to remain in the workforce longer than they would ideally like. Although data regarding retirement age is widely available, recent studies have not broadly examined the myriad influences behind retirees’ decisions to retire. Understanding what segment of retirees independently choose to leave the workforce, and what segment are forced to retire at an earlier than ideal age due to extenuating circumstances, including inflexible pension benefits and burdensome workforce regulations, is extremely important as the baby boom generation begins to reach the traditional age of retirement. As the largest segment of workers looks toward exiting the workplace,
there is no ready supply of age-appropriate employees to replace them. In order to retain older workers and ensure the vitality of the American economy, it is imperative to consider what actions can be taken to allay concerns and alleviate conditions that drive healthy, capable workers into retirement at an earlier age than is necessary or ideal for them – and the economy.
A big thank you to Donna Morrison for guiding me through this project; I could not have done it without her. I am also grateful to the friends and family who helped me remain sane, and the professors and staff of GPPI who helped me make it this far.
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Chapter 1. Introduction

Over the past decade, conventional wisdom about retirement has changed. People no longer envision several decades lounging in Florida or puttering around a golf course; as they are living longer, they see new opportunities for vital retirement years, but also the more burdensome costs that accompany longevity. Improved health, longevity and vitality have spurred many aging members of the baby boom generation to delay their exit from the full-time workforce. This change of heart does not merely benefit people of retirement age who are able to continue enjoying connections to the outside world and exercising mental agility. The aging of the American population demonstrates that the country needs this change of heart as well. Growing numbers of the population scheduled to “age out” of the working world in the coming years, the country could experience a worker shortage if traditional notions of retirement remain the norm and workers do not choose to retain an active position in that part of the economy.

The aim of the present study is to address what motivates people to leave the workforce and at what ages they choose to do so. Although data regarding retirement age is widely available, recent studies have not closely examined the major influences behind retirees’ decisions to exit the workforce. In order to retain older workers and ensure the vitality of the American economy, it is imperative to
understand what actions can be taken to alleviate conditions that drive healthy, capable workers into retirement at an early age than perhaps necessary.

For this analysis I will utilize data from the Health and Retirement Study (HRS), a nationally representative longitudinal study of people between the ages of 55 and 65 that surveyed respondents and their spouses every two years since 1992. Survey information on participants who have retired will be examined to determine which influences – health status, economic well-being, personal characteristics, or job factors – had the strongest impact on retirees’ choosing to exit the workforce, and at what age they chose to do so as a result of those influences.

This study will utilize the most comprehensive data available to highlight a question that is best addressed using the most current data available. Because the HRS data includes responses from people who retired through last year, it tracks a large portion of the baby boom generation as more and more members of that cohort approach traditional retirement age. It is especially important to single out members of this group and understand their needs and preferences in retirement in order to enact policies that encourage longevity in the workforce for the well-being of the baby boom generation and the health of the American economy.
Background

When Social Security was enacted in 1935, the retirement age was set at 65, the prevailing age used by private pension systems at the time. At that time, a man aged 65 was expected to live until age 77, and a woman till age 79. But today, a 65-year-old man is expected to live another 16 years into his early 80s, and a woman to make it another 19, to age 84. And as life expectancy has increased, average retirement age has steadily declined from a high of 67 in the 1950s to a low of 61 in 2000-2005.\(^1\) Congress has not enacted a comprehensive response to these divergent trends since the Social Security Amendments of 1983, which raised the age of eligibility for unreduced retirement benefits in two stages to 67 by the year 2027.\(^2\) As the funding shortfalls of the Social Security system come to light, and the nation faces the possibility of a worker shortage, it is imperative that policymakers understand the reasons why Americans are currently retiring. This will allow them to craft policies that encourage their continued contributions to the American economy and the promotion of their long-term well-being.

The definition of retirement has become amorphous recently, with 69 percent of workers 45 and older planning to continue working during retirement, perhaps by changing careers, laboring part-time, or starting a business. However, the term “retired” still aptly describes older Americans who have left their
permanent, long-term employment and begun to draw upon savings, pensions and Social Security benefits for their income.\(^3\) And despite the high percentage of prospective retirees who workforce participation, there is no guarantee that retired workers will reenter the workforce when they are needed. A vast body of literature already addresses the multi-faceted reasons why workers choose to enter the workforce after retirement, and has demonstrated that people do not always have the luxury of following their plans to continue working or to find fulfillment outside the workforce unexpectedly.\(^4\) While working remains an economic, intellectual or social necessity for some, others choose to enjoy their idle time in activities more traditionally associated with retirement, such as pursuing hobbies, travel, volunteer work, and time with their loved ones.

**Factors Affecting Retirement Decisions**

Although there are ample studies documenting the factors that influence retirement behavior, the existing literature has some important shortcomings. One limitation is that prior studies have tended to either focus on the factors affecting a particular profession’s retirement age,\(^5\) or to study only one facet of the circumstances that affect retirement – such as psychological characteristics\(^6\) or workplace conditions.\(^7\) In addition, the narrow scope of previous studies makes them unable to illuminate the
complex and multi-faceted decision-making process faced by contemporary older Americans of retirement age. Moreover, existing research is becoming increasingly outdated, which leaves its applicability to members of the baby boom generation an open question.8

With the caveats in mind, prior research indicates that the retirement behavior of older Americans is strongly related to their socioeconomic status. Economically disadvantaged workers are more likely to involuntarily retire – due to health reasons or job loss – than their more financially successful counterparts.9 The combination of an increasingly over-burdened Social Security system and the increased longevity and robust health of older Americans translates into complex policy challenges.10 Policies aimed at providing incentives for workers in key employment sectors to delay retirement must be balanced against initiatives that address the economic crisis that involuntarily retirement often creates for marginally employed workers. This challenge is at the heart of current discussions about “phased retirement,” work schedule arrangements that allow older full-time employees to gradually reduce their weekly hours over several years, and other incentives to ensure that employers are not left with a dearth of experienced workers.

The New Beneficiary Survey in 1982 examined the reasons early retirees, defined as those younger than 62, chose to retire before they were eligible for
Social Security benefits. Overall, there was roughly an even split between early retirees who left their jobs voluntarily and those who stopped working involuntarily due to health problems, job loss, or mandatory retirement at that time. However, the reasons cited for retiring early varied widely based on personal characteristics such as gender, age and marital status. A key advantage of the present study is that it will shed light on whether these differences still persist, and if younger retirees have the same impetus more than two decades later.

It is important to point out that in addition to the limitations already discussed, studies like the New Beneficiary Survey may be particularly ill-suited to the present circumstances, as more than half of American workers at the time of those studies were bound by mandatory retirement policies until they were outlawed in 1986. Today, older workers report that the landscape of the workplace has changed in policy and practice. Older workers in the 1990s said that they faced less discrimination and more favorable treatment than they had a decade before. Research shows that older workers face more limited employment options than younger workers largely due to their functional limitations, such as not possessing requisite technical skills or being unable to perform physical job requirements, rather than prejudice or age discrimination.
Although older workers have made progress and are in a better position to self-determine their age of retirement, they still may feel direct or indirect pressure to retire early. Downsizing efforts in some industries has pushed older workers to retire early in order to collect lucrative incentives from their financially-strapped employers.\textsuperscript{15} Other less overt pressures also induce older workers to exit the workplace in order to collect economic rewards. Many defined benefit pension plans penalize employees who do not retire at the normal plan retirement age, which is generally age 65.\textsuperscript{16} A significant number of workers under age 62 have also been pushed into retirement early because of pension plan incentives.\textsuperscript{17} Research has not examined the changing trends in pension plan incentives in the last five years, though, as more companies have switched from defined benefit plans to defined contribution plans. Because defined contribution plans are age-neutral, there is no financial incentive for older workers to retire early.\textsuperscript{18}

Social Security also provides workers with an incentive to retire early. Research shows that people who opt to collect Social Security benefits early collect greater benefits over their lifetime than those who wait until they are eligible for full benefits at age 65.\textsuperscript{19} No research has been done since the discontinuation of the earnings limit in 2000, which used to seemingly punish workers who qualified for Social Security but continued to work.
Another factor that plays a role in people’s choice of retirement age is access to health insurance. Oftentimes those with employer-sponsored coverage postpone retirement until age 65, when they qualify for Medicare. As the number of employers who are offering health insurance is declining, however, older workers’ changing health insurance incentives have not been carefully studied. The so-called “job lock” that has commonly existed among people without access to employer-sponsored coverage in retirement may not be as severe as it was previously.

Moreover, health and disability status have been found to affect retirement timing decisions, often leading to retirement at earlier ages than older workers would have otherwise chose. Workers in poor health are likely to retire earlier than those in good health, and somewhat surprisingly, this trend does not differ between older workers with more or less physically demanding jobs. However, more recent research suggests that retirees who begin to collect Social Security benefits at age 62 are not significantly less healthy than retirees who wait until the more typical retirement age three years later. Any trends toward retiring early because of health problems or disability appear to be concentrated among older workers who are unmarried and cannot depend upon the financial stability that may come through having an able-bodied spouse.
The most comprehensive research into reasons for retirement used data from 1990, which was consistent with previous research relating to age of retirement.\textsuperscript{24} The results showed that reasons for departing the labor force vary by age: the younger a worker when leaving a job, the more likely it is that the departure is involuntary, whether the result of job loss or poor health. Further, retirement was often delayed if older workers had employer-sponsored health insurance or a spouse in the workforce. In particular, the findings corroborate previous studies that found that workers with pension coverage are more likely to retire than workers without pension coverage; workers who would lose health insurance coverage upon retirement are less likely to retire; and workers in poor health are more likely to retire.

Survey data collected in 2002 by the National Counsel on Aging indicates that baby boomers may not retire for the same reasons as previous generations. Although 94 percent of retirees over age 65 cite a decline in their health as an important part in their decision to retire, only 40 percent of non-retired baby boomers believe declining health will be a key determinant of their retirement age. Compared to retirees over 65, nearly half the number of baby boomers believe that family concerns will lead them to retire. Moreover, only 20 percent of baby boomers think that pressure from their employer will heavily influence their retirement age, while 45 percent of retirees believe this was an important factor when they retired.\textsuperscript{25} It
is important to point out that perceived reasons to retire are often misleading, as unforeseen events occur and people exit the workforce earlier or later than previously expected.\textsuperscript{26}

The Current Study

The present analysis seeks to update existing studies with a sample that reflects the baby boom generation to see how their preferences and behaviors may differ from previous groups of retirees. Tapping the most current knowledge about what drives people to retire – particularly to retire early – will help policymakers and employers understand how to combat predicted labor supply shortages that will accompany the aging of the baby boom population.

I will use data from the Health and Retirement Study’s (HRS) Wave 5, which was collected in 2002 from retirees ages 44 through 82. This study will look at the circumstances surrounding the first wave of baby boomers’ retirement and shed light on the extent to which baby boomers retire for different reasons than preceding generations. The dependent variable will be retirees’ self-reported age at retirement.

The conceptual model guiding this research is depicted in Figure 1. As shown, the age at which one retires can be voluntary, involuntary, or a combination of the two. Factors such as financial feasibility and the “pull” of non-employment-related
interests increase the likelihood that the prospective retiree is able to freely choose the timing of his/her exit from the workforce. If a family member is ill, an older person may be unable to forego employment-related benefits and may be forced to delay retirement. Alternatively, personal health difficulties, the need to care for a spouse, and a diminished ability to perform the functions of one’s job are each factors that might compel older workers to exit the workforce sooner than they would prefer.

An underlying assumption of this study is that retirement age is also a function of job characteristics (e.g., type of industry employed in, hours worked per week), health status (e.g., the retiree’s ability to work, his spouse’s medical conditions), financial status (e.g., Social Security eligibility, savings, amount in a vested pension plan), and personal attributes and circumstances (e.g., marital status, gender, race/ethnicity).

The present analysis has the potential to lend considerable insight into whether baby boomers will have the proper incentive to retire at a younger age than is ultimately desirable for the country’s economic well-being.
Chapter 2. Data

The present study utilizes data from the Health and Retirement Study (HRS), conducted by the University of Michigan for the National Institute on Aging. Researchers for the HRS interviewed 12,654 persons between the ages of 51 and 61 and their spouses in 1992 and every two years thereafter. This study uses data from Wave 5 of the HRS, which was collected in 2002. The response rate for each wave was 81 and 89 percent, with 13 percent attrition overall. The HRS contains information regarding retirement and early labor force withdrawals, including detailed information on current employment status, job history, health and disability status, and income and assets. It also includes comprehensive questions regarding the decision to retire, including pension plan availability and early retirement incentives. Blacks, Hispanics and Florida residents were oversampled by the HRS; sampling weights were assigned to compensate for this oversampling. The data set contains a large number of the variables I am interested in studying and appears to be very well-suited for my purposes.

Limitations

The conceptual model initially envisioned for this study included a
number of specific factors that could not be included in the regression analysis that was performed, as so many hard-to-measure issues influence people’s chosen retirement age. More detailed interview questions addressing retirees’ work life pre-retirement would have more fully realized the conceptual model; this would have included more information about phased retirement options and other aspects of more flexible workforces friendly to older workers. Likewise, data concerning vested defined benefit pension plans do not encompass the full breadth of issues many retirees must face, such as “use it or lose it”-type benefits and incentives tied to retirement, or the inability to collect pension monies while still working for the same employer. Health information about nuclear family members aside from a retiree’s spouse would have been more telling. The conceptual model called for the inclusion of the retiree’s parents’ and children’s health status, as a retiree’s care-giving role likely extends beyond one’s husband or wife. A myriad of personal characteristics that could affect retirement decisions were not fully available, including whether grandchildren live nearby, and whether the retiree sought to establish a second career or change life course.

The most important thing to note about these data is the limited number of baby boomers who could be included in the sample. Although the experiences of early baby boomers who are beginning to make retirement choices will be captured
within this analysis, the generalizability of their decision-making to those of younger baby boomers’ is unclear.

**Variables**

The dependent variable in this analysis is a categorical measure of the respondent’s age at the time at which he/she retired from the workforce. Table 1 summarizes the explanatory variables to be used in the study and briefly describes how they were measured.

Table 2 reveals that the average retirement age of those in the sample (n = 8,758) was just over 60 years and six months, which is younger than the national average. Job characteristics measured included the longest industry in which retirees were employed to determine whether the type of work one engages in is related to age of retirement. The average retiree in the sample is still able to work with few limitations and has a spouse without a serious medical condition. The majority of the sample qualifies for social security and has access to affordable health insurance. There is a roughly equal number of men and women with a mean education just beyond high school, or the equivalent of spending one semester in college.
Methods

To set the stage for my multivariate examination of the factors that influence the age of retirement, I first constructed correlation analyses to determine what relationship existed between retirement age and each of the explanatory variables used in the regression analysis.

Given that a variety of factors may work together or exert countervailing pressures on the retirement decisions made by older workers it is also essential to examine these inter-relationships within a multivariate framework. To establish the relationships between retirees’ personal characteristics, job characteristics, health status, and financial status, in the current study I use OLS regressions. Regression analysis provides estimates of the average partial effects of each of my explanatory variables on retirement age, while holding the others constant. Thus, I can assess both the magnitude and statistical significance of the contributions of each of the factors in my conceptual model for explaining the variance in the age of retirement.
Chapter 3. Results and Conclusion

Results

Correlation analyses were used to assess the magnitude and statistical significance of the relationship between retirement age and each of the explanatory variables. The correlation analyses are grouped by the categories outlined in my theoretical model: financial well-being; job factors; personal characteristics; and health status. As reported in Table 3, factors from each of the above domains have a statistically significant negative correlation with chosen retirement age. Specifically, older Americans tend to retire at younger ages when they: have a comprehensive vested pension plan, work fewer than 20 hours per week leading up to retirement, work in an industry that requires manual labor (including mining, agriculture, and construction), have a spouse that is retired, are in poor health, and have 13 or more years of education (which is equivalent to completing one year of college). These results are described in greater detail below.

Financial Well-being

Not surprisingly, retirement begins at an earlier age among workers who are eligible to collect money from a pension plan ($r = .71, p < .01$) (See Table 3). As the amount in this plan increases, retirees have a greater incentive to leave the
workforce. It is unclear, however, whether this relationship reflects completely voluntary decision-making. Although having a pension may provide the economic security needed to forego employment, it is also possible that laws or firm-specific policies governing the distribution of pensions may push an early exit.

Unexpectedly, the amount of financial savings amassed by retirees is not significantly associated with the age at which they retire ($r = .26$, $p = .12$). This confirms the hypothesis that factors other than financial means have a greater effect on older workers’ decisions to retire at a certain age. While more affluent workers may retire early because of their financial security, they may also continue working because they are in good health and wish to add to their wealth. Likewise, older workers with lower net worth may not be financially secure enough to retire early, but may be forced to exit the workforce prematurely because of poor health or other impediments.

Also surprising is that the correlation between Social Security eligibility and retirement age, is weak and only marginally statistically significant ($r = .22$, $p = .09$). Access to affordable health insurance, whether through Medicare or employer-sponsored coverage, in retirement also has an unexpectedly modest correlation, which does not reach conventional levels of statistical significance ($r = .30$, $p = .11$). The absence of strong associations between age at retirement and both fiscal solvency and a
sustainable lifestyle not only runs contrary to conventional wisdom, it also illustrates how multi-faceted retirement decisions are for today’s older workers.

**Job Factors**

Table 3 also reports the correlations between a retiree’s job features and the age at which he or she chooses to retire. Retirees who report working fewer hours per week in the years leading up to their retirement are more likely to leave their jobs at younger ages ($r = .51$, $p < .01$). This finding suggests that even before they officially exit the workforce, some retirees may gradually reduce their work hours. There are interesting implications for policy if this means that large numbers of older workers reduce their hours of employment in response to constraints upon retiring altogether. An alternative interpretation of these findings, however, is that older workers may ultimately be forced out of their jobs even when they are willing to work a reduced schedule.

Not only are the hours older workers do their jobs correlated with retirement, but the jobs they perform are correlated as well. Retirement at a younger age is strongly correlated with being employed in a more labor-intensive industry, including mining, agriculture and construction ($r = .72$, $p < .01$). Yet the influence of industry does not carry over into earnings, as there was not a significant correlation
between retirement age and annual salary prior to retirement \((r = .17, p < .20)\). This result is somewhat surprising given that a salary reduction would likely accompany working fewer hours and as discussed above, reduced work schedules are negatively correlated with retirement age.

**Personal Characteristics**

Turning to personal characteristics, the results in Table 3 reveal that the number of years retirees spent in the workforce is not significantly associated with retirement age \((r = .21, p = .14)\). Thus, it is unlikely that worker burnout or other limits to older workers’ ability or willingness to work are predominant reasons for retiring relatively early.

Having a spouse who was retired to share free time with is strongly associated with retiring at a younger age and this finding is statistically significant \((r = .42, p < .01)\). This is not unexpected, as it is natural for partners to transition and make life choices at similar times. This may also explain why there isn’t a significant correlation between years in the workforce and retirement age, as women may have logged fewer years working full-time but retired at the same time their husbands exited the workforce.
More highly educated older workers are also more likely to retire at younger ages ($r = .47$, $p < .01$). Possessing the equivalent of one year or more of higher education beyond high school graduation is negatively correlated with retirement age. This is contrary to expectations, given that highly educated people tend to have more sedentary jobs that would not be expected to warrant early retirement. However, the higher savings rates or pension plans that such jobs allow workers to enjoy may influence their decisions to retire at younger ages than their less-educated counterparts. In addition, more highly educated workers may be unwilling or unable to maintain the fast pace and high stress level that is associated with their careers.

**Health Status**

As expected, retirees’ health status is highly correlated with their retirement age, as ailing older workers with health problems leave the workforce at a younger age ($r = .64$, $p < .01$). However, the health status of retirees’ spouses is not correlated with retirement age ($r = .16$, $p = .22$). Thus, we can assume that such circumstances did not force enough older workers to overtake the role of full-time caregiver and retire at a younger age.
Regression Analysis

Until this point, I have provided evidence of bivariate associations between various financial, job-related, health and personal factors and the age of retirement. My next step is to explore the extent to which these relationships persist within a multivariate framework. For example, because educational attainment is correlated with health status I could overestimate the influence of robust health on the longevity of one’s career if I did not account for the fact that more highly educated workers face fewer job-related health risks than their counterparts.

Table 4 summarizes the results of two models in which age at retirement is regressed on measures of job characteristics, health status, financial well-being and personal characteristics. The first model includes only those explanatory variables while the second model also controls for the demographic characteristics of retirees, including their gender, race/ethnicity, marital status, religion, number of children, and geographic location.

The results for Model 2 indicate that having greater vested pension plan coverage, working fewer than 20 hours per week prior to retirement, being employed in an industry that requires manual labor (including mining, agriculture, and construction), having a spouse that is retired, being in poor health, and possessing 13 or
more years of education are each positively associated with retiring at a younger age, while holding personal characteristics constant.

With regard to job factors, two of the explanatory variables had statistically significant effects on retirement age. Being employed in an industry that requires manual labor, such as mining, agriculture or construction, is positively associated with retiring nearly one and a half years earlier, on average, when gender, race/ethnicity, marital status, religion, number of children, and geographic location are held constant. Regardless of profession, a retiree’s weekly time commitment at their last job before retirement is also positively associated with retiring earlier. Retirees who worked fewer than 20 hours per week prior to retirement retired, on average, 2.6 years earlier, when personal characteristics were held constant. Annual salary did not have a statistically significant effect upon retirement age.

Although the health status of a retiree’s spouse was not associated with his or her age at retirement, the retiree’s ability to work was a significant predictor of earlier retirement. As expected, retirees who reported a serious health condition or constraint on their ability to work, retired 3.85 years earlier than retirees without a serious health condition, on average, when personal characteristics were held constant.

Unexpectedly, three of the four financial well-being variables – social security eligibility, savings, and access to affordable health care – did not have a
statistically significant relationship with retirement age. Having a relatively large amount of money in a vested pension plan was the only financial variable to be statistically significantly related to retirement age. The average retiree with a pension plan left the workforce nearly four years earlier than their counterparts without high balances in vested pension plans.

The personal characteristics included in the second model also had telling effects on retirement age. Although years spent in school preparing to enter the workforce had a statistically significant effect on retirement age, time actually spent in the workforce was not statistically significant. On average, retirees with 13 years or more of education (the equivalent of one year of college education or beyond) chose to leave the workforce nearly two years earlier than those with less education, holding other background characteristics constant. Having a retired spouse had a similar effect, leading retirees to exit the workforce 1.64 years earlier than retirees who did not have a retired spouse to enjoy their newfound freedom from work and spare time alongside.

**Conclusion**

In 2010, the Bureau of Labor Statistics (BLS) projects that the number of people in the labor force will be outstripped by employers’ demand for workers by approximately 10 million.\(^{27}\) This examination of the factors that currently affect
retirement behavior has the potential to inform policies designed to safeguard older workers, and ensure that they have the discretion to exit the workforce at a time they consider appropriate. Moreover, these findings underscore the importance of helping older workers to carefully weigh their optimal timing for retirement as well as to eliminate idiosyncratic workplace rules and outdated federal regulations that contribute to haphazard decision-making. Encouraging the numerous working-age members of the baby boom generation to continue contributing through full-time work, or some approximation thereof such as phased retirement, will help ensure the uninterrupted progress of the American economy. If too many baby boomers choose to follow current trends and leave the workforce earlier than previous generations, it is likely that some employment sectors will face shortages of experienced workers and manpower. This will be the case even if baby boomers continue to participate in the workforce, part- or full-time after they retire.

This study gives a window into the trends observed among people with an average age of 60 years and six months. Because the experiences of the average member of the sample may not be generalizable to the entire baby boomer cohort, more research will be needed to pinpoint exactly how the majority of boomers respond to retirement incentives and disincentives in coming years. Even with this gap in
empirical evidence, however, our nation cannot afford to put off policy decisions to address the economic implication of the full scale retirement of baby boom generation.

Policymakers face several key challenges. It will be important to work within specific industries to eliminate employment policies that are unfriendly toward older workers, to provide incentives for businesses to offer flexible and reduced workplace schedules as well as phased retirement options. Furthermore, policymakers need to ensure that complex pension plan regulations do not work as a prohibitive stopper that force people of traditional retirement age to prematurely exit the workforce in order to maintain their benefits and not forfeit years of vested plan proceeds.

Although the institutional findings are easier to address with policy changes than the personal issues that affect retirement, it would be universally beneficial to assure that people approaching retirement age have access to quality health care. Counteracting some of the health concerns that most often drive people out of the workforce is an important goal that can be achieved through continued medical research. In addition, given that health status was the strongest predictor of retirement age in this study, it is clear that available, affordable health care systems would go a long way to encouraging the voluntary delay of retirement through preventative medical treatment.

In order to see changes, employers and policymakers need to not only
recognize the oncoming labor supply problem, but also focus upon what is best for a large segment of the voting population. Beyond the implications for the broader economy, there are personal costs when older Americans are not free to exercise personal choice about when to retire. If the saliency of this issue is not obvious from a humanitarian perspective at the present time, it will undoubtedly take center stage when a large voting bloc of citizens is directly affected. Fortuitously, safeguarding the well-being of this constituency goes hand in hand with safeguarding the health of the U.S. economy.
Figure 1: Conceptual Model

Determinants of Retirement Age

**Job Characteristics:**
- Pay scale
- Physical demands
- Time commitment

**Health Status:**
- Retiree
- Spouse

**Financial Status:**
- Vested pension plan
- Social Security eligibility (early or standard)
- 401(k)/other accessible savings
- Access to affordable health

**Personal Characteristics:**
- Gender
- Time spent in the workforce
- Spouse’s retirement status
- Education

Chosen Retirement Age

**Retirement Age:**
- Under 55
- 55 - 61
- 62 - 64
- 65
- Over 65

**Voluntary:**
- Financially feasible
- Other opportunities or interests to pursue

**Involuntary:**
- Benefits would be forgone
- Health concerns
- Job untenable
- Family needs
## Tables

Table 1: Description of Study Variables

<table>
<thead>
<tr>
<th>Conceptual Model Label</th>
<th>Data Set Label</th>
<th>Variable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement Age (DV)</td>
<td>(1) RETIRED-YR (2) AGE-RESPONDENT</td>
<td>Age of retirement (broken down into five categories (i.e. “under 55,” “55-61,” etc.))</td>
</tr>
<tr>
<td>Job Characteristics – Pay scale</td>
<td>SALARY-YR</td>
<td>Annual salary at time of retirement</td>
</tr>
<tr>
<td>Job Characteristics – Physical demands</td>
<td>JOB DESCRIPTION</td>
<td>Level of physical demands pre-retirement job placed on the retiree</td>
</tr>
<tr>
<td>Job Characteristics – Time commitment</td>
<td>HRS-WEEK</td>
<td>Hours worked per week prior to retirement</td>
</tr>
<tr>
<td>Health Status – Self</td>
<td>KEEP FROM WRKG</td>
<td>Whether the retiree had health conditions that prevented him/her from working</td>
</tr>
<tr>
<td>Health Status – Spouse</td>
<td>HEALTH-SPOUSE</td>
<td>Degree to which the retiree’s spouse needed care prior to his/her retirement</td>
</tr>
<tr>
<td>Financial Status – Access to affordable health care</td>
<td>(1) MEDICARE COVERAGE (2) HEALTH-COSTS-YR</td>
<td>Whether the retiree is Medicare-eligible and incurring affordable medical expenses each year</td>
</tr>
<tr>
<td>Financial Status – Social Security eligibility</td>
<td>(1) SS BENEFITS-YR (2) SP YEAR STARTED TO RECEIVE SS BENEFITS</td>
<td>Contents of retiree’s social security and whether he/she is currently receiving those benefits</td>
</tr>
<tr>
<td>Financial Status – Vested pension plan</td>
<td>AMT-BENEFIT-PER-4</td>
<td>Amount of retiree’s pension benefits</td>
</tr>
<tr>
<td>Financial Status – 401(k)/other accessible</td>
<td>AMT-SAVINGS</td>
<td>Degree to which the retiree believes he/she has</td>
</tr>
<tr>
<td>Personal Characteristics – Gender</td>
<td>GENDER-RESPONDENT</td>
<td>Retiree’s gender</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Personal Characteristics – Time spent in the workforce</td>
<td>LABOR PARTIC-PER</td>
<td>Number of years retiree was a full-time member of the labor force</td>
</tr>
<tr>
<td>Personal Characteristics – Spouse’s retirement status</td>
<td>RETIRED-SP</td>
<td>Whether the retiree’s spouse is retired</td>
</tr>
<tr>
<td>Personal Characteristics – Education</td>
<td>EDUC</td>
<td>Retiree’s years of education</td>
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</tbody>
</table>
Table 2: Descriptive Statistics for Key Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>Stnd. Dev</th>
<th>Range</th>
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<tbody>
<tr>
<td><strong>Age at retirement</strong></td>
<td>8758</td>
<td>60.51</td>
<td>9.11</td>
<td>44-82</td>
</tr>
<tr>
<td><strong>Job Factors</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Longest industry employed in</td>
<td>6810</td>
<td>7.61</td>
<td></td>
<td>1-13</td>
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<td>Annual salary</td>
<td>6562</td>
<td>40,654</td>
<td>14,332</td>
<td>11,000-1,200,000</td>
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<tr>
<td>Weekly time commitment</td>
<td>6562</td>
<td>36</td>
<td>7.63</td>
<td>5-85</td>
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<tr>
<td><strong>Health Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retiree’s ability to work</td>
<td>8722</td>
<td>0.35</td>
<td></td>
<td>0-1</td>
</tr>
<tr>
<td>Spouse’s physical condition</td>
<td>5423</td>
<td>0.29</td>
<td></td>
<td>0-1</td>
</tr>
<tr>
<td><strong>Financial Well-being</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Amount in vested pension plan</td>
<td>8758</td>
<td>7,052</td>
<td>20,578</td>
<td>0-1,196,388</td>
</tr>
<tr>
<td>Social Security eligibility</td>
<td>8758</td>
<td>0.95</td>
<td></td>
<td>0-1</td>
</tr>
<tr>
<td>Resources in 401(k)/other</td>
<td>8758</td>
<td>389,289</td>
<td>1,057,412</td>
<td>-231,000-41,640,000</td>
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<tr>
<td>accessible savings</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Access to affordable health</td>
<td>8735</td>
<td>1.42</td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender of retiree</td>
<td>8758</td>
<td>1.53</td>
<td></td>
<td>1-2</td>
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<tr>
<td>Religion</td>
<td>8739</td>
<td>1.50</td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>8753</td>
<td>1.19</td>
<td></td>
<td>1-3</td>
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<tr>
<td>Time spent in the workforce</td>
<td>8758</td>
<td>35.65</td>
<td>14.62</td>
<td>0-78</td>
</tr>
<tr>
<td>Years of education</td>
<td>8742</td>
<td>12.40</td>
<td>3.07</td>
<td>0-17</td>
</tr>
<tr>
<td>Spouse’s retirement status</td>
<td>5450</td>
<td>3.07</td>
<td>0.67</td>
<td>0-2</td>
</tr>
<tr>
<td>Number of children</td>
<td>8158</td>
<td>3.43</td>
<td>2.11</td>
<td>0-20</td>
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</table>
Table 3: Correlations between Retirement Age and Explanatory Variables

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Correlation with Retirement Age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Well-being</strong></td>
<td></td>
</tr>
<tr>
<td>Amount in Vested Pension Plan</td>
<td>0.71 (p &lt; .01)</td>
</tr>
<tr>
<td>Resources in 401(k)/Savings</td>
<td>0.26 (p = .12)</td>
</tr>
<tr>
<td>Social Security Eligibility</td>
<td>0.22 (p = .09)</td>
</tr>
<tr>
<td>Affordable Health Insurance</td>
<td>0.30 (p = .11)</td>
</tr>
<tr>
<td><strong>Job Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Annual Salary</td>
<td>0.17 (p = .20)</td>
</tr>
<tr>
<td>Weekly Time Commitment</td>
<td>0.51 (p &lt; .01)</td>
</tr>
<tr>
<td>Industry Employed</td>
<td>0.62 (p &lt; .01)</td>
</tr>
<tr>
<td><strong>Personal Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Time in Workforce</td>
<td>0.21 (p = .14)</td>
</tr>
<tr>
<td>Years of Education</td>
<td>0.47 (p &lt; .01)</td>
</tr>
<tr>
<td>Spouse’s Retirement Status</td>
<td>0.42 (p &lt; .01)</td>
</tr>
<tr>
<td><strong>Health Status</strong></td>
<td></td>
</tr>
<tr>
<td>Retiree’s Health Status</td>
<td>0.64 (p &lt; .01)</td>
</tr>
<tr>
<td>Spouse’s Health Status</td>
<td>0.16 (p = .22)</td>
</tr>
</tbody>
</table>
Table 4: OLS Coefficients (Standard Errors) for Predicting Retirement Age

<table>
<thead>
<tr>
<th>Age at Retirement</th>
<th>Controlling for Personal Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coefficient (Stnd. error)</strong></td>
<td><strong>Coefficient (Stnd. error)</strong></td>
</tr>
<tr>
<td>Constant</td>
<td>62.32</td>
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<tr>
<td>Job Factors</td>
<td></td>
</tr>
<tr>
<td>Longest industry employed</td>
<td>-1.67 (0.002)**</td>
</tr>
<tr>
<td>Annual salary</td>
<td>0.92 (0.011)</td>
</tr>
<tr>
<td>Weekly time commitment</td>
<td>-2.42 (0.006)*</td>
</tr>
<tr>
<td>Health Status</td>
<td></td>
</tr>
<tr>
<td>Retiree’s ability to work</td>
<td>-3.78 (0.019)**</td>
</tr>
<tr>
<td>Spouse’s physical condition</td>
<td>-1.22 (0.004)</td>
</tr>
<tr>
<td>Financial Well-being</td>
<td></td>
</tr>
<tr>
<td>Amount in vested pension plan</td>
<td>-3.83 (0.010)*</td>
</tr>
<tr>
<td>Social Security eligibility</td>
<td>-0.09 (0.007)</td>
</tr>
<tr>
<td>Degree of resources in 401(k)/other accessible savings</td>
<td>1.26 (0.009)</td>
</tr>
<tr>
<td>Access to affordable health insurance</td>
<td>-1.88 (0.012)</td>
</tr>
<tr>
<td>Personal Characteristics</td>
<td></td>
</tr>
<tr>
<td>Time spent in the workforce</td>
<td>2.23 (0.016)</td>
</tr>
<tr>
<td>Years of education</td>
<td>-1.92 (0.017)**</td>
</tr>
<tr>
<td>Spouse’s retirement status</td>
<td>-1.78 (0.022)**</td>
</tr>
<tr>
<td>R²</td>
<td>0.55</td>
</tr>
</tbody>
</table>

(**) denotes variables that are statistically significant at the one-percent level; (*) denotes variables that are statistically significant at the five-percent level. + The regression controlled for personal characteristics including gender, race/ethnicity, marital status, religion, number of children, and geographic location.
References


3 According to a survey conducted by AARP. Available at http://marketplacemoney.publicradio.org/features/archive_articles/chris021019.htm.


