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Phased Retirement: Who Opts for It and Toward What End?

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The AARP Public Policy Institute, formed in 1985, is part of the Policy and Strategy Group at AARP. One of the missions of the Institute is to foster research and analysis on public policy issues of importance to mid-life and older Americans. This publication represents part of that effort.

The views expressed herein are for information, debate, and discussion, and do not necessarily represent official policies of AARP.

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FOREWORD

Various surveys and public opinion polls in recent years reveal considerable interest on the part of workers in phasing into retirement. Transitioning into retirement by way of bridge jobs is common in the United States. Employers offer a variety of options, such as part-time employment and retiree rehiring programs, that enable older workers to reduce their work hours and/or move to more flexible work schedules before retiring fully and completely. However, formal phased retirement programs that allow workers to scale back their hours on their current jobs are rare.

A number of legal and other impediments to formal phased retirement programs exist. The Employee Retirement Income Security Act (ERISA), for example, bars employers from making in-service distributions of pension benefits from tax-qualified plans to workers before a plan's normal retirement age. Employers express concern about violating top-heavy rules under ERISA if the workers who opt for phased retirement are disproportionately high earners. Employers also worry about violating the Age Discrimination in Employment Act (ADEA) if certain older workers but not others are targeted for phased retirement.

The Internal Revenue Service has proposed regulations that would eliminate a number of impediments to phased retirement, although as of this writing, the regulations have not been formalized. Legislation has also been introduced in Congress that would enable employers to make in-service pension distributions to employees before their plan's normal retirement age without jeopardizing the plan's tax status. Other legislative as well as company policy changes that would enable workers to phase into retirement seem likely as the workforce ages.

AARP's Public Policy Institute (PPI) wanted to know more about who might opt for phased-retirement opportunities if they were more widely available, when and under what circumstances they might do so, the factors that might be associated with phased retirement take-up, and the consequences of the decisions for workers and their families. Of particular interest to PPI was whether phased retirement options would extend working life or encourage workers to opt for retirement benefits earlier than they otherwise would because they could afford to do so with a combination of retirement benefits and income.

In *Phased Retirement: Who Opts for It and Toward What End?,* Yung-Ping Chen of the University of Massachusetts-Boston and John C. Scott of Cornell University use the 1992-2002 waves of the Health and Retirement Study to address some of PPI's questions. The investigators note that there is no formal definition of phased retirement. For their analyses, they distinguish between phased retirement (still working part time but for an employer different from the 1992 employer) and phased retirement (still working for the same employer in 1994 through 2002 but at reduced hours). They compare these two groups of workers to the "completely retirement" and those who are "not retired at all" and find a number of significant differences between phased retirees and the others. Phased retirees are better educated, have greater household wealth and income, and are more likely to be in white-collar, highly skilled positions, which likely offer more attractive later life employment opportunities. Phased retirees are also less likely to be included in a defined benefit pension plan or retiree health insurance plan, which comes as no surprise. Workers with defined benefit plans have generally not been able to continue working while collecting pension benefits from the employer that offers the plan. Workers without retiree health coverage have a greater incentive than those with it

to remain in the labor force until they reach Medicare-eligibility age or get closer to it and can turn to COBRA protections for bridge health insurance coverage.

Chen and Scott also determine that phased retirement does not appear to be associated with early labor force exit. In fact, although more research in this area is warranted, phased retirement may extend workers' careers; Chen and Scott nonetheless observe that "phased retirement appears more prevalent at the younger end of the older worker age span, reflecting its role as a transition to full retirement, reflecting its role as a transition to full retirement."

Phased Retirement: Who Opts for It and Toward What End? is a significant contribution to our understanding of a work option that older Americans say would keep them in the workforce longer. We hope that readers find it useful and that it fosters further research on this important topic.

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EXECUTIVE SUMMARY

Background

The workforce of the United States is aging and the group of older workers will grow larger with time—the labor force participation rate for older workers is rising. Aside from general population aging, reasons for participation in the workforce by older Americans may include financial need, improvements in health, higher educational attainment, and more accommodating legal and economic environments for older workers. In addition, older workers may actually desire to remain in the workforce regardless of their particular economic circumstances. Work may provide social and psychological benefits that retirement cannot, and some individuals may not value leisure as highly as they do employment.

A desire for continued employment by older individuals, however, may not equate to a wish to work full time. Some employees are able to modify full-time status in some fashion in order to "phase down" their career employment as they approach full retirement. This phenomenon has not yet been extensively studied, but it may become increasingly common and increasingly important as the workforce continues to age.

Purpose

This study examines various aspects of phased retirement and extends the research on work-retirement outcomes for older workers in several ways. There is no formal definition of phased retirement. We provide our own more precise definition in the Methodology section, but as a general matter, this report considers phased retirement to be a reduction in hours worked combined with the employee's self- assessment of his or her employment status.

We consider several key questions of interest, including:

- What factors are conducive to phased retirement?
- Does phased retirement extend the work life?
- What are the financial effects associated with phased retirement?

Methodology

This study is based on six waves of the Health and Retirement Study (HRS) from 1992 through 2002. The HRS is a nationally representative sample of persons aged 51 to 61 in 1992 and their spouses or partners. The survey is longitudinal in nature, with baseline interviews of 12,654 respondents conducted in 1992 and subsequent waves occurring every two years. The HRS collects extensive information regarding demographic, employment, pension, health, family structure, and financial characteristics of age-eligible respondents and their spouses or partners.

The report examines the retirement patterns of those respondents aged 51 to 61 who were working full time in 1992, with *full time* defined as working 35 or more hours per week. The dataset consists of 5,571 respondents in 1992, 4,721 of whom were wage-and-salary workers and 850 of whom were self-employed persons. Using this sample, we examine the work-retirement status of the

respondents over time since 1992. A respondent's work-retirement status (that is, phased retirement, partial retirement, full retirement, or working full time) is the dependent variable, which is based on both changes in hours worked and self-assessment of retirement status. *Phased retirement* is indicated if the respondent continues to work with the employer that was recorded in the 1992 baseline interview and either (a) reports working full time but reports at least a 15 percent reduction in hours worked from 1992 to any subsequent wave or (b) does any work for pay but considers himself or herself to be partially or fully retired.

Partial retirement is indicated if the respondent works for an employer that is different from the 1992 employer and meets either of the (a) or (b) criteria mentioned above.

Four principal research methods are used in this report. First, we compare group means or proportions in order to determine whether there are statistically significant differences in characteristics between those respondents who become phased retirees and those who do not. Second, we employ a mixed repeated logistic regression model to assess the influence of individual variables on the likelihood of phased retirement over time. Third, we test the connection, if any, between phased retirement and the chance of full retirement over time based on the Cox proportional hazards regression. Fourth, we use ordinary least squares regression to explore the change in individual earnings and total household income from 1992 through 2002 on a set of independent variables, including phased retirement status.

Principal Findings

Factors Conducive to Phased Retirement—A number of statistically significant differences are found between phased retirees (defined as those who were in phased retirement in one or more of the waves in the study) and other respondents. These differences include:

- **Personal Characteristics:** Phased retirees are better educated and are less likely to be black. They are more likely to have a positive view of work (that is, to express both a belief that work is by itself important, not solely as a means for acquiring money, and a desire to keep working even if income is not needed).
- **Household Characteristics:** Phased retirees have greater household wealth and income.
- **Job-Related Characteristics:** Phased retirees are more likely to be managers and in white-collar, highly skilled positions. They are less likely to face constraints on reducing hours and less likely to participate in a defined benefit pension plan.

Extended Work Life—In addition, phased retirement does not appear to be associated with early exit from the workforce. Over time, phased retirees are less likely to retire fully compared to workers who do not enter phased retirement. Phased retirement may indeed extend the careers of workers, although we cannot really know because the data do not indicate when phased retirees would have retired in the absence of phased retirement.

Financial Effects—Phased retirement status alone is not significantly related to changes in total household income and changes in individual earnings from 1992 through 2002. Although additional research is needed on the effects of phased retirement on workers' income and wages, it may be that

persons entering into phased retirement are able to offset the drop in wages with other sources of income.

Conclusions

The emerging picture of phased retirement is that of a process that is more available to persons who are best able to cope with change: those who are better educated, more financially secure, healthier, and in superior occupational positions. Given that phased retirement in the workplace is likely provided on a case-by-case basis rather than as part of a formal broad-based program, the findings in this study are not surprising. Moreover, the finding of significant associations between phased retirement and variables that show changes over time (for example, one's age) is similarly unsurprising. Phased retirement appears more prevalent at the younger end of the older worker age span, reflecting its role as a transition to full retirement.

Given the available data, it is difficult to say how a policy change encouraging phased retirement would affect older workers. Part of the difficulty with exploring the effects of a policy change may be the lack of formal broad-based phased retirement programs. By "broad based," we mean programs that cover or are open to a large portion (e.g., more than 50 percent) of an organization's workers. This is not a strict definition, but it is meant to distinguish formal policies and programs with wide applicability from ad hoc, case-by-case practices. Our study suggests that workers enter into phased retirement because they are able to negotiate arrangements with their employers. A policy change that encourages broad-based phased retirement might (or might not) affect the workers who would use phased retirement without the change. Ultimately, what we would like to know is whether a policy change would induce workers into phased retirement who otherwise could not access it, and whether such workers would be better off or worse off as a result.

As mentioned previously, additional research is required. A large question hanging over any research into phased retirement is how to define the phenomenon. In this study, we define phased retirement according to changes in hours worked and how employees perceive their work-retirement status, but other definitions are possible. For example, this report does not consider changes in earnings (whether from reduced hours or reduced job responsibilities) or job sharing as indicators of phased retirement. The lack of a standard definition of phased retirement may make comparison of research results difficult. In terms of financial effects associated with phased retirement, future research also should explain the processes by which phased retirees plan for both the transition to retirement and retirement itself.

Despite the need for additional research, this study advances the state of knowledge about work-retirement outcomes in general and about phased retirement in particular. Specifically, we have begun to understand how phased retirement operates as a path distinct from other transitions from work to retirement. We have also shown that phased retirees are a group with characteristics, including beliefs about work, distinct from those who do not enter into phased retirement. Finally, we have started exploring the financial outcomes associated with phased retirement. It is our hope that this research will generate additional questions and explorations as well as add to the policy discussion about encouraging or discouraging particular pathways to retirement.

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I. INTRODUCTION

The workforce of the United States is aging and will continue to age, a development that is contrary to historical trends. The labor force participation rate for those aged 65-plus declined steadily from the 1950s to the 1980s, reaching 10.8 percent in 1985. Then, however, it increased to 12.8 percent in 2000. By 2015, more than 16 percent of those aged 65 and older are expected to be in the labor force (Toossi, 2002; 2004). The median age of the labor force increased from aged 34.6 in 1982 to 40 in 2002.

This increase in the labor force participation rate by older Americans may reflect more than a general trend of population aging. Reasons for the higher participation of older people in the labor force may include financial need, higher educational attainment, improvements in health, reduced disability, changes in pension plans, more accommodating legal and economic environments for older workers, and changes from an industrial to an information-based economy.

In addition, older workers may in fact desire to remain in the workforce, regardless of their particular economic circumstances. Work may provide social and psychological benefits that retirement cannot, and some individuals may not value leisure as highly as they do employment.

A desire to keep working, however, may not equate to a wish to work full time. Some employees are able to modify their work schedules in some fashion in order to "phase down" their career employment as they approach full retirement.[1] Workers who cannot engage in phased retirement with their current employer often "retire" and then find part-time work with a different employer. Both types of arrangements are usually not formal or "part of" broad-based programs, but studies have found some employer interest in implementing phased retirement arrangements in the future (Watson Wyatt Worldwide, 1999; Ehrenberg, 2001; Hutchens, 2003).

This study examines various aspects of phased retirement and extends the extant research on the work-retirement behavior of older employees in several ways. We consider several key issues of interest, including factors that are conducive to phased retirement for particular workers, the impact of phased retirement on the probability of becoming fully retired, and the financial effects of phased retirement on those who engage in it. We address these questions through the use of a large, longitudinal interview survey of older workers that takes into account employee attitudes towards work and leisure, as well as other variables such as demographic, family status, employment, and financial characteristics.

[1] Such arrangements have a variety of titles, including phased, partial, and gradual retirement. In some studies, "phased retirement" refers to arrangements in which the employee gradually reduces work within a career job while "partial retirement"' has been used to refer to a reduction in work outside of a career job. We adopt these definitions in this report.

II. BACKGROUND

A host of demographic and economic trends may be producing opportunities for new patterns of work and retirement as well as new attitudes towards work by older Americans. Specifically, Americans are living longer and seem to be experiencing better health into later life, thereby enabling them to remain in the world of work longer if they desire. Financial needs resulting from a lack of assets, not being covered under defined benefit pension plans, the increasing burden of health care costs, or the lack of retiree health insurance may be keeping older Americans in the labor force or pushing them back into it. At the same time, the passage of age discrimination laws and changes in the nature of work are providing more opportunities and incentives for increased labor force participation by older workers. As a result, expanded opportunities for phased retirement may be on the increase. This section provides a background discussion of these trends and influences, many of which will be represented in the methodology and analytical models discussed in subsequent sections.

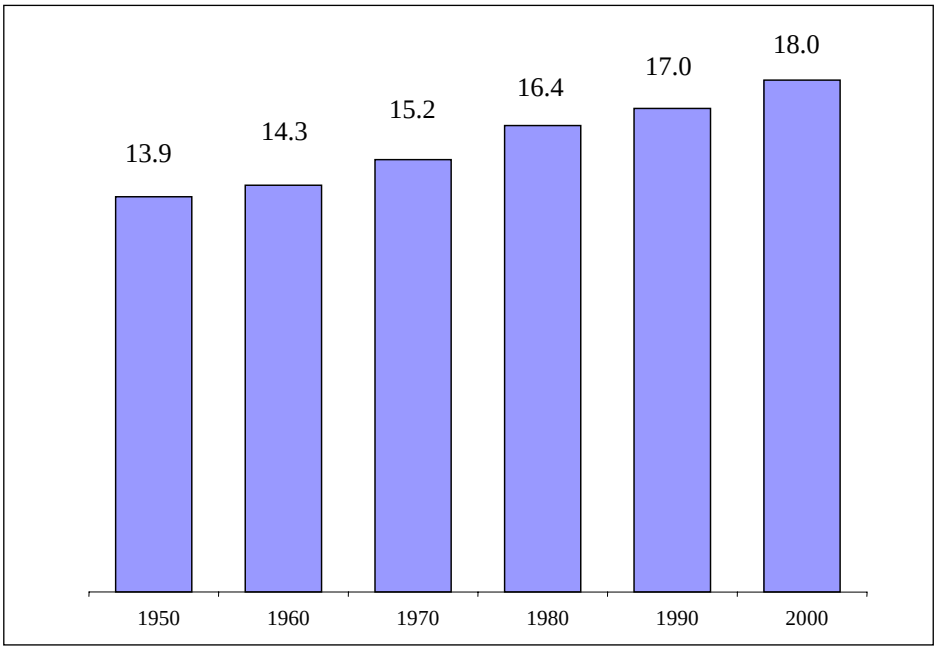
The Demography of Aging

Based on fertility, mortality, and health trends, the U.S. population is projected to continue aging well into the first half of the twenty-first century. These forecasts are subject to change, of course, but one study suggests that current forecasts may be overly conservative and that society may be aging faster than officially projected (Anderson, Tuljapurkar, and Li, 2002). However the future unfolds, it is likely to include continued work well into the older ages.

A major determinant of population aging is declining fertility. The mean fertility rate (the average number of children born to a woman in her lifetime) has dropped from 3.61 in 1960 to 2.04 in 1998, and it is expected to decline to 1.90 by 2025 (U.S. Census Bureau, 2000). With smaller cohorts of babies being born, older people will assume a larger proportion of the overall population. With relatively fewer younger workers available, there may be more needs and opportunities for older persons to continue working.

As they are living longer, older Americans appear to be better able to participate in the workforce. Life expectancy at birth has increased from 70.6 years in 1970 to 76.9 years in 2000 with steady increases expected through the rest of this century. Currently, people who are aged 65 have a life expectancy of 18 years, compared to 13.9 years in 1950 (U.S. Census Bureau, 2000; 2004). Figure 1 illustrates the increase in life expectancy at age 65 for the United States from 1950 to 2000.

Figure 1: Life Expectancy at Age 65, 1950-2000 (in years)



Source: U.S. Census Bureau, 2004.

Older Americans are not just living longer but they are generally healthier. Physical impairments increase with age, and chronic health conditions have not declined much over time.[2] But, despite the overall tendency for people to lose functionality as they age, health measures tend to suggest that the old of today are really less "old" (in terms of ability and functionality) than prior generations of older Americans (Riche, 2001). In 2001–2002, 73 percent of older Americans reported their health as good, very good, or excellent, with little difference by gender. The percentage of people aged 65 and over reporting fair or poor health declined from 29 percent in 1991 to 27 percent in 2001 (Federal Interagency Forum on Aging Statistics, 2004).[3]

Cohort size also affects the overall picture: the large cohort of baby boomers (some 76 million individuals born from 1946 to 1964) will accelerate the growth of the older population over the coming decades (Riche, 2001).

[2] Chronic health conditions such as arthritis, diabetes, and heart disease are diseases that are rarely cured and that impose a significant health and financial burden. In 2001–2002, of those aged 65 and older, 40 percent reported having arthritis, 50 percent having hypertension, 31 percent having heart disease, and 21 percent indicated that they had contracted cancer at some point (Federal Interagency Forum on Aging Statistics, 2004). From 1982 to 1994, the percentage of Americans with chronic disabilities declined slightly from 24 percent to 21 percent, but the total number of persons with chronic disabilities increased from 6.4 million to 7 million (Manton, Corder, and Stallard, 1997).

[3] Between 1984 and 1995, Americans aged 65 and older reported improvements in physical functioning as measured by the ability to walk a quarter mile; climb stairs; reach up over one's head; and stoop, crouch, or kneel. However, there are significant differences among groups of Americans. For example, in 1995, 33 percent of older black Americans were unable to perform at least 1 of 9 physical activities versus 25 percent of older white persons. Among men and women in every age group, non-Hispanic blacks and Hispanics were less likely to report good health than non-Hispanic whites, and positive health evaluations tended to decline with age for all groups (Federal Interagency Forum on Aging Statistics, 2000).

The changes in fertility, longevity, health, and cohort size are decreasing the proportion of younger workers and increasing the number of work-eligible older Americans, which should result in additional workers aged 65-plus available to take advantage of phased retirement. Also, formal constraints on later-life employment are lessening and thereby altering workforce patterns for the aged.

Labor Force Participation by Older Workers

Although the labor force participation of older Americans declined over the latter half of the twentieth century, there are indications that this trend is reversing. For persons aged 55 to 64, civilian labor force participation rates fluctuated from 56.7 percent in 1950 to a high of 61.8 percent in 1970 to a low of 55.7 in 1980 before resuming an upward trend to 61.9 percent by 2002. This rate is projected to be 61.6 percent in 2015. Labor force participation rates for older workers (aged 65-plus) have steadily declined since the 1950s, reaching 10.8 percent in 1985. However, labor force participation in this age cohort increased to 12.8 percent in 2000 and is expected to increase to more than 16 percent by 2015 (Toossi, 2002; 2004).

The median age of the labor force has also changed over the last 40 years. As Toossi (2004) has noted, the median age of the labor force attained a peak level of 40.5 in 1962. The median age decreased as the baby-boom generation entered the labor force, reaching 34.6 in 1982. Starting then, the median age of workers increased to 40 years of age in 2002. Although this recent increase in the median age of the workforce undoubtedly reflects the aging of the baby boomers, it may also reflect the increase in labor force participation of persons 65 and older.

The nature of employment is changing in a manner that may facilitate continued work. In a survey of human resource managers undertaken by AARP, older workers were rated lower relative to other employees on such skill-related attributes as trying new approaches, learning new technologies, and having up-to-date job skills (AARP, 2000). However, the less physically demanding nature of an information-based economy may work to the advantage of older workers if their skills are upgraded. The number of workers aged 50 to 59 using a computer at work increased from 43.9 percent in 1993 to 50.7 percent in 1997, and this percentage is not much lower than the 55 percent for those aged 40 to 49. A similar rise was recorded for those 60 and older whose computer use at work increased from 27.3 percent in 1993 to 32.6 in 1997 (U.S. Census Bureau, 1995: Table 671; 2000: Table 690). Although the Census Bureau has not updated these numbers since 1997, more recent numbers show a similar trend for home computer ownership. The percentage of people aged 65 or older owning a computer rose from 8.3 percent in 1993 to 24.3 percent in 2000 (U.S. Census Bureau, 1993; 2001).

Change is also occurring in the structure of retirement and health benefits. Most notable among these changes has been the shift in sponsorship by employers from defined benefit pension plans to defined contribution plans such as 401(k)s. In 1980, there were more than 148,000 defined benefit plans that covered 30 million active workers (38 percent of the workforce), but by 1999 the numbers had shrunk—just under 50,000 defined benefit plans covered fewer than 23 million American workers (21 percent of the workforce). Over the same period, the number of defined contribution plans increased from 340,850 to 683,100 with an increase in workers covered from 14 million (14 percent of the workforce in 1980) to more than 46 million (43 percent of the workforce in 1999)

(U.S. Department of Labor, 2004: Table E4).[4] Defined benefit plans generally provide an annuity payout for the life of the worker or beneficiary, but defined contribution plans typically do not provide such a payout. Instead, a worker retiring on a defined contribution plan may exhaust his or her retirement assets and thereby be compelled to return to work.

Job Flexibility

The growth of the older workforce, with the concomitant relative decline in workers of younger ages, improvements in health status, certain institutional changes, and for some older Americans, the need for income may be combining to extend working life. An apparent extension of working life in turn may be changing norms for the transition to retirement and for the very idea of retirement. The idea of a set or standard retirement age has been replaced by a wide variety of workplace arrangements involving older persons (Wiatrowski, 2001). There are indications that the number of "bridge jobs," that is, part-time or temporary jobs that bridge a career job and retirement, is increasing. Whether voluntarily or involuntarily, many older individuals continue working with an employer different from their career employer after they have "retired" from the career job (Quinn and Kozy, 1996).

Moreover, flexibility in workplace schedules is increasingly common—28 percent of full-time wage-and-salary workers aged 20 and older had flexible work schedules in 2004, an increase from 12 percent in 1985 (U.S. Department of Labor, 2004: Table A). Twenty-seven percent of workers between the ages of 55 and 64 had flexibility in setting work hours in 2004, and this percentage increased to 35 percent for the 65 and older age group (U.S. Department of Labor, 2004: Table 1). Increasing flexibility in workplace schedules may aid in adopting phased retirement programs.

The Role of Public Policy

A number of policy proposals could expand employment opportunities for older workers. These proposals include increasing the eligibility ages for early and/or normal retirement benefits under Social Security, indexing the Social Security eligibility ages to life expectancy, making Medicare the primary payer for health benefits for workers aged 65 and older, removing disincentives for benefit accruals in pension plans after attainment of the normal retirement age, encouraging more part time and flexible work arrangements, enhancing training for older workers, and improving enforcement of the Age Discrimination in Employment Act (Rix, 2004).

[4] These figures refer to active employed and unemployed private sector workers. The same trends are seen using a different set of individuals. In terms of active workers, retirees, and beneficiaries, in 1980, defined benefit plans covered nearly 38 million, and by 1999, they covered 41 million Americans. The number of workers and beneficiaries covered by defined contribution plans increased from nearly 20 million in 1980 to more than 60 million in 1999 (U.S. Department of Labor, 2004: Tables E1, E5).

III. RESEARCH LITERATURE REVIEW

A. Determinants of Continued Labor Force Participation by Older Workers

Research on the determinants of continued labor force participation provides the basis for the methodology of this study. The literature identifies a host of factors that may affect continued work by older Americans including personal characteristics of the workers, household characteristics, and job-related characteristics.

Personal Characteristics

- Black, Hispanic, and female older persons—due to disadvantages in human capital, employment opportunities, and health characteristics—experience more involuntary job separation than white males, and the resulting periods of joblessness often result in a state of involuntary "retirement" or labor force withdrawal (Flippen and Tienda, 2000).
- Highly educated individuals tend to continue working in old age (Haider and Loughran, 2001). The negative effect on labor force participation of low educational attainment is found to be stronger for women than for men and stronger for blacks than for non-blacks (Williamson and McNamara, 2001).
- Healthier individuals tend to continue working in old age (Haider and Loughran, 2001; Quinn, et al., 1998). Conversely, negative health shocks may significantly change plans for continued work (Dwyer, 2001; Haider and Loughran, 2001), with poor health contributing to a decision to retire (Reitzes, Mutran, and Fernandez, 1998).

Household Characteristics

- Income and wealth are important factors when older people decide whether to continue working, but the effects are varied. Greater wealth is a major explanation for the historical decline in labor force participation of older male workers (Costa, 1998). The wealthier individuals, however, are most likely to be working in old age (Haider and Loughran, 2001). Such wealthy individuals may be able to cushion a drop in wage income by drawing on non-wage income from assets.
- Family size may influence continued employment at older ages. The propensity to retire has been found to be inversely related to the number of children present in the household, which may in turn reflect financial pressures caused by having dependents. The presence of children in the home is more likely to lead to continued work for women than for men (Reitzes, Mutran, and Fernandez, 1998).
- The employment and health status of a spouse appear to influence retirement and continued work decisions for married men and women. If a spouse is not employed and does not have health problems, the worker is more likely to retire, but the presence of health problems in a nonworking spouse reduces the retirement rates for men and women (Johnson and Favreault, 2001). For households in which both individuals work, evidence of spouses retiring at the same time suggests conscious efforts at coordination due to shared tastes for leisure (Reitzes, Mutran, and Fernandez, 1998; Gustman and Steinmeier, 1994).

Job-Related Characteristics

- Workers in physically demanding jobs are likely to retire earlier than other workers (Hayward, et al., 1989).
- Jobs that require more complexity and creativity and less repetition have been associated with delayed retirement (Reitzes, Mutran, and Fernandez, 1998; Hayward, et al., 1989).
- Job flexibility facilitates continued work, in part because it increases an employee's job satisfaction (Reitzes, Mutran, and Fernandez, 1998; Hurd and McGarry, 1993). These occupational characteristics—physical demands, flexibility, and financial aspects—influence decisions concerning continued employment through a worker's job satisfaction (Mueller, et al., 1994).
- Workers with defined contribution plans generally retire later than similar workers with defined benefit pension plans (Friedberg and Webb, 2000).
- Although employer-provided health insurance helps keep people in the labor force, the availability of health insurance in retirement is an important predictor of retirement (Gruber and Madrian, 2002). For example, one study found that the availability of employer-provided retiree health insurance increases the rate of exit through retirement by two percentage points per year if the employee shares the cost of insurance with the employer and by six percentage points per year if the cost of retiree health insurance is borne fully by the employer (Blau and Gilleskie, 2001). Retiree health benefits usually interact with the availability of private pensions in affecting retirement decisions (Wise, 1997).
- In a study of self-reported age discrimination, workers who experience age discrimination are much more likely to separate from their employers and are less likely to remain employed (Johnson and Neumark, 1997).

B. Defining and Measuring Partial Retirement

While phased retirement is the principal focus of this study, we discuss the literature on partial retirement first because of the similarities between partial retirement and phased retirement. For convenience, the study uses the term "partial retirement" to mean part-time work for an employer different from one's long-term employer. However, most research on alternatives to full retirement has used "partial retirement" to apply to any gradual reduction of work, regardless of whether the employer remains the same.

Labor force participation rates are a widely used gauge of continued involvement by older individuals in the workplace (Quinn, 1999; Toossi, 2002; 2004). But the labor force participation rate is a poor indicator of the work-to-retirement transition. At any point in time, the observed labor force rate for an older age group is the product of older persons exiting and entering the workforce such that there is not a unidirectional flow of persons from work to retirement. Other measures are needed to assess changes in retirement outcomes (Hayward, Crimmins, and Wray, 1994).

Another conceptual issue is the value of self-reporting versus an objective standard such as hours worked or earnings from a job. It is fairly clear that self-reports of retirement status can differ substantially from objective measures (Honig and Hanoch, 1985; Ruhm, 1990; Gustman and Steinmeier, 2000; but see note 7 of Gustman and Steinmeier, 1984). "Many who report themselves partially retired have earnings at or near previous levels, and many with substantially reduced

earnings consider themselves either fully employed or fully retired." (Honig and Hanoch, 1985: 23). Thus, defining retirement status only through self-reports may not be particularly helpful in pinpointing older workers in a particular transition to retirement.

Purely objective measures can also be problematic. For example, a decline in wages, whether due to job demotion or job displacement, may falsely signal phased retirement when in fact the worker has not reduced their hours or embarked on a transition to full retirement. The usefulness of self-reported status, then, is that it provides a signal of the individual's intention. Some of the studies described below use a definition of partial retirement that combines self-reported status with an objective measure (Ruhm, 1990). The approach of this report, as discussed in the Methodology section, combines both self-reported retirement status and changes in the number of hours worked.

Gustman and Steinmeier conducted one of the first empirical investigations into what they termed "partial retirement." Using the first four waves of the Social Security Administration's Retirement History Study (RHS), a longitudinal survey of men aged 58 to 63 when initially surveyed in 1969, they showed that a dichotomous outcome (retired, not retired) was not appropriate for predicting retirement behavior. The sample was limited to white males who were not self-employed in their main jobs, and for data purposes, "main job" was the full-time job held at age 55. The study showed that about 3 percent of workers not facing mandatory retirement were partially retired in their main jobs while 11 percent were partially retired outside of their main jobs. Moreover, partial retirement increased with age. For example, in the 1975 wave, the percentage of the sample reporting partial retirement increased monotonically from 23.5 for those aged 64 to 38 at age 69 (Gustman and Steinmeier, 1984).

In 2000, Gustman and Steinmeier reexamined partial retirement using the self-reported definition of partial retirement, but this time using a different dataset, the Health and Retirement Study (HRS). In 1992, 6.3 percent of respondents reported themselves as partially retired, but that number rose to 12.7 percent by 1998.

Examining earnings is another method of defining partial retirement. Honig and Hanoch (1985), using the first three waves of the RHS, based "partial retirement" on the ratio of an individual's current earnings to maximum earnings over the entire career. If the ratio was 0.5 or less, the person was partially retired. Under this definition, nearly 20 percent of the sample was partially retired. Of those classified by the authors as partially retired, 39 percent considered themselves to be fully retired, 43 percent reported their status as partially retired, and the remaining 18 percent did not consider themselves retired at all.

Some studies have defined partial retirement by the number of hours worked. For example, Haider and Loughran (2001), using data from the Current Population Survey, found that 22 percent of those aged 50 to 58 and 31 percent of those aged 59 to 61 worked part time (less than 1,750 hours annually) from 1996 through 1998. Gustman and Steinmeier (2000) used two hours-based measures of partial retirement: usual hours worked per week (1–24 hours per week indicating partial retirement) and usual hours worked per year (1–1,199 hours per year indicating partial retirement). The usual hours per week measure found that 7 percent of respondents were partially retired in 1992 with an increase to 9.3 percent by 1998, and the use of an annual hours measure resulted in slightly higher percentages, ranging from 8.1 percent in 1992 to 10.6 percent in 1998.

Gustman and Steinmeier's 2000 study also used job tenure to measure partial retirement. Partial retirement was defined as leaving a long-term job (long term meaning at least 10 years of tenure) for a new job. The measure of leaving a job of 10+ years resulted in 24 percent being classified as partially retired over the four waves of the HRS, and the definition of leaving a job of 20+ years found an average of 21 percent partially retired.

Combining earnings and self-reported retirement status in his study of the RHS, Ruhm (1990) was concerned that involuntary reductions in hours or wages might cause an erroneous classification of partial or full retirement. Approximately half of all workers under this definition were partially retired at some point in their lifetimes, but only about 6.2 percent partially retired from their career job. Ruhm also focused on the duration of partial retirement, finding that the average duration (from onset of partial retirement to full retirement) exceeded five years.

Table 1 summarizes the literature on partial retirement definitions and outcomes.

Table 1: Comparison of Studies of Partial Retirement: Definitions and Findings

Author(s) (Year)	Definition of Partial Retirement	% Found to be Partially Retired
Gustman and Steinmeier (1984)	Self-Reported Status	33% ("at some point")
Honig and Hanoch (1985)	Earnings < 50% of Maximum Career Earnings	19.7%
Ruhm (1990)	Earnings and Self-Reported Status	More than 50% ("at some point")
Gustman and Steinmeier (2000)	Self-Reported Status	6.6% to 12.9%
	Usual hours worked per week	7.6% to 10.2%
	Usual hours worked per year	8.6% to 10.9%
	By leaving 10+ year job	22.7% to 26.0%
	By leaving 20+ year job	19.1% to 23.8%
	By change in hourly wage	10.1% to 12.6%
	By change in weekly earnings	11.7% to 15.6%
Haider and Loughran (2001)	Less than 1,750 Hours Annually	From 22% for 50- to 58-year-olds to 72% for those over age 80 who still worked

Source: Authors' compilation, 2005.

C. Research on Phased Retirement

For this report, phased retirement means the gradual reduction of work with a long-term employer as an older employee approaches full retirement. To date, there has been relatively little research on the number of people taking part in phased retirement in the United States. Gustman and Steinmeier (1984) made one of the first distinctions between phased and partial retirement by finding that 3 percent of their sample were phased retirees. Subsequently, Ruhm noted that 6.2 percent of his sample of workers "were partially retired and working for their career employer" (Ruhm, 1990: 492). More recently, Even and Macpherson (2004) found that phased retirement varies from 2.7 percent to 14.3 percent depending on the age group.[5]

[5] Even and Macpherson (2004) found phased retirement at 3.9 percent for those aged 50-54; 2.7 percent for those aged 55-59; 3.5 percent for those aged 60-61; 8.3 percent for those aged 62-64; and 14.3 percent for those aged 65 and older.

According to the ERISA Advisory Council (2000), employees who are contemplating retirement generally respond favorably to the option of phased retirement. An AARP study (2005) found that, although only 19 percent of surveyed older workers had heard of the term "phased retirement," nearly 40 percent expressed interest after reading a description of it.

Similarly, Abraham and Houseman (2004) analyzed workers' plans for the future and found significant interest by employees in reducing their hours of work. Analyzing the HRS over the first five waves, they found that 18 percent of respondents desired a reduction in work hours while another 5 percent wanted to change the kind of work they did, 25 percent wanted to stop work altogether, nearly 8 percent never wanted to stop, and more than 45 percent did not know or gave a different response. Of those planning to stop work, almost two-thirds did so, and 86 percent of those who planned to keep working continued working. However, only one-third of those desiring to reduce hours were able to do so, and only 22 percent of respondents who wanted to change the kind of work actually did so.

Employee responses to phased retirement can vary depending on how the program operates (see, e.g., Bertelsen, 1983; Berry, 1998).[6] The same AARP study in which 40 percent of workers expressed an interest in phased retirement showed that 48 percent of workers said that, if being a phased retiree meant that they would have to hold a different job with the same employer, this would make phased retirement less attractive to them. In the same study, 63 percent of all workers indicated that phased retirement would be less attractive to them if it reduced the amount of pension benefits. Likewise, Even and Macpherson (2004) reported that workers covered by pension plans are less likely to transition to part-time work than those not covered by pension programs, and of those that do make the switch to part-time work, those with pension coverage are more likely to make a switch of employers in the process. For those workers who desire a reduction in hours or a different kind of job, some job duties may not be amenable to division or other changes (Abraham and Houseman, 2004).

On attitudes of phased retirees, Watson Wyatt Worldwide (2004) found that 57 percent of those workers currently in phased retirement entered into an arrangement voluntarily to have more leisure time. Of these voluntary phased retirees, 42 percent indicated that they chose phased retirement because they enjoyed their work while 28 percent stated that they needed the income from continued work. However, 32 percent of the phased retirees retired completely from their jobs but then returned to work part-time, and of this group 40 percent indicated that they entered into phased retirement for financial reasons. Almost 10 percent of phased retirees surveyed were forced into phased retirement through job restructuring. Almost 60 percent of these phased retirees said they continued to work because they needed the income.

The Watson Wyatt Worldwide survey also indicated that phased retirement might influence the timing of retirement: nearly 25 percent of phased retirees expected to work past age 65 and another

[6] In a study of university faculty, the overall rate of workers leaving full-time employment increased significantly, but the increase in full retirement was small. Based on observable characteristics such as age, salary, years of service, and job characteristics, employees entering a formal phased retirement program offered by an employer more closely resembled those remaining in full-time jobs than those entering full retirement. The probability of entering into phased retirement was also related to job performance, workload, and maximization of personal income (Allen, Clark, and Ghent, 2001). One study of a large state university system found that a phased retirement program raised the odds that low-performing faculty would start the retirement process earlier (Allen, 2004).

20 percent did not plan to retire at all. This comports with surveys of older workers not in phased retirement programs who answered that they would continue working longer than otherwise planned if their employer offered a phased retirement program (Watson Wyatt Worldwide, 2004; AARP, 2005). In the AARP survey (2005), 78 percent of older workers who expressed an interest in phased retirement anticipated that the availability of phased retirement would encourage them to work past their expected retirement age. In a different survey of employees in a state public school system, 44 percent of respondents indicated that they would consider delaying full retirement if a phased retirement option were made available (Bartle, 1989).

Employers also view phased retirement programs positively, but most phased retirement programs are neither broad based nor part of a formal written policy (Watson Wyatt Worldwide, 1999; Hutchens, 2003). One survey of 600 large private firms found that 16 percent of employers provide a formal phased retirement program, with an additional 40 percent interested in initiating a program (Watson Wyatt, 1999). In a study of 950 public and private organizations that employ 20 or more workers, Hutchens (2003) found that although 73 percent of surveyed employers permitted an employee to reduce hours before official retirement, only 14 percent of those employers had a formal, written phased retirement policy that applied broadly to employees. Phased retirement programs appear to be more prevalent among organizations that are smaller in size, non-unionized, and in the service sector—although larger organizations were more likely than smaller organizations to have formal programs. Colleges and universities, with their unique tenure rules, seem to be leaders in providing phased retirement programs for faculty. A survey of universities found that 27 percent have formal programs through which tenured faculty may make a gradual transition to retirement by working part time for a number of years before complete retirement (Ehrenberg, 2001).

Phased retirement was also likely to be offered with other types of human resource policies such as job sharing, flexible starting times, and health insurance for part-time workers (Hutchens, 2003). Nearly three-quarters of employers would alter health insurance benefits for workers who entered into phased retirement, and 34 percent of employers would drop health insurance coverage for phased retirees.

Significant legal, cultural, and institutional barriers stand in the way of the implementation of broad-based phased retirement programs. Complicated tax rules on distributions from, and benefit accruals under, pension plans may be preventing employers from coordinating pension benefits with a phased retirement program, although recently proposed rules from the Internal Revenue Service may alleviate some of these complexities.[7] Moreover, it is unclear how the age discrimination laws would apply to phased retirement programs, if at all. Employers may also be concerned about employees drawing down benefits, particularly in defined contribution plans. Employers are unlikely to institute phased retirement programs, particularly broad-based programs, without greater

[7] U.S. Treasury Department Proposed Regulation 114726-04, *Federal Register*, vol. 69, no. 217, Nov. 10, 2004. The proposed Internal Revenue Service regulations generally provide for defined benefit plan distributions that are made as part of a "bona fide" phased retirement program. A phased retiree would be able to receive a pro rata share of his or her accrued benefits based on the reduction in hours worked in phased retirement. The employee would be able to continue accruing benefits under the pension plan. The proposed regulations focus only on defined benefit pension distributions and not on other issues such as age discrimination or health insurance coverage.

clarity in the law and without the flexibility to adapt such programs to their own needs (Chen and Scott, 2003).

IV. STUDY METHODOLOGY

Conceptual Framework

This study examines workers' transitions from work to retirement over a period of 10 years. The analysis is focused on outcomes for wage-and-salary workers, but self-employed persons are also considered for comparative purposes. The authors of the study are interested in several issues. What characteristics (individual, household, job-related) are associated with phased retirees, in comparison with workers who do not undertake phased retirement? Does phased retirement extend the work life or induce early exit? Does phased retirement affect the income and wages of workers? The variables are constructed and the methodology is designed, as discussed below, with these issues in mind.

Data Set

This study is based on six waves of the Health and Retirement Study (HRS), 1992 through 2002. The HRS is a nationally representative sample of persons who were aged 51 to 61 in 1992 and their spouses or partners. The survey is longitudinal in nature, with the baseline interview conducted in 1992 and subsequent waves occurring every two years. It collects extensive information regarding demographic, employment, pension, health, family structure, and financial characteristics of age-eligible respondents and their spouses or partners.

The analysis in this study is restricted to age-eligible respondents whom we classified as full-time employees in 1992. Of the total 12,654 respondents in 1992, 8,003 responded that they were currently working full or part time. Only those working at least 35 hours a week were considered to be full time, based on the report of hours worked per week in the respondent's current job. Using these definitions, the dataset consists of 5,571 respondents who were initially interviewed in 1992, 4,721 of whom were wage-and-salary workers and 850 of whom were self-employed.

Dependent Variable: Work-Retirement Status

The dependent variable consists of measures for work-retirement status (i.e., full-time work, full retirement, partial retirement, and phased retirement). Work-retirement status is viewed through a combination of two different measures of a person's status. First, there is a respondent's self-reported work-retirement status. Each wave of the HRS asks if respondents consider themselves to be fully retired, partially retired, or still working full time. A second measure looks at the change in hours worked from the 1992 wave to the survey wave in question. The dependent variable combines these two measures to form a composite definition of work-retirement status. Working full time (regardless of whether the current employer is the same as the 1992 employer) will be indicated if the respondent reports full-time work and there is less than a 15 percent reduction in hours worked. Partial and phased retirement will be indicated by (a) a self-report of full-time work combined with more than a 15 percent reduction in hours worked, (b) a self-report of partial retirement combined with any work for pay, or (c) a self-report of full retirement combined with any work for pay. Full retirement occurs only if there are no hours worked for pay in a wave. Table 2 provides an overview of how the change in hours worked affects the retirement outcome.

Table 2: Work-Retirement Status Definition Matrix for HRS Waves, 1992-2002

Changes in Hours Worked from 1992 to Subsequent Waves	Self-Reported Status* in Each Wave of the HRS			
	Completely Retired	Partly Retired	Not Retired At All	Not Applicable
Increase	PR**	PR	WFT	WFT
No Change	PR	PR	WFT	WFT
Up to 15% Decrease	PR	PR	WFT	WFT
15% - 99% Decrease	PR	PR	PR	PR
100% Decrease	FR	FR	FR	FR

* The question asked was: "Do you consider yourself to be...?"
** Key: PR = partial or phased retirement, depending on whether the respondent continues working for the 1992 employer, WFT = working full time, FR = full retirement.

Source: HRS, 1992-2002.

Whether one is classified as a phased retiree (still working for the same employer in 1994 through 2002 as in 1992 but at reduced hours) or a partial retiree (working part time for an employer different from the one in 1992) is determined by using the question of whether the individual works for the same employer as in the prior wave.[8] An answer of "no" to the question in any wave indicates that the respondent is partially retired in a different job in that wave. Thus, work-retirement status can have four outcomes: working full time, phased retired, partially retired, and fully retired. Tables 4 through 9 below provide an overview of these status groupings over time. Because it is possible for a person to be categorized in more than one work-retirement status, we treat a respondent as a phased retiree if he or she has achieved phased retirement status (as defined above) at any time during the survey.[9]

Explanatory Variables

The explanatory variables provide information on the personal, household, and job-related characteristics of the respondents as of 1992. For some analyses, certain variables are tracked over the period 1992 through 2002. Specifically, the independent variables are as follows:[10]

Personal

Age of respondent
Whether respondent is black
Gender of respondent
Educational attainment in years
Whether health is good, very good, or excellent
Whether respondent would keep working even if income from the job were not needed

[8] Phased and partial retirement include both voluntary and involuntary part-time work.
[9] Of course, there are other definitions of phased retirement that we could have used, as the review of the phased and partial retirement research literature indicated. We are certainly aware that some workers may be classified as phased retirees under one definition but not under others. We do not believe that there would be large changes from one definition to the next, but a natural extension of this research would be to replicate the analyses under different definitions.
[10] A more detailed description of the independent variables is provided in Appendix A.

Whether work is important in and of itself or done just for the income
Perception of age bias at work

Household

Marital/partnered status of respondent
Number of children living at home
Household income
Household wealth[11]

Job-Related

Job tenure
Occupational skill level (white-collar highly skilled, white-collar other, blue-collar highly skilled, blue-collar other)
Managerial status
Whether respondent's job is repetitive in nature[12]
Whether respondent is constrained in reducing hours of work[13]
Whether respondent is included in a defined benefit or defined contribution retirement plan at work
Whether respondent has retiree health insurance benefits
The customary retirement age for respondent's job

Table 3 (in section V.A, below) provides descriptive statistics for the explanatory variables.

Research Methods

There are four principal research methods used in this analysis.

1. **A comparison of group means** (or proportions) in order to determine whether there are statistically significant differences in characteristics between those respondents who become phased retirees and those who do not.

2. **A mixed repeated logistic regression model** to assess the influence of the variables on the likelihood of phased retirement. That is, the statistical model tests whether certain attributes of the respondents are more likely or less likely to be associated with phased retirement status over time.

3. **A discrete survival model** for full retirement status. We test the association between the independent variables and the risk of full retirement status for both wage-and-salary workers and self-employed persons based on the Cox proportional hazards regression (Cox, 1972). In other words, we compare the likelihood of full retirement over time for phased retirees versus non-phased retirees based on personal, household, and job-related characteristics.

[11] Household wealth includes housing wealth. See Appendix A for a more detailed description of household wealth.
[12] The question in the HRS is the respondent's level of agreement with the statement, "My job requires me to do the same things over and over."
[13] Respondents are asked whether they could reduce their hours of work. A follow-up question is if the respondent wanted to work half time or less, would the employer permit respondents to do that.

4. **Ordinary least squares regression** to explore any financial implications associated with phased retirement. The changes in total household income and individual earnings from 1992 through 2002 are regressed on a set of independent variables (including phased retirement status).

V. RESULTS AND ANALYSES

A. Descriptive Statistics

This section provides an overview of the sample and the work-retirement groups by type of worker (wage-and-salary and self-employed) and over time. Table 3 provides basic descriptive statistics of the explanatory variables.

Table 3: Descriptive Statistics for HRS Variables, 1992 (n = 5,571)

	Means
Personal Characteristics	
Age	55.3
Female (%)	42.2
Black (%)	19.1
Education (in years)	12.5
Self-Rated Health Is Good or Better (%)	87.9
Believes Work Is Important by Itself and Not Just for Money (%)	31.2
Would Keep Working Even If Money Is Not Needed (%)	66.3
Reports Age Bias on the Job (%)	38.0
Household Characteristics	
Married/Partner Status (%)	77.4
Number of Children at Home	0.7
Household Wealth	$210,436
Household Income	$53,831
Job-Related Characteristics	
Job Tenure (in years)	15.5
Years to Job's Customary Retirement Age	8.2
Manager (%)	31.2
Job Is Repetitive (%)	63.3
Job Skill:	
White Collar Skilled (%)	32.0
Blue Collar Skilled (%)	23.8
White Collar Low Skilled (%)	27.8
Blue Collar Low Skilled (%)	16.4
Cannot Reduce Work Hours (%)	63.5
Cannot Reduce Work Hours or Employer Does Not Permit Hours Reduction (%)	73.9
Included in Defined Benefit Pension Plan (%)	52.3
Included in Defined Contribution Plan (%)	39.6
Covered by Retiree Health Insurance (%)	53.3

Source: HRS, 1992.

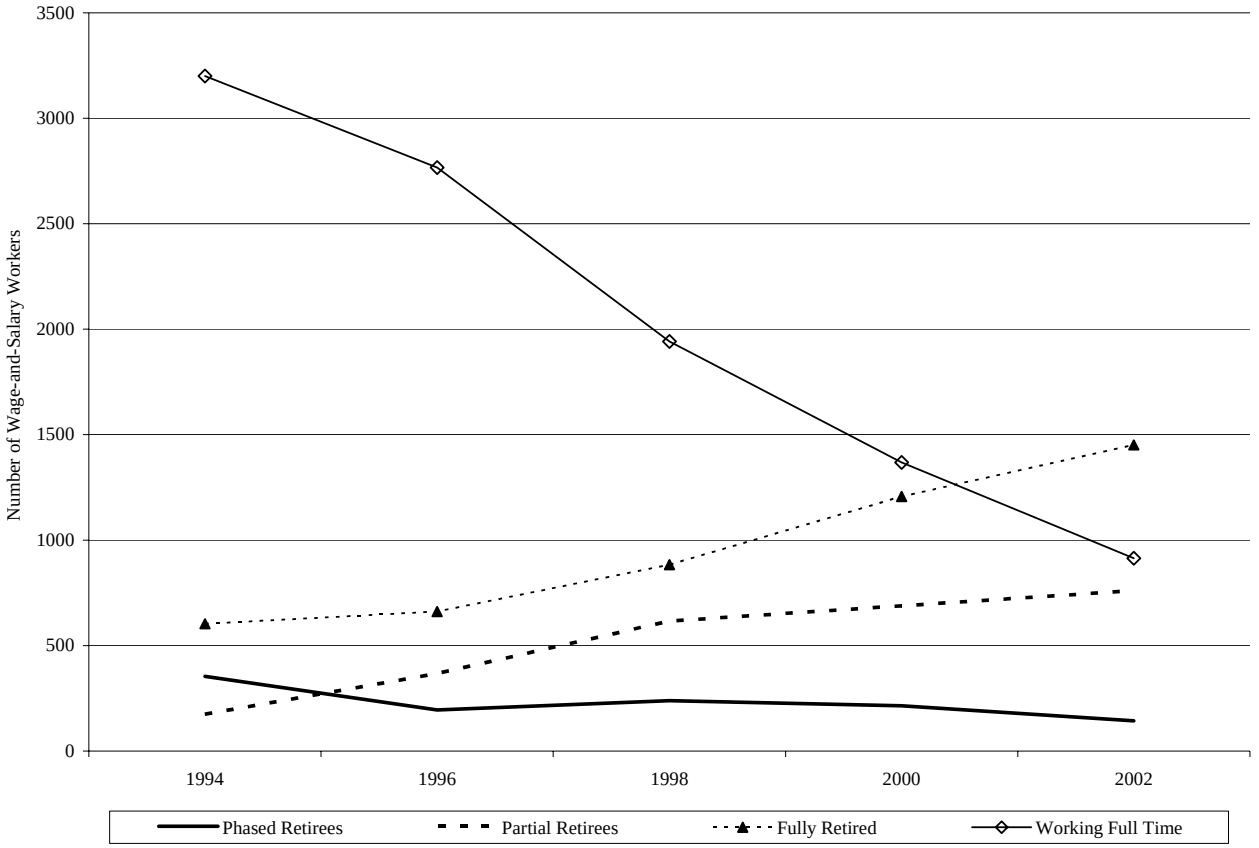
The sample of 5,571 described in Table 3 includes both wage-and-salary workers (4,721) and self-employed persons (850). Table 4 and Figure 2 below, which provide a snapshot of the work-retirement categories over time, are limited to wage-and-salary workers.

Table 4: Percentage of Wage-and-Salary Workers in Work-Retirement Status Categories by HRS Wave,* 1994-2002 (n = 4,721)

Category	1994	1996	1998	2000	2002
Phased Retirees	7.5 (354)	4.1 (195)	5.1 (239)	4.5 (214)	3.0 (143)
Partial Retirees	3.7 (175)	7.8 (367)	13.0 (616)	14.6 (689)	16.1 (761)
Fully Retired	12.8 (603)	14.0 (662)	18.7 (884)	25.6 (1,207)	30.7 (1,451)
Working Full Time	67.8 (3,200)	58.6 (2,766)	41.1 (1,942)	30.0 (1,368)	19.4 (914)
Missing**	8.2 (389)	15.6 (737)	22.0 (1,040)	26.3 (1,243)	30.8 (914)
Total	100.0 (4,721)	100.0 (4,721)	100.0 (4,721)	100.0 (4,721)	100.0 (4,721)

* Frequencies are in parentheses.
** The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 1994-2002.

Figure 2: Work-Retirement Status of HRS Wage-and-Salary Workers, 1994-2002* (n=4,721)



* Does not include those respondents who were missing and/or dead.
Source: HRS, 1994-2002

For wage-and-salary workers, the overall trend is of declining full-time work and phased retirement coupled with increasing full retirement and partial retirement. At the bottom of the figure, phased retirees and partial retirees appear to show an inverse relationship as there were twice as many phased retirees as partial retirees in 1994, but by 2002 partial retirees outnumbered phased retirees by more than five to one.

Tables 5 through 8[14] indicate that some workers move in and out of categories over time even though the general trend goes from working full time to full retirement. Those who were phased retirees in a prior wave often move into different work-retirement categories in the subsequent wave, and a number of phased retirees return to working full time in each wave. For example, Table 5 indicates that 7.5 percent of the respondents were phased retirees in 1994. Of those 1994 phased retirees, one-fifth (.015/.075) continued to be phased retirees in 1996. These tables show the fluidity of phased retirement, as well as the inevitably arbitrary nature of how we define it.

[14] In Appendix C, Tables A1 through A4 provide the frequencies of work-retirement status for wage-and-salary workers across waves of the HRS.

Table 5: Tabulation of Work-Retirement Status for HRS Wage-and-Salary Workers, 1994-1996 (n=4,721)

	1996 Status (in percentages)					
1994 Status (in percentages)	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	1.5	0.7	0.8	3.8	0.7	7.5
Partial Retiree	0.0	1.2	0.3	1.8	0.3	3.7
Fully Retired	0.0	1.9	5.8	2.2	2.9	12.8
Working Full Time	2.6	3.8	6.7	48.5	6.1	67.8
Missing*	0.0	0.2	0.4	2.2	5.4	8.2
Total	4.1	7.8	14.0	58.5	15.4	99.8

* The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 1994-1996.

Table 6: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers, 1996-1998 (n=4,721)

	1998 Status (in percentages),					
1996 Status (in percentages),	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	1.6	0.5	0.6	1.2	0.3	4.2
Partial Retiree	0.0	4.1	1.7	1.0	1.1	7.9
Fully Retired	0.0	1.7	8.6	0.3	3.4	14.0
Working Full Time	3.5	6.0	6.6	36.6	5.9	58.6
Missing*	0.0	0.8	1.3	2.1	11.4	15.6
Total	5.1	13.1	18.8	41.2	22.1	100.3

* The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 1996-1998.

Table 7: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers, 1998-2000 (n=4,721)

	2000 Status (in percentages)					
1998 Status (in percentages)	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	2.6	0.5	0.8	1.0	0.2	5.1
Partial Retiree	0.0	7.6	2.7	1.3	1.5	13.1
Fully Retired	0.0	1.9	13.0	0.2	3.6	18.7
Working Full Time	1.9	3.7	5.8	25.4	4.3	41.1
Missing*	0.0	1.0	3.3	1.1	16.7	22.1
Total	4.5	14.7	25.6	29.0	26.3	100.0

* The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 1998-2000.

Table 8: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers, 2000-2002 (n=4,721)

	2002 Status (in percentages)					
2000 Status (in percentages)	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	1.7	0.5	1.4	0.5	0.4	4.5
Partial Retiree	0.0	8.8	2.9	1.2	1.7	14.6
Fully Retired	0.0	2.2	17.9	0.4	5.1	25.6
Working Full Time	1.3	3.6	4.7	16.1	3.2	28.9
Missing*	0.0	1.1	3.8	1.2	20.3	26.4
Total	3.0	16.2	30.7	19.4	30.7	100.0

* The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 2000-2002.

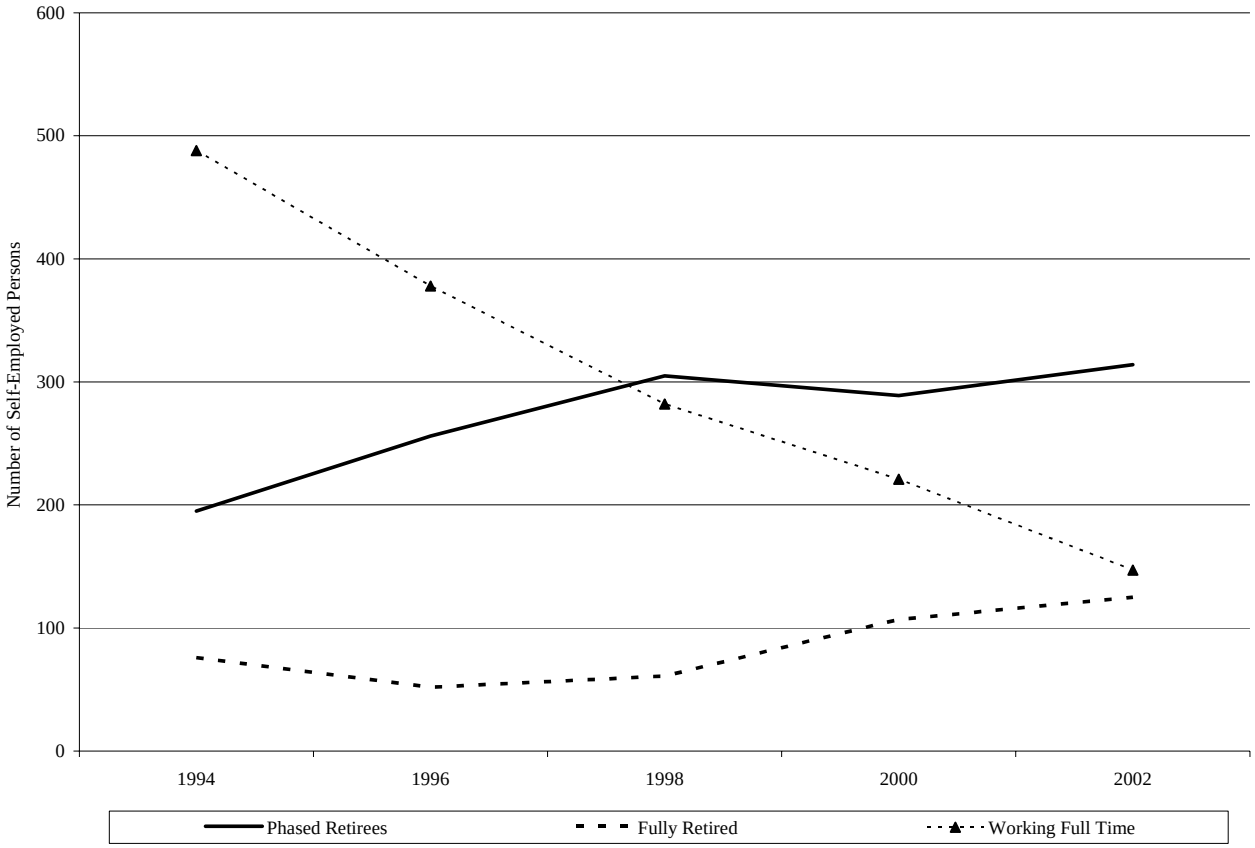
Turning to self-employed persons, Table 9 and Figure 3 provide the work-retirement breakdown across the survey waves. As with wage-and-salary workers, the general trend among the self-employed is a decrease in working full time and an increase in full retirement, although the fully retired category fluctuates slightly over time. Unlike wage-and-salary workers, the phased retirement category exhibits a general increase from 1994 to 1998 and then appears to level off from 1998 to 2002.

Table 9: Percentage of Self-Employed Persons in Retirement Status Categories by HRS Wave,* 1994-2002 (n = 850)

Category	1994	1996	1998	2000	2002
Phased Retired	22.9 (195)	30.1 (256)	35.9 (305)	34.0 (289)	36.9 (314)
Fully Retired	8.9 (76)	6.1 (52)	7.2 (61)	12.6 (107)	14.7 (125)
Working Full Time	57.4 (488)	44.5 (378)	33.2 (282)	26.0 (221)	17.3 (147)
Missing**	10.7 (91)	19.3 (164)	23.8 (202)	27.4 (233)	31.1 (264)
Total	100.0 (850)	100.0 (850)	100.0 (850)	100.0 (850)	100.0 (850)

*Frequencies are in parentheses.
** The category of "Missing"' includes respondents who died prior to the current wave as well as respondents who were missing or who did not respond to the survey at that time.
Source: HRS, 1994-2002.

Figure 3: Work-Retirement Status of HRS Self-Employed Persons, 1994-2002 (n=850)



Source: HRS, 1994-2002.

B. Factors That Are Conducive to Phased Retirement

In this section of the study, we examine differences between wage-and-salary workers who enter into phased retirement and those who do not. The term "phased retiree" includes respondents who entered into phased retirement at any time between 1994 and 2002. The reason for making this distinction is that self-employed persons have much more control over their working hours and their job definitions. For wage-and-salary workers, any decision over a change from full to phased employment will involve interaction between the worker and his or her employer.

Table 10 provides a comparison between wage-and-salary workers who enter into phased retirement and those workers who do not enter into phased retirement across several variables of interest, with significant differences indicated by asterisks.

In terms of statistically significant differences[15] between the two groups, the following may be noted:

Personal Characteristics—Phased retirees are better educated and are less likely to be black. They are more likely to have a positive view of work (that is, to express both a belief that work is by itself important, not solely as a means for acquiring money, and a desire to keep working even if income is not needed).

Household Characteristics—Phased retirees have greater household wealth and income.

Job-Related Characteristics—Phased retirees are more likely to be managers and have white-collar, highly skilled positions. They are less likely to face constraints on reducing hours and less likely to participate in a defined benefit pension plan.

Table 11 compares phased retirees (defined as those who reported phased retirement status in any wave of the study) against other specific categories of wage-and-salary workers. The results are expressed in terms of "odds ratios," which indicate the likelihood of engaging in phased retirement versus some other category, given a change in the explanatory variable.

Here is an example of how to read this table: In the first horizontal column (Phased Versus Partial Retirement), for the variable Time, the odds of being a phased retiree versus a partial retiree in any time period are 51 percent of the odds in the immediately prior time period. Another example (in the same column)—the odds of phased retirement versus partial retirement for those who would keep working even if money were not needed are more than double (2.24) the odds for those who do not express this belief.

[15] The levels of statistical significance used throughout this report are at the $p<.05$ and $p<.01$ thresholds. Technically, the blue-collar skilled job and retiree health insurance measures would not be statistically significant under these thresholds, but we feel that the p-value is close enough to the threshold level of .05 to warrant inclusion in the list of significant results.

Table 10: Differences Between Phased Retirees[#] and Non-Phased Retirees Among HRS Wage-and-Salary Workers, 1994-2002

	Phased Retirees n = 683	Non-Phased Retirees n = 4,038
Personal Characteristics		
Age	55.3	55.2
Years to Customary Retirement Age	8.3	8.1
Female (%)	44.8	45.1
Black (%) *	17.9	21.1
Education (in years)**	12.9	12.4
Self-Rated Health Is Good or Better (%) *	90.3	87.4
Believes Work Is Important by Itself and Not Just for Money (%)**	36.8	29.3
Would Keep Working Even If Money Is Not Needed (%) **	70.9	62.6
Reports Age Bias on the Job (%)	25.9	27.0
Household Characteristics		
Married/Partner Status (%)	77.5	75.8
Number of Children at Home	0.7	0.7
Household Wealth**	$185,926	$147,126
Household Income **	$56,202	$50,224
Job-Related Characteristics		
Could Not Reduce Work Hours (%)**	60.6	77.4
Could Not Reduce Work Hours or Employer Does Not Permit Hours Reduction (%)**	81.0	88.2
Job Skill:		
White Collar Skilled (%)**	39.5	29.8
Blue Collar Skilled (%)	21.2	24.2
White Collar Low Skilled (%)**	23.1	30.4
Blue Collar Low Skilled (%)	16.1	15.6
Job Tenure (in years)	15.0	15.2
Manager (%)**	23.6	18.0
Job Is Repetitive (%)	60.8	64.7
Included in Defined Benefit Pension Plan (%)**	40.0	59.0
Included in Defined Contribution Plan (%)	45.2	43.8
Covered by Retiree Health Insurance (%)	54.6	58.1

[#]Phased retirement status can be determined at any time.
* $p < .05$
** $p < .01$
Source: HRS, 1994-2002.

Table 11: Work-Retirement Probabilities for HRS Wage-and-Salary Workers in Odds Ratios[#], 1994-2002 (n=4,332)

	Phased Versus Partially Retired	Phased Versus Fully Retired	Phased Versus Working Full Time
Time[##]	0.5105**	0.3945**	0.9396
Would Keep Working Even If Money Is Not Needed	2.2441**	3.1399**	0.7758**
Self-Rated Health Is Good or Better	0.9018	1.3311	1.1149
Years to Job's Customary Retirement Age	1.0041	1.1263**	1.0073**
Household Income	1.0056**	1.0092**	1.0004
Education	0.9866	1.0046	1.0535**
Age	0.7193**	0.6745**	1.0597**
Married/Partner Status	0.6666*	0.6218*	1.1902
Covered by Retiree Health Insurance	0.5515**	0.5046**	0.9055
Included in Defined Benefit Pension Plan	0.5175**	0.3608**	0.6163**
Job Tenure	0.9851	0.9613**	1.0114**
Number of Children at Home	1.1144	1.2363*	0.9135
Female	1.3904	0.8272	0.9454

[#] Using mixed logistic regression, reference variable is phased retirement status in any wave of the HRS. Results expressed in odds ratios.
[##] Time is expressed in terms of survey waves, which were conducted generally every two years.
* $p < .05$
** $p < .01$
Source: HRS, 1994-2002

Significant differences between phased retirees and respondents in the other categories are:

Phased Retirement Versus Partial Retirement—Phased retirees are more likely than partial retirees to have a positive view of work. They are likely to have higher income; are younger; more likely to be single; less likely to have retiree health insurance; and less likely to be included in a defined benefit pension plan.

Phased Retirement Versus Full Retirement—In this comparison, phased retirees are likely to be younger; are more likely to say they would keep working even if income were not needed ; likely to be further from the customary retirement age for the job; likely to have higher income; more likely to have children living at home; more likely to be single; less likely to have retiree health insurance benefits; less likely to have a defined benefit pension plan; and likely to have less tenure on the job.

Phased Retirement Versus Working Full Time—Phased retirees are less likely than those working full time to say they would keep working even if income were not needed; likely to be older; likely to have more education; likely to have more tenure on the job; likely to be further beyond the customary retirement age for the job; and less likely to have a defined benefit pension plan.

Table 12 provides the results for self-employed persons.

Table 12: Work-Retirement Probabilities for HRS Self-Employed Persons in Odds Ratios[#], 1994-2002 (n=759)

	Phased Versus Fully Retired	Phased Versus Working Full Time
Time[##]	0.5277 **	1.2431 *
Would Keep Working Even If Money Is Not Needed	2.2887 **	0.5728 *
Self-Rated Health Is Good or Better	1.5768	0.8607
Years to Job's Customary Retirement Age	1.0426 **	1.0041 *
Household Income	1.0088 **	0.9993
Education	1.0620	0.9466
Age	0.8681 **	1.2285 **
Married/Partner Status	0.7717	1.2894
Covered by Retiree Health Insurance	1.0339	1.0011
Included in Defined Benefit Pension Plan	0.6386	1.4575
Job Tenure	0.9984	0.9983
Number of Children at Home	1.1747	1.2557 *
Female	0.7507	1.3970

[#] Using mixed logistic regression, reference variable is partial retirement status in any wave of the HRS. Results are expressed in odds ratios.

[##] Time is expressed in terms of survey waves, which were conducted generally every two years.

* $p < .05$

** $p < .01$

Source: HRS, 1994-2002

The small number of asterisks (denoting statistical significance) in Table 12 suggests that, among self-employed persons, the differences between phased retirees and specific other categories are not as great as they are among wage-and salary-workers. A few variables do, however, seem to account for some differences.

Phased Retirement Versus Full Retirement—Phased retirees are likely to be younger; more likely to say they would keep working even if income were not needed; likely to have higher income; and likely to be further from the job's customary retirement age.

Phased Retirement Versus Working Full Time—Phased retirees are less likely to say they would keep working even if income were not needed; likely to be older; likely to be further from the job's customary retirement age; and more likely to have children living at home.

C. Survival Analysis

This section examines the question of whether phased retirement extends or shortens a person's work life. The analysis calculates the "risk" of full retirement compared to all other statuses based on the "survival time" (defined as the number of years until the first instance of full retirement). The estimates of that risk are provided for each explanatory variable in terms of a "hazard ratio," which in this analysis is the risk of full retirement for those in one state or condition (for example, those who are black) relative to those not in that state or condition (those who are not black). In other words, the survival analysis assesses the relative risk of full retirement by variable of interest.

Table 13 provides estimates of the risk of full retirement by explanatory variable for wage-and-salary workers. The "Phased Retirement" variable classifies respondents as phased retirees if they were so at a prior wave from 1994 through 2002. Although the vertical columns in this table feature technical statistical terms, the table becomes more readable if attention is paid to the items in the far right-hand column "Hazard Ratio" that are marked with asterisks, indicating that they are statistically significant. In particular, the statistically significant result for the first variable ("Phased Retirement") is of primary interest.

Table 13: Risk of Full Retirement[#] by Explanatory Variable for HRS Wage-and-Salary Workers (n=4,300), 1994-2002.

	Parameter Estimate	Standard Error	Chi-Square	Hazard Ratio
Phased Retirement	-0.295	0.070	17.6097	0.745**
Household Income (in $1,000s)	-0.004	0.001	43.0639	0.996**
Age	0.002	0.009	0.0446	1.002
Married/Partner Status	0.042	0.058	0.5149	1.043
Self-Rated Health Is Good or Better	-0.329	0.069	22.6869	0.720**
Household Wealth (in $1,000s)	0.112	0.044	6.4429	1.119*
Years to Job's Customary Retirement Age	-0.087	0.004	589.3462	0.917**
Black	-0.065	0.061	1.1135	0.937
Female	0.180	0.052	12.0897	1.197**
Number of Children At Home	-0.039	0.026	2.2408	0.962
Education	-0.003	0.010	0.0931	0.997
Job Skill	0.026	0.028	0.8643	1.026
Manager	-0.129	0.066	3.7930	0.879
Job Is Repetitive	-0.061	0.051	1.4137	0.941
Included in Defined Benefit Pension Plan	0.266	0.053	25.6134	1.304**
Included in Defined Contribution Plan	0.061	0.049	1.5603	1.063
Covered by Retiree Health Insurance	0.167	0.051	10.5477	1.181**
Would Keep Working Even If Money Is Not Needed	-0.132	0.048	7.5405	0.876**
Believes Work Is Important by Itself and Not Just For Money	-0.167	0.053	10.0761	0.846**
Reports Age Bias on the Job	-0.042	0.052	0.6398	0.959
Job Tenure	0.013	0.002	33.2319	1.013**
Could Not Reduce Hours	10.415	240.266	0.0019	0.000
Could Not Reduce Hours or Employer Would Not Permit Hours Reduction	-16.463	240.266	0.0047	33353.400

[#] Risk of full retirement in terms of the hazard of full retirement.
*p < .05
**p < .01
Source: HRS, 1994-2002

Phased retirement is associated with a lower risk of full retirement, and the effect is statistically significant. The hazard ratio for phased retirement is 0.745, which means that the estimated risk of full retirement for a phased retiree is 75 percent of those not in phased retirement. Therefore, this analysis finds little evidence that phased retirement hastens the exit from the labor force for wage-and-salary workers.

In addition, 10 of the other 23 variables are statistically significant, and they appear to operate in the expected directions. For example:

- For each $1,000 increase in income, the chance (the hazard or likelihood) of full retirement goes down by less than 1 percent.[16]
- The chance (the hazard or likelihood) of full retirement for those who are married is about 4 percent higher than for those who are not married.
- The hazard ratio for being in good health is 0.720. This means that the chance of full retirement when one's health is good or better is only 72 percent that of those whose health is not good or better.

Other statistically significant variables include greater wealth, being female, inclusion in a defined benefit pension plan, having retiree health insurance benefits, and longer tenure in the job, each of which increases the probability of full retirement. Conversely, being further away in time from the job's customary retirement age and having positive attitudes about work appear to reduce the probability of full retirement.

The fact that these other variables give results that would have been expected is some confirmation that the results for the "Phased Retirement" variable are valid.

The results of the survival analysis for self-employed persons are provided in Table 14. The estimated risk ratio for the phased retirement variable is 0.373, which implies that the risk of attaining full retirement status for those in phased retirement is 37 percent that of those not in phased retirement.

[16] Table 13 gives the estimated hazard ratio for income as 0.996, which yields 100(.996-1) = -0.4 percent.

Table 14: Risk of Full Retirement[#] by Explanatory Variable for HRS Self-Employed Persons, 1994-2002 (n=753)

	Parameter Estimate	Standard Error	Chi-Square	Hazard Ratio
Phased Retirement	-0.9857	0.1608	37.5691	0.373**
Household Income (in $1,000s)	-0.0068	0.0014	22.3320	0.993**
Age	0.1462	0.0234	38.8075	1.157**
Married/Partner Status	-0.1702	0.1784	0.9096	0.844
Self-Rated Health Is Good or Better	-0.7970	0.2026	15.4724	0.451**
Household Wealth (in $1,000s)	0.0599	0.0267	5.0436	1.062*
Black	-0.0238	0.2170	0.0120	0.976
Female	0.2435	0.1588	2.3481	1.276
Number of Children at Home	-0.347	0.0830	0.1746	0.966
Education	-0.0385	0.0254	2.2867	0.962
Job Skill	0.0058	0.0647	0.0079	1.006
Job Is Repetitive	0.1978	0.1461	1.8321	1.219
Included in Defined Benefit Pension Plan	0.4927	0.1667	8.7267	1.637**
Included in Defined Contribution Plan	-0.0408	0.2158	0.0357	0.960
Covered by Retiree Health Insurance	0.2643	0.1500	3.1027	1.303
Would Keep Working Even If Money Is Not Needed	-0.7625	0.1546	24.3040	0.466*
Believes Work Is Important by Itself and Not Just for Money	-0.0992	0.1452	0.4666	0.906
Job Tenure	-0.0096	0.0061	2.4527	0.990
Could Not Reduce Work Hours	0.2788	1182	0.0000	1.322

[#] In terms of hazard of full retirement.
*p < .05
**p < .01
Source: HRS, 1994-2002

Interestingly, wage-and-salary workers and the self-employed are subject to similar influences on the risk of full retirement, as shown in Table 15. For both groups, phased retirement status is associated with a lower chance of full retirement. In addition, increasing age, more wealth, and defined benefit pension plan coverage increase the probability of full retirement. Good health, higher income, and a desire to keep working reduce the chances of full retirement.

Table 15: Summary of Full Retirement Risk Analysis by Explanatory Variable for HRS Wage-and-Salary Workers and Self-Employed Persons*, 1994-2002

	Wage-and-Salary Workers	Self-Employed Persons
Phased or Partial Retiree	–*	–
Household Income	–	–
Age		+
Married/Partner Status		
Self-Rated Health Is Good or Better	–	–
Household Wealth	+	+
Years to Job's Customary Retirement Age	–	
Black		
Female	+	
Number of Children at Home		
Education		
Job Skill		
Manager		
Reports Job Is Repetitive		
Included in Defined Benefit Pension Plan	+	+
Included in Defined Contribution Plan		
Covered by Retiree Health Insurance	+	
Would Keep Working Even If Money Is Not Needed	–	–
Believes Work Is Important by Itself and Not Just for Money	–	
Reports Age Bias on the Job		
Job Tenure	+	

* A + or – indicates significant positive/negative association between the variable and risk of full retirement.

Source: Authors' calculations of results of survival analyses based on HRS, 1994-2002.

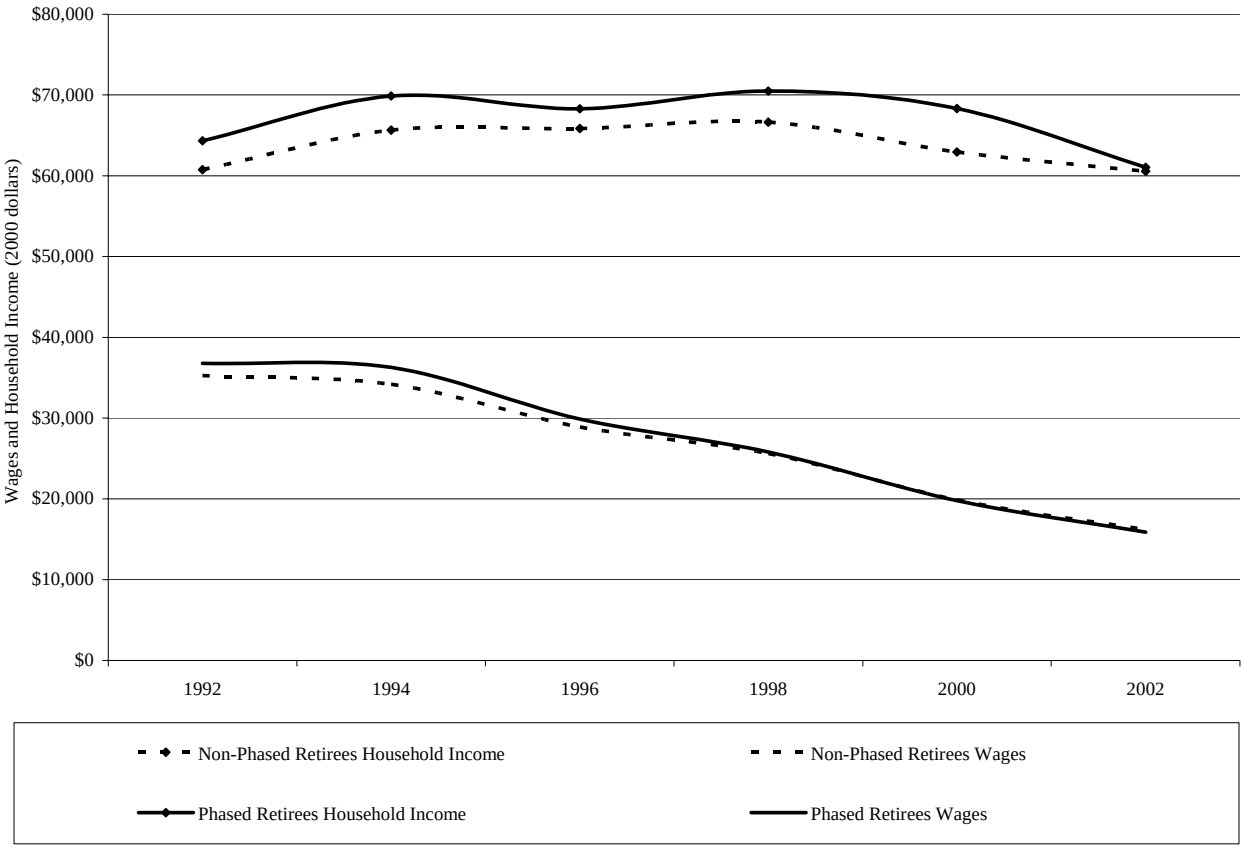
In summary, we find that phased retirement appears to delay exit from the workforce, which (as noted in the research literature review) is in accord with surveys of workers who indicated that they would work longer if they could participate in phased retirement. To be sure, the data do not indicate when phased retirees would have retired in the absence of phased retirement.[17] But as closely as we can determine from the overall statistical analysis, using Phased Retirement as a variable, this form of employment does appear to extend the careers of workers.

[17] We cannot be sure that the total amount of lifetime hours, therefore, would be greater or less for a phased retiree than for a non-phased retiree. A phased retiree could have retired at a certain age (e.g., 65) regardless of phased retirement opportunities. In such a case, the total hours worked over a lifetime would be less than if the worker did not engage in phased retirement. If this situation were the case, wealth accumulation and income generation would likely be lower. We are grateful to an anonymous reviewer for raising this point. Future research is needed to explore the relationship between phased retirement and the total number of hours worked prior to retirement.

D. Financial Effects

The final part of the analysis is to examine the financial effects, if any, of phased retirement on workers. More specifically, we are interested in the question of whether phased retirement status is associated with negative changes in income and earnings. We examine both the change in total household income and the change in individual wages from 1992 through 2002. Figure 4 provides the averages for individual wages and household income over the period from 1992 through 2002 by phased retirement status (all amounts are in year 2000 dollars). For this purpose we define as phased retirees all those who were classified as being in phased retirement at any point during the waves of the 1992 through 2002 HRS and non-phased retirees as those workers who did not participate in phased retirement.

Figure 4: Average Wages and Household Income for Phased and Non-Phased Retirees, 1992-2002 (in constant 2000 dollars)



Source: HRS, 1992-2002.

Phased retirees have, on average, higher household income and slightly higher individual earnings than those workers who do not participate in phased retirement. However, both groups appear to exhibit the same general trend lines. Individual wages exhibit a general downward trend while household income appears to rise slightly before beginning a slight decline. (The trend in household income might reflect changes in the overall economy.)

To explore whether there are significant differences in these trends that are associated with phased retirement status, we ran ordinary least squares regressions on the percentage change in household income and individual earnings from 1992 through 2002, the results of which are set forth in Table 16. In addition to results for phased retirement and partial retirement, Table 16 provides results for the other explanatory variables that are statistically significant.[18] The dependent variables are the change in household income and individual earnings as a percentage of 1992 income and earnings. The results for phased retirement in both models are not statistically significant, but partial retirement does show a strong and significant association with decreased earnings over time. In other words, given that the only difference in our definitions of phased retirement and partial retirement is a change in employers, the results imply that changing employers is associated with a reduction in earnings.

Other variables seem to show expected results. For example, household income and wealth in 1992 show a positive association with income in 2002, and holding the belief that one would keep working even if money were not needed is also associated with an increase in household income. Positions in unskilled white collar work, as well as both skilled and unskilled blue collar occupations, are associated with a decline in income. The number of jobs one held by 1992 is also inversely related to the change in income—1992 earnings, age in 1992, participation in a defined contribution plan, and a repetitive job are all associated with a decrease in earnings.

In summary, it does not appear that phased retirement has a significantly negative effect on workers' income and earnings. Given that phased retirement is voluntary for at least some workers and that phased retirees appear to have more income and wealth, this group (in general) may be better able to plan financially than workers who do not participate in phased retirement and thereby avoid significant drops in income and earnings.

[18] For this part of the analysis, we used more than 40 explanatory variables. They include variables used previously in this report and additional variables relating to industry category in 1992 and workforce status in 2000. For reasons of clarity and brevity, we only reported those results (aside from those for phased retirement and partial retirement) that are statistically significant at the $p<.05$ level or lower. We used additional variables in this section of the analysis because of the difficulty in modeling changes in income since household income includes a number of sources such as wages and salaries, investment income, unemployment compensation, and other government transfers.

Table 16: Analysis[#] of Percentage Change in Income and Wages on Selected Explanatory Variables for HRS Wage-and-Salary Workers,[14] 1992-2002

Variables	Change in Household Income		Change in Wages	
1992 Household Income (000s)	1.2	**	—	
1992 Individual Earnings (000s)	—		–1.0	**
Age	—		–9.7	**
1992 Household Wealth (100,000s)	7.0	*		
Included in Defined Contribution Plan	—		–33.1	*
White-Collar Unskilled Job	–45.0	*	—	
Blue-Collar Skilled Job	–52.9	*	—	
Blue-Collar Unskilled Job	–61.7	*	—	
Number of Jobs Held by 1992	–16.9	*	—	
Would Keep Working Even If Money Is Not Needed	32.8	*	—	
Job Is Repetitive	—		–45.6	**
Phased Retiree	–11.3		18.7	
Partial Retiree	–10.3		–37.6	*
F-value	2.87	**	2.26	**
Adjusted R^2	0.036		0.037	
	n=3,459[##]		n=3,425	

[#] Using ordinary least squares regression.
[##] The smaller sample size for this analysis is due to missing values across various variables of interest.
*p < .05
** p < .01
Source: HRS, 1992-2002.

VI. SUMMARY AND CONCLUSIONS

This study has examined various aspects of phased retirement and extends the existing literature on work-retirement outcomes for older workers in several ways. Most significantly, we have analyzed the effects of phased retirement on the extension of work and career, asking whether phased retirement leads to early exit or lengthens work life. This study also breaks new ground by shedding some light on the characteristics of phased retirees and by examining the financial effects of entering into phased retirement. Finally, we find a significant role for worker attitudes in relation to work-retirement outcomes.

Relatively few workers engage in phased retirement, and our research shows a number of statistically significant differences between them and workers who do not participate in phased retirement. These differences include:

Personal Characteristics—Phased retirees are more likely to be better educated and are less likely to be black. They are more likely to have a positive view of work—that is, to express both a belief that work is by itself important, not solely as a means for acquiring money, and a desire to keep working even if income is not needed.

Household Characteristics—Phased retirees are more likely to have greater household wealth and income.

Job-Related Characteristics—Phased retirees are more likely to be managers and to be in white-collar, highly skilled positions. They are less likely to characterize their work as repetitive in nature; less likely to face constraints on reducing hours; less likely to be in a defined benefit pension plan; and less likely to be covered by a retiree health insurance program.

A tentative but striking pattern in our findings is that phased retirement does not appear to be associated with early exit. Over time, phased retirees exhibit a significantly lower chance of full retirement compared to those who do not engage in phased retirement. Phased retirement may extend the careers of workers, although we cannot really know because the data do not indicate when phased retirees would have retired in the absence of phased retirement. We cannot be sure that the total number of lifetime hours worked, therefore, would be greater or less for a phased retiree than for a non-phased retiree. Future research should explore these questions.

We also considered the possible financial effects of phased retirement. Phased retirement status alone is not significantly related to changes in total household income and individual earnings from 1992 through 2002. Household income does not appear to change a great deal in general, and it may be that persons entering into phased retirement are able to offset a drop in wages with other sources of income, such as earnings from a spouse or partner or liquidation of assets. In terms of individual earnings, the drop in earnings that should be expected to occur with phased retirement may not be much different (in a statistical sense) than changes in earnings that occur for non-phased retirees.

Attitudes appear to be significant. The Would Keep Working Even If Money Is Not Needed variable is positively associated with the probability of phased retirement. Examining how attitudes influence work-retirement status could extend the research. For example, how do other variables

shape attitudes? Does the nature of the job or job tenure influence attitudes toward work in general or the job in particular with implications for the likelihood of phased retirement?

The emerging picture from our study of phased retirement is that of a process that is more available to persons who are best able to cope with change—those who are better educated, better-off financially, healthier, and in management positions. Given that, to date, phased retirement programs in the workplace are likely to be provided on a case-by-case basis rather than as part of a broad-based program, the findings in this study should not be surprising. Moreover, the finding of significant associations between phased retirement and variables that reflect changes over time (e.g., age and years to the job's usual retirement age) is similarly unsurprising. Phased retirement appears more prevalent at the younger end of the older worker age span (in our sample, the early 50s), reflecting its role as a transition stage to full retirement.

It is difficult to say how a policy change encouraging phased retirement would affect older workers. Part of the difficulty with exploring the effects of such a change is the lack of formalized, broad-based policies. It appears from our study that workers enter into phased retirement because they are able to negotiate an arrangement with their employers. A policy change that encourages broad-based phased retirement (such as by clarifying how pension rules apply to phased retirement) may or may not affect the workers who would use phased retirement without the change. Ultimately, what we would like to know is whether a policy change would induce workers into phased retirement who otherwise could not access it and whether such workers would be better off or worse off as a result.

Additional research is required. A large question hanging over any research into phased retirement is how to define the phenomenon. In this study, our definition of phased retirement combines changes in hours worked with how the worker perceives his or her work-retirement status. However, definitions of phased retirement could use other employment-related or personal characteristics. For example, this report does not consider job sharing or changing to jobs that involve less responsibility or technical skills as phased retirement. The lack of a standard definition of phased retirement may hamper future research comparisons. In terms of financial effects associated with phased retirement, future research should also explain whether and how phased retirees plan for the transition to retirement, as well as for retirement itself. How specifically do phased retirees anticipate and cushion the apparent reduction in wages? Is there a direct connection between any such planning and the decision to engage in phased retirement?

Despite the need for additional research, this study advances the state of knowledge about work-retirement outcomes in general and phased retirement in particular. We have shown that phased retirees are a group with characteristics distinct from those who do not enter into phased retirement. This analysis suggests that phased retirement does not induce early exit from the workforce in so far as, at any given age, full retirement by a phased retiree is less likely (relative to non-phased retirees) from one time period to the next. Moreover, the financial analysis implies that phased retirees may be able to cushion the financial impact of reduced work. It is our hope that this research will generate additional questions and explorations as well as add to the policy discussion about encouraging or discouraging various pathways to retirement.

APPENDIX A: DESCRIPTION OF INDEPENDENT VARIABLES

The following shows how we defined variables:

Attitudes Towards Work

Two variables, based on the respondent's opinion, are used to measure attitudes towards work. First, general opinions about the value of work relative to money are measured (Believes Work Is Important by Itself and Not Just for Money). Second, the respondent is asked if he or she Would Keep Working Even If Money Is Not Needed. These variables are coded "1" if respondents answer in the affirmative.

Age

There are two age-related measures for HRS participants. First is the calculated Age of the respondent. However, because the data are limited to persons aged 51 to 61 in 1992 and because expectations about one's own retirement as well as cultural norms regarding the expected age within companies and industries may vary, this report calculates an additional age-based variable. The HRS asks for the Job's Customary Retirement Age. Based on the response, this continuous variable will measure the proximity of the respondent's own age to the usual retirement age for the job.

Education

Educational attainment is treated as a continuous variable.

Race and Sex

Because African-Americans are believed to have reduced opportunities in employment and retirement, this study focuses on them in the construction of the race variable. A dummy variable (Black) is coded as "1" if the respondent is black. Gender, also an independent dummy variable (Female), is coded "1" if the respondent is female.

Family Status and Relationships

Family status and obligation variables examine the effects of the presence of a partner/spouse and children. First, a Married/Partner Status variable records whether the respondent is single (never married, separated, divorced, widowed), with the variable being coded as "1" if the respondent is in a coupled relationship (married or cohabitating). Second, the presence or absence of children in the house is also taken into account by including a variable (Number of Children at Home) that asks about the number of children living at home and temporarily away at school.

Work History and Job Environment

A continuous variable (Job Tenure) is measured by noting the date on which the respondent started working for the current employer and then subtracting it from the date of the interview. In addition,

the HRS asks if the respondent's Job Is Repetitive. A response of "almost all the time" or "most of the time" is coded as "1." Each person is asked about perceived age bias or discrimination at his or her place of work. The questions are, "In decisions about promotion, my employer gives younger people preference over older people." "My coworkers make older people feel that they ought to retire before age 65." If the answer is either "almost all the time" or "most of the time," the variable Reports Age Bias on the Job is coded "1."

Following Quinn (2000), the 1992 job skill level (Job Skill) is based on occupational codes for the respondent's job, with White Collar Skilled = 1, White Collar Low-Skilled = 2, Blue Collar Skilled = 3, and Blue Collar Low-Skilled = 4. Categories are based on the HRS occupational codes. White Collar High Skilled consists of managerial specialty operations, and professional specialty operations and technical support. White Collar Low-Skilled consists of sales and clerical, and administrative support. Blue Collar High-Skilled consists of protection services; mechanics and repair; construction trade and extractors; and precision production, machine operators, and transport operators. Blue Collar Low-Skilled consists of private household, cleaning, and building services; food preparation services; health services; personal services; farming/forestry/fishing; handlers; and armed forces.

Constraints on Reducing Hours

Two variables capture questions in the HRS related to the number of hours of work. The first asks whether the respondent could reduce his or her work hours if desired (Cannot Reduce Work Hours). The second variable includes the first question and whether the employer would allow the respondent to reduce work hours (Employer Does Not Permit Hours Reduction).

Health

Health status (Self-Rated Health Is Good or Better) is an assessment that the respondent's overall health is at least "good" or better. This dummy variable coding is based on an underlying variable that asks the respondents to rate their health according to the measures of Excellent, Very Good, Good, Fair, or Poor.

Employee Benefits

Three variables look at the effect of employee benefits. Each variable (Included in Defined Benefit Pension Plan, Included in Defined Contribution Plan, and Covered by Retiree Health Insurance) is coded as "1" if the respondent indicates that he or she is included in that benefit program.

Financial Characteristics

The financial position of the respondent is represented by a net worth measure called Household Wealth that includes both housing and non-housing equity less any debt. Included in non-housing equity is the present value of pension benefits and Individual Retirement Accounts, if any.

APPENDIX B: METHODOLOGY

Cox Proportional Hazards Regression

The random variable of survival time (t) is defined to be the number of years to first full retirement for each subject. Let $h_i(t)$ be the hazard function for subject i at time t, t=2,4,6,8,10 that corresponds to years 1994, 1996, 1998, 2000, 2002. The following Cox proportional-hazards regression model,

$$h_i(t) = h_0(t)\exp\{\beta_1 X_{i1}(t) + \cdots + \beta_{20} X_{i20}(t)\}, \qquad (1)$$

is employed to examine the relationship of the survival distribution to covariates. Here, the X_is are fixed and time-dependent covariates and $h_0(t)$ is the baseline hazard function that can be regarded as the hazard function for an individual whose covariates all have values of 0. There are 20 covariates, 7 of which are time-dependent covariates that are measured at time *t* when the subject was failed or censored. "Failed" is defined as the full retirement status and censored values are the missing responses from 1996 and after. Missing values in 1994 were dropped from the analysis. For example, if a subject is in full retirement status in 1998, it would have t = 3 and $\delta = 1$, where δ is defined as an indicator random variable with value = 1 if failed (i.e., fully retired) and value = 0 if censored. If a subject is missing 1998, it would have t = 2 and $\delta = 0$. For wage-and-salary workers, *phased* is a time-dependent covariate that measured phased retirement status for the previous wave. For example, phased(2) = 1 indicates that the subject is in phased status in 1994, and phased(2) = 0 means that the subject is not in phased status in 1994. In this case, phased retirees will be compared to partial retirees and full-time workers. Other time-dependent covariates (*income, age, marital, health good, years to retire,* and *wealth),* were all measured at each time during the risk period.

SAS PROC PHREG is used to estimate coefficients in Equation (1). Note that the option of TIES = EXACT and TIES = DISCRETE gave very similar results for the coefficients estimators. Here we report only results from ties = exact option.

Multilevel Mixed Logistic Regression

We assume that the data for a single subject are independent observations from a Bernoulli distribution. Let Y_{it} be the indicator random variable of phased or partial, $Y_{it} = 1$, phased, or partial and $Y_{it} = 0$, and define the probability of the phased or partial equal to one as $p_{it} = \Pr\{Y_{it} = 1\}$, and p_{it} is modeled using a logit link function**,**

$$\log[p_{it}/(1-p_{it})] = \beta_0 + \beta_1 time_{ij} + \beta_3 X_{i1} + \cdots + \beta_{18} X_{i18} + b_{it} \qquad (2)$$

where b_{it} is a heterogeneity error term with normal distribution of mean zero and unknown variance and covariance and $X_i's$ are explanatory variables. SAS PROC GENMOD is used to estimate coefficients in Equation (2).

APPENDIX C

Table A1: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers, 1994-1996 (n=4,721)

	1996 Status					
1994 Status	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	72	31	39	179	33	354
Partial Retiree	0	57	16	86	16	175
Fully Retired	0	88	274	104	137	603
Working Full Time	123	180	316	2,291	290	3,200
Missing	0	11	17	106	255	389
Total	195	367	662	2,766	731	4,721

Source: HRS, 1994-1996.

Table A2: Tabulation of Changes in Work-Retirement Status, for HRS Wage-and-Salary Workers*, 1996-1998

	1998 Status					
1996 Status	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	75	22	29	56	13	195
Partial Retiree	0	192	78	46	51	367
Fully Retired	0	82	404	15	161	662
Working Full Time	164	284	311	1728	279	2,766
Missing	0	36	62	97	536	731
Total	239	616	884	1,942	1,040	4,721

* Number of observations.
Source: HRS, 1996-1998.

Table A3: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers,* 1998-2000

	2000 Status					
1998 Status	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	124	22	36	46	11	239
Partial Retiree	0	357	127	61	71	616
Fully Retired	0	92	614	10	168	884
Working Full Time	90	173	275	1,200	204	1,942
Missing	0	45	155	51	789	1,040
Total	214	689	1,207	1,368	1,243	4,721

* Number of observations.
Source: HRS, 1998-2000.

Table A4: Tabulation of Changes in Work-Retirement Status for HRS Wage-and-Salary Workers,* 2000-2002

	2002 Status					
2000 Status	Phased Retiree	Partial Retiree	Fully Retired	Working Full Time	Missing	*Total*
Phased Retiree	80	23	65	25	21	214
Partial Retiree	0	414	138	57	80	689
Fully Retired	0	102	845	17	243	1,207
Working Full Time	63	172	223	760	150	1,368
Missing	0	50	180	55	958	1,243
Total	143	761	1,451	914	1,452	4,721

* Number of observations.
Source: HRS, 2000-2002.

REFERENCES

AARP. 2005. *Attitudes of Individuals 50 and Older Toward Phased Retirement*. Washington, DC: AARP.

AARP. 2000. *American Business and Older Employees*. Washington, DC: AARP.

Abraham, Katharine G., and Susan N. Houseman. 2004. "Work and Retirement Plans Among Older Americans." *Employment Research,* 11(4): 1-4.

Allen, Steven G. 2004. *The Value of Phased Retirement.* Working Paper 10531. Cambridge, MA: National Bureau of Economic Research.

Allen, Steven G., Robert L. Clark, and Linda S. Ghent. 2001. *Phasing Into Retirement*. Paper presented at the Society of Labor Economists annual meeting in Austin, Texas.

Anderson, Michael, Shripad Tuljapurkar, and Nan Li. 2002. *Stochastic Population Forecasts for the G-7 Countries,* Report for the Global Aging Initiative. Washington, DC: Center for Strategic and International Studies. http://www.csis.org/gai/.

Bartle, Linda Rae. 1989. *An Analysis of the Attitudes and Perceived Needs of a Population of Public School System Employees and Retirees Regarding Retirement and Pre-Retirement Planning.* Ph.D. Dissertation. College Park, MD: University of Maryland.

Berry, Laura J. 1998. *Faculty Retirement Turnover in Community Colleges: A Real or Imagined Problem?* Ph.D. Dissertation. Little Rock, AR: University of Arkansas.

Bertelsen, Katherine Huggins. 1983. *A Study of Phased Retirement Programs at Land-Grant Colleges and Universities and the Development of Phased Retirement Models for the University of Tennessee*. Ph.D. Dissertation. Knoxville, TN: University of Tennessee.

Blau, David M., and Donna B. Gilleskie. 2001. "Retiree Health Insurance and the Labor Force Behavior of Older Men in the 1990s." *The Review of Economics and Statistics*, 83(1): 64-80.

Chen, Yung-Ping, and John C. Scott. 2003. "Gradual Retirement: An Additional Option in Work and Retirement." *North American Actuarial Journal*, 7(3): 62-74.

Costa, Dora L. 1998. *The Evolution of Retirement*. Chicago: University of Chicago Press.

Cox, D. R. 1972. "Regression Models and Life Tables." *Journal of the Royal Statistical Society*, Series B 34: 187-220.

Dwyer, Debra S. 2001. *Planning for Retirement: The Accuracy of Expected Retirement Dates and the Role of Health Shocks.* Working Paper 2001–08. Chestnut Hill, MA: Center for Retirement Research at Boston College. http://www.bc.edu/crr.

Ehrenberg, Ronald G. 2001. *The Survey of Changes in Faculty Retirement Policies.* Washington, DC: American Association of University Professors. http://www.aaup.org/newweb/Issues/retirement/retrpt.htm.

ERISA Advisory Council. 2000. *Report of the Working Group on Phased Retirement.* U.S. Department of Labor. The Advisory Council on Employee Welfare and Benefit Plans. Washington, DC: U.S. Department of Labor. http://www.dol.gov/ebsa/publications/phasedr1.htm.

Even, William E., and David A Macpherson. 2004. *Do Pensions Impede Phased Retirement?* Discussion Paper No. 1353. Bonn, Germany: Institute for the Study of Labor. http://ideas.repec.org/p/iza/izadps/dp1353.html.

Federal Interagency Forum on Aging-Related Statistics. 2004. *Older Americans 2004: Key Indicators of Well-Being.* Washington, DC: U.S. Government Printing Office. http://www.agingstats.gov/chartbook2004/default.htm.

Federal Interagency Forum on Aging-Related Statistics. 2000. *Older Americans 2000: Key Indicators of Well-Being*. Washington, DC: U.S. Government Printing Office. http://www.agingstats.gov/chartbook2000/default.htm.

Flippen, Chenoa, and Marta Tienda. 2000. "Pathways to Retirement: Patterns of Labor Force Behavior and Labor Market Exit Among the Pre-Retirement Population by Race, Hispanic Origin, and Sex." *Journal of Gerontology: Social Sciences*, 55B:1, S14-S27.

Friedberg, Leora, and Anthony Webb. 2000. *The Impact of 401(k) Plans on Retirement.* Discussion Paper 2000-30. San Diego, CA: University of California, San Diego.

Gruber, Jonathon, and Brigitte C. Madrian. 2002. *Health Insurance, Labor Supply, and Job Mobility: A Critical Review of the Literature*. Working Paper No. 8817. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan L., and Thomas L. Steinmeier. 2001. *Retirement and Wealth*. Working Paper No. 8229. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan L., and Thomas L. Steinmeier. 2000. *Retirement Outcomes in the Health and Retirement Study*. Working Paper No. 7588. Cambridge, MA: National Bureau of Economic Research, Cambridge, Massachusetts.

Gustman, Alan L., and Thomas L. Steinmeier. 1994. *Retirement in a Family Context: A Structural Model for Husbands and Wives.* Working Paper No. 4629. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan L., and Thomas L. Steinmeier. 1984. "Partial Retirement and the Analysis of Retirement Behavior." *Industrial and Labor Relations Review*, 37(April): 403-415.

Haider, Steven, and David Loughran. 2001. *Elderly Labor Supply: Work or Play?* RAND Working Paper DRU-2582. http://www.rand.org/labor/DRU/DRU2582.pdf.

Hayward, Mark D., Eileen M. Crimmins, and Linda A. Wray. 1994. "The Relationship Between Retirement Life Cycle Changes and Older Men's Labor Force Participation Rates." *Journal of Gerontology*, 49(5): S219-230.

Hayward, Mark D., William R. Grady, Melissa A. Hardy, and David Sommers. 1989. "Occupational Influences on Retirement, Disability, and Death." *Demography*, 26(3): 393-409.

Health and Retirement Study. Institute for Social Research, University of Michigan. http://hrsonline.isr.umich.edu/.

Henretta, John C., and Hyunkee Lee. 1996. "Cohort Differences In Men's Late-Life Labor Force Participation." *Work and Occupations*, 23(2): 214-235.

Honig, Marjorie, and Giora Hanoch. 1985. "Partial Retirement as a Separate Mode of Retirement Behavior." *The Journal of Human Resources*, 20(1):21-46.

Hurd, Michael, and Kathleen McGarry. 1993. *The Relationship Between Job Characteristics and Retirement.* Working Paper No. 4558. Cambridge, MA: National Bureau of Economic Research.

Hutchens, Robert M. 2003. *The Cornell Study of Employer Phased Retirement Policies: A Report on Key Findings.*, Ithaca, New York: School of Industrial and Labor Relations, Cornell University. http://www.ilr.cornell.edu/extension/files/20031219112155-pub1251.pdf.

Johnson, Richard W., and Melissa M. Favreault. 2001. *Retiring Together or Working Alone: The Impact of Spousal Employment and Disability on Retirement Decisions*. Washington, DC: The Urban Institute.

Johnson, Richard W., and David Neumark. 1997. "Age Discrimination, Job Separations, and Employment Status of Older Workers." *Journal of Human Resources*, 32(4): 779-811.

Manton, Kenneth G., Larry Corder, and Eric Stallard. 1997. "Chronic disability trends in elderly United States populations: 1982-1994." *Proceedings of the National Academies of Science of the USA*, 94: 2593-2598.

Mueller, Charles W., E. Marcia Boyer, James L. Price, and Roderick D. Iverson. 1994. "Employee Attachment and Noncoercive Conditions of Work." *Work and Occupations*, 21(2): 179-212.

Mutran, Elizabeth J., and Donald C. Reitzes. 1998. "The Decision to Retire: A Career Perspective." *Social Science Quarterly*, 79(3): 607-620.

Quinn, Joseph F. 2000. "New Paths to Retirement." In O.S. Mitchell, P.B. Hammond, and A.M. Rappaport (Eds.), *Forecasting Retirement Needs and Retirement Wealth*. Philadelphia: University of Pennsylvania Press.

Quinn, Joseph F. 1999. Has the Early Retirement Trend Reversed? Paper presented at the First Annual Joint Conference for the Retirement Research Consortium, New Developments in Retirement Research. Boston, MA, May 20-21.

Quinn, Joseph F., and Michael Kozy. 1996. "The Role of Bridge Jobs in the Retirement Transition: Gender, Race, and Ethnicity." *The Gerontologist,* 36(3): 363-372.

Quinn, Joseph F., Richard Burkhauser, Kevin Cahill, and Robert Weathers. 1998. *Microeconometric Analysis of the Retirement Decision: United States.* Economics Department Working Papers No. 203. Paris: Organization for Economic Co-operation and Development. http://www.olis.oecd.org/olis/1998doc.nsf/linkto/eco-wkp(98)16.

Reitzes, Donald C., Elizabeth J. Mutran, and Maria E. Fernandez. 1998. "The Decision to Retire: A Career Perspective." *Social Science Quarterly*, 79(3): 607-619.

Riche, Martha Farnsworth. 2001. The Demographics of Tomorrow's Workplace. Paper presented at the Pension Research Council Symposium, Benefits for the Workplace of Tomorrow. Philadelphia, PA, April 30 and May 1.

Rix, Sara E. 2004. *Aging and Work—A View From The United States.* AARP Public Policy Institute Publication 2004-02. February. Washington, DC: AARP.

Ruhm, Christopher J. 1990. "Bridge Jobs and Partial Retirement." *Journal of Labor Economics*, 8(4):482-501.

Stock, James, and David A. Wise. 1990. "Pensions, the Option Value of Work, and Retirement." *Econometrica*, 58(5): 1151-1180.

Toossi, Mitra. 2004. "Labor Force Projections to 2012: the graying of the U.S. workforce." *Monthly Labor Review,* 127(2): 37-57. http://www.bls.gov/opub/mlr/2004/02/art3full.pdf.

Toossi, Mitra. 2002. "A Century of Change: U.S. Labor Force from 1950 to 2050." *Monthly Labor Review*, 125(5): 15-28. http://www.bls.gov/opub/mlr/2002/05/art2full.pdf.

U.S. Census Bureau. 2004. Various Tables from the Population Estimates Program and the International Data Base, Washington, DC: U.S. Census Bureau. http://www.census.gov/.

U.S. Census Bureau. 2001. "Home Computers and Internet Use in the United States: August 2000." *Current Population Report,* P23-207. September. Washington, DC: U.S. Census Bureau. http://www.census.gov/prod/2001pubs/p23-207.pdf.

U.S. Census Bureau. 2000. *Statistical Abstract of the United States*. Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. 1995. *Statistical Abstract of the United States*. Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. 1993. *Computer Use and Ownership Data: October 1993.* Table B. Washington, DC: U.S. Census Bureau. http://www.census.gov/population/www/socdemo/computer/computer93.html.

U.S. Department of Labor. 2004. *Pension Plan Bulletin*, Summer. No. 12. Washington, DC: U.S. Department of Labor. http://www.dol.gov/ebsa/PDF/1999pensionplanbulletin.PDF.

U.S. Department of Labor, Bureau of Labor Statistics. 2004. *Workers on Flexible and Shift Schedules*. Washington, DC: U.S. Department of Labor. http://www.bls.gov/news.release/flex.t01.htm.

Watson Wyatt Worldwide. 2004. *Phased Retirement: Aligning Employer Programs with Worker Preferences.* Washington, DC: Watson Wyatt Worldwide.

Watson Wyatt Worldwide. 1999. *Phased Retirement Survey*. Washington, DC: Watson Wyatt Worldwide.

Wiatrowski, William J. 2001. "Changing Retirement Age: Ups and Downs." *Monthly Labor Review*, April: 3-12.

Williamson, John B., and Tay K. McNamara. 2001. *Why Some Workers Remain in the Labor Force Beyond the Typical Age of Retirement.* CRR WP 2001-9. Chestnut Hill, MA: Center for Retirement Research.

Wise, David A. 1997. "Retirement Against the Demographic Trend: More People Living Longer, Working Less, and Saving Less." *Demography*, 34(1): 83-95.