# The Microeconomics of the Retirement Decision
## in the United States

**February 6, 1998**

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**Introduction**

One of the most remarkable demographic changes in the post-war period has been the dramatic decline in the labor force participation rates of older men in the industrialized world (OECD 1996: chart 4.1). As countries and their citizens became richer, this additional wealth was spent in a number of ways, one of which was the "purchase" of additional leisure late in life -- earlier retirement. The combination of longer and healthier life spans and earlier labor force departure has meant that individuals have enjoyed more retirement years than did earlier cohorts.

Increasing life expectancies and levels of wealth are both very good news. They can, however, create challenges for nations and for individuals. There are concerns about the ability of these aging economies to support a larger number and a larger proportion of older, non-working citizens. Some analysts, extrapolating from recent demographic and retirement trends, have forecast aggregate labor shortages in the future, as the large number of baby-boomers leaving the labor force outstrips the smaller number of new entrants.

There are also concerns at the individual level. Economic distress -- poverty -- is less common among older workers than it is among those who are no longer employed. In addition, for some, employment provides very important non-pecuniary benefits that can be lost in retirement, such as social contact, self-esteem, and the feeling of being a productive citizen.

Individual and societal concerns about recent early retirement trends, especially in the context of increasing life expectancies and changing demographics, have created an interest in the United States in encouraging, or at least not discouraging, continued employment among older workers. The more that older citizens remain employed, perhaps even while claiming retirement benefits, the larger will be the real output of the nation -- the output to be allocated among the working and non-working populations.

In the United States, a number of policy changes have already occurred, and others are in process or about to begin, that promise to increase work at older ages. Federal legislation delayed the earliest legal age of mandatory retirement from age 65 to age 70 in 1978, and then outlawed it completely in 1986 for the vast majority of American workers. This not only increased the options open to certain individuals, but also sent an important societal message about the appropriate age of retirement. Social Security rules and regulations are also being changed to encourage work late in life. (See below for an overview of the public and private retirement income systems in the United States.) The actuarial reward for delaying receipt beyond age 65 (the current age of eligibility for "normal retirement benefits") is being increased, and will soon be close to actuarially fair for the average worker.[1] In addition, the amount individuals can earn before losing Social Security benefits (the exempt amount) has increased, and is about to rise dramatically for workers aged 65 to 69 (from $13,500 in 1997 to $30,000 by 2002). Finally, the age of eligibility for normal retirement benefits is scheduled to move early next century from 65 to 66, and later to age 67. This is equivalent to an across-the-board benefit cut, which changes the trade-off between work and retirement, and also sends a message about appropriate retirement age.

In the private sector, although defined-benefit employer pension plans (which often contain strong incentives to retire at particular ages, often at the earliest age of eligibility -- see below) remain important, there is a shift underway from defined-benefit to defined-contribution plans. The latter, by their very nature, contain no age-specific retirement incentives (or equivalently, work disincentives). A final contributing factor, although not an explicit retirement-related policy initiative, has been a very strong domestic economy. While the United States suffered the greatest recession since the Great Depression of the 1930s in 1982-83, with unemployment rates of nearly 10 percent, economic growth over the rest of the 1980s led to strong demand for labor and a decade-low unemployment rate of 5.3 percent in 1989. Unemployment increased to 7.5 percent during the business cycle

trough of 1992, but economic growth has since reduced unemployment to a three-decade low of only 4.6 percent in late 1997. Strong labor markets increase the options of older workers (and others) who want to remain employed.

The net result of these changes has been an abrupt end of the post-war early retirement trend among older men in the United States. **Figure 1** shows labor force participation rates over the past three decades for older American men by 5-year age cohorts.[2]  The figure also shows the time trend for each group from 1964 through 1985 (from a simple linear regression) and an extrapolation of that pre-1985 trend from 1986 through 1996.  One can clearly see "the end of an era"  -- older male labor force participation rates are no longer declining, and may even be increasing.  The annual differences between the extrapolated earlier trend and the actual labor supply behavior of these men since 1985 is large and growing.[3]

The early retirement patterns of American women have been complicated by a second factor, the increases in the labor force participation of (primarily married) women during the postwar era.  Among older women, these two trends have largely offset each other.  As seen in **figure 2**, there has been a modest increase in the participation rates of women aged 55 to 59 since 1964, and modest declines among the older groups.  Since the mid-1980s, however, the change relative to the prior trend is the same as it is for men.  Older Americans, both men and women, are working much more now than the pre-1985 retirement trends would have predicted.  A combination of public policy initiatives regarding mandatory retirement and Social Security, a trend toward defined-contribution pensions and a strong domestic economy have halted the dramatic post-war early retirement trend and encouraged many older workers to remain employed.

The purpose of this project is to study the correlates of the individual retirement decision in the United States, in a framework similar to that adopted by researchers in a number of other OECD nations.  Retirement is a multi-faceted concept  in the United States, and can be defined along a number of dimensions.  For some, retirement refers to complete

labor force withdrawal late in life.  This can be the stereotypical retirement, a one-time transition from a career job to labor market exit, or it can be the end of a transitional period of withdrawal, with bridge jobs between career employment and complete withdrawal. Others would define retirement as the receipt of retirement benefits (Social Security or employer pension benefits), regardless of the current employment status of the individual. Others look for a significant decline in hours or earnings or a job change late in life as indicators of retirement.  Still others rely on how individuals themselves define their retirement status, and utilize subjective questions found in most retirement-related questionnaires.

In this research, following the OECD criterion, we define retirement as the cessation of employment, and we focus on this important life event, but allow for alternative routes into retirement based on the receipt of specific retirement income sources. An interesting complication in the United States -- and one that we will emphasize -- is that labor market withdrawal and the receipt of retirement income often do <u>not</u> occur at the same time.  Many Americans combine earnings and retirement income by remaining employed, often on a new job, and often part time, after they have left their career employer and began collecting public and/or private retirement benefits.  We consider this a natural and beneficial consequence of the retirement process in the United States, and believe that its importance will grow in the years ahead.

**Retirement Income Sources in the United States**

The United States has a two-tiered system of retirement benefits -- a public social insurance program that is mandatory and nearly universal (Old Age, Survivors and Disability Insurance (OASDI) -- commonly referred to as Social Security), and a vast array of employer-based pension programs that are not mandatory and far from universal.  Social Security was designed in the 1930s to be one of three legs of the retirement stool -- not to provide an adequate retirement income on its own, but rather to supplement employer

pension benefits and the income generated by the individual's prior saving.  For many, however, the employer pension leg is missing (see below), and, as mentioned above, a fourth leg -- earnings -- is very important for many retirees.

In 1994, Social Security benefits provided over 40 percent of the aggregate income of the elderly in the United States -- those aged 65 or older (**figure 3**.)  Almost 20 percent came from each of three other important sources: earnings, employer pension benefits and income from assets, with only 4 percent coming from all other sources, including means-tested welfare (public assistance) payments.  The relative importance of these four primary legs of the stool changes dramatically with the age and with the income level of the individuals.  Social Security, for example rises from 31 percent of aggregate income for those aged 65 to 69, to 56 percent for those aged 80 and above, while earnings drops from 33 to less than 5 percent over the same age span (**figure 4**).  Social Security is particularly important for those least well-off -- it provides over 80 percent of the income of those in the bottom two quintiles, but less than a quarter of the income of those in the highest quintile (**figure 5**).  Earnings, employer pension benefits and asset income are inconsequential in aggregate to those in the lowest quintile (they provide only six percent of aggregate income), but are extremely important for the elderly in the richest quintile, for whom they provide three-quarters of aggregate income.

Social Security retirement benefits: Social Security retirement benefits are earned through prior contributions to the social insurance system.  Covered employees and their employers each contribute 6.2 percent of earnings, up to the taxable limit -- $68,400 in 1998, a cap which is indexed annually to changes in average wages.[4]  (Self-employed workers pay both halves -- 12.4 percent of taxable earnings, with the same cap.)  At age 65, the statutory "normal age of retirement," workers with 40 or more quarters of coverage are eligible to receive monthly retirement benefits based on the (indexed) average of their best 35 years of earnings.[5]  Eligible workers can receive reduced retirement benefits as early as age 62 (since 1956 for women, and since 1961 for men).  The monthly benefits are

reduced by 5/9 of 1 percent for each month of receipt prior to age 65, or by 20 percent for those who claim benefits as soon as they are eligible, at age 62.  For those who delay first receipt until after the "normal age" of 65, there is a delayed retirement credit (in addition to the recalculation of average lifetime earnings) for each month of delay.  This increases the monthly benefit over the amount of the (obviously mislabeled) "full" benefit.

These complicated benefit calculation rules (and similar ones in many defined-benefit employer pension schemes -- see below) can create large financial incentives to continue working or to retire, and considerable econometric evidence suggests that these incentives do affect individuals' retirement behavior.[6]   Depending on the details of the benefit calculation rules, expected lifetime Social Security (or employer pension) benefits can rise or fall with continued work on the job.   Those who defer benefits after the age of initial eligibility forego benefits initially, but are generally rewarded later with higher monthly benefits.  The question is whether the increments in the future are sufficient to offset the benefits initially declined.

If they are not, then the present value of future benefits (the wealth or asset equivalent of the expected retirement income stream) declines with additional years of work.  This is equivalent to a pay cut, since one's true compensation for the year equals one's earnings plus or minus any change in the present discounted value of future retirement benefits.  If the change is a minus, then true compensation is less than earnings by the amount of the wealth loss, and one is encouraged to stop working.   If, on the other hand, the future increments are just sufficient to offset the benefits initially foregone, then the program is called actuarially fair or age-neutral, and there is no age-specific financial incentive to leave or to stay.  Finally, it is also possible for a pension program to encourage additional work (to discourage retirement), by over-compensating those who delay their initial receipt, and thereby increasing the asset value of pension rights with additional years on the job.  Such individuals would gain twice by continuing to work.

Traditionally, the Social Security rules for those between ages 62 and 65 were close to actuarially fair for the average retiree. The 20 percent early retirement penalty for receipt at age 62 (80 percent of a "full benefit"), or, from the age 62 perspective, the 25 percent reward (on the .80 base) for continuing to work from age 62 to 65, was about right for someone with average life expectancy. From a lifetime perspective, the smaller monthly benefits begun at age 62 are about the same as the larger benefits begun at age 65. In other words, Social Security is close to age-neutral prior to age 65. At age 65, however, the rules changed, and the reward for continued delay declined significantly. Prior to 1977, the delayed retirement credit was only 1 percent for each year of delay beyond age 65 -- far from actuarially fair. In 1977, the reward was increased to 3 percent per year, still far too low for the average worker. As a result, Social Security penalized most workers who continued to work beyond age 65.

One of the major policy initiatives currently underway is the increase in the delayed retirement credit after age 65 from 3 percent to 8 percent per year of delay. In 1998, it will be 5.5 percent, and will reach 8 percent for those who turn age 62 in 2005 or later.[7] For the average worker, this will be close to actuarially fair, and therefore Social Security will no longer contain the strong work disincentives that it once did.

Social Security also has an earnings test. For those aged 62 to 64, benefits are decreased by $0.50 for each $1 earned over $8,640 (in 1997).[8] For those 65 to 69, the rules are more lenient in two ways. The "tax" rate is only $0.33 for each $1 earned over the exempt amount, and the exempt amount is higher ($13,500 in 1997). There is no earnings test at all for those aged 70 or older. They can earn unlimited amounts and still collect a full Social Security benefit.

These exempt amounts increase each year, indexed to national changes in average earnings. For the older group (aged 65 to 69), however, legislation has been passed to increase the exempt amount dramatically, to $14,500 in 1998, $17,000 in 2000, and finally

to $30,000 in 2002.  This is an obvious societal encouragement for older workers to remain employed, at least part time.

A final important change that was legislated in 1983 but has not yet been implemented is the increase in the normal retirement age, which is currently age 65. Beginning in 2003, this will increase by 2 months per year until it reaches age 66 six years later.  After a 12-year hiatus (which many analysts believe will eventually be eliminated), the normal retirement age will increase again over six years to age 67.  Although eligibility for early benefits will continue at age 62, those who take them will receive only 70 percent (rather than the current 80 percent) of the normal-age benefits.

This delay in the normal retirement age is almost identical to an across-the-board benefit cut.  Waiting longer to receive a given amount means that one will receive less at any given age.[9]  This will send an important signal about appropriate retirement age, and also reduce the financial attractiveness of retiring at any given age.

Social Security disability benefits:  The Social Security disability insurance program is similar to old-age retirement program in many respects.  Revenues are generated by the same payroll tax, and all those covered for old-age benefits also enjoy disability insurance.[10]  As are retirement benefits, disability benefits are based on average indexed monthly earnings, which in turn determines a worker's primary insurance amount (PIA). The disability benefit equals 100 percent of the PIA, regardless of the disabled worker's age.[11]  There is no actuarial reduction for receipt prior to age 65; therefore, for workers aged 62 to 64, disability benefits are higher than retirement benefits would be for the same earnings record.  Unlike retirement benefits, which are available as soon as one turns 62, disability benefits are not available until the sixth month after the onset of disability.  After 24 months of receipt of disability benefits, one also becomes eligible for Medicare, a subsidized federal health insurance program.  At age 65 (the normal age of eligibility for Medicare and for Social Security retirement benefits), disabled workers are transferred to the retiree rolls, and their benefits are then called old-age benefits.

For the purposes of Social Security eligibility, disability is defined as "an inability to engage in substantial gainful activity by reason of a physical or mental impairment" (U.S. House of Representatives, 1994, p. 49). The impairment must be expected to last for at least 12 months or to result in death. To be eligible for benefits, workers must be "unable to engage in any kind of substantial gainful work, considering their age, education, and work experience, which exists in the national economy." (ibid.) In other words, eligibility does not stem from an inability to find a job (e.g., if there are no jobs in the area), but rather from the inability to do any substantial work regardless of whether or not the jobs exist. Actual eligibility determinations are made by State agencies under regulations promulgated by the federal government. To encourage return to the labor force, disabled beneficiaries are permitted to experiment with work during a limited trial period while maintaining their disability benefits and Medicare eligibility.

It is impossible to summarize succinctly the complex regulations, administrative decrees and appeals procedures surrounding the Social Security disability program. The bottom line is that the requirements for eligibility are more stringent -- no partial disability benefits or explicit linkage to unemployment or chronological age -- than in countries such as the Netherlands, Sweden and Germany.[12] Therefore, in the United States, Social Security disability benefits are not a common alternative to early retirement benefits under another name.

Employer pension benefits: In addition to the nearly universal coverage offered by Social Security, slightly less than half of American workers at any one time are also covered by a employer-sponsored pension plan where they work. According to the Employee Benefit Research Institute (EBRI, 1994, table 1), 47 percent of nonagricultural wage-and-salary workers participated in a pension plan on their current jobs in 1993, down slightly from the 50 percent participating in 1979.[13] The percentage of workers who will ever draw pension benefits is higher than this, however, since some (older) workers who are not participating in a pension plan where they work will be eligible for pension benefits

from a prior job, and other (younger) non-participating workers might become eligible on a later job. Among the civilian non-agricultural wage-and-salary population, for example about 60 percent of those aged 41 to 60 were participating in a pension plan in 1993. This may be a better predictor of eventual receipt than the proportion currently participating where they work.[14] The percentage participating drops to 33 percent among those aged 21 to 30, and to 29 percent among those aged 65 or older (EBRI, 1994, table 2.)

There are two major types of employer pension plans in the United States: defined-benefit (DB) and defined-contribution (DC). In the former, the traditional type of pension plan, the retirement benefit is defined by a formula, usually based on years of service with the firm and some measure of earnings level, often the average over the last or the highest three or five years. Depending on how the benefits change with additional years on the job, defined-benefit plans can encourage or discourage retirement, in the same manner as Social Security, as discussed above. Considerable research has shown that in most cases, the present discounted value of expected benefits from DB plans begins to decline at some age, often the earliest age of eligibility (Kotlikoff and Wise, 1989). In these cases, employer pensions penalize those who stay on the job too long, and thereby encourage departure from the firm. Once the individual leaves the firm, however, most pensions impose no requirement that the person leave the labor force as well.

Defined-contribution plans, on the other hand, are basically savings accounts with significant tax advantages. In these plans, the employer promises only to make a certain contribution to the individual's retirement account each pay period, sometimes only if the employee also makes a contribution, and that is the extent of the employer's obligation. (Administrative costs are much lower on DC plans, making them popular with employers.) These funds are then invested, usually with some input from the worker, and the eventual retirement benefit depends on the amounts deposited over the years and the investment performance of the individual's portfolio. An important point from our perspective is that

DC plans contain none of the age-specific retirement incentives or work disincentives that DB plans can and usually do have.

Although the overall pension participation statistics have been stagnant (or even declining slightly) over the past few decades, there has been an important change in the distribution by type of plan. Defined-contribution plans are becoming much more important. Just between 1988 and 1993, for example, the proportion of civilian nonagricultural wage-and-salary workers whose primary coverage was defined-benefit in nature dropped from 57 to 38 percent, while defined-contribution plans increased from 25 to 50 percent (EBRI, 1994, table 12.) (The rest of the sample was covered by other types of plans or did not know which type they had.) This transformation is important because it means a decline in the extent of work disincentives late in life, and therefore increased freedom for workers to remain employed on their career jobs. These changes are perfectly consistent with the demise of the post-war male early retirement trend noted above, although the causational contribution of the various factors has not been determined.

**Dataset and Sample for Analysis**

This research is based on the Health and Retirement Study (HRS), an ongoing longitudinal dataset which is focusing on the retirement patterns and circumstances of older Americans in the 1990s.[15] In the initial wave of the HRS in 1992, over 12,000 men and women in nearly 8,000 households were interviewed. The respondents comprise a nationally representative sample of non-institutionalized Americans aged 51-61 in 1992 and their spouses, who can be older or younger. The HRS contains detailed information on each individual's demographic background, current health and disability status, family structure, current, past and prior employment (retrospective questions), retirement plans (for those still working), health and life insurance coverage, housing status, income and wealth. There is also an additional, highly restricted dataset that includes, for those respondents who have given permission, their Social Security earnings history.

Unfortunately, we do not have permission to use this dataset for this project.  Eventually, the HRS will also contain the actual details of the individuals employer pension plans, obtained directly from the employer.  Work on this valuable information is still in progress.

The HRS respondents are being re-interviewed every two years.   The first three waves of data (1992, 1994 and 1996) are currently available, and these will be the basis of this report.

The derivation of our sample is described in **table 1**.  Of a total of 12,652 respondents in 1992, nearly half (6,018) were in the relevant age range of 55 to 61 (table 1, next to last column).  We eliminated those younger than 55, since they are not the focus of the OECD project.  We also eliminated those aged 62 and older, because they are outside the initial age-eligible range of the HRS, and therefore are not a representative sample of Americans that age -- rather, they are a sample of people married to respondents aged 51 to 61.  Of those aged 55 to 61 in 1992, 5,485 reappeared in the second wave of interviews in 1994.[16]  Of these, 3,563 were working in 1992 (table 1, row 5).  This is our first sample.

As expected, the individuals who were not working in 1992 are not evenly distributed by age.  For example, about 70 percent of the men and women aged 55 to 57 were working (table 1, row 6).  This drops to about 65 percent for those 58 or 59, and then below 60 percent for those 60 or 61.  Similar patterns exist when the sample is disaggregated by gender (not shown), with the employment percentages always higher for men than for women.  (Those outside our age range follow this declining age-employment pattern as well.  Three quarters of those less than 55 were working in 1992, compared to only 40 percent of those aged 62 or older.)

This subsample of those aged 55 to 61 and working in 1992, and interviewed in both waves 1 and 2, includes 1,900 men (53 percent of the subsample) and 1,663 women (47 percent) (table 1, rows 7 and 8).  The sample sizes decline with age, from about 600 (men and women combined) aged 55 to about 400 aged 61.

When we include wave 3 of the HRS (1996), the sample size declines slightly, but we gain more labor market transitions because we have another two years of observations. The sample aged 55 to 61 in 1992 drops to 4,922 (about 10 percent attrition from the wave 1 and 2 sample) when we require participation in all three waves, and 3,242 of these were working in 1992 (table 1, rows 3 and 10). This is the second (and primary) sample we use. (Because of changes in the questionnaire, we also lose some detail about the nature of the Social Security benefits being received -- see below.) In this second sample, the individual-age sample sizes decline from 544 (men and women combined) at age 55 to 371 at age 61 (table 1, row 10).

**Types of Retirement Income**

This project is focused on the microeconomic determinants of the individual retirement decision, and on the receipt of various income sources that permit individuals to retire. Retirement here means that one is no longer working. Concerning types of income, the OECD "plan of work" lists:

-old-age pensions -- both public, such as Social Security old-age insurance benefits and Supplemental Security Income (SSI -- a means-tested public welfare program), and private, such as employer or union-based pension plans;

-long-term sickness or invalidity benefits (such as Social Security disability insurance benefits); and

-unemployment insurance benefits (a state-run system of short-term benefits (usually, only 26 weeks) for the unemployed).
We have also looked at

-workers' compensation (state run programs that provide cash and medical benefits to those with job-related disabilities resulting from a work related accident or illness),[17]

-veterans' benefits,[18] and

-Social Security survivors' insurance benefits.[19]

**Labor Force Transitions**

In this section, we describe the labor market transitions that occurred between 1992 and 1994 and between 1992 and 1996, and we document the receipt of various retirement income sources. We are most interested in the four-year transitions, and these receive primary emphasis in the multivariate work below. The shorter transitions are also of interest, however, because the 1994 (wave 2) questionnaire contains more detail about the type of Social Security benefits received than does the 1996 (wave 3) questionnaire.

Of those 3,563 individuals working in 1992 and appearing in waves 1 and 2, 18 percent had stopped working by 1994, and the other 82 percent were still employed, either on their 1992 job or on another job (**table 2**, row 1). By 1996, nearly one-third (31 percent) of the Wave 1-3 subsample had stopped work. The percentage who left work was slightly higher for women (20 percent by 1994; 35 percent by 1996) than it was for men (17 and 28 percent) (**tables 3 and 4**, cols. 1).

In contrast to the modest gender differences, the departure rates differed significantly by age. In **tables 5, 6 and 7**, we disaggregate at important ages: 60 (a common age for employer pension eligibility, 62 (the earliest age of eligibility for Social Security retirement benefits), and 65 (the age of eligibility for normal Social Security retirement benefits.)

Of those who were still less than age 60 in 1994, only 13 percent had stopped working, compared to 21 percent of those who had crossed the age-60 threshold, but were still younger than 62, and nearly a third (31 percent) of those who were older than age 62 by the time of the 1994 interview (tables 5, 6 and 7, cols. 1).[20]

By 1996, the respondents are two years older, so there are different proportions of the sample in our various age categories. Only one age cohort remains younger than 60 in 1996 (and they are 59), and 18 percent of these 59 year olds had stopped working by the time of the 1996 survey (table 5, col. 1). Of those aged 60 or 61, 22 percent had left

employment by 1996, almost identical to the 21 percent of the 60 and 61 years olds in 1994 (table 6, col. 1). Finally, by 1996, 38 percent of those aged 62 to 64 and over half (51 percent) of the age-65 cohort was no longer employed.

**Income Sources**

Few respondents, regardless of their work status, was found to be receiving either workers' compensation benefits, unemployment insurance benefits or Supplemental Security Income (SSI) in at the time of the survey 1994.[21] Unlike in some European countries, unemployment benefits do not appear to be an important alternative route to early retirement in the United States. The requirements for receiving unemployment insurance do not become less stringent with age, and the receipt of benefits is limited in time, usually to only 26 weeks.[22] Supplemental Security Income has no such time limit, but it is available only to those who meet strict income and asset tests, and who are blind, disabled or aged, defined here as 65 or older -- too old for most of our group. In addition, with Social Security coverage nearly universal, the population with incomes below the SSI thresholds has been dramatically reduced over time. Receipt of state workers' compensation payments (for temporary or permanent disability) was also found to be rare.

According to Grad (1996: table I.1), only 2 percent of American households with a member aged 55-61 received any workers' compensation benefits during 1994, and only 4 percent and 6 percent received SSI and unemployment compensation, respectively. The importance of these income sources as a percentage of total household income was much smaller still. In 1994, less than 1 percent of the income of households with a member 55-61 came from public assistance (which includes SSI) and only 2.5 percent came from "other income," which includes both workman's compensation and unemployment benefits (Grad 1996: table VII.1). The low percentages of people receiving these income sources reported by Grad are higher than the even smaller numbers that we found, both because the benefits Grad reports for the household might have been received by another household

member, and because, even when they were received by the individuals aged 55-61, these are not likely to be people who were working 2 or 4 years earlier, as were all members of our sample.

As a result of the infrequent receipt of unemployment compensation, SSI and workman's compensation, these income sources are dropped from the subsequent analysis. We focus on the receipt of Social Security benefits (retirement, disability and other), employer pension benefits and, to a lesser extent, veterans benefits. As expected, and as seen in tables 2 through 7, the receipt of these more frequent income sources is highly correlated with employment status.

Of those in our sample who were still working in 1994, only 12 percent were receiving one or more of these benefits (table 2, last column). Nearly 8 percent were receiving an employer pension (which can often be obtained before age 62), 2.4 percent reported receiving Social Security retirement benefits, another 1.3 percent other (survivors) Social Security benefits, and 2.3 percent were receiving veterans' benefits. Given the strict requirements for eligibility, it is not surprising that almost none of those still working was receiving Social Security disability benefits.[23] (The individual components add up to more than the total because of the receipt of multiple benefits -- see below.) In contrast, among the 18 percent who were no longer working in 1994, 38 percent were receiving benefits -- over three times the percentage of those still employed. Given the ages of these individuals, the most common sources were employer pension benefits (26 percent), followed by Social Security retirement benefits (14 percent).

By 1996, when the age range is 59 to 65, many more of our sample have stopped work (31 percent), and receipt of these retirement benefit is much higher, regardless or work status (table 2). Over one-quarter of those still employed received Social Security (15 percent), pension (14 percent), or veteran's benefits (4 percent), as did nearly three-quarters of those who had stopped working. Most common among the latter were Social

Security benefits (received by nearly 60 percent of those not working, but we no longer know which kind of Social Security benefits) and employer pension benefits (41 percent).

As seen in tables 3 and 4 (last column), men were much more likely to be receiving retirement benefits in 1994 and in 1996 than were women, regardless of employment status. One reason appears to be their superior employer pension coverage. Nearly twice the percentage of men than women reported pension benefits, both among those still working and among those no longer working. In 1994, men were also more likely to receive Social Security retirement and disability benefits, but less likely to be receiving "other" Social Security benefits.[24] Finally, the vast majority of veteran's benefits go to men.

In tables 5 through 7, we observe how benefit receipt changes with the age of the individual. As we consider those 57-59, 60 or 61, and 62 or 63 in 1994, we notice a steady progression in the receipt of one or more of these benefits, from 11 to 20 to 33 percent (bottom row, last column, working and not working combined). This occurs both because the proportions no longer working increases with age, and because receipt increases with age holding work status constant. For example, among those not working in 1994, receipt of Social Security retirement pensions increases from almost 0 to 13 percent as we move from ages 57 to 59 to ages 62 and 63, and for those no longer working, from almost 0 to 40 percent.[25] Receipt of employer pension benefits also increases with age (from 9 to 13 to 18 percent) although much more smoothly, reflecting the wide variety of eligibility ages and rules in the private sector.[26]

By 1996, we have one age cohort crossing the important age-65 threshold. As seen in the lower halves of tables 5, 6 and 7, the age patterns continue. At age 59, only 14 percent of the wave 1-3 sample was receiving one or more benefits (9 percent of those still working, and 39 percent of the minority no longer working; table 5). By ages 60 and 61, nearly a quarter were receiving benefits (16 and 50 percent; table 6), and at ages 62 to 64, 57 percent were, including 85 percent of those no longer working (table 7, middle).

Finally, among those age 65 by 1996, 80 percent were receiving one or more of these benefits, three-quarters of those still working, and well over 90 percent of those no longer employed (table 7, bottom).

It is interesting to note how frequently Americans in the process of leaving the labor market are able to combine earnings and the receipt of retirement benefits at the same time. By ages 62 to 64 in 1996, for example, 27 percent of those still employed were simultaneously receiving Social Security benefits and 18 percent (with some overlap) were receiving employer pension benefits (table 7, middle). At age 65, when half of this sample was still employed and half was not, 58 percent of the employed were receiving Social Security retirement benefits, and 27 percent were recipients of employer pension benefits. Nearly three-quarters of those still working at age 65 were receiving one or more of these benefits (table 7, bottom). This combination of retirement benefits and earnings appears to be more common in the United States than it is in many European countries (Smeeding and Quinn, 1997).

**Tables 8 and 9** show that receipt of more than one retirement income source is also common among older Americans. Among those still employed in 1994, for example, one-third of those receiving Social Security retirement benefits were also receiving employer pension benefits (23 out of 70; table 8, top), and among those not working, half of the Social Security retirement income recipients were also receiving pension benefits (44 of 88; table 8, bottom). In 1994, many respondents had pension benefits but not Social Security retirement benefits, since pension benefits are often available at an earlier age.

In 1996, the story is about the same -- one-third of the working Social Security recipients and almost one-half of the non-working recipients also receive employer pension benefits (table 9). Because of the two-year increase in the age of the sample, a higher proportion (than in 1994) of those receiving employer pensions also receive Social Security benefits (ibid.).

**Correlates of Work Status and Benefit Receipt**

In this section, we present cross-tabulations on some explanatory variables suggested by the OECD that might help explain who stops work and who does not, and who receives various types of retirement income. We have already seen in the impact of gender (modest; tables 3 and 4) and age (very important; tables 5, 6 and 7). Since these other explanatory variables are likely to be correlated, we will then turn to multivariate analysis to discern which of these variables appear to remain important when the influence of the others is considered simultaneously.

i) Health status

In the literature, health status has always been an important determinant of the individual retirement decision. Here we measure health subjectively, using the answer to a question that asks respondents to rank their health on a 5-point scale: excellent, very good, good, fair and poor.[27] We aggregated these answers into a three-point scale (excellent or very good; good; fair or poor). Since we have a sample of people who were all employed in 1992 when they gave these answers, this is a healthier than average subset of the older population. We suspect that those who answered "fair or poor" were probably healthier that those not working in 1992 who answered the same.

As expected, health appears to be important in the work decision (**table 10**). Eighty-five percent of those who described their health as excellent or very good in 1992 were still working two years later, compared to 82 percent of those in good health, and only 70 percent of those in fair or (rarely) poor health. By 1996, 73 percent of those originally in excellent or very good health were still working, compared to 66 and 55 percent of those in the other two health categories.

Holding work status constant, there was very little difference observed in either 1994 or 1996 in the receipt of one of more retirement benefits by health status. Those few who were in fair or poor health were slightly less likely to receive employer pension benefits than were those with better health, but they were slightly more likely to receive

Social Security benefits (table 10).  Remember that this is a non-representative sample of those who define their health as fair or poor, since all of them were working in 1992, and 63 percent of them were still working in 1996.

ii) Self-employment status

Considerable research has shown that self-employed and wage-and-salary workers have different transition routes into retirement.  The self-employed generally work more hours per year, and are slower to leave full-time work, career work and the labor force.[28] These differences are seen in **table 11**.  Only 15 percent of those who were self-employed in 1992 had stopped working by 1994, compared to nearly 19 percent of the wage and salary workers.  By 1996, the difference had widened to 23 versus 33 percent.

Among those who did stop working, the formerly self-employed were less likely to be receiving retirement benefits.  The reason is that the self-employed are less likely to have pension coverage than are wage-and-salary workers.  In 1996, only 18 percent of the formerly self-employed were receiving employer pension benefits, compared to 44 percent of former wage-and-salary workers.  Not surprisingly, the receipt of Social Security benefits was almost exactly the same for the two groups (nearly 60 percent).  It is interesting to note that among those still working, the receipt of pension benefits is much less common than among those no longer employed (as expected), but about the same among self-employed and wage-and-salary workers.  The explanation may be that, among the self-employed, these pension rights were earned on prior (perhaps wage-and-salary) jobs.  The pension benefits described here are not necessarily linked to the 1992 job.

iii) Part-time status

The vast majority (78 percent) of our sample worked full-time (more than 1600 hours per year) in 1992 (**table 12**).  The minority who were working part-time in 1992 were significantly more likely to stop working by 1994 (25 versus 16 percent) and by 1996 (38 versus 29 percent), suggesting that, for some, this part-time work may have been an intermediate stop on the way out of the labor market.  Of the part-timers who did stop

working, 31 percent were receiving pension benefits (probably earned on an earlier full-time job), compared to 44 percent of those who left a full-time job.

It is interesting to note that among those still working, part-timers are more likely to be receiving pension benefits while they work than are those still employed full-time. Many of these are workers who have left their career jobs, took their pensions, but continued to work part-time, usually on a new job. As noted above, the combination of earnings and retirement benefits, and the use of bridge jobs between career employment and complete labor force participation are very common in the United States.

iv) Education level

The expected impact of different education levels on retirement behavior is ambiguous. Higher educational attainment will be correlated with higher wages, which, other things equal, would suggest a higher opportunity cost of stopping work. But other things will not be equal. Those with more education are more likely to be in jobs with pension coverage and generous pension benefits (permitting them to leave the job and perhaps the labor market), but also in attractive jobs with more non-pecuniary benefits (inducing them to stay, even if they can afford to leave).

The simple cross-tabulations in **table 13** suggest that retirement rates decline with level of education. While 36 percent of those without a high school degree had stopped work by 1996, only 31 percent of those with a high school degree and only 26 percent of those with a college degree had left. The same pattern by education level is observed in 1994.

Holding work status constant, the receipt of retirement benefits generally rose with level education, because of superior pension coverage. Among those no longer working in 1996, for example, only 32 percent of those in the lowest educational group received pension benefits, compared to 38 percent of the high school graduates, and 62 percent of the college graduates. The same pattern is observed, although with smaller differences, among those still employed in 1996.

v) Pension status

Employer pensions play a very important role in the retirement decisions of many older Americans, especially those who have defined-benefit plans, which can impose significant financial penalties on workers who remain on the career job too long. In this section, we determine the pension eligibility status of our sample as of 1996, with respect to their 1992 jobs. (They might also be eligible for pension benefits from earlier jobs.) We expect that those eligible to receive defined-benefit pension income (from their 1992 jobs) by 1996 will be the most likely to have left the labor force by then, those eligible for a defined-contribution benefit the next most likely, and those not eligible (either because they do not participate in a plan, or do but have not yet reached the age of eligibility) the least likely.

In **table 14**, we find just these patterns in 1996. Of those eligible in a defined-benefit plan, 43 percent had stopped working by 1996, compared to about one-third of those with defined-contribution eligibility, and only about one-quarter of those not eligible on their 1992 jobs. Retirement income receipt is consistent. Of those eligible for pension benefits and no longer working, over 80 percent were receiving some combination of employer pension and Social Security benefits, compared to less than 25 percent of those eligible but still working. Those not eligible from their 1992 jobs were less likely to be receiving pension benefits, although some were (13 percent of those still working, and 23 percent of those no longer working), presumably from prior jobs.

vi) Marital status

Of our sample of workers, about three-quarters were married in 1992. The cross-tabulations in **table 15** suggest little or no differences in retirement behavior by marital status -- married individuals were slightly less likely to stop working by 1994 (17 versus 21 percent) and by 1996 (31 versus 33 percent). Holding work status constant, there was also very little difference by marital status in retirement income receipt in 1996 (table 13, bottom).[29]

vii) Spouse's employment status

Half of our working sample had a spouse who was also working in 1992, and the other half did not (23 percent were not married, and the others had a spouse who was not employed in 1992.)  As seen in **table 16**, spouse's employment status had only a modest effect on labor force participation at best.  Those with a working spouse in 1992 seemed to be slightly more likely to be working two and four years later -- 84 versus 80 percent in 1994, and 71 versus 67 percent in 1996 -- suggesting that spouses may try to time retirement together.

viii) Dependent children

In **table 17**, we observe that less than 10 percent of these workers had dependent children, defined here as children under the age of 18 who reside in the home.  Those who did, however, were slightly less likely to stop working by 1994 (14 versus 19 percent), or by 1996 (28 versus 33 percent).  This probably reflects the financial burdens associated with dependent children, such as anticipated college tuition payments.

ix) Home ownership

If home ownership is a proxy for wealth, and leisure is viewed as a normal good, one would expect that those who do own their home, ceteris paribus, would be more likely to be able to afford retirement.  As seen in **table 18**, however, there is no strong evidence that this is the case.  Those who did not own a home in 1992 were 4 percentage points more likely to stop working (21.6 versus 17.4 percent.)  By 1996, however, this small difference was reversed, and those with a home were slightly more likely to have stopped work.  Home ownership may be picking up the effect of correlated variables, as it can in a simple cross-tabulation.  Perhaps, for example, those who own homes are also more likely to have attractive jobs (and therefore less likely to leave) or jobs with generous pension benefits (and therefore more likely to leave.)

**Multivariate analysis**

Multinomial Logit Results

The cross-tabulations above suggest that transition probabilities out of the labor force and the receipt of particular retirement incomes do vary by demographic and economic characteristics. These simple cross-tabulations, however, reflect the impact of a particular variable, plus the impact of any other correlated variables. Multivariate statistical techniques are needed to discern the effects of each variable, holding the impacts of the other variables constant.

In this section, multinomial logit estimation is used to examine the determinants of three types of transitions for those employed in 1992:

 i) working or not working in 1996;

 ii) working full time, working part time or not working in 1996 (for the subsample working full time in 1992)

iii) working or not working and the receipt of particular retirement income sources by 1996.

We expect that both demographic variables (such as age, gender, race, health status, marital status, and education level) and economic variables (such as wage rate, wealth, self-employment status, part-time status, tenure, occupation, and spouse's wage and work status) will be significant transition determinants.

i) Employed or not employed by 1996:

By 1996, about 30 percent of those employed in 1992 had stopped working. **Table 19** shows the logit coefficients and the t-statistics of our list of explanatory variables for the decision to work or not to work in 1996. Since the magnitudes of the coefficients in table 19 have no obvious interpretation, we also calculate the marginal impact of each explanatory variable -- the change in the probability of moving from employment in 1992 to non-

employment by 1996, given a one-unit change in each in each of the explanatory variables. In this thought experiment, we hold the other explanatory variables at their sample means. For continuous variables, the marginal effects are calculated with the independent variable evaluated at its sample mean. For dichotomous variables, we change the value from zero to one.

The results are generally very reasonable. As expected, a health condition that limits the type or amount of work the individual can do significantly increases the probability (by 12 percentage points) that the person is no longer working by 1996.[30] Age is also key. Compared to those aged 65 in 1996 (the reference category), those less than 62 (and therefore younger than the earliest age of Social Security eligibility) are much less likely to have ceased employment ; that is, more likely to still be working, by about 23 points. At ages 62 to 64, the coefficient is still highly significant, but the marginal impact (again, relative to age 65) drops to -10 points. These large age differentials are consistent with aggregate labor force participation statistics, and reflect the impact of Social Security eligibility on the retirement decision.

Other things equal, women employed in 1992 were about 7 percentage points more likely to have stopped working by 1996, and men or women with dependent children (at least one under 18 at home) were about 3.5 points less likely to stop than those without dependent children. There is no evidence here of significant differences by race or marital status.

Among the economic variables, the decision to stop working by 1996 appears to be influenced modestly by home ownership. Those who own their homes are slightly more likely to stop working (by 4 percentage points), probably because they are more likely to be able to afford it. It is interesting to note that a broader measure of wealth in 1992 is statistically insignificant, as is the individual's wage on the 1992 job.[31] Years of education have a statistically significant negative effect, implying that highly educated people are more

likely to continue working.  This variable may reflect non-pecuniary aspects of the job --
highly educated individuals may be more likely to enjoy their work.

The coefficient on the spouse's labor force status in 1992 is interesting.  As noted in
the cross-tabulation above, those with working spouses are slightly less likely to retire (by 4
percentage points, according to the logit estimates), other things equal, suggesting that
spouses may tend to retire together.  On the other hand, the higher the spouse's wage, the
more likely the individual is to have stopped work by 1996 -- a typical income effect, and
one here that is almost statistically significant.

Several other aspects of the 1992 job are important.  As suggested by the literature,
the self-employed are considerable less likely to stop working -- about 9 percentage points
less at the point of means.  Those already working part time in 1992 are 10 points more
likely to have stopped, and those eligible to receive a defined-benefit employer pension are
significantly less likely to remain employed (16 points).  The coefficient for eligibility for
benefits from a defined-contribution plan is smaller (4 points) and not quite significant.[32]

Some workers would lose their employee-sponsored health insurance if they left the
firm.  Others would suffer no such loss, either because their firm offers post-retirement
health insurance, because they have coverage from some other source (for example, a
spouse's plan or (after age 65) Medicare), or because they have no employer health
insurance to lose.  Recent research suggests that the availability of health insurance can
affect the individual retirement decision (Madrian 1994; Gruber and Madrian 1995).

We have defined a dummy variable designating those who would lose health
coverage if they left the firm; i.e., they have coverage now and would have none if they left.
This turns out to be an important predictor of the employment choice.  Those who would
lose coverage are 10 points more likely to remain employed in 1996, and the coefficient is
highly significant.

Those in white collar or high-skilled blue collar jobs are slightly (3 to 5 points) more
likely to keep working than those in low-skill blue-collar jobs (the reference category),

holding other aspects of the job, including pension eligibility constant, suggesting again that the non-pecuniary aspects of employment may be important.

We also experimented with a number of specific job characteristics, including whether or not the job offered the opportunity to interact with people, to learn new things or to have friendly work mates and whether the job required physical effort. With one exception (those who interacted with people were significantly more likely to keep working until 1996; the point estimate was 5 percentage points), these coefficients were far from statistical significance. Although these variables were in the logit equation reported in table 19, the job characteristics coefficients are excluded.

Because of the special importance of health status, we experimented with three difference health specifications, all based on 1992 status:

(i) a simple dummy indicating that the respondent reports a health condition that limits the type or amount of work he or she can do (as in table 19),

(ii) a three-way variable summarizing self-reported health as either excellent or very good, good, or fair or poor (as in table 10), and

(iii) a set of dummy variables based on the respondent's self-reported ability to perform a number of daily living tasks that might be difficult for someone with a health problem.[33] Those who reported difficulties were then asked if they had a little (ANY) or a lot (LOT) of difficulty. We then created variables based on whether the respondent reported 0, 1 to 5, 6 to 10, or 11 to 17 of these problems, for both the ANY and the LOT characterization.[34]

All three specifications confirmed that health status is important, even in this subsample of relatively healthy people employed in 1992. The dichotomous specification included in table 19 suggests an increase in the probability of being out of employment by 1996 of 12 points, based on a coefficient that is highly significant. In the second specification, those with excellent or good health were 6 points less likely to leave employment by 1996 than were those in good health (the reference category), and those

with self-reported poor or fair health were 10 points more likely to leave than those with good health. Again, both of the coefficients are statistically significant. In the third specification, based on the activities of daily living (ADL), the higher the number of problems reported, the higher the probability of departure from the labor force, with four of the six coefficients statistically significant. For the ANY ADL variables, the change in probability rose from 2 points (for 1 to 5 problem areas reported) to 33 points (for 11 or more.) For the more serious indications of a LOT of difficulty, the estimates rose from 6 points (for 1 to 5 problem areas) to 41 points (for 11 or more.)

ii) Employed full time, employed part time or not employed by 1996:

Nearly 80 percent of those respondents working in 1992 were employed full time. We duplicated the equation in table 19 using this full-time subsample, and the results were almost identical, and therefore are not repeated here. In addition, however, we asked whether those working full time in 1992 were still working full time in 1996 (58 percent were), were working part time in 1996 (less than 1600 hours per year -- 12 percent were), or were not employed (the remaining 30 percent). The logit results and marginal impacts shown in **table 21** suggest that some of these explanatory variables influence not only the work/not work choice, but also the full time/part time decision. Despite some statistical significance, however, the sizes of the marginal impacts on the part-time decision are generally small.

The probability of moving to part-time work increases substantially with age. Compared to those aged 65 in 1996, those aged less than 62 (and therefore ineligible for Social Security old-age benefits) were about 8 points less likely to move to part-time status; those aged 62 to 64 in 1996 were 6 points less likely (table 21; next to last column.) Those with dependent children (and the attendant financial burdens) were more likely to remain full time (+6 points), and less likely either both to stop work (-4) or to move to part-time status

(-2). Those who owned a home were more likely to stop work (+3) or to drop to part time (+3).

We saw above that those self-employed in their 1992 jobs were more likely to keep working through 1996. The results in table 21 show that, among the full-time self-employed, this is about equally divided between remaining full-time (+7) and dropping to part-time hours (+5), an option that few wage-and-salary workers have on their career jobs. This reflects the flexibility that the self-employed have in setting their own hours.

The coefficients on the pension variables suggest that those who became eligible for defined-benefit employer pension benefits by 1996 were more likely to stop work (as we saw in table 19) and also more likely to move to part-time. This is a reasonable result. Although many pension plans encourage workers to leave the firm at a particular age, few have any restrictions on subsequent employment elsewhere, which is often part time. The estimate of the marginal impact, however, suggests that this effect, even if statistically significant, is small (about 1 percentage point.) The same can be said for the health insurance variable. Losing health insurance with departure from the 1992 job decreases both the probability of leaving employment altogether (-10 points) and the probability of moving to another job part-time (-2 points.)

The occupational coefficients indicate that the groups most likely to move to part-time status are those at the ends of the socio-economic scale -- high-skilled, white-collar workers, and low-skilled blue-collar workers. These may be those who want to and have to continue working, respectively.

iii) <u>Employment status and receipt of particular retirement income sources by 1996</u>: In this section, we combine labor supply decision with the receipt of specific retirement income sources, analyze the transitions of all those employed in 1992 into five exhaustive and mutually exhaustive states:

1) still working in 1996 (69%);

2) not working in 1996, and receiving Social Security but not pension benefits (10%);

3) not working in 1996, and receiving pension but not Social Security benefits (4%);

4) not working in 1996, and receiving both Social Security and pension benefits (8%);

5) not working in 1996, and receiving neither pension nor Social Security benefits (9%).

The parameters of the model were estimated such that the comparison group contains those individuals who were still working in 1996 (state 1); the logit coefficients then reflect the probability of being in one of the other (non-working) transition states (2 through 5), relative to state 1.

Coefficient estimates and t-statistics are found in **table 22** for the four alternative states (2 through 5), with the marginal impacts (which sum to 1) for all 5 states in **table 23**. Significant determinants of these transitions include health status, age, gender, education level, pension eligibility, and self-employed status, part-time status and occupation and industry on the 1992 job. These results are discussed below.

Health played an important role in determining if a transition occurred. Those with a health condition limiting the type or amount of work they can do were more likely to be in all of these "not-employed" states -- all four coefficients are positive, and three of the four are significantly so.[35] The marginal impacts suggest that those in poor health were not much more likely to be receiving a pension, but rather to be receiving Social Security alone or neither Social Security nor a pension.

As expected, age is also an important determinant of these transitions, although the relationships are complicated because of the two dimensions (working versus no working, and receipt of certain income sources) that are combined in these transitions states. Younger individuals (less than 62 in 1996, and therefore ineligible for Social Security old-age benefits) were significantly more likely to be working in 1996, and if they did stop working, they were less likely to be receiving Social Security benefits, either alone (state 2)

or with a pension (state 4).  For states 3 and 5, in contrast, the coefficients for the younger ages are positive, not because younger people are more likely to have stopped working, but because of those who have, the younger ones are more likely to be receiving no retirement benefits or employer pension benefits only.  The latter reflects the diversity of eligibility ages in employer pension plans.

 The gender coefficients are sensible, given the lower pension coverage rates of women in the United States.  Of those in the sample who were no longer employed in 1996 (states 2 through 5), women were significantly more likely to be receiving either no retirement benefits (+4 percentage points; table 23, column 5) or Social Security benefits alone (+4; table 23, column 2).  The coefficients for the two "pension" states were negative, although not statistically significant (table 22, columns 3 and 4.)  These gender coefficients reflect that near universality of Social Security coverage (in contrast to employer pensions), and the fact that some of these Social Security benefits may be survivor benefits, the majority of which go to women.

Race, marital status, and the presence of a child at home under the age of 18 were generally not significant determinants of the retirement income transitions examined in this model.

Among the economic determinants, pension eligibility plays an obvious role, again with larger impacts for defined-benefit eligibility.  Those who became eligible to receive defined-benefit income by 1996 were significantly less likely to remain working (-12 points; table 23, last column), and more likely to retire with either pension alone (+5) or with a pension and Social Security benefits (+7).  The magnitudes are smaller and less significant for defined-contribution plans.

The self-employed are less likely to be in any of the retirement states (over 7 percentage points more likely to be working in 1996), with all of the coefficients either significant or nearly so.  Part-time workers in 1992 are more likely than full-time employees to be in all of the 1996 retirement states, and all of the coefficients are statistically

significant. The receipt of pension benefits by these part-time workers suggests that many were former full-time employees, who had already begun the withdrawal process by 1992 by moving to bridge jobs.

Surprisingly, wages and wealth in 1992 were generally not significant in these transition equations, nor were the work characteristics of the spouse. Spouse's work status in 1992 was insignificant in all the state equations.

## Conclusions

As is the case for most industrialized nations, the United States has enjoyed a long, steady post-war decline in male retirement ages, the result of increasing national wealth and the desire to spend some of it on increased leisure late in life. The combination of this early retirement trend, increased life expectancy and the dramatic aging of the U.S. population expected early next century, however, has given Americans pause, and prompted questions about the ability of the nation to support an increasing number of retirees.

The United States has initiated a number of policy initiatives designed to counteract the early retirement trend, and to encourage older workers to remain in the labor force. Mandatory retirement was first delayed from age 65 to age 70, and then eliminated altogether for the vast majority of American workers. Social Security rules are being changed to eliminate financial incentives that used to penalize those who stayed at work too long, and the age of eligibility for normal Social Security retirement benefits is about to increase from 65 to 66, and then to 67. In the private sector, the importance of defined-contribution employer pension plans is increasing. Defined-contribution plans do not have the strong age-specific retirement incentives that many of the traditional defined-benefit plans do. Finally, a vibrant American economy and strong demand for labor has broadened the options of older workers who want to remain employed.

The net result of these factors -- proactive policy change and a strong economy -- has been the demise of the post-war early retirement trend in the United States. After

decades of decline, the labor force participation rates of older Americans have been flat or increasing since 1985.   Many more older citizens are employed today than the pre-1985 trends would have predicted.

In this paper, we used the first three waves (1992, 1994 and 1996) of the new Health and Retirement Survey (HRS) to analyze the correlates of retirement in the United States, as well as the receipt of certain important sources of retirement income.  Our primary sample consists of about 3,200 men and women who were aged 55 to 61 and working during the initial survey (1992), and who were re-interviewed in waves 2 and 3.

By 1996, four years later, nearly one-third of this working population had left the labor force, slightly higher for women than for men.  As expected, there were important differences in the retirement rates by age, with significant jumps at key ages in Social Security and employer pension rules (60, 62 and 65.)

The most important income sources for those who left the labor force were Social Security and employer pension benefits.  We noted, however, that these income sources were also important (although less so) for older Americans who continued to work. (Among those aged 62 to 64 and still employed in 1996, for example, more than a quarter were receiving Social Security benefits and nearly one-fifth were receiving employer pension benefits.  At age 65, nearly 60 percent of the employed were Social Security beneficiaries, and over one-quarter were receiving employer pension benefits.)  Many elderly in the United States combine earnings and "retirement" benefits, and those who do so are unlikely to be poor.  Unlike in many European nations, workers' compensation benefits, unemployment insurance benefits and welfare payments (e.g., Supplemental Security Income) are inconsequential in the aggregate income of the elderly, retired or otherwise.

In the multivariate section of the report, using our sample of individuals employed in 1992, we analyzed a dichotomous retirement decision (in or out of employment in 1996), a trichotomous labor supply decision (working full time, working part time, or not

working in 1996) and a five-way decision model involving labor supply and the receipt of Social Security and/or employer pension benefits in 1996.

Many of the variables highlighted in the OECD work-plan turned out to be very important correlates of the labor supply decisions of the elderly, both in the simple cross-tabulations and in the multivariate logit equations. For example, fair or poor health, or the presence of a health condition that limited the type or amount of work a person could do, were highly correlated with labor force departure, as was age. Gender had a modest effect on the probability of retirement, with women slightly more likely to leave the labor force, other things equal. Self-employed workers were less likely to stop working than were wage and salary employees, and those already working part time in 1992 were more likely than full-time workers to leave employment completely by 1996. This suggests that some workers may use a stint of part-time employment (a bridge job) between full-time career jobs and complete labor force withdrawal. Although this phenomenon is not the focus of this research, there is a large literature in the United States that indicates that these non-traditional labor market exit routes are very important.

Several financial factors also appear to be influential. Home owners were more likely to retire, ceteris paribus, and those with dependent children were less so. Those with working spouses were less likely to stop working (suggesting that some spouses may want to coordinate their retirement decisions), but among those with working spouses, the higher the spouse's wage, the higher was the probability of retirement -- a traditional income effect. Both pension eligibility (especially for a defined-benefit pension, the type that often contains strong age-specific financial incentives to retire) and the availability of post-retirement health insurance influenced the decision to retire.

Many of the same factors were important in the three-way analysis, which focused on the 80 percent of the individuals in the sample who were working full time in 1992. In this analysis, we differentiated between full-time work, part-time work and no work in 1996. The probability of working part time increased with age, home ownership and

wealth, and eligibility for defined-benefit pension benefits, and declined with the presence of dependent children and the loss of health insurance with departure from the 1992 job. The pension result is particularly interesting, since many defined-benefit pensions discourage work on that specific job after a particular year, but do not penalize those who choose to continue working elsewhere. Many Americans switch to new part-time jobs when their pension incentives dictate. However, while these effects were often significantly different from zero, they were usually small. Our models are better able to predict the work vs. no work decision than the decision to work full-time vs. part-time.

In the final section, we asked what determined the receipt of Social Security benefits, employer pension benefits, both or neither, for those who were out of the labor force in 1996. The comparison group is those who were still working in 1996.

Again, many of same variables were significant, and in the expected directions. Health played an important role in predicting transitions. Those with poor health were more likely to be in all of the "not-employed" states, but were not more likely to be receiving a pension. Younger individuals were more likely to remain working in 1996 (the comparison category), and if they did stop working, they were less likely to be receiving Social Security benefits. Women and the self-employed who had left the labor force were less likely than men to be receiving pension benefits -- no surprise given the lower pension coverage of these groups in the United States.

The United States provides an interesting case study. Its long trend toward earlier and earlier retirement ended in 1985, and the labor force participation rates of older workers have actually increased somewhat since then. It is not known how much of this is due to specific policy initiatives and how much to the strength of the overall economy. The microeconomic analysis in this paper shows that individual retirement decisions are not random, but rather depend on the variables that economic theory (and common sense) would indicate. Some of these variables can be altered by public policy, suggesting that future retirement trends, like those in the past, are not immutable.

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Quinn, Joseph F., Richard V. Burkhauser and Daniel A. Myers, <u>Passing the Torch: The Influence of Economic Incentives on Work and Retirement</u>.  Kalamazoo, MI: W. E. Upjohn Institute for Employment Research, 1990.

Smeeding, Timothy M. and Joseph F. Quinn, "Cross-National Patterns of Labor Force Withdrawal," Boston College Department of Economics Working Paper No. 371, August, 1997.

Social Security Administration, <u>Annual Statistical Supplement, 1996</u>.  Washington, DC: U.S. Government Printing Office, 1996.

Prior to these changes, mandatory retirement rules covered about half of the American workforce. Many of those covered faced strong financial incentives to retire at the same time that the mandatory retirement provisions applied, because of the benefit calculation rules of their defined benefit employer pension plans. Because these incentives remained in effect after the mandatory retirement rules disappeared, we argued that the aggregate impact of this policy change would be modest, and estimated that at least half of what looked like a mandatory retirement effect was actually due to the concurrent financial incentives (Burkhauser and Quinn, 1983). Our research, however, did not consider the longer run impacts of a societal message that working longer is acceptable or even encouraged.

[1] Historically, those who delayed benefits past age 65 could expect to receive less in lifetime Social Security benefits than they would have received had they first claimed them at or before 65. Although future monthly benefits did increase because of the delay, they did not increase enough to compensate for the benefits initially foregone. See Quinn and Burkhauser (1994) or Quadagno and Quinn (1997) for more details.

[2] These figures are taken from Quinn (1997).

[3] See Burkhauser and Quinn (1997) for a more thorough discussion of these trends.

[4] Since 1965, Social Security (Old Age, Survivors, Disability and Health Insurance) has included Medicare -- a highly subsidized health insurance program for those aged 65 and over. This is financed by an additional tax of 2.9 percent (split between the employee and employer) on all earnings, with no cap.

[5] The formula that determines the Primary Insurance Amount (the retirement benefit received by a worker who first claims benefits at age 65) imparts considerable progressivity into the system. Once a worker's average indexed monthly earnings (AIME) has been calculated, the PIA equals 90 percent of the first $437 of AIME, plus 32 percent of the AIME between $437 and $2,635, plus 15 percent of any AIME over $2,635. The replacement rate, therefore, is higher for workers with lower earnings histories.
These are the rules for 1996. The "bend points" ($437 and $2,635) change each year. For more detail, see Social Security Administration (1996), pp. 56-59.

[6] For more detail on this literature, see Quinn and Burkhauser (1994) or Quadagno and Quinn (1997).

[7] These and other Social Security rules are detailed in the Social Security Administration's Annual Statistical Supplement.

[8] Note that Social Security is not means-tested. Social Security benefits are unaffected by non-wage income. Since it is designed as a retirement program, the rules require that one be 'retired,' which here means earning less than some specific amount.

[9] Although these two changes are almost identical, the political spin is very different. In the case of an explicit benefit cut, it appears that the benefit amount was thought to be "too high." With a delay in the normal retirement age, however, the benefit amount appears correct, while the appropriate age of receipt is wrong. For many, this is a more palatable message, especially when life expectancies are increasing.

[10] Rather than requiring a full 40 quarters of coverage, disability coverage requires a number of quarters determined by one's current age, with at least 20 of those quarters of coverage earned during the 10 years prior to the onset of disability. For those disabled prior to age 31, eligibility requires only half as many quarters of coverage as have elapsed since age 21 (and a minimum of six.) See U.S. House of Representatives (1994), section 2, for more detail on the Social Security disability insurance program.

[11] Here is a case where the two policies described in footnote 9 are different. An explicit across-the-board benefit cut would lower everyone's PIA, and therefore the benefits received by the disabled. A two-year delay in the age of normal retirement leaves the PIA (and therefore the benefits of the disabled) unchanged.

[12] For a fuller discussion of Social Security disability policy in the U.S., in the context of European disability policies, see Aarts, Burkhauser and deJong (1996).

[13] When all civilian workers are included, the pension participation rate was 44 percent in 1993, down from 46 percent in 1979 (EBRI, 1994, table 1.)

[14] For example, Burkhauser, Couch and Phillips (1996) found that almost two-thirds of men who claimed early Social Security retirement benefits at age in 1992 and 1994 also received employer pension income.

[15] For extensive detail on the Retirement History Survey, see Burkhauser and Gertler (1995). This special issue of the Journal of Human Resources contains an introduction and 10 articles on the major topics addressed by the HRS, data quality, and some preliminary applications and research results.

[16] The attritions are because of death, refusal to be reinterviewed, or an inability to contact an individual. In addition, there were about 100 individuals who did not participate in the first wave but did appear in the second wave. The HRS did not add to the initial core sample between the 1992 and 1994 period; rather, these individuals entered as spouses or partners of respondents in the core sample.

[17] For more detail on these 51 individual state programs (including the District of Columbia), see U.S. House of Representatives, 1994, pp. 847-850.

[18] Veterans' benefits include veterans' compensation (disability benefits to those who were injured while serving in the armed services) and veteran's pensions (means-tested cash benefits paid to war veterans who became permanently and totally disabled from non-service related causes. See U.S. House of Representatives, 1994, pp. 844-845.

[19] Social Security survivors' benefits are paid to certain survivors of insured workers, including children age 18 (if in school) or younger, a spouse caring for a child under 16, or a spouse aged 60 or older. See U.S. House of Representatives, 1994, p. 5-7.

[20] The number of respondents in these three age categories (57-59, 60-61 and 62-63) are not exactly the same as the numbers two years younger in 1992 (see Table 1). The reason is that people are not reinterviewed on the same day of the year, so that one's chronological age could be 1 or 3 years more on the interview day in 1994 than it was in 1992. The ages in Tables 5, 6 and 7 are the ages at the time of the 1994 interview, not the 1992 age plus 2.

[21] In particular, there were only 3, 5 and 7 individuals reporting receipt of workers'

compensation benefits, unemployment insurance benefits and Supplemental Security Income at the time of the survey in 1994, respectively.  The retirement income source information is based on questions that ask whether the respondent currently receives income from a given source.

[22] Unemployment compensation in the United States is a joint Federal-state program.  The rules and regulations concerning eligibility and benefit levels vary by state.  Regular state programs provide benefits for only 26 weeks, although they can be extended for another 13 weeks in states with sufficiently high unemployment rates.  On occasion, temporary programs have extended benefits even further (Committee  on Ways and Means, 1994:274-275).

[23] As noted above, under certain conditions, disabled beneficiaries can retain their benefits while working during a trial re-entry period.  Unlike in many European countries, however, the U.S. disability program offers no partial benefits.  State-run workers' compensation programs do provide partial benefits, but only to those whose disabilities arise from a work-place event.

[24] These are survivors benefits, which nearly always go to widows; only 2 of the 54 recipients are men.

[25] Given the Social Security eligibility rules, there should be no one reporting Social Security retirement benefits before age 62.  There are almost no reports of retirement benefits at ages 57 through 59 (only 5 persons; table 5), but 34 curious reports of Social Security retirement benefits at ages 60 and 61 (table 6), which may reflect mislabeling of disability benefits on the part of the respondent or measurement error on age.

[26] When we disaggregated by work status, gender and age (not shown), we found that the large difference in retirement income receipt by gender observed in Tables 3 and 4 was seen again at ages 58-59 and, to a lesser extent, at ages 60-61, but by age 62, the gender differences had nearly disappeared.  Altogether, 34 percent of the men aged 62 or 63 were receiving benefits in 1994 (26 percent of those still working and 53 percent of those not working) compared to 32 percent of women (24 percent of those still working and 49 percent of those not working.)

[27] In the multivariate work below, we experiment with three different health measures, including this one.

[28] For more detail on the retirement patterns of self-employed versus wage-and-salary workers, see Quinn, Burkhauser and Myers (1990), chapters 5 and 6.

[29] In the 1994 data, when the sample was aged 57 to 63, married people who had stopped working were less likely to be receiving retirement benefits (Social Security and employer pensions) than were nonmarried retirees (table 13, top).  There may be a gender issue here. Married women may be retiring disproportionately, relying on the earnings or retirement income of their husbands, which would not show up in this table.  Two years later, more of these women would have been eligible for their own Social Security benefits, and the difference disappears.

[30] We find similar results with two others measures of health status.  These results are discussed below.

[31]  This wealth variable excludes the value of the individual's home.  It includes the value of

other real estate and property, stocks, bonds, checking and savings accounts and other assets (excluding life insurance.)

Wage rates are often found to be insignificant in retirement equations. One plausible hypothesis is that the wage rate is picking up its own effect (high wage people are more likely to keep working) and the impact of the generosity of retirement benefits (which are positively correlated with the wage rate and which would induce workers out of the labor force, other things equal.) When direct measures of the size of potential employer pension benefits are unavailable, the two effects may cancel out. See Quinn, Burkhauser and Myers (1990), p. 65.

[32] When the pension eligibility variable is entered as a single dummy, without the defined-benefit versus defined-contribution distinction, the coefficient is large (12 points) and highly significant. The disaggregation in table 19 suggests that most of the effect is from the defined-benefit subset -- those likely to suffer an surreptitious pay cut if they remain on their current jobs past the age of eligibility.

[33] Tasks included the ability to run or jog a mile, sit for two hours, climb several flights of stairs, lift or carry weights over 10 pounds, pick up a dime from a table, dress, eat or bathe without help, and pull or push large objects like a living room chair. There were 17 tasks in all.

[34] About a quarter (23 percent) of the sample who were employed in wave I and who were interviewed in all three waves reported that they had no difficulty in performing any of the 17 tasks. Another 65 percent reported some difficulty with 1 to 5 of the tasks, and much smaller percentages reported difficulty with 6 to 10 (10 percent) and 11 or more tasks (2 percent.) More than half (54 percent) reported that they did not have a lot of difficulty with any of the tasks, and smaller percentages than above reported a lot of difficulty with 1 to 5 (43 percent), 6 to 10 (3 percent) and 11 or more (0.4 percent) of the tasks.

[35] It should be remembered that the true impact of health on the retirement decision is undoubtedly greater than is observed here, since the sample for this study consists of individuals working in 1992. Even if these individuals indicated poor health in 1992, this health condition did not prevent them from working then. Had health in 1992 been sufficiently poor to prevent them from working, they would not have been part of our sample.

**Figure 1**

Labor Force Participation Rates
Males, Age 55-59
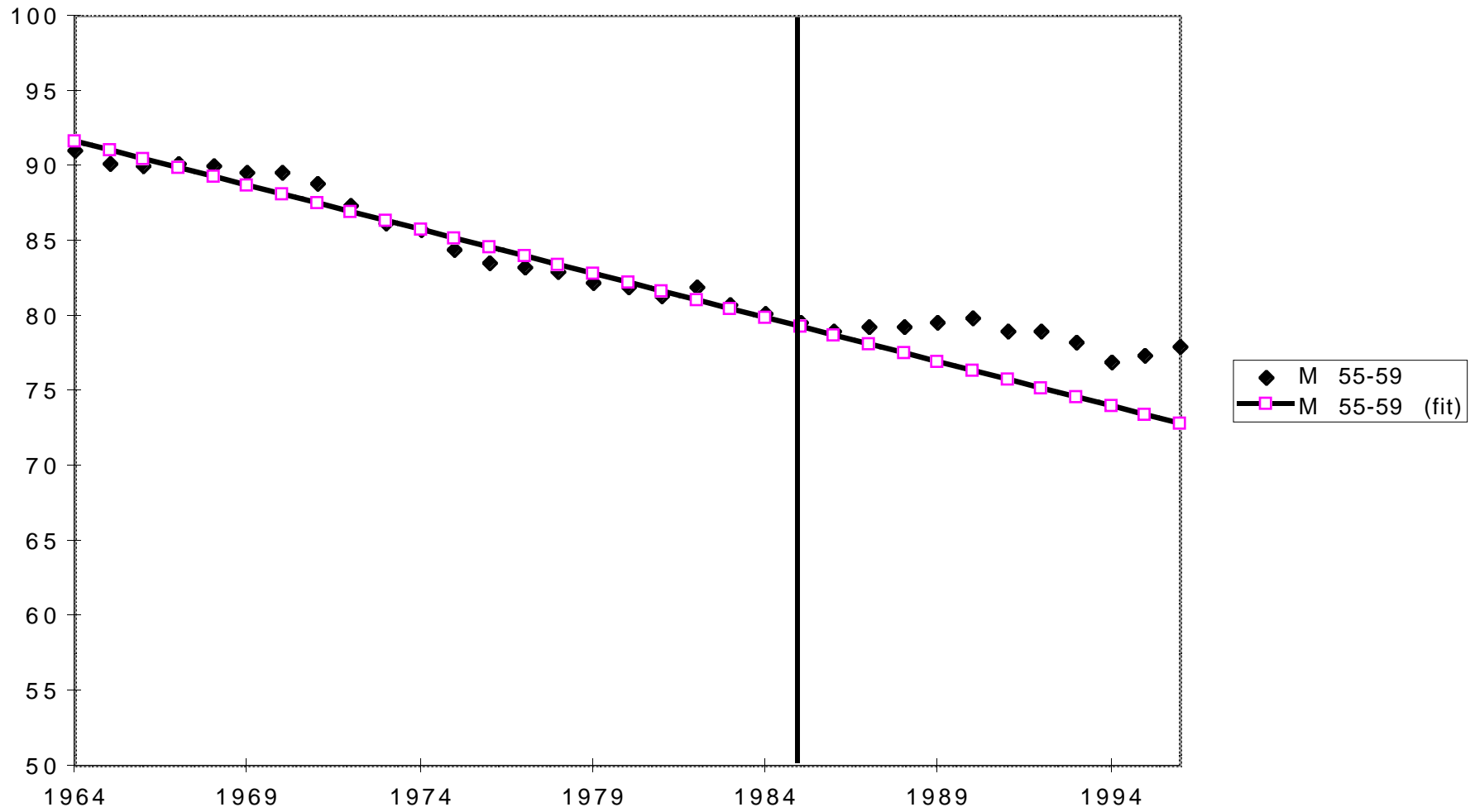
Figure 1 (cont.)

**Labor Force Participation Rates**
**Males, Age 60-64**
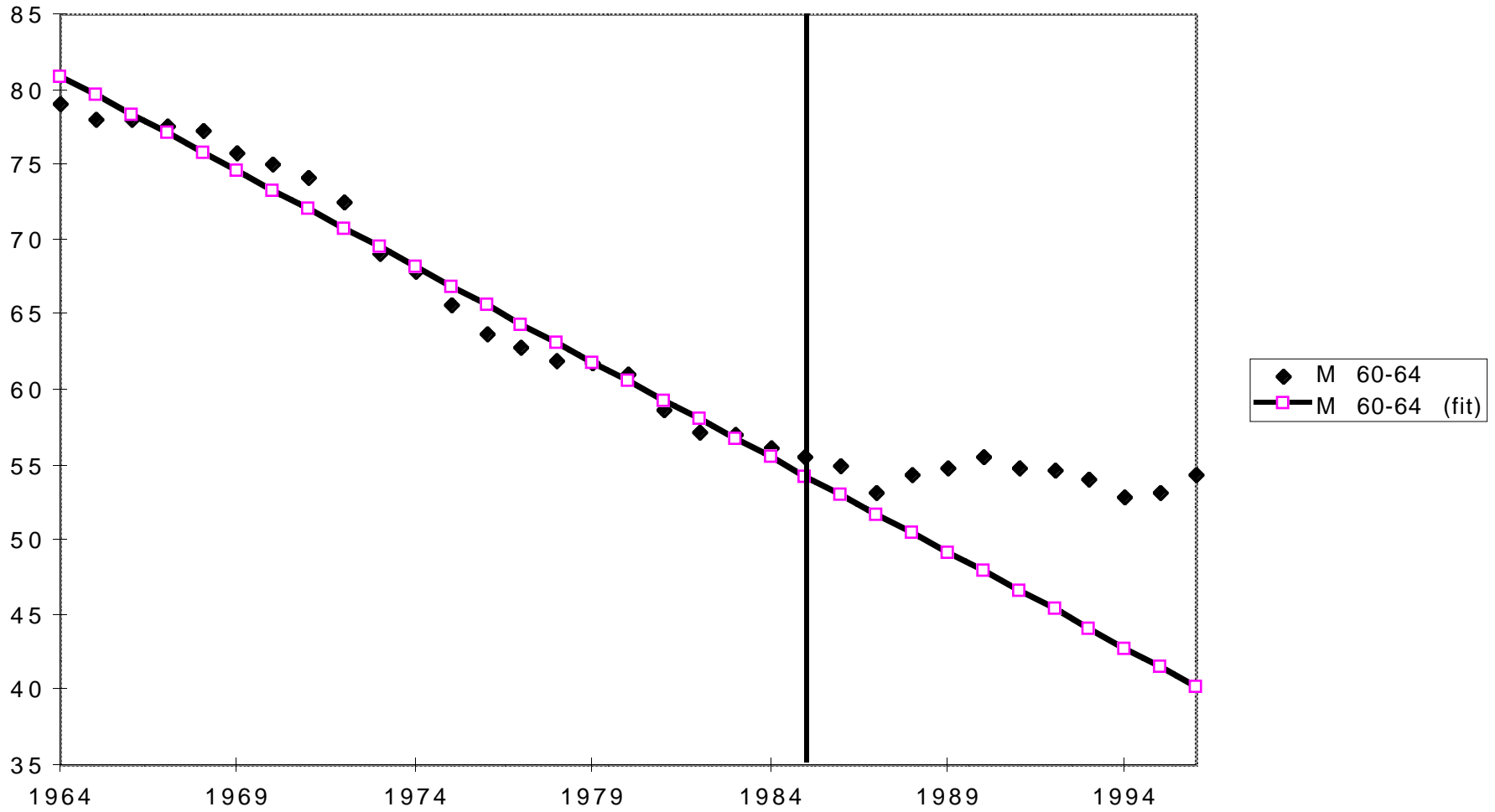
Figure 1 (cont.)

**Labor Force Participation Rates**
**Males, Age 65-69**
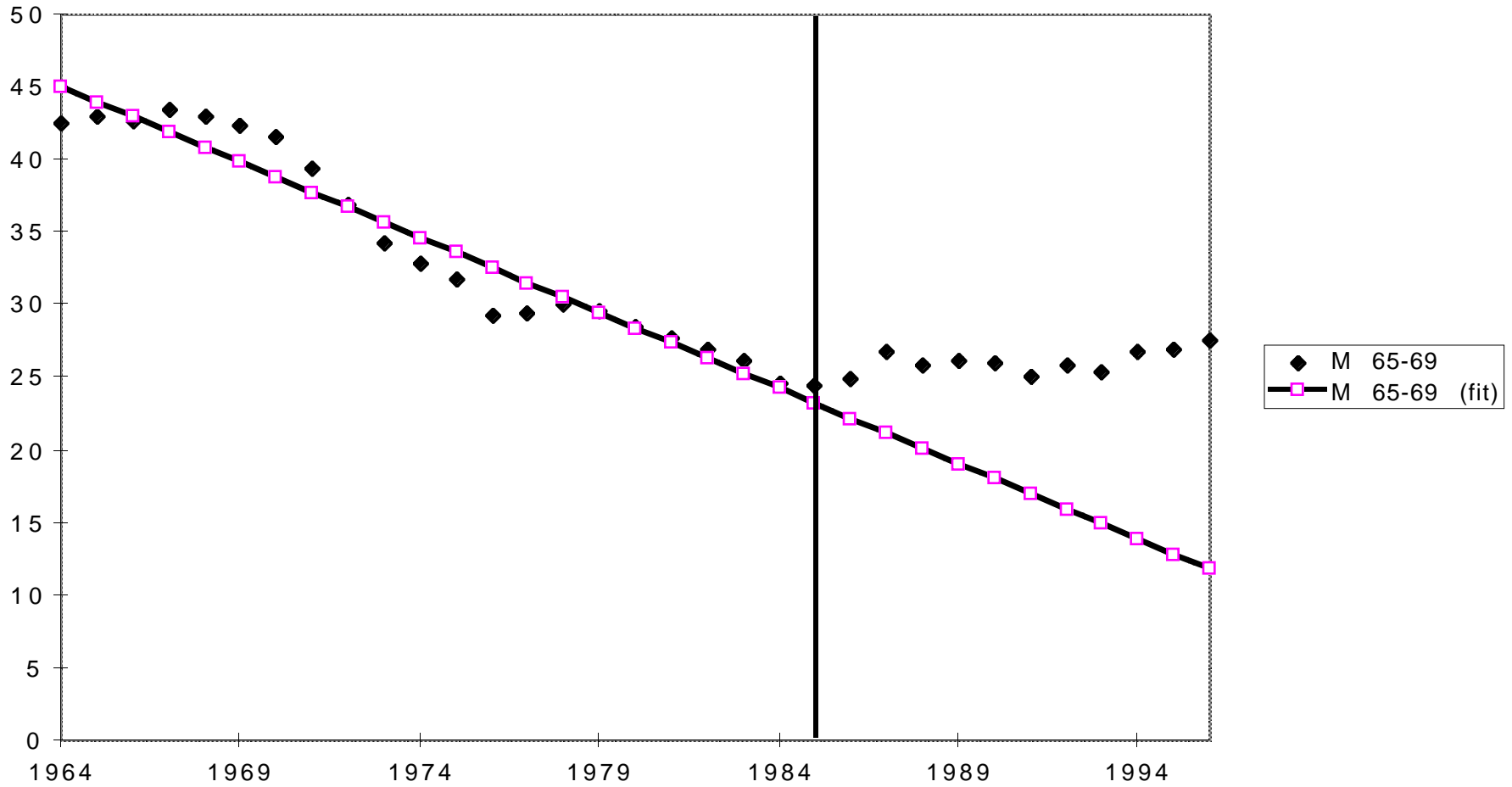
Figure 1 (cont.)



**Labor Force Participation Rates**
**Males, Age 70+**
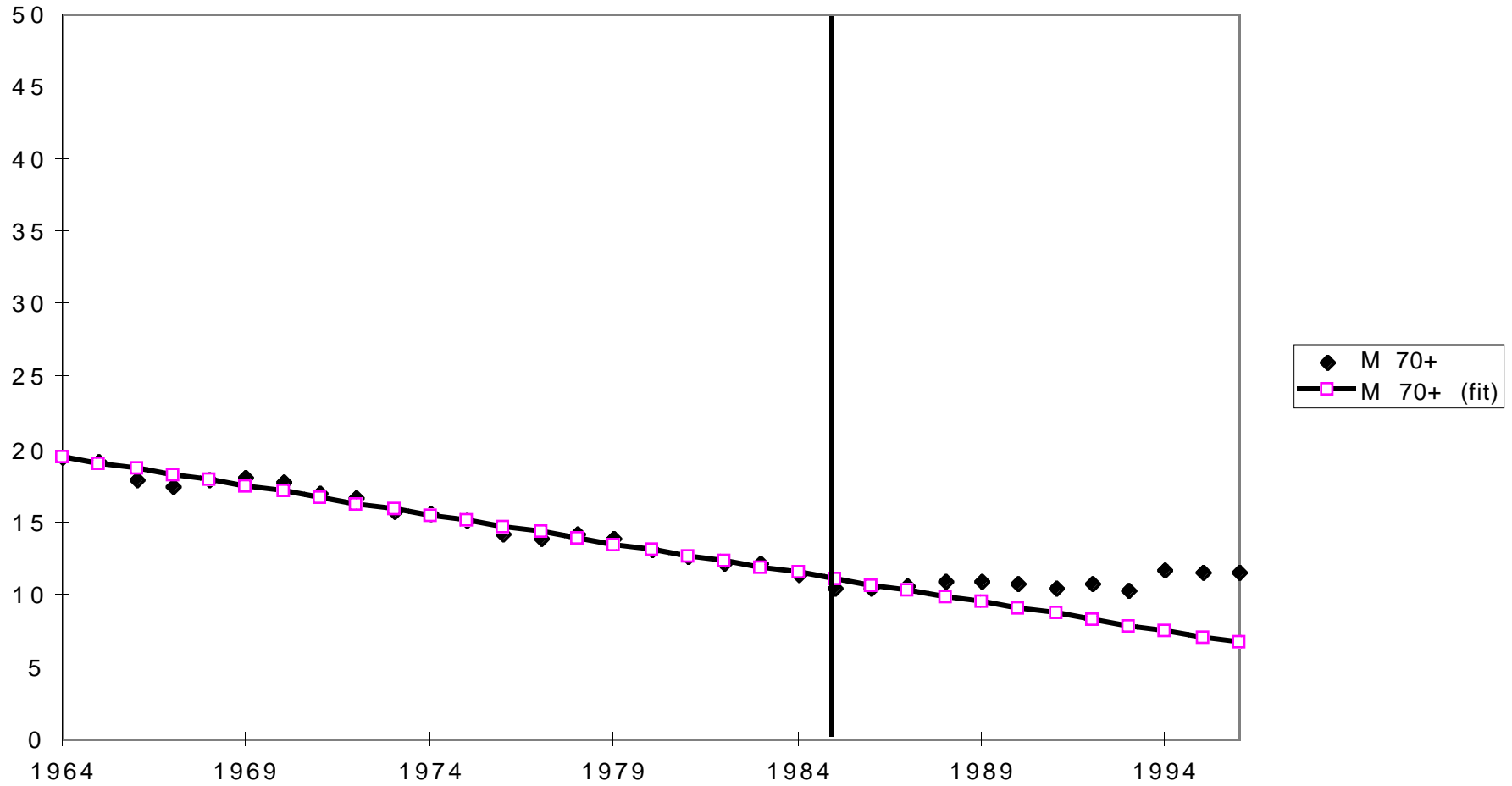
# Figure 2

## Labor Force Participation Rates
## Females, Age 55-59
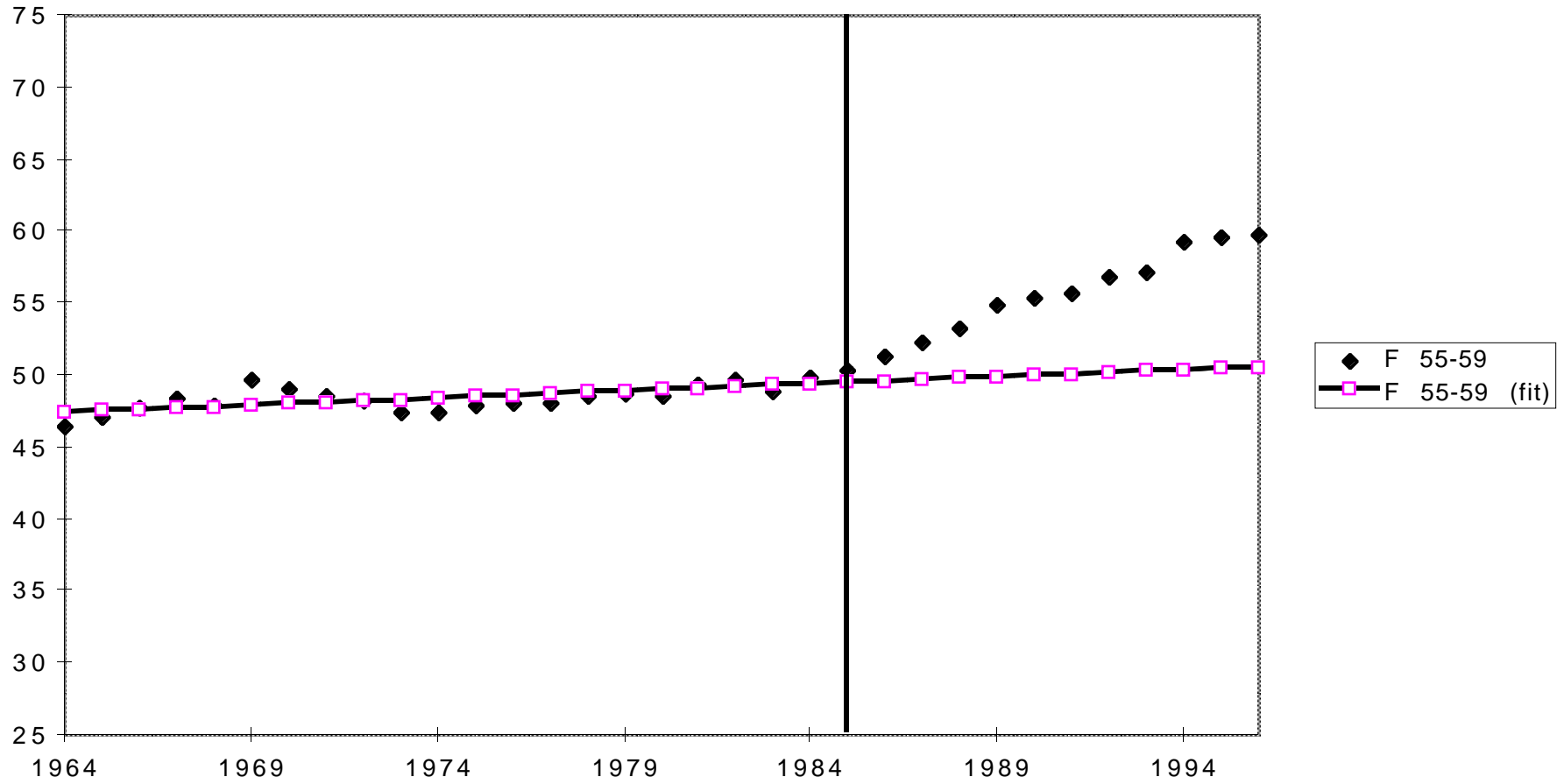
# Labor Force Participation Rates
## Females, Age 60-64



Legend:
- ◆ F 60-64
- ☐ F 60-64 (fit)
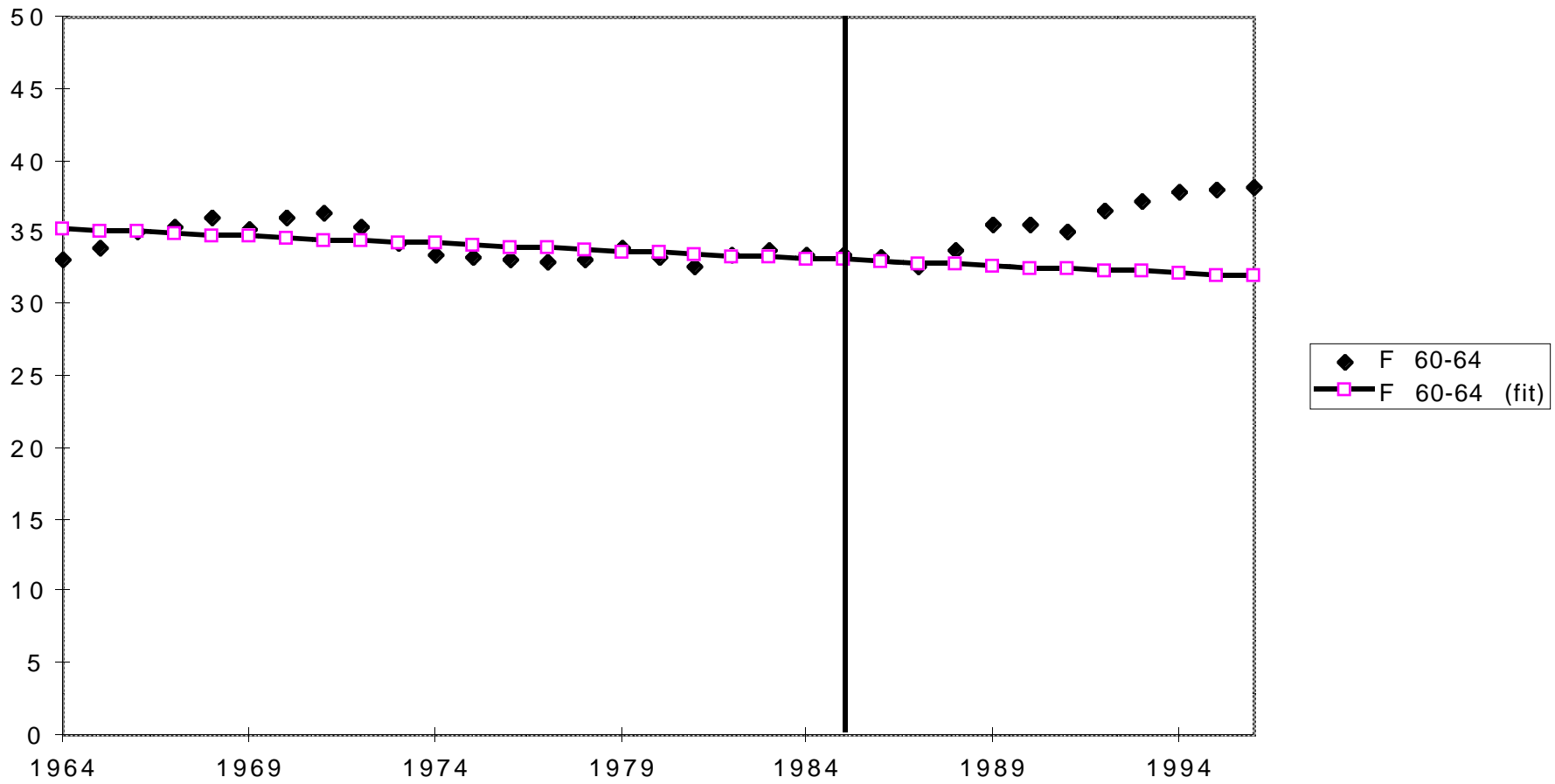
# Labor Force Participation Rates
## Females,  Age  65-69
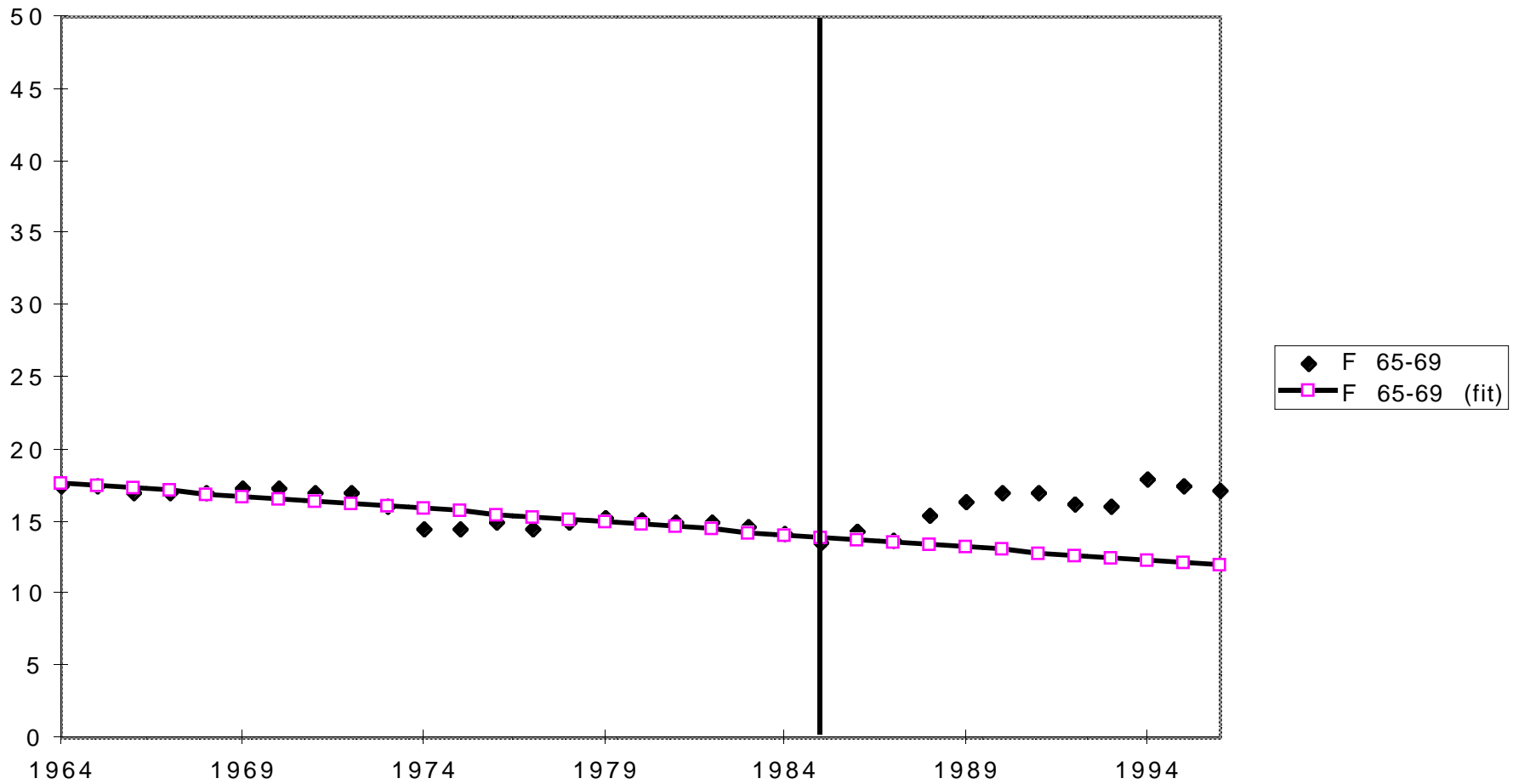
# Labor Force Participation Rates
## Females, Age 70+



Legend:
- ◆ F 70+
- □ F 70+ (fit)
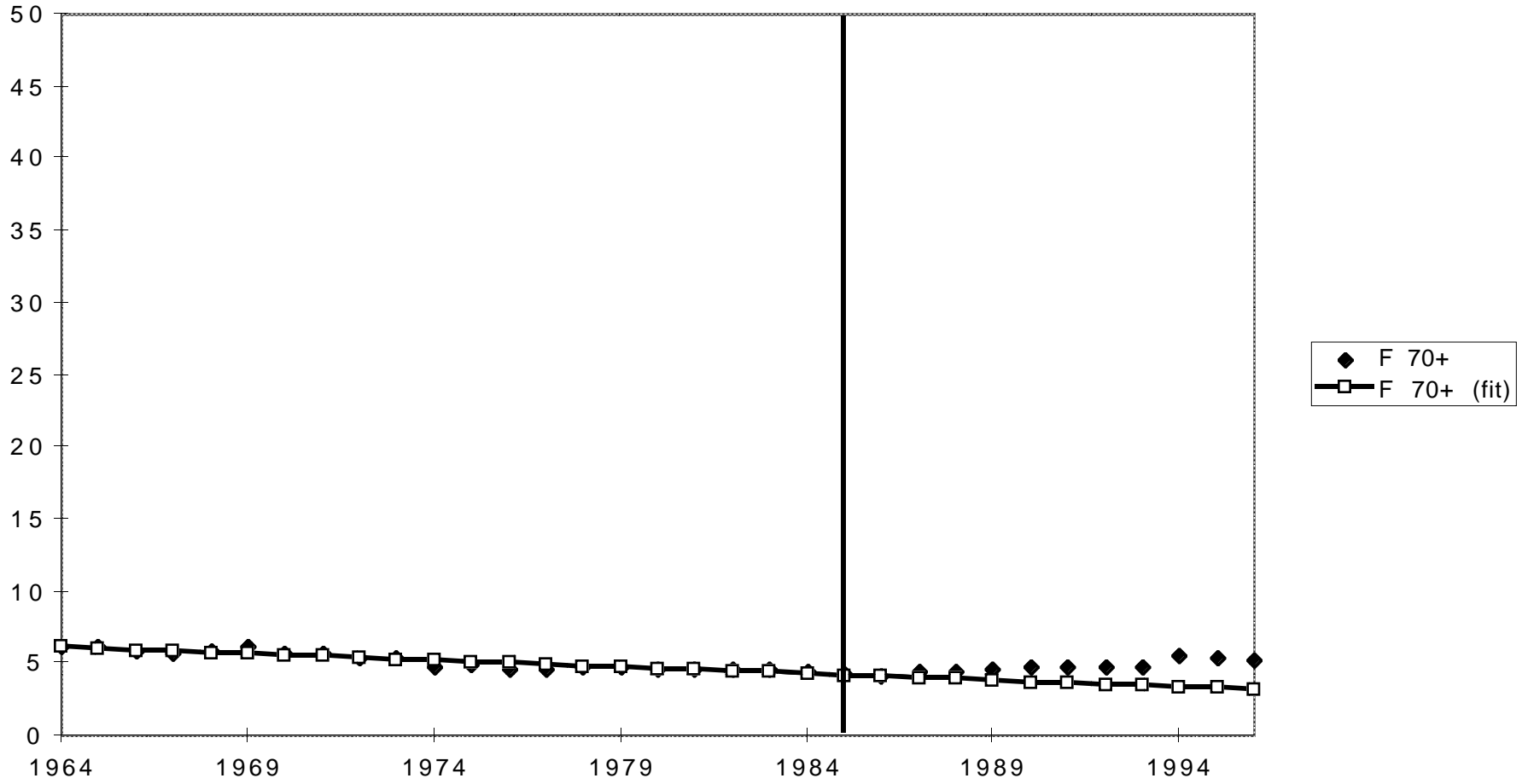
# Income Shares for Aged Units Age 65 or Older, 1994

Other
4%

Income from Assets
18%

Social Security
41%

Employer Pensions
19%

Earnings
18%
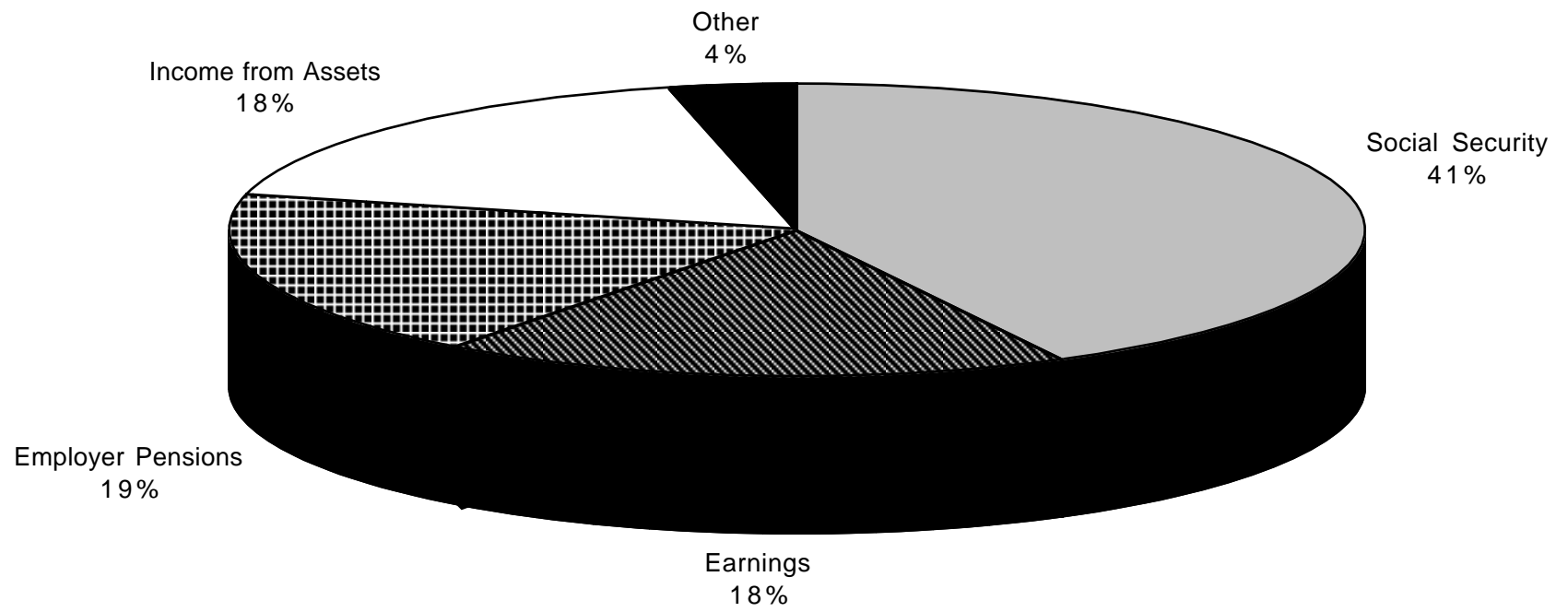
Table 1
Derivation of Sample of Those In Waves 1, 2, and 3
Aged 55-61 and Working in 1992

**Age in 1992**

| | Less than 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 + | Total (55-61) | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In Wave 1 | 5318 | 952 | 881 | 865 | 891 | 793 | 858 | 778 | 1316 | 6018 | 12652 |
| | (42%) | (8%) | (7%) | (7%) | (7%) | (6%) | (7%) | (6%) | (10%) | | (100%) |
| In Waves 1 & 2 | 4849 | 861 | 806 | 793 | 810 | 716 | 787 | 712 | 1158 | 5485 | 11492 |
| | (42%) | (7%) | (7%) | (7%) | (7%) | (6%) | (7%) | (6%) | (10%) | | (100%) |
| In Waves 1, 2 & 3 | 4404 | 766 | 735 | 716 | 732 | 638 | 697 | 638 | 990 | 4922 | 10316 |
| | 43% | (7%) | (7%) | (7%) | (7%) | (6%) | (7%) | (6%) | (10%) | | (100%) |
| **In Waves 1 & 2** | | | | | | | | | | | |
| Not Working in Wave 1 | 1222 | 255 | 245 | 256 | 289 | 251 | 319 | 307 | 685 | 1922 | 3829 |
| | (32%) | (7%) | (6%) | (7%) | (8%) | (7%) | (8%) | (8%) | (18%) | (50%) | (100%) |
| Working in Wave 1 | 3627 | 606 | 561 | 537 | 521 | 465 | 468 | 405 | 473 | 3563 | 7663 |
| | (47%) | (8%) | (7%) | (7%) | (7%) | (6%) | (6%) | (5%) | (6%) | (46%) | (100%) |
| Percent Working | (75%) | (70%) | (70%) | (68%) | (64%) | (65%) | (59%) | (57%) | (41%) | (65%) | (67%) |
| **Of Those In Waves 1 and 2 And Working in 1992** | | | | | | | | | | | |
| Males | 1484 | 303 | 302 | 301 | 274 | 240 | 257 | 223 | 407 | 1900 | 3791 |
| | 39% | 8% | 8% | 8% | 7% | 6% | 7% | 6% | 11% | 50% | 100% |
| Females | 2143 | 303 | 259 | 236 | 247 | 225 | 211 | 182 | 66 | 1663 | 3872 |
| | 55% | 8% | 7% | 6% | 6% | 6% | 5% | 5% | 2% | 44% | 100% |
| **In Waves 1, 2 & 3** | | | | | | | | | | | |
| Not Working in Wave 1 | 1072 | 222 | 219 | 229 | 250 | 218 | 275 | 267 | 572 | 1680 | 3324 |
| | (32%) | (7%) | (7%) | (7%) | (8%) | (7%) | (8%) | (8%) | (17%) | (50%) | (100%) |
| Working in Wave 1 | 3332 | 544 | 516 | 487 | 482 | 420 | 422 | 371 | 418 | 3242 | 6992 |
| | (48%) | (8%) | (7%) | (7%) | (7%) | (6%) | (6%) | (5%) | (6%) | (46%) | (100%) |
| Percent Working | (76%) | (71%) | (70%) | (68%) | (66%) | (66%) | (61%) | (58%) | (42%) | (66%) | (68%) |
| **Of These In Waves 1, 2 and 3 And Working in 1992** | | | | | | | | | | | |
| Males | 1347 | 274 | 268 | 265 | 257 | 214 | 229 | 204 | 359 | 1711 | 3417 |
| | (39%) | (8%) | (8%) | (8%) | (8%) | (6%) | (7%) | (6%) | (11%) | (50%) | (100%) |
| Females | 1985 | 270 | 248 | 222 | 225 | 206 | 193 | 167 | 59 | 1531 | 3575 |
| | (56%) | (8%) | (7%) | (6%) | (6%) | (6%) | (5%) | (5%) | (2%) | (42%) | (100%) |

Source:  HRS, Waves 1,2, and 3

**Table 2**
Employment Status and Receipt of Selected Income Sources, 1994, 1996
by Work Status in 1994, 1996
(number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| Still Working in 1994 | 2919 (82%) | 70 (2.4%) | 4 (.1%) | 38 (1.3%) | 111 (3.8%) | 225 (7.7%) | 68 (2.3%) | 359 (12.3%) |
| No Longer Working in 1994 | 644 (18%) | 88 (13.7%) | 27 (4.2%) | 16 (2.5%) | 129 (20.0%) | 169 (26.2%) | 15 (2.3%) | 242 (37.6%) |
| | 3563 (100%) | 158 (4.4%) | 31 (0.9%) | 54 (1.5%) | 240 (6.7%) | 394 (11.1%) | 83 (2.3%) | 601 (16.9%) |
| Still Working in 1996 | 2230 (69%) | | | | 341 (15.3%) | 315 (14.1%) | 100 (4.5%) | 605 (27.1%) |
| No Longer Working in 1996 | 1012 (31%) | | | | 591 (58.4%) | 411 (40.6%) | 56 (5.5%) | 747 (73.8%) |
| | 3242 (100%) | | | | 932 (28.7%) | 726 (22.4%) | 156 (4.8%) | 1352 (41.7%) |

Source:  HRS, Waves I-III

## Table 3
### Employment Status and Receipt of Selected Income Sources, 1994, 1996
### Males, by Work Status in 1994, 1996
### (number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| Still Working in 1994 | 1582 (83%) | 35 (2.2%) | 2 (.1%) | 2 (.1%) | 39 (2.5%) | 162 (10.2%) | 59 (3.7%) | 233 (14.7%) |
| No Longer Working in 1994 | 318 (17%) | 54 (17.%) | 17 (5.4%) | 0 0% | 70 (22.%) | 113 (35.5%) | 13 (4.1%) | 147 (46.2%) |
| | 1900 (100%) | 89 (4.7%) | 19 (1.0%) | 2 (0.1%) | 109 (5.7%) | 275 (14.5%) | 72 (3.8%) | 380 (20.0%) |
| Still Working 1996 | 1233 (72%) | | | | 167 (13.5%) | 221 (17.9%) | 89 (7.2%) | 374 (30.3%) |
| No Longer Working in 1996 | 478 (28%) | | | | 289 (60.4%) | 240 (50.2%) | 48 (10.%) | 381 (79.7%) |
| | 1711 (100%) | | | | 456 (26.7%) | 461 (26.9%) | 137 (8.0%) | 755 (44.1%) |

Source: HRS, Waves I-III

## Table 4
Employment Status and Receipt of Selected Income Sources, 1994, 1996
Females, by Work Status in 1994, 1996
(number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| Still Working in 1994 | 1337 (80%) | 35 (2.6%) | 2 (.2%) | 36 (2.7%) | 72 (5.4%) | 63 (4.7%) | 9 (.7%) | 126 (9.4%) |
| No Longer Working in 1994 | 326 (20%) | 34 (10.4%) | 10 (3.1%) | 16 (4.9%) | 59 (18.1%) | 56 (17.2%) | 2 (.6%) | 95 (29.1%) |
| | 1663 (100%) | 69 (4.1%) | 12 (0.7%) | 52 (3.1%) | 131 (7.9%) | 119 (7.2%) | 11 (0.7%) | 221 (13.3%) |
| Still Working in 1996 | 997 (65%) | | | | 174 (17.4%) | 94 (9.4%) | 11 (1.1%) | 231 (23.1%) |
| Not Working in 1996 | 534 (35%) | | | | 302 (56.5%) | 171 (32.%) | 8 (1.5%) | 366 (68.5%) |
| | 1531 (100%) | | | | 476 (31.1%) | 265 (17.3%) | 19 (1.2%) | 597 (39.0%) |

Source: HRS< Waves I-III

**Table 5**
Employment Status and Receipt of Selected Income Sources, 1994, 1996
Individuals Aged 57-59 in 1994
by Work Status in 1994, And Aged 59 in 1996, by Work Status in 1996
(number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| **Aged 57-59 in 1994** | | | | | | | | |
| Still Working in 1994 | 1788 (87%) | 3 (.2%) | 4 (.2%) | 8 (.5%) | 15 (.8%) | 113 (6.3%) | 32 (1.8%) | 150 (8.4%) |
| No Longer Working in 1994 | 272 (13%) | 2 (.7%) | 16 (5.9%) | 4 (1.5%) | 21 (7.7%) | 63 (23.2%) | 4 (1.5%) | 78 (28.7%) |
| | 2060 (100%) | 5 (0.2%) | 20 (1.0%) | 12 (0.6%) | 36 (1.7%) | 176 (8.5%) | 36 (1.7%) | 228 (11.1%) |
| **Aged 59 in 1996** | | | | | | | | |
| Working in 1996 | 466 (82%) | | | | 1 (.2%) | 30 (6.4%) | 12 (2.5%) | 41 (8.8%) |
| No Longer Working in 1996 | 104 (18%) | | | | 14 (13.4%) | 31 (29.8%) | 3 (2.8%) | 41 (39.4%) |
| | 570 (100%) | | | | 15 (2.6%) | 61 (10.7%) | 15 (2.6%) | 82 (14.4%) |

Source: HRS, Waves I-III

**Table 6**
Employment Status and Receipt of Selected Income Sources, 1994, 1996
Individuals Aged 60-61 in 1994
by Work Status in 1994, And Aged 60-61 in 1996, by Work Status in 1996
(number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| **Aged 60-61 in 1994** | | | | | | | | |
| Still Working in 1994 | 748 (79%) | 16 (2.1%) | 0 (.%) | 18 (2.4%) | 34 (4.6%) | 64 (8.6%) | 27 (3.6%) | 113 (15.1%) |
| No Longer Working in 1994 | 201 (21%) | 18 (9.%) | 9 (4.5%) | 8 (4.%) | 35 (17.4%) | 57 (28.4%) | 7 (3.5%) | 76 (37.8%) |
| | 949 (100%) | 34 (3.6%) | 9 (0.9%) | 26 (2.7%) | 69 (7.3%) | 121 (12.8%) | 34 (3.6%) | 189 (19.9%) |
| **Aged 60-61 in 1996** | | | | | | | | |
| Still Working in 1996 | 774 (78%) | | | | 19 (2.4%) | 90 (11.6%) | 36 (4.6%) | 126 (16.2%) |
| No Longer Working in 1996 | 222 (22%) | | | | 37 (16.6%) | 80 (36.%) | 9 (4.1%) | 110 (49.5%) |
| | 996 (100%) | | | | 56 (5.6%) | 170 (17.1%) | 45 (4.5%) | 236 (23.7%) |

Source:  HRS, Waves I-III

Table 7
Employment Status and Receipt of Selected Income Sources, 1994, 1996
Individuals Aged 62-63 in 1994
by Work Status in 1994, And Aged 62-65 in 1996, by Work Status in 1996
(number and percentage)

| | Sample Size (vert. %) | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|---|
| **Aged 62-63 in 1994** | | | | | | | | |
| Still Working in 1994 | 383 (69%) | 51 (13.3%) | 0 (.%) | 12 (3.1%) | 62 (16.2%) | 48 (12.5%) | 9 (2.4%) | 96 (25.1%) |
| No Longer Working in 1994 | 171 (31%) | 68 (39.8%) | 2 (1.2%) | 4 (2.3%) | 73 (42.7%) | 49 (28.7%) | 4 (2.3%) | 88 (51.5%) |
| | 554 (100%) | 119 (21.5%) | 2 (0.4%) | 16 (2.9%) | 135 (24.4%) | 97 (17.5%) | 13 (2.3%) | 184 (33.2%) |
| **Aged 62-64 in 1996** | | | | | | | | |
| Still Working in 1996 | 816 (62%) | | | | 220 (26.9%) | 148 (18.1%) | 43 (5.3%) | 325 (39.8%) |
| No Longer Working in 1996 | 503 (38%) | | | | 373 (74.1%) | 212 (42.1%) | 32 (6.4%) | 425 (84.5%) |
| | 1319 (100%) | | | | 593 (45.0%) | 360 (27.3%) | 75 (5.7%) | 750 (56.9%) |
| **Aged 65 in 1996** | | | | | | | | |
| Still Working in 1996 | 174 (49%) | | | | 101 (58.%) | 47 (27.%) | 9 (5.1%) | 113 (64.9%) |
| No Longer Working in 1996 | 183 (51%) | | | | 167 (91.3%) | 88 (48.%) | 12 (6.5%) | 171 (93.4%) |
| | 357 (100%) | | | | 268 (75.1%) | 135 (37.8%) | 21 (5.9%) | 284 (79.6%) |

Source: HRS, Waves I-III

## Figure 4
### Income Shares for Aged Units, by Age, 1994

**65-69**

Income from Assets — Other — Social Security — Earnings — Employer Pensions

**70-74**

Income from Assets — Other — Social Security — Earnings — Employer Pensions

**75-79**

Income from Assets — Other — Social Security — Earnings — Employer Pensions

**80-84**

Income from Assets — Other — Social Security — Earnings — Employer Pensions

**85+**

Income from Assets — Other — Social Security — Earnings — Employer Pensions

Source: Grad (1996), table VIII.1

# Figure 5
## Income Shares for Aged Units, by Income Quintile, 1994

**First**

Other

Income from Assets

Employer Pensions

Social Security

**Second**

Social Security

Other

Income from Assets

Employer Pensions

Earnings

**Third**

Income from Assets

Other

Employer Pensions

Social Security

Earnings

**Fourth**

Income from Assets

Other

Social Security

Employer Pensions

Earnings

**Fifth**

Income from Assets

Other

Social Security

Employer Pensions

Earnings

Source:  Grad (1996), table VIII.5

**Table 8**
Receipt of Multiple Benefits in 1994

**Working in 1994**

|  | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|
| Social Security Retirement Benefits | 70 | 0 | 1 | 111 | 23 | 3 | 359 |
| Social Security Disability Benefits |  | 4 | 0 | 111 | 1 | 0 | 359 |
| Social Security Other Benefits |  |  | 38 | 111 | 7 | 2 | 359 |
| Some Social Security Benefits |  |  |  | 111 | 31 | 5 | 359 |
| Pension Benefits |  |  |  |  | 225 | 11 | 359 |
| Veterans Benefits |  |  |  |  |  | 68 | 359 |
| Some Benefits |  |  |  |  |  |  | 359 |

**Not Working in 1994**

|  | Social Security Retirement Benefits | Social Security Disability Benefits | Social Security Other Benefits | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|---|---|---|
| Social Security Retirement Benefits | 88 | 1 | 0 | 129 | 44 | 1 | 242 |
| Social Security Disability Benefits |  | 27 | 1 | 129 | 12 | 2 | 242 |
| Social Security Other Benefits |  |  | 16 | 129 | 6 | 0 | 242 |
| Social Security Some Benefits |  |  |  | 129 | 62 | 3 | 242 |
| Pension Benefits |  |  |  |  | 169 | 8 | 242 |
| Veterans Benefits |  |  |  |  |  | 15 | 242 |
| Some Benefits |  |  |  |  |  |  | 242 |

Source: HRS, Waves I-III

**Table 9**
Receipt of Multiple Benefits in 1996

## Working in 1996

|  | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|
| Some Social Security Benefits | 341 | 119 | 15 | 605 |
| Pension Benefits | | 315 | 23 | 605 |
| Veterans Benefits | | | 100 | 605 |
| Some Benefits | | | | 605 |

## Not Working in 1996

|  | Some Social Security Benefits | Pension Benefits | Veterans Benefits | Some Benefits |
|---|---|---|---|---|
| Social Security Some Benefits | 591 | 267 | 38 | 747 |
| Pension Benefits | | 411 | 25 | 747 |
| Veterans Benefits | | | 56 | 747 |
| Some Benefits | | | | 747 |

Source: HRS, Waves I-III

## Table 10

### Receipt of Benefits, 1994, 1996
### by health Status
### and Work Status in 1994, 1996

|  | Excellent or Very Good 56% | | Good 30% | | Fair or Poor 14% | | Total | |
|---|---|---|---|---|---|---|---|---|
| **Those Still Working in 1994** |  |  |  |  |  |  |  |  |
|  | 1687 | (85.1%) | 885 | (81.6%) | 347 | (70.1%) | 2919 | (81.9%) |
| Social Security Benefits | 60 | 3.6% | 30 | 3.4% | 21 | 6.1% | 111 | 3.8% |
| Pension Benefits | 132 | 7.8% | 72 | 8.1% | 21 | 6.1% | 225 | 7.7% |
| Some Benefits | 205 | 12.2% | 110 | 12.4% | 44 | 12.7% | 359 | 12.3% |
| No Benefits | 1482 | 87.8% | 775 | 87.6% | 303 | 87.3% | 2560 | 87.7% |
| **Those No Longer Working in 1994** |  |  |  |  |  |  |  |  |
|  | 296 | (14.9%) | 200 | (18.4%) | 148 | (29.9%) | 644 | (18.1%) |
| Social Security Benefits | 60 | 20.3% | 37 | 18.5% | 32 | 21.6% | 129 | 20.0% |
| Pension Benefits | 86 | 29.1% | 55 | 27.5% | 28 | 18.9% | 169 | 26.2% |
| Some Benefits | 116 | 39.2% | 78 | 39.0% | 48 | 32.4% | 242 | 37.6% |
| No Benefits | 180 | 60.8% | 122 | 61.0% | 100 | 67.6% | 402 | 62.4% |
| **Those Still Working in 1996** |  |  |  |  |  |  |  |  |
|  | 1349 | (73.5%) | 643 | (66.0%) | 241 | (55.0%) | 2233 | (68.8%) |
| Social Security Benefits | 200 | 14.8% | 97 | 15.1% | 44 | 18.3% | 341 | 15.3% |
| Pension Benefits | 207 | 15.3% | 84 | 13.1% | 24 | 10.0% | 315 | 14.1% |
| Some Benefits | 334 | 24.8% | 144 | 22.4% | 59 | 24.5% | 537 | 24.0% |
| No Benefits | 1015 | 75.2% | 499 | 77.6% | 182 | 75.5% | 1696 | 76.0% |
| **Those No Longer Working in 1996** |  |  |  |  |  |  |  |  |
|  | 486 | (26.5%) | 331 | (34.0%) | 197 | (45.0%) | 1014 | (31.2%) |
| Social Security Benefits | 285 | 58.6% | 187 | 56.5% | 119 | 60.4% | 591 | 58.3% |
| Pension Benefits | 201 | 41.4% | 146 | 44.1% | 64 | 32.5% | 411 | 40.5% |
| Some Benefits | 356 | 73.3% | 241 | 72.8% | 138 | 70.1% | 735 | 72.5% |
| No Benefits | 130 | 26.7% | 90 | 27.2% | 59 | 29.9% | 279 | 27.5% |

Source:  HRS, Waves I-III

## Table 11

Receipt of Benefits, 1994, 1996
by Self-Employment Status
and Work Status in 1994, 1996

| | Self-employed (18%) | | Wage-and-Salary (82%) | | Total | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
| | 557 | (84.7%) | 2362 | (81.3%) | 2919 | (81.9%) |
| Social Security Benefits | 33 | 5.9% | 78 | 3.3% | 111 | 3.8% |
| Pension Benefits | 42 | 7.5% | 183 | 7.7% | 225 | 7.7% |
| Some Benefits | 77 | 13.8% | 282 | 11.9% | 359 | 12.3% |
| No Benefits | 480 | 86.2% | 2080 | 88.1% | 2560 | 87.7% |
| | | | | | | |
| **Those No Longer Working in 1994** | | | | | | |
| | 101 | (15.3%) | 543 | (18.7%) | 644 | (18.1%) |
| Social Security Benefits | 17 | 16.8% | 112 | 20.6% | 129 | 20.0% |
| Pension Benefits | 13 | 12.9% | 156 | 28.7% | 169 | 26.2% |
| Some Benefits | 29 | 28.7% | 213 | 39.2% | 242 | 37.6% |
| No Benefits | 72 | 71.3% | 330 | 60.8% | 402 | 62.4% |
| | | | | | | |
| **Those Still Working in 1996** | | | | | | |
| | 458 | (77.0%) | 1775 | (66.9%) | 2233 | (68.8%) |
| Social Security Benefits | 110 | 24.0% | 231 | 13.0% | 341 | 15.3% |
| Pension Benefits | 62 | 13.5% | 253 | 14.3% | 315 | 14.1% |
| Some Benefits | 140 | 30.6% | 397 | 22.4% | 537 | 24.0% |
| No Benefits | 318 | 69.4% | 1378 | 77.6% | 1696 | 76.0% |
| | | | | | | |
| **Those No Longer Working in 1996** | | | | | | |
| | 137 | (23.0%) | 877 | (33.1%) | 1014 | (31.2%) |
| Social Security Benefits | 82 | 59.9% | 509 | 58.0% | 591 | 58.3% |
| Pension Benefits | 25 | 18.2% | 386 | 44.0% | 411 | 40.5% |
| Some Benefits | 92 | 67.2% | 643 | 73.3% | 735 | 72.5% |
| No Benefits | 45 | 32.8% | 234 | 26.7% | 279 | 27.5% |

Source:  HRS, Waves I-III

## Table 12

### Receipt of Benefits, 1994, 1996
by Part-Time Status
and Work Status in 1994, 1996

|  | Part-time (22%) | | Full-time (78%) | | Total (a) | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
|  | 587 | (75.5%) | 2293 | (84.2%) | 2880 | (82.3%) |
| Social Security Benefits | 46 | 7.8% | 62 | 2.7% | 108 | 3.8% |
| Pension Benefits | 79 | 13.5% | 142 | 6.2% | 221 | 7.7% |
| Some Benefits | 112 | 19.1% | 240 | 10.5% | 352 | 12.2% |
| No Benefits | 475 | 80.9% | 2053 | 89.5% | 2528 | 87.8% |
| **Those No Longer Working in 1994** | | | | | | |
|  | 190 | (24.5%) | 430 | (15.8%) | 620 | (17.7%) |
| Social Security Benefits | 38 | 20.0% | 87 | 20.2% | 125 | 20.2% |
| Pension Benefits | 41 | 21.6% | 122 | 28.4% | 163 | 26.3% |
| Some Benefits | 68 | 35.8% | 165 | 38.4% | 233 | 37.6% |
| No Benefits | 122 | 64.2% | 265 | 61.6% | 387 | 62.4% |
| **Those Still Working in 1996** | | | | | | |
|  | 440 | (62.1%) | 1793 | (70.6%) | 2233 | (68.8%) |
| Social Security Benefits | 131 | 29.8% | 210 | 11.7% | 341 | 15.3% |
| Pension Benefits | 93 | 21.1% | 222 | 12.4% | 315 | 14.1% |
| Some Benefits | 177 | 40.2% | 360 | 20.1% | 537 | 24.0% |
| No Benefits | 263 | 59.8% | 1433 | 79.9% | 1696 | 76.0% |
| **Those No Longer Working in 1996** | | | | | | |
|  | 268 | (37.9%) | 746 | (29.4%) | 1014 | (31.2%) |
| Social Security Benefits | 150 | 56.0% | 441 | 59.1% | 591 | 58.3% |
| Pension Benefits | 84 | 31.3% | 327 | 43.8% | 411 | 40.5% |
| Some Benefits | 184 | 68.7% | 551 | 73.9% | 735 | 72.5% |
| No Benefits | 84 | 31.3% | 195 | 26.1% | 279 | 27.5% |

Source:  HRS, Waves I-III

a. This Table excluded 63 responents for whom we could not determine full-time/part-time status in 1994.

## Table 13

### Receipt of Benefits, 1994, 1996
### by Education Level
### and Work Status in 1994, 1996

| | < 12 Years (25%) | | 12-15 Years (54%) | | 16+ Years (21%) | | Total | |
|---|---|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | | | |
| | 727 (80.3%) | | 1574 (82.0%) | | 618 (83.6%) | | 2919 (81.9%) | |
| Social Security Benefits | 36 | 5.0% | 53 | 3.4% | 22 | 3.6% | 111 | 3.8% |
| Pension Benefits | 31 | 4.3% | 130 | 8.3% | 64 | 10.4% | 225 | 7.7% |
| Some Benefits | 71 | 9.8% | 200 | 12.7% | 88 | 14.2% | 359 | 12.3% |
| No Benefits | 656 | 90.2% | 1374 | 87.3% | 530 | 85.8% | 2560 | 87.7% |
| **Those No Longer Working in 1994** | | | | | | | | |
| | 178 (19.7%) | | 345 (18.0%) | | 121 (16.4%) | | 644 (18.1%) | |
| Social Security Benefits | 37 | 20.8% | 70 | 20.3% | 22 | 18.2% | 129 | 20.0% |
| Pension Benefits | 26 | 14.6% | 88 | 25.5% | 55 | 45.5% | 169 | 26.2% |
| Some Benefits | 50 | 28.1% | 131 | 38.0% | 61 | 50.4% | 242 | 37.6% |
| No Benefits | 128 | 71.9% | 214 | 62.0% | 60 | 49.6% | 402 | 62.4% |
| **Those Still Working in 1996** | | | | | | | | |
| | 514 (63.9%) | | 1208 (68.9%) | | 511 (74.1%) | | 2233 (68.8%) | |
| Social Security Benefits | 90 | 17.5% | 183 | 15.1% | 68 | 13.3% | 341 | 15.3% |
| Pension Benefits | 38 | 7.4% | 183 | 15.1% | 94 | 18.4% | 315 | 14.1% |
| Some Benefits | 107 | 20.8% | 307 | 25.4% | 123 | 24.1% | 537 | 24.0% |
| No Benefits | 407 | 79.2% | 901 | 74.6% | 388 | 75.9% | 1696 | 76.0% |
| **Those No Longer Working in 1996** | | | | | | | | |
| | 291 (36.1%) | | 544 (31.1%) | | 179 (25.9%) | | 1014 (31.2%) | |
| Social Security Benefits | 186 | 63.9% | 318 | 58.5% | 87 | 48.6% | 591 | 58.3% |
| Pension Benefits | 93 | 32.0% | 207 | 38.1% | 111 | 62.0% | 411 | 40.5% |
| Some Benefits | 209 | 71.8% | 385 | 70.8% | 141 | 78.8% | 735 | 72.5% |
| No Benefits | 82 | 28.2% | 159 | 29.2% | 38 | 21.2% | 279 | 27.5% |

Source:  HRS, Waves I-III

# Table 16

Receipt of Benefits, 1994, 1996
by Spouse's Employment Status
and Work Status in 1994, 1996

| | Spouse Working (50%) | | No Spouse Working (50%) | | Total | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
| | 1465 | (83.6%) | 1454 | (80.3%) | 2919 | (81.9%) |
| Social Security Benefits | 44 | 3.0% | 67 | 4.6% | 111 | 3.8% |
| Pension Benefits | 97 | 6.6% | 128 | 8.8% | 225 | 7.7% |
| Some Benefits | 154 | 10.5% | 205 | 14.1% | 359 | 12.3% |
| No Benefits | 1311 | 89.5% | 1249 | 85.9% | 2560 | 87.7% |
| **Those No Longer Working in 1994** | | | | | | |
| | 287 | (16.4%) | 357 | (19.7%) | 644 | (18.1%) |
| Social Security Benefits | 42 | 14.6% | 87 | 24.4% | 129 | 20.0% |
| Pension Benefits | 54 | 18.8% | 115 | 32.2% | 169 | 26.2% |
| Some Benefits | 84 | 29.3% | 158 | 44.3% | 242 | 37.6% |
| No Benefits | 203 | 70.7% | 199 | 55.7% | 402 | 62.4% |
| **Those Still Working in 1996** | | | | | | |
| | 1145 | (70.8%) | 1088 | (66.8%) | 2233 | (68.8%) |
| Social Security Benefits | 153 | 13.4% | 188 | 17.3% | 341 | 15.3% |
| Pension Benefits | 157 | 13.7% | 158 | 14.5% | 315 | 14.1% |
| Some Benefits | 254 | 22.2% | 283 | 26.0% | 537 | 24.0% |
| No Benefits | 891 | 77.8% | 805 | 74.0% | 1696 | 76.0% |
| **Those No Longer Working in 1996** | | | | | | |
| | 473 | (29.2%) | 541 | (33.2%) | 1014 | (31.2%) |
| Social Security Benefits | 267 | 56.4% | 324 | 59.9% | 591 | 58.3% |
| Pension Benefits | 187 | 39.5% | 224 | 41.4% | 411 | 40.5% |
| Some Benefits | 340 | 71.9% | 395 | 73.0% | 735 | 72.5% |
| No Benefits | 133 | 28.1% | 146 | 27.0% | 279 | 27.5% |

Source:  HRS, Waves I-III

# Table 15

Receipt of Beneftis, 1994, 1996
by Marital Status
and Work Status in 1994, 1996

| | Married (77%) | | Not Married (23%) | | Total | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
| | 2291 | (82.9%) | 628 | (78.7%) | 2919 | (81.9%) |
| Social Security Benefits | 71 | 3.1% | 40 | 6.4% | 111 | 3.8% |
| Pension Benefits | 163 | 7.1% | 62 | 9.9% | 225 | 7.7% |
| Some Benefits | 255 | 11.1% | 104 | 16.6% | 359 | 12.3% |
| No Benefits | 2036 | 88.9% | 524 | 83.4% | 2560 | 87.7% |
| | | | | | | |
| **Those No Longer Working in 1994** | | | | | | |
| | 474 | (17.1%) | 170 | (21.3%) | 644 | (18.1%) |
| Social Security Benefits | 75 | 15.8% | 54 | 31.8% | 129 | 20.0% |
| Pension Benefits | 104 | 21.9% | 65 | 38.2% | 169 | 26.2% |
| Some Benefits | 145 | 30.6% | 97 | 57.1% | 242 | 37.6% |
| No Benefits | 329 | 69.4% | 73 | 42.9% | 402 | 62.4% |
| | | | | | | |
| **Those Still Working in 1996** | | | | | | |
| | 1748 | (69.2%) | 485 | (67.4%) | 2233 | (68.8%) |
| Social Security Benefits | 254 | 14.5% | 87 | 17.9% | 341 | 15.3% |
| Pension Benefits | 247 | 14.1% | 68 | 14.0% | 315 | 14.1% |
| Some Benefits | 413 | 23.6% | 124 | 25.6% | 537 | 24.0% |
| No Benefits | 1335 | 76.4% | 361 | 74.4% | 1696 | 76.0% |
| | | | | | | |
| **Those No Longer Working in 1996** | | | | | | |
| | 779 | (30.8%) | 235 | (32.6%) | 1014 | (31.2%) |
| Social Security Benefits | 457 | 58.7% | 134 | 57.0% | 591 | 58.3% |
| Pension Benefits | 315 | 40.4% | 96 | 40.9% | 411 | 40.5% |
| Some Benefits | 567 | 72.8% | 168 | 71.5% | 735 | 72.5% |
| No Benefits | 212 | 27.2% | 67 | 28.5% | 279 | 27.5% |

Source: HRS, Waves I-III

## Table 17

Receipt of Beneftis, 1994, 1996
by Presence of Children Under 18 In The Home
and Work Status in 1994, 1996

|  | No (90%) | | Yes (10%) | | Total | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
|  | 2620 | (81.4%) | 299 | (86.4%) | 2919 | (81.9%) |
| Social Security Benefits | 106 | 4.0% | 5 | 1.7% | 111 | 3.8% |
| Pension Benefits | 213 | 8.1% | 12 | 4.0% | 225 | 7.7% |
| Some Benefits | 335 | 12.8% | 24 | 8.0% | 359 | 12.3% |
| No Benefits | 2285 | 87.2% | 275 | 92.0% | 2560 | 87.7% |
| | | | | | | |
| **Those No Longer Working in 1994** | | | | | | |
|  | 597 | (18.6%) | 47 | (13.6%) | 644 | (18.1%) |
| Social Security Benefits | 125 | 20.9% | 4 | 8.5% | 129 | 20.0% |
| Pension Benefits | 153 | 25.6% | 16 | 34.0% | 169 | 26.2% |
| Some Benefits | 225 | 37.7% | 17 | 36.2% | 242 | 37.6% |
| No Benefits | 372 | 62.3% | 30 | 63.8% | 402 | 62.4% |
| | | | | | | |
| **Those Still Working in 1996** | | | | | | |
|  | 1350 | (66.9%) | 883 | (71.8%) | 2233 | (68.8%) |
| Social Security Benefits | 221 | 16.4% | 120 | 13.6% | 341 | 15.3% |
| Pension Benefits | 201 | 14.9% | 114 | 12.9% | 315 | 14.1% |
| Some Benefits | 349 | 25.9% | 188 | 21.3% | 537 | 24.0% |
| No Benefits | 1001 | 74.1% | 695 | 78.7% | 1696 | 76.0% |
| | | | | | | |
| **Those No Longer Working in 1996** | | | | | | |
|  | 668 | (33.1%) | 346 | (28.2%) | 1014 | (31.2%) |
| Social Security Benefits | 410 | 61.4% | 181 | 52.3% | 591 | 58.3% |
| Pension Benefits | 282 | 42.2% | 129 | 37.3% | 411 | 40.5% |
| Some Benefits | 503 | 75.3% | 232 | 67.1% | 735 | 72.5% |
| No Benefits | 165 | 24.7% | 114 | 32.9% | 279 | 27.5% |

Source: HRS, Waves I-III

# Table 18

Receipt of Beneftis, 1994, 1996
by Home Ownership
and Work Status in 1994, 1996

| | Owns Home (84%) | | Does Not Own Home (16%) | | Total | |
|---|---|---|---|---|---|---|
| **Those Still Working in 1994** | | | | | | |
| | 2459 | (82.6%) | 460 | (78.4%) | 2919 | (81.9%) |
| Social Security Benefits | 97 | 3.9% | 14 | 3.0% | 111 | 3.8% |
| Pension Benefits | 205 | 8.3% | 20 | 4.3% | 225 | 7.7% |
| Some Benefits | 317 | 12.9% | 42 | 9.1% | 359 | 12.3% |
| No Benefits | 2142 | 87.1% | 418 | 90.9% | 2560 | 87.7% |
| **Those No Longer Working in 1994** | | | | | | |
| | 517 | (17.4%) | 127 | (21.6%) | 644 | (18.1%) |
| Social Security Benefits | 99 | 19.1% | 30 | 23.6% | 129 | 20.0% |
| Pension Benefits | 136 | 26.3% | 33 | 26.0% | 169 | 26.2% |
| Some Benefits | 190 | 36.8% | 52 | 40.9% | 242 | 37.6% |
| No Benefits | 327 | 63.2% | 75 | 59.1% | 402 | 62.4% |
| **Those Still Working in 1996** | | | | | | |
| | 1870 | (68.5%) | 363 | (70.2%) | 2233 | (68.8%) |
| Social Security Benefits | 293 | 15.7% | 48 | 13.2% | 341 | 15.3% |
| Pension Benefits | 289 | 15.5% | 26 | 7.2% | 315 | 14.1% |
| Some Benefits | 471 | 25.2% | 66 | 18.2% | 537 | 24.0% |
| No Benefits | 1399 | 74.8% | 297 | 81.8% | 1696 | 76.0% |
| **Those No Longer Working in 1996** | | | | | | |
| | 860 | (31.5%) | 154 | (29.8%) | 1014 | (31.2%) |
| Social Security Benefits | 503 | 58.5% | 88 | 57.1% | 591 | 58.3% |
| Pension Benefits | 362 | 42.1% | 49 | 31.8% | 411 | 40.5% |
| Some Benefits | 634 | 73.7% | 101 | 65.6% | 735 | 72.5% |
| No Benefits | 226 | 26.3% | 53 | 34.4% | 279 | 27.5% |

Source:  HRS, Waves I-III

# Table 19

Logit Estimates and Marginal Effects for Employment Status by 1996

Sample:  Individuals Aged 55-61 in 1992 and Working in 1992

Dependent Variable:  Not Working in 1996

| | Coefficient | t-statistic | Marginal Impact |
|---|---|---|---|
| CONSTANT | 0.738 | 2.055 * * | |
| HEALTH | | | |
|   Health condition in 1992 | 0.545 | 4.004 * * | 0.121 |
| AGE | | | |
|   Less than 60 in 1996 | -1.535 | -9.269 * * | -0.243 |
|   60-61 in 1996 | -1.241 | -8.789 * * | -0.225 |
|   62-64 in 1996 | -0.508 | -3.935 * * | -0.102 |
|   65 in 1996 | - - - - - | - - - - - | - - - - - |
| FEMALE | 0.355 | 3.542 * * | 0.073 |
| RACE (Non-white) | -0.013 | -0.116 | -0.003 |
| DEPENDENT KIDS | -0.171 | -1.932 * | -0.035 |
| MARRIED | 0.071 | 0.552 | 0.014 |
| HOME OWNERSHIP | 0.221 | 1.706 * | 0.044 |
| SPOUSE WORKS in 1992 | -0.203 | -1.850 * | -0.041 |
| SPOUSE'S WAGE in 1992 | 0.006 | 1.610 | 0.001 |
| YEARS OF EDUCATION | -0.079 | -4.443 * * | -0.016 |
| WAGE in 1992 | 0.000 | 1.048 | 0.000 |
| WEALTH in 1992 | -0.005 | -0.340 | -0.001 |
| PENSION | | | |
|   Pension, Not Eligible in 1996 | - - - - - | - - - - - | - - - - - |
|   Defined Benefit, Eligible in 1996 | 0.733 | 6.749 * * | 0.159 |
|   Defined Contribution, Eligible in 1996 | 0.203 | 1.420 | 0.043 |
|   Pension, DK Eligibility Status | -0.036 | -0.117 | -0.007 |
| LOSE HEALTH INSURANCE WHEN RETIRE | -0.545 | -4.032 * * | -0.102 |
| SELF-EMPLOYED in 1992 | -0.499 | -3.533 * * | -0.094 |
| PART-TIME in 1992 | 0.446 | 4.087 * * | 0.096 |
| TENURE in 1992 | 0.007 | 0.573 | 0.001 |
| TENURE in 1992 - squared | 0.000 | -0.215 | 0.000 |
| JOB CHARACTERISTICS (see text) | | | |
| OCCUPATION | | | |
|   White collar, high skill | -0.133 | -0.868 | -0.027 |
|   White collar, other | -0.217 | -1.500 | -0.043 |
|   Blue collar, high skill | -0.273 | -1.949 * | -0.054 |
|   Blue collar, other | - - - - - | - - - - - | - - - - - |
| INDUSTRY | | | |
|   Manufacturing Industry | 0.041 | 0.339 | 0.008 |
|   Service Industry | -0.194 | -1.732 * | -0.039 |
|   Other Industries | - - - - - | - - - - - | - - - - - |

\* Significant at 10% level
\*\* Significant at 5% level

Source:  HRS, Waves I-III

## Table 20

Logit Estimates and Marginal Effects for Alternative Specifications of the Health Variable

Sample:  Individuals Aged 55-61 in 1992 and Working in 1992

(other explanatory variables are the same as in table 19)

Dependent Variable:   Not Working in 1996

| | Coefficient | t-statistic | Marginal |
|---|---|---|---|
| Specification #1 | | | |
| Health Condition which limits the type or amount of work | 0.545 | 4.004 * * | 0.121 |
| Specification #2 | | | |
| Excellent/Very Good | -0.299 | -3.090 * * | -0.061 |
| Good | - - - - | - - - - | - - - - |
| Fair/Poor | 0.471 | 3.587 * * | 0.103 |
| Specification #3 | | | |
| None | - - - - | - - - - | - - - - |
| Any ADL 1-5 | 0.118 | 0.987 | 0.024 |
| Any ADL 6-10 | 0.568 | 2.949 * * | 0.126 |
| Any ADL 11-17 | 1.393 | 3.490 * * | 0.330 |
| None | - - - - | - - - - | - - - - |
| Lot ADL 1-5 | 0.307 | 2.972 * * | 0.063 |
| Lot ADL 6-10 | 1.050 | 3.377 * * | 0.246 |
| Lot ADL 11-17 | 1.758 | 1.558 | 0.413 |

*  Significant at 10% level
** Significant at 5% level

Source:  HRS, Waves I-III

# Table 14
## Receipt of Benefits
### by Pension Eligibility Status
### and Work Status in 1996

| | Eligible - Defined Benefit (25%) | | Eligible - Defined Contribution (11%) | | Not Eligible (62%) | | Don't Know (2%) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Those Still Working in 1996** | | | | | | | | | | |
| | 471 | (57.4%) | 242 | (68.2%) | 1470 | (73.4%) | 50 | (73.5%) | 2233 | (68.8%) |
| Social Security Benefits | 49 | 10.4% | 42 | 17.4% | 244 | 16.6% | 6 | 12.0% | 341 | 15.3% |
| Pension Benefits | 83 | 17.6% | 40 | 16.5% | 188 | 12.8% | 4 | 8.0% | 315 | 14.1% |
| Some Benefits | 102 | 21.7% | 68 | 28.1% | 357 | 24.3% | 10 | 20.0% | 537 | 24.0% |
| No Benefits | 369 | 78.3% | 174 | 71.9% | 1113 | 75.7% | 40 | 80.0% | 1696 | 76.0% |
| | | | | | | | | | | |
| **Those No Longer Working in 1996** | | | | | | | | | | |
| | 349 | (42.6%) | 113 | (31.8%) | 534 | (26.6%) | 18 | (26.5%) | 1014 | (31.2%) |
| Social Security Benefits | 209 | 59.9% | 74 | 65.5% | 300 | 56.2% | 8 | 44.4% | 591 | 58.3% |
| Pension Benefits | 231 | 66.2% | 50 | 44.2% | 124 | 23.2% | 6 | 33.3% | 411 | 40.5% |
| Some Benefits | 289 | 82.8% | 88 | 77.9% | 349 | 65.4% | 9 | 50.0% | 735 | 72.5% |
| No Benefits | 60 | 17.2% | 25 | 22.1% | 185 | 34.6% | 9 | 50.0% | 279 | 27.5% |

Source:  HRS, Waves 1-III

Table 21
## Logit Estimates and Marginal Effects for Employment Status by 1996
### Sample:  Individuals Aged 55-61 in 1992 Working Full Time in 1992

| | Not Working in 1996 | | Working Part-Time in 1996 | | Marginal Impacts Transition State in 1996: | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | Coefficient | t-statistic | Coefficient | t-statistic | Not Working | Working Part-Time | Working Full |
| CONSTANT | 0.972 | 2.183 * * | -1.187 | -1.892 * | | | |
| HEALTH | | | | | | | |
|   Health condition in 1992 | 0.678 | 3.944 * * | 0.308 | 1.273 | 0.137 | 0.006 | -0.142 |
| AGE | | | | | | | |
|   Less than 60 in 1996 | -1.944 | -9.426 * * | -1.477 | -5.709 * * | -0.258 | -0.082 | 0.340 |
|   60-61 in 1996 | -1.595 | -8.923 * * | -1.413 | -6.201 * * | -0.240 | -0.086 | 0.326 |
|   62-64 in 1996 | -0.711 | -4.265 * * | -0.817 | -3.838 * * | -0.113 | -0.059 | 0.171 |
|   65 in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| FEMALE | 0.456 | 3.685 * * | 0.167 | 0.999 | 0.086 | 0.002 | -0.089 |
| RACE (Non-white) | 0.032 | 0.245 | 0.082 | 0.450 | 0.004 | 0.007 | -0.011 |
| DEPENDENT KIDS | -0.247 | -2.320 * * | -0.286 | -1.963 * * | -0.040 | -0.021 | 0.061 |
| MARRIED | 0.162 | 1.039 | 0.084 | 0.394 | 0.029 | 0.004 | -0.033 |
| HOME OWNERSHIP | 0.231 | 1.496 | 0.447 | 2.009 * * | 0.033 | 0.035 | -0.068 |
| SPOUSE WORKS in 1992 | -0.163 | -1.197 | -0.188 | -1.071 | -0.026 | -0.014 | 0.040 |
| SPOUSE'S WAGE in 1992 | 0.000 | -0.041 | 0.001 | 0.233 | 0.000 | 0.000 | 0.000 |
| YEARS OF EDUCATION | -0.070 | -3.252 * * | 0.051 | 1.656 * | -0.016 | 0.007 | 0.008 |
| WAGE in 1992 | 0.001 | 0.131 | -0.007 | -1.031 | 0.000 | -0.001 | 0.000 |
| WEALTH in 1992 | 0.004 | 0.177 | 0.042 | 2.257 * * | -0.001 | 0.004 | -0.004 |
| PENSION | | | | | | | |
|   Pension, Not Eligible in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
|   Defined Benefit, Eligible in 1996 | 0.848 | 6.718 * * | 0.369 | 2.069 * * | 0.166 | 0.007 | -0.173 |
|   Defined Contribution, Eligible in 1996 | 0.335 | 2.066 * * | 0.171 | 0.774 | 0.064 | 0.006 | -0.070 |
|   Pension, DK Eligibility Status | 0.046 | 0.135 | -0.062 | -0.124 | 0.011 | -0.008 | -0.004 |
| LOSE HEALTH INSURANCE WHEN RETIRE | -0.598 | -3.972 * * | -0.336 | -1.644 | -0.099 | -0.017 | 0.116 |
| SELF-EMPLOYED in 1992 | -0.635 | -3.284 * * | 0.240 | 1.200 | -0.118 | 0.046 | 0.072 |
| TENURE in 1992 | 0.017 | 1.193 | -0.010 | -0.525 | 0.004 | -0.002 | -0.002 |
| TENURE in 1992 - squared | 0.000 | -0.765 | 0.000 | 0.712 | 0.000 | 0.000 | 0.000 |
| JOB CHARACTERISTICS (see text) | | | | | | | |
| OCCUPATION | | | | | | | |
|   White collar, high skill | -0.326 | -1.692 * | -0.007 | -0.027 | -0.063 | 0.009 | 0.053 |
|   White collar, other | -0.320 | -1.740 * | -0.398 | -1.612 | -0.050 | -0.029 | 0.080 |
|   Blue collar, high skill | -0.421 | -2.475 * * | -0.437 | -1.868 * | -0.068 | -0.030 | 0.099 |
|   Blue collar, other | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| INDUSTRY | | | | | | | |
|   Manufacturing Industry | -0.098 | -0.726 | -0.301 | -1.527 | -0.010 | -0.026 | 0.037 |
|   Service Industry | -0.263 | -1.900 * | -0.347 | -1.874 * | -0.041 | -0.026 | 0.067 |
|   Other Industries | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| | | | | | 0.273 | 0.115 | 0.612 |

\*  Significant at 10% level
\*\* Significant at 5% level
Source:  HRS, Waves I-III

**Table 22**

Logit Coefficients for Employment and Retirement Income Transitions by 1996

Sample:  All Individuals Working in 1992

**Transition   State**

| Variable | (2) Not Employed and Receiving Social Security Benefits Only | | (3) Not Employed and Receiving Pension Benefits Only | | (4) Not Employed and Receiving Social Security and Pension Benefits | | (5) Not Employed and Receiving Neither Social Security nor Pension Benefits | |
|---|---|---|---|---|---|---|---|---|
| | Coef. | t-stat | Coef. | t-stat | Coef. | t-stat | Coef. | t-stat |
| CONSTANT | 0.566 | 1.035 | -5.512 | -5.294 * * | -0.921 | -1.449 | -1.489 | -2.434 * * |
| HEALTH | | | | | | | | |
| Health condition in 1992 | 0.629 | 3.178 * * | 0.638 | 2.083 * * | 0.358 | 1.400 | 0.520 | 2.493 * * |
| AGE | | | | | | | | |
| Less than 60 in 1996 | -3.498 | -8.450 * * | 1.286 | 2.039 * * | -3.425 | -7.744 * * | 0.524 | 1.590 |
| 60-61 in 1996 | -2.764 | -10.505 * * | 1.744 | 2.885 * * | -3.155 | -10.117 * * | 0.680 | 2.175 * * |
| 62-64 in 1996 | -0.625 | -3.696 * * | 1.314 | 2.165 * * | -0.803 | -4.628 * * | 0.189 | 0.595 |
| 65 in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| FEMALE | 0.703 | 4.387 * * | -0.181 | -0.791 | -0.075 | -0.416 | 0.597 | 3.595 * * |
| RACE  (Non-white) | -0.216 | -1.190 | 0.394 | 1.670  * | 0.002 | 0.009 | -0.069 | -0.393 |
| DEPENDENT KIDS | -0.225 | -1.564 | -0.144 | -0.736 | -0.309 | -1.926  * | -0.011 | -0.077 |
| MARRIED | 0.201 | 0.987 | -0.307 | -1.079 | -0.014 | -0.062 | 0.131 | 0.632 |
| HOME OWNERSHIP | 0.100 | 0.500 | 0.590 | 1.731  * | 0.172 | 0.740 | 0.260 | 1.241 |
| SPOUSE WORKS in 1992 | -0.046 | -0.274 | -0.119 | -0.467 | -0.183 | -0.857 | -0.260 | -1.464 |
| SPOUSE'S WAGE in 1992 | 0.004 | 0.865 | 0.007 | 0.772 | -0.006 | -0.526 | 0.012 | 2.435 * * |
| YEARS OF EDUCATION | -0.110 | -4.077 * * | -0.013 | -0.303 | -0.048 | -1.501 | -0.104 | -3.669 * * |
| WAGE in 1992 | 0.000 | 0.876 | 0.000 | 0.120 | 0.000 | 1.203 | -0.005 | -0.931 |
| WEALTH in 1992 | 0.014 | 0.685 | -0.051 | -1.046 | -0.046 | -1.197 | 0.013 | 0.641 |
| PENSION | | | | | | | | |
| Pension, Not Eligible in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| Defined Benefit, Eligible in 1996 | -0.298 | -1.548 | 1.411 | 6.126 * * | 1.435 | 7.447 * * | 0.462 | 2.488 * * |
| Defined Contribution, Eligible in 1996 | -0.187 | -0.859 | 0.563 | 1.659  * | 0.666 | 2.683 * * | 0.136 | 0.535 |
| Pension, DK Eligibility Status | -0.951 | -1.515 | -0.387 | -0.375 | 0.680 | 1.286 | 0.250 | 0.586 |
| LOSE HEALTH INSURANCE WHEN RETIRE | -0.286 | -1.385 | -0.788 | -2.180 * * | -1.072 | -3.861 * * | -0.266 | -1.250 |
| SELF-EMPLOYED in 1992 | -0.342 | -1.699  * | -1.166 | -2.354 * * | -0.841 | -2.540 * * | -0.341 | -1.517 |
| PART-TIME in 1992 | 0.292 | 1.757  * | 0.761 | 3.069 * * | 0.558 | 2.662 * * | 0.380 | 2.233 * * |
| TENURE in 1992 | 0.012 | 0.674 | 0.033 | 1.135 | 0.006 | 0.291 | -0.006 | -0.290 |
| TENURE in 1992 - squared | 0.000 | -0.333 | 0.000 | -0.373 | 0.000 | -0.300 | 0.000 | 0.036 |
| JOB CHARACTERISTICS (see text) | | | | | | | | |
| OCCUPATION | | | | | | | | |
| White collar, high skill | -0.733 | -3.049 * * | 1.106 | 2.431 * * | -0.036 | -0.125 | 0.069 | 0.290 |
| White collar, other | -0.234 | -1.109 | 0.980 | 2.226 * * | 0.016 | 0.059 | -0.529 | -2.302 * * |
| Blue collar, high skill | -0.429 | -1.992 * * | 0.592 | 1.362 | 0.180 | 0.701 | -0.442 | -1.975 * * |
| Blue collar, other | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| INDUSTRY | | | | | | | | |
| Manufacturing Industry | 0.255 | 1.290 | -0.246 | -0.904 | 0.386 | 1.968 * * | -0.340 | -1.582 |
| Service Industry | -0.247 | -1.354 | -0.045 | -0.184 | 0.097 | 0.478 | -0.348 | -1.978 * * |
| Other Industries | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |

\*   Significant at 10% level
\*\*  Significant at 5% level
Source:  HRS, Waves I-III

## Table 23
### Marginal Effects on Employment and Retirement Income Transitions by 1996

#### Sample: All Individuals Working in 1992

**Transition State**

| Variable | ( 2 ) Not Employed and Receiving Social Security Benefits Only | ( 3 ) Not Employed and Receiving Pension Benefits Only | ( 4 ) Not Employed and Receiving Pension & Social Security Benefits | ( 5 ) Not Employed and Receiving Neither Pension Nor Social Security Benefits | ( 1 ) Still Working |
|---|---|---|---|---|---|
| **HEALTH** | | | | | |
| Health condition in 1992 | 0.036 | 0.017 | 0.010 | 0.035 | -0.098 |
| **AGE** | | | | | |
| Less than 60 in 1996 | -0.097 | 0.059 | -0.064 | 0.052 | 0.051 |
| 60-61 in 1996 | -0.114 | 0.076 | -0.087 | 0.063 | 0.063 |
| 62-64 in 1996 | -0.034 | 0.044 | -0.029 | 0.015 | 0.005 |
| 65 in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| FEMALE | 0.037 | -0.007 | -0.006 | 0.040 | -0.064 |
| RACE (Non-white) | -0.012 | 0.012 | 0.000 | -0.005 | 0.004 |
| DEPENDENT KIDS | -0.011 | -0.003 | -0.011 | 0.001 | 0.023 |
| MARRIED | 0.011 | -0.010 | -0.001 | 0.009 | -0.009 |
| HOME OWNERSHIP | 0.003 | 0.013 | 0.005 | 0.015 | -0.036 |
| SPOUSE WORKS in 1992 | -0.001 | -0.002 | -0.006 | -0.017 | 0.026 |
| SPOUSE'S WAGE in 1992 | 0.000 | 0.000 | 0.000 | 0.001 | -0.001 |
| YEARS OF EDUCATION | -0.005 | 0.000 | -0.001 | -0.007 | 0.013 |
| WAGE in 1992 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| WEALTH in 1992 | 0.001 | -0.001 | -0.002 | 0.001 | 0.001 |
| **PENSION** | | | | | |
| Pension, Not Eligible in 1996 | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| Defined Benefit, Eligible in 1996 | -0.024 | 0.049 | 0.071 | 0.024 | -0.120 |
| Defined Contribution, Eligible in 1996 | -0.013 | 0.017 | 0.030 | 0.006 | -0.041 |
| Pension, DK Eligibility Status | -0.037 | -0.009 | 0.036 | 0.020 | -0.010 |
| LOSE HEALTH INSURANCE WHEN RETIRE | -0.011 | -0.015 | -0.028 | -0.013 | 0.067 |
| SELF-EMPLOYED in 1992 | -0.013 | -0.021 | -0.023 | -0.017 | 0.075 |
| PART-TIME in 1992 | 0.012 | 0.022 | 0.020 | 0.023 | -0.077 |
| TENURE in 1992 | 0.001 | 0.001 | 0.000 | -0.001 | -0.001 |
| TENURE in 1992 - squared | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| JOB CHARACTERISTICS (see text) | | | | | |
| **OCCUPATION** | | | | | |
| White collar, high skill | -0.038 | 0.039 | -0.002 | 0.005 | -0.005 |
| White collar, other | -0.012 | 0.036 | 0.001 | -0.034 | 0.009 |
| Blue collar, high skill | -0.021 | 0.020 | 0.008 | -0.028 | 0.021 |
| Blue collar, other | | | | | |
| **INDUSTRY** | | | | | |
| Manufacturing Industry | 0.016 | -0.006 | 0.017 | -0.023 | -0.003 |
| Service Industry | -0.012 | 0.000 | 0.005 | -0.022 | 0.029 |
| Other Industries | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| **Mean Values** | 0.058 | 0.028 | 0.039 | 0.075 | 0.800 |

Source:  HRS, Waves I-III