

# **Forecasting Retirement Needs and Retirement Wealth**

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Pension Research Council

The Wharton School of the University of Pennsylvania

**PENN**

University of Pennsylvania Press

Philadelphia

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Printed in the United States of America on acid-free paper

10 9 8 7 6 5 4 3 2 1

Published by  
University of Pennsylvania Press  
Philadelphia, Pennsylvania 19104-4011

Library of Congress Cataloging-in-Publication Data

Forecasting retirement needs and retirement wealth / edited by

Olivia S. Mitchell, P. Brett Hammond, and Anna M. Rappaport.

p. cm. "Pension Research Council Publications"

Includes bibliographical references and index.

ISBN 0-8122-3529-0 (alk. paper)

I. Retirement income — United States — Planning. I. Mitchell,  
Olivia S. II. Hammond, P. Brett. III. Rappaport, Anna M.

HG179.F577 1999

332.024'01. — dc21

99-41733

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# **Part I**

## **Looking Ahead to Retirement**

## Chapter 1

# **New Paths to Retirement**

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Joseph F. Quinn

One of the most important and intriguing phenomena in the United States labor markets was the post-World War II early retirement trend: the fact that older men left the labor force earlier and earlier with each succeeding cohort. In 1950, 72 percent of all 65-year-old men were in the labor force, either employed or actively looking for work. As shown in Table 1, this percentage fell steadily over the next three and a half decades, reaching about 30 percent by 1985, a decline of well over half. Even larger percentage declines were observed for men over age 65: from 58 to 20 percent for those age 68, from 50 to 16 percent age 70, and from 39 to 15 percent for those age 72. The decline was also unmistakable for those age 62, although it did not begin until the 1960s when the earliest age of entitlement for social security old-age benefits was lowered for men from 65 to 62. Significant declines also occurred below the age of social security eligibility: from 85 to 71 percent at age 60, and from 91 to 84 percent at age 55.

Economists and others have devoted considerable effort to trying to explain these large declines in older men's labor force attachment. Analysts point to the increasing wealth of subsequent cohorts of Americans, and to the fact that leisure (at the margin, at least) is a normal good. Thus earlier retirement has been interpreted as one of the ways that Americans chose to "spend" their increased wealth. Other experts focused more specifically on the social security program, whose increased coverage and generosity over time bestowed large windfall gains on past cohorts of retirees. Economists also examined the details of social security's benefit calculation rules, and demonstrated that many Americans faced substantial financial penalties if they remained in the labor force too long: certainly beyond age 65, and for some, even earlier (Quadagno and Quinn 1997). Benefits forgone because of continued work were never fully made up later.

Employer policies reinforced these downward trends in men's labor force participation. Mandatory retirement rules, which once covered about half of all American workers, forced departure from the firm (although not

TABLE 1: Male Labor Force Participation Rates (%) by Age, 1950–1997

Year	Age						
	55	60	62	65	68	70	72
1950	90.6	84.7	81.2	71.7	57.7	49.8	39.3
1960	92.8	85.9	79.8	56.8	42.0	37.2	28.0
1970	91.8	83.9	73.8	49.9	37.7	30.1	24.8
1975	87.6	76.9	64.4	39.4	23.7	23.7	22.6
1980	84.9	74.0	56.8	35.2	24.1	21.3	17.0
1985	83.7	71.0	50.9	30.5	20.5	15.9	14.9
1990	85.3	70.5	52.5	31.9	23.4	17.1	16.4
1995	81.1	68.9	51.3	33.5	22.4	20.6	16.0
1997	83.4	68.3	52.6	32.4	22.4	21.7	17.3

Source: Burkhauser and Quinn (1997: table 1), updated by the author as in republished data supplied by BLS.

from the labor force), usually at age 65. Defined benefit employer pensions, which were the dominant form of coverage for those participating in pension plans in prior decades, often contained the same type of work disincentives that social security did. Those who stayed on the job too long could expect lower lifetime benefits (higher benefits per year, but for fewer years, and not enough higher to compensate for the benefits initially forgone) than those received by people who left earlier. These three factors, mandatory retirement, the financial incentives imbedded in social security and many employer pension rules, and increasing levels of wealth, combined to induce older Americans out of the labor force at earlier and earlier ages. Evidence suggests that most of these retirements were voluntary: given the options they faced, most workers chose to leave their jobs when they did.<sup>1</sup>

### The End of an Era?

This trend in older men's labor market attachment came to an end in the mid-1980s. Indeed, men's participation rates stopped declining and have actually increased in recent years. Figure 1 shows actual labor force participation rates for men age 60 to 64 (traditionally, earlier retirement years) as well as age 65 to 69 (traditional retirement years), along with a linear extrapolation of the trend line between 1964 and 1985.<sup>2</sup> Evidently the post-war early retirement trend came to an abrupt halt in the mid-1980s, and many more older men are working today than the pre-1986 trend would have suggested.<sup>3</sup>

Labor force trends for older American women differ from those of men in one regard, but are similar in another. Since World War II, married women have entered the job market in increasing numbers, so older women's market attachment did not exhibit the dramatic declines that men's

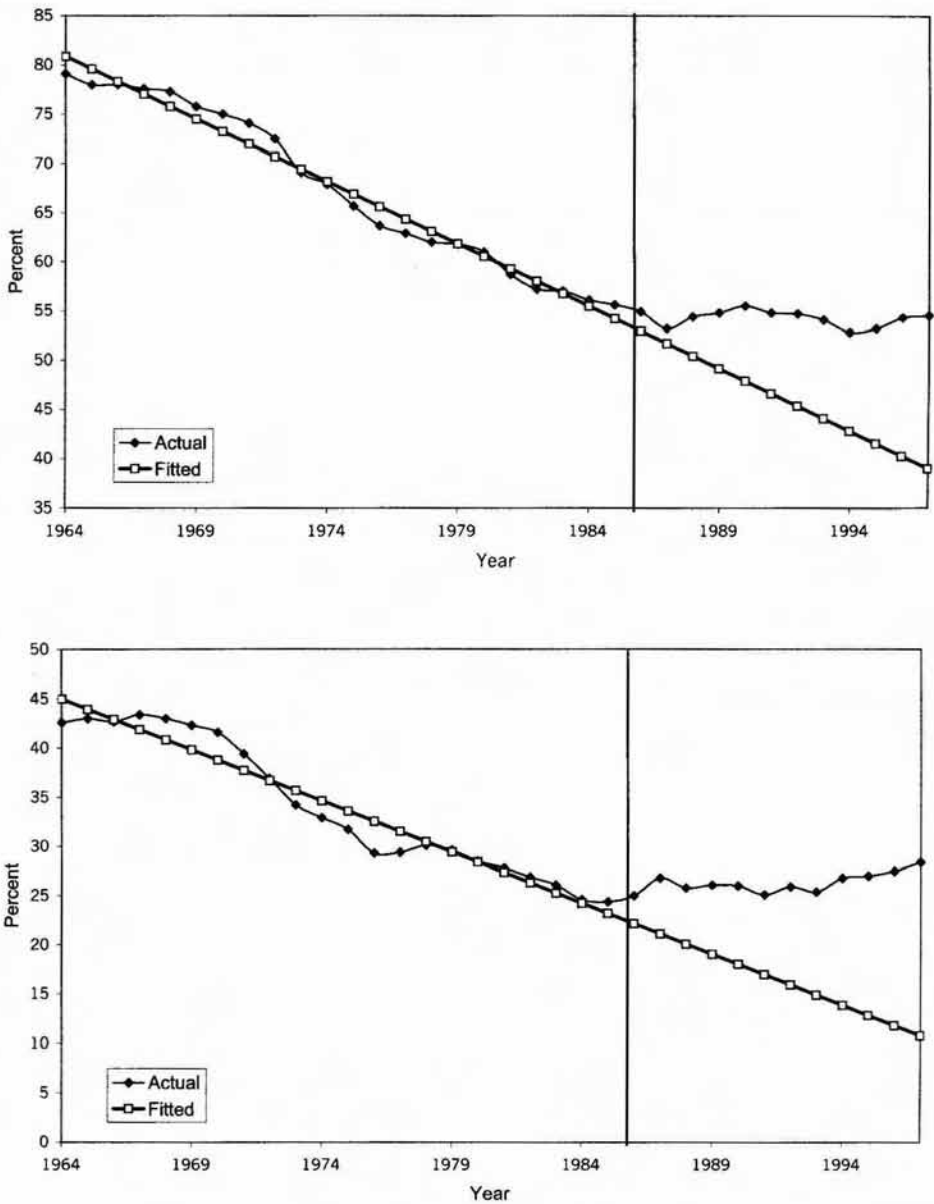


Figure 1. Labor force participation rates for men (%): ages 60-64 (top) and 65-69 (bottom). Source: USBLs (various years) and author's calculations.

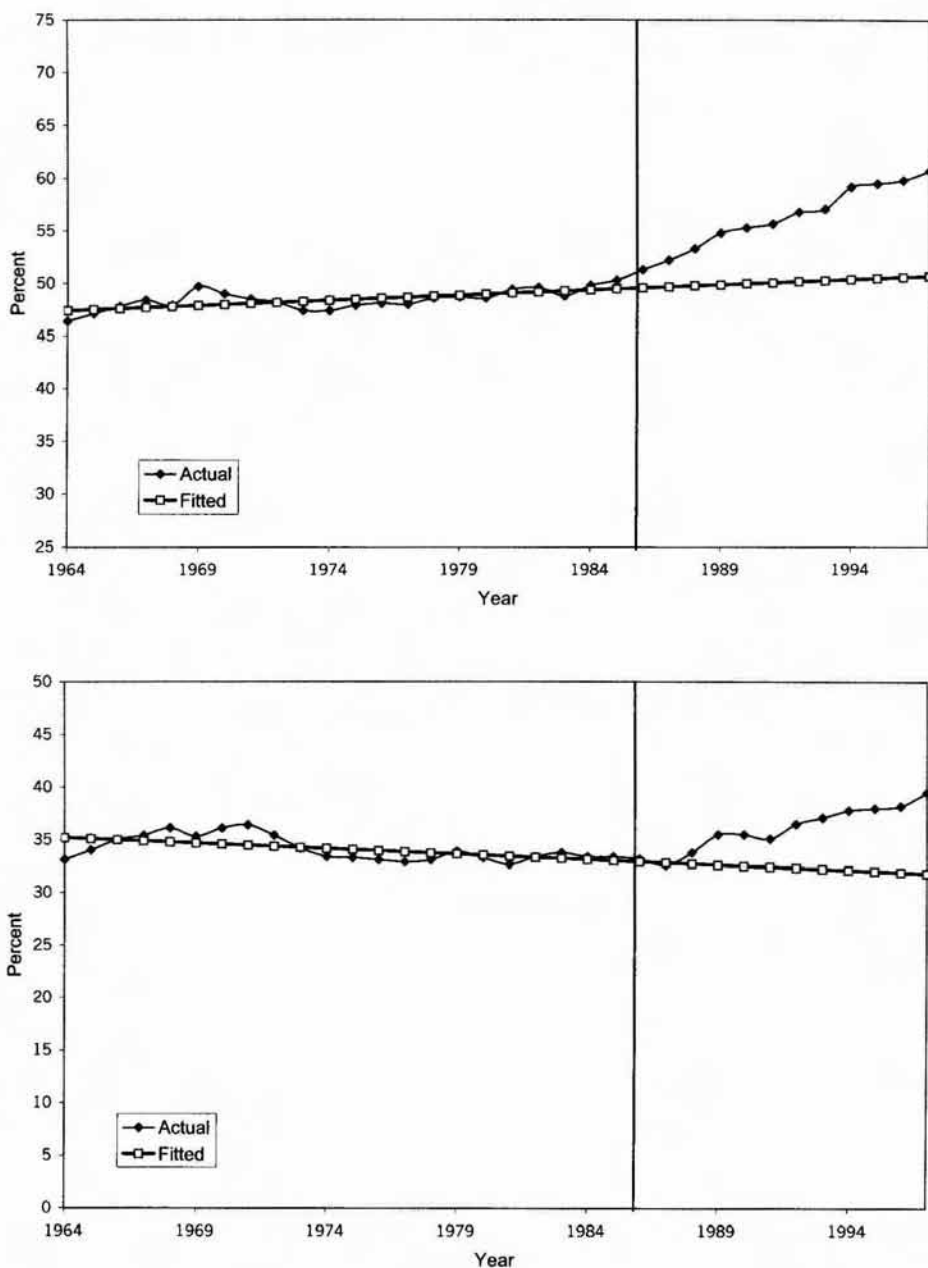


Figure 2. Labor force participation rates for women (%): ages 55-59 (top) and 60-64 (bottom). Source: USBLS (various years) and author's calculations.

rates did through the mid-1980s. Participation rates for younger women rose substantially, with smaller increases at ages 55 to 59 and small declines at ages 60 and over. After 1985, women's pattern grew similar to that of men, as seen in Figure 2. For both age groups shown (ages 55–59 and 60–64), women's labor force participation rates since 1985 have risen above what the pre-1986 trend would have suggested. The same is true, although less dramatically, for women aged 65–69 and 70 or over. The similarity of the break points in the male and female time series is striking. It is clear that something is very different today from what it was a decade and a half ago.

These changes are consistent with important policy initiatives that increased work opportunities available to older workers and altered the relative attractiveness of work and retirement. As a result, the era of earlier and earlier retirement appears to be over, at least for the near term.

What changes occurred to make the American labor market more encouraging (or at least less discouraging) toward work at older ages? First, mandatory retirement has virtually been eliminated in the United States. In the private sector, the earliest allowable age of mandatory retirement was boosted from 65 to 70 in 1978; it was then outlawed entirely in 1986 for the vast majority of American workers. This action created more flexibility for those who wanted to work beyond the mandatory retirement age, and it also sent an important message to society about the appropriate age to retire.<sup>4</sup>

In addition, social security rules have changed several times and continue to do so in ways that make work more attractive.<sup>5</sup> The amount of income a recipient can earn before losing social security benefits has been indexed to wage growth since 1975, and higher exempt amounts were introduced in 1978 for those aged 65–71. The age at which the earnings test no longer applied, permitting recipients to earn any amount without loss of benefits, was lowered from 72 to 70 in 1983, and in 1990, the benefit loss for each dollar earned over the exempt amount was cut from 50 to 33 cents for recipients aged 65–69. Congress then legislated a set of increases in the exempt amount for recipients aged 65–69 far in excess of the rate of wage growth in 1996, and by 2002 workers receiving social security will be able to earn up to \$30,000 per year without losing benefits due to the earnings test.

Social security rule changes are also altering the financial rewards for those who delay benefit receipt past the normal retirement age, currently age 65. Within the system, the delayed retirement credit is defined as the increase in subsequent benefits enjoyed by a potential recipient who delays benefit receipt by one year. This credit was increased from 1 percent per year of delay to 3 percent in 1977, and it is now being increased further from three to 8 percent (by 2010) per year of delay. Eight percent is close to an actuarially fair adjustment for the average worker, which means that the present discounted value of expected social security benefits will no longer decline because of work beyond age 65.<sup>6</sup> Instead of penalizing work at older ages, social security is now becoming more age-neutral. Another important



change will also phase in soon. The normal age of eligibility for social security benefits—the age at which one receives 100 percent of one's Primary Insurance Amount—has been age 65 since the creation of the program 60 years ago. Between the years 2003 and 2008, however, the normal retirement age will be increased from 65 to 66, and then raised further to age 67 between 2021 and 2026. These changes are almost identical to across-the-board benefit cuts, but they will also send an important societal message about the appropriate age for retirement.<sup>7</sup>

Important changes are also occurring in private sector inducements to retire. There has been a movement away from defined benefit toward defined contribution pension plans.<sup>8</sup> As defined benefit plans decline in relative importance, so does their ability to discourage work and encourage retirement. Defined contribution plans, in contrast, have none of the age-specific work disincentives that defined benefit plans often contain; by their very nature they are age-neutral.

A counter-argument to our “end of an era” conjecture is that the observed reversal in the early retirement trend may only be a temporary hiatus in the long-run decline in retirement ages—a decline made inevitable by the increasing wealth of the nation and the desire of older Americans to stop working. This argument suggests that once the social security rule changes mentioned above are in force, older Americans' labor force participation rates will resume their longtime decline. Butressing this view is the fact that the American economy has been very strong over the last decade. The national unemployment rate fell from about 10 percent in 1983 to near 5 percent in 1989, and, following a brief recession in the early 1990s, has fallen below 5 percent. Such a prosperous job market creates employment options for older workers who want to remain employed. Therefore part of what appears to be a new labor market trend could actually be the result of strong, but *cyclical*, labor demand. If so, the long-run participation rate declines may resume when the economy falters.<sup>9</sup>

Macroeconomic effects are undoubtedly important, but deeper changes are also at work. There is a new attitude toward work late in life, encouraged by public policy initiatives, shifts from manufacturing to less arduous service occupations, and the realization that many 62-year-olds today can anticipate two or more decades of healthy activity ahead. Although many may not want to continue full time on their career jobs, many older people do want to remain active in the labor market, perhaps part-time, perhaps self-employed, and perhaps in an entirely new line of work.

Survey evidence supports this view that many older Americans want to work more. The Commonwealth Fund sponsored a survey of 3,500 older Americans, men aged 55–64 and women aged 50–59. Of those no longer employed, between 14 and 25 percent suggested that they would have preferred to work if a suitable job were available (McNaught, Barth, and Hen-

derson 1989). Though far from a majority of the retirees, this percentage did represent between 1 and 2 million potential workers. Among those still employed, Quinn and Burkhauser (1994) found that a minority—another million people—said that they expected to stop working before they really wanted to. One interpretation of this response is that these individuals expected to stop given the financial incentives that they faced (from social security and employer pensions), but they would have wanted to continue working in the absence of these work disincentives.

Using data from the Health and Retirement Study, Gustman, Mitchell, and Steinmeier (1995) report that many older Americans face hours constraints on their jobs. Among full-time workers aged 51–61 in 1992, 15 percent said that they would like to work more hours than they did, but could not, as did about 20 percent of part-time workers. Similar numbers of full-time workers (but many fewer part-timers) said they would like to work fewer hours than they currently did.

### **How Do Older Americans Leave the Labor Force?**

The retirement patterns of American workers are much more complicated and varied than is often suggested by the stereotypical view of retirement as a one-step transition directly from a career job to complete labor force withdrawal.<sup>10</sup> Although the one-step pattern is still common, many older Americans retire gradually and in stages, utilizing so-called “bridge jobs” on the way out.<sup>11</sup> Hence we believe that retirement is most fruitfully understood as a process, rather than a single event. These insights are fruitfully examined using the Health and Retirement Study (Quinn 1997b). In previous research, I have analyzed the 1992 and 1994 waves of the HRS; here, we add to the analysis the third wave of data from 1996, when primary respondents were age 55–65. Therefore a reasonable number of the respondents had crossed the important age 62 threshold.<sup>12</sup>

The word “retirement” means different things to different people: some equate the term with total labor withdrawal, while others would include people still working but who had cut back significantly on hours worked late in life. Others deem retirement to be coincident with the receipt of retirement benefits from social security or an employer pension, regardless of labor force status, while still others use responses to subjective questionnaire items; that is, the retired are those who call themselves retired. Here we examine a different issue—the process by which older Americans leave their full-time career jobs. As noted above, some move out of the labor force directly from a full-time job. For these people, the timing of retirement is relatively well-defined. But as we will see, others exit more gradually, utilizing transition or bridge jobs on the way out. In what follows, we study the older American population to ask several questions: What is a bridge job?

How important are bridge jobs to older Americans today? Do these jobs tend to be full-time or part-time? How do they compare to workers' career jobs? How important is self-employment in this process?

### Retirement Patterns in the 1990s

Since we focus on the transition from work, the analysis sample excludes people without work experience after age 49. Consequently, our HRS analysis sample consists of about 8,000 individuals who appear in each of the first three waves of the HRS. In some of the analysis, we restrict this sample further to concentrate on those for whom we can identify a career job, defined as a full-time job that lasted or is expected to last for at least 10 years. The subsample includes about 5,800 respondents, with 3,600 men and 2,200 women. At the time of the 1996 HRS survey, 38 percent of the respondents were no longer working (36 percent of the men and 40 percent of the women; see Table 2.)<sup>13</sup> By utilizing the longitudinal nature of the survey data, we can look back in time and ask how these people moved out of employment. The other 62 percent were still working—some still on full-time career jobs (and we will have to wait to see how they retire) and others on bridge jobs, often as part of the retirement process.

The evidence shows that employment rates declined over time as the HRS respondents aged. In 1994, just two years earlier, 70 percent of this sample had been working, and in 1992, nearly 80 percent had been employed. Each subsequent wave of the HRS provides more insight into how people retire, since more respondents have left the labor force each time. The effect of age can also be seen in Figure 3, which shows HRS employment rates in 1996 by age and gender. Employment declined monotonically with age for both men and women, and there are noticeable drops at ages 62 and 65, the ages

TABLE 2: Employment Status of HRS Respondents (%) with Work Experience After Age 49

	<i>Men</i>	<i>Women</i>	<i>Total</i>
<i>1996</i>			
Employed	64	60	62
Not employed	36	40	38
<i>1994</i>			
Employed	71	70	70
Not employed	29	30	30
<i>1992</i>			
Employed	79	79	79
Not employed	21	21	21

Source: Author's calculations.

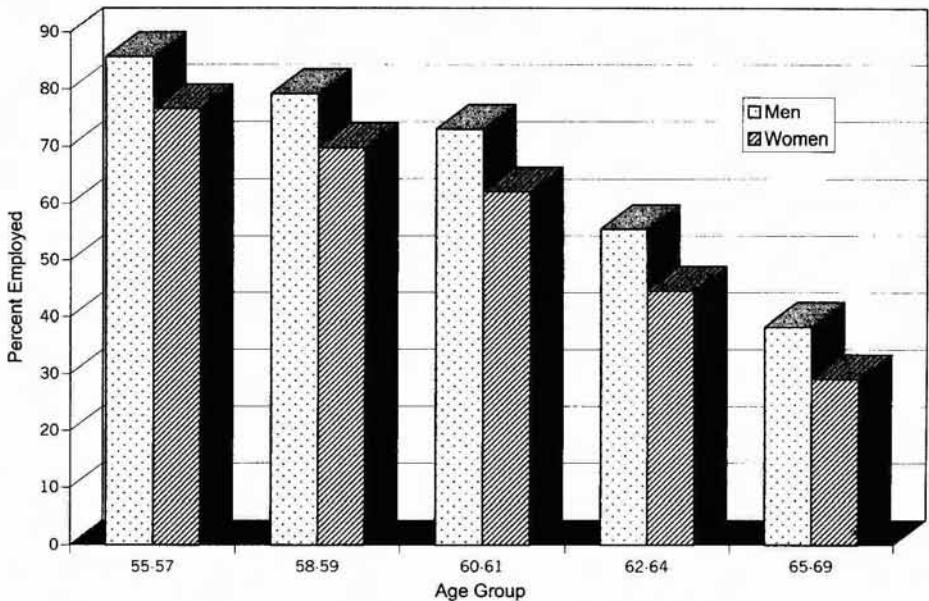


Figure 3. HRS employment status by age and gender, 1996. Source: Author's calculations.

of eligibility for early (actuarially reduced) and normal social security benefits as well as for some employer pensions.

Figures 4 and 5 show part-time and self-employment patterns by gender and age. The fraction of workers employed part-time rises with age (Figure 4), with dramatic jumps at ages 62 and 65, and the rate is generally higher for women than for men. The proportion of self-employed men also rises with age, with a noticeable jump at age 62, and it is higher for men than for women (Figure 5). For the working women in our sample, there is little change in the percentage self-employed below age 62, but the rate rises for those 62 and older.

*A look back: how did the respondents get where they are?* The labor market status of our HRS sample in 1996 is detailed in Figure 6. We differentiate between those still on a career job in 1996 (full-time, and of at least 10 years duration) and those on a bridge job (either part-time, or less than 10 years tenure), and then look back in time to identify their transition paths.<sup>14</sup> In 1996, 40 percent of the men were still working on career jobs (Figure 6a). We will have to follow this group through subsequent waves of the HRS to see how and when they retire. Thirty-six percent were not working at all (as noted in Table 2), and nearly a quarter (23 percent) were working on what

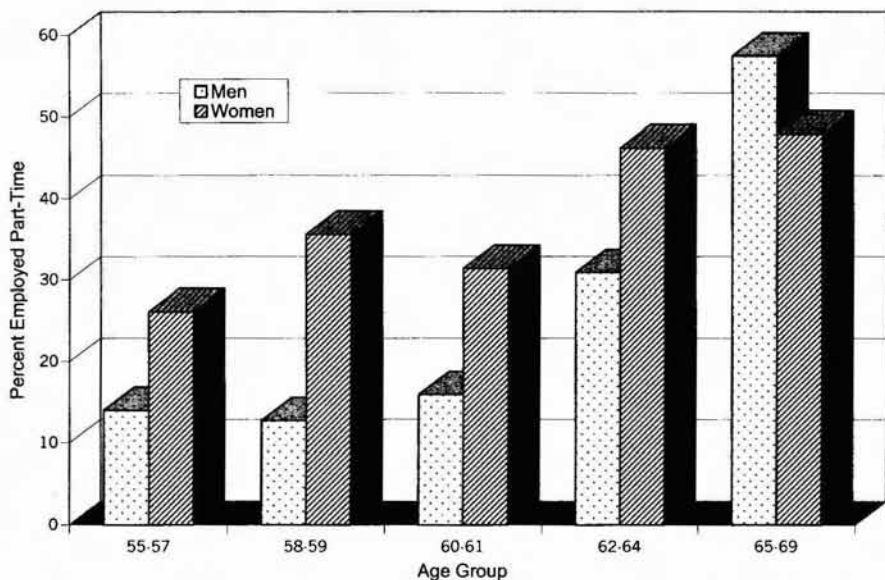


Figure 4. HRS part-time employment status by age and gender, 1996. Source: Author's calculations.

we define as a bridge job.<sup>15</sup> Two-thirds of these bridge jobs were part-time; the remaining third were full-time jobs that we anticipate will end with under 10 years duration.

How did the 36 percent of the male sample that had already stopped working by 1996 leave the labor market? As seen in Figure 6, nearly two-thirds left directly from a full-time career job (the stereotypical retirement pattern), while about 30 percent last worked on a bridge job before leaving the labor force. About half of these bridge jobs were part-time, and the other half were full-time, but with less than 10 years tenure. Nearly a quarter of the HRS men were working on bridge jobs in 1996. Of those for whom we had good data, we find that about two-thirds of the people held full-time career jobs prior to their bridge jobs, and they appear to be utilizing bridge jobs on the way out of the labor force.

The experiences of the HRS women were somewhat different from those of the men, mainly because bridge jobs appear to be more important (Figure 6). Slightly more of the women had stopped working by 1996 (40 versus 36 percent, despite the fact that the women are, on average, a bit younger), and of those still at work, a higher proportion of the women were still working on bridge jobs (43 versus 36 percent).<sup>16</sup> An even higher proportion of the women's bridge jobs were part-time rather than short-duration in nature (80 versus 65 percent). Of the women not working in 1996, nearly 60

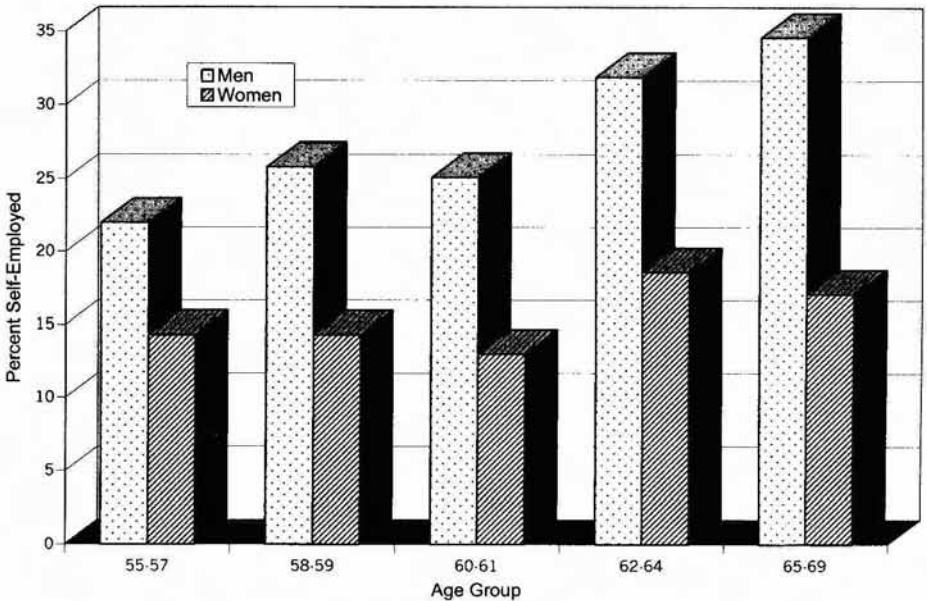


Figure 5. HRS self-employment status by age and gender, 1996. Source: Author's calculations.

percent of those with good data on their last job last worked on a bridge job, compared to only about 30 percent of the non-employed men. Again, women's bridge jobs were more likely to have been part-time rather than short duration.

In other words, the HRS reveals a considerable amount of bridge job activity among older Americans in the 1990s. Of those no longer employed, nearly half (about 30 percent of the men and nearly 60 percent of the women) last worked on a bridge job. Among those still working, between 36 percent (of the men) and 43 percent (of the women) were employed on a bridge job. These numbers will change as people age, because some with fewer than 10 years tenure in 1996 will work more or fewer years than we expected, and because we do not know how those still on full-time career jobs will exit. To estimate a lower bound on the importance of bridge job activity, we could assume that *none* of those still working on full-time career jobs in 1996 would use a bridge job on the way out. In this case, about one-third of the men and nearly one-half of the women will change jobs between their last career job and complete labor force withdrawal.<sup>17</sup> To determine how our results vary with the definition of a career job, we also experimented with requiring only eight or five years' duration, although the latter seems a bit short to be defined as a "career" job. Table 3 shows, for each of



Figure 6. 1996 job status of HRS respondents with work experience since age 50: men (top) and women (bottom). DK means respondent responded "don't know" to relevant HRS question. Source: Author's calculations.

the three tenure definitions, the fraction working on a bridge job in 1996, the fraction of those not working in 1996 whose last job was a bridge job, and our lower bound estimate of the extent of bridge job activity (assuming that none of those still working on a career job will utilize a bridge job on the way out). The qualitative conclusions remain unchanged though specific definitions do make a difference. When we drop the tenure definition for a career job from 10 to eight years, the difference in the extent of bridge job activity is modest, on the order of five percent (Table 3). When we drop the definition to five years, the number of bridge jobs drops about 20 percent. But even under this strict definition, our lower bound estimates suggest that between a quarter (of the men) and 40 percent (of the women) — compared to one third to half under the 10-year definition — pass through a bridge job late in life. Bridge job activity is thus seen to be an important part of the labor force withdrawal process in America.



TABLE 3: Bridge Job Activity of HRS Respondents (%) with Three Definitions of Full-Time Career Job

<i>Full Time Career Job Requires</i>	<i>Percent Working on a Bridge Job, 1966<sup>a</sup></i>		<i>Percent Not Working Whose Last Job Was a Bridge Job<sup>b</sup></i>		<i>Lower Bound of Bridge Job Activity<sup>c</sup></i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
10 years tenure	23	25	30	58	34	49
8 years tenure	21	24	29	55	32	46
5 years tenure	17	22	25	48	27	41

Source: Author's calculations.

Notes:

<sup>a</sup> From Fig. 6 for 10 years or more tenure, and analogous figures using tenure greater than or equal to 8 or 5 years.

<sup>b</sup> For those not employed, bridge / (bridge + full-time career) on last job; see Fig. 6 for 10 year tenure figures.

<sup>c</sup> People (currently working on bridge job) plus (not working and last job was a bridge job) as a percent of all those with work experience since age 50. We ignore the DKs, and assume that none of those currently working on a full-time career job utilize a bridge job on the way out.

*A look forward: how did those with career jobs leave them?* Thus far, we have implicitly assumed that a part-time or a short duration job late in someone's work career indicates gradual or partial retirement. This might not be true for some workers whose job histories consist of a series of part-time or shortduration jobs. Therefore, we conducted additional analysis on just the subsample for whom we could identify a full-time career job. For these workers, a bridge job would represent a change in behavior. For each individual with work experience after age 49, we searched the HRS survey response to identify some prior career job.<sup>18</sup> If we did find one, we then proceeded forward in time to see how (if at all) the individual left that career job. HRS information on the current, last (for those no longer working), and prior jobs revealed a career job for most of the men (84 percent) and for 60 percent of the women analyzed above.<sup>19</sup>

Retirement transitions for men and women where we can identify a full-time career job appear in Figure 7. About 44 percent of these men were still working on their full-time career jobs, about 28 percent moved out of employment directly from their career jobs, and a quarter moved to a bridge job.<sup>20</sup> (Most of them were still on this bridge job in 1996; some had subsequently moved out of employment altogether.) Of those who had already left their full-time career jobs and for whom we have good data, nearly half (47 percent) moved to a bridge job rather than directly out of employment. Transition data for career women tell a similar story (Figure 7b). Of those who had left their career jobs by 1996, about half (49 percent) moved next to a bridge job rather than directly out of employment. In general, exit



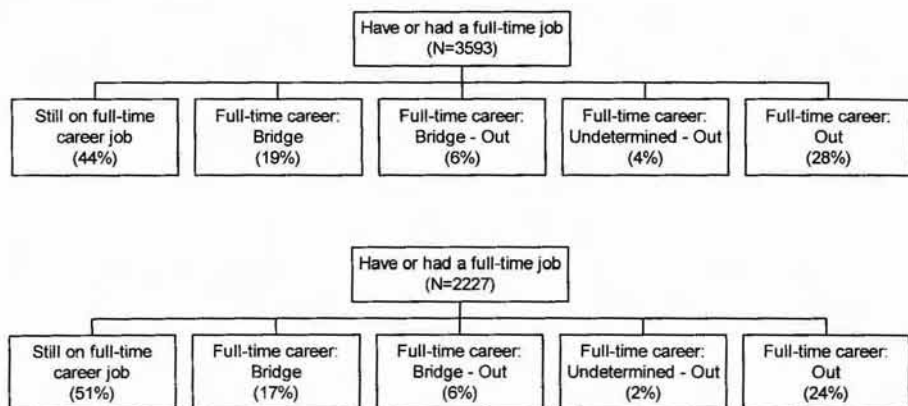


Figure 7. Job transitions of HRS respondents with a full-time career job: men (top) and women (bottom). Source: Author's calculations.

patterns of career men and women look more similar than do those of all men and women in general.

Prior research suggests that self-employed and wage-and-salary workers leave their career jobs in different ways, and that crossovers between classes of worker are common late in life (Quinn, Burkhauser, and Myers 1991). The HRS data confirm both of these surmises. Of the wage and salary workers, 46 percent was still on career jobs in 1996, 37 percent was not working (some of whom had moved to and then out of a bridge job in the interim), and 16 percent was employed on a post-career bridge job (Figure 8). Of those who had left their career jobs by 1996, nearly half (44 percent) moved to bridge jobs. Of those who did move to a bridge job (whether still on it or not in 1996), nearly two-thirds moved from full-time to part-time status and nearly a quarter moved from the wage-and-salary world to self-employment. This is one of the reasons why self-employment is more prevalent among older workers than it is among the labor force in general. For some older Americans, self-employment provides the means for gradual retirement, with additional flexibility with respect to hours and type of work.

By contrast, among those who were self-employed in their career jobs, 77 percent was still working in 1996, compared to only 62 percent of the wage-and-salary workers (Figure 8). The majority of the employed was still on career jobs, but some had switched to bridge jobs. Of those who had switched, more than half (54 percent) moved from full-time to part-time status, and about a third switched from self-employment to wage-and-salary work. Although the proportion of self-employed job switchers moving to a wage and salary job is higher than the reverse, there is still a net increase in the

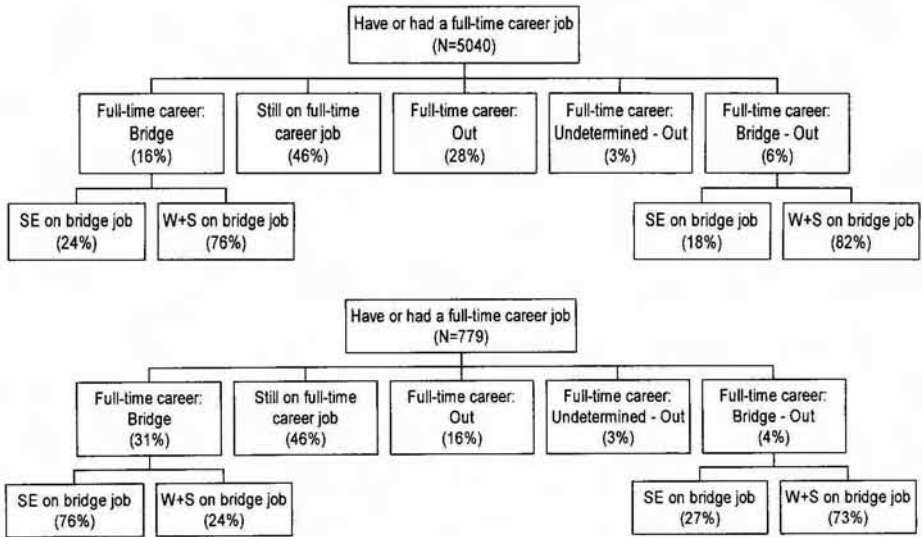


Figure 8. Job transitions of HRS career wage and salary workers with a full-time career job: wage and salary workers (W+S) (top); self-employed workers (SE) (bottom). Source: Author's calculations.

number of self-employed, because of the much larger number of career wage-and-salary workers.

### Comparisons Between Career Jobs and Bridge Jobs

We next follow the transitions of those career employees who moved to bridge jobs, and we ask how the two jobs compare.<sup>21</sup> About 60 percent of the bridge jobs involved part-time work, whereas all the career jobs, by definition, were full-time. Table 4 categorizes the jobs by white collar/blue collar status and by skill level. About three-quarters of those who switched to a bridge job stayed in the same job category, and for those who switched categories there was a net movement down the socioeconomic ladder. About 70 percent of those who switched moved down the scale, and only 30 percent moved up. The largest increase occurred among those in blue-collar jobs without high skill requirements, which increased from 13 percent of the career jobs to 21 percent of the bridge jobs.

Slippage can also be seen in Table 5, which tabulates workers' hourly wage rates on both career and bridge jobs. Only about one-third of these workers earned less than \$10 per hour on their career jobs, but 60 percent did on their post-career jobs, mostly in the \$5 to \$10 per hour category. At the

TABLE 4: Occupational Status of HRS Respondents Moving from Career to Bridge Jobs (%)

<i>Subsequent Bridge Job</i>	<i>Initial Full-Time Career Job</i>				<i>Total</i>
	<i>White Collar Highly Skilled</i>	<i>White Collar Other</i>	<i>Blue Collar Highly Skilled</i>	<i>Blue Collar Other</i>	
White collar, highly skilled	79	15	9	6	41
White collar, other	6	67	4	1	14
Blue collar, highly skilled	8	9	64	11	24
Blue collar, other	7	6	23	82	21
Total	45	15	27	13	100

Source: Author's calculations.

TABLE 5: Wage Rate of HRS Respondents Moving from Career to Bridge Jobs (%)

<i>Subsequent Bridge Job Wage Rate (\$/hour)</i>	<i>Initial Full-Time Career Job Wage Rate (\$/hour)</i>						<i>Total</i>
	<i>0-5</i>	<i>5-10</i>	<i>10-15</i>	<i>15-20</i>	<i>20-30</i>	<i>30+</i>	
0-5	51	19	14	15	1	4	18
5-10	26	64	44	34	34	24	43
10-15	16	12	27	19	15	8	18
15-20	1	3	9	2	6	8	8
20-30	3	1	3	7	25	24	7
30+	1	2	2	6	9	32	6
Total	9	26	28	17	14	6	100

Source: Author's calculations.

upper end of the spectrum, 20 percent of these workers earned over \$20 per hour in career employment, but only 13 percent did on their bridge jobs. Overall, only about one-third of these job switchers stayed in the same wage category in Table 5. Of those who did not stay in the same status/skill cell, three quarters moved down at least one wage rate category, while only one-quarter moved up.

## Conclusion

We present evidence suggesting that the post-war trend toward earlier retirement for men has come to a halt. Many more older Americans are working today than the pre-1986 trends would have suggested. Explanations for this change in trend include the elimination of mandatory retirement,

changes in the work incentives imbedded in social security rules, the steady increase in the importance of defined-contribution pension programs, and the strength of the American economy over most of the past decade.

We also explored the complex and numerous paths to retirement revealed in the Health and Retirement Study. Bridge jobs are emphasized, which are part-time or short-duration jobs between career employment and complete labor force withdrawal. Our research shows that many older Americans do retire gradually, often using part-time jobs or stints of self-employment on the way out. Exit routes from career employment are many and varied, and the traditional one-step retirement pattern is no longer the norm it once was. These transitional stages in the retirement process will probably grow more important through time as the nation ages, and as the large baby-boom cohorts contemplate how and when to leave the world of work.

The author thanks the Retirement Research Foundation, the Employee Benefit Research Institute, and the W. E. Upjohn Institute for Employment Research for research support, Kevin Cahill for excellent research assistance, and Olivia Mitchell for helpful comments on an earlier draft.

## Notes

1. The financial incentives imbedded in social security and many defined-benefit pension rules created pay cuts for older workers. Total annual compensation includes both the paycheck and any changes in social security and pension wealth (the present value of future benefits) that accrue during that year of work. Many pension systems are set up so that after some age, these present values begin to decline. At this point, the annual "accruals" become negative, and one's compensation (the paycheck *minus* the loss in retirement wealth) declines. Faced with these implicit pay cuts, many workers chose to retire. Under these circumstances, the distinction between voluntary and involuntary retirement is a fuzzy one. See Quinn (1991) for a discussion of these issues.

2. The trends are based on simple linear regressions with a constant and a time trend. Figures 1 and 2 are updated from Quinn (1997a).

3. To estimate the magnitude of this change, Burkhauser and Quinn (1997: table 2) multiplied the difference between the actual 1996 participation rates and rates predicted by the pre-1986 extrapolations by the population figures for men at these ages. The results indicate that an additional 1.4 million men age 60–69 were working in 1996.

4. The net effect of the elimination of mandatory retirement on retirement patterns was probably small, since financial incentives to retire remained in many public and private pension schemes. Burkhauser and Quinn (1983) estimated that at least half of what looked like a mandatory retirement effect was actually due to the simultaneous financial incentives.

5. The changes outlined in the next several paragraphs can be found in the Social Security Administration's *Annual Statistical Supplement to the Social Security Bulletin* (1996), tables 2.A20, 2.A29.

6. Inadequate delayed retirement credits meant that benefits forgone because of continued work were never fully made up via higher benefits in the future. This loss

in social security wealth was the "pay cut" mentioned earlier. Of course, a delayed retirement credit that is actuarially fair *on average* will not be so for individual workers with different life expectancies.

7. Waiting longer for a given benefit is the same as getting a smaller benefit at any given age. Imagine an upward sloping line showing the relationship between age of initial receipt (on the horizontal axis) and monthly benefit (on the vertical axis.) A benefit cut would lower the line; a benefit delay would move it to the right. Although these two changes are indistinguishable, they can have very different interpretations. Describing the change as a benefit cut makes it appear that the benefit was too high, an opinion with which many recipients and elderly advocates would disagree. Describing the change as a benefit delay makes it sound like the amount was correct, but the age was wrong, a view which resonates with many more people, given the increases in life expectancy Americans have enjoyed. Despite the different interpretations, however, the policies are nearly identical.

8. The proportion of employer pension plan participants whose primary coverage is in a defined-contribution plan increased from 13 to 30 percent between 1975 and 1985, and then to 42 percent in 1992. Including secondary plans, which are nearly all defined-contribution, the proportion of participants in defined-contribution plans doubled from 26 to 52 percent between 1975 and 1993, and then rose slightly to 53 percent (estimate) by 1997 (Olsen and VanDerhei 1997, table 2).

9. Peter Diamond has pointed out (in private correspondence) that labor force participation rates for older American men were also very flat in the late 1960s, when the economy was very strong and the unemployment rate was on its way to a postwar low of 3.5 percent. When the economy sagged in the 1970s, participation rates began to tumble, as one can see in Figure 1 (especially for ages 65 to 69.) The next recession may cast some light on this debate.

10. See Quinn, Burkhauser, and Myers (1990) for a more extensive discussion of this point.

11. In this research, we define a "career job" as a full-time job of at least 10 years tenure. A "bridge job," therefore, can be a part-time job of any length or a full-time job of less than 10 years duration.

12. See Juster and Suzman (1995) along with other papers in the same volume for an overview of the Health and Retirement Study.

13. Employment rates for this HRS subsample are not comparable to labor force participation rates published by the Bureau of Labor Statistics, because we have eliminated those individuals with no worker experience after age 49, and are looking at employment rather than labor force participation, which includes those not employed and actively searching for work. Since the HRS oversamples blacks and Hispanics, sample weights are provided so that the estimates will better represent population percentages. All percentages used in this paper are weighted.

14. For those still working in 1996, the concept of job duration is a fluid one. Some full-time workers were on jobs with less than 10 years duration in 1996, but will probably have more than 10 years tenure by the time they leave. Therefore, what appears to be a "bridge job" by our definition might prove to be a "10-year or more" career job when it is over. Rather than classify all jobs with less than 10 years duration in 1996 as bridge jobs, as though all these workers were just about to leave, we assume here that full-time workers younger than 62 remain on their current jobs until age 62 and those still employed after age 62 remain until age 65. There is no need for any such assumption for those working part time (the majority of those on bridge jobs), since we consider part-time jobs to be bridge jobs no matter what the duration. We then classify the 1996 jobs as either "career" or "bridge" depending on their (assumed) eventual tenure.

15. A small percentage (2 percent) of these men and women were known to be bworking, but missing data prevented us from discerning whether they were employed on full-time career jobs.

16. These are the ratios of those on a bridge job to those on a bridge or a full-time career job. Those whose career or bridge job status cannot be determined are ignored in these calculations.

17. These estimates add those on bridge jobs in 1996, plus those who already left the labor market via a bridge job.

18. We return to the original definition here — more than 1600 hours per year, and 10 or more years duration.

19. In defining this subsample of career workers, we do not have to assume that workers remain on their current jobs until age 62 or age 65. For those who leave these career jobs by 1996, we can calculate the actual tenure at transition to define the job one leaves as either career or bridge. On the other hand, for those who take another job when they leave their career jobs, we do assume they remain on the post-career job until age 62 (or age 65 for those already 62 or older) when deciding to describe it as a bridge job or as another career job.

20. A small number moved out of employment via an intermediate job, but data deficiencies prevent us from determining whether the intervening job was a bridge job or another career job.

21. Tables 4 and 5 contain very preliminary data. The early-release version of Wave 3 is missing data on occupational status and wage rates, so the comparisons in these tables are based on those career workers who switched to a bridge job by 1994 (Wave 2).

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