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THE LABOR SUPPLY OF OLDER AMERICANS

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Abstract

This paper summarizes what is known about the labor supply of older men, defined as those 55 and over. The topic is of great interest because older individuals will comprise a much greater portion of the population, so their labor supply will have a significant impact on national output, tax revenues, and the cost of means-tested programs. Most importantly, a greater proportion of older individuals will need to work than do at present, because retirement income systems are contracting and working longer is the only way for most to ensure financial security in their old age. The focus is on men, because women's work patterns reflect the increasing participation of cohorts over time as well as the factors that affect retirement behavior.

Section I of this paper describes the changes to the retirement income system that will require people to work longer. Section II summarizes the long-term decline in labor force activity among older individuals and the factors that contributed to that trend. Section III describes the recent turnaround in the labor force activity of older people and the changes in Social Security and pensions that likely led to that reversal. In an attempt to determine whether the labor supply of older workers will continue to increase, Section IV describes changes in work patterns that have emerged in the last 20 years, leading to more mobility and less tenure among older workers and the implications of such changes on labor supply. Section V addresses the issue of health to ascertain the extent to which older people can be expected to continue in the labor force, noting that for 15 to 20 percent of the work force continued employment will be impossible. Section VI discusses the remaining incentives to retire – namely, the availability of Social Security at 62 and the lack of flexible employment arrangements. Section VII concludes.

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I. The Need for Continued Employment

Earnings become dramatically less important as a source of household income and pension and Social Security income dramatically become more important as people age. Today the share of household income from earnings declines from 81 percent for those 55-61, to 57 percent for those 62-64, to 23 percent for those 65-69, and becomes trivial thereafter (see Figure 1). The major sources of income other than earnings are Social Security benefits and employer-sponsored pensions. Both of these sources, however, will provide less in the future than they do today.

The Outlook for Social Security

At any given retirement age, Social Security benefits will replace a smaller fraction of pre-retirement earnings in the future than they do today. Today, the hypothetical “medium earner” retiring at 65 receives benefits equal to about 41 percent of previous earnings. After paying the Medicare Part B premium, which is automatically deducted from Social Security benefits before the check goes in the mail, the replacement rate is 39 percent. But, under *current law*, Social Security replacement rates – benefits as a percent of pre-retirement earnings – are scheduled to decline for three reasons. First, the Normal Retirement Age is currently in the process of moving from 65 to 67, which is equivalent to an across-the-board cut.¹ Second, Medicare Part B premiums are slated to increase sharply due to rising health care costs.² (Premiums for the new Part D drug benefit will also claim an increasing share of the Social Security check.) Finally, Social Security benefits will be taxed more under the personal income tax, as the exemption amounts are not indexed to inflation. As shown in Figure 2, these three factors will reduce the net replacement rate for the medium worker claiming at age 65 from 39 percent in 2002 to 30 percent in 2030. Restoring solvency through cuts in benefits would reduce this level of support still further.

The Outlook for Private Sector Employer-Sponsored Pensions

With a diminished role for Social Security, retirees will be increasingly dependent on employer-sponsored pensions. At any moment in time, however, less than half of the private sector work force age 25 to 64 participates in an employer-sponsored plan of any type. This fraction has remained virtually unchanged since the late 1970s, and is unlikely to improve.³ Since pension participation tends to increase with earnings, only middle- and upper-income individuals can count on receiving meaningful benefits from employer-sponsored pension plans.

The other issue is that the nature of pension coverage has changed dramatically. Twenty years ago, most people with pension coverage had a traditional defined benefit plan that pays a

¹ Under legislation enacted in 1983, the increase in the Normal Retirement Age began with those born in 1938 (turning 62 in 2000) and will be fully phased in for those born in 1960 (turning age 62 in 2022).

² The premium for Medicare Part B is projected to increase from 9 percent of the average Social Security benefit in 2006 to 11 percent in 2030.

³ The pension coverage data discussed above apply only to individual workers at any given point in time. Over a lifetime and on a household – rather than an individual – basis, coverage rates are somewhat higher. For households aged 55-64, the 2001 Survey of Consumer Finances shows that approximately 65 percent of households had some sort of pension coverage in 2001. Pension coverage is much more extensive for high-income households.

lifetime annuity at retirement.⁴ Today the world looks very different (see Figure 3). Most people with a pension have a defined contribution plan – typically a 401(k) – and 401(k) plans are like savings accounts.⁵ *In theory* workers could accumulate substantial pension wealth under 401(k) plans. But *in practice* they do not. For example, simulations suggest that the worker in the middle of the earnings distribution, who contributes regularly throughout his work life, should end up at retirement with about \$300,000 in his 401(k) account and/or Individual Retirement Account (IRA). (Most IRA assets are rolled-over balances from 401(k) plans.) This amount, when combined with Social Security, would provide an adequate retirement income. But reality looks quite different. The Federal Reserve’s 2004 Survey of Consumer Finances reports that the typical individual approaching retirement had 401(k)/IRA balances of only \$60,000 (Figure 4).⁶ Younger cohorts also do not seem to be on track for an adequate retirement income. A critical factor explaining these low balances is that the entire burden has shifted from the employer to the employee, and employees make mistakes at every step along the way.⁷

Personal Saving

Given the projected decline in Social Security and increased uncertainty surrounding employer-sponsored pensions, one might have expected to see those of working age increase their personal saving. But a recent study of the U.S. National Income and Product Accounts

⁴ The annuity might be a dollar amount per month for each year of service, say \$50; so workers with 20 years of service would receive \$1,000 per month at age 65. The benefit could also be a percentage of final salary for each year of service, say 1.5 percent; so workers with 20 years would receive 30 percent (20 years at 1.5 percent) of final salary for as long as they live. The employer finances these benefits by making pre-tax contributions into a pension fund; holds the assets in trust; directs the investments; and bears the risk. The Pension Benefit Guaranty Corporation (PBGC) insures benefits up to specified limits. The PBGC monthly guarantee limit in 2007 is \$4,125 at age 65, and declines to \$1,856 at age 55. Employers pay for this insurance with premiums largely determined by the plan’s funding status.

⁵ Generally the employee, and often the employer, contributes a specified percentage of earnings into the account. These contributions are invested, usually at the direction of the employee, mostly in mutual funds consisting of stocks and bonds. Upon termination of employment or retirement, the worker generally receives the balance as a lump sum, albeit with the option to roll it over to an IRA.

⁶ This amount includes Individual Retirement Account (IRA) balances, because most of the money in IRAs is rolled over from 401(k) plans. For further details, see Munnell and Sundén (2006).

⁷ In 401(k) plans, workers must decide whether or not to join, how much to contribute, how to invest the assets, when to re-balance, what to do about company stock, whether to roll over accumulations when changing jobs, and how to withdraw the money at retirement. The evidence indicates that a significant fraction of participants make serious mistakes at every step along the way. A quarter of those eligible to participate choose not to do so. Over half fail to diversify their investments. Many over-invest in company stock. Almost no participants re-balance their portfolios as they age or in response to market returns. Most importantly, many cash out when they change jobs and very few annuitize at retirement. The basic problem is that financial decisions are difficult. Most participants lack sufficient financial experience, training, or time to figure out what to do.

(NIPA) personal saving rate revealed that virtually all the saving undertaken by the working-age population occurred in pension plans (Munnell, Golub-Sass, and Varani, 2005) (see Figure 5). In recent years, saving outside of pensions has actually been negative.

Thus, the outlook for retirement income for future cohorts of retirees is dismal. People are not going to be able to continue to retire at 62 and 63 and maintain their pre-retirement living standards over an increasingly long period of retirement (Figure 6). Moreover, dramatically rising health care costs are going to erode already diminished pension income.⁸ Working longer is an obvious solution.⁹ Each additional year in the workforce increases income directly through earnings from work and investments. It also actuarially increases Social Security benefits by 7 to 8 percent and reduces the number of years over which retirement savings need to be spread. The implications for retirement saving are striking. As shown in Figure 7, a couple in the middle of the income distribution could reduce the assets required to replace 80 percent of their after-tax pre-retirement income from \$555,000 to \$128,000 by delaying their retirement from 62 to 70.¹⁰ Delaying retirement is clearly a desirable goal. But is it realistic?

II. The Long-term Decline in Employment Rates

The notion of retirement as a distinct and extended stage of life is a recent innovation. Up to the end of the nineteenth century, people generally worked as hard and as long as they could. In their prime, they put in 60 hours of work each week. And at the end of life they had only about two years of “retirement,” often due to ill-health. Productive capacity declined with age. So they took on less taxing jobs, or worked fewer hours. But they generally stopped working only when no longer able.¹¹

⁸ Penner and Johnson (2006) estimate that rising health care costs and the taxes required to cover these costs will require a moderate-income couple to work an additional 2.5 years under the scenario with high health care costs and tax burdens to receive as much income in the first year of retirement — net of taxes and out-of-pocket health spending — as they would receive under the low-cost scenario.

⁹ In addition to addressing the financial issue, working longer appears to help individuals maintain their overall physical and mental well-being (see Calvo 2006).

¹⁰ Similarly, Butrica, Johnson, Smith and Steuerle (2006) concluded that many people could increase their consumption by more than 25 percent at older ages simply by retiring at age 67 instead of age 62.

¹¹ A 1570 census of the poor, in Norwich, England, thus found three widows, age 74, 79 and 82, “almost past work” but still earning a small income from spinning. Estates left by the elderly in colonial America often included tools used in less strenuous trades, such as tailoring, spinning, shoemaking, and weaving. And well into the nineteenth century, about half of all 80-year-old men in America still worked (Thane 2000).

Beginning around the end of the 19th century, the percent of the older population at work began to decline. This can be seen in Figure 8 which shows employment rates by age.¹² The employment rate among men aged 65 and over fell from about 80 percent in 1880 to about 40 percent in 1940 to 16 percent in 1990.

People retire for three basic reasons. Poor health makes it impossible for them to keep working. Strength, eyesight, hearing, and mental agility decline with age, and the incidence of debilitating conditions and illnesses rise. Second, as the real or perceived productivity of older workers ebbs, employers find it uneconomic to employ them. Third, people acquire enough wealth to forgo earnings from work. That is, as their productivity declines and ailments raise the disutility of work, older people can choose to quit. In terms of explaining the trend towards longer periods of retirement, increasing wealth and the attitudes of employers must be the primary drivers.¹³ Health has improved – not deteriorated – and would have been expected to lead to later retirement.

Economic growth has been dramatic throughout the 20th century. Despite the Great Depression, output per hour in 1940 was 2.7 times the level in 1880 (U.S. Bureau of Economic Analysis, 1973). Workers used some of this increased affluence to reduce their work burden. The length of the work day fell sharply between the 1880s when the typical worker labored 10 hours a day, 6 days a week and 1940 when the typical work schedule was 8 hours per day, 5 days per week (Costa, 2000). But retirement requires more than rising incomes and a decision to consume more leisure. People can retire only if they have a source of income once their earnings cease.

In theory, people could save during their working years and then tap those assets to support themselves in retirement. But the saving and investing process requires a good deal of foresight, discipline, and skill. People need to predict their earnings over their lifetime, how long they will be able to work, how much they will earn on their assets, and their life expectancy. Recent surveys suggest that – even today – people are not very good at planning for retirement.

¹² The Census measured the gainful employment rate until 1940 and then the labor force participation rate, defined as the percentage of the population working or actively looking for work.

¹³ See Graebner (1980).

Moreover, at the turn of the century most people had little reason to save for retirement since most died early.¹⁴

Instead of saving for retirement, an unexpected and substantial stream of income for the elderly appeared at the end of the 19th century in the form of old-age pensions to the large number of Union Army Civil War veterans. A comprehensive study found that veterans eligible for these pensions had significantly higher retirement than the population at large (Costa, 1998). It is important to note that these pensions did not require workers to retire; beneficiaries could collect while remaining employed. That Union Army pensions produced an upsurge in retirements clearly illustrates the “income effect” of increased wealth on labor supply – workers choosing to consume a portion of that increased wealth in the form of more retirement.

Work rates in the United States did not return to their previous levels as the veterans died off in the early decades of the twentieth century. Instead, the percentage of the older population at work continued to decline. Various analysts have argued that this reflects the growth of worker incomes (Costa, 1998). But employer attitudes were also becoming more important. The U.S. work force was rapidly shifting from self-employment, most notably as farmers, to employees in large enterprises. These employers increasingly imposed mandatory retirement requirements on their employees. And they were reluctant to hire older workers seeking employment (Moen, 1987; Margo, 1993).

The next big decline in the work rates of older people occurred after World War II (see Figure 9). One obvious factor was the availability of Social Security benefits. Although the legislation was enacted in 1935, only Old Age Assistance welfare benefits were paid initially. Social Security’s retirement benefits were not paid until 1941, and then benefit levels were seriously eroded by war-time inflation. The critical 1950 Social Security Amendments substantially restored benefits and expanded coverage. But replacement rates – benefits relative to pre-retirement earnings – remained at 30 percent for the model average worker. Nevertheless, in the wake of the 1935 legislation workers chose to consume a portion of their new-found Social Security wealth in the form of more retirement.

¹⁴ Life expectancy at age 20 for men in 1900 was 44 years compared to 59 in 2000 (U.S. Social Security Administration). Also see Lee (2001) for the rapid rise in the expected length of retirement of workers entering the labor force between 1850 and 1990.

The uptick in retirements was probably also due to key features in the program design – the Social Security Retirement Earnings Test and the “take-it-or-leave-it” character of Social Security benefits. The earnings test meant that workers could not collect benefits if their earnings from work were more than a trivial sum. The “take-it-or-leave-it” character meant that benefits would not rise if they delayed claiming. The effective compensation of a worker who did not retire at age 65 was their compensation less their Social Security benefit (and other taxes and work expenses). Social Security thus decreased the value of remaining at work vis-à-vis retirement, and this “substitution effect” contributed to the decline in participation. Employer pension plans had similar features and similar effects. They required retirement for a worker to collect, and offered no increase in benefits if a worker stayed on.

Ultimately, the low levels of earnings replacement in Social Security were judged inadequate, given the widespread acceptance of retirement as a legitimate period of rest after a lifetime of work, the relative poverty of the elderly population, and the recognition that employer pensions would never fill the gap. In response, Congress enacted Medicare in 1965 and in 1972 sharply increased Social Security benefits to roughly a 40-percent earnings replacement rate for the benchmark average earner.

The post-war period also saw the expansion of employer pensions. The drivers of that expansion were threefold. First, employer-sponsored defined benefit plans had become an essential component of corporate personnel systems, so coverage grew as corporate big business blossomed. Second, the special tax treatment of employer pensions became significantly more valuable in the face of mass income taxation.¹⁵ And third, unions, which had gained powerful collective bargaining rights, made pensions a standard component of labor agreements throughout the unionized sector in the decade that followed.

By the early 1970s, the combination of Social Security and employer-sponsored plans provided long-service workers a secure and comfortable retirement. In the wake of these developments, the labor force participation rates for men 65 and over declined from 33 percent in 1960 to 16 percent in 1985.¹⁶

¹⁵ Favorable tax provisions had a limited effect on coverage before the war, as less than 10 percent of the adult population typically paid tax. But the postwar growth of mass income taxation made pensions far less costly to employers and workers and encouraged their spread.

¹⁶ Black and Liang (2005) using evidence from the coal boom and bust, the collapse of the steel industry, and the general decline in manufacturing conclude that the retirement decision is sensitive to prevailing economic conditions. This response most likely reflects elements of both supply and demand.

Two factors, in addition to the sheer increase in retirement wealth created by the expansion of the retirement income system, also contributed to a decline in the labor supply of the 55 to 64 age group. First, many traditional employer defined benefit plans began to offer significant subsidies for early retirement. The subsidy arises because companies offer benefits at an early retirement age, such as 55, that are not adjusted sufficiently to reflect the fact that retirees will receive benefits for 10 years longer than if they retired at age 65.¹⁷ The subsidy implicit in the less-than-actuarially fair reduction then gradually declines and disappears entirely at the normal retirement age.¹⁸ By decreasing the value of remaining at work vis-à-vis retirement, this pattern produces a strong incentive to retire early.

The second factor affecting work rates for those 55-64 was the availability of Social Security benefits at age 62. When Congress established 65 as the age of eligibility for Social Security benefits, it was following precedents set internationally and by employer-sponsored plans. But in 1956, Congress lowered Social Security's Earliest Eligibility Age (EEA) for women to 62.¹⁹ The introduction of an EEA for men followed in 1961, primarily in response to a recession that left many older workers without employment. These early retirement benefits are actuarially adjusted, and thus involve no clear increase in retirement wealth. But numerous empirical studies, showing spikes in retirements around the key Social Security ages of 62 and 65, support the notion that the availability of benefits at 62 was an important factor in reducing the labor force participation rate of men age 55-64 (Gustman and Steinmeier, 1986; Rust and Phelan, 1997; Burtless and Quinn, 2000).²⁰

¹⁷ For example, suppose a person will live for 20 years and is entitled to a pension of \$15,000 at age 65; lifetime benefits will equal \$300,000 (20 x \$15,000). To keep lifetime benefits constant, if that employee retired at 55 his annual benefit should be only \$10,000 per year (30 x \$10,000 = \$300,000). But traditional defined benefit plans typically provide far more because they use an actuarial reduction that is smaller than the full reduction. That is, they pay, say, \$12,000 at age 55, which means that the worker in this example who retires at 55 would receive substantially more in lifetime pension benefits than if he were to retire at 65. The exercise is actually somewhat more complicated because the employee adds to his pension if he continues to work.

¹⁸ Often, working beyond the normal retirement age results in negative pension accruals. The law requires that the wage increases of those who work beyond the normal retirement age be reflected in higher retirement benefits. But it does not prevent firms from capping the years of service used to calculate benefits; nor does it require firms to provide actuarial adjustments for the fact that participants will receive benefits for fewer years (McGill et. al. (1996)).

¹⁹ The change was made primarily to help younger widows and to allow wives, who were presumed to be two to three years younger than their husbands, to claim benefits at the same time as their husbands. Since it seemed unfair to require women workers to wait until a later age for benefits than women non-workers, the EEA was introduced for all women. See CBO (1999).

²⁰ In addition, Blau (1998) concludes that the availability of Social Security benefits is very important to the retirement decision, while changes in Social Security benefits over time have been considerably less important. On

III. The Recent Reversal

The decline in the labor force activity of older men ended in the mid-1980s. As shown in Figure 10, which depicts labor force participation rates by age for 1940, 1970, 1985 and 2005, labor force activity at each age was below that for the earlier period until 1985. The pattern then reversed, with labor force participation in 2005 above the 1985 level for those 62 and over.²¹ Observers have offered a number of explanations for this change in direction (Friedberg 2007; Burtless and Quinn 2002).

Changes in the Social Security Program.

Social Security benefits available at any given age have become less generous and incentives for early retirement have been reduced or eliminated.

Two changes enacted in 1983 have reduced benefit amounts. First, the legislation made up to half of Social Security benefits taxable for people with earnings above a certain threshold.²² For higher income beneficiaries, the percentage was increased to 85 percent in 1994. Subjecting benefits to taxation is equivalent to a benefit cut for higher paid workers. Second, the 1983 legislation gradually increased the Normal Retirement Age from 65 to 67, which is equivalent to an across-the-board benefit cut. Once the increase is fully phased in, those retiring at age 62 will receive 70 percent, as opposed to the original 80 percent, of full benefits.

The expected “income effect” of such benefit cuts is an increase in labor supply, as workers respond to this decline in wealth in part by consuming less while working, in part consuming less in retirement, and in part by working more and “consuming” less retirement. But the labor-supply effects of these benefit cuts, however, mainly lie in the future. The Normal Retirement Age only began rising for those turning 62 in 2000, and that year the benefit

the other hand, Gruber (2000) found a sizable labor supply response to the level of disability benefits when comparing labor force participation in the Quebec system and in the rest of Canada, where benefits were increased.

²¹ For more details on recent trends, see Purcell (2005).

²² Under current law, individuals with less than \$25,000 and married couples with less than \$32,000 of “combined income” do not have to pay taxes on their Social Security benefits. (Combined income is adjusted gross income as reported on tax forms plus nontaxable interest income plus one half of Social Security benefits.) Above those thresholds, recipients must pay taxes on either 50 or 85 percent of their benefits. Individuals must pay 50 percent if their “combined income” is between \$25,000-\$34,000, and 85 percent if it is above \$34,000. A couple must pay 50 percent if their “combined income” is between \$32,000-\$44,000, and 85 percent if it is above \$44,000. (Committee on Ways and Means, U.S. House of Representatives 2000).

reduction was small.²³ The increased taxation of benefits will also affect a much larger share of the population in the future, as the thresholds are not indexed.

More likely candidates for contributing to the increase in participation since the mid-1980s are changes to the Social Security program that made work more attractive vis-à-vis retirement. The first is the liberalization and, for some, elimination of the earnings test. Since Social Security was insurance against loss of income due to disability, death or old age, the government imposed an earnings test. The earnings test encouraged large numbers of people to retire early, because it seemed like a tax. Most beneficiaries were unaware that the reduction in benefits while working triggered an increase in benefits later.²⁴ In recent years, Congress increased the exempt amount for all beneficiaries subject to the earnings test. And, for beneficiaries between the Normal Retirement Age and 69, it first reduced the benefit loss for each dollar earned and then eliminated the test altogether beginning in 2000. For those between age 62 and the Normal Retirement Age, the test allows about \$12,500 of earnings before reducing benefits by \$1 for each \$2 of earnings. Most studies suggest that the earnings test has a substantial impact on the work effort of older people (Friedberg 1998 and 2000; Loughran and Haider 2005; Friedberg and Webb 2006; Gustman and Steinmeier 2007), while some conclude that the test has little effect on labor supply, at least among men (Gruber and Orszag 2003).

The Delayed Retirement Credit, which increases benefits for each year of delay in claiming between the Normal Retirement Age and age 70, has also improved incentives to keep working. When introduced in 1971 the credit increased benefits by 1 percent per year for each year of delay between the Normal Retirement Age and age 72. In 1983, the age was lowered to 70 and the adjustment was raised to 3 percent and scheduled to increase to 8 percent in 2008. When fully phased in, the credit will be roughly actuarially fair. The question is what impact this credit will have on retirement decisions. Recent studies suggest that the delayed retirement credit may well have been an important factor in raising labor force participation among workers 65 and over (Coile and Gruber 2000; Pingle 2006).²⁵

²³ Benefits were cut a bit more than 1 percent per year until reaching a 6.7 percent cut for the cohorts turning 62 in between 2005 and 2017; the cuts then resume and reach the full 13.4 percent reduction for cohorts turning 62 in 2022 and after.

²⁴ Prior to the introduction of early retirement, the earnings test was a tax, in that benefits lost in one year did not produce a gain in benefits in later years.

²⁵ Coile and Gruber (2000) note that in a context where workers make their retirement decisions based on the full future stream of Social Security benefits, raising the Delayed Retirement Credit could have a larger effect than raising the Normal Retirement Age. Changing the Normal Retirement Age has both wealth and accrual effects, but

The End of Mandatory Retirement.

In the early 1970s about half of all Americans were covered by mandatory retirement provisions that required they leave their jobs no later than a certain age, usually 65. In 1978, the earliest legal age for mandatory retirement was increased from 65 to 70. In 1986, mandatory retirement was eliminated entirely for the majority of workers. As nearly all workers in 1986 and after were out of the labor force by age 70, however, this legislation probably had little to do with the subsequent rise in the labor supply of older workers.

Changes in Employer Pensions.

Various changes in the structure of employer-sponsored retirement income plans have also reduced incentives to retire early. As noted earlier, in the early 1980s about 85 percent of those with pensions were covered by a defined benefit plan; by 2004 this percentage had declined to 37 percent. In contrast to the early retirement incentives in defined benefit plans, 401(k) plans work like savings accounts and contain no incentives to retire at any particular age. Studies have documented that workers covered by 401(k) plans retire a year or two later on average than similarly situated workers covered by a defined benefit plan (Friedberg and Webb, 2005; Munnell, Cahill, and Jivan, 2003). Among workers currently on the cusp of retirement, however, dependence on defined contribution pensions has not increased dramatically. Thus the labor supply effect of the shift from defined benefit to defined contribution plans primarily lies in the future, not in the past.²⁶

Another likely change, albeit poorly documented, is a shift since the mid-1980s away from sweetened early retirement benefits in traditional defined benefit pension plans. According to one industry expert, this was a primary motive behind the conversion of a large number of

a change in the Delayed Retirement Credit has only positive incentives for work, at least until age 65. After age 65, wealth effects discourage continued work, while the accrual effect rewards it. Before age 65, their study shows that raising the Delayed Retirement Credit from 5 percent to 8 percent would increase labor force participation by age 65 by four percentage points.

²⁶ Some researchers (Eschtruth and Gemus 2002; Cahill, Giandrea, and Quinn 2006) suggest that those covered by defined contribution plans are sensitive to fluctuations in the stock market and that the collapse of the stock market might explain why the labor force participation rate for older workers (55-64) jumped 2 percentage points between early 2000 and 2002, an unprecedented increase that occurred during a recession when labor force participation usually declines. This would be consistent with studies by Gustman and Steinmeier (2002) and Coronado and Perozek (2003) who found that the unexpected positive shocks to wealth as a result of the stock market boom of the 1990s led to some additional retirement. Other researchers (Coile and Levine 2006) argue that few households had substantial stock holdings and if indeed workers were so sensitive to stock market fluctuations their participation should have dropped as the market recovered, which did not happen.

plans, covering over 20 percent of covered workers, to cash-balance formats (Schieber, forthcoming). From the perspective of workers, cash-balance plans are much like defined contribution plans.²⁷ They reduce the value of benefit accruals at older ages and neither subsidize nor penalize retirement at any given age. In addition, many early retirement sweeteners in the past had been offered in special “one-time” windows. If the conversion to cash-balance formats does reflect a shift away from early retirement subsidies, one would expect a comparable shift away from such one-time offers.²⁸

Less Physically Demanding/More Rewarding Jobs.

The nature of employment has changed dramatically in the last 20 years. As manufacturing declined, the service sector exploded. This expansion, and especially the expansion of knowledge-based employment, reflects the growth in jobs often thought to have significant non-pecuniary rewards, in places such as universities and hospitals, and in occupations such as software developers, management consultants, and graphic designers. Even within manufacturing the nature of jobs has changed, as firms have automated or outsourced production and now employ more managers, engineers, and technicians.²⁹ Generally, jobs now involve more knowledge-based activities that put less strain on older bodies, and provide more satisfaction for workers of all ages.³⁰ Less physical strain and more non-pecuniary rewards raises the value of remaining at work vis-à-vis retirement, thereby raising the supply of labor. A good portion of the increase in labor force participation since the mid-1980s, especially among workers age 65 to 69, which saw the most dramatic gains, may be due to such changes.

²⁷ In cash-balance plans, as in traditional defined benefit plans, the employer makes the contributions, owns the assets, selects the investments, and bears the risk. The PBGC also insures the benefits. To the employee, however, cash balance plans look very much like defined contribution plans. The employer typically contributes 4 or 5 percent of the worker’s pay to a “notional” account and provides an interest credit on the balances. Employees receive regular statements and generally withdraw the balance as a lump sum when they retire or terminate employment. Since these plans are not backloaded, employees suffer no loss in benefits as they move from job to job, and therefore would not be expected to affect mobility. Bank of America created the first cash balance plan in 1985, and by 2003 these plans accounted for 22 percent of employees and 26 percent of assets in defined benefit plans (Buessing and Soto, 2006). Since 2003, extensive litigation has brought the expansion of cash balance plans to a virtual halt. The Pension Protection Act of 2006 clarified the legality of converting defined benefit plans to cash balance form and so might cause renewed interest among employers in cash balance plans.

²⁸ Coronado and Copeland (2003) offer another perspective on the reasons for the shift to cash balance plans. They contend that these conversions occurred in competitive industries with tight labor markets and were done largely to improve compensation for a more mobile workforce.

²⁹ Massachusetts Office of the Governor (2001).

³⁰ The share of men age 55 to 60 in a job that requires “lots of physical effort none or almost none of the time” increased from 31 percent to 38 percent between 1992 and 2002 (see Johnson 2004).

Joint Decision-Making

Another factor that may be encouraging later employment is the movement of married women into the labor force. When only the husband was working, retirement decisions could be based on the generosity of his retirement benefits and how continued employment would affect those benefits. With wives working, the decision has become more complicated because many women have also accumulated substantial retirement benefits. Now couples need to consider how the decision to stop working will affect the benefits of both spouses. A growing number of studies suggest that husbands and wives like to retire together.³¹ Since husbands are, on average, three years older than wives, the increased labor force participation of wives would be expected to lead to later retirement of men.

Decline in Post-Retirement Health Insurance

A final factor affecting the labor force participation rates for men at older ages is related to changes in employer-provided health insurance. Health insurance coverage among the working-age population may be declining, but it is declining very slowly. In contrast, employer provision of health insurance after retirement has dropped dramatically. According to the Kaiser Family Foundation, the percent of firms with 200 or more employees offering retiree health insurance dropped in half between 1988 and 2005 (see Figure 11). This drop dramatically changes the incentives facing workers in their late fifties and early sixties. If they stay with their employer, they will continue to receive health insurance. If they leave before age 65, when they qualify for Medicare, they will be uninsured and forced to purchase insurance on their own – a very expensive undertaking. Combine the decline of retiree health insurance with the rapid rise in health care costs, and workers have a strong incentive to maintain their current coverage until they qualify for Medicare at 65.

In short, a large number of factors could explain the increase in labor force participation among older workers since the mid-1980s. The contraction of the retirement income system, which increases participation via an “income effect,” lies mainly in the future. But substantial

³¹ Blau (1998), using the Retirement History Survey, found that among 30 to 40 percent of married couples the spouses left the labor force within a year of each other. Hurd (1990), using the Social Security Administration’s New Benefit Survey estimated that among one quarter of couples the husband and wives retired within one year of each other. Johnson and Favreault (2001), looking at married couples in the 1998 wave of the HRS, calculated that between 22 and 40 percent of husbands and wives retired within two years of each other. These studies show that spouses tend to retire at the same time, generally because they want to spend time together. See also Johnson (2004).

changes in Social Security and employer plans have raised the value of work vis-à-vis retirement, which increases participation via a “substitution effect.” That the increase in participation has occurred mainly after age 62 suggests the Social Security changes have been quite important (Figure 10). On the other hand, a recent study focusing on this older workforce suggests that non-pecuniary considerations might also play an important role (Haider and Loughran 2001). Older labor force participants tend to be among the more educated, healthiest, and wealthiest elderly. Moreover, the fact that their wages were lower than their younger counterparts and lower than their own past earnings suggests that money may not be the prime motivator.³²

The important question is whether this trend toward later retirement will continue, and whether workers will respond to the contraction of the retirement income system by remaining in the work force longer. Boomers certainly claim that they will want to work longer, but will they follow through with their plans.³³ To provide some basis for predicting future labor force trends, the following sections look at how career patterns have changed over time, the physical health of older workers, and remaining incentives to retire early.³⁴

IV. Patterns of Employment

The above discussion has focused on the labor force participation of older workers. Another dimension of work patterns is the extent to which and when people change jobs over their work life. This pattern is important because older workers are likely to have an easier time staying employed and enjoy higher wages if they remain with their long-term employer rather

³² Indeed, a recent study (Lahey et al. 2006) found that retirees who returned to work were no less financially prepared than their counterparts who remained retired. Instead, the factors for returning to work were the availability of health insurance, whether the initial retirement was voluntary, and the degree of satisfaction with retirement. Maestas (2005), using the Health and Retirement Study, also concluded that financial pressures were not the reason for “un-retirement.”

³³ A recent study (Mermin, Johnson and Murphy, 2006), using the Health and Retirement Study, reported a significant increase between 1992 and 2004 in the expected probability among workers ages 51 to 56 of working full-time past age 62 (47 percent to 51 percent) and past 65 (27 percent to about 33 percent). Controlling for other factors, self employment, education, and earnings increased work expectations, while defined benefit pension coverage, employer-sponsored retiree health benefits, and household wealth reduced expectations.

³⁴ Costa (1998) cautioned researchers not to put too much emphasis on the recent uptick in labor force participation of older workers. As long as retirement remains an attractive option and incomes continue to rise, people will want to use at least some of their increased wealth for retirement. The question is whether – even if income during people’s working years continues to rise – the prospective decline in retirement income could provide the impetus for continued work.

than scurrying about the labor market trying to find a new job in their late 50s and early 60s. Evidence suggests that employers are reluctant to hire older workers, and the loss of firm-specific human capital means that productivity, and hence wages, often fall when workers move to a new job (Lahey, 2006; Johnson and Kawachi, 2007).

Tenure Patterns

One would expect a different pattern of tenure and mobility as a result of the shift from defined benefit to defined contribution plans. The shift reflects a diminished interest in career employment on the part of both employers and employees. The original purpose of defined benefit plans was for workers to remain with their employer to retirement, then retire “on time” at the age specified in the plan (Sass, 1997). To accomplish this goal, accrued pension benefits based on final earnings increased rapidly as job tenures lengthened and then declined as early retirement incentives faded out. Workers with defined benefit plans who change jobs, even moving to firms with identical plans and immediate vesting, receive significantly lower benefits than workers with continuous coverage under a single plan. Both changing mechanics and changing tastes would lead one to expect more mobility and shorter tenures in a 401(k) world. The shifting incentives would be expected to affect primarily older workers, since at younger ages the pension costs of switching jobs has always been minimal.

This expectation is borne out in the median tenure data for employed males taken from the Current Population Survey and presented in Figure 12.³⁵ The results are striking in two respects. First, before 1990 the median years of tenure is virtually flat for every age group. These data confirm much of the earlier work on mobility that showed very little change during the 1970s and 1980s (Neumark 2000; Gottschalk and Moffitt 1999). Second, beginning in 1990, after a decade of 401(k) plans, the median tenure for men at older ages starts to decline. If the shift in pension coverage were to have an effect, this is where and when one would expect to find it. As noted above, pension accumulations are very small at younger ages, and never really

³⁵ The Current Population Survey has asked respondents about job tenure since 1973. Specifically, CPS tenure supplements are available for 1973, 1978, 1981, 1983, 1987, 1991, 1996, 1998, 2000, 2002, and 2004. All data are from the Workplace Topics I (January/February) supplements, although the 1973 tenure data are from the displaced worker supplement. The question changes slightly over the period. In 1973, 1978, and 1981, the question refers to time working at the present job or business, while for 1983 and later the question refers to working “continuously” for the present employer. If respondents in the earlier surveys experienced temporary separations, their responses will make them look like they have more tenure than they actually had. Since other researchers do not view this as a significant problem and make no adjustment, the raw median tenure data for employed males are presented in Figure 11.

impeded mobility, so the shift in the type of pension coverage would affect the mobility only of older workers.³⁶ Similarly, the effect would not be expected to become evident until a significant percent of older workers were covered by 401(k) plans, and this did not happen until the 1990s.

The Current Population Survey data can also be used to see how many workers remain with the employer they worked for when they were age 50.³⁷ The results for the years 1983 and 2004, which are shown in Figure 13, mirror the tenure information presented above. In the early survey, at age 60, almost 80 percent of male workers were working for the same employer as they were when they were age 50. By 2003, the picture changes noticeably; at age 60 less than 45 percent were working full time with their age-50 employer. In short, male workers in their 50s appear to be shifting jobs more in a 401(k) world than they did when covered by defined benefit plans. The old notion that men settle into some form of lifetime employment by middle age and stay there through retirement no longer holds for the majority of men. One question is the extent to which this job switching at older ages is voluntary. That is, do workers move on their own volition or are they laid off? One measure of layoffs is displacement rates. Have displacement rates increased over time?

Displacement Rates

The Displaced Worker Surveys attempt to measure the number of workers who have lost their job through no fault of their own.³⁸ The displacement rates for older workers, while cyclical, show no discernable upward or downward trend over the period 1984-2004 (see Figure 14).

³⁶ See Allen, Clark, and McDermed (1988). Gustman and Steinmeier (1993) emphasize how small pension wealth is early in workers' careers and argue that the main impact of defined benefit pensions would be to deter mobility for long-tenured workers.

³⁷ Specifically, for each survey it is possible to identify those working full time at age 55, 60 etc who are still with the same employer they worked for at age 50. Mechanically, this exercise involves simply asking, say, the 55-year-old full-time worker how long he has been with his current employer. If the response is five years or more, the worker is classified as working with his age-50 employer. Those working with the same employer are then divided by total workers to get the proportion of the workforce with what used to be thought of as the typical pattern of employment.

³⁸ The survey asks workers whether they lost their job for one of the following reasons: their plant or company closed down or moved; their company had insufficient work; their position or shift was abolished; a seasonal job was completed; a self-operated business failed; other reason. These data do not include all job loss within the economy, because the survey collects and reports information on only one job loss for each individual and the distinction between layoffs and quits is not always clear. Nevertheless, this survey can be used to determine whether older workers are becoming more or less vulnerable to displacement.

Simple averages, however, cannot tell whether the plight of older workers is getting better or worse, because many factors are changing simultaneously. For example, the educational gap between older and younger workers has virtually disappeared, which suggests that older workers – all else equal – should be less likely to be laid off. On the other hand, the shift away from career employment suggests they would be more likely to be laid off. In order to isolate the impact of age on displacement rates, it is necessary to control for the various ways in which older workers might differ from their younger counterparts. This can be done through the use of a probit regression that estimates the probability of being displaced and includes variables for gender, marital status, non-white, education, industry, and full-time status as well as age.³⁹ Figure 15 shows the effect of age on the probability of being displaced controlling for other factors. Being in the 50-54 age group reduces the probability of being displaced by somewhere between 0 percent and 7 percent. Interestingly, the beneficial effect of age appears to be declining over time.⁴⁰ Thus, the results suggest that older workers are slightly more likely to be laid off today than they were in the past.

But that is not the end of the story. Figure 16, which reports the results for the same type of equation except this time including tenure variables, shows that tenure – not age – protected older workers from displacement. Holding tenure constant, older workers are actually more likely than their younger counterparts to be displaced.⁴¹ Thus, to the extent that workers change jobs late in their careers, they are increasing their risk of displacement. These older workers lose the protection afforded by tenure and face the increased risk of displacement associated with age. And displacement has an extremely negative effect on the probability of older workers getting another job (Chan and Stevens 2001). This reduced probability could be the result of workers not willing to supply their labor at the lower wages they can earn in the labor market or of employers being unwilling to hire displaced older workers. It is very difficult to untangle the effects of supply and demand. But it appears that older workers have already experienced some

³⁹ The analysis is limited to displacement because of plant closure, position abolished, or slack work. Using a more detailed set of 56 industry dummy variables instead of the set of private goods sector, private service sector, and public sector dummy variables had little effect on the coefficient estimates and standard errors for all other explanatory variables in the regressions.

⁴⁰ As in earlier studies, women, married people, and those working full time have a low probability of being displaced, and race appears to have no impact. Private sector workers in goods-producing industries have a higher probability of being displaced than those in private sector service industries. In contrast, public sector employees have a much lower likelihood of being displaced than their private sector counterparts.

⁴¹ Over the 1996-2004 DWSs, displacement rates averaged 15.9 percent for those with 0-1 years of tenure; 11.3 percent with 1-4 years; 5.5 percent with 5-9 years; and 4.0 percent for those with 10 or more years.

increase in displacement and will put themselves more at risk when they change jobs. Therefore, not all of the increase in mobility among older workers appears to be voluntary.

Changes in Compensation and Their Effect on Labor Supply

Two recent changes – the rapid rise in the share of older workers in the labor force and the decline of career employment – could significantly affect the compensation received by older workers, and thereby the supply of their labor.

Cohort effect. The share of older workers in the U.S. labor force is increasing significantly. According to the Bureau of Labor Statistics, workers age 55-64 rose from 9 percent of the workforce in 1990 to 14 percent today and are projected to exceed 18 percent in 2020 (see Figure 17). Theory suggests that the age distribution of the workforce affects the wage structure, and the relative wages of older workers do appear to be inversely related to older workers as a share of the labor force. The notion is that workers with different amounts of labor market experience are imperfect substitutes for each other. More experienced workers, who have acquired on-the-job training or simply learned by doing, generally perform different tasks and play different roles within the organization. As the supply of workers with a given level of experience grows, the wages of that group will decline relative to the rest of the workforce. The magnitude of the decline will depend on the extent to which workers with different degrees of experience can substitute for each other.

A number of studies have examined how the relative wages changed as the baby boom generation entered the market and as the boomers aged. A now famous analysis of “The Baby Boom Babies’ Financial Bust” found that the wages of young white men were reduced relative to those of older men as the baby boomers started entering the labor market (Welch 1979).⁴² A recent study found that the depression of wages due to cohort crowding follows workers throughout their careers (Triest, Sapozhnikov, and Sass 2007). Thus, it seems reasonable to conclude that the increasing share of older workers in the labor force will depress their wages relative to younger workers.

Two further comments are required. First, the relative *compensation* – as opposed to wages – of older workers will be further reduced by the shift away from defined benefit plans.

⁴² A study by Freeman (1979) reached similar conclusions.

These plans, where benefits are based on final salary, produce rapid accruals at the end of workers' careers and thereby tilt the compensation structure in favor of older workers. The shift to 401(k) plans will eliminate this advantage and reinforce the depressing effect on wages of the increasing share of older workers. On the other hand, labor force growth in general is slated to slow. It is possible that supply may fall short of demand putting upward pressure on wages in general, which could mitigate some of the downward pressure. On balance, however, both the experience premium and pension gains enjoyed by older workers will be lower in the future. As a result, work will look less desirable for older people relative to retirement, and they may be less willing to supply their labor.

Decline in career employment. The second labor-market change that could affect the labor supply of older men is the decline of career employment. This change, which was discussed above, is depicted clearly in Figure 18, which classifies the male population aged 55-64 in 1983 and 2004 as: a) not working; b) working part-time; c) working full-time with same employer as at age 50; or d) working full-time with a different employer. The portion not working (36 percent-35 percent) or working part-time (4 percent-5 percent) was virtually identical in 1983 and 2004. But the distribution of full-time workers changed dramatically. In 1983, most full-time workers age 55-64 were with their age-50 employer, while in 2003 only about half were with their same employer.⁴³

This increase in mobility would be expected to impact wages. Separations from long-term employment relationships involve a loss of firm-specific human capital. They also involve a loss of seniority-based protections that shield older workers from the consequences of skill erosion. Thus, a shift to a new employer would seem to suggest a fall in wage and benefit compensation. A simple comparison of wages for full-time workers who switch jobs with those who do not reveals that over the period 1983 -2004 the wages of switchers averaged about 80 percent of that for full-time workers who remained with their age 50-employer (see Figure 19).

Interestingly, regardless of the reason workers leave a long-term employer their wages tend to decline. A recent study (Johnson and Kawachi, 2007) used the Health and Retirement Study to explore the effect of job changes on wages, benefits, and satisfaction among workers age 45 to 75 who changed employers between 1986 and 2004. Figure 20 shows how those

⁴³ Benitez-Silva (2002) explores the factors that lead older workers to engage in job search activities. The author finds that previous work attachment and health limitations are key factors in explaining the different job search behavior of both non-employed and employed individuals.

leaving long-term jobs (more than 10 years) were distributed by age and by reason for leaving: retirement, layoff, voluntary quit, and “involuntary quit” (health, family reasons, personal problems, etc.) Workers were characterized as retired if they said they left their previous job to retire. Most of the moves occurred among workers age 51-60. Retirements accounted for about one-third, layoffs for about one third, and voluntary and involuntary quits for the remaining third.

Intuitively, one would think that the relationship between reason for leaving and wages would be as follows. The biggest decline would occur in the case of retirement because the purpose of leaving is to work less hard. The second biggest decline would occur in the case of layoffs because displaced workers usually face a costly search process and end up in an inferior position. The next biggest would occur among those who quit for personal or health reasons. Finally, one might expect no decline and even an increase for those who quit voluntarily, presumably for “better jobs” with higher compensation and/or more non-monetary rewards. The percent losing pension and health benefits would be expected to follow a similar pattern. Figure 21 confirms the expected patterns, with the exception that even those who quit voluntarily suffer some drop in wages.

The conclusion that emerges is that the increased mobility, like the cohort effect, will mean that older workers will face lower wages than they would have in the past. These lower wages would be expected to make older workers less willing to supply their labor. One confounding effect of this conclusion, however, is that workers laid-off, as well as those who quit, report significant non-pecuniary gains (Johnson and Kawachi, 2007). The new jobs are less stressful and less physically demanding than their old ones. And more workers report that they enjoy work.

More Heterogeneity in Labor Supply at Older Ages

The shift to 401(k) plans and the increased mobility of older workers also means that retirement is going to become a much messier process than it was in the past.⁴⁴ With mandatory retirement, both parties knew that as of a certain age, the relationship would end. Employers also used traditional defined benefit plans to structure an orderly departure. No such structure

⁴⁴ Reflecting this heterogeneity, a recent survey by Vanguard identified six different pathways to retirement. See Ameriks, Fergusson, Madamba, and Utkus (2007).

exists in a 401(k) environment. Employers face the prospect of workers with declining productivity and inadequate 401(k) balances hanging on much longer than desirable. In fact, in a recent survey employers said they expect that half of their older workers will be unprepared for retirement and a significant percentage of unprepared workers will want to remain on the job (Munnell, Sass, and Aubry, 2006). Employers will need the tools to manage an older workforce. Without such tools, employers will avoid older workers. The tool could take the form of flexibility in ability to offer a “carrot,” such as a generous retirement package, or the availability of a “stick,” such as some form of mandatory retirement. Of course, the latter would be extremely controversial, but it is important to recognize that in the absence of employer defined benefit plans, the structure that eased employees into retirement no longer exists.

V. Health of Older Workers

Intuitively, people’s health affects their ability and desire to work. Poor health can make work seem very difficult and unpleasant, leading people to withdraw from the labor force. Poor health can reduce people’s productivity, leading to lower wages, and lower wages reduce the incentive to work. In the last 35 years, research into the impact of health on labor force activity has become a major industry, and virtually all studies show that poor health has a negative effect on the likelihood of being in the labor force, and on the expected retirement age, as well as hours worked and wages.⁴⁵ The question is whether health is an obstacle to older people’s ability to supply their labor.

One starting point for exploring the health of older workers is to look at trends in life expectancy at age 50. Figure 22 shows life expectancy at age 50 for males over the 20th century. Interestingly, life expectancy at older ages rose very slowly at the beginning of the century and then accelerated sharply toward the end of the century. In fact, life expectancy at 50 was not very different in 1970 than in 1900 – 23 years versus 21 years. After 1970, however, life expectancy at 50 took off, rising to 27 years in 2000 and is projected to increase to 30 years by 2030.

Although longer life spans generally imply improvements in health, keeping less healthy people alive could actually increase the percent of the population with disabilities. Thus, for a

⁴⁵ For a survey of the literature, see Currie and Madrian (1999) and an update can be found in Deschryvere (2005).

time, researchers referred to the “failure of success” (see Waidmann, Bound, and Schoenbaum, 1995). Today, the notion of increased frailty of the elderly – those 65 and older – has been decisively rejected. In 2002, a technical working group examined trends in disability for older Americans across five major national surveys.⁴⁶ The group concluded that, when standardizing for the definition of disability, time period, and consistent inclusion or exclusion of the nursing home population, all five surveys showed consistent downward trends for two common disability measures – difficulty with daily activities and help with daily activities– beginning in the early to mid-1990s. The evidence for change in the 1980s and for a third measure of disability (the use of help or equipment with daily activities) remained mixed.

The fact that the health of older Americans has improved would lead one to conclude that the health of the older *working-age* population was also getting better. But for a long time, such a conclusion was not obvious. The major survey that tracked disabilities among the working-age population — the *National Health Interview Survey* (NHIS) — showed the percent of this population with disabilities increasing from the mid-1960s through the early 1980s (see Figure 23).⁴⁷ Decennial census data also showed an increase in the fraction of both men and women unable to work during the 1970s. Skeptics of the increasing disability story contend that the trend during the 1970s may, at least in part, reflect social factors such as earlier detection and diagnosis of chronic diseases and greater availability of disability insurance.⁴⁸ Thus, the trend in the prevalence of disabilities during the 1970s remains controversial.

Since the early to mid-1980s, however, the health of the older working-age population has unquestionably improved. The percent of those 45 to 64 with a disability declined through the mid-1990s (see Figure 23). Between 1997 and 2004, a similar survey question produced a more stable trend. But the general conclusion emerging from the NHIS data is one of declining disability among older working-age individuals to a level at least comparable to that in the mid-

⁴⁶ See Freedman et al. (2004). The five surveys included the Health and Retirement Study (HRS), the Medicare Current Beneficiary Survey (MCBS), the National Health Interview Survey (NHIS), the National Long Term Care Survey (NLTCs), and the Supplements on Aging (SOAs).

⁴⁷ The NHIS is an annual cross-sectional survey of 100,000 non-institutionalized civilians conducted by the National Center for Health Statistics. Unfortunately, the survey questions have been revised every 10 to 15 years, making it impossible to construct a series over a long period of time. Nevertheless, consistent data are available from 1967-1982, 1983-1996, and 1997-2004. For the period 1983-1996, the survey asked “Does any impairment or health problem now keep [person] from working at a job or business? Is [person] limited in the kind or amount of work [person] can do because of any impairment?” A person who answers yes to either question is considered to have a work limitation.

⁴⁸ See Waidmann, Bound, and Schoenbaum (1995).

1960s. Thus, the evidence suggests that the health of older workers is at least as good today as it was forty years ago. Moreover, as mentioned earlier, jobs are much less physically demanding than they were in the past. As a result, physical limitations should not inhibit the ability of the bulk of older Americans to work at least until their mid-sixties.

The same data that support the possibility of continued work for the bulk of the population also make clear that, despite a positive trend, 15 to 20 percent of people in their late fifties and sixties will find work virtually impossible. The data from the NHIS are consistent with responses from the Health and Retirement Study regarding the extent to which retirement was voluntary. As shown in Figure 24, 35 percent of those who retired between 1992 and 2002 claimed that retirement was involuntary, with 18 percent citing poor health as the reason. Moreover, many of those who need to work longer — particularly low-wage workers dependent on Social Security — are precisely the individuals who have onerous jobs that stress their health and who lack the education to manage their care. Thus, the working longer prescription must be administered with care.

VI. Obstacles to Labor Supply

At least two major obstacles might inhibit older workers from offering their services in the future. The first is the availability of Social Security benefits at age 62. The second is the fact that employment seems to be an “all or nothing” proposition, with relatively little room for gradually reducing hours or working part-time.

Social Security’s Earliest Age of Eligibility

Social Security offers retirement benefits at age 62. The early retirement benefits are actuarially reduced, and the reduction is designed to be “age neutral.” That is, two people with average life expectancy — one who claims benefits at 62, the other at 65 — receive equal lifetime Social Security benefits.⁴⁹ Despite the actuarial reduction, the vast majority of workers continue

⁴⁹ More specifically, benefits are reduced by 5/9th of one percent for each month they are received prior to the Normal Retirement Age (NRA) up to 36 months and 5/12th of one percent for each month thereafter. This is equivalent to a 6.67 percent reduction for the first three years prior to the NRA and 5 percent thereafter. With an NRA of 65, a person who claims benefits at age 62 receives monthly benefits 20 percent lower than the full amount.

to claim benefits well before age 65. In 2004, 59 percent of women and 54 percent of men claimed benefits at age 62 (see Figure 25). The claiming of benefits coincides with the average retirement age, which is now 63 for men and 62 for women.⁵⁰

Social Security's retirement age for full benefits is scheduled to increase from 65 to 67 by 2022.⁵¹ But under current law, the EEA remains unchanged at 62. Raising the normal retirement age, however, will increase the actuarial reduction for claiming benefits at age 62 from 20 percent to 30 percent. But people's claiming behavior and retirement decision appear more sensitive to the availability of benefits than to benefit amounts, so age 62 may well remain an important benchmark.⁵²

Raising the EEA to 64 would likely encourage people to work longer by removing the opportunity to get benefits earlier. This endeavor is controversial, however. First, without any other changes, raising the EEA has virtually no impact on the system's finances. Any additional work brings in some additional payroll tax revenues, but the fact that the benefits were actuarially reduced means virtually no savings.⁵³ Second, as discussed above, a significant fraction of individuals will be unable to work past age 62, either because they are in poor health, because their jobs are physically demanding, or because they have been displaced later in life and cannot find work at their age.⁵⁴ Therefore raising the EEA would inevitably involve some expansion of the disability program for older workers. Another problem is that a higher EEA would reduce lifetime Social Security wealth for those with lower-than-average life expectancies. Since African Americans and low-wage workers have lower-than-average life

The scheduled increase in the NRA from age 65 to 67 raises the actuarial reduction for claiming benefits at age 62 from 20 percent to 30 percent.

⁵⁰ The average retirement age is defined as the age at which 50 percent of the cohort is out of the labor force.

⁵¹ The increase began with individuals born in 1938, for whom the NRA is 65 plus 2 months, and increases 2 months per year until it reaches age 66. Then, after a 12-year hiatus, the NRA again increases by 2 months per year until it reaches age 67 for individuals born in 1960 or later.

⁵² Studies showing the availability of benefits has the major effect on retirement include Burtless and Moffitt (1984), Hurd (1990), and Gruber and Wise (1998). In a study of 12 countries, Gruber and Wise (2002) conclude that averaging across all countries, a reform that delayed the benefit eligibility by three years would likely reduce the proportion of men age 56-65 out of the labor force by 23 and 36 percent, closer to 36 percent in the long run.

⁵³ However, an increase in the EEA could help set the stage for future increases in the normal retirement age, one option for maintaining the solvency of the Social Security program. An EEA of 62 makes any additional increase in the NRA highly unlikely, since a higher NRA would produce an even steeper reduction in benefits at age 62. A higher EEA, by signaling that retiring in one's early 60s is no longer economically feasible, would prepare the way for a higher NRA.

⁵⁴ Similarly, a recent survey by Prudential Financial of a nationally representative sample found that 38 percent of retirees claimed they had retired involuntarily.

expectancies, a higher EEA might be considered unfair. So raising the EEA should be part of a larger package of reforms that includes provisions that offset such losses to particular groups.

Raising the EEA, however, seems like an essential step to ensure that older people continue to participate in the labor force. Moreover, raising this official age will not only increase the willingness of workers to supply their labor but also enhance the willingness of employers to hire older workers. A recent survey asked employers about the impact of various characteristics that could affect the productivity of older workers. A major negative factor was the perception that older workers will be on the job for only a short time. To the extent that the likely departure date can be pushed out, employers will be more willing to hire, train, and promote older workers.

Employers' Resistance to Part-Time Employment

Another hurdle to continued employment is that older people consistently report that they want to work part-time. For example, a study based on the Health and Retirement Study reports that 56 percent of respondents aged 55 to 65 in 1996 said they would prefer to gradually reduce their hours as they age (U. S. General Accounting Office, 2001). And older self-employed people tend to reduce hours worked as they approach retirement. But few older workers have part-time positions, and part-time employment does not appear to be increasing (see Figure 26).

Currently, part-time employment is concentrated in small establishments and in establishments in the service sector (Montgomery, 1988). This is true even after controlling for other factors that would affect demand, such as wages, fringe benefits, seasonal fluctuations in demand, and hiring costs. It is not exactly clear why this is the case. Large firms might avoid part-time workers because they tend to have higher turnover rates than full-time employees (Tilly, 1991). Part-time work might be more common in the service sector because it is labor intensive and faces fluctuations in demand, and because employers find it is easier to meet these fluctuations with part-time workers. While all these theories are plausible, they have not been supported by rigorous empirical studies (Hutchens, 2001). Without an increase in the availability of part-time employment, however, many older people may be unwilling to keep working. A recent study estimates that increased flexibility in work schedules would double the number of people entering partial retirement (Gustman and Steinmeier, 2007).

In short, despite the need to build up their stock of “retirement wealth,” older people may find the availability of Social Security benefits at age 62 too tempting and continue to retire early. And not all older people can work. Some have health problems or have been laid off and are unable to find another job, while others see continued employment as simply too onerous. For those who want to work, meaningful jobs may continue to require full-time employment, an arrangement inconsistent with the desires of many older people.

VI. Conclusion

Greater labor-force participation by older workers would make an important contribution to national output and tax revenues and would dramatically improve retirement income security. Some indication that people might be willing to work longer comes from the fact that the century-long downward trend in the labor force participation of older men has clearly ceased, and participation has actually been rising since the mid-1990s. The question is whether this upward trend in participation will continue.

Some key changes in the nation’s retirement income system should encourage greater labor force participation by older workers going forward. Social Security retirement income benefits available at any given age are falling. Given rising longevity and the meager balances in the now dominant 401(k) s, the retirement income employer plans provide at any given age is also likely to fall. The “income effect” of such reductions should increase labor-force participation. Also raising participation are changes in Social Security and the shift to 401(k) s that have essentially eliminated the subsidies for early retirement and penalties for later retirement. The “substitution effect” of these changes – raising the cost of retirement relative to work (to its actuarially appropriate level) – should increase participation. Moreover, jobs are less physically demanding, and people are healthier.

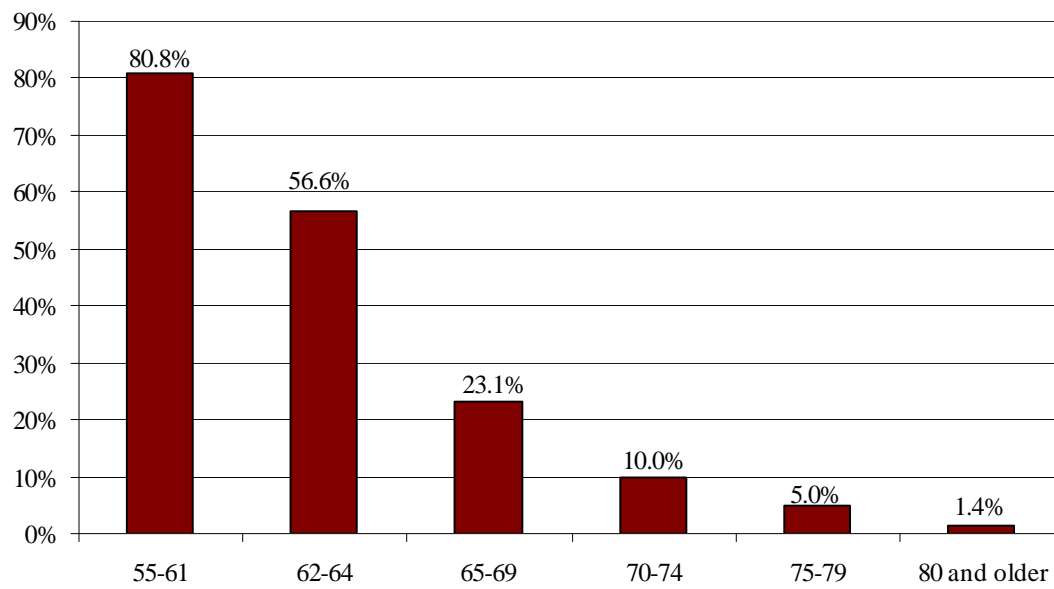
Impediments still remain, however, to the continued employment of older workers. The most important is the availability of Social Security benefits at age 62. Even today, with the elimination of the earnings test after the Normal Retirement Age and an actuarially fair Delayed Retirement Credit, the majority of workers continue to claim their benefits as soon as they become available. Another important factor is the increased mobility of older workers, which exposes them to the vagaries of the labor market. Extended and difficult job searches as well as

the prospect of low wages may cause many older workers to simply give up. Moreover, older people have a strong preference for part-time work and flexible schedules, which to date employers have been reluctant to accommodate. Finally, 15 percent to 20 percent of older people are probably not healthy enough to work beyond age 62.

What's the bottom line? Today, approximately 70 percent of men age 55-64 are in the labor force, up from a low of 66 percent in the mid-1990s. Given the contraction of the retirement income system, labor force participation for this group is unlikely to start heading back down. Will it continue to increase? In 1960, before the availability of age-62 Social Security benefits and before the 1970s increase in replacement rates, 87 percent of men 55-64 were in the labor force. But we are probably unlikely to see those levels again given the increase in wealth since 1960 – some of which workers want to spend on more leisure at the end of their work life – and the availability of Social Security benefits at age 62. Our best guess is that by 2030, labor force participation rates for men 55-64 may be 75 percent – up five percentage points from today's levels. This number is higher than the Bureau of Labor Statistics projection of 69 percent (see Figure 27).

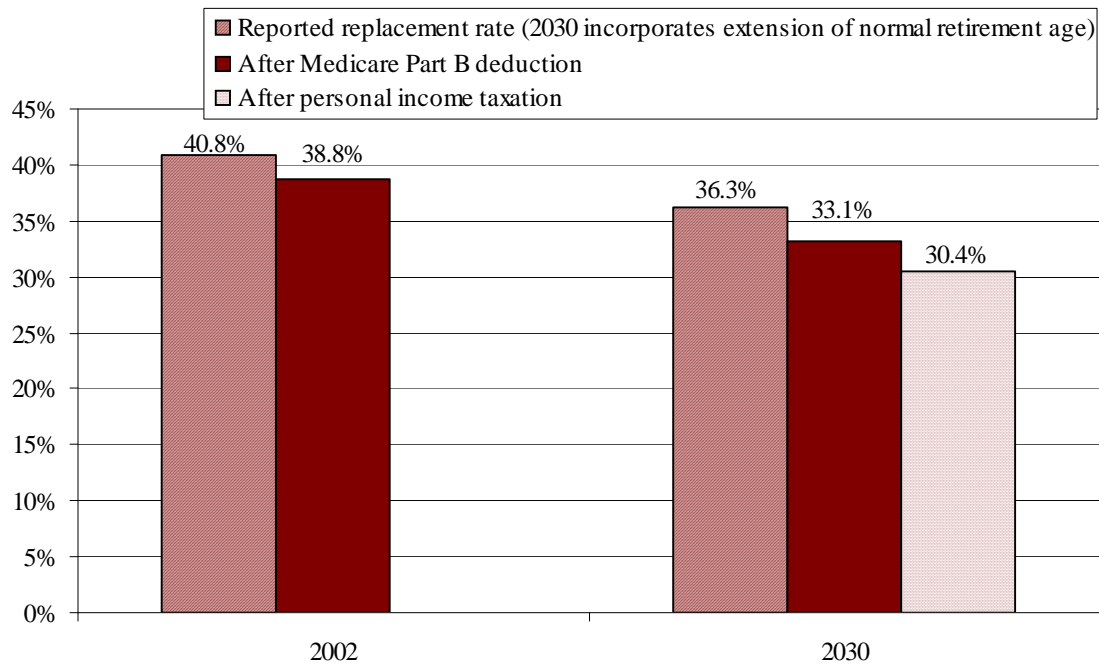
About 28 percent of men age 65-74 are in the labor force today. Again, this percentage is unlikely to decline. Again, the 1960 level of almost 40 percent is a relevant benchmark. Here again, some additional participation is likely to occur by 2030, but not back to 1960s levels. On balance, the U.S. appears to be moving back to a 1960s retirement system but men at least will be less likely to be in the labor force than they were at that time. Should this combination materialize, people will find it difficult to maintain their pre-retirement living standards in retirement.

Figure 1. *Earnings as a Percent of Income, Households Aged 55 and Older, Middle Quintile 2005*



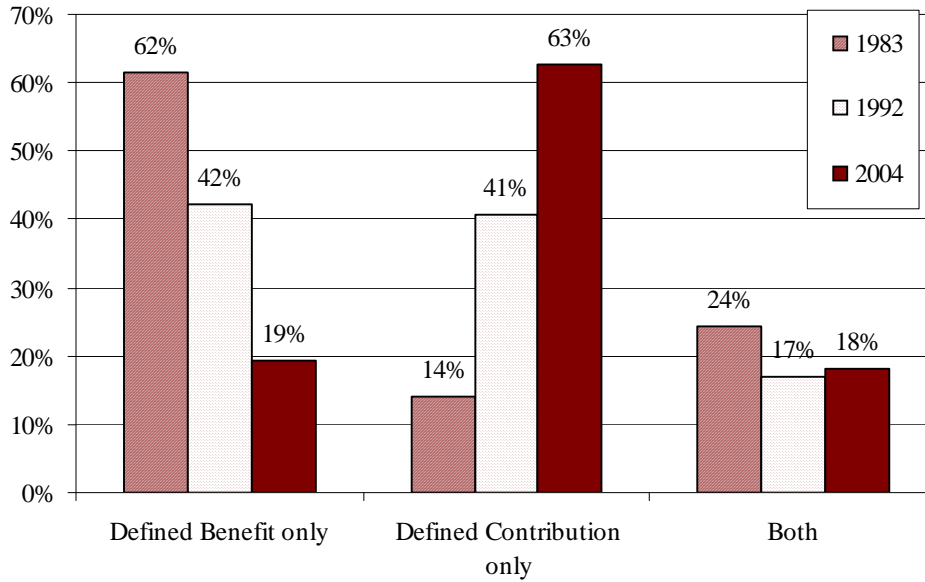
Source: U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (2006) and authors' calculations.

Figure 2. *Social Security Replacement Rates for the Medium Earner, 2002 and 2030*



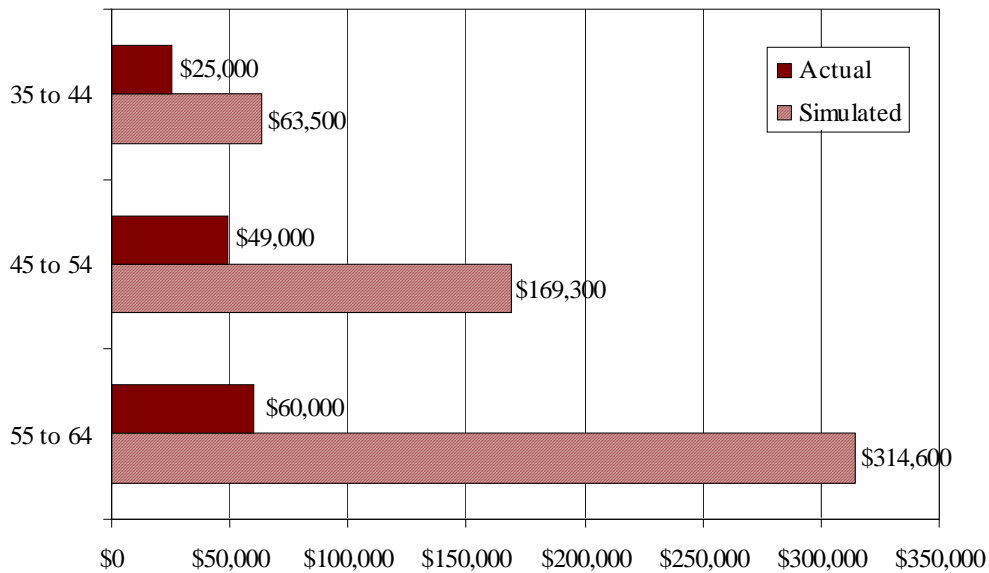
Source: Authors' calculations based on Munnell (2003).

Figure 3. *Percent of Wage and Salary Workers with Pension Coverage by Type of Plan, 1983-2004*



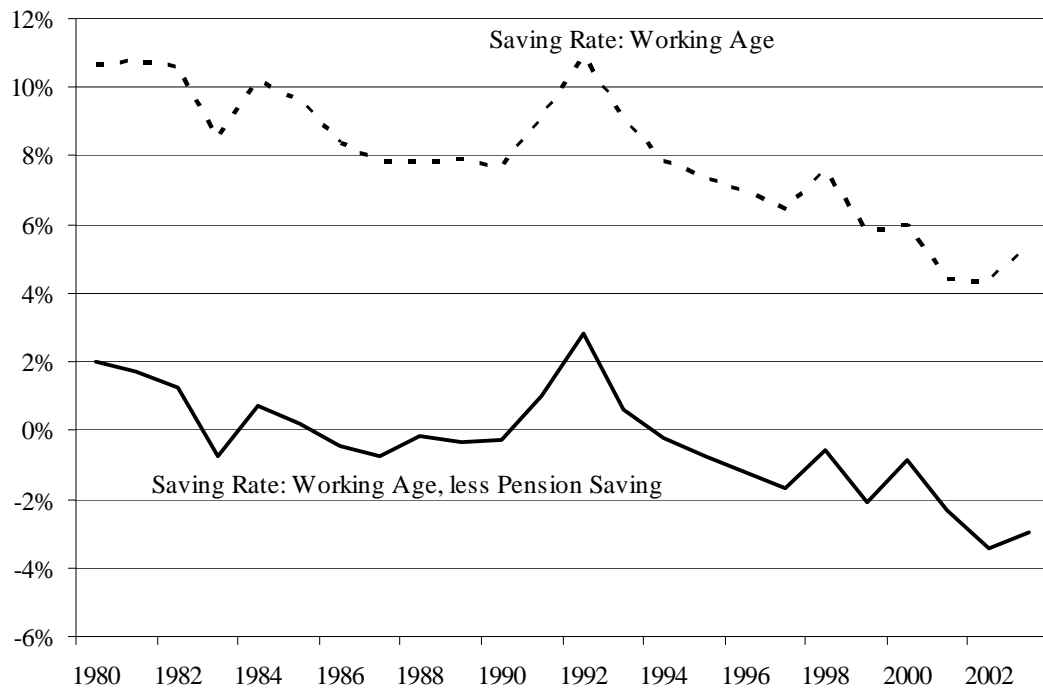
Source: Munnell and Sundén (2006) based on the U.S. Board of Governors of the Federal Reserve System (1983-2004).

Figure 4. *401(k)/IRA Actual and Simulated Accumulations, by Age Group, 2004*



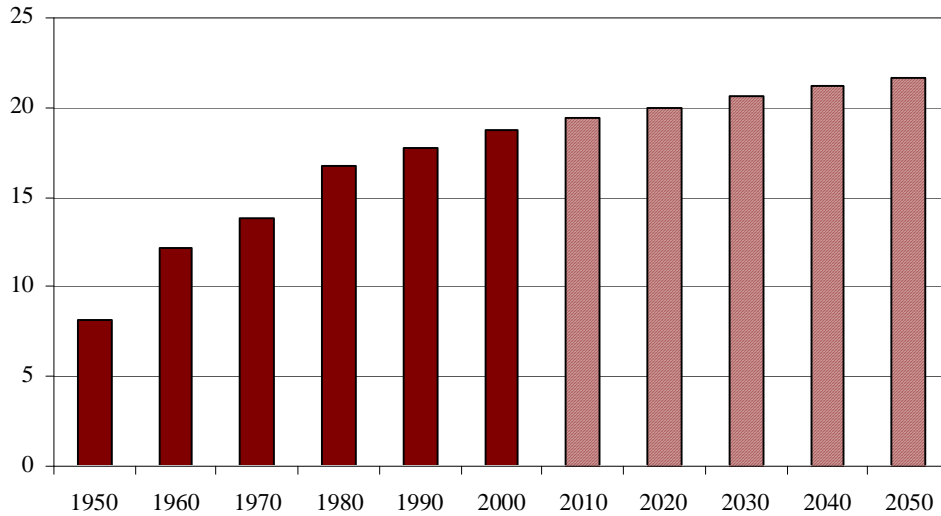
Source: Munnell and Sundén (2006).

Figure 5. NIPA Personal Saving Rate: Working-Age Population with and without Pensions, 1980-2003



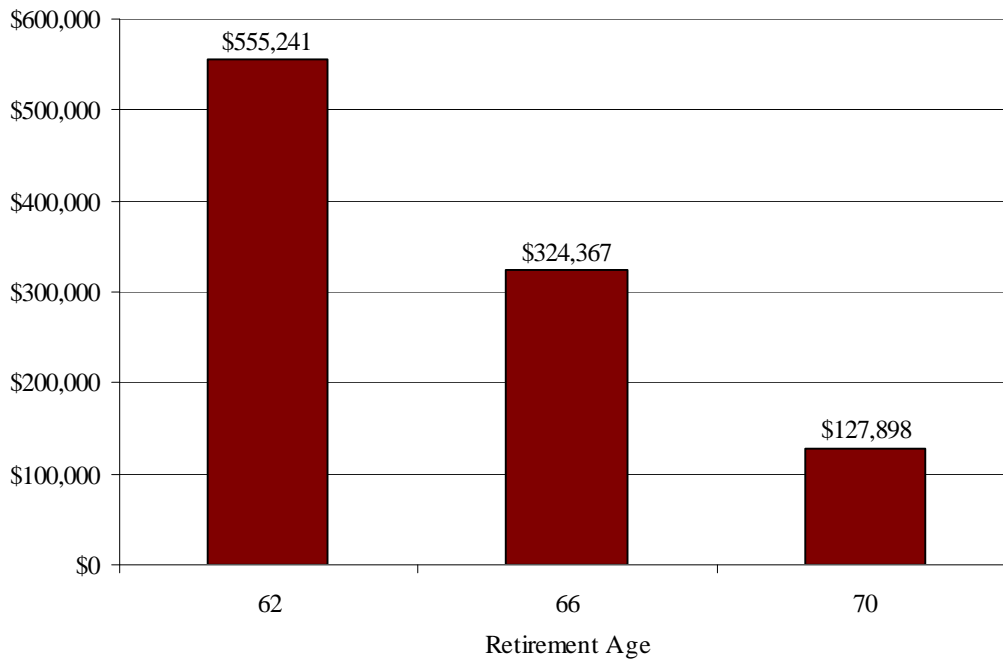
Source: Munnell, Golub-Sass and Varani (2005).

Figure 6. *Expected Years in Retirement for Men*



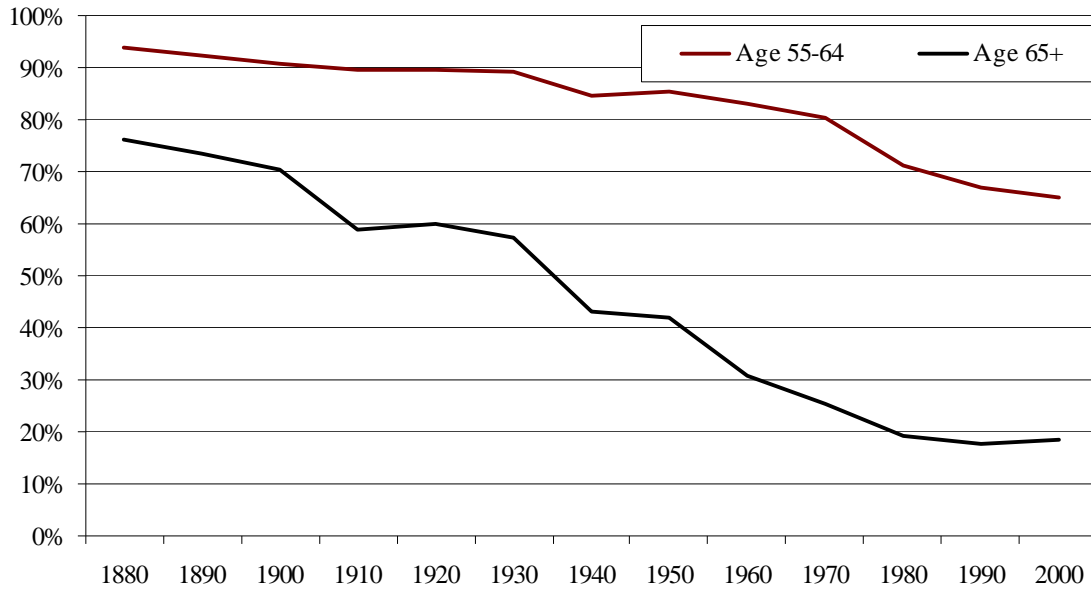
Sources: U.S. Bureau of Labor Statistics and U.S. Census Bureau (1962-2005) and authors' calculations based on U.S. Social Security Administration (2006).

Figure 7. *Assets Required for a Married Couple Earning \$63,660 after Taxes to Maintain 80 Percent of After-Tax Pre-Retirement Income, 2007*



Source: Authors' update based on Congressional Budget Office (2004).

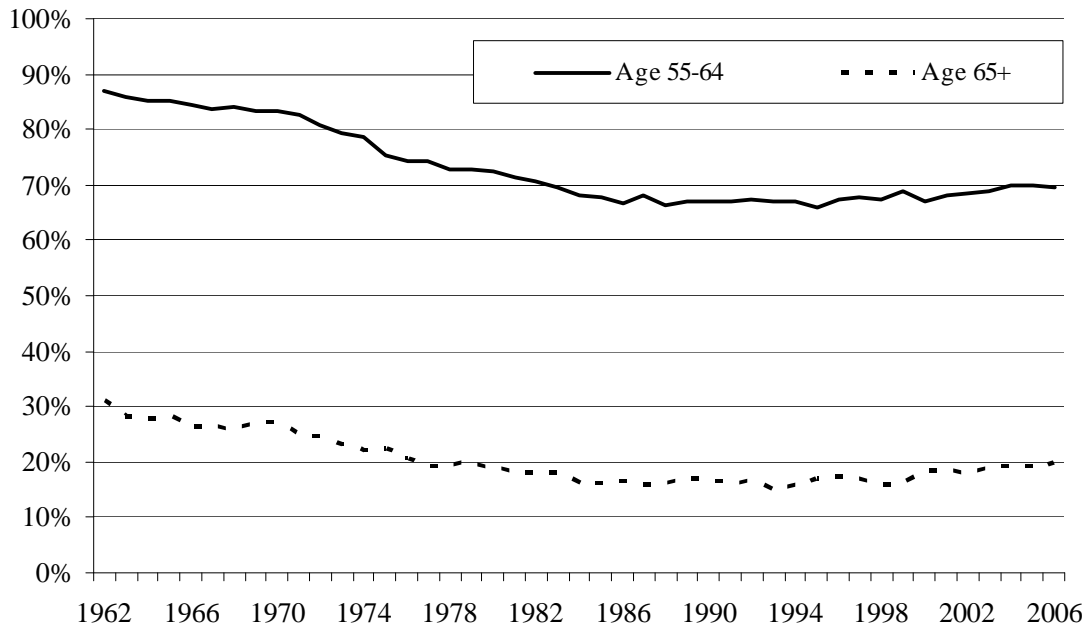
Figure 8. Men's Work Rates Age 55-64 and 65+, 1880-2000



Note: From 1880-1930, work rates are defined as reporting any gainful occupation. From 1940-2000, work rates are labor force participation rates, defined as working or seeking work.

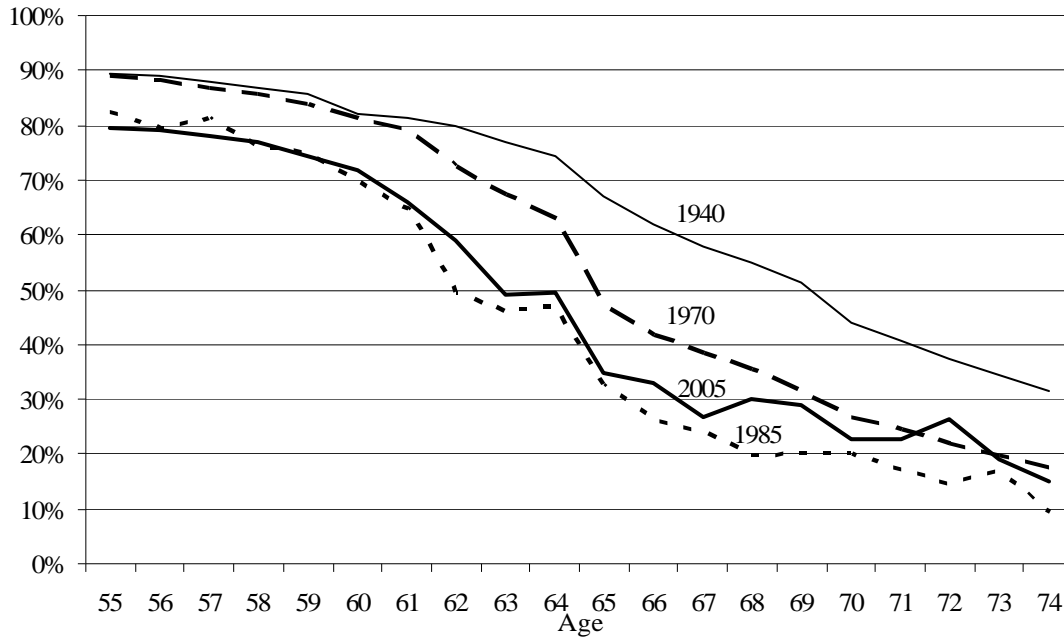
Source: Ruggles and Sobek (2004).

Figure 9. Labor Force Participation of Males, Ages 55-64 and 65+, 1962-2006



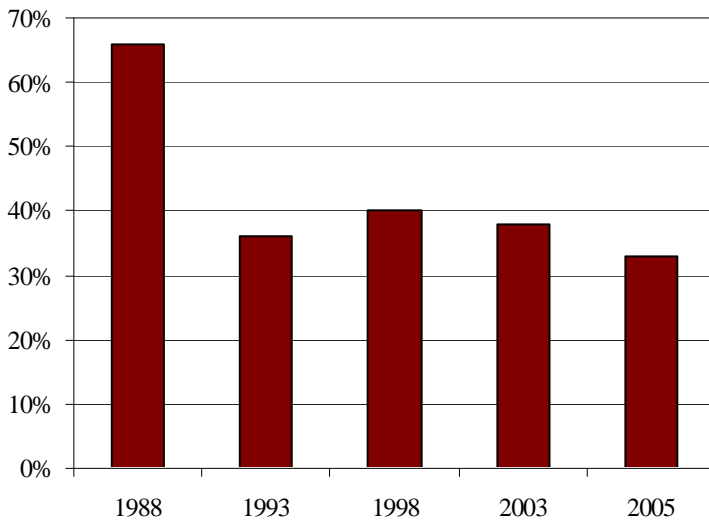
Source: U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1962-2006).

Figure 10. *Labor Force Participation Rate of Men, by Age, 1940-2005*



Sources: Authors' calculations based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1985 & 2005) and Munnell (1977).

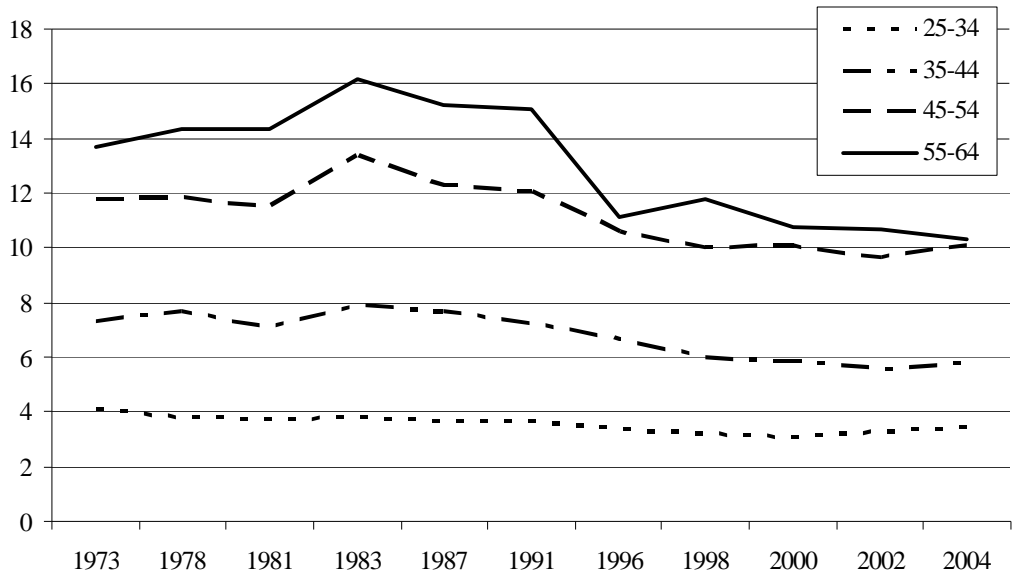
Figure 11. *Percentage of Employers Offering Retiree Health Benefits (Firms with 200 or more Workers)*



Source: Kaiser/HRET Employer Health Benefits Survey: 2003, 2005; KPMG Survey of Employer-Sponsored Health Benefits: 1988, 1993, 1998.

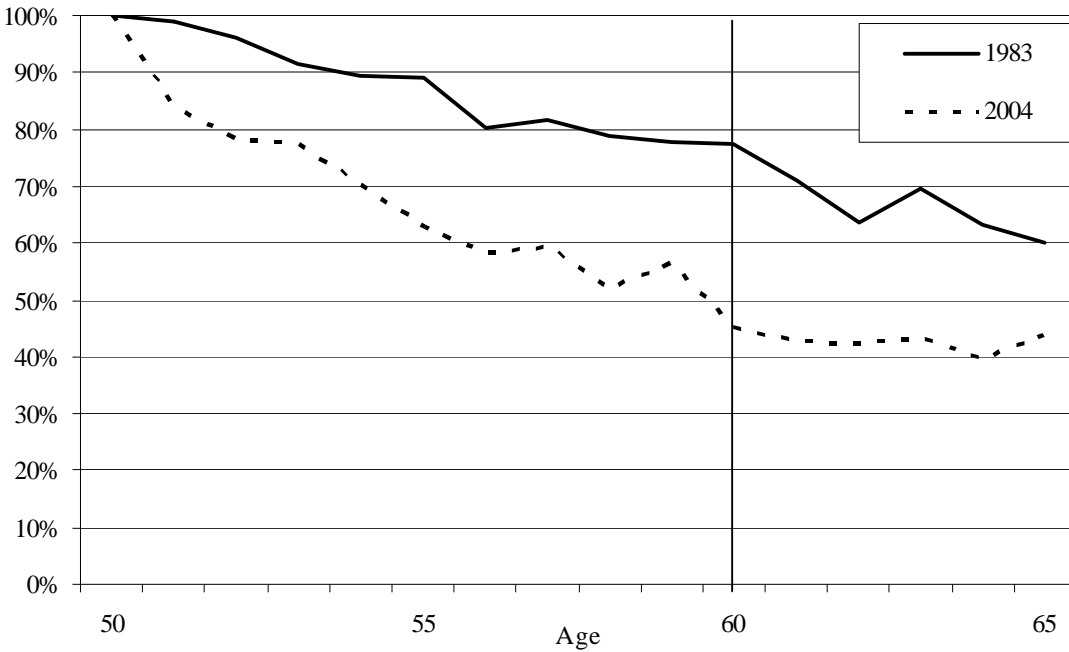
<http://www.kff.org/insurance/7315/sections/upload/7315Section11.pdf>

Figure 12. *Median Years of Tenure of Employed Males by Age, CPS Data, 1973-2004*



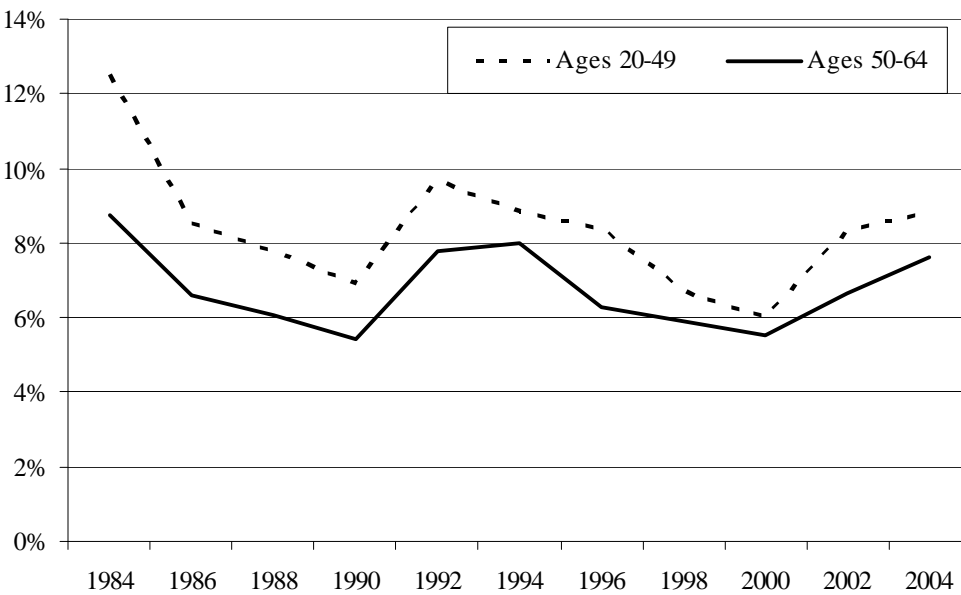
Source: Authors' calculations from U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1973-2004).

Figure 13. *Percent of Full-Time Male Workers that Have Remained in the Same Job since Age 50, 1983 and 2004*



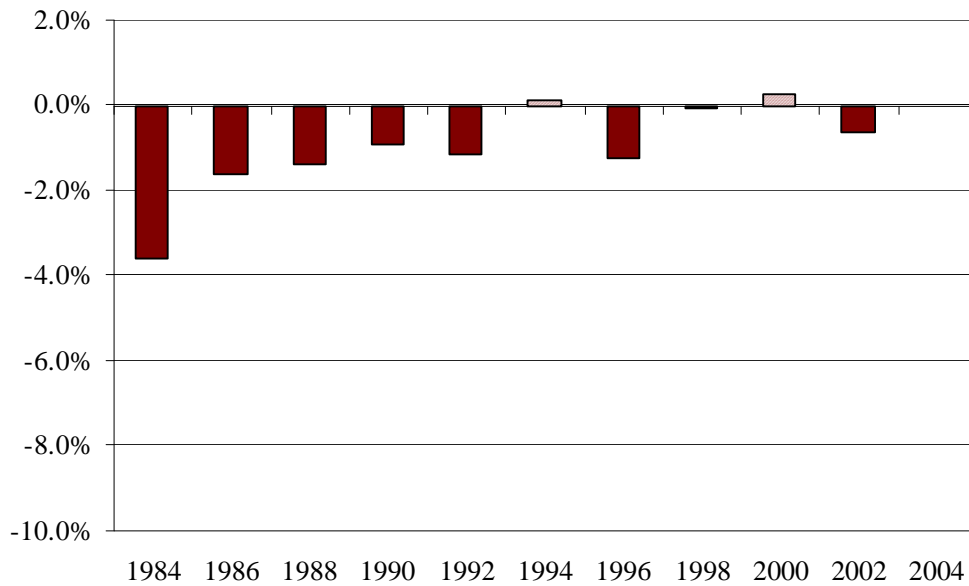
Source: Authors' calculations based on U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1983 and 2004).

Figure 14. *Displacement Rates, by Age, 1984-2004*



Source: Munnell, Sass, Soto, and Zhivan (2006) based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (2004).

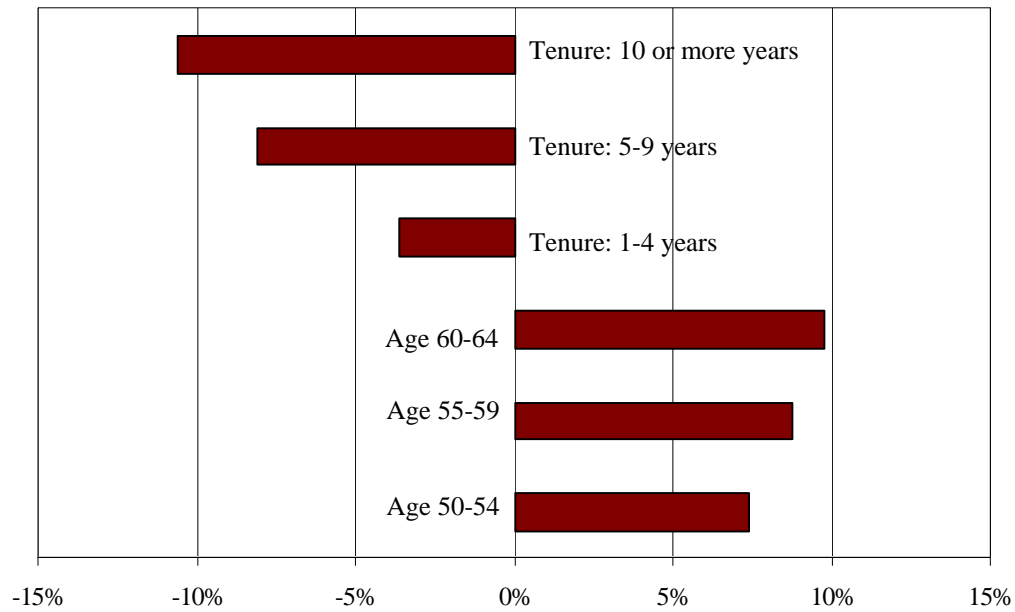
Figure 15. *Probability of Displacement for Workers Age 50-64 Compared to Workers Age 20-49, DWS, 1984-2004*



Note: Striped bars indicate results that are not statistically significant.

Source: Munnell, Sass, Soto, and Zhivan (2006) based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (2004).

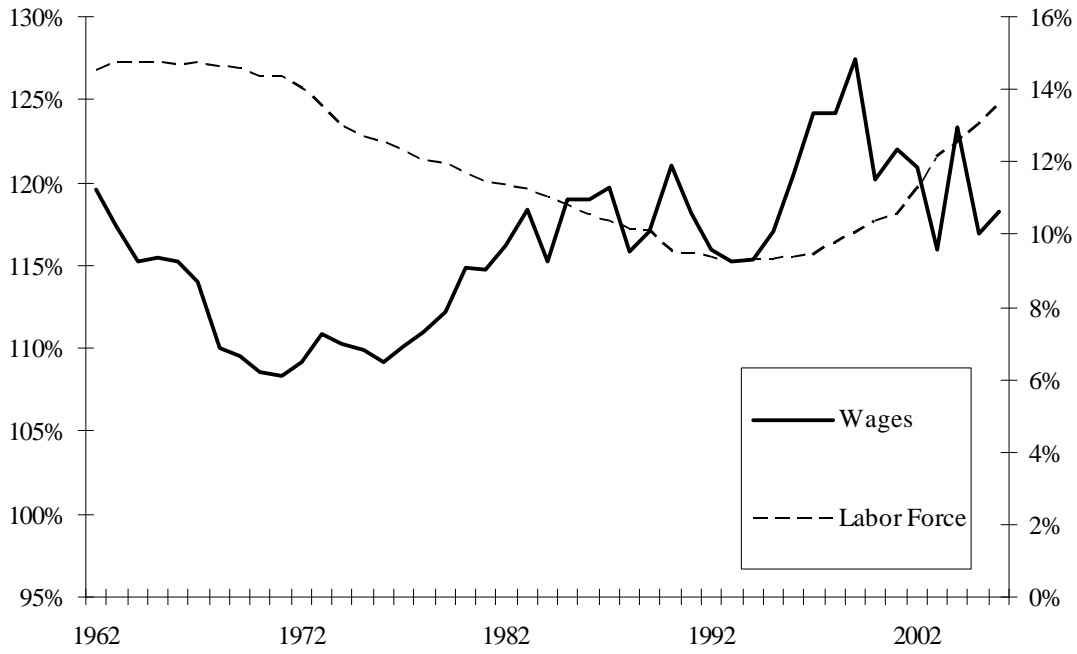
Figure 16. *The Effect of Tenure and Age on the Probability of Displacement for Older Workers, DWS, 2004*



Note: All results are statistically significant.

Source: Munnell, Sass, Soto, and Zhivan (2006) based on U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (2004).

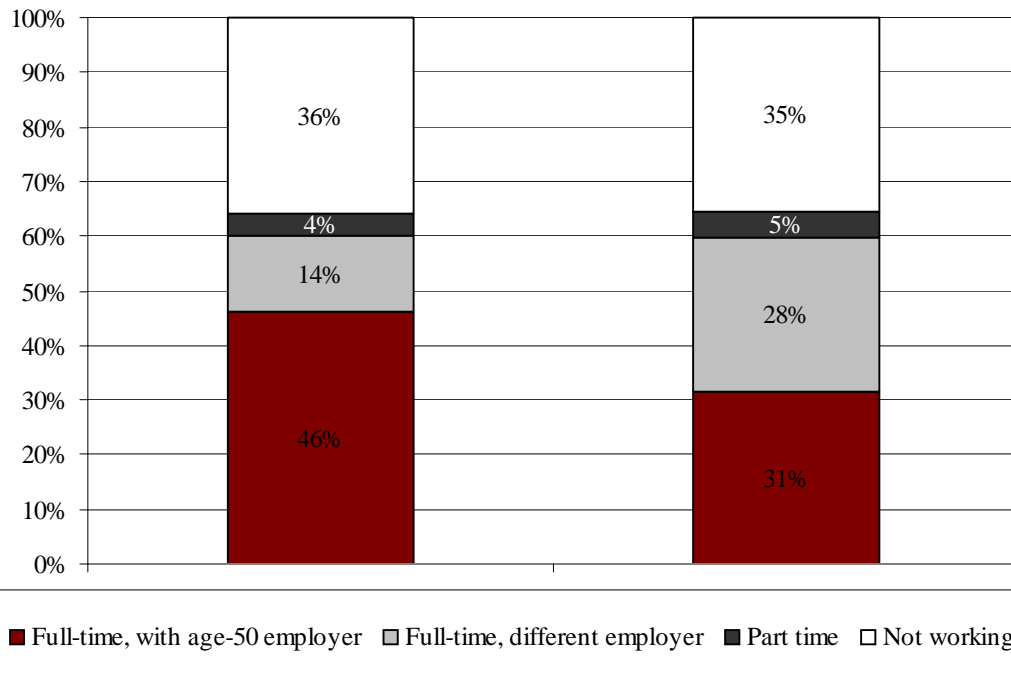
Figure 17. *Labor Force Age 55-64 as a Percent of the Labor Force 64 and under and Wages of Those Age 55-64 as a Percent of Wages of Those 64 and under, Men, 1962-2006*



Note: Wages are for those who graduated from high school.

Sources: Authors' calculations based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1962-2006) and U.S. Bureau of Labor Statistics (2007).

Figure 18. *Employment of Men Age 55-64, 1983 & 2004*



Source: Authors' calculations based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1983 & 2004).

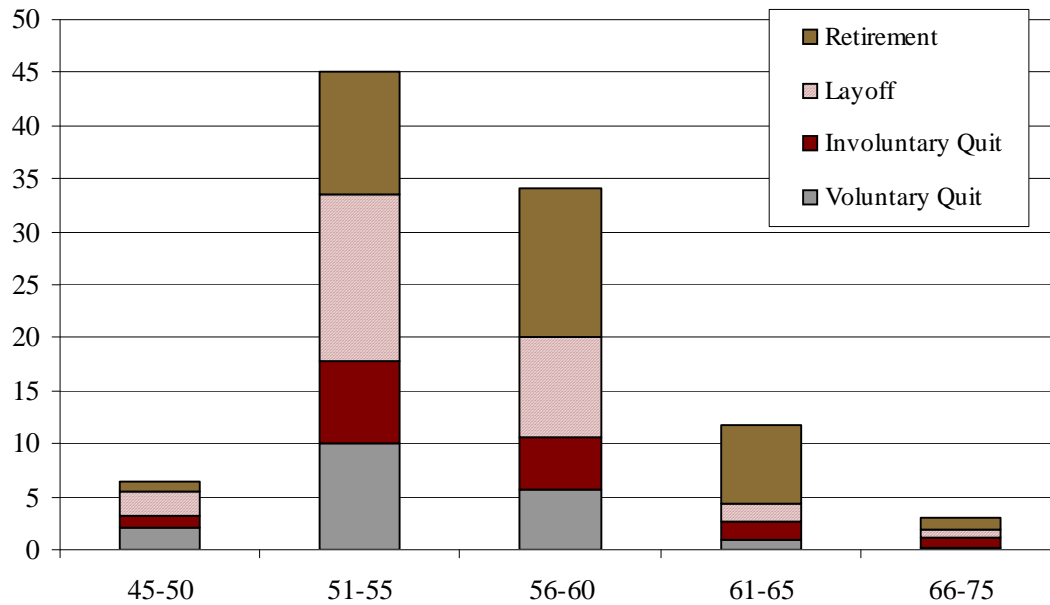
Figure 19. *Percent of Full-Time Workers that Are “Switchers,” and Switchers’ Wages as a Percent of Non-Switchers’ Wages, Men Age 55-64, 1983-2004*



Note: A “switcher” is one who no longer works for his age 50 employer.

Source: Authors’ calculations based on the U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1983-2004).

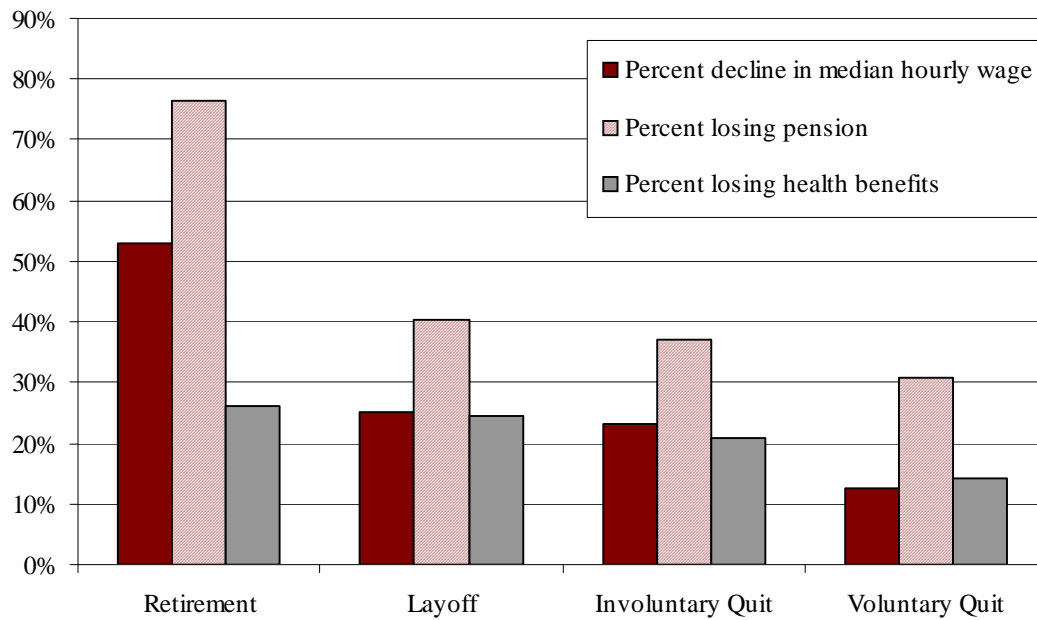
Figure 20. *Percent of Workers Who Change Jobs, by Age and Reason for Separation, 1986-2004*



Note: Figure refers to those workers in the HRS whose former job lasted more than 10 years. “Involuntary Quit” includes leaving job because of relocation, poor health and disability, family or child care responsibilities, marriage, spouse’s preferences, personal problems, and dissatisfaction with work hours or length of commute.

Source: Authors’ calculations based on Johnson and Kawachi (2007).

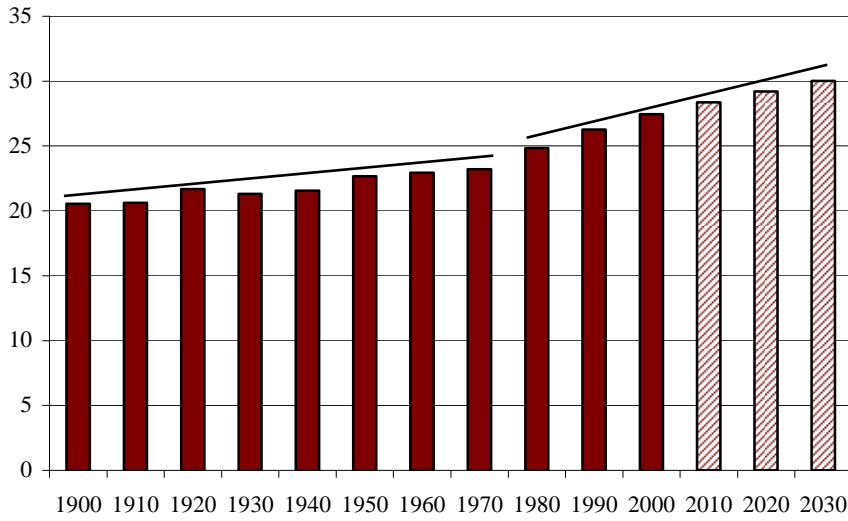
Figure 21. *Percent Decline in Wages and Fringe Benefits among Older Males Who Change Jobs after 10 years with Former Employer*



Note: This figure shows wage and fringe benefit changes for workers whose former job lasted more than 10 years. Loss of pension encompasses those who were covered by a pension on their old job but not on their new job. Loss of health benefits encompasses those who were covered by health benefits on their old job but not on their new job. Involuntary quit refers to changing jobs because of relocation, poor health and disability, family or child care responsibilities, marriage, spouse's preferences, personal problems, and dissatisfaction with work hours or length of commute.

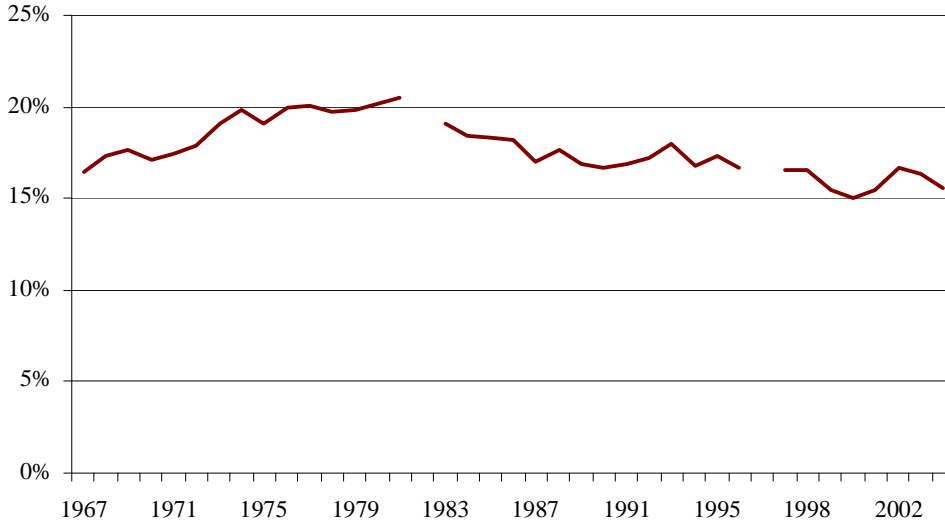
Source: Authors' calculations based on Johnson and Kawachi (2007).

Figure 22. *Life Expectancy in Years at Age 50, 1900-2030*



Source: Munnell, Libby (2007) based on data from the U.S. Social Security Administration.

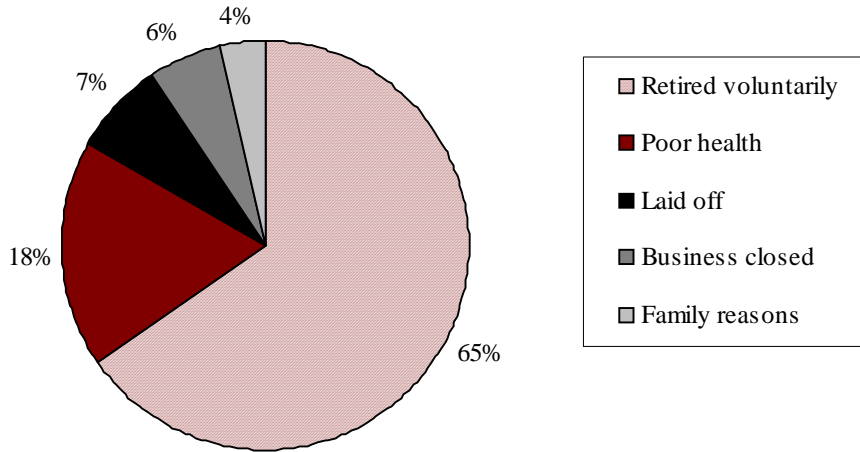
Figure 23. *Activity Limitation among Men Age 45-64, NHIS 1967-2004*



Note: From 2002-2004, the figure shows work limitation for all persons instead of males only.

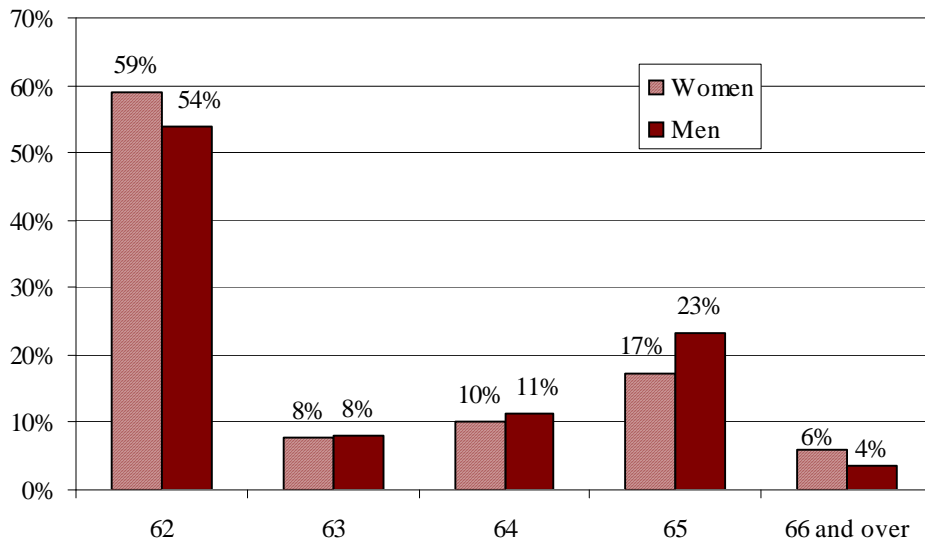
Source: National Center for Health Statistics (1967-2004).

Figure 24. *Of Those Retired by Age 65 in the Health and Retirement Study, Reason for Retiring, 1992-2002*



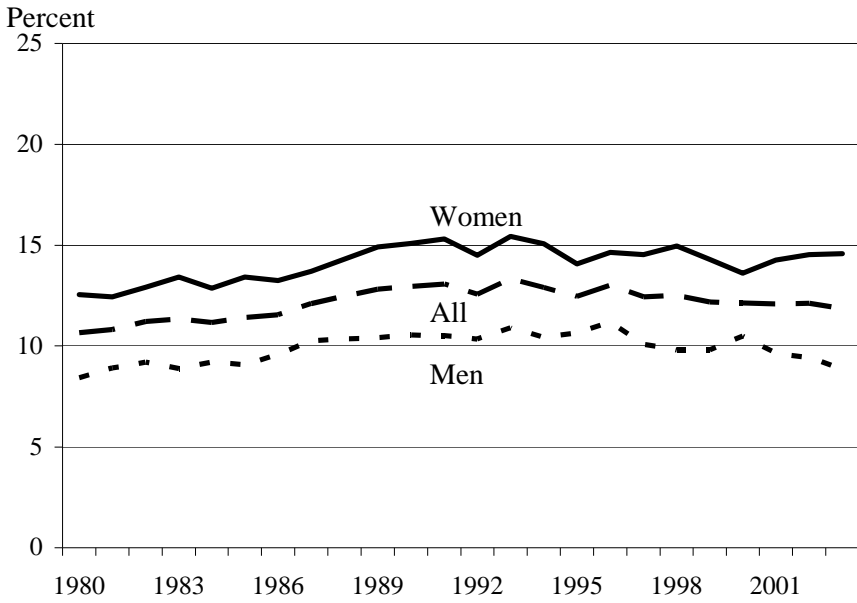
Source: Authors' calculations based on the University of Michigan (1992-2002).

Figure 25. *Percent Distribution by Age of Initial Social Security Benefit Awards, 2004*



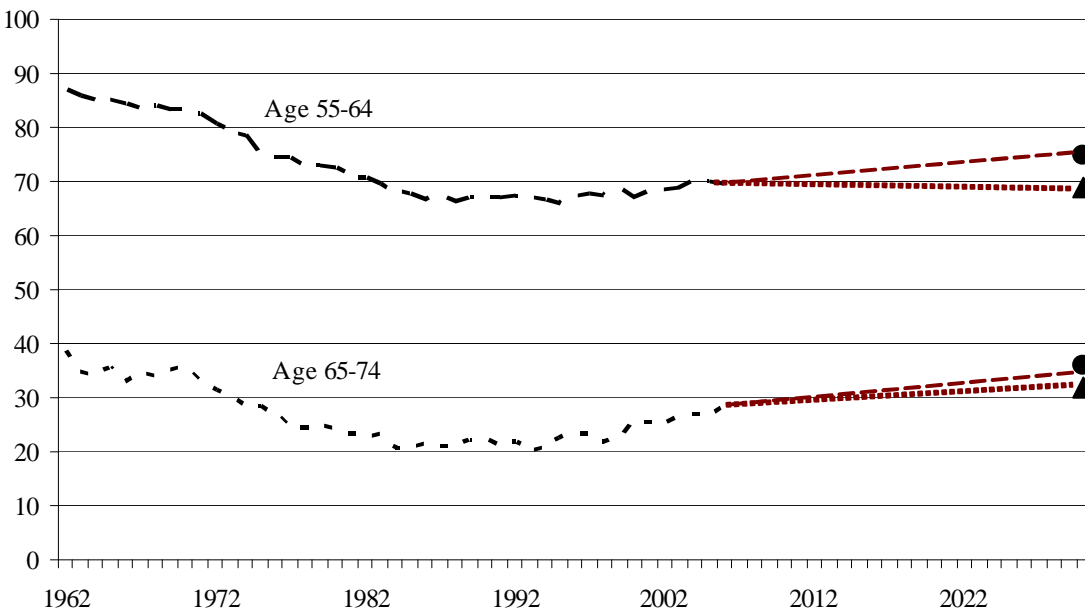
Source: U.S. Social Security Administration (2006) and authors' calculations.

Figure 26. *Percent of Workers Age 55-70 Employed Part Time, 1980-2004*



Source: U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1981-2004).

Figure 27. *Male Labor Force Participation Rate by Age, 1980-2006 with Projection to 2030*



Sources: U.S. Bureau of Labor Statistics and U.S. Bureau of the Census (1980-2006) and U.S. Bureau of Labor Statistics (2007).

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