CENTER FOR
RETIREMENT
RESEARCH
AT BOSTON COLLEGE

January 2009, Number 9-2

RECESSIONS AND OLDER WORKERS

By Alicia H. Munnell, Dan Muldoon, and Steven A. Sass*

Introduction

With the economy sliding ever deeper into recession, questions arise about how older workers are faring and how their fate relative to younger workers compares to the past. The answer to these questions turns out to be a little complicated. Two forces are at work. On the one hand, labor force participation among older workers has been rising since the early 1990s, a reversal of the long-standing trend toward ever-earlier retirement. Participation rates among older workers have even continued to rise during both of the recessions in this decade – a dramatic change from previous experience. On the other hand, the edge that older workers used to have relative to younger workers when it comes to layoffs seems to have disappeared, so the rise in the unemployment rate for older workers in recessions now looks similar to that for younger workers. Of the two forces, the trend growth in labor force participation appears to dominate, which has helped keep the employment rate of older workers from falling during the current recession. This pattern contrasts sharply with the far more typical decline in employment rates for workers under age 55.

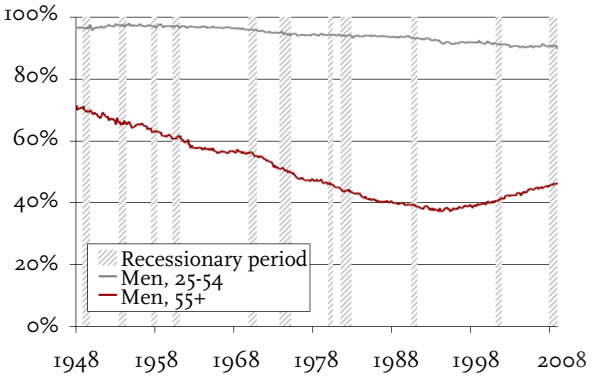
This *brief* is organized as follows. The first section discusses the upward trend in the labor force participation of older men. The second section explores why older men may have lost some of their edge with regard to job security. The third section looks at how these two developments – the secular upward trend in labor force participation and the heightened vulnerability to layoffs relative to younger workers – have affected the employment rates of older men in this recession compared to earlier ones. The fourth section concludes.

More Older Men Are Working

Since the early 1990s, the labor force participation rate of men 55 and over has steadily increased, reversing a long-standing trend toward earlier retirements (see Figure 1 on the next page).[1] Important explanations for this reversal include changes in Social Secu-

* Alicia H. Munnell is the Peter F. Drucker Professor of Management Sciences in Boston College's Carroll School of Management and Director of the Center for Retirement Research at Boston College (CRR). Dan Muldoon is a research associate at the CRR. Steven A. Sass is Associate Director for Research at the CRR.

Figure 1. Seasonally Adjusted Monthly Labor Force Participation Rate, Men Aged 25-54 and 55 and Older, 1948-2008



Sources: U.S. Bureau of Labor Statistics (2009); and National Bureau of Economic Research (2008).

rity and employer-sponsored pensions. But a number of other factors may also have played a significant role.

Changes in the Social Security Program

Changes in the Social Security program have made work more attractive vis-à-vis retirement. First, Congress liberalized and, for some, eliminated the earnings test, which withholds some or all benefits of workers who earn more than specified amounts. The government originally imposed an earnings test because Social Security was conceived as insurance against a loss of earnings due to disability, death or old age. Because most beneficiaries were unaware that the reduction in benefits while working triggered an increase in benefits later, the earnings test seemed like a tax and encouraged large numbers of people to retire early.[2] In recent years, Congress increased the exempt amount for all beneficiaries subject to the earnings test. And, for beneficiaries between the Full Retirement Age and 70, it eliminated the test altogether beginning in 2000.[3] Most studies suggest that the earnings test has a substantial impact on the work effort of older people.[4]

Congress also improved incentives to keep working by expanding the Delayed Retirement Credit. This credit increases benefits for each year of delay in claiming between the Full Retirement Age and age 70.[5] Although the credit was modest initially, it is now roughly actuarially fair. 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.[6]

Changes in Employer Pensions

Over the past quarter century, traditional defined benefit pensions have largely been eclipsed by 401(k) plans. Defined benefit pensions typically have strong financial incentives to retire by the plan's "normal retirement age," if not earlier. In contrast, 401(k) plans, which work like savings accounts, 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.[7]

Another factor that could cause those with 401(k) plans to work longer is exposure to market risk. Older workers hold almost two thirds of their 401(k) balances in equities.[8] As a result, any decline in the stock market could encourage older participants to keep working. In 2002, 21 percent of respondents in an AARP survey of 50-70 year olds who had not yet retired reported that they had postponed their retirement as a result of stock market losses.[9]

So the participation rates of older workers can be expected to rise as an increasing share of workers on the cusp of retirement are covered by 401(k)s instead of defined benefit pensions.

Increased Education

Men with higher levels of education have greater labor force participation rates, and over the last quarter century the educational attainment of the population has increased significantly. As shown in Table 1 on the next page, 38 percent of men age 55-64 in 1983 had not graduated from high school. By 2006, that figure had declined to 13 percent and those who had completed at least four years of college had increased from 18 percent to 33 percent. Older men, in terms of educational attainment, now look much like their younger counterparts.

Table 1. Educational Attainment of Younger Versus Older Workers, 1983 and 2006

Educational attainment	1983		2006	
	25-34	55-64	25-34	55-64
Less than high school diploma	13%	38%	15%	13%
High school and some college	60	44	58	54
College degree or more	27	18	27	33

Source: U.S. Bureau of Labor Statistics, *Current Population Survey* (CPS), 1983 and 2006.

Less Physically Demanding/More Rewarding Jobs

The nature of employment has changed dramatically in the last 20 years, as manufacturing has declined and the service sector has exploded. Even within manufacturing the nature of jobs has changed, as firms have automated or outsourced production and now employ more managers, engineers, and technicians.[10] Less physical strain[11] and more non-pecuniary rewards raise the value of remaining at work vis-à-vis retirement, thereby boosting the supply of labor. A good portion of the increase in labor force participation of older men may be due to such changes, especially for those age 65 and over. Those who remain in the labor force tend to be more educated, healthier, and wealthier than those who retire. The wages they earn are also lower than those earned by their younger counterparts and lower than their own past earnings, which suggests that money may not be the prime motivator for remaining at work.[12]

Joint Decision-Making

Another factor that may be encouraging later employment is the movement of married women into the labor force. A growing number of studies suggest that husbands and wives like to retire together. Since husbands are, on average, three years older than wives, the increased labor force participation of wives can be expected to lead to later retirement for their husbands. That is, if wives want to wait at least to age 62 to qualify for early Social Security benefits, that pattern would push their husband's retirement date toward age 65.[13]

Decline in Post-Retirement Health Insurance

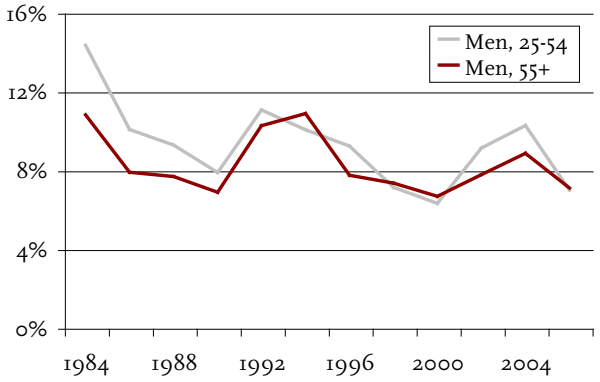
A final factor affecting the labor force participation rates for men at older ages is the decline in employer-provided retiree health insurance. According to the Kaiser Family Foundation, the percent of firms with 200 or more employees offering retiree health insurance fell by more than half between 1988 and 2008.[14] 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 65, when they qualify for Medicare, they will be forced to purchase insurance on their own. Given the rapid rise in health care costs, the decline of retiree health insurance creates a strong incentive for workers to remain employed until 65.[15]

Older Men No Longer Protected from Layoffs

Offsetting the trend toward greater labor force participation of older men is a decline in the protection from layoffs that they used to enjoy. The conventional wisdom has long held that older workers are less likely to be displaced than their younger counterparts. The notion was that when workers are young, they and their employers share the costs of acquiring skills that are particularly useful at the particular firm. When workers age, employers are reluctant to lay them off because they would lose their investment and be forced to train new younger workers. Until recently, virtually every study looking at displacement rates has concluded that the probability of being displaced declines with age.[16] But things are changing. Data from the *Displaced Worker Survey* show that the difference in displacement rates between younger and older workers has disappeared (see Figure 2 on the next page).

Two factors explain this loss of relative job security – a decline in the tenure of older workers and a sharp increase in the displacement of older workers employed in manufacturing. A factor that one might have expected to offset these negative developments is the improvement in educational attainment of older workers; but the effect of education in reducing the risk of displacement has all but disappeared.

Figure 2. Displacement Rate, Men Aged 25-54 and 55+, 1984-2006

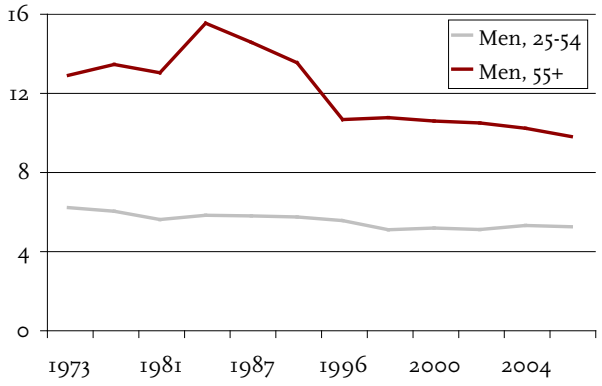


Source: Authors' calculations from U.S. Bureau of Labor Statistics, *Displaced Worker Survey* (1984-2006).

The Decline in Tenure

The median tenure data for employed males taken from the *Current Population Survey* (CPS) are presented in Figure 3.[17] The results are interesting in two respects. First, before 1990 the median years of tenure are virtually flat for both age groups. This pattern confirms much of the earlier work on mobility that showed very little change during the 1970s and 1980s.[18] Second, beginning in the early 1990s, after a decade of 401(k) plans, the median tenure for men at older ages drops sharply.[19]

Figure 3. Median Years of Tenure, Employed Men aged 25-54 and 55 and Over, 1973-2006



Source: Authors' calculations from 1973-2006 CPS.

Manufacturing Employment

Manufacturing has a displacement rate twice as high as the rest of the economy. Thus, one would have thought that the declining share of jobs in manufacturing, from about 23 percent of employment in 1984 to 13 percent in 2006, would reduce the overall displacement rate. But a recent study found that the likelihood of being displaced in manufacturing has increased significantly, especially among older workers.[21] The net effect is that manufacturing trends have increased overall displacement risk despite the shrinking importance of this sector to the whole economy.

Educational Attainment

Historically, displacement rates have declined as educational attainment increased. Between 1984 and 2006, the educational attainment of older workers improved dramatically and their deficit in educational attainment, relative to younger workers, essentially disappeared. This trend should have reduced displacement rates among older workers and widened the gap in displacement rates between younger and older workers. But a recent study found that the negative relationship between displacement rates and education has declined significantly since the early 1990s.[22] Thus, the improved educational attainment of older workers had little effect on either their risk of dislocation or their risk of dislocation relative to that for younger workers.

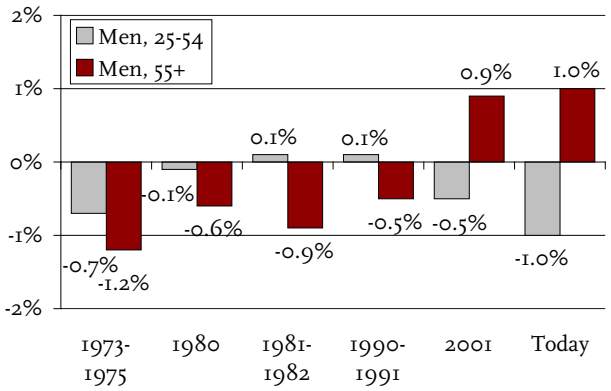
The bottom line is that controlling for education, manufacturing, tenure and other factors, the probability of a worker 50-64 being laid off has increased relative to that of a prime-age worker.

How Older Workers Now Fare in Recessions

The question is how the two trends discussed above – the rise in labor force participation and the loss of relative job security – have affected the experience of older workers relative to younger workers in recessions. The figures presented below show changes in labor force participation, unemployment, and employment for older and younger workers from peak to trough in each of the five previous recessions and from the peak of the previous expansion through December 2008 – the latest data available.

Figure 4 shows the change in labor force participation rates. The pattern, historically, was for labor force participation rates to decline in recessions, especially for older workers. But after the turn of this century, participation rates for older workers diverged from this traditional pattern and actually rose. The rate of increase was roughly the same as during recent non-recession years. It could be the case that the traditional factors inducing older workers to exit the labor force in recessions are still in effect, but that the loss of retirement wealth in 401(k) accounts in recessions now induces older men to keep working.

Figure 4. Change in Labor Force Participation Rate, Men Aged 25-54 and 55+, Recent Recessions and Today

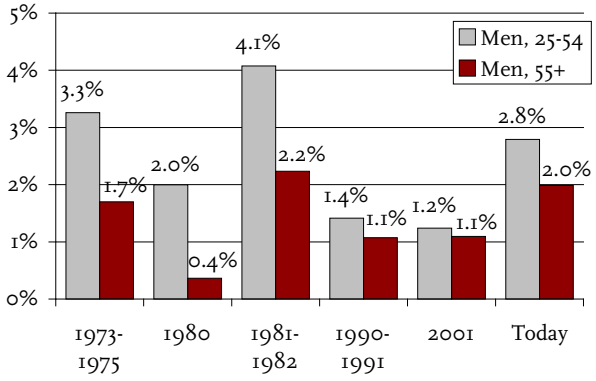


Note: Data are seasonally adjusted. "Today" covers the period from December 2007-December 2008.
Sources: U.S. Bureau of Labor Statistics (2009); and National Bureau of Economic Research (2008).

Figure 5 shows the change in unemployment rates. Here we see the effects of the loss in relative job security formerly enjoyed by older men. The rise in unemployment was much sharper for younger men in the recessions of the 1970s and 1980s. In the more recent recessions, by contrast, the rise in unemployment was similar for both groups.

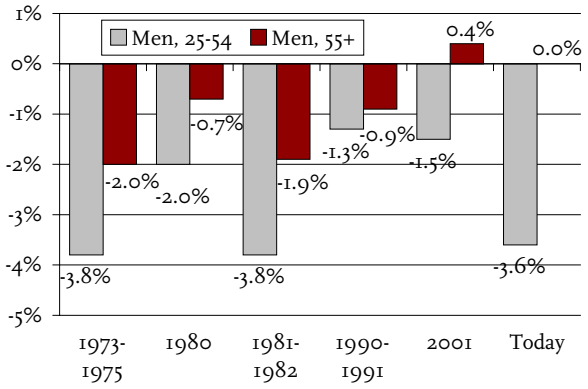
Figure 6 shows the change in employment rates – the percentage of individuals employed – during these recessions. In the case of younger men, employment rates consistently decline as the economy goes into recession. Before the turn of the century, employment rates for older men also declined. In the last recession, however, a greater share of older men was employed at the trough than at the peak. And today, the same share of older men were working in December 2008 as in December 2007, the peak of the last expansion. These employment changes during recent recessions are to a large extent the net result of the two trends among older men discussed above – the rise in labor force participation, which pushes up employment rates, and the decline in job security, which pushes them down. The evidence thus far indicates that the factors pushing more men to work dominate the decrease in their relative job security.

Figure 5. Percentage Point Change in Unemployment Rate, Men Aged 25-54 and 55+, Recent Recessions and Today



Note: Data are seasonally adjusted. "Today" covers the period from December 2007-December 2008.
Sources: U.S. Bureau of Labor Statistics (2009); and National Bureau of Economic Research (2008).

Figure 6. Change in Employment to Population Ratio, Men Aged 25-54 and 55+, Recent Recessions and Today



Note: Data are seasonally adjusted. "Today" covers the period from December 2007-December 2008.
Sources: U.S. Bureau of Labor Statistics (2009); and National Bureau of Economic Research (2008).

Conclusion

Despite the sharp economic downturn, employment rates for older men are as high today as at the peak of the last expansion. The outcome is the net result of two opposing trends – an increase in the labor force participation of older men and a decline in their job security relative to younger workers.

The current recession, however, will likely deepen. If so, the employment rate for older workers could fall well below its level at the peak of the previous expansion. It is important to note, however, that employment rates for older workers could rise quite smartly when the economy recovers. While older workers are no longer more secure in their jobs than younger workers, the trend toward greater labor force participation among older workers should continue. This outcome is especially likely because the current downturn has been accompanied by a sharp drop in the stock market, which is unlikely to be reversed anytime soon. With about two-thirds of their 401(k) portfolios invested in equities, older workers should recognize that the only way to compensate for their decimated assets is to remain in the workforce longer.

Endnotes

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

2 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. See Gustman and Steinmeier (1999 and 2001) for the public's general ignorance of Social Security rules.

3 For those between age 62 and the Full Retirement Age, the test allows about $12,960 of earnings before reducing benefits by $1 for each $2 of earnings.

4 See Friedberg (1998 and 2000); Loughran and Haider (2005); Friedberg and Webb (2006); and Gustman and Steinmeier (2007). One study concluded that the test has little effect on labor supply, at least among men (Gruber and Orszag 2003).

5 When introduced in 1972, the credit increased benefits by 1 percent per year for each year of delay between the Full 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.

6 Coile and Gruber (2000); and Pingle (2006).

7 Friedberg and Webb (2005); and Munnell, Cahill, and Jivan (2003).

8 Vanguard (2008).

9 AARP (2002). Some researchers (Eschtruth and Gemus 2002; Cahill, Giandrea, and Quinn 2006) agree 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 view 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.

10 Massachusetts Office of the Governor (2001).

11 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 39 percent between 1992 and 2002 (see Johnson 2004).

12 Haider and Loughran (2001); Lahey, Kim, and Newman (2006); and Maestas (2005) also find that financial pressures do not explain "un-retirement" – retired workers returning to paid employment.

13 Schirle (2007) found that husbands treat the leisure time of their wives as complementary to their own leisure at older ages and that a large portion of the recent increases in older men's participation rates may be explained as a response to the recent increase in older women's participation rates.

14 Kaiser Family Foundation (2008).

15 Researchers have found that employer-provided health insurance significantly influences retirement decisions, with retiree coverage providing a strong retirement incentive and pre-retirement coverage providing a strong incentive to remain employed. See, for example, Gustman and Steinmeier (1994); Karoly and Rogowski (1994); and Rust and Phelan (1997).

16 Farber (2005); and Rodriguez and Zavodny (2000 and 2003).

17 The CPS 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, 2004, and 2006. 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 experience temporary separations, their responses would indicate less tenure in more recent surveys despite the same underlying behavior. 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 3.

18 Neumark (2000); and Gottschalk and Moffitt (1999).

19 Friedberg and Owyang (2004) also find that current and remaining job tenure fell over the period 1983-2001 and they attribute some of the change to the movement from defined benefit to defined contribution plans. On the other hand, Stevens (2005) in a paper aptly titled "The More Things Change, the More They Stay the Same" comes to the conclusion that nothing has changed. Using three different data sets that follow people over an extended period of time, the author concludes that despite some ups and downs, the average tenure of workers in the longest job in their careers has remained virtually unchanged between 1969 and 2002 (21.9 to 21.4 years). Stevens, however, does not focus on older workers. That the average tenure in 1969 was 21.9 years could also be seen as indicating unusual stability, as 1969 is just 24 years after the end of the Second World War and, prior to that, the Great Depression, events very disruptive to career patterns.

20 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.

21 Munnell et al. (2006).

22 Munnell et al. (2006).

References

AARP. 2002. *Impact of the Stock Market Decline on 50-70 Year Old Investors.* Washington, DC: AARP.

Cahill, Kevin E., Michael Giandrea, and Joseph Quinn. 2006. "A Micro-level Analysis of Recent Increases in Labor Force Participation Among Older Men." BLS Working Paper 400. Washington, DC: Bureau of Labor Statistics.

Coile, Courtney and Jonathan Gruber. 2000. "Social Security and Retirement." Working Paper No. 7830. Cambridge, MA: National Bureau of Economic Research.

Coile, Courtney and Phillip B. Levine. 2006. "Bulls, Bears, and Retirement Behavior." *Industrial and Labor Relations Review* 59(3): 408-29.

Coronado, Julia Lynn and Maria Perozek. 2003. "Wealth Effects and the Consumption of Leisure: Retirement Decisions During the Stock Market Boom of the 1990s." *Finance and Economics Discussion Series* 2003-20. Washington, DC: Board of Governors of the Federal Reserve System.

Eschtruth, Andrew and Jonathan Gemus. 2002. "Are Older Workers Responding to the Bear Market?" *Issue in Brief* 5. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Farber, Henry S. 2005. "What Do We Know About Job Loss in the United States? Evidence from the Displaced Workers Survey, 1984-2004." *Economic Perspectives* 29(2): 12-18

Friedberg, Leora. 1998. "The Social Security Earnings Test and Labor Supply of Older Men." In *Tax Policy and the Economy*, Volume 12, ed. James Poterba. Cambridge, MA: MIT Press.

Friedberg, Leora. 2000. "The Labor Supply Effects of the Social Security Earnings Test." *The Review of Economics and Statistics* 82(1): 46-63.

Friedberg, Leora and Michael T. Owyang. 2004. "Explaining the Evolution of Pension Structure and Job Tenure." Working Paper No. 10714. Cambridge, MA: National Bureau of Economic Research.

Friedberg, Leora and Anthony Webb. 2005. "Retirement and the Evolution of Pension Structure." *Journal of Human Resources* 40(2): 281-308.

Friedberg, Leora and Anthony Webb. 2006. "Persistence in Labor Supply and the Response to the Social Security Earnings Test." Working Paper 2006-27. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Gottschalk, Peter and Robert Moffitt. 1999. "Changes in Job Instability and Insecurity Using Monthly Survey Data." *Journal of Labor Economics* 17(4): S91-S126.

Gruber, Jonathan and Peter Orszag. 2003. "Does the Social Security Earnings Test Affect Labor Supply and Benefits Receipt?" *National Tax Journal* 56(4): 755-73.

Gustman, Alan and Thomas Steinmeier. 1994. "Employer-provided Health Insurance and Retirement Behavior." *Industrial and Labor Relations Review* 48(1):124-140.

Gustman, Alan and Thomas Steinmeier. 1999. "What People Don't Know About Their Pensions and Social Security: An Analysis Using Linked Data from the Health and Retirement Study." Working Paper No.7368. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan and Thomas Steinmeier. 2001. "Imperfect Knowledge, Retirement, and Saving." Working Paper No. 8406. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan and Thomas Steinmeier. 2002. "Retirement and the Stock Market Bubble." Working Paper 9404. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan and Thomas Steinmeier. 2007. "Projecting Behavioral Responses to the Next Generation of Retirement Policies." Working Paper No. 12958. Cambridge, MA: National Bureau of Economic Research.

Haider, Steven and David Loughran. 2001. "Elderly Labor Supply: Work or Play?" Working Paper 2001-4. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Johnson, Richard W. 2004. "Trends in Job Demands Among Older Workers, 1992-2002." *Monthly Labor Review* 127(7): 48-56.

Kaiser Family Foundation. 2008. *Kaiser/HRET Employer Health Benefits 2008 Annual Survey*. Washington, DC.

Karoly, L. A. and J.A. Rogowski. 1994. "The Effect of Access to Post-Retirement Health Insurance on the Decision to Retire Early." *Industrial and Labor Relations Review*. 48(1): 103-123.

Lahey, Karen E., Doseong Kim and Melinda L. Newman. 2006. "Full Retirement? An Examination of Factors That Influence the Decision to Return to Work." *Financial Services Review* 15(1): 1-19.

Loughran, David S. and Steven Haider. 2005. "Do Elderly Men Respond to Taxes on Earnings?" Working Paper WR-223-1. Santa Monica, CA: RAND Corporation.

Maestas, Nicole. 2005. "Back to Work: Expectations and Realizations of Work after Retirement." Working Paper WR-191-1. Santa Monica, CA: RAND Corporation.

Massachusetts Office of the Governor. 2001. *Massachusetts Toward a New Prosperity: Building Regional Competitiveness*. Boston, MA.

Munnell, Alicia H., Kevin E. Cahill and Natalia Jivan. 2003. "How Has the Shift to 401(k)s Affected the Retirement Age?" *Issue in Brief* 13. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Steven Sass, Mauricio Soto, and Natalia A. Zhivan. 2006. "Has the Displacement of Older Workers Increased?" Working Paper 2006-17. Chestnut Hill, MA: Center for Retirement Research at Boston College.

National Bureau of Economic Research. 2008. "U.S. Business Cycle Expansions and Contractions." Cambridge, MA. Available at: http://www.nber.org/cycles.html.

Neumark, David. 2000. "Changes in Job Stability and Job Security: A Collective Effort to Untangle, Reconcile, and Interpret the Evidence." In *On the Job: Is Long-Term Employment a Thing of the Past*, ed. David Neumark. New York: Russell Sage Foundation.

Pingle, Jonathan F. 2006. "Social Security's Delayed Retirement Credit and the Labor Supply of Older Men." *Finance and Economics Discussion Series* 2006-37. Washington, DC: Board of Governors of the Federal Reserve System.

Purcell, Patrick J. 2005. *Older Workers: Employment and Retirement Trends*. Washington, DC: Congressional Research Service.

Rodriguez, Daniel and Madeline Zavodny. 2000. "Are Displaced Workers Now Finished at Age Forty?" *Economic Review* 85(2): 33-47. Federal Reserve Bank of Atlanta.

Rodriguez, Daniel and Madeline Zavodny. 2003. "Changes in the Age and Education Profile of Displaced Workers." *Industrial and Labor Relations Review* 56(3): 498-510.

Rust, John and Christopher Phelan. 1997. "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets." *Econometrica* 65(4): 781-831.

Schirle, Tammy. 2007."Why Have the Labour Force Participation Rates of Older Men Increased Since the Mid-1990s?" Department of Economics Working Paper Series. Waterloo, Ontario: Wilfrid Laurier University.

Stevens, Ann Huff. 2005. "The More Things Change: The More They Stay the Same: Trends in Long-Term Employment in the United States, 1969-2002." Working Paper No. 11878. Cambridge, MA: National Bureau of Economic Research.

U.S. Bureau of Labor Statistics. 1973-2006. *Current Population Survey*. Washington, DC.

U.S. Bureau of Labor Statistics. 1984-2006. *Displaced Worker Survey*. Washington, DC.

U.S. Bureau of Labor Statistics. 2009. "Labor Force Statistics from the Current Population Survey." Washington, DC.

Vanguard. 2008. *How America Saves 2008: A Report on Vanguard 2007 Defined Contribution Plan Data*. Malvern, PA: Vanguard Center for Retirement Research. Available at: www.vanguard.com/retirementresearch.

CENTER FOR
RETIREMENT
RESEARCH
AT BOSTON COLLEGE

About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

Affiliated Institutions

The Brookings Institution
Massachusetts Institute of Technology
Syracuse University
Urban Institute

Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: http://www.bc.edu/crr

The Center for Retirement Research thanks AARP, AIM Investments, Bank of America, Deloitte Consulting LLP, ING, John Hancock, MetLife, Nationwide Mutual Insurance Company, Prudential Financial, State Street, TIAA-CREF Institute, and T. Rowe Price for support of this project.

The research reported herein was supported by the Center's Partnership Program. The opinions and conclusions expressed are solely those of the authors and do not represent the opinions of the partners or the Center for Retirement Research at Boston College.