What explains the widening gap in retirement ages by education?

Author: Matthew S. Rutledge

Chestnut Hill, Mass.: Center for Retirement Research at Boston College, May 2018

CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

May 2018, Number 18-10

WHAT EXPLAINS THE WIDENING GAP IN RETIREMENT AGES BY EDUCATION?

By Matthew S. Rutledge*

Introduction

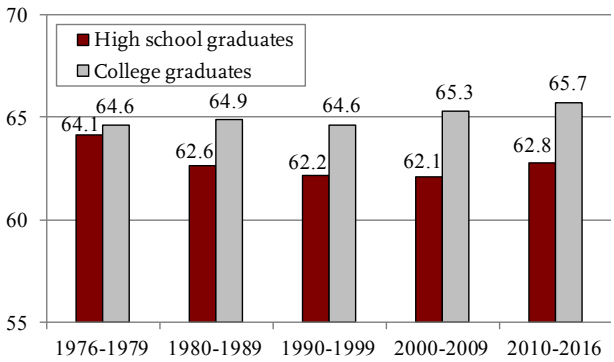
Over the last three decades, the average retirement age has increased by about three years, to 64.6 for men and 62.3 for women.[1] But this trend is not uniform across socioeconomic groups: for example, high school graduates are retiring just a bit later than in the 1990s, leading to a wide gap between them and college graduates. This *brief* reviews studies by the U.S. Social Security Administration's Retirement Research Consortium (RRC) and others that examine several potential causes of the unequal increases in retirement ages by education.

The discussion proceeds as follows. The first section quantifies the growing gap in average retirement ages by education. The second section discusses four reasons why the gap may have widened: 1) growing inequality in health and longevity; 2) variations in labor market conditions; 3) the differential impact of Social Security policy changes; and 4) disimilarities in marital status that affect the joint retirement decision. The final section concludes that these factors have increased retirement ages much more for college graduates than for those with less education. This latter group is thus more likely to retire early, putting them at greater risk of inadequate incomes and heavier reliance on the social safety net.

Retirement Age Trends

The gains in the average retirement age since the 1990s have been driven almost solely by those with more education.[2] Today, male college graduates retire three years later than high school graduates (see Figure 1).[3] While the story is more complicated for women because of the dramatic change in their labor force participation over the latter half of the 20th century, the overall message is similar: like men, the gap in average retirement ages by education has grown substantially.

Figure 1. Average Retirement Age for Men, by Educational Attainment, 1976-2016



Source: Author's calculations from the U.S. Census Bureau, *Current Population Survey* (CPS) (1977-2017).

* Matthew S. Rutledge is a research economist at the Center for Retirement Research at Boston College (CRR).

Why Aren't the Less-Educated Retiring Later?

Working longer is perhaps the most effective way for Americans to improve their retirement security, and the life expectancy gains that have lengthened the duration of retirement have made working longer even more necessary. Fortunately, some aspects of the nation's retirement income system and labor market structures now encourage later retirement.[4] Older workers are healthier and better-educated than prior generations, and jobs are less physically demanding. Employer retirement plans have transitioned from defined benefit (DB) to defined contribution (DC), which are associated with later retirement.[5] Social Security changes – in particular, an older Full Retirement Age (FRA) and a more generous delayed retirement credit – have also encouraged later retirement. Furthermore, the increase in female labor force participation has meant that more women are working in their 50s and 60s, which encourages their husbands to work longer so that they can retire together.

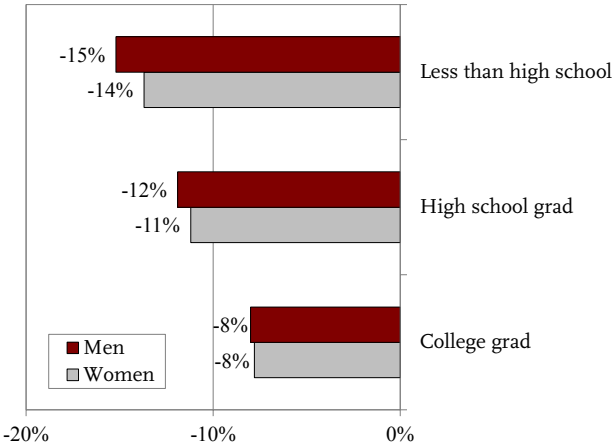
But these factors appear to have had less impact on workers without a college degree. The following discussion reviews the evidence on why less-educated workers have largely been left out of the trend toward later retirement.

Setbacks in Health and Longevity

Health is one of the most important factors contributing to the retirement decision. In fact, according to Munnell, Sanzenbacher, and Rutledge (2015), it is the single most important factor in earlier-than-planned retirement, even more than involuntary job loss. Health matters in two ways. First, workers who experience a health shock are more likely to retire early. Second, workers who were in poor health when setting their retirement expectations also tend to retire earlier than they had planned, suggesting that unhealthy workers are often too optimistic about their ability to work longer.

Blundell et al. (2017) also find that both health shocks and initial health conditions are key factors driving employment status at older ages. Not surprisingly, their results show that the less-educated are generally in worse health. Their study adds that health is an especially important driver of retirement decisions among less-educated individuals: the association between health and employment is strongest among high school dropouts, and becomes weaker with greater educational attainment (see Figure 2).

Figure 2. Estimated Effect of Declining Health on Employment at Ages 50-70, by Education, 1996-2012



Notes: The estimates, which are all statistically significant, represent a one-standard deviation decrease in health status.
Source: Blundell et al. (2017).

These studies suggest that improvements in health and longevity would lead to later retirement ages across *all* educational groups, as long as they all experienced gains. But the less-educated have seen less improvement in health and longevity than those with more education. While better-educated individuals have always lived longer, the difference by education is widening.[6] Bound et al. (2015) find that some subgroups – in particular, the least-educated quartile of white women – have seen life expectancy in middle age actually fall.[7] Further, some studies, such as Munnell, Soto, and Golub-Sass (2008), find evidence that less-educated individuals have seen smaller gains in disability-free life expectancy, which suggests that they also have less capacity to work longer.[8]

In addition, from 1984 through about 2010, a rising share of workers exited work early through Social Security Disability Insurance (SSDI), especially among those with no college degree.[9] Such early exits mechanically reduce the average retirement age and limit any potential return to employment, given that most beneficiaries exit the labor force permanently.

Changing Labor Market Outcomes

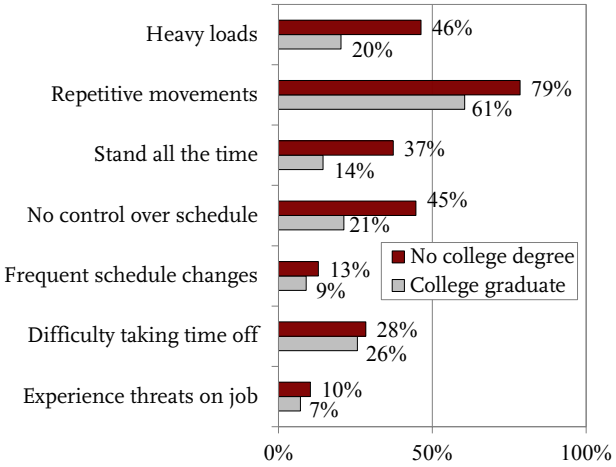
Two factors related to the labor market have also pushed retirement ages higher in general, but may have a smaller influence on less-educated workers: 1) the transition from DB to DC retirement plans; and 2) improving work conditions.

The transition from DBs to DCs likely pushed retirement ages later for various reasons. DBs often have incentives to retire early – for example, benefits that max out at a relatively young age – while DCs are age-neutral. DC plans also place more financial risk on workers, which may encourage them to keep working and saving. Hou et al. (2017), comparing retirement ages between early Baby Boomers (born 1948-1953) and the pre-war cohort (1931-1941), find that the DB-to-DC transition had an even greater impact on retirement ages than improved health.

But the transition to DCs may have had less of an impact on less-educated workers because they were less likely to have had DB coverage in the first place. For the most part, they have simply moved from a scenario where they had little DB wealth to one where they have little DC wealth. Munnell et al. (2016a) estimate that, in 1992, the bottom quartile of educational attainment owned only 11 percent of total DB wealth held by American households; in 2010, the bottom quartile owned 11 percent of all DC wealth.

Meanwhile, the shift from manufacturing to service-sector employment has made jobs less physically demanding in general, which should enable workers to postpone retirement. In fact, one would expect this change to especially lengthen the careers of less-educated workers, who tend to hold these jobs. But their working conditions remain relatively poor. Maestas et al. (2016) find that the less-educated are more likely to report that their jobs involve moving heavy loads, repetitive movements, or needing to stand all or almost all of the time (see Figure 3). And while workers may desire more flexibility and autonomy as they age, less-educated workers report being less able to control their own schedules, having more frequent changes in their schedules, having more difficulty taking time off, and being more likely to experience threatening behavior on the job. In other words, less-educated workers still seem to have working conditions that would encourage earlier job exit.

Figure 3. Working Conditions at Ages 50 or Older, by Education, 2015



Source: Maestas et al. (2016).

Social Security Incentives

Less-educated households are more reliant on Social Security benefits. The increase in Social Security's FRA reduces benefits at any given claiming age, so, if anything, less-educated workers would be expected to increase their retirement age by *more* than more-educated workers to make up for the reduction in their dominant form of retirement income.

But less-educated workers have not delayed their Social Security claims by more than the better-educated.[10] Indeed, less-educated workers still make up the lion's share of early retirees. Munnell et al. (2016b) find that more than half of early claimants did not attend college; while the share of age-62 claimants with less than a college degree has declined somewhat, this trend may simply reflect increased educational attainment overall.

Besides the FRA increase, other Social Security reforms – such as increasing the delayed retirement credit – could encourage workers to retire later, but less-educated workers stand to gain less from these incentives because of their shorter remaining life expectancy.[11] Shoven and Slavov (2014) and Sanzenbacher and Ramos-Mercado (2016) find that, despite modest gains in life expectancy, less-educated workers see less of an increase in the net present value of lifetime Social Security wealth when they delay claiming. Unlike most workers, therefore, they tend to maximize their lifetime Social Security benefits by claiming before their FRA, and even as early as age 62.

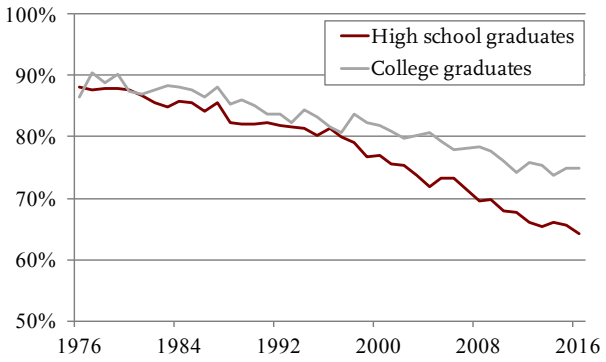
Changes in Marital Status

The broad increase in female labor force participation and changes in marital status throughout the latter half of the 20th century have, in several ways, pushed retirement ages up overall. First, the average retirement age for women increases automatically as

more women are working at all ages. Second, women with greater labor market experience are better able to maintain their current job at older ages, better able to find new opportunities, and more likely to identify with a career; all of these factors should encourage women to retire later. Third, as women work longer, men may follow suit because couples often prefer to retire together. This joint retirement effect can be substantial: Gustman and Steinmeier (2002) estimate that having a retired spouse increases the probability of retiring by the equivalent of being one year older.

But the desire to jointly retire is only relevant for couples, and less-educated individuals are increasingly less likely to be married at older ages. The share of male high school graduates who are married at ages 50-64 fell by 24 percentage points between 1976 and 2016, compared to a decrease of only 11 percentage points among college-educated men (see Figure 4). So less-educated men are less likely to face pressure to work longer to match the behavior of a spouse.

Figure 4. Percentage of Men Ages 50-64 Who Are Married, by Education, 1976-2016



Source: Author's calculations from the CPS (1977-2017).

Conclusion

Although the overall average retirement age has increased substantially, men with only a high school diploma have seen almost no change for several reasons. First, they have seen less of an improvement in their health and longevity than more-educated workers. Second, although the transition from DB to DC plans and better working conditions have generrally led to later retirements, less-educated workers were less likely to have DBs in the first place, and their working conditions still may not be conducive to extending careers. Third, although Social Security reforms have promoted later claiming, delaying benefits may still not make sense for less-educated workers. Finally, the greater work experience of married women has encouraged their husbands to retire later, but the less-educated are less likely to approach their retirement years as part of a couple.

Of course, the less-educated could see their retirement ages catch up to college graduates if these factors improve, but some of the factors only seem to be getting worse: groups with lower socioeconomic status have fallen further behind in life expectancy, and their marriage rates are still trending downward. Unless these factors reverse, and without a stronger response to insufficient retirement saving, the less-educated are likely to continue retiring too early. In that event, they will face lower living standards in retirement and greater reliance on programs targeted at retirees with low incomes, such as Supplemental Security Income.

Endnotes

1 Munnell (2015, 2017). The average retirement age is defined as the first age (starting at 50 or older) when the labor force participation rate falls below 50 percent.

2 These calculations use Current Population Survey data aggregated by the Integrated Public Use Micro Data Series (IPUMS) initiative at the University of Minnesota (Flood et al. 2017).

3 The results are similar when using education quartiles as a way of adjusting for increasing educational attainment (see Bound et al. 2015).

4 See Munnell (2011, 2015) for a review of the factors encouraging later retirement.

5 Munnell, Triest, and Jivan (2004) and Friedberg and Webb (2005) find that workers with DC plans retire on average two years later than those with DB plans.

6 Olshansky et al. (2012); Sanzenbacher et al. (2015); Auerbach et al. (2017).

7 Case and Deaton (2016) also find an increase in middle-age mortality among whites with less than a high school degree, though, unlike Bound et al. (2015), they do not adjust for the changing composition of that group as educational attainment has increased.

8 Crimmins and Saito (2001) also find a rising disparity in disability-free life expectancy by education. On the other hand, Cutler, Ghosh, and Landrum (2013) show similar improvements for better- and less-educated individuals. Overall, Coile, Milligan, and Wise (2017) suggest that less-educated individuals actually have more untapped potential work capacity than the better-educated – their health is somewhat worse, but they retire substantially earlier.

9 Autor and Duggan (2006); Liebman (2015).

10 Behaghel and Blau (2012) show that the increase in the claiming age after the FRA change does not differ by years of education.

11 The earnings test on Social Security is eliminated once individuals reach the FRA, which reduces work disincentives for those at or above this age. But this reform would only have a small effect on less-educated workers, because they are unlikely to work near those ages. RRC-funded work by Gelber et al. (2017) shows a somewhat smaller response to the earnings test among non-white beneficiaries, but does not examine results by education.

References

Auerbach, Alan J., Kerwin K. Charles, Courtney C. Coile, William Gale, Dana Goldman, Ronald Lee, Charles M. Lucas, Peter R. Orszag, Louise M. Sheiner, Bryan Tysinger, David N. Weil, Justin Wolfers, and Rebeca Wong. 2017. "How the Growing Gap in Life Expectancy May Affect Retirement Benefits and Reforms." Working Paper 23329. Cambridge, MA: National Bureau of Economic Research.

Autor, David H. and Mark G. Duggan. 2006. "The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding." *Journal of Economic Perspectives* 20(3): 71-96.

Behaghel, Luc and David M. Blau. 2012. "Framing Social Security Reform: Behavioral Responses to Changes in the Full Retirement Age." *American Economics Journal: Economic Policy* 4(4): 41-67.

Blundell, Richard, Jack Britton, Monica Costa Dias, and Eric French. 2017. "The Impact of Health on Labor Supply Near Retirement." Working Paper 2017-364. Ann Arbor, MI: University of Michigan Retirement Research Center.

Bound, John, Arline T. Geronimus, Javier M. Rodriguez, and Timothy A. Waidmann. 2015. "Measuring Recent Apparent Declines in Longevity: The Role of Increasing Educational Attainment." *Health Affairs*34(12): 2167-2173.

Case, Anne and Angus Deaton. 2017. "Mortality and Morbidity in the 21st Century." *Brookings Papers on Economic Activity* 2017: 397-476.

Coile, Courtney C., Kevin S. Milligan, and David A. Wise. 2017. "Health Capacity to Work at Older Ages: Evidence from the United States." In *Social Security Programs and Retirement Around the World: The Capacity to Work at Older Ages*, edited by David A. Wise. Chicago, IL: University of Chicago Press.

Crimmins, Eileen M. and Yasuhiko Saito. 2001. "Trends in Healthy Life Expectancy in the United States, 1970-90: Gender, Racial, and Educational Differences." *Social Science and Medicine* 52: 1629-1641.

Cutler, David M., Kaushik Ghosh, and Mary Beth Landrum. 2013. "Evidence for Significant Compression of Morbidity in the Elderly U.S. Population." Working Paper 19268. Cambridge, MA: National Bureau of Economic Research.

Flood, Sarah, Miriam King, Steven Ruggles, and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 5.0. [dataset]. Minneapolis: University of Minnesota, 2017. https://doi.org/10.18128/D030.V5.0.

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

Gelber, Alexander M., Damon Jones, Daniel W. Sacks, and Jae Song. 2017. "Using Kinked Budget Sets to Estimate Extensive Margin Responses: Method and Evidence from the Social Security Earnings Test." Working Paper 23362. Cambridge, MA: National Bureau of Economic Research.

Gustman, Alan L. and Thomas L. Steinmeier. 2002. "Social Security, Pensions and Retirement Behavior Within the Family." Working Paper 8772. Cambridge, MA: National Bureau of Economic Research.

Hou, Wenliang, Alicia H. Munnell, Geoffrey T. Sanzenbacher, and Yinji Li. 2017. "Why Are U.S. Households Claiming Social Security Later?" Working Paper 2017-3. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Liebman, Jeffrey B. 2015. "Understanding the Increase in Disability Insurance Benefit Receipt in the United States." *Journal of Economic Perspectives* 29(2): 123-150.

Maestas, Nicole, Kathleen J. Mullen, David Powell, Jeffrey Wenger, and Till von Wachter. 2016. "2015 American Working Conditions Survey: Focus on Older Versus Younger Workers." Working Paper 2016-362. Ann Arbor, MI: University of Michigan Retirement Research Center.

Munnell, Alicia H. 2017. "Why the Average Retirement Age Is Rising." (October 15). New York, NY: *MarketWatch*.

Munnell, Alicia H. 2015. "The Average Retirement Age: An Update." *Issue in Brief* 15-4. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H. 2011. "What Is the Average Retirement Age?" *Issue in Brief* 11-11. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Wenliang Hou, Anthony Webb, and Yinji Li. 2016a. "Pension Participation, Wealth, and Income: 1992-2010." Working Paper 2016-3. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Geoffrey T. Sanzenbacher, Anthony Webb, and Christopher M. Gillis. 2016b. "Are Early Claimers Making a Mistake?" Working Paper 2016-5. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Geoffrey T. Sanzenbacher, and Matthew S. Rutledge. 2015. "What Causes Workers to Retire Before They Plan?" Working Paper 2015-22. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Mauricio Soto, and Alex Golub-Sass. 2008. "Will People Be Healthy Enough to Work Longer?" Working Paper 2008-11. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Munnell, Alicia H., Robert K. Triest, and Natalia A. Jivan. 2004. "How Do Pensions Affect Expected and Actual Retirement Ages?" Working Paper 2004-27. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Olshansky, S. Jay, Toni Antonucci, Lisa Berkman, Robert H. Binstock, Axel Boersch-Supan, John T. Cacioppo, Bruce A. Carnes, Laura L. Carstensen, Linda P. Fried, Dana P. Goldman, James Jackson, Martin Kohli, John Rother, Yuhui Zheng, and John Rowe. 2012. "Differences in Life Expectancy Due to Race and Educational Differences Are Widening, and Many May Not Catch Up." *Health Affairs* 31(8): 1803-1813.

Sanzenbacher, Geoffrey T. and Jorge D. Ramos-Mercado. 2016. "Calculating Expected Social Security Benefits by Race, Education, and Claiming Age." Working Paper 2016-14. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Sanzenbacher, Geoffrey T., Anthony Webb, Candace M. Cosgrove, and Natalia S. Orlova. 2015. "Calculating Neutral Increases in Retirement Age by Socioeconomic Status." Working Paper 2015-21. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Shoven, John B. and Sita Nataraj Slavov. 2014. "Does It Pay to Delay Social Security?" *Journal of Pension Economics and Finance* 13(2): 121-144.

U.S. Census Bureau, *Current Population Survey*, 1977-2017. Washington, DC.

CENTER *for*
RETIREMENT
RESEARCH
at BOSTON COLLEGE

About the Center

The mission of the Center for Retirement Research at Boston College is to produce first-class research and educational tools 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 in 1998, 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
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://crr.bc.edu

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium. The opinions and conclusions expressed are solely those of the author and do not represent the opinions or policy of SSA, any agency of the federal government, Boston College, or the Center for Retirement Research. Neither the United States Government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States Government or any agency thereof.