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CAN EDUCATIONAL ATTAINMENT EXPLAIN THE RISE IN LABOR FORCE PARTICIPATION AT OLDER AGES?

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Introduction

The labor force participation of men age 60-74 has increased in recent years. Since reaching a post-World-War-II low point in 1993, the share of such older men either working or looking for work jumped about 11 percentage points, from 33 percent in 1993 to 44 percent in 2010.[1]

The increase came at a time when changes in the retirement income system provided incentives for career workers to remain in the labor force longer. The share of earnings that Social Security replaced at any given age was falling due to the rise in the program's Full Retirement Age. Workers could partly or fully offset the decline by retiring later. Workers were also becoming increasingly dependent on 401(k)s for their workplace retirement savings. Unlike traditional (defined-benefit) pension plans, 401(k) plans do not offer strong financial incentives to retire earlier rather than later. Working longer provides more time to save and earn investment income and shortens the time in retirement that must be financed with 401(k) savings. The rise in labor force participation can thus be seen as a response to changes in the retirement income system that reduce benefits available at any given age and reward working longer.[2]

The question addressed in this *brief* is the extent to which the increased educational attainment of older men helps explain their increased participation in the labor force.[3] Educational attainment is a key determinant of worker productivity. Better educated workers are paid more and have more employment opportunities. At older ages they also tend to have better health. An increase in the educational attainment of older men can thus be expected to increase the willingness and ability of older men to work longer.

The discussion proceeds as follows. The first section presents data on the rising educational attainment of older men and the closing of the educational gap between older and prime-age men. The second section examines the wages earned by older and younger workers to see whether these educational gains made older men more attractive to employers. The third section reports the results of an analysis assessing the extent to which the rise in educational attainment can explain the rise in participation. The final section concludes that the rise in educational attainment is a significant factor that makes older men more willing and able to remain in the labor force. But the gains in older men's schooling attainment,

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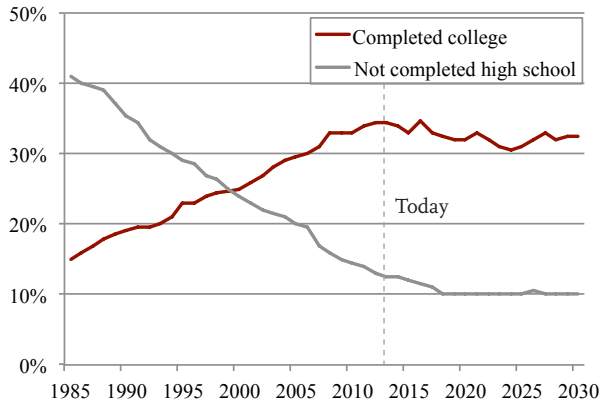
both absolutely and relative to attainment of younger workers, are slowing. Therefore, the gains we have seen in labor force participation among older men will probably slow in the near future.

The Rising Educational Attainment of Older Men

Over much of the twentieth century, each generation of workers received more education than the previous one. As a result, younger workers maintained a consistent educational advantage over older workers. However, increases in schooling among younger cohorts of males slowed dramatically after the mid-1970s. As a result, when the Baby Boom generation of men entered the ranks of the aged, beginning in 2006, the educational advantage of the young compared with the old nearly vanished.

The gains in the educational attainment of older men are especially striking at the top and bottom of the educational ladder. In 1985, only 15 percent of men between 60 and 74 had a college degree. That fraction has since more than doubled, reaching 32 percent. Even more dramatic is the decline in the share of older men who lack a high school diploma. In 1985, more than 40 percent of men age 60-74 had not finished high school. By 2011, only 13 percent lacked a high school diploma. As shown in Figure 1, the rapid changes in the educational attainment of older men have come to an end or will soon do so.[4]

Figure 1. Percent of Men Age 60-74 With College Degree and Percent Without High School Diploma, 1985-2030



Sources: Author's calculations based on U.S. Census Bureau, *Current Population Survey* (CPS), 1985-2011; and projections of educational attainment as explained in Burtless (2013).

Equally important, the educational gap between older and prime-age men has largely disappeared. Since about the late 1990s, men in their 60s have been as likely to have completed college as men in their early 40s (see Figure 2). Since the late 2000s, they have been about as likely to possess a high school diploma. While men in their early 70s still have less schooling than men in their early 40s, the deficit is small and will soon disappear.

Figure 2A. Percent of Men with a College Degree, Selected Age Groups, 1985-2030

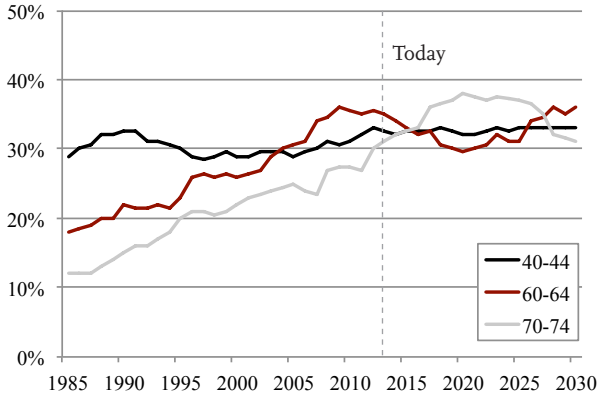
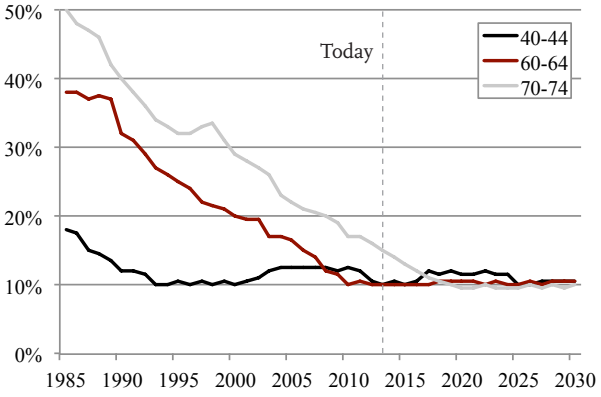


Figure 2B. Percent of Men without a High School Diploma, Selected Age Groups, 1985-2030



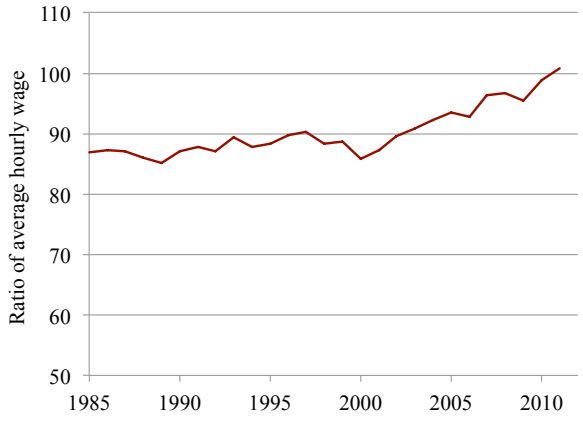
Sources: Author's calculations based on 1985-2011 CPS; and projections of educational attainment as explained in Burtless (2013).

The Increased Demand for Older Workers

Other things equal, a more educated workforce is a more productive workforce. As older workers have become more educated, both absolutely and relative to younger workers, we should expect their gains to be reflected in better compensation and employment opportunities. No publicly available data set contains reliable information on individual workers' total compensation. This *brief* relies on money wages, the most important component of compensation, to measure the relative productivity of younger and older workers. Of course, wages are only observed for people who continue to work. Because low earners tend to leave the workforce at younger ages than high earners, the average wage paid to older workers is higher than it would be if it reflected the potential wages of all older men, including those who have already left the labor force. Nonetheless, the average wage of older workers and the relative wage of older workers compared with younger ones offer useful indicators of the trend in the absolute and relative productivity of older workers.

From 1985 to the turn of the century, older men between 60 and 74 earned an average hourly wage that was more than a tenth lower than the average wage earned by prime-age men, age 35-54. After 2000, as the education gap narrowed and then nearly disappeared, the average hourly wage earned by older men climbed by 22 percent measured in constant dollars. Over the same span of years, the average real wage for 35-54 year olds increased just 7 percent. As a result, the hourly wage of men in the older age group has now caught up with that of prime-age men (see Figure 3).

Figure 3. Average Hourly Earnings for Men Age 60-74 as a Percent of Average Hourly Earnings for Men Age 35-54, 1985-2011



Source: Author's calculations based on 1985-2011 CPS.

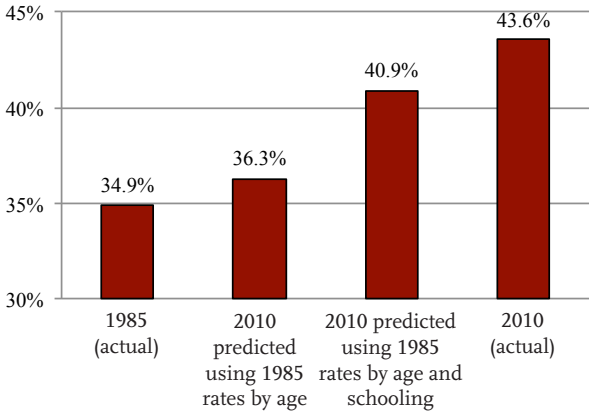
Educational Attainment and the Increase in Labor Force Participation

More educated workers earn higher wages, have better employment opportunities and health, and typically hold less physically demanding jobs and jobs with better non-pecuniary rewards than workers who have less schooling. At older ages these factors can raise a worker's ability and willingness to remain in the workforce. In fact, people with advanced schooling are much more likely to work past 65 than those who have less education. In the early 1990s, nearly 60 percent of men age 60-74 who had doctoral or post-college professional degrees were in the labor force. In the same years, just 20 percent of men without a high school diploma were employed or looking for a job. Participation rates among both these groups are higher today, but the gap in participation between those with little schooling and those with post-college degrees remains unchanged.[5]

How much of the recent jump in old-age labor force participation can be traced to the rise in older men's educational attainment? One way to think about this question is to calculate the change in the participation rate that would have occurred if the only factors that changed were the age distribution of the older population and the percentages of older Americans who were in different educational attainment groups. Because of the aging of the Baby Boom, men in their early 60s made up a larger share of the 60-74-year-old group in 2010 than in 1985. Men in their early 60s have much higher participation rates than men in their early 70s. This implies that men between 60 and 74 would be expected to have a higher overall participation rate in 2010 than in 1985. As we have seen, educational attainment also increased in the 60-74 year-old population. Because better educated men have higher participation rates than less educated men, the trend toward more schooling attainment should also push up participation rates in the 60-74 year-old population.

Figure 4 shows estimates of the 60-74-year-old male participation rate in two years – 1985 and 2010 – and under two counterfactual assumptions about the factors that determined labor force participation in 2010. The labor force participation rate for men age 60-74 increased by 8.7 percentage points from 1985 to 2010 (compare the left-hand and right-had bars in Figure 4). The second bar from the left shows the predicted male participation rate in 2010 assuming that the only factor that changed was the age distribution of men between 60 and 74. This estimate implies that the male participation rate would have increased 1.4 percentage points, from 34.9 percent to 36.3 percent, solely because 60-74 year-old men were on average younger in 2010 than they were in 1985. The rise in older men's educational attainment had a much larger effect, boosting the participation rate by an estimated 4.6 percentage points, from 36.3 percent to 40.9 percent (compare the two middle bars in Figure 4). Thus, over half of the 8.7-percentage-point rise can be attributed to the increased educational attainment of older men. Almost one-third of the increase in the overall participation rate – or 2.7 percentage points – was due to the increase in labor force participation rates within age and educational attainment groups in the 60-74 year-old population.[6]

Figure 4. Labor Force Participation of Men Age 60-74, 1985 and 2010, Actual and Estimated



Notes: Predicted 2010 participation rates assume participation by 5-year age group (60 to 64; 65 to 69, 70 to 74) remains constant at 1985 levels; and participation by education within those age groups (no high school, high school, some college, college) remains constant at 1985 levels.
Source: Author's calculations based on 1985-2011 CPS.

The increase in the educational attainment of men between 60 and 74 is slowing dramatically, however. Their education deficit relative to prime-age men has largely disappeared. For older women, the improvement in educational attainment will continue over the next decade and a half, though more slowly than in the recent past, and then stabilize around 2030 at a level that may be above the educational attainment of older men. The improvement in older Americans' schooling attainment has been one of the main drivers of the recent rise in old-age labor force participation. Thus, as it tapers off, the trend toward later retirement can be expected to slow.

Conclusion

The recent increase in labor force participation at older ages is an encouraging development because it is likely to lead to an improvement in Americans' retirement income prospects. The results in this *brief* suggest that over half of the increase in older men's participation is traceable to gains in educational attainment. This suggests that changes in the retirement income system are responsible for less than half the trend toward later retirement among men. The retirement income system will continue to change in the future as it has in the recent past. Social Security benefits available at any given age will continue to decline measured as a percentage of workers' lifetime average earnings. Older workers will increasingly rely on 401(k) plans rather than traditional workplace pensions for retirement income. Both these trends are likely to push workers toward later exit from the workforce. Future gains in the educational attainment of older workers will be considerably slower than has been the case in the past two decades. Since educational gains were an important driver of increases in employment at older ages, we should expect the trend toward later retirement to slow.

Endnotes

1 The labor force participation of older women increased even faster, rising from 21 percent in 1993 to 34 percent in 2010. This increase reflects both cohort effects – the steady rise in participation among women at younger ages – and age-related factors. This *brief* focuses mainly on age-related effects, so it will emphasize the labor market changes observed among men. For more on changes in the labor force participation of older women, which are broadly similar to those of men, see Burtless (2013).

2 See Pingle (2006) and Mastrobuoni (2009) for studies that emphasize the role of Social Security in the rise in labor force participation; see Hurd and Rohwedder (2011) for a study that highlights the change in employer pensions.

3 See Blau and Goodstein (2010) for another study that highlighted the role of education.

4 The share of women age 60-74 without a high school diploma, and the decline in that share from 1985-2011, was much the same as that for men. Fewer older women than men had completed college in both 1985 and 2011. But the share of older women with a college degree also rose by more than 15 percentage points during that period, and in ten years the share of older women who had completed college is expected to equal that of men. See Burtless (2013) for more details.

5 Burtless (2013).

6 All of the actual rise in participation rates within age and educational attainment groups took place after the mid-1990s. Before the mid-1990s, participation rates within these groups tended to fall. See Burtless (2013), Table 1, Columns 1 and 5 for the actual and estimated participation rates.

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