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RETIRING EARLIER THAN PLANNED: WHAT MATTERS MOST?

BY ALICIA H. MUNNELL, MATTHEW S. RUTLEDGE, AND GEOFFREY T. SANZENBACHER*

Introduction

Many workers seem to have gotten the message that working longer may be necessary to boost their retirement security. The share of workers reporting that they expect to work past age 65 rose from 16 percent in 1991 to 48 percent in 2018.¹ But such intentions often go awry; data from the *Health and Retirement Study* indicate that 37 percent of workers retire earlier than planned. This *brief*, based on a recent paper, reports on a “horse race” to identify which unexpected changes (or “shocks”) are most likely to interfere with retirement plans.²

The *brief* proceeds as follows. The first section defines and quantifies earlier-than-planned retirement. The second section describes four potential types of shocks: health, employment, family, and financial. The third section presents the results on which shocks matter the most, taking into account both their potency and prevalence. The final section concludes that health shocks are most important in driving workers to an earlier retirement, followed by job-related changes and family transitions. However, these factors only partly explain early retirements, which suggests that other factors that are harder to measure also play a role.

Measuring Early Retirement

Many who plan to work longer do not achieve this goal for a variety of reasons. For example, several studies have found that a deterioration in health precipitates early retirement.³ Other influences on early retirement include changes in marital status and the presence of employer buyout offers.⁴ But no study to date has examined all of the factors together, making it difficult to say which one matters the most.

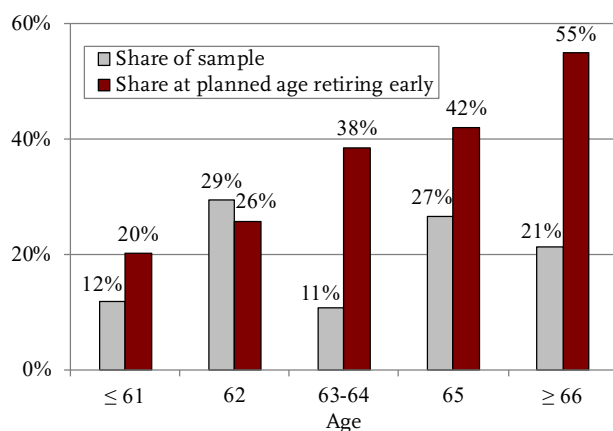
The analysis uses data from the longitudinal *Health and Retirement Study* (HRS), collected between 1992 and 2012. The sample consists of all individuals who were working at the interview closest to their 58th birthday, an age when their retirement plans should be crystalizing. To identify when each worker planned to retire, the analysis uses a person’s response to the question, “at what age/year do you plan to stop working?” This simple approach works for 55 percent of the sample. Another 39 percent responded at their age-58 interview that they “never” plan to retire but later did provide a planned retirement age, which was used in the analysis. The remaining 6 percent never reported a planned age, so they were dropped from the sample.⁵

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The next step is to identify workers who retired earlier than they had planned. The actual retirement age is defined as the earliest age at which the respondent reports being fully, rather than partially, retired. Any worker who claims to be fully retired at least one year prior to his planned retirement age is said to have retired early. In the final sample, about 37 percent of people meet this definition of early retirement.⁶

Figure 1 shows the share of all people who planned to retire at a given age (gray bars) and the share who retired earlier than the planned age (red bars). The figure illustrates how people's planned retirement ages cluster around 62 – Social Security's Earliest Eligibility Age – and 65 – Medicare's eligibility age – and that the later someone plans to retire, the less likely they are to achieve their goal. For example, of the 21 percent of people who intended to work to age 66 or later, more than half failed to reach this target.

FIGURE 1. DISTRIBUTION OF PLANNED RETIREMENT AGES AND PERCENTAGE OF WORKERS AT EACH AGE WHO RETIRED EARLIER THAN PLANNED



Source: Authors' estimates from University of Michigan, *Health and Retirement Study* (HRS) (1992-2012 waves).

Identifying “Shocks”

Once people's planned and actual retirement ages have been identified, it is possible to determine what shocks they experienced that may have led to an earlier retirement. The four categories of shocks examined here are: 1) health; 2) employment; 3) familial; and 4) financial.

- Health.* Individuals face two kinds of health shocks. The first occurs when existing health conditions affect one's ability to work more than anticipated. For example, when a person makes a retirement plan, they may already have arthritis but not realize how much it will limit their ability to work. The second kind of shock occurs when someone's health changes between the age at which they make their plan and their planned retirement age. The first kind of shock is measured by identifying how many health problems an individual has initially.⁷ The second kind of shock is measured by taking the maximum number of health problems people have between age 58 (or their other planning age if later) and their planned retirement age and then subtracting the number of health problems reported initially. For example, people who have two health conditions when they made their retirement plans but ended up with five health conditions by their planned (or actual) retirement age would get a value of three.
- Employment.* Employment shocks take three forms: 1) a voluntary shift to a new employer; 2) a job loss due to a layoff or business closing that is followed by a new job; or 3) a job loss that is not followed by a new job. All three changes are easily identifiable in the HRS; the survey asks each worker whether they are at the same employer as the prior interview and also whether they lost the job they held during the prior interview due to a layoff or business closing.
- Family.* Familial shocks include changes in the following circumstances: 1) spousal employment/retirement; 2) spousal health; 3) marital status; 4) the presence of resident children; 5) a first grandchild; 6) caring for a parent; and 7) a parent moving into the respondent's home.
- Financial.* Financial shocks are defined as large fluctuations in a person's wealth. Initial financial wealth is the sum of assets held in stocks, bonds, CDs, and other types of financial accounts minus debt at the individual's planning age; this measure excludes housing wealth and defined benefit pensions. To allow for asymmetric responses to the shocks, separate indicators are included for gains or losses of 50 percent or more of the initial financial wealth between age 58 and the planned retirement age.

Results

In determining which shocks matter most, two factors are important. First, how big is the impact of the shock on people who experience it? Second, how many people actually experience it? After all, having one's parents move in because they require care may cause one to retire early, but this shock will not matter much if it only happens to a few people. Therefore, this section first describes the impact of a shock on those experiencing it and then how many people experience it. The section concludes by putting both pieces together to determine which shocks matter most.

Which Shocks Have a Big Impact?

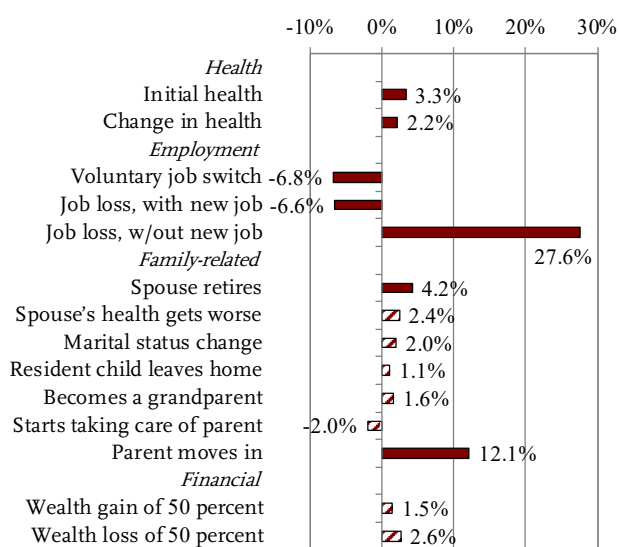
To determine a shock's impact, a regression analysis relates the occurrence of a shock to the probability of retiring early. This regression controls for other personal characteristics that might be correlated with both earlier-than-planned retirement and the occurrence of shocks. For example, if those with little education are both more likely to retire early and more likely to lose their jobs, then failing to control for education would overstate the effect of a job loss. Other controls include gender, race, blue- or white-collar job, and access to pensions and health insurance.⁸ The basic equation is:

$$\text{Probability of early retirement} = f(\text{shocks, demographics, job characteristics})$$

The regression results indicate that several shocks have a statistically significant effect on retiring early (see Figure 2).⁹ For example, both kinds of health shocks matter. Each health condition a respondent has at the time they report a planned retirement age is associated with a 3.3-percentage-point increase in early retirement, as people seem to be surprised by how fast their ability to work deteriorates. New health conditions also matter: each additional condition an individual gets is associated with a 2.2-percentage-point increase in the probability of retiring earlier than planned. On the other hand, switching jobs voluntarily is related to a 6.8-percentage-point decrease in the probability of retiring early. The effect of

a job loss is very dependent on the worker's ability to find a new job – if they find one, they are 6.6 percentage points *less* likely to retire early, but if they do not find one they are 27.6 percentage points *more* likely to retire early. On the family side, having a spouse retire increases the probability of retiring early, and having a parent move in has a strong impact in the same direction. Financial shocks do not seem to play a significant role.

FIGURE 2. EFFECT OF SHOCKS ON PROBABILITY OF RETIRING EARLIER THAN PLANNED



Note: Solid bars are statistically significant at least at the 10-percent level.

Source: Authors' estimates from HRS (1992-2012 waves).

Which Shocks Happen Frequently?

Armed with information on the impact of shocks, the next step is to determine their prevalence. Table 1 (on the next page) shows how often each type of shock occurs. The big takeaway is that changes in health are quite common, as are spousal retirements, marital status changes, and large swings in wealth (which is largely because people have little wealth to begin with).

TABLE 1. FREQUENCY OF SHOCKS

Shock	Share
<i>Health</i>	
Initial health (at least two conditions)	26.3%
Change in health	39.9
<i>Employment</i>	
Voluntary job switch	8.1
Job loss, with new job	4.3
Job loss, w/out new job	8.3
<i>Family-related</i>	
Spouse retires	19.7
Spouse's health gets worse	7.9
Marital status change	19.4
Resident child leaves home	16.4
Becomes a grandparent	8.2
Starts taking care of parent	12.1
Parent moves in	1.4
<i>Financial</i>	
Wealth gain of 50 percent	49.9
Wealth loss of 50 percent	37.0
Number of observations	3,941

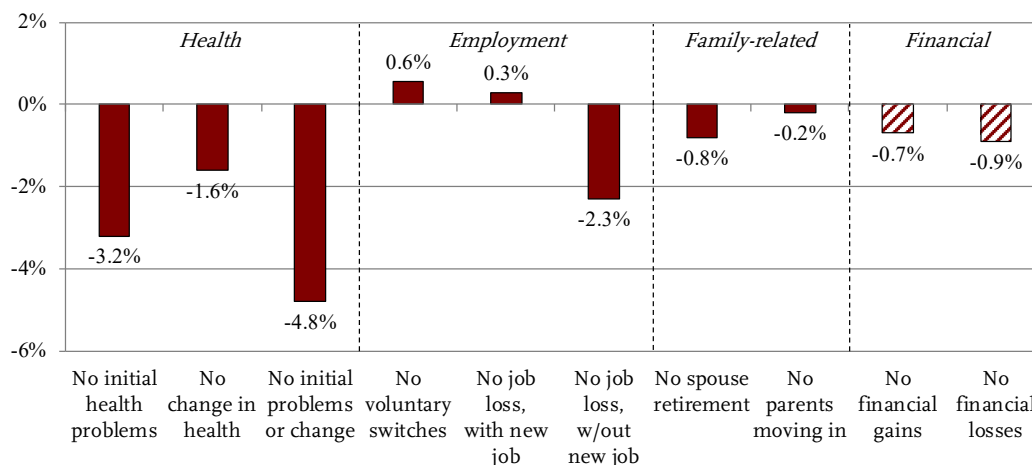
Source: Authors' calculations from HRS (1992-2012 waves).

Which Shocks Matter Most?

To determine which shocks matter most, information from the two pieces above is combined in a “counterfactual” exercise that asks a simple question: how much would early retirement drop if a given shock did not occur at all? Consider the example of spousal retirement. According to Figure 2, an individual whose spouse retires before the individual planned to retire is 4.2 percentage points more likely to retire early. According to Table 1, 19.7 percent of people experience such a spousal retirement. Had these retirements not occurred, early retirement would have dropped by 0.8 percentage point ($0.042 * 0.197 = 0.008$). Since 37.0 percent of people retire early, this 0.8-percentage-point drop represents a relatively small decrease in early retirement.

Getting rid of other shocks, however, would have a bigger impact. Figure 3 shows that the combined effect of health – both poor initial health and changes in health – is the biggest driver of early retirement, mainly because many people have some initial health problems at the time they report a planned retirement age and many also experience a deterioration in their health after that point. If everyone made their plans in perfect health and had no changes in their health, early retirement would drop by 4.8 percentage points, from 37.0 percent to 32.2 percent. With respect to

FIGURE 3. PERCENTAGE-POINT CHANGE IN SHARE OF SAMPLE RETIRING EARLY IF NO SHOCKS



Note: Solid bars indicate the original coefficient in the regression was statistically significant at least at the 10-percent level.

Source: Authors' estimates from HRS (1992-2012 waves).

voluntary job changes and job losses followed by a new job, eliminating them would slightly increase the share retiring early, since changes actually help people achieve their goal of working until their planned retirement age. On the other hand, getting rid of job losses without a new job being found would cause fewer people to retire early, due to the big increase in the probability of retiring early for individuals experiencing this kind of job loss. The large increase in early retirement for those with parents moving in is mitigated because few people have a parent move in with them. Finally, because the effect of financial shocks was not statistically significant, getting rid of them is estimated to have a relatively small effect.

An important caveat to these results is their limited explanatory power. Even if we set *all* shocks to zero, the counterfactual exercise would predict that the share of people retiring early would only fall from 37.0 percent to 26.9 percent. In other words, the factors considered here explain only about a quarter of early retirements. Future research should focus on what other factors may lead to early retirement, with “soft” factors not considered here – like the lure of leisure time in retirement – playing potential roles.

Conclusion

A variety of shocks could force people to retire earlier than planned. This analysis suggests that health likely plays the largest role in early retirement, both because people in bad initial health overestimate how long they can work and because health often worsens before the age at which they planned to retire. Job loss is also important, although the effect is mitigated by the fact that some people are able to find a new job and those people are *more* likely to make it to their planned age. Still, for those who fail to find a new job, the effect seems to be discouragement and ultimately an early retirement. With respect to family transitions, having a parent move in seems to be a large burden on people who experience it, but it is not a frequent enough occurrence to drive early retirement in the population. Finally, even though financial shocks appear somewhat common, they tend to have a small and not statistically significant effect on driving early retirement. Of course, more research in this area is needed, since the factors considered in this paper explain only about a quarter of early retirements.

Endnotes

- 1 Employee Benefit Research Institute (2014, 2018).
- 2 See Munnell, Rutledge, and Sanzenbacher (2018).
- 3 For example, see Örestig, Strandh, and Stattin (2013), Munnell, Triest, and Jivan (2004), Dwyer and Hu (2000), and Disney and Tanner (1999).
- 4 See Disney and Tanner (1999) and Dwyer and Hu (2000).
- 5 For more detail on how “never” responses were handled, see Munnell, Rutledge, and Sanzenbacher (2018).
- 6 Individuals are included in the final analysis as long as they are observed either: 1) retiring early; or 2) remaining in the sample and working past their planned retirement date, which ensures that they did not retire early.
- 7 In practice, 13 health conditions are used. They include eight health conditions and five limitations to activities of daily living. The health conditions included are: 1) high blood pressure with medication; 2) diabetes with insulin; 3) cancer of any kind, seeing doctor; 4) activity limiting lung disease; 5) heart condition, taking medication; 6) emotional/psychological problems; 7) stroke with problems afterward; and 8) arthritis with medication. The limitations to activities of daily living involve needing help with: 1) bathing; 2) getting dressed; 3) eating; 4) using a map; and 5) walking.
- 8 For more details, see Munnell, Rutledge, and Sanzenbacher (2018).
- 9 See Munnell, Rutledge, and Sanzenbacher (2018) for full regression results.

References

- Disney, Richard and Sarah Tanner. 1999. “What Can We Learn From Retirement Expectations Data?” IFS Working Paper W99/17. London, UK: Institute for Financial Studies.
- Dwyer, Debra S. and Jianting Hu. 2000. “Retirement Expectations and Realizations: The Role of Health Shocks and Economic Factors.” In *Forecasting Retirement Needs and Retirement Wealth*, edited by Olivia S. Mitchell, P. Brett Hammond, and Anna M. Rappaport, 274-287. Philadelphia, PA: University of Pennsylvania Press.
- Employee Benefit Research Institute. 2014. “Changing Expectations about Retirement.” Fact Sheet. Washington, DC: Employee Benefit Research Institute.
- Employee Benefit Research Institute. 2018. “Expectations about Retirement.” Fact Sheet. Washington, DC: Employee Benefit Research Institute.
- Munnell, Alicia H., Matthew S. Rutledge, and Geoffrey T. Sanzenbacher. 2018. “What Causes Workers to Retire Before they Plan?” *Journal of Retirement* 6(2): 35-51.
- Munnell, Alicia H., Robert K. Triest, and Natalia 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.
- Örestig, Johan, Mattias Strandh, and Mikael Stattin. 2013. “A Wish Come True? A Longitudinal Analysis of the Relationship between Retirement Preferences and the Timing of Retirement.” *Journal of Population Ageing* 6(1-2): 99-118.
- University of Michigan. *Health and Retirement Study*, 1992-2012. Ann Arbor, MI.

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