

HOW WOULD MORE SAVING AFFECT THE NATIONAL RETIREMENT RISK INDEX?

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Introduction

The National Retirement Risk Index (NRRI) shows that half of today's working families are at risk of not being able to maintain their standard of living once they retire. This result is not surprising since at any given point about half of private sector workers do not have an employer-sponsored retirement plan, and many who do have a plan end up saving relatively little. The question is how would additional saving affect the NRRI?

The discussion proceeds as follows. The first section recaps the nuts and bolts of the NRRI. The second section reports the impact on the NRRI of increasing contribution rates for both 401(k) participants and for workers without a workplace retirement plan. The third section discusses why the impact appears to be relatively modest. The fourth section shows that the only way to dramatically reduce the percentage of households at risk is to combine the additional saving with two more years of work. The final section provides two main conclusions. First, increasing saving is a realistic option only for those

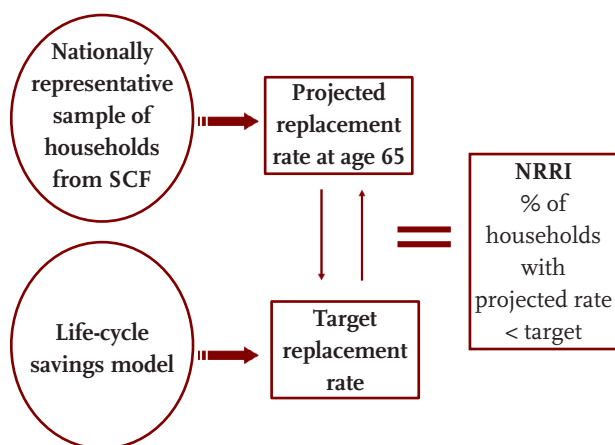
workers who have access to a retirement plan at work. In the absence of such coverage, millions of households have no easy way to save. Second, realistic increases in saving alone are not likely to solve the retirement crisis, but when combined with working two years longer can significantly reduce the share of households at risk.

Nuts and Bolts of the NRRI

Constructing the NRRI involves three steps: 1) projecting a replacement rate – retirement income as a share of pre-retirement income – for a nationally representative sample of U.S. households; 2) constructing a target replacement rate that would allow each household to maintain its pre-retirement standard of living in retirement; and 3) comparing the projected and target replacement rates to find the percentage of households at risk (see Figure 1 on the next page).

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FIGURE 1. OVERVIEW OF THE NATIONAL RETIREMENT RISK INDEX



Source: Authors' illustration.

Retirement income at age 65, which is defined broadly to include all of the usual suspects plus housing, is derived by projecting the assets that households will hold at retirement, based on the stable relationship between age and wealth-to-income ratios that is evident from the 1983-2016 *Surveys of Consumer Finances* (SCFs).

Sources of retirement income that are not derived from SCF-reported wealth are estimated directly. For defined benefit (DB) pension income, the projections are based on the amounts reported by survey respondents who have already retired. For Social Security, benefits are calculated directly based on estimated earnings histories for each member of the household.

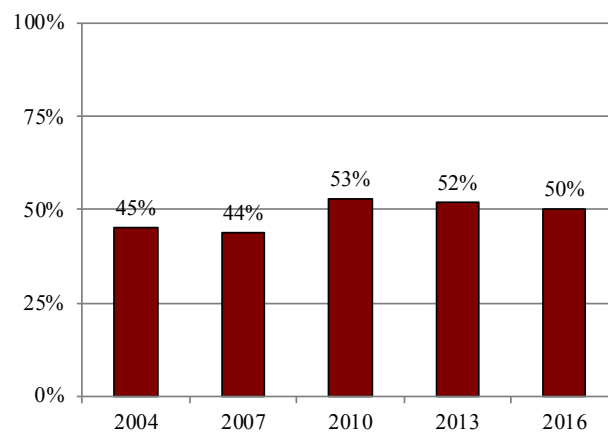
A calculation of projected replacement rates also requires income prior to retirement. The items that comprise pre-retirement income include earnings, the return on taxable financial assets, and imputed rent from housing. In essence, income in retirement equals the annuitized value of all financial and housing assets; income before retirement is simply the return on those same assets.¹ Average lifetime income then serves as the denominator for each household's replacement rate.

Determining the share of the population at risk requires comparing projected replacement rates with the appropriate target rates. Target replacement rates are estimated for different types of households assuming that households spread their income so as to have the same level of consumption in retirement as they had before they retired. Households whose

projected replacement rates are more than 10 percent below the target are deemed to be at risk of having insufficient income to maintain their pre-retirement standard of living. The NRRI is simply the percentage of all households that fall more than 10 percent short of their target.

In 2016, the year of the most recent SCF, the overall share at risk was 50 percent (see Figure 2). The question is the extent to which higher rates of saving could reduce the percentage at risk.

FIGURE 2. THE NATIONAL RETIREMENT RISK INDEX, 2004-2016



Source: Authors' calculations.

Raising the Contribution Rates for All Workers

An increase in contribution rates needs to be considered separately for two types of households – those with access to a 401(k) plan and those who currently have no retirement plan at work.²

Raising 401(k) Contribution Rates

The easiest way to think of increasing saving is raising the contribution rates for the roughly half of all households with access to 401(k) plans. In considering the current status of these households, it is necessary to combine their 401(k) balances with their holdings in Individual Retirement Accounts (IRAs), since the bulk of money in IRAs is rollovers from 401(k)s.³ For consistency, the contribution rates also contain

the small additional contributions made directly to IRAs. Table 1 shows mean and median 401(k)/IRA balances and contribution rates by age.⁴

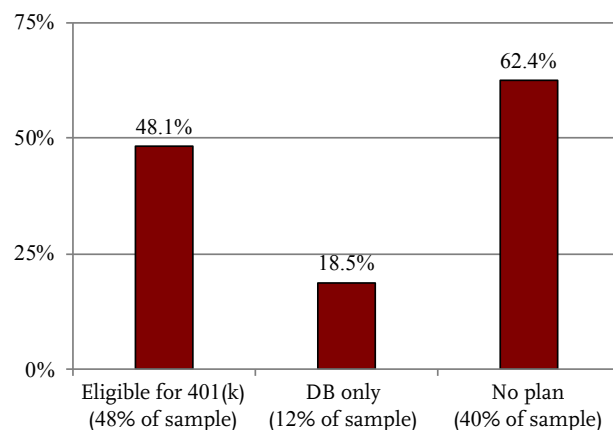
TABLE 1. 401(K)/IRA ACCOUNT BALANCES AND CONTRIBUTION RATES FOR HOUSEHOLDS ELIGIBLE FOR 401(K) PLANS, BY AGE

	Age of household head			
	30-39	40-49	50-59	All
<i>Account balance</i>				
Mean	\$65,100	\$148,800	\$276,500	\$165,500
Median	20,000	57,000	99,600	51,000
<i>Contribution rate</i>				
Mean	7.1%	8.3%	9.9%	8.5%
Median	5.9	7.4	8.3	7.3

Note: Data include employee and employer contributions and cover 401(k)s and other defined contribution plans.
Source: Authors' calculations from *Survey of Consumer Finances* (SCF) (2016).

Despite these relatively modest balances, households eligible for a 401(k) are much less at risk of falling short in retirement than those without any employer plan – 48 percent versus 62 percent (see Figure 3).

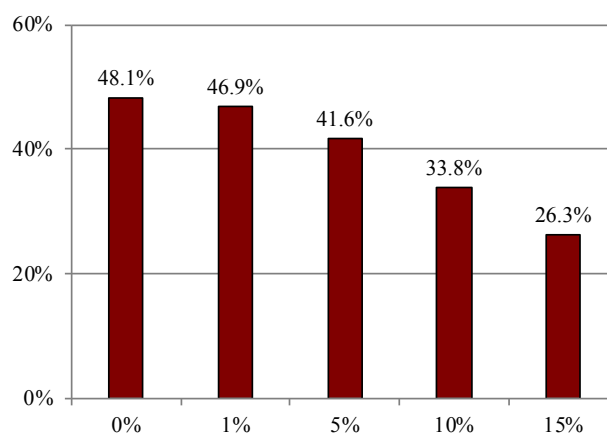
FIGURE 3. NRRI BY RETIREMENT PLAN TYPE



Source: Authors' calculations.

The first exercise is to increase the saving rate for those with access to a 401(k) plan by various percentage points and see what happens to the NRRI. The results show that increasing each household's contribution rate by 1 percentage point would reduce the NRRI for these 401(k) households from 48 percent to 47 percent; by 5 percentage points to 42 percent; and by 10 percentage points to 34 percent (see Figure 4).

FIGURE 4. IMPACT ON NRRI OF INCREASING CONTRIBUTION RATE BY VARIOUS PERCENTAGE POINTS FOR HOUSEHOLDS ELIGIBLE FOR 401(K) PLANS

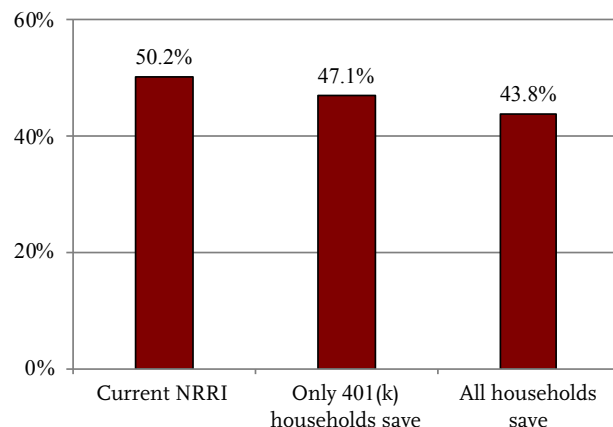


Source: Authors' calculations.

Raising Contribution Rates for Uncovered Workers

While no mechanism currently exists to increase contributions in a meaningful way for workers without a workplace retirement plan, someday these workers could be covered.⁵ Assuming the availability of a retirement savings plan, a 5-percentage-point increase in contributions would reduce the NRRI for *all* households from 50 percent to 44 percent, compared to only 47 percent for all households if the increase were limited to those with 401(k)s (see Figure 5 on the next page).⁶

FIGURE 5. IMPACT ON NRRI OF INCREASING CONTRIBUTION RATE BY 5 PERCENTAGE POINTS FOR ALL HOUSEHOLDS

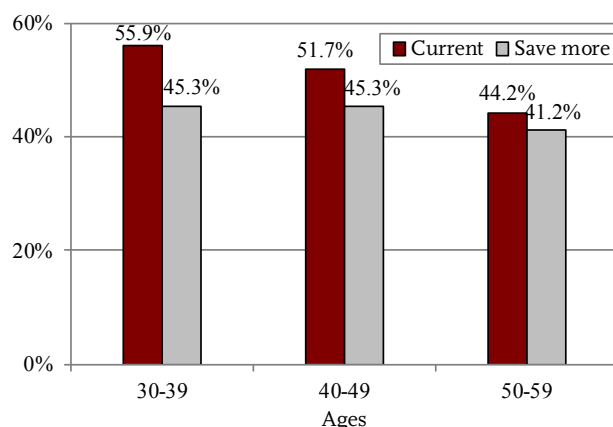


Source: Authors' calculations.

Explaining the Modest Response

The results suggest that a 5-percentage-point increase in the contribution rate has only a relatively modest impact on the NRRI. This finding may seem surprising given that 5 percentage points is a substantial boost in saving – more than a 50-percent increase in the average contribution rate. To help make sense of this outcome, it is useful to consider three factors.

FIGURE 6. IMPACT ON NRRI OF INCREASING CONTRIBUTION RATE BY 5 PERCENTAGE POINTS FOR ALL HOUSEHOLDS, BY AGE



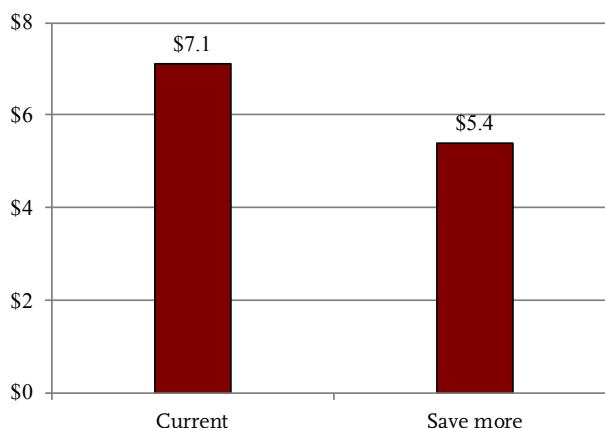
Source: Authors' calculations.

First, increased saving has a much larger impact on younger households, because they have many more years to accumulate additional assets before retirement than older households. A 5-percentage-point higher saving rate – for both covered and uncovered households – reduces the NRRI by 11 percentage points for households ages 30-39, compared to only 3 percentage points for those 50-59 (see Figure 6).⁷

Second, additional saving has a much larger impact on the “savings gap” than on the NRRI. The gap is the dollar difference between what households with a shortfall have actually saved up to a given year and what they *should have* saved up to that year in order to maintain their living standards in retirement. The size of this gap varies substantially by household.

Before the assumed increase in saving, the total dollar shortfall for all “at-risk” households was \$7.1 trillion; increasing saving by 5 percentage points reduces this gap to \$5.4 trillion (see Figure 7). This

FIGURE 7. AGGREGATE SAVINGS GAP IN TRILLIONS OF 2016 DOLLARS, CURRENT VS. SAVE 5 PERCENTAGE POINTS MORE



Source: Authors' calculations.

one-quarter reduction in the aggregate dollar gap far exceeds the one-eighth drop in the NRRI from 50 percent to 44 percent. For the NRRI, a 5-percentage-point increase in saving moves only those households who are on the edge of being “at risk” but not deeply in trouble into the “not at risk” group. In contrast, the additional saving reduces the gap between projected and target income for *all* “at-risk” households, meaning that everyone gets closer to their target even if they do not reach it.

Third, it is hard to move the NRRI. For example, even the Great Recession resulted in only a 9-percentage-point increase in the Index. Similarly, analyses involving less student debt, higher housing prices, and lower divorce rates all had only a 5-7-percentage-point effect on the NRRI. The only way to dramatically reduce the percentage of households at risk is to increase the age at which people retire.

Saving More and Working a Little Longer

Working longer sharply improves the retirement readiness of households.⁸ Specifically, the percentage of households at risk would be cut by more than a third if the retirement age in the NRRI went from 65 (the current assumption) to 67 (Social Security's eventual full retirement age, or FRA), as shown by the black bars in Figure 8. The key to this impact is the structure of Social Security benefits. Monthly benefits increase by 7-8 percent per year between ages 62 and 70, due to the actuarial reduction before the FRA and the delayed retirement credit between the FRA and age 70. Combining the increase in the retirement age with a 5-percentage-point increase in the contribution rate results in a dramatic decline in the NRRI for all ages (see the gray bars in Figure 8).

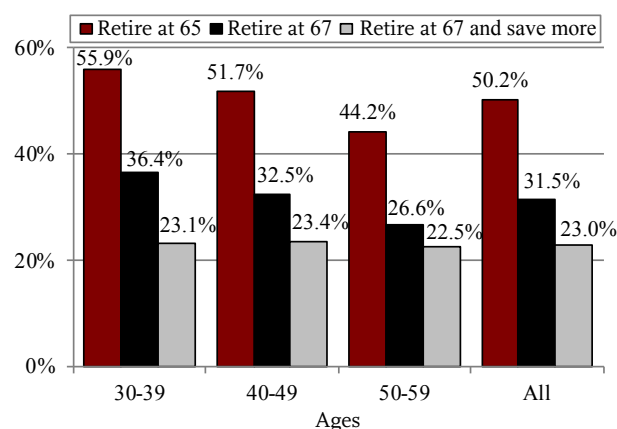
Conclusion

Currently, about half of working-age households are not saving enough to maintain their pre-retirement standard of living in retirement. One option for improving this picture is to save more in 401(k) plans. However, a substantial 5-percentage-point boost in contribution rates would have only a modest impact on the NRRI overall, though it would have a bigger effect on younger workers.

Closing the coverage gap would reduce the NRRI a bit further. However, even with universal coverage, a large share of households would still be at risk. The reason is that, while more saving does shrink the size of the dollar shortfall for all "at risk" households, it does not flip a sizable share of households from "at risk" to "not at risk."

The only way to make a dramatic dent in the retirement risk problem is to combine saving more with working two years longer. This option reduces the NRRI by more than half, lowering the percentage of today's working households at risk to less than 25 percent. This finding suggests that policymakers, employers, and households could have the biggest impact on meeting the retirement challenge by using more than one tool in their arsenal.

FIGURE 8. NRRI IF RETIRING AT AGES 65 OR 67 AND SAVING 5 PERCENTAGE POINTS MORE, BY AGE



Source: Authors' calculations.

Endnotes

- 1 For the measures of retirement income and pre-retirement income, both mortgage debt and non-mortgage debt are subtracted from the appropriate income components.
- 2 This analysis covers assets in all defined contribution plans but refers to them as 401(k)s for simplicity.
- 3 Chen and Munnell (2017).
- 4 Those eligible to participate in 401(k)s exhibit a wide range of saving behavior. As Poterba (2014) shows, some individuals accumulate substantial balances while others save only a modest amount relative to their retirement needs or do not save at all.
- 5 For an overview of the various options for closing the coverage gap, see Munnell, Belbase, and Sanzenbacher (2018). Current initiatives include Congressional bills, which are designed to make it easier for employers to adopt retirement plans, and state-sponsored auto-IRA programs.
- 6 A 5-percent contribution rate is the common default rate used by existing state auto-IRA plans. See Georgetown University Center for Retirement Initiatives (2019).
- 7 For more information on the benefits of beginning retirement saving at a young age, see Lusardi, Mitchell, and Curto (2010), U.S. Social Security Administration (2009), and Thaler and Benartzi (2004).
- 8 See Munnell et al. (2012).

References

- Chen, Anqi and Alicia H. Munnell. 2017. "Who Contributes to Individual Retirement Accounts?" *Issue in Brief* 17-8. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Georgetown Center for Retirement Initiatives. 2019. "State-Facilitated Retirement Savings Programs: A Snapshot of Program Design Features." State Brief 19-03. Washington, DC: Georgetown University, McCourt School of Public Policy.
- Lusardi, Annamaria, Olivia S. Mitchell, and Vilsa Curto. 2010. "Financial Literacy among the Young." *Journal of Consumer Affairs* 44(2): 358-380.
- Munnell, Alicia H., Anek Belbase, and Geoffrey T. Sanzenbacher in conjunction with Summit Consulting LLC. 2018. "An Analysis of Retirement Models to Improve Portability and Coverage." Report prepared for the U.S. Department of Labor. Washington, DC.
- Munnell, Alicia H. Anthony Webb, Luke Delorme, and Francesca Golub-Sass. 2012. "National Retirement Risk Index: How Much Longer Do We Need to Work?" *Issue in Brief* 12-12. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Poterba, James M. 2014. "Retirement Security in an Aging Population." *American Economic Review* 104(5): 1-30.
- U.S. Board of Governors of the Federal Reserve System. *Survey of Consumer Finances*, 2016. Washington, DC.
- U.S. Social Security Administration. 2009. *What Young Workers Should Know about Social Security and Saving*. Washington, DC.
- Thaler, Richard H. and Shlomo Benartzi. 2004. "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving." *Journal of Political Economy* 112(S1): S164-S187.

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