

SCHWARTZ CENTER  
FOR ECONOMIC  
POLICY ANALYSIS

# POLICYNOTE

## 401(K) PLANS: A FAILED EXPERIMENT

by **Teresa Ghilarducci**, Bernard L. and Irene Schwartz Professor of Economics at The New School for Social Research and Director of the Schwartz Center for Economic Policy Analysis (SCEPA); **Bridget Fisher**, SCEPA Associate Director; **Siavash Radpour**, SCEPA Research Associate; and **Anthony Webb**, SCEPA Research Director

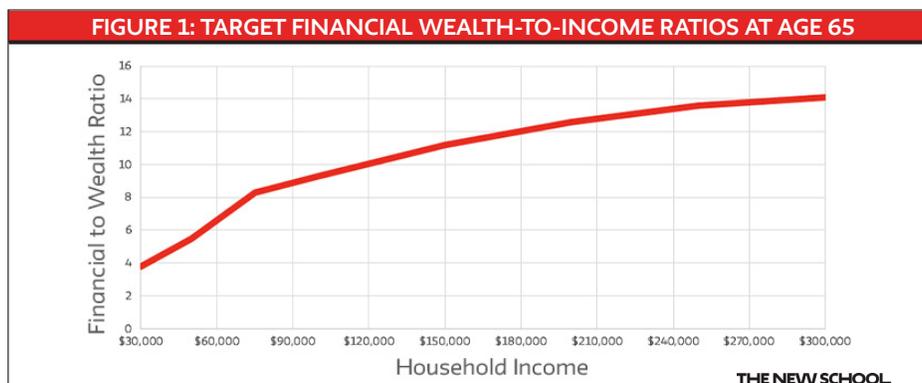
### ELEVATOR PITCH

The first birth cohort exposed to the 401(k) system for most of their working lives is now approaching retirement. 401(k) participants in this cohort have accumulated only about a third of the savings they need to maintain their standard of living in retirement. The 401(k) system fails even those who use it as instructed. High earners are as ill-prepared for retirement as low- and moderate earners. Inadequate wealth accumulations reflect well-known design flaws in the 401(k) system – patchy coverage, high fees, opportunities to take pre-retirement withdrawals, and the lack of a default pathway for converting accumulated wealth into retirement income.

### KEY FINDINGS

- Typical households need to accumulate financial assets equal to 5.6 to 11.3 times their income by age 65 to maintain their standard of living in retirement.
- Near-retirees participating in 401(k) plans have, on average, accumulated only a third of their target savings.
- High earners (those in the 90<sup>th</sup> to 99<sup>th</sup> percentile of the income distribution) are almost as ill-prepared as low- and moderate earners.
- Those who do not or cannot participate, including a majority of low earners, are even further off track, with non-participants in the bottom half of the income distribution holding 2 percent of their target savings.

### HOUSEHOLDS NEED FINANCIAL ASSETS EQUAL TO 5.6 TO 11.3 TIMES THEIR INCOME TO MAINTAIN THEIR STANDARD OF LIVING IN RETIREMENT



Source: JP Morgan (2016)

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## INTRODUCTION

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401(k) retirement savings plans were introduced in 1982, and coverage expanded rapidly through the 1980s and 1990s. The first birth cohort with exposure to 401(k)s throughout most of their careers is now approaching retirement. This policy brief takes stock of their financial preparedness for retirement. It examines how the 401(k) experiment has worked out for the minority that

participated, and for comparison also reports on households without any pension coverage. Using data from the Survey of Consumer Finances (SCF), a nationally representative survey of American households, this study compares the financial assets of 401(k) participant households ages 50-64 with the amounts required to maintain their pre-retirement standard of living.<sup>1</sup>

## DETERMINING TARGET WEALTH LEVELS

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Financial planners determine how much financial wealth households need to accumulate by retirement by calculating 1) the replacement rate (post-retirement income divided by pre-retirement income) that will permit the household to maintain its standard of living; 2) the contribution to the replacement rate from Social Security income and any defined benefit (DB) pensions; and 3) the amount of financial wealth necessary to generate sufficient income to make up the balance.<sup>2</sup>

In retirement, households no longer pay Social Security taxes or save for retirement. Thus, households require replacement rates of less than 100 percent to maintain their standards of living. Replacement rates are somewhat lower for higher earners because they need to allocate more of their pre-retirement income to retirement savings and therefore consume less of their pre-retirement income. But high earners still need to accumulate more financial assets relative to their incomes than low and moderate earners, because Social Security replaces a smaller percentage of their pre-retirement incomes.

The following illustrates the calculation for a hypothetical household. The household has a replacement rate target of 80 percent of pre-

retirement income. It anticipates receiving 40 percent of pre-retirement income from Social Security, and therefore needs to replace the remaining 40 percent by drawing on financial assets. As a rough rule of thumb, households need \$25 of wealth to produce one dollar of retirement income.<sup>3</sup> So the household needs to accumulate financial assets amounting to  $25 \times 0.4$ , or ten times its pre-retirement income.

Financial wealth targets vary, with important determinants being the assumptions regarding investment returns and post-retirement drawdown rates.<sup>4</sup> This study uses target financial wealth-to-income ratios calculated by JP Morgan.<sup>5</sup> JP Morgan calculates that households require replacement rates from financial assets ranging from 23 percent for households making \$50,000 a year to 45 percent for households making \$150,000 a year. Reflecting these variations, their age-65 target financial wealth-to-income ratios vary from 5.6 for households earning \$50,000 a year (financial wealth of \$280,000) to 11.3 for households earning \$150,000 a year (financial wealth of \$1,695,000).<sup>6</sup> Target milestones at ages 50-64 are correspondingly less, because households still have a few years to make 401(k) contributions and earn investment returns.

## HOUSEHOLDS IN ALL INCOME GROUPS DO NOT HAVE ENOUGH SAVINGS

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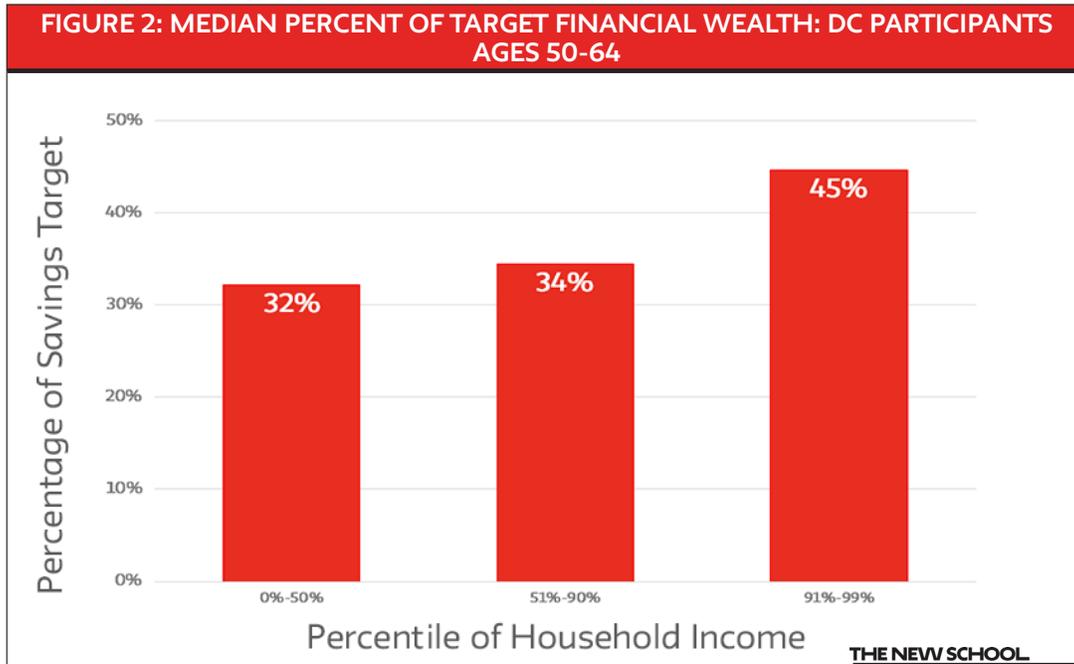
The typical 401(k) participant in the bottom 50 percent of the income distribution has financial assets equal to a mere 32 percent of the amount needed to be on track to maintain its standard of living in retirement (Figure 2). Importantly, those in the 51st to 90th percentiles and 91st to 99th percentile of the income distribution are almost as ill-prepared, with financial assets averaging 34 and 45 percent of their respective targets.

The above analysis understates the severity of the retirement savings crisis because it focuses only on 401(k) participants. These households are better prepared than households without any pension coverage. Households in the bottom half of the income distribution and without pension coverage

hold financial assets equal to a mere two percent of their target. Those in the 51<sup>st</sup> to 90<sup>th</sup> percentile hold savings equal to 18 percent of their target, and those in the 90<sup>th</sup> to 99<sup>th</sup> percentile, a small group, hold 37 percent of their target (Figure 3).

The JP Morgan targets are “one size fits all.” Lower targets may be appropriate for some households, for example those who devoted a large part of their pre-retirement income to paying off a mortgage or raising children. Higher targets may be appropriate for other households, for example those anticipating high out-of-pocket medical and long-term care costs. However, wealth accumulations are so low, it is unlikely they are consistent with any plausible replacement rate target.

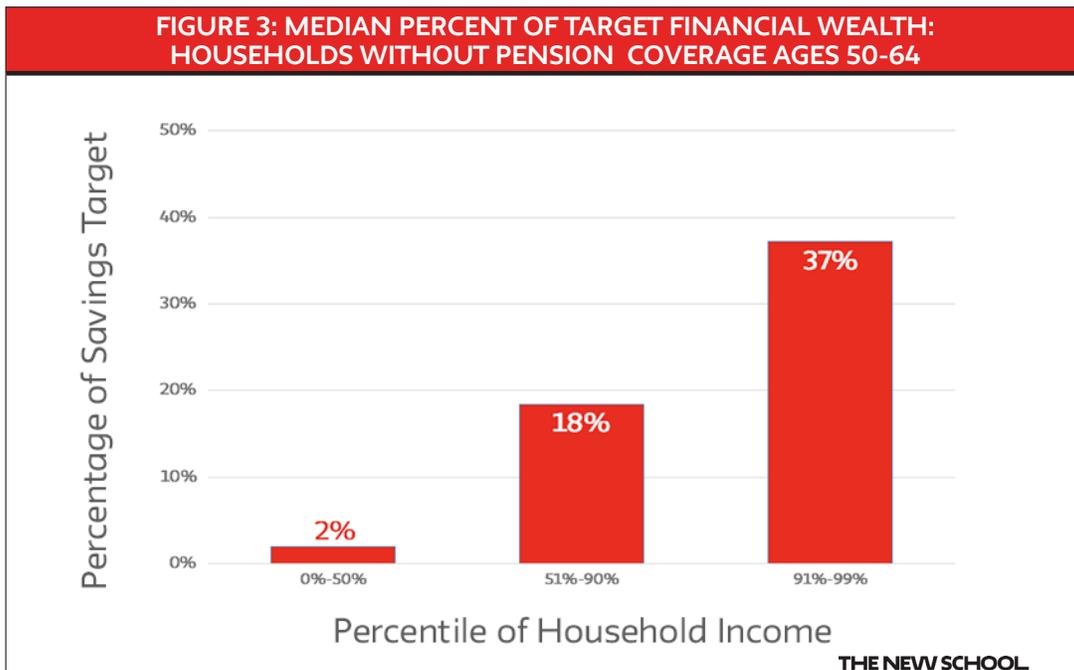
## NEAR-RETIREE HOUSEHOLDS WITH DEFINED CONTRIBUTION PLANS HAVE ONLY 1/3 OF THEIR TARGET SAVINGS



Source: Authors' calculations based on 2013 Survey of Consumer Finances.

Note: The sample comprises households whose head was age 50-64 in 2013, in which at least one or both spouses were currently contributing to a 401(k) or similar plan, and in which neither spouse reported they were 1) self-employed; 2) retired or semi-retired; or 3) receiving or anticipating income from a defined benefit plan. Percentiles of household income are calculated over all employed, non-retired households ages 50-64.

## NEAR RETIREES WITHOUT PENSIONS ARE EVEN FURTHER OFF TARGET



Source: Authors' calculations based on 2013 Survey of Consumer Finances.

Note: The sample comprises households whose head was age 50-64 in 2013, in which at neither spouse was currently contributing to a 401(k) or similar plan, and in which neither spouse reported they were 1) self-employed; 2) retired or semi-retired; or 3) receiving or anticipating income from a defined benefit plan. Percentiles of household income are calculated over all employed, non-retired households ages 50-64.

## POLICY RECOMMENDATIONS

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Theoretical calculations show that households who participate in a 401(k) plan over a working lifetime ought to be able to accumulate sufficient assets to maintain their standards of living in retirement. This policy brief shows that typical wealth accumulations of 401(k) participants fall far short. Importantly, upper-income households are faring little better than low- and moderate-income households.

The analysis shows that fixing the pension crisis requires more than extending 401(k) coverage to uncovered workers. A combination of high fees, spotty contribution histories, poor investment choices, and pre-retirement leakages result in the system failing most households. We need to stop

blaming households for their inability to navigate the system, and instead design a system that can be navigated by real people.

In the short-term, we need to strengthen Social Security to support near-retiree families currently facing downward mobility in retirement. In the long-term, we need comprehensive reform to provide safe, effective retirement savings programs that allow Americans to save more for their retirement. This includes a federal Guaranteed Retirement Account (GRA), which guarantees principal and an annual rate of return and provides annuities as an add on to Social Security benefits.

## ENDNOTES

1. The study excludes the self-employed because they may be able to finance their retirement from the sale of business assets. It excludes households containing individuals who report they are retired or semi-retired because the SCF does not contain a reliable measure of their pre-retirement income.
2. In contrast, economic models of saving over the life-cycle posit that households should seek to smooth the marginal utility of consumption. This yields similar results to financial planning models under restrictive assumptions regarding labor and financial market risk.
3. According to the life-cycle model, retired households should supplement the interest and dividends on their investments by drawing down capital. Historical data show that households can consume four percent a year of initial wealth (inclusive of interest and dividends), while running only a small risk of outliving that wealth (Bengen, 1994). Although few households voluntarily annuitize, an alternative yardstick is the income obtainable on a joint-life inflation-indexed annuity. This yields similar results.
4. At lower assumed rates of return, households would be able to consume less over their lifetime. They would choose lower pre- and post-retirement consumption pre- and post-retirement and a lower replacement rate target. If they followed the 4-percent rule, they would also have a lower wealth target.
5. JP Morgan Asset Management (2016), page 15.
6. Other financial planners report similar numbers, whereas Skinner (2007) reports lower targets with both his own model and ES Planner, a commercial financial planning tool. For example, Fidelity (2014) recommends a target of ten times final salary. Skinner (2007) and Munnell, Webb, and Hou (2014) show that target wealth-to-income ratios are sensitive to assumptions regarding planned retirement age, target replacement rate, home-ownership, children, etc.
7. The study counts both retirement and non-retirement financial assets. Retirement assets include both 401(k) and IRA plan balances. The study applies an equivalence scale of 1.7 to the incomes of single individuals prior to sorting households by income percentile. After applying the equivalence scale, the 50<sup>th</sup>, 90<sup>th</sup>, and 99<sup>th</sup> percentiles of incomes are located at \$68,000, \$193,800, and \$705,100. The study does not analyze the financial preparedness of the top one percent of earners.
8. Munnell and Webb (2015).

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