

ICI VIEWPOINTS

FEBRUARY 22, 2016

## How America Supports Retirement: Tackling the Myths That Surround Us

By Peter Brady

*First in a series of ICI Viewpoints.*

America's retirement system isn't perfect—but it's a lot stronger than many people think. Whether by accident or design, the U.S. retirement system provides benefits to workers across the earnings distribution and has helped millions of retirees maintain their standard of living in retirement. Yet how its components work together is not well understood, for a number of reasons:

- The role of Social Security—which provides the equivalent of a full pension to the lowest-earning workers, and substantial resources to workers with higher earnings—is seldom fully appreciated.
- Tax deferral of compensation saved for retirement—which encourages workers to seek, and firms to provide, either traditional pensions or 401(k) plans—has helped millions of workers accumulate resources to supplement Social Security. But the benefits of tax deferral often are either misunderstood or misrepresented.
- And the interaction between the two—key layers in the [pyramid of retirement resources](#)—is poorly understood, on both the personal and the national level. In fact, studies examining who benefits from these programs typically do not address the linkage at all. Instead, most treat Social Security and employer-based retirement plans as two separate and independent systems.

To fill in some of those gaps, I've written a book: [How America Supports Retirement: Challenging the Conventional Wisdom on Who Benefits](#). The book adds to the existing research on retirement by analyzing Social Security and tax deferral *together* to get a full picture of how the benefits of the system vary with workers' lifetime earnings.

In writing the book, I had to tackle many myths about retirement. In this series of *ICI Viewpoints*, I'll address and correct three of them:

- **Myth 1:** The retirement system is regressive—its benefits are tilted heavily toward the upper reaches of the income scale.
  - *Fact 1:* The benefits of the retirement system are progressive. When benefits are measured as a percentage of lifetime earnings, lower earners benefit more from Social Security and higher earners benefit more from tax deferral. The combined benefits of the two programs, however, are proportionately higher for lower-earning workers.
- **Myth 2:** Higher-earning workers get more benefits from tax deferral because they face higher marginal tax rates and get more “bang for the buck” for each dollar contributed.
  - *Fact 2:* Higher-earning workers benefit more from tax deferral because they contribute more dollars—*not* because they get larger benefits per dollar.
- **Myth 3:** The current tax system provides an “upside-down” incentive to save.
  - *Fact 3:* An income tax creates *disincentives* to save. Tax deferral eliminates those disincentives and equalizes the incentive to save across workers of all incomes.

Before I get to the myths, first I need to explain the interaction between Social Security and employer-based retirement plans—and how, in my simulations, Social Security's progressive benefit formula causes higher-earning workers to set aside a larger share of their compensation for retirement.

## Six Workers and a Blend of Benefits

My findings are based on simulations I ran of six representative workers with a range of lifetime earnings. Each of these workers was born in 1966 (like me) and will retire in 2033 at age 67, when eligible for normal Social Security benefits (as I will—maybe).

I started with three workers: one whose lifetime earnings path is typical of a full-time worker with a high-school diploma (whose average annual earnings would be \$43,000 in 2014 dollars); one with a bachelor's degree (\$69,000); and one with a graduate degree (\$92,000). To cover a wider range of workers, I added a lower-wage worker (\$21,000) and two more highly paid workers (\$122,000 and \$234,000). Favoring clarity over creativity, I named these workers after their wages—Earn21K, Earn43K, etc.

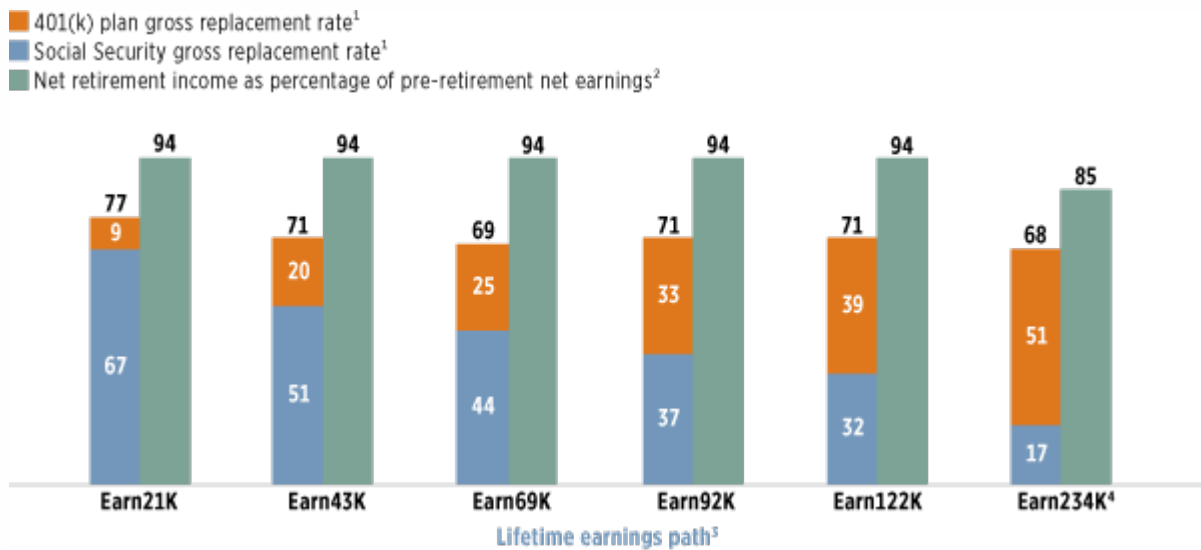
Each worker pays into Social Security and participates for at least part of their career in a 401(k) plan, with the employer providing a 50 percent matching contribution on up to 6 percent of compensation. (Any of them could instead be enrolled in an equivalent traditional pension—the analysis is the same for either tax-deferred vehicle.)

When it comes to retirement, each of these workers shares the same goal—to have a combination of Social Security and 401(k) plan payouts that will support spending in retirement at 94 percent of the average level they spent while working. (My findings don't depend on the exact target replacement rate chosen; what matters is the assumption that all six workers have the same goal.) Though they all have the same target, how they get there is very different, as shown in Figure 1.

**Figure 1**

**Representative Workers' Retirement Savings Calibrated to Hit Replacement Rate Target**

*Inflation-adjusted retirement income as a percentage of inflation-adjusted average gross and net earnings*



<sup>1</sup> The gross replacement rate is the survival-weighted average (ages 67 and older) inflation-adjusted total retirement income divided by average (from age 32 through age 66) inflation-adjusted wage income.

<sup>2</sup> The net replacement rate is the survival-weighted average (ages 67 and older) inflation-adjusted net retirement income divided by average (from age 32 through age 66) inflation-adjusted net earnings.

<sup>3</sup> The lifetime earnings paths of the representative workers are based on the earnings paths derived in [Brady 2010](#). See Figure E.2 for additional detail.

<sup>4</sup> The Earn234K worker is unable to hit the target replacement rate despite contributing the maximum amount allowed by law and receiving employer matching contributions of 3 percent.

Note: Components may not add to the total because of rounding.

Source: ICI simulations.

The blue portions of the bars show the six workers' Social Security benefits as a replacement rate—a percentage of their average lifetime wage income. What leaps out here is that the Social Security benefit formula is steeply progressive, replacing 67 percent of Earn21K's wages, but only 32 percent of Earn122K's earnings (and 17 percent of Earn234K's). And that's the way Social Security is designed—to provide a strong pension for lower-earning workers.

The orange portions show how much income from a 401(k) (or other) plan each worker needs to hit the retirement spending target. Clearly, the higher-earning workers need much more retirement-plan income to fill the gap—for example, Earn122K needs to replace 39 percent of wage income with 401(k) plan income, while Earn21K only needs to replace 9 percent. That means Earn122K needs to start

contributing to the 401(k) plan earlier and contribute a larger portion of earnings.

## The Goal Is Within Reach

Despite the fact that the workers get different shares of income from their 401(k) plans, five of the six workers manage to reach their retirement spending goal. The green bars convert the blue and orange income-based measures into a share of spending, and demonstrate that nearly all of the workers can replace 94 percent of their spending. (Retirees can replace 94 percent of their *spending* with 70-plus percent of their working *wage income* because they're paying less in taxes and are no longer making retirement contributions.)

As the table below shows, Earn43K (the high school graduate) hits the target by starting to save at age 47 and contributing 9 percent of income (which includes a 3 percent employer match); Earn122K (a high earner) starts saving at 36 and saves 10 percent of income. Only the highest earner, Earn234K, comes up short, replacing only 85 percent of pre-retirement spending—despite contributing the maximum allowed by law from age 32 through age 66—because of limits on employee contributions. Though the exact ages and contribution rates are sensitive to the assumptions used in the simulation, the results demonstrate that workers don't need to save fanatically to hit their goal.

**Figure 2**  
**Selected Statistics for Six Representative Workers**

*Individuals born in 1966 and who retire in 2033; all dollar amounts expressed as constant 2014 dollars*

	Representative workers <sup>1</sup>					
	Earn21K	Earn43K	Earn69K	Earn92K	Earn122K	Earn234K
	401(k) plan contribution behavior <sup>2</sup>					
Age at which 401(k) plan contributions begin	52	47	43	37	36	32
Total contribution rate (employee plus employer)	6.0%	9.0%	9.0%	9.0%	10.0%	11.5%
Account balance at age 66 (thousands)	\$26.0	\$111.0	\$227.3	\$404.6	\$625.7	\$1,566.6

<sup>1</sup> The lifetime earnings paths are based on the earnings paths derived in Brady 2010. Lifetime earnings paths are anchored at age 40 with earnings equal to median earnings of full-time, full-year workers from age 35 through age 44 in 2006 with a high

school degree (Earn43K), a bachelor's degree (Earn69K), and a graduate degree (Earn92K). Other earnings paths have earnings at all ages equal to half of the earnings of the Earn43K worker (Earn21K) and one-third more than the Earn92K worker (Earn122K). The final earnings path (Earn234K) is for a worker with earnings that are 20 percent higher than the Earn122K worker at age 32, with earnings increasing to be twice as high as the Earn122K worker by age 40 and then remaining twice as high thereafter. Earnings at age 40 represent, approximately, the 18th, 46th, 73rd, 85th, 92nd, and 98th percentile of the earnings distribution among working individuals with positive earnings from age 35 through age 44 in 2006 based on the March 2007 Current Population Survey.

<sup>2</sup> In this simulation, 401(k) plan contributions are assumed to be invested in bonds paying interest equal to 3.0 percent plus inflation. All investment returns are in the form of interest payments that are paid annually.

Source: ICI simulations

---

## Outcomes Reflect the Design of the System

The fact that workers with lower lifetime earnings rely more on Social Security and less on employer plans is a reflection of the design of the American retirement system. Even if all workers have the same retirement goals, the simulations illustrate that, in retirement, workers rely on employer plans to differing degrees, depending on their lifetime earnings. The workers with low lifetime earnings rely primarily on Social Security in retirement, while higher-earning workers rely more on distributions from employer-sponsored retirement plans because Social Security benefit payments replace a lower share of their pre-retirement earnings.

As I noted, most analyses of who benefits from the retirement system look at Social Security and employer plans separately. But assessing either component in isolation provides an incomplete picture of the system. In particular, analysis that focuses solely on the benefits of tax-deferred employer plans ignores the powerful effect that Social Security has on workers at all income levels—both as a source of significant retirement income, and as a driver for participation in and contributions to workplace-based retirement plans.

With that foundation established, in my next *ICI Viewpoints* post I'll start addressing the myths that surround us.

### Additional Resources:

[How America Supports Retirement](#)

### Other Posts in This Series:

- [How America Supports Retirement: Tackling the Myths That Surround Us](#)
- [How America Supports Retirement: No, Benefits Are Not “Tilted” to Higher Earners](#)
- [How America Supports Retirement: What Do Tax Rates Have to Do with the Benefits of Tax Deferral? Less Than You Think](#)
- [How America Supports Retirement: The Incentive to Save Is Not Upside Down](#)

*Peter Brady is a Senior Economic Adviser at ICI.*

---

Copyright © by the Investment Company Institute. All rights reserved. Information may be abridged and therefore incomplete.

Communications from the Institute do not constitute, and should not be considered a substitute for, legal advice.