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C E N T E R for RETIREMENT R E S E A R C H at boston college

## CAN WE INCREASE RETIREMENT SAVING?

By Steven A. Sass\*

#### Introduction

Workers today must save to gain a secure retirement. Failing to save assures a sharp drop in living standards when the paychecks stop, and ample evidence indicates that many Americans are not saving enough.

This *brief* reviews studies by the Social Security Administration's Retirement Research Consortium, and others, that assess government initiatives to increase retirement saving. The first section introduces the government's traditional incentive – favorable tax treatment for employer plans and Individual Retirement Accounts (IRAs). The second section presents evidence on its effect. The third section reviews evidence on the effect of behavioral incentives, such as auto-enrollment, which the government encourages employers to use in their 401(k)s. The fourth section discusses state government initiatives, now under development, to expand access to workplace plans. The final section concludes that the most promising current initiative to increase retirement saving could be the state government programs to auto-enroll workers not covered by an employer plan into an IRA.

# Tax Incentives for Retirement Saving

Retirement plans have enjoyed favorable tax treatment since the introduction of the income tax in 1913. Contributions are tax deductible; investment earnings are tax-exempt; and taxes are levied only when benefits are received in retirement.<sup>1</sup> In Roth IRAs and Roth 401(k)s, contributions are not deductible but investment earnings and withdrawals are tax exempt. If tax rates are the same on funds that are contributed and withdrawn, Roth and "traditional" plans provide the same tax subsidy.

Retirement saving has always been done primarily in employer plans, and the last 40 years have seen a dramatic shift in employer plans from defined benefit pensions to 401(k)s. While workers can also save on their own in an IRA, employer plans offer several advantages: payroll deduction makes it much easier to save automatically; employers typically offer a matching contribution; mutual fund fees are often lower; and contribution limits set by the government are much higher in a 401(k).<sup>2</sup> Therefore, retirement saving today is primarily done in 401(k)s (though balances are often later rolled over into IRAs).

Saving in a 401(k) is highly individualized. Workers contribute to their own account, choosing whether to save and how much to save, up to the governmentset limit. The tax treatment has significant value for high earners subject to high marginal tax rates and less value for middle and low earners who face lower rates. But as employer plans primarily serve workers in the top half of the income distribution, the tax treatment has at least some value for the great majority of covered workers.

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## Do Tax Incentives Increase Retirement Saving?

The tax incentives for retirement saving involve a substantial loss of government revenue. The Joint Committee on Taxation estimates the cost in foregone revenue for 401(k)s and IRAs at \$110 billion in 2015.<sup>3</sup> These plans hold a tremendous amount of retirement savings – \$13.6 trillion at the end of 2015.<sup>4</sup> But the extent to which these savings are due to government tax incentives has been the subject of a long debate.

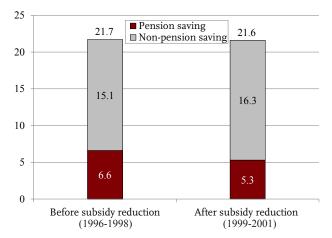
Tax incentives can only be credited with increasing retirement saving to the extent that the saving is new – meaning that it is not simply shifted from non-advantaged to tax-advantaged accounts. Studies by James Poterba, Stephen Venti, and David Wise offer evidence that these savings are new; studies by Eric Engen, William Gale, and John Karl Scholz offer evidence that they are not. Serious data limitations, rather than a lack of ingenuity or sophistication, prevent researchers from isolating the effect of the tax incentives from confounding factors such as the worker's "taste" for saving, shifts in plan participation, investment returns, and other tax changes.<sup>5</sup>

A study by Raj Chetty, John Friedman, and coauthors overcame many of these limitations using Danish tax records and linked administrative data for 4 million Danish workers from 1995-2009.<sup>6</sup> The dataset they created has year-by-year information on worker and employer contributions to tax-advantaged retirement plans, balances in non-retirement accounts and debt levels, taxes, earnings, and disposable incomes.

To assess the effect of tax incentives on retirement saving, the study analyzed responses to a 1999 tax change. The Danish government cut the deduction that high-income workers could take for contributions to accounts that provide lump-sum payouts at retirement, but left unchanged the treatment of contributions to accounts that provide annuity payouts. This policy made the after-tax cost of contributions to lump-sum plans about 13 percent higher than the cost of contributions to annuity plans.<sup>7</sup>

Despite this rather significant shift in the after-tax cost of retirement saving, the study found that less than 20 percent of the high-income workers affected changed their saving behavior. These "active savers" generally stopped contributing to lump-sum plans and redirected nearly all that saving to annuity plans and non-advantaged accounts. Their overall saving thus remained largely unchanged. The great majority of the workers affected were "passive savers" – individuals whose saving behavior does not respond to such shifts in financial incentives. These passive savers continued to contribute the same amounts to both types of retirement plans and other savings accounts. The reduction in government tax incentives thus had very little effect on the overall saving of either active or passive savers, or of workers overall (see Figure 1). For each 100 Danish kroner that the government recouped by reducing the pension tax incentive, the study estimated that worker saving fell by just a single krone.

Figure 1. Average Saving of Danish Workers in Top Income Tax Bracket, Before and After Tax Subsidy Reduction, Thousands of Danish Kroner



Note: Pension saving includes saving in both capital accounts, which were affected by the subsidy reduction, and annuity accounts, which were not affected. Non-pension saving is expressed as a pre-tax amount. Over the period studied, the exchange rate was about DKr 6.5 per US \$1. *Source:* Chetty et al. (2013).

The findings support the notion that marginal changes in tax incentives have little effect on the saving of high-income workers – the workers who get the largest financial benefit from the favorable tax treatment of retirement saving.<sup>8</sup> In addition, the study found that lower-income workers are more likely than higher-income workers to be passive savers whose saving behavior is not responsive to financial incentives.<sup>9</sup> Overall, the findings suggest that offering more generous tax incentives would cost the government revenue without significantly increasing retirement saving.

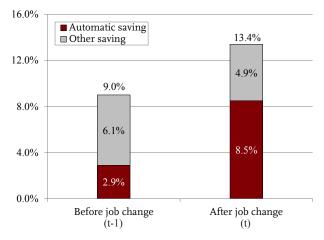
### Do Behavioral Initiatives Increase Retirement Saving?

A significant body of research suggests that behavioral "nudges" can have a large effect on retirement saving. In a pioneering study, Brigitte Madrian and Dennis Shea assessed the effect of an employer's decision to enroll all new workers in its 401(k), with the workers allowed to opt out, rather than continuing the traditional practice of requiring new workers to affirmatively opt in.<sup>10</sup> If saving were the result of a rational financial calculation, this little nudge would have no effect. But the plan saw a dramatic 50-percentage-point rise in the share of new workers enrolled, with the gains especially large for young and lower-wage workers. The auto-enrolled workers also generally accepted and retained the default contribution, an amount very few workers had elected under the opt-in regime.

Subsequent studies by John Beshears, James Choi, David Laibson, Brigitte Madrian, and others confirmed the ability of the "power of suggestion" to significantly affect retirement saving. These studies show that workers in traditional "opt-in" plans commonly set their contribution at the plan's match threshold, the maximum contribution that employers choose to match, and typically stick with their initial contribution and investment allocation decisions. They also show that auto-escalation – gradually raising the default contribution rate over time – raises contributions in auto-enrollment plans above a low initial default, typically by shifting an additional 1 percent of the wage into the plan each year until the contribution reaches a higher target amount.<sup>11</sup>

The study by Chetty et al. supports the notion that such "automatic" changes in retirement saving raise overall saving, because they are generally not offset by changes in other types of saving. The study examined responses to increases in employer pension contributions when Danish workers change jobs. The small group of active savers actually did respond by adjusting their contributions to other accounts, keeping their overall saving largely unchanged. However, the much larger group of passive savers did not respond at all. For them, what changed was how much they saved and how much remained in their pocket and was spent on current consumption. As over 85 percent of all Danish workers were passive savers, such automatic changes for those switching jobs had a major effect on their overall saving (see Figure 2).

Figure 2. Saving Rate Before and After Job Change to Firm with Higher Employer Pension Contribution, Percentage of Salary



Note: Automatic saving is employer pension contributions. Other saving is individual pension contributions and non-pension saving. The data are for job changers who saw employer contributions increase by at least 3 percent of earnings.

Source: Chetty et al. (2013).

Based on the evidence that behavioral initiatives can increase retirement saving, Congress encouraged their use in the Pension Protection Act (PPA) of 2006. The legislation exempted auto-enrollment from state laws that required workers to consent to any such redirections in pay. It also identified "safe harbor" default investment options. And it defined default contribution and auto-escalation procedures that would satisfy anti-discrimination regulations, which limit how much higher-paid workers can contribute based on the participation and contributions of lowerpaid workers.<sup>12</sup>

Auto-enrollment spread rapidly among larger plans after enactment of the PPA. For example, a 2015 Vanguard survey of about 1,900 plans, with 3.9 million participants, reports that 41 percent had adopted the policy, up from 10 percent in 2006, and they tended to be the larger plans in the sample.<sup>13</sup> Other organizations have different estimates of the prevalence of auto-enrollment, but they also find a spike in auto-enrollment adoption in the years immediately following the PPA.<sup>14</sup>

Gains in retirement saving, however, were less dramatic. Most employers adopting auto-enrollment set the default contribution rate relatively low, typically at 3 percent of pay. This level is lower than the typical match threshold of 6 percent of pay, and some workers who would have contributed at the higher match rate now passively accept the lower default.<sup>15</sup> Auto-escalation could help by gradually raising default contributions to a higher level, but the prevalence of this feature is unclear.<sup>16</sup> The result is that workers in auto-enrollment plans contribute a somewhat smaller share of earnings than workers in opt-in plans, reducing the overall rise in employee saving produced by the increase in plan participation (see Table 1).

TABLE 1. PARTICIPATION AND EMPLOYEE Contributions, Auto-Enrollment and Non-Auto-Enrollment Plans, 2015

	Auto-	Non-auto-
	enrollment	enrollment
Participation rate	88%	58%
Average employee contribution	6.1	7.2

Source: Vanguard Group (2016).

Auto-enrollment plans also have lower employer match rates, according to a study by Barbara Butrica and Nadia Karamcheva using data from the *National Compensation Survey*.<sup>17</sup> Thus, while auto-enrollment has increased participation in 401(k) plans, reductions in worker and employer contribution rates have dampened its effect on overall retirement saving.

This outcome should not be surprising as employers offer 401(k)s not to increase retirement saving, but as a tool of personnel management. A 401(k) helps them attract "thrifty" workers, who tend to be better workers, and matching contributions allow employers to pay these workers more than they pay "unthrifty" workers who do not contribute.18 Government tax incentives also function as compensation that employers can offer their workers, which is costless and especially valuable to their high-paid workers. Employers use behavioral initiatives - typically auto-enrollment with low default employee contributions and often reduced employer match rates - not to increase retirement saving but to help them better align their compensation policies with the value that their workers provide.19

## Can Expanding Access to Workplace Plans Increase Retirement Saving?

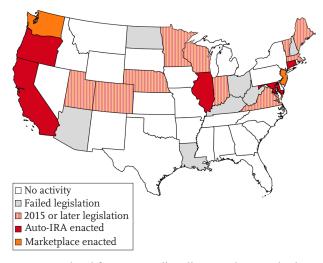
So far, this review has concentrated on existing employer retirement saving plans. However, a major concern is that, at any point in time, only about half of all private sector workers are covered by an employer plan.<sup>20</sup> As very few workers save for retirement outside of an employer plan, expanding access and participation could significantly increase overall retirement saving.

Most workers who are not covered by an employer plan are lower-wage workers who are often employed part-time or in small firms. A study by April Wu and Matthew Rutledge, using data from the *Health and Retirement Study* for 1992-2010, showed that only 37 percent of lower-wage workers ages 50-58 had access to a plan. But it also found that 78 percent of these workers contributed.<sup>21</sup> These results suggest that the limited reach of employer plans is a major impediment to retirement saving.

Many proposals have been advanced over the years to expand access to workplace plans. Most prominently, Congress has enacted several plans for small employers with significantly lower administrative demands than a standard 401(k). These plans, however, have not been widely adopted. Far more ambitious is the Auto-IRA, a program proposed by policy experts in 2006 that builds on the success of auto-enrollment in 401(k)s. The program would require all employers above a specified size without a plan to enroll their workers in a payroll deduction IRA, with the workers allowed to opt out.<sup>22</sup> Such a national Auto-IRA, though, has not been adopted.

In the absence of federal action, several states are moving forward with the Auto-IRA model (see Figure 3, on the next page). Feasibility studies conducted for the California and Connecticut Auto-IRA programs suggest that they would produce high levels of employee participation and that account balances and total plan assets would be high enough to allow the programs to cover their costs at relatively low fees.<sup>23</sup> The state Auto-IRAs do have some limitations in reaching certain groups of uncovered workers, such as the self-employed. And, like any new initiative, they also face implementation challenges.<sup>24</sup> However, a recent estimate suggests that these plans could give roughly half of all currently uncovered workers access to a payroll-deduction workplace plan.<sup>25</sup>





*Source:* Updated from Munnell, Belbase, and Sanzenbacher (2016).

The state Auto-IRA programs rely on the same behavioral incentives that have successfully boosted participation in 401(k) plans with auto-enrollment. These incentives are particularly important in the case of Auto-IRAs, which primarily target low and middle earners who get less value from tax advantages than higher earners.<sup>26</sup> Therefore, a key factor in the success of the state Auto-IRA experiment will be the validity of the behavioral findings for uncovered workers.

### Conclusion

Workers must save to achieve a secure retirement. To encourage workers to save, the federal government provides tax incentives that particularly benefit higher-income workers. Although the government foregoes a substantial amount of revenue to provide these incentives, the latest research suggests that increasing the generosity of these incentives would not significantly increase retirement saving.

Research has shown that behavioral interventions can significantly increase retirement saving, and the federal government has encouraged their use in employer plans. Employers have used these tools to substantially boost participation in 401(k) plans. But these tools are also often associated with a reduction in employee contributions and employer match rates, which dampens the overall rise in retirement saving.

Auto-IRA programs would default a substantial portion of today's uncovered workers into a payrolldeduction plan. If retirement saving is primarily responsive to behavioral incentives, the Auto-IRA could be the initiative that offers the greatest promise for increasing retirement saving.

#### Endnotes

1 By reducing the employer's cost of providing pensions, this treatment clearly encouraged employers to set up and fund defined benefit pension plans. But as the great majority of workers at the time did not pay income tax, it did not make retirement saving more attractive to workers. What it did was remove a disincentive. Without this treatment, the investment income earned by large pension trusts would have been subject to tax, making benefits less attractive to workers than compensation received as wages. See Robbins (1949).

2 In 2016, workers can contribute no more than \$5,500 to an IRA (\$6,500 if over age 50). In a 401(k), workers can contribute up to \$18,000 (\$24,000 if over age 50) themselves, or up to the lesser of 100 percent of compensation or \$53,000 (\$59,000 if over age 50) including matching employer contributions.

3 Joint Committee on Taxation (2015). Foregone revenues for defined benefit pension plans were estimated at an additional \$50 billion.

4 U.S. Board of Governors of the Federal Reserve System (2016). DB pension funds hold an additional \$8 trillion, with \$2.9 trillion in private plans and \$5.1 trillion in government plans.

5 See Bernheim (2002) for a careful review of this debate.

6 See Chetty et al. (2013, 2014).

7 The government reduced the deduction that highwage workers could take for contributions to lumpsum accounts from 59 percent to 45 percent of the amount contributed. As these workers generally had a 60-percent marginal tax rate, this change increased the after-tax cost of contributions from 65 percent to 73 percent of the amount contributed, a 12-percent increase.

8 Other studies using U.S. data also find that overall 401(k) saving is not very sensitive to financial incentives. Engelhardt and Kumar (2007) find that a 25-percentage-point reduction in the size of the employer match, a far more direct and visible financial incentive than the favorable tax treatment, is associated with just a 5-percentage-point reduction in plan participation and about a 15-percent reduction in employee contributions; Beshears et al. (2007) likewise find that a reduction in the match rate from 50 percent to 0 would only reduce participation by 5-11 percentage points.

9 See Chetty et al. (2014). Also see Beshears et al. (2012).

10 Madrian and Shea (2001).

11 See Choi, Laibson, and Madrian (2004); Choi et al. (2004); Beshears et al. (2007, 2008, 2012); and Madrian (2012).

12 See Beshears et al. (2010). The safe-harbor investment options were target date funds, balanced funds, and specified computer-managed accounts.

13 Vanguard Group (2016).

14 For example, the Plan Sponsor Council of America (2014), which finds that half of its sample plans have auto-enrollment, also shows a large increase in the popularity of auto-enrollment since PPA enactment. Other, somewhat earlier estimates, show smaller take-up; data from the *National Compensation Survey* and the Department of Labor's Form 5500 both indicate that less than 20 percent of plans have autoenrollment (Munnell 2015).

15 Madrian and Shea (2001), Choi et al. (2004).

16 For example, the Plan Sponsor Council of America (2014) shows that only about one third of plans with auto-enrollment have auto-escalation (with some others offering a *voluntary* auto-escalation policy), while Vanguard Group (2016) shows that 70 percent of the auto-enrollment plans in its survey have autoescalation.

17 Butrica and Karamcheva (2012); also see Soto and Butrica (2009). VanDerhei (2010), however, finds employer match rates increased in a sample of large plans that adopted auto-enrollment, with many plans doing so after freezing or discontinuing a defined benefit pension plan.

18 Ippolito (1997).

19 Auto-enrollment in a plan with an employer match has the adverse effect, from the employer's perspective, of increasing the compensation paid to "unthrifty" workers. It also increases the compensation paid to new hires, many of whom will soon leave the employer. A low default contribution and match rate reduces these adverse effects. Auto-enrollment, on the other hand, helps employers satisfy anti-discrimination requirements. Matching contributions are the traditional tool that employers use to raise the participation and contributions of lower-paid workers to meet these requirements (Engelhardt and Kumar, 2004). Auto-enrollment with a low default contribution and match rate may be a less expensive way to meet the requirements.

- 20 Munnell, Belbase, and Sanzenbacher (2016).
- 21 Wu and Rutledge (2014).
- 22 Iwry and John (2007).
- 23 Belbase et al. (2016).

24 See John and Gale (2015) for a discussion of these design and implementation challenges.

25 State of Oregon (2016 forthcoming).

26 Many lower earners will be eligible for an income tax Savers Credit for contributions to a retirement plan. The credit, however, is non-refundable – it is limited by the amount the worker owes in tax. According to an analysis of uncovered workers in Connecticut, the effective match rate on a contribution equal to 6 percent of earnings is only 13 percent for workers in the second income quartile and only 10 percent for workers in the bottom income quartile (Munnell and Chen 2016).

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#### C E N T E R for RETIREMENT R E S E A R C H at boston college

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