

Automatic Enrollment in IRAs: Costs and Benefits

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To encourage better retirement saving, President Obama recently proposed policies that would require firms without retirement savings plans to automatically enroll their workers in IRAs. In addition, the president proposed an expansion of the Saver's Credit — a provision that provides saving incentives for low-income households — to be fully refundable and available to middle-income taxpayers. This report estimates the revenue costs and distributional effects of the president's proposals.

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I. Introduction

This report analyzes the revenue and distributional effects of a proposal in the Obama administration's 2010 budget to require firms without a retirement savings plan to automatically enroll their workers in IRAs. The proposal, called the Automatic IRA,¹ is an extension of an

¹The administration refers to this proposal as "automatic enrollment in IRAs." In the past, it has been referred to as the "Automatic IRA." This report adopts that convention.

effort to encourage firms with defined contribution plans — such as 401(k)s — to automatically enroll workers in the company plan.

Although automatic enrollment in 401(k)s is not required by law, it is becoming increasingly popular; the proportion of defined contribution plans offering automatic enrollment jumped from 26 percent in 2006 to 44 percent in 2007.² Automatic enrollment has proven effective in bringing more workers into retirement saving programs. One study found that automatic enrollment in a specific firm plan boosted initial enrollment in the plan from 37 percent to 86 percent (Madrian and Shea 2001). Other studies have noted the policy's ability to increase aggregate saving (Iwry, Gale, and Orszag 2006), improve retirement preparedness (Gale, Iwry, and Orszag 2005), and increase tax progressivity (Geissler and Harris 2009).

The idea behind automatic enrollment is simple: By removing administrative barriers to saving, automatic enrollment can increase the likelihood that workers will contribute to retirement. Taking advantage of inertia, automatic enrollment makes saving the default option rather than requiring action to participate. That policy appears to be an effective way of increasing the saving rate of workers who find saving difficult or intimidating.

The 78 million workers without a company retirement plan have less incentive to contribute to retirement accounts. Unlike some of their counterparts with an employer-sponsored retirement savings plan, workers without a company-sponsored plan receive no employer match for contributions. Also, because the tax benefit for retirement saving is larger for taxpayers in higher tax brackets, low-income workers — who are more likely to be in firms without any form of company retirement plan — often have modest tax incentives to save for retirement.

For traditional IRAs or 401(k)-type retirement savings plans, tax incentives to save are related to a taxpayer's income because of the ability to deduct the initial contribution from taxable income. Taxpayers contributing to those types of retirement saving accounts can usually deduct all or a portion of the contribution from taxable income; the initial tax benefit is the marginal tax rate

²Gale, Iwry, and Walters (2007) note that the Pension Protection Act of 2006 removed many practical barriers to automatic enrollment, including concerns of pension administrators over their liability for how contributions are invested, whether employees could demand a refund of their contributions, the application of pension nondiscrimination laws, and violation of state antigarnishment laws.

multiplied by the deduction.³ For taxpayers with higher income and higher marginal tax rates, the benefit is larger relative to taxpayers in lower tax brackets. Therefore, the tax benefit from saving is often higher for wealthier taxpayers.

For taxpayers contributing to Roth IRAs or Roth 401(k)s, the tax benefit is related to tax-free distributions in retirement. Unlike traditional IRAs or 401(k)s, Roth accounts do not allow a deduction for the initial contribution. However, like other accounts, Roth accounts do permit tax-free growth of contributions and, unlike traditional IRAs or 401(k)s, allow for tax-free distributions. The net effect is that taxpayers with high marginal tax rates in retirement — typically higher-income individuals — have the largest incentive to save.

Some analysts argue that because of those mismatched incentives, IRAs have not been effective at encouraging additional saving (Gale and Scholz 1994; Engen, Gale, and Scholz 1996; Attanasio and DeLeire 2002) and instead serve primarily as a mechanism for wealthier taxpayers to shift saving from taxable accounts to nontaxable accounts, making IRAs a windfall for upper-middle-income taxpayers. Others disagree (Hubbard and Skinner 1996; Poterba, Venti, and Wise 1996), arguing that the tax incentive is an effective way to induce additional net saving.

Regardless of their net effect on aggregate saving, it is clear that IRAs alone are a weak incentive for lower-income taxpayers. The Saver's Credit, a tax provision that gives lower-income taxpayers a tax credit for contributions to retirement accounts, provides additional incentives. The limited evidence on those types of tax mechanisms has shown that they are effective in raising saving rates among lower-income households (Duflo et al. 2006).

Recognizing the potential to help increase saving rates among low-income households, Obama's 2010 budget proposes changes to the Saver's Credit that would make it simpler, fully refundable, and more available to middle-income households. The administration's proposal would also lower the maximum contribution eligible for the matching tax credit and raise the match rate for some households. Together these proposals would make the saving incentive from the credit more like employers' matching contributions in 401(k) plans.⁴

The expansion of the Saver's Credit and the implementation of the Automatic IRA work together. Expanding the Saver's Credit generally increases the tax incentives to save, while automatic enrollment in IRAs increases the number of workers with an easy way to do so. For that reason, it is important to consider the two policies together.

There are several factors affecting the progressivity of automatic enrollment. The policy is progressive because

³Sometimes the contribution can push a taxpayer into a lower marginal tax bracket. In that scenario, the tax benefit is the average marginal tax rate on contributions times the amount of contribution.

⁴We explain the details of the administration's proposals in the next section.

it incorporates workers without employer-sponsored retirement plans into tax-preferred accounts, and those workers tend to have less income relative to workers with retirement accounts through their employers. Automatic enrollment also has a regressive aspect in that higher-income workers benefit more from IRAs because their initial deduction is worth more due to their higher tax bracket. Similarly, while the Saver's Credit is generally considered progressive because it typically benefits savers with low incomes, the administration's proposed restructuring of the credit rate and maximum contribution match means that a small proportion of taxpayers will receive fewer benefits than they would under current law.⁵

We estimate that requiring automatic enrollment in IRAs would reduce federal revenues by between \$1.8 billion and \$18.8 billion over 10 years, depending on various factors, most notably whether individuals elect traditional or Roth IRAs. Expanding the Saver's Credit increases the 10-year revenue cost to between \$41.4 billion and \$61.7 billion. Treasury's analysis of the president's budget proposals yielded similar estimates.

The benefits of the Automatic IRA would be spread fairly evenly across the middle three quintiles, with lesser benefits for the top and bottom quintiles. If participation rates are low, about 0.5 percent of taxpayers in the bottom quintile and about 2 percent of individuals in the other four quintiles would get a tax break. After-tax incomes would increase more for taxpayers in the middle three quintiles than for other groups, although the average change in taxes is small for all groups.

The combined distributional effects of the Automatic IRA and the Saver's Credit would be more progressive. Under a high-cost scenario, they would increase after-tax incomes for the bottom four quintiles more than for the top income quintile. Few taxpayers at either end of the income distribution would benefit, although the low-income taxpayers who do benefit would get large tax cuts relative to their incomes.

II. Description of the Proposals

A. The Automatic IRA

There are two types of tax-preferred retirement saving accounts: traditional IRAs and Roth IRAs. Traditional IRAs (also called front-loaded accounts) allow for the deduction of initial contributions and tax-free growth of accrued contributions, but tax distributions in retirement at normal income tax rates. Roth IRAs (also known as

⁵The administration's proposal would increase the matching rate for all contributions to 50 percent and would raise the eligibility thresholds for matching contributions, but would also reduce the maximum contribution eligible for a match. Most taxpayers benefiting from the Saver's Credit would receive a net tax cut under the revised credit, but some would receive a net tax increase because of the lower maximum contribution eligible for a match (i.e., the maximum tax credit would be reduced from \$1,000 to \$500).

backloaded accounts) do not allow for an initial deduction, but do allow tax-free accrual and distribution.⁶ The eligibility rules vary for each type of account, and taxpayers can be eligible for one, both, or neither.⁷

Taxpayers can contribute up to \$5,000 per year toward a traditional or Roth IRA, and an additional \$1,000 in catch-up contributions if they are over age 50. The deductibility of contributions from taxable income depends on whether the taxpayer or the taxpayer's spouse is covered by an employer-provided retirement plan and the income level of the tax unit.⁸ For individuals not covered by an employer-provided retirement plan, the contribution is fully deductible. Single taxpayers with adjusted gross income below \$120,000, or married taxpayers filing jointly with AGI below \$176,000, may make contributions to Roth IRA accounts.⁹

The administration's proposal requires companies to automatically enroll employees in IRA accounts and make automatic contributions to those accounts on behalf of the employee. Companies with more than 10 employees that do not offer a company pension or other form of retirement savings plan would be required to automatically enroll employees in an IRA, except for firms that have been in business less than two years. Employers are not allowed to make matching contributions outside those deducted from an employee's earnings¹⁰; other than administrative costs, automatic enrollment does not represent new pension costs for the employer. Employers would designate a private-sector custodian to administer the accounts and could also allow workers to contribute to an IRA that they already have or choose to open. Contributions would be automatically deducted from workers' payroll.

Default contributions would initially be set at 3 percent of wages, up to the statutory contribution limits for IRAs. Employers would not make investment decisions, but would establish a set of low-fee diversified funds to serve as default investment options. All employees could opt out of the arrangement, change the contribution rate,

or alter the investment strategy from the default option. Usage restrictions and contribution limits on IRAs would remain the same. Finally, all participating employers would receive a tax credit for two years of \$25 per employee, up to a company maximum of \$250, to compensate for the additional administrative costs associated with the proposal.¹¹

B. Savers Credit

The Saver's Credit was enacted in 2001 and made permanent in 2006. It provides a nonrefundable tax credit for contributions to retirement saving accounts, such as 401(k)s or other employer-provided plans, IRAs, and savings incentive match plans for employees. The maximum eligible contribution allowed by the Saver's Credit is \$2,000 per individual, or \$4,000 for married couples filing jointly.

The rate of accrual for tax benefits varies by AGI level. In 2009 married couples with an AGI up to \$33,300 receive a 50 percent credit; couples with an AGI of between \$33,301 and \$36,075 receive a 20 percent credit; and couples with an AGI between \$36,076 and \$55,500 receive a 10 percent credit. The corresponding thresholds for heads of household and single taxpayers are reduced by 25 percent and 50 percent of the married thresholds, respectively. The 50 percent credit corresponds to a 100 percent after-tax match rate, while a 20 percent credit corresponds to a 25 percent after-tax match rate. The 10 percent credit corresponds to just an 11 percent after-tax match rate.¹²

The administration's proposal expands the existing Saver's Credit, making it refundable, simplifying the matching structure, and improving the incentives for making retirement contributions. The reforms would make the incentives for contributing to a retirement account for low- and middle-income taxpayers more comparable to the incentives for upper-income taxpayers.

The administration proposes making the credit fully refundable. Currently the credit is nonrefundable, meaning that it can only reduce income tax liability to zero. For the 65 million taxpayers with no income tax liability, the credit provides little or no incentive to contribute to a retirement account; many more taxpayers receive only a partial benefit because their incentive is greater than their tax liability.

The administration's proposal simplifies the existing three-tier matching structure to a simple 50 percent credit on eligible contributions up to a maximum benefit of \$500 per individual. Thus, a \$1,000 contribution would generate a \$500 benefit for low- and moderate-income

⁶Burman, Gale, and Weiner (2001) compare the benefits of traditional IRAs versus Roth IRAs.

⁷Harris and Geissler (2008) estimate the proportion of taxpayers eligible for each type of account, while Hrungr (2007) explains the choice between traditional and Roth IRAs.

⁸If individuals are enrolled in an employer-provided retirement plan, their allowable deduction is phased out if their adjusted gross income is between \$55,000 and \$65,000. If a married individual is enrolled in an employer-provided plan but the spouse is not, the allowable deduction is phased out for AGI levels between \$89,000 and \$109,000. If a married taxpayer is not enrolled in an employer-provided plan but the spouse is, the allowable deduction is phased out between \$166,000 and \$176,000 AGI. If both spouses are enrolled in employer-provided plans, both allowable deductions are phased out between \$89,000 and \$109,000.

⁹The maximum contribution for single taxpayers phases out between \$105,000 and \$120,000, while the maximum contribution for married taxpayers phases out between \$166,000 and \$176,000.

¹⁰Because IRAs are defined in the tax code as being a personal savings vehicle, employers are prohibited from making a contribution to them.

¹¹Even those firms not required to establish automatic enrollment would receive the employer credit. Our calculations do not consider the modest revenue loss due to this credit.

¹²For example, Gale, Iwry, and Orszag (2005) show that a taxpayer with AGI in a range that would qualify contributions for a 10 percent credit might contribute \$2,000 to an account and receive a \$200 credit. Thus, the \$1,800 after-tax contribution would generate a credit of \$200, or 11 percent (i.e., \$200/\$1,800).

taxpayers. That change in structure increases the maximum potential benefit for some but reduces the maximum potential benefit for others. Also, workers who participate in an Automatic IRA or 401(k)-type retirement savings plan would get their Saver's Credit automatically deposited into their retirement saving account.

The administration's proposal expands the eligibility limits for taxpayers. The eligibility limits for the maximum 50 percent match would rise from \$33,300 to \$65,000 for married couples filing jointly, from \$24,750 to \$48,750 for heads of household, and from \$16,500 to \$32,500 for single taxpayers.¹³ Those limits would change the Saver's Credit from a provision that primarily affected low-income households to one that benefits both low- and middle-income households.

III. Method

The Tax Policy Center (TPC) tax model uses two data sources: the 2004 public use file (PUF) produced by the IRS Statistics of Income Division, and the 2005 Current Population Survey (CPS) of the U.S. Census Bureau. The PUF contains 150,047 income tax records with detailed information from federal individual income tax returns filed in 2004. It provides key data on the level and sources of income and deductions, income tax liability, marginal tax rates, and use of particular credits, but it excludes most information about pensions and IRAs and demographic information such as age. Additional information is mapped onto the PUF through a constrained statistical match with the March 2005 CPS.¹⁴

To model retirement saving incentives, we supplement the PUF and CPS data described above with information from the 2004 Federal Reserve Board of Governors' Survey of Consumer Finances (SCF) and the Survey of Income and Program Participation (SIPP).

Our principal data source for type of pension, pension participation, and contributions by employers and employees is the SCF, a stratified sample of about 4,400 households with detailed data on wealth and savings. The SCF has the best available data on pensions for a broad cross-section of the population, but does not report enough information to determine eligibility for deductible IRA contributions; for this we use data from the SIPP. Also, the SCF contains data that allow us to determine not only which taxpayers participate in defined contribution and IRA accounts, but also which taxpayers

would be eligible for automatic enrollment in defined contribution and IRA accounts.¹⁵

We used the Urban-Brookings TPC microsimulation model to derive the revenue and distributional estimates of the Automatic IRA and Saver's Credit proposals.¹⁶ Because the typical data analyzed by the model have limited information on taxpayer participation in tax-preferred retirement saving vehicles, it is necessary to impute data related to those accounts. We impute data on those taxpayers who are enrolled in employer-sponsored retirement benefits as well as those taxpayers who are eligible for employer-sponsored retirement benefits but do not participate. We use this information to define those taxpayers who will be eligible for enrollment in an IRA through automatic enrollment.¹⁷

Modeling the revenue and distributional effects of the Automatic IRA also requires making assumptions about taxpayer behavior, including the proportion of taxpayers who do not opt out of the IRA after being automatically enrolled, the contribution levels of those workers who remain enrolled, and the proportion of workers who choose a traditional IRA versus a Roth IRA.

Those behavioral assumptions are important factors in the results. The assumption concerning the proportion of taxpayers who do not opt out of automatic enrollment is subject to much uncertainty given the lack of precedent. Other studies (Madrian and Shea 2001) have measured the behavior of individuals after being automatically enrolled in company retirement accounts, and we use those results as a guide.

Madrian and Shea studied the experience of employees at a company that adopted auto enrollment in a 401(k) plan; we adjust the Madrian and Shea estimates to calculate each taxpayer's probability of taking up an Automatic IRA. Lacking observed take-up rates for the Automatic IRA, we opted to estimate the effects of a range of values accounting for the decreased incentives of participating in an IRA relative to a company-provided 401(k). Specifically, we model take-up rates as equaling between 30 percent and 50 percent of the rates calculated by Madrian and Shea.

Previous research serves as a guide for how workers might contribute to an IRA following automatic enrollment (Beshears et al. 2006 and Madrian and Shea 2001).

¹³The amount of contributions eligible for the 50 percent match would be phased out at a 5 percent rate of AGI over these thresholds, indicating that the phaseout range for the match would be \$20,000 over the thresholds for each type of filing status.

¹⁴The statistical match provides important information not reported on tax returns, including measures of earnings for head and spouse separately, their ages, the ages of their children, and transfer payments. The statistical match also generates a sample of individuals who do not file income tax returns (nonfilers). By combining the data set of filers with the data set of estimated nonfilers from the CPS, we can carry out distributional analysis on the entire population rather than just the subset that files individual income tax returns.

¹⁵Burman, Gale, Hall, and Orszag (2004) provide a more complete description of the data and methods used in modeling the revenue and distributional effects of retirement saving accounts.

¹⁶Rohaly, Carasso, and Saleem (2005) provide a complete documentation of the TPC model.

¹⁷We define taxpayers as being eligible for the Automatic IRA if they are not receiving a pension through their employer, are not eligible to contribute to a defined contribution plan through their employer, work at a firm with more than 10 employees, have no SEP or SIMPLE plan, have worked at their current job for at least one year, and will be ineligible for pension benefits if they continue to work for their current employer. This definition closely matches that described in the administration's proposal; data limitations in the SCF made it impossible to exactly match the eligibility definition in the proposal to that used in the modeling.

Prior studies have found that workers frequently contribute the default contribution rate and that high-income workers are the group most likely to contribute more than the default rate. Following that pattern, we assume that all low- and middle-income workers contribute the administration's proposed default contribution rate of 3 percent. In our low-cost scenario, we assume high-income workers also contribute the default rate, while in the high-cost scenario we assume that high-income workers contribute 1.5 times the default rate.

The assumption concerning account-type choice (that is, traditional or Roth IRA) drives the revenue results.¹⁸ Because the revenue cost of a traditional IRA occurs in the year the contribution is made and the revenue costs of a Roth IRA are deferred until retirees withdraw funds tax free, the assumption that most taxpayers contribute to a Roth IRA results in smaller current revenue losses than the assumption that most contributions go into traditional accounts.

Because there is no analogous choice for automatic enrollment in 401(k)s, it is difficult to use prior studies to predict how workers might choose between traditional and Roth IRAs. Because of evidence that workers tend to remain with the default option, we believe that it would largely determine the choice of account type. Unfortunately, the administration did not clarify this point in its proposal, so we elected to present results under two scenarios: one in which 90 percent of automatic enrollees contribute to a Roth IRA and another in which 90 percent contribute to traditional IRAs.

We present results under two alternative baselines. The official baseline assumes current tax law, under which the Bush tax cuts expire in 2011 and the alternative minimum tax reverts to 2001 exemptions. The other baseline, referred to as the "administration baseline," assumes the extension and indexation of the 2009 AMT exemption criteria, the 2009 estate tax law, and the 2001 and 2003 income tax cuts.

IV. Results

We estimate the 10-year revenue losses resulting from the Automatic IRA, without the expansion of the Saver's Credit, to range from \$2 billion for the low-cost estimate under the administration baseline to nearly \$19 billion under high-cost assumptions and the official baseline (see Table 1). Under an administration baseline with low-cost behavioral assumptions, we estimate the Automatic IRA would cost an average of \$200 million annually for a 10-year total of just under \$2 billion. With high-cost behavioral assumptions, that amount drastically increases to a 10-year cost of nearly \$17 billion.

The revenue cost would rise substantially with the expansion of the Saver's Credit. We find the 10-year cost of the Automatic IRA and an expanded Saver's Credit to range between \$43 billion under low-cost behavioral

assumptions and the administration baseline and \$61 billion under high-cost behavioral assumptions and the official baseline.

Two factors primarily affect the 10-year revenue costs of automatic enrollment in IRAs: behavioral assumptions concerning those workers eligible for the Automatic IRA and whether the Saver's Credit is expanded. The most important factor affecting behavioral assumptions is workers' choice between traditional and Roth IRAs. Taxpayers currently contribute to Roth and traditional IRA accounts in roughly equal proportions, but those taxpayers all actively established accounts and are not necessarily a sound predictor of behavior under automatic enrollment.

The importance of account type in revenue estimates is due to the structure of the Roth and traditional IRAs. As described earlier, the revenue impact of a traditional IRA contribution is realized in the current year, while the tax benefit of a Roth IRA is not realized until retirement.¹⁹ Those differing treatments mean that the revenue cost of traditional IRAs is borne upfront, while the lost tax revenue from Roth IRAs is deferred into the future.

Revenue estimates are also sensitive to the take-up rate (that is, the proportion of workers who do not opt out of the plan) and the contribution rate among participants. Our low-cost assumption assumes lower take-up rates and lower contribution rates relative to the high-cost baseline. Both factors affect how much workers contribute to retirement accounts, which in turn affects the aggregate amount of income exempt from taxation.

Including the costs of expanding the Saver's Credit raises the revenue losses substantially but reduces the relative difference between the low-cost and high-cost estimates. Part of the cost increase results from the structure of the Saver's Credit expansion, which makes the credit refundable, increases eligibility thresholds, and indexes the credit amounts. Because the credit targets lower-income individuals who tend to have little or no tax liability, making it refundable increases the effective match rate for participants.

Our \$61.1 billion high-cost revenue estimate is close to the \$59.6 billion estimate from Treasury's Office of Tax Analysis in 2009. Although the administration does not specify the assumptions underlying this estimate, its revenue estimate is consistent with the assumption that most taxpayers take up traditional IRAs rather than Roth IRAs.

The distributional effects are less sensitive to either choice of baseline or behavioral assumptions; the latter because we measure tax benefits on a present-value basis, which equalizes the value of equal after-tax contributions

(Text continued on p. 909.)

¹⁸Distributional results, on the other hand, are much less sensitive to taxpayers' assumed choice of account type. Because the TPC model accounts for the present value of future retirement benefits, the type of IRA taken up by savers has little effect on the distribution of benefits by income.

¹⁹The tax benefit of the initial contribution is only one aspect of the tax benefit for traditional IRAs. Taxpayers using these accounts also benefit from the differential in marginal tax rates between working years and retirement, as well as the nontaxation of accrued account earnings postcontribution. See Toder, Harris, and Lim (2009) for more detail.

Table 1. Automatic IRAs Under Various Assumptions Impact on Tax Revenue (in billions of dollars), 2010-2019^a											
	Fiscal Year										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010- 2019 ^b
Baseline: Current Law^c											
Option 1: Low Revenue Cost Assumptions^d	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-1.9
Option 2: Low Revenue Cost Assumptions, Obama's Saver's Credit Expansion^{d, e}	-2.3	-5.4	-4.8	-4.5	-4.3	-4.2	-4.2	-4.1	-3.9	-3.8	-41.4
Option 3: High Revenue Cost Assumptions^f	-0.6	-1.5	-1.7	-1.9	-2.0	-2.1	-2.1	-2.2	-2.3	-2.4	-18.8
Option 4: High Revenue Cost Assumptions, Obama's Saver's Credit Expansion^{e, f}	-2.9	-7.1	-6.7	-6.6	-6.5	-6.4	-6.5	-6.4	-6.3	-6.3	-61.7
Baseline: Administration's Baseline^g											
Option 5: Low Revenue Cost Assumptions^d	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-1.8
Option 6: Low Revenue Cost Assumptions, Obama's Saver's Credit Expansion^{d, e}	-2.1	-5.2	-5.0	-4.7	-4.5	-4.4	-4.4	-4.3	-4.1	-4.0	-42.8
Option 7: High Revenue Cost Assumptions^f	-0.6	-1.4	-1.5	-1.7	-1.8	-1.9	-1.9	-2.0	-2.1	-2.1	-16.9
Option 8: High Revenue Cost Assumptions, Obama's Saver's Credit Expansion^{e, f}	-2.8	-6.8	-6.7	-6.6	-6.5	-6.4	-6.5	-6.4	-6.3	-6.2	-61.1

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-1).

^aEstimates include a microdynamic behavioral response with an elasticity of taxable income with respect to (1 - marginal rate) of 0.25.

^bNumbers might not add due to rounding.

^cBaseline is current law. Assumes a 40/60 fiscal year split.

^dProposal implements Automatic IRAs and assumes 90 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages and that Automatic IRA take-up rates are 30 percent of those estimated by Madrian and Shea (2001).

^eProposal implements the expansion of the Saver's Credit described in President Obama's FY2010 budget.

^fProposal implements Automatic IRAs and assumes 10 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages for tax units earnings less than \$101,965 and 4.5 percent for those above that threshold. Automatic IRA take-up rates are assumed to be 50 percent of those estimated by Madrian and Shea (2001).

^gBaseline is administration's baseline which extends the 2009 AMT patch and indexes the AMT exemption, rate bracket threshold, and phaseout exemption threshold for inflation; makes the 2001 and 2003 individual income tax cuts permanent and makes 2009 estate tax law permanent. Assumes a 40-60 fiscal year split.

Table 2. Automatic IRAs Under Low Revenue Cost Assumptions
Baseline: Current Law
Distribution of Federal Tax Change by Cash Income Percentile, 2012^a
Summary Table

Cash Income Percentile ^{b, c}	Percent of Tax Units ^d		Percent Change in After-Tax Income ^e	Share of Total Federal Tax Change	Average Federal Tax Change (in dollars)	Average Federal Tax Rate ^f	
	With Tax Cut	With Tax Increase				Change (percentage points)	Under the Proposal
Lowest Quintile	0.5	0.0	0.01	2.2	-1	0.0	5.2
Second Quintile	2.6	0.0	0.02	12.9	-5	0.0	12.3
Middle Quintile	3.5	0.0	0.02	22.0	-9	0.0	18.2
Fourth Quintile	3.8	0.0	0.02	25.9	-13	0.0	21.5
Top Quintile	3.2	0.0	0.01	36.9	-21	0.0	28.2
All	2.5	0.0	0.01	100.0	-8	0.0	23.4
Addendum							
80-90	3.4	0.0	0.02	14.8	-17	0.0	24.6
90-95	3.1	0.0	0.01	8.4	-19	0.0	25.7
95-99	2.7	0.0	0.01	8.8	-25	0.0	27.7
Top 1 Percent	2.8	0.0	0.00	4.9	-54	0.0	32.7
Top 0.1 Percent	2.5	0.0	0.00	0.6	-69	0.0	35.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-2).

^aCalendar year. Baseline is current law. Proposal implements Automatic IRAs and assumes 90 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages and that Automatic IRA take-up rates are 30 percent of those estimated by Madrian and Shea (2001).

^bTax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>.

^cThe cash income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2009 dollars): 20% \$19,429, 40% \$37,634, 60% \$65,903, 80% \$112,079, 90% \$162,348, 95% \$227,254, 99% \$601,435, 99.9% \$2,737,383.

^dIncludes both filing and nonfiling units but excludes those that are dependents of other tax units.

^eAfter-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

^fAverage federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

to a Roth or traditional IRA. However, including the expansion of the Saver’s Credit in our simulation alters the distributional effects substantially.

The patterns of the distributional effects in the various scenarios are attributable to several factors. Without the expansion of the Saver’s Credit, automatic enrollment would direct benefits toward middle-income taxpayers. Higher-income taxpayers tend to benefit more from automatic enrollment because they are expected to accrue higher contributions because of their higher wage levels, although this effect is limited by contribution limits. High-income taxpayers also benefit more for each dollar contributed, because wealthier taxpayers tend to have higher marginal tax rates. Those effects are somewhat mitigated by the existing Saver’s Credit, which rewards contributions by low-income taxpayers with a partial match. The net effect of those combined factors would be a regressive policy that benefits middle- and upper-income taxpayers more relative to those at the bottom.²⁰

Combining the Automatic IRA with expansion of the Saver’s Credit would reverse those effects. High-income taxpayers would receive nothing from the expansion of the Saver’s Credit, while middle-income taxpayers would generally benefit from the credit expansion’s higher eligibility limits and higher matching rates. A relatively small proportion of taxpayers in the lowest income quintile would gain from the policy, although their after-tax increase would be greater than for the top quintile.

The take-up rates for the Automatic IRA are assumed to be identical, whether or not we include expansion of the Saver’s Credit. Expanding the Saver’s Credit would both magnify the effect of automatic enrollment for middle-income taxpayers and generate other benefits for

relative to the top quintile; this result was driven by the already high 401(k) participation rates among higher-income workers. Thus, the incremental effect of the auto 401(k) was limited for the group that already had high rates of participation, although the participation effect was balanced against the increased benefit for high-income taxpayers because of their higher marginal tax rate. The increased participation effect is mitigated in the Automatic IRA proposal because we assume take-up rates equal to 30 percent to 50 percent of those under an auto 401(k).

²⁰These results differ slightly from the results obtained by research for automatic enrollment in 401(k)s. Geissler and Harris (2009) found that under the automatic 401(k), the bottom four quintiles experienced greater increases in after-tax income (Footnote continued in next column.)

**Table 3. President Obama's Saver's Credit Expansion
Automatic IRAs Under High Revenue Cost Assumptions
Baseline: Current Law
Distribution of Federal Tax Change by Cash Income Percentile, 2012^a
Summary Table**

Cash Income Percentile ^{b, c}	Percent of Tax Units ^d		Percent Change in After-Tax Income ^e	Share of Total Federal Tax Change	Average Federal Tax Change (in dollars)	Average Federal Tax Rate ^f	
	With Tax Cut	With Tax Increase				Change (percentage points)	Under the Proposal
Lowest Quintile	6.7	0.5	0.11	6.6	-12	-0.1	5.1
Second Quintile	18.1	1.4	0.17	20.3	-42	-0.2	12.1
Middle Quintile	23.7	0.6	0.17	30.9	-71	-0.1	18.0
Fourth Quintile	19.7	0.1	0.10	26.6	-73	-0.1	21.4
Top Quintile	5.9	0.0	0.02	15.3	-48	0.0	28.2
All	14.7	0.6	0.08	100.0	-46	-0.1	23.4
Addendum							
80-90	6.4	0.0	0.03	5.7	-35	0.0	24.6
90-95	6.0	0.1	0.03	3.8	-48	0.0	25.7
95-99	4.8	0.0	0.02	3.9	-62	0.0	27.7
Top 1 Percent	5.4	0.0	0.01	1.8	-111	0.0	32.7
Top 0.1 Percent	4.8	0.0	0.00	0.2	-130	0.0	35.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-2).

^aCalendar year. Baseline is current law. Proposal implements the expansion of the Saver's Credit described in President Obama's FY2010 budget. It creates Automatic IRAs and assumes 10 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages for tax units earnings less than \$101,965 and 4.5 percent for those above that threshold. Automatic IRA take-up rates are assumed to be 50 percent of those estimated by Madrian and Shea (2001).

^bTax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>.

^cThe cash income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2009 dollars): 20% \$19,429, 40% \$37,634, 60% \$65,903, 80% \$112,079, 90% \$162,348, 95% \$227,254, 99% \$601,435, 99.9% \$2,737,383.

^dIncludes both filing and nonfiling units but excludes those that are dependents of other tax units.

^eAfter-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

^fAverage federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

those taxpayers who would have contributed to a retirement account even without auto enrollment. Some taxpayers would be net losers under these policies because the expanded Saver's Credit would reduce their maximum tax credit, but the effect would be modest.

When modeling automatic enrollment without the Saver's Credit expansion, we estimate about 3 percent of the taxpayers in the top four quintiles would receive a tax cut, while only 0.5 percent of taxpayers in the bottom quintile would benefit from this policy (see Table 2). The gain in after-tax income — our preferred measure of a tax reform's progressivity — would be twice as high for the middle three quintiles (at 0.02 percent) than for those in the top and bottom quintiles, whose after-tax income would increase by only 0.01 percent. Among taxpayers who would receive a tax cut, those in the bottom quintile would gain on average about 2 percent of after-tax income, while taxpayers with a tax cut in the middle-income quintiles would gain an average of about 0.5 percent in after-tax income. Thus, while lower-income taxpayers are less likely to benefit, their relative benefit is greater once enrolled in an IRA.

Combining automatic enrollment and the Saver's Credit expansion would benefit about 1 in 5 middle-

income taxpayers while increasing taxes for about 1 percent of this group (see Table 3). In contrast, only about 1 in 20 people in the lowest- and highest-income quintile would receive a tax cut. The average changes in after-tax income are similar across the bottom four income groups, ranging from 0.10 percent to 0.17 percent, and are almost zero for the top income group. Those patterns indicate that the combination of automatic enrollment and expansion of the Saver's Credit is a modestly progressive reform.

While the average gains under a scenario that includes the Automatic IRA and the Saver's Credit expansion are larger than one that includes only the Automatic IRA, both scenarios produce relatively small gains compared with other tax reforms. However, for the 15 percent of tax units that would benefit from the Automatic IRA and expansion of the Saver's Credit, the gains can be significant.

V. Conclusion

In this report we model the revenue and distributional effects of a policy that would require most firms without pension plans to automatically enroll workers in IRAs.

We also model the effects of a scenario that implements this policy in conjunction with an expansion of the Saver's Credit.

We find the revenue costs of the Automatic IRA would be modest relative to the combined sum of tax expenditures for retirement saving. Expanding the Saver's Credit while implementing automatic enrollment in IRAs would raise the revenue cost substantially. Our results indicate that the benefits of these policies are mostly evenly distributed among taxpayers. A policy that implements automatic enrollment without expanding the Saver's Credit primarily benefits taxpayers in the middle three quintiles, while adding the Saver's Credit expansion distributes the benefits primarily to the bottom four quintiles. In general, these policies appear to create better saving incentives among a significant portion of the middle class, but affect few taxpayers at the very bottom of the income distribution.

When measuring the cost of the Automatic IRA in isolation, we find the lost revenue would amount to between \$1.9 billion and \$18.8 billion over 10 years under current law and between \$1.8 billion to \$16.9 billion under the administration baseline. When the revenue effect of the Saver's Credit is measured concurrently with the Automatic IRA, we find lost revenue would amount to between \$41.4 billion and \$61.7 billion under current law and between \$42.8 billion to \$61.1 billion under the administration baseline. The upper-bounds of these estimates are similar to those produced by the Treasury Department in its analysis of the president's budget proposals.

Looking at the distributional effects of the Automatic IRA in isolation, we find the benefits of the provisions would be evenly distributed across the middle three quintiles, with less benefit for those at the top and bottom of the distribution. In the scenario in which we assume low participation rates and the current-law baseline, we find that about 3 percent of individuals in all but the bottom quintile would get a tax break, while only about 0.5 percent of taxpayers in the bottom quintile would receive a reduction in taxes. After-tax incomes increase more for the taxpayers in the middle three quintiles relative to other groups, although the average change in taxes is small for all groups.

If the effects of automatic enrollment are considered in conjunction with the modification of the Saver's Credit, the distributional effects would be more progressive. Under the high-cost scenario, we find that the policies would increase after-tax incomes for the bottom four quintiles more than for the top income quintile. We also find that relatively few taxpayers at the extremes of the income distribution would benefit from these policies, although the low-income taxpayers who do benefit would receive a substantial reduction in taxes.

These calculations have a high level of uncertainty, including the proportion of workers who opt not to contribute to a plan, the contribution rates of those who do participate, and the extent to which workers choose backloaded- versus front-loaded-type plans. Decisions about whether to analyze the effect of the plan in conjunction with the proposed expansion of the Saver's Credit and whether to measure the effects of the policy versus a current-law baseline or a current-policy baseline

complicate the analysis even more. As more research sheds light on the behavioral effects of automatic enrollment, we expect to gain precision in our estimates of the policies examined in this report.

This report does not address several potential pitfalls of the Automatic IRA. One, the administrative costs associated with managing an IRA account can be substantial, and some private-sector firms may be reluctant to serve as custodians for accounts with low balances. Two, small businesses may protest if the administrative costs of implementing the Automatic IRA significantly exceed the modest tax credit offered under the administration's proposal. Three, it is unclear how the administration's plan would handle those employees who have already established IRA accounts; some workers would have multiple accounts established if they did not opt out of the plan. Four, as discussed in this report, it is unclear how the administration's proposal would handle the designation of Roth or traditional IRAs as the default account type.

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(Appendix Tables begin on next page.)

Appendix Table 1. Automatic IRAs Under Low Revenue Cost Assumptions
Baseline: Current Law
Distribution of Federal Tax Change by Cash Income Level, 2012^a
Summary Table

Cash Income Level (thousands of 2009 dollars) ^b	Percent of Tax Units ^c		Percent Change in After-Tax Income ^d	Share of Total Federal Tax Change	Average Federal Tax Change (in dollars)	Average Federal Tax Rate ^e	
	With Tax Cut	With Tax Increase				Change (percentage points)	Under the Proposal
Less than 10	0.0	0.0	0.00	0.0	0	0.0	5.4
10-20	0.8	0.0	0.01	2.4	-1	0.0	5.4
20-30	2.5	0.0	0.02	7.5	-5	0.0	10.7
30-40	2.9	0.0	0.02	7.5	-6	0.0	14.9
40-50	3.8	0.0	0.02	8.5	-9	0.0	17.3
50-75	3.3	0.0	0.02	17.0	-10	0.0	19.4
75-100	3.8	0.0	0.02	14.2	-13	0.0	21.4
100-200	3.5	0.0	0.02	27.1	-17	0.0	24.5
200-500	2.9	0.0	0.01	10.1	-22	0.0	27.3
500-1,000	2.6	0.0	0.01	3.1	-39	0.0	28.5
More than 1,000	2.7	0.0	0.00	2.6	-63	0.0	33.8
All	2.5	0.0	0.01	100.0	-8	0.0	23.4

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-2).

^aCalendar year. Baseline is current law. Proposal implements Automatic IRAs and assumes 90 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages and that Automatic IRA take-up rates are 30 percent of those estimated by Madrian and Shea (2001).

^bTax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>.

^cIncludes both filing and nonfiling units but excludes those that are dependents of other tax units.

^dAfter-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

^eAverage federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

**Appendix Table 2. President Obama's Saver's Credit Expansion
Automatic IRAs Under High Revenue Cost Assumptions
Baseline: Current Law
Distribution of Federal Tax Change by Cash Income Level, 2012^a
Summary Table**

Cash Income Level (thousands of 2009 dollars) ^b	Percent of Tax Units ^c		Percent Change in After-Tax Income ^d	Share of Total Federal Tax Change	Average Federal Tax Change (in dollars)	Average Federal Tax Rate ^e	
	With Tax Cut	With Tax Increase				Change (percentage points)	Under the Proposal
Less than 10	4.4	0.0	0.12	1.4	-6	-0.1	5.3
10-20	8.2	0.9	0.11	5.5	-16	-0.1	5.3
20-30	15.9	1.1	0.16	11.0	-38	-0.2	10.6
30-40	22.8	1.6	0.17	11.9	-54	-0.2	14.7
40-50	23.3	0.9	0.16	10.7	-61	-0.1	17.2
50-75	25.2	0.3	0.18	28.9	-93	-0.2	19.3
75-100	19.2	0.1	0.09	12.5	-63	-0.1	21.4
100-200	7.1	0.0	0.04	10.9	-38	0.0	24.5
200-500	5.0	0.1	0.03	4.7	-57	0.0	27.3
500-1,000	5.6	0.0	0.02	1.4	-93	0.0	28.5
More than 1,000	4.8	0.0	0.01	0.9	-119	0.0	33.8
All	14.7	0.6	0.08	100.0	-46	-0.1	23.4

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0509-2).

^aCalendar year. Baseline is current law. Proposal implements the expansion of the Saver's Credit described in President Obama's FY2010 budget. It creates Automatic IRAs and assumes 10 percent of those eligible for both Roth and traditional IRAs take up Roth IRAs. Estimates assume that contributions to automatic plans are 3 percent of wages for tax units earnings less than \$101,965 and 4.5 percent for those above that threshold. Automatic IRA take-up rates are assumed to be 50 percent of those estimated by Madrian and Shea (2001).

^bTax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>.

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^eAverage federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.