

POLICYNOTE

RETIREMENT SAVINGS TAX EXPENDITURES:
THE NEED FOR REFUNDABLE TAX CREDITS

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ELEVATOR PITCH

Despite spending \$100 billion a year in retirement tax breaks, the U.S. faces a retirement income security crisis. Though federal tax breaks for 401(k) plans and IRA plans are known to be ineffective and regressive, until now no one has documented the nearly \$20 billion states spend on the same ineffective tax breaks. If federal and state tax deferrals for retirement accounts were transformed to refundable tax credits and deposited into Guaranteed Retirement Accounts, every worker would have an average of over \$647 per year in retirement savings from the federal government, with an additional \$172 going to those who live in states with income taxes.

KEY FINDINGS

- In 2014, the U.S. spent \$100 billion on tax breaks for contributions to qualified retirement savings plans, while 47% of American workers between the ages of 25 and 64 do not have a retirement plan at work.
- The cost of federal tax breaks totaled \$94.6 billion in 2014.
- The cost of the same tax breaks at the state level was approximately \$20 billion in 2014 – 20% of total government subsidies for retirement contributions.
- Transforming federal and state tax deferrals into refundable tax credits would provide workers with \$819 to deposit in Guaranteed Retirement Accounts.
- The federal credit would provide 87.8 million U.S. workers with over \$647 each in retirement savings.
- The state credit would provide almost 115.8 million workers living in states with an income tax on earnings an additional \$172.

Table 1: Federal Retirement Tax Expenditures 2014-2018 (\$ Billions)

Function	2014	2015	2016	2017	2018	Total
Keogh Plans	5.8	8.7	10.0	11.4	16.2	52.1
DB Plans	26.0	41.3	50.4	61.2	69.4	248.3
DC Plans	44.9	62.3	81.2	98.9	111.7	399.0
Traditional IRAs	11.8	12.8	13.9	15.0	16.0	69.5
Roth IRAs	4.9	5.5	6.1	6.6	7.2	30.3
Special Credits	1.2	1.2	1.2	1.2	1.2	6.0
Total	94.6	131.8	162.8	194.3	221.7	805.1

Source: U.S. Joint Committee on Taxation (2014)

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THE RETIREMENT CRISIS AND WASTED TAX BREAKS

Over one quarter of people nearing retirement-workers ages 50 to 64 - do not have a pension, 401(k)-type plan or an Individual Retirement Account (IRA). Additionally, the median value of all retirement accounts is \$12,000 for older workers (Ghilarducci, Saad-Lessler, and Radpour 2015). This inadequacy in retirement savings exists despite \$100 billion in annual government subsidies designed to encourage people to save for retirement.

In 2014, federal tax breaks for contributions to and earnings on qualified retirement plans totaled \$94.6 billion to \$137 billion, depending on methodology. While these tax breaks have been widely criticized as ineffective and regressive

(Government Accountability Office, 2005; Steuerele et al 2014), there is little attention paid to the same flawed tax breaks that states provide. This report documents, for the first time, the cost of states' tax expenditures for contributions to qualified retirement savings plans. Using a conservative methodology, states lost almost \$20 billion in 2014 in revenues to pay for retirement savings tax deferrals.

This study concludes that replacing both federal and state tax deferrals with refundable tax credits would provide progressive and effective retirement savings subsidies to all working Americans.

TAX EXPENDITURES

Tax expenditures are designed to promote social goals and implemented through the tax code in the form of tax exclusions and deferrals.¹ However, they are similar to direct spending programs in that they represent revenue losses to federal or state treasuries. They are also a form of entitlement spending because the expenditure is triggered not by an act of Congress, but by the claim of taxpayers after participating in the designated activity (Batchelder, Goldberg, and Orzag 2006).

Unlike direct government spending, these parts of the tax code are immune from "sunset provisions" that automatically terminate government spending unless extended through a process of legislative oversight and action. For these reasons, experts criticize tax expenditures for allowing government spending without scrutiny and evaluation (Government Accountability Office 2005; Gandhi 2010).²

TAX EXPENDITURES FOR RETIREMENT

Federal and state governments have long used their income tax systems to induce workers and employers to save for retirement by allowing employees to defer taxes on employer and employee contributions to qualified retirement accounts until savings are withdrawn.³ This includes defined benefit (DB) plans, 401(k), 403(b), Individual Retirement Accounts (IRAs), and Keogh retirement plans as well as income earned on retirement assets.

For example, a worker earning \$2,000 a month has a marginal tax rate of 10 percent, pays a \$200 tax bill, and has \$1,800 remaining in after-tax income. But if this worker contributes \$200 to a 401(k), her taxable income is \$1,800 and she owes \$180 in taxes. She will have less after-tax income

- \$1,620 versus \$1,800 - but she now has \$200 in a retirement account and saved \$20 on her tax bill. Tax is not paid on the investment gains in the account during accrual. When she withdraws the savings - presumably when retired and paying a lower tax rate⁴ - she will pay less in taxes.

The higher the worker's current tax rate and the more the worker saves in a tax deferred retirement savings account, the greater the subsidy from deferring taxes on retirement savings.

FEDERAL RETIREMENT TAX EXPENDITURES

Retirement tax expenditures are the second-largest federal expenditure. In 2014, federal retirement plan tax expenditures were \$94.6 billion, according to the most conservative estimation from the Joint Economic Committee. This includes \$44 billion for defined contribution (DC) plans, with 401(k)-type plans making up the largest share, and \$26 billion for DB plans.⁵ These expenses are projected to increase to \$222.1 billion in 2018, for a total of \$805.1 billion over five years (see Table 1).

STATE RETIREMENT TAX EXPENDITURES

States often offer federal tax expenditures for administrative simplicity, allowing their residents to claim federal tax breaks on state taxes in a practice called "implicit tax expenditures" (Leachman et al 2011).

Since tax expenditures are not subject to states' annual budget process, reliable estimates on state retirement expenditures are inconsistent or nonexistent. Therefore, many governors, treasurers, and legislators are likely unaware of the financial toll resulting from allowing residents to claim the federal tax breaks on their state taxes as well.

Table 2: Retirement Tax Expenditures (2014)

State	Total Tax Retirement Account Expenditure
US (federal)	\$94,600,000,000
All States	\$19,910,797,336
Alabama	\$112,785,823
Arizona	\$121,002,756
Arkansas	\$51,800,446
California	\$5,170,000,000
Colorado	\$209,132,532
Connecticut	\$205,397,511
Delaware	\$35,398,530
Georgia	\$711,000,000
Hawaii	\$80,737,496
Idaho	\$45,988,492
Illinois	\$498,959,734
Indiana	\$152,352,803
Iowa	\$520,000,000
Kansas	\$78,363,652
Kentucky	\$539,000,000
Louisiana	\$92,289,333
Maine	\$162,000,000
Maryland	\$293,558,700
Massachusetts	\$1,060,000,000
Michigan	\$946,000,000
Minnesota	\$881,000,000
Mississippi	\$48,414,308
Missouri	\$151,229,468
Montana	\$159,000,000
Nebraska	\$114,446,275
New Jersey	\$350,615,243
New Mexico	\$32,187,460
New York	\$2,826,000,000
North Carolina	\$914,000,000
North Dakota	\$15,627,995
Ohio	\$256,043,750
Oklahoma	\$63,555,342
Oregon	\$411,000,000
Pennsylvania	\$1,100,300,000
Rhode Island	\$41,846,348
South Carolina	\$121,189,494
Utah	\$92,421,733
Vermont	\$37,829,036
Virginia	\$303,532,120
West Virginia	\$47,690,959
Wisconsin	\$730,100,000
District of Columbia	\$127,000,000

Source: SCEPA calculations based on individual state tax expenditure reports and developed estimates. See appendix for details.

Forty-one states and the District of Columbia (DC) have an income tax on earnings, but only 14 states and DC report usable tax expenditures from favorable treatment of retirement accounts. We estimate state expenditures on tax-deferred retirement accounts for the remaining 27 states (see Appendix for methodology).

Extending federal tax breaks for contributions to retirement savings accounts costs states approximately \$20 billion in revenue each year. In 2014, states with the highest costs included the largest states: California (\$5 billion), followed by New York (\$2.8 billion), Pennsylvania (\$1.1 billion) and Massachusetts (\$1.06 billion).

THE PROBLEM: RETIREMENT TAX EXPENDITURES ARE INEFFECTIVE AND REGRESSIVE

While retirement savings tax subsidies aim to cajole individuals into saving for retirement, evidence suggests tax deferrals and deductions for retirement plans do not boost retirement savings (Chetty et al 2013; GAO 2005; Attanasio et al 2002; Gale et al 1994). For example, rather than saving more, higher-income families shift assets from taxable accounts to tax-exempt retirement accounts to lower their tax bill (Chetty et al 2012).

Moreover, low- and middle-income families – those most in need of government subsidies – receive proportionately smaller retirement subsidies for several reasons. Higher-income tax payers are in higher tax brackets (Gale et al 2004), have more access to retirement accounts, and save more in accounts when they have them. Compounding the regressivity created by the deferral and the progressive tax code is that higher income taxpayers not only save more for every dollar they earn, they also earn higher returns due to better advice, lower investment fees, and earning rates of return on a larger proportion of tax savings

(assuming the tax break is plowed back into the favored account) (Ghilarducci and Hayes 2015). In addition, employees in high-income occupations, such as finance, insurance, and real estate (Saad-Lessler, Ghilarducci, Bahn 2015)⁶ have more access to retirement plans. On average, almost half (47 percent) of American workers between the ages of 25 and 64 do not have a retirement plan at work, and uncovered workers are more likely to be lower- and middle-income.

On balance, the bottom 40 percent of the income distribution receives only 3 percent of the benefits from retirement tax expenditures (Batchelder, Goldberg, and Orzag 2006). Similarly, over 60 percent of retirement tax subsidies go to the top 20 percent of taxpayers (Steuerle et al 2014).

Leaders in both political parties have called for regular and systematic evaluations of tax expenditures, indicating a widespread suspicion that they are inefficient, ineffective, and unfair.⁷

THE SOLUTION: REFUNDABLE TAX CREDITS DEPOSITED IN GUARANTEED RETIREMENT ACCOUNTS

Federal and state governments direct \$100 billion to \$140 billion (with the range dependent on methodology used to estimate the revenue losses) of public resources to incentivize savings by mostly higher-income individuals who are likely to save for retirement without government subsidies while workers with modest incomes risk poverty and near poverty in old age due to inadequate retirement savings. State and federal governments are likely to spend more in the future serving struggling older Americans, in part due to these ineffective tax breaks.

The failure of these tax expenditures stems from using tax deferrals to foster retirement savings. Fortunately, a simple, revenue-neutral solution – switching the tax deferral to a refundable tax credit – would provide each saver with a tax credit deposited into a retirement account. An efficient option would be a secure plan that builds on Social Security, such as a Guaranteed Retirement Account (GRA) (see Ghilarducci, Hiltonsmith, Schmitz 2012).

Transforming the deferral to a refundable tax credit would allow federal and state governments to meet their social policy goal of increasing individuals' retirement savings. First, this would give taxpayers a return on the public investment made in retirement savings (Chetty et al 2012). Second, a refundable tax credit targets those needing help the most, unlike tax deductions that increase with a taxpayer's marginal tax rate and end up providing more subsidy to those in less need (Toder and Baneman 2012).

Using the most conservative estimates, if retirement tax deferrals had been converted to refundable credits in 2014, workers would have received up to \$819 each: the sum of the federal tax expenditure per worker (\$647) and the state tax expenditure per worker (\$172). Nationally, 87.8 million workers without access to a retirement plan would have received \$647 from the federal government. At the state level, 115.8 million workers not participating in a retirement plan and

Table 3: Number of Beneficiaries from Refundable Tax Credits (2014)

State	Workers without Access to an Employer Retirement Account
US (National)	87,783,000
Alabama	1,161,452
Arizona	1,882,631
Arkansas	796,525
California	11,051,443
Colorado	1,548,600
Connecticut	975,150
Delaware	251,340
Georgia	2,587,337
Hawaii	347,076
Idaho	452,855
Illinois	3,521,499
Indiana	1,711,644
Iowa	880,627
Kansas	818,203
Kentucky	1,150,307
Louisiana	1,311,329
Maine	388,252
Maryland	1,528,903
Massachusetts	1,871,068
Michigan	2,617,841
Minnesota	1,509,685
Mississippi	728,207
Missouri	1,690,669
Montana	311,404
Nebraska	578,024
New Jersey	2,433,660
New Mexico	612,203
New York	5,307,365
North Carolina	2,747,885
North Dakota	231,292
Ohio	3,159,542
Oklahoma	1,048,392
Oregon	1,088,922
Pennsylvania	3,358,076
Rhode Island	291,700
South Carolina	1,223,594
Utah	846,416
Vermont	199,230
Virginia	2,213,049
West Virginia	398,006
Wisconsin	1,588,315
District of Columbia	175,737

Source: SCEPA analysis of retirement plan coverage from March 2013 Current Population Survey (CPS), the latest year for which we have participation data available.

living in states with an income tax would have received an additional \$172 on average from the state credit (see Tables 3 and 7A).

Below are examples of how the refundable tax credit would help workers save for retirement. If \$800 were automatically deposited in each worker's GRA every year starting at age 25, the retirement account balance would be over \$67,000 when he or she reaches 65 years old.⁸

In New York, an individual would receive a combined state and federal refundable tax credit of \$963 (see Appendix Table 7A). This credit would be directly deposited into the worker's GRA each year. If the process of reinvestment is fast-forwarded based on 40 years of employment with an assumed annualized rate of return of 2 percent, the average

worker in New York without access to a retirement plan at work will have saved approximately \$58,167 by 2054. Note this figure is higher than \$39,584, the median account balance of today's near retiree with access to a defined contribution retirement plan at work (Saad-Lessler, Ghilarducci, Bahn 2015).

In California, a worker would have a combined federal and state refundable tax credit of \$946. Again, if we fast-forward the same annual reinvestment process for 40 years and with a more optimistic annual return of 5 percent, the average worker in the state who starts with zero savings will have accumulated approximately \$114,277 by 2054. This exercise can be done for each of the 42 states (including the District of Columbia) with an income tax.⁹

POLICY RECOMMENDATION

Federal and state tax expenditures are inefficient and ineffective. We recommend a uniform refundable tax credit as part of comprehensive retirement savings reform. All workers should be able to accumulate retirement assets in a low-cost, safe account that pays an annuity at retirement, such as a GRA. Workers and the

government would fund GRAs through retirement tax credits that are automatically deposited into workers' retirement savings accounts (Ghilarducci, Schmitz, Hiltonsmith 2012). These changes would be revenue-neutral for states and the federal government, entail no extra cost for employers, and increase retirement security for all workers.

APPENDIX

The federal tax expenditure report (FY 2014-2018) prepared by the staff of the Joint Committee on Taxation (JCT) is the study’s baseline for categorizing and calculating state retirement tax expenditures. The JCT report relies on provisions in federal tax law enacted through June 30, 2014, and a tax expenditure is measured by the difference between tax liability under present law and the tax liability that would result if the tax expenditure provision were repealed and taxpayers were allowed to take advantage of any of the remaining tax expenditure provisions that apply to the income or the expenses associated with the repealed tax expenditure.

The U.S. Department of the Treasury’s Office of Management of the Budget (OMB) uses different assumptions and methodology which makes OMB estimates larger than the JCT’s (\$146.4 billion versus \$94.6 billion). The difference between OMB and the JCT retirement tax expenditure estimates are explained in JCT report under the heading “Comparisons with Treasury.”

The OMB report also publishes discounted present-value estimates that more accurately reflect the economic cost of the provisions because they take into account the future tax receipts when the pensions are withdrawn. The present-value OMB estimate is \$101.3 billion, which represents the revenue effects, net of future tax payments, which follow from activities undertaken during calendar year 2014 which cause the deferrals. For example, a pension contribution in 2014 would cause a deferral of tax payments on

wages in 2014 and on pension fund earnings on this contribution in later years. But in some future year, the 2014 pension contribution and accrued earnings will be paid out and taxes will be due. These receipts are included in the \$101.3 billion estimate.

This report uses the conservative JCT \$94.6 billion estimate because individual state tax expenditure reports that exist provide cash-based, not present-value, estimates. And since the JCT methodology yields lower estimates than the OMB cash-based and the present-value estimates our report may underestimate the true cost of retirement tax expenditures in calendar year 2014.

Retirement tax expenditures in the JCT report fall under three main categories:

- Net exclusion of pension contributions and earnings
 1. Plans covering partners and sole proprietors (e.g., Keogh plans)
 2. Defined-benefit plans
 3. Defined-contribution plans
- Individual retirement arrangements
 1. Traditional IRAs
 2. Roth IRAs
- Credit for certain individuals for elective deferrals and IRA contributions (we describe this category as “Special Credits” in the brief).

A. DERIVING ESTIMATES FOR STATES THAT PUBLISH TAX EXPENDITURE REPORTS

The estimates of retirement tax expenditures per state are derived from individual state tax expenditure reports. Only 41 states and the District

of Columbia collect an income tax on earnings (see Table 1A).

Alabama	Idaho	Massachusetts	New York	Utah
Arizona	Illinois	Michigan	North Carolina	Vermont
Arkansas	Indiana	Minnesota	North Dakota	Virginia
California	Iowa	Mississippi	Ohio	West Virginia
Colorado	Kansas	Missouri	Oklahoma	Wisconsin
Connecticut	Kentucky	Montana	Oregon	District of Columbia
Delaware	Louisiana	Nebraska	Pennsylvania	
Georgia	Maine	New Jersey	Rhode Island	
Hawaii	Maryland	New Mexico	South Carolina	

Source: U.S. Census Bureau. 2015. “The Annual Survey of State Government Tax Collections (STC) provides a summary of taxes collected by state for 5 broad tax categories and up to 25 tax subcategories. These tables and data files present the details on tax collections by type of tax imposed and collected by state governments.” Access June 20, 2014 <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

Thirty-eight of the states that collect an income tax and the District of Columbia publish a tax expenditure report. Of these, only 18 estimate the cost of the tax preference for tax-qualified retirement accounts including California, District of Columbia, Georgia, Montana, Iowa, Kansas, Pennsylvania, Kentucky, Rhode Island, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New York, North Carolina, Oregon, Wisconsin. We do not use the estimates published by Kansas,

Mississippi and Rhode Island because their parameters differ substantially from those of other states: Kansas does not publish estimates for net exclusions of private pension contributions and earnings; Mississippi does not provide estimates for contributions to employee

pension plans; and Rhode Island does not indicate it includes deferred earnings from retirement plans and contributions to public pensions or private defined benefit plans.

Note that this does not mean that all of the 15 states in Table 2A provide complete estimates of retirement tax expenditures in their reports. Each state provides distinct categories that are not always comparable.

For example, Pennsylvania only provides estimates for retirement contributions by employers. Massachusetts provides estimates for deferrals of employee contributions to public pension plans but as part of the total listed under the category of "Deduction for Employee Social Security and Railroad Retirement Payments." A combined estimate would overstate the total retirement tax expenditure for the state. Overall, we erred on the side of underreporting where we have had to make a judgment.

There are no obvious differences - in terms of size, region, or political affiliation - between the 18 states that publish their retirement tax expenditures, the 21 states with tax expenditure reports that do not include retirement tax expenditures, and the three states that do not publish tax expenditure reports.

Further study would need to determine if perhaps the 18 states that publish reports of cost estimates are more sophisticated, careful, transparent, or exhibit other characteristics of good government.

Table 2A: States with Reliable Retirement Tax Expenditure Estimates	
California	Montana
Georgia	New York
Iowa	North Carolina
Kentucky	Oregon
Maine	Pennsylvania
Massachusetts	Wisconsin
Michigan	District of Columbia
Minnesota	

Source: SCEPA evaluation

B. ESTIMATING RETIREMENT TAX EXPENDITURE FOR STATES THAT DO NOT PUBLISH ESTIMATES

The majority of states do not report lost revenue from favoring activities in the tax code. In this section, we provide estimates of the 27 states that collect an income tax, but do not publish reliable estimates. We follow the methodology used by Schmitz and Ghilarducci (2012).

We start by estimating the average contribution a typical worker would make to their 401(k), IRA, or Keogh plan (see Table 3A). We assume that the average employee contributes 6 percent of their salary (Munnell and Sundén 2004) and the average employer contributes 2.1 percent (Wray 2010).

In Table 4A, estimated average contributions are multiplied by the 2014 median statutory tax rate for each state to estimate tax expenditure per worker.

Given that contributions to retirement plans increase considerably for workers in the top income-tax brackets, our estimates generally underestimate the retirement tax expenditure per worker in most states with the use of the median tax rate. This is confirmed by the fact that only five states in our calculation yield estimates higher than what we find in their tax expenditure reports.¹⁰

In Table 5A, total retirement tax expenditures per state are approximated by multiplying the retirement tax expenditure per worker in each state by the fraction of workers in the state who participate in an employer-sponsored retirement plan and the total number of workers in 2014.

Table 3A: Estimated Average Contribution per Worker (2014)

State	Annual Mean Wage	Estimated Employee Contribution	Estimated Employer Contribution	Estimated Contribution per Worker*
Alabama	\$40,879	6.0%	2.1%	\$3,311
Arizona	\$45,075	6.0%	2.1%	\$3,651
Arkansas	\$37,933	6.0%	2.1%	\$3,073
Colorado	\$49,727	6.0%	2.1%	\$4,028
Connecticut	\$55,274	6.0%	2.1%	\$4,477
Delaware	\$50,042	6.0%	2.1%	\$4,053
Hawaii	\$46,141	6.0%	2.1%	\$3,737
Idaho	\$39,457	6.0%	2.1%	\$3,196
Illinois	\$48,437	6.0%	2.1%	\$3,923
Indiana	\$41,428	6.0%	2.1%	\$3,356
Kansas	\$41,895	6.0%	2.1%	\$3,393
Louisiana	\$40,137	6.0%	2.1%	\$3,251
Maryland	\$53,689	6.0%	2.1%	\$4,349
Mississippi	\$36,643	6.0%	2.1%	\$2,968
Missouri	\$42,687	6.0%	2.1%	\$3,458
Nebraska	\$40,849	6.0%	2.1%	\$3,309
New Jersey	\$53,638	6.0%	2.1%	\$4,345
New Mexico	\$42,129	6.0%	2.1%	\$3,412
North Dakota	\$43,083	6.0%	2.1%	\$3,490
Ohio	\$43,856	6.0%	2.1%	\$3,552
Oklahoma	\$40,574	6.0%	2.1%	\$3,287
Rhode Island	\$49,595	6.0%	2.1%	\$4,017
South Carolina	\$39,609	6.0%	2.1%	\$3,208
Utah	\$43,419	6.0%	2.1%	\$3,517
Vermont	\$44,760	6.0%	2.1%	\$3,626
Virginia	\$50,916	6.0%	2.1%	\$4,124
West Virginia	\$38,146	6.0%	2.1%	\$3,090

* Product of the sum of both contribution and the annual mean wage

Source: 2014 annual mean wage is calculated using the Bureau of Labor Statistics (BLS) 2013 State Occupational Employment and Wage Estimates. We convert these estimates into 2014 dollars with BLS Consumer Price Index (CPI) data. Average employee contribution is obtained from Munnell and Sundén (2004), and average employer contributions are obtained from Wray (2010). States are listed in alphabetical order.

Table 4A: Estimated Retirement Tax Expenditure per Worker who Participates in an Employer-Sponsored Retirement Plan, in each State (2014)

State	Estimated Contribution per Worker	Median Statutory Tax Rate	Estimated Retirement Expenditure per Worker
Alabama	\$3,311	4.00%	\$132
Arizona	\$3,651	3.36%	\$123
Arkansas	\$3,073	4.00%	\$123
Colorado	\$4,028	4.63%	\$186
Connecticut	\$4,477	5.75%	\$257
Delaware	\$4,053	5.00%	\$203
Hawaii	\$3,737	7.40%	\$277
Idaho	\$3,196	5.10%	\$163
Illinois	\$3,923	5.00%	\$196
Indiana	\$3,356	3.40%	\$114
Kansas	\$3,393	3.75%	\$127
Louisiana	\$3,251	4.00%	\$130
Maryland	\$4,349	4.87%	\$212
Mississippi	\$2,968	4.00%	\$119
Missouri	\$3,458	3.75%	\$130
Nebraska	\$3,309	8.52%	\$282
New Jersey	\$4,345	4.51%	\$196
New Mexico	\$3,412	3.95%	\$135
North Dakota	\$3,490	2.52%	\$88
Ohio	\$3,552	3.22%	\$114
Oklahoma	\$3,287	3.00%	\$99
Rhode Island	\$4,017	4.75%	\$191
South Carolina	\$3,208	4.50%	\$144
Utah	\$3,517	5.00%	\$176
Vermont	\$3,626	7.80%	\$283
Virginia	\$4,124	4.00%	\$165
West Virginia	\$3,090	4.50%	\$139

Source: Median statutory tax rates are obtained from Tax Policy Foundation (2014). States are listed in alphabetical order.

Table 5A: Estimated Total Retirement Tax Expenditure per State (2014)

State	Estimated Retirement Expenditure per Worker (2014)	2014 Employment Level (Annual Avg.)	Fraction of Workers who Participate in an Employer- Sponsored Retirement Plan in 2013	Estimated Total Retirement Tax Expenditure for 2014
Alabama	\$132	2,013,000	0.42	\$112,785,823
Arizona	\$123	2,869,000	0.34	\$121,002,756
Arkansas	\$123	1,218,000	0.35	\$51,800,446
Colorado	\$186	2,670,000	0.42	\$209,132,532
Connecticut	\$257	1,773,000	0.45	\$205,397,511
Delaware	\$203	426,000	0.41	\$35,398,530
Hawaii	\$277	639,000	0.46	\$80,737,496
Idaho	\$163	735,000	0.38	\$45,988,492
Illinois	\$196	6,065,000	0.42	\$498,959,734
Indiana	\$114	3,047,000	0.44	\$152,352,803
Kansas	\$127	1,434,000	0.43	\$78,363,652
Louisiana	\$130	2,021,000	0.35	\$92,289,333
Maryland	\$212	2,915,000	0.48	\$293,558,700
Mississippi	\$119	1,136,000	0.36	\$48,414,308
Missouri	\$130	2,857,000	0.41	\$151,229,468
Nebraska	\$282	984,000	0.41	\$114,446,275
New Jersey	\$196	4,223,000	0.42	\$350,615,243
New Mexico	\$135	851,000	0.28	\$32,187,460
North Dakota	\$88	409,000	0.43	\$15,627,995
Ohio	\$114	5,398,000	0.41	\$256,043,750
Oklahoma	\$99	1,693,000	0.38	\$63,555,342
Rhode Island	\$191	511,000	0.43	\$41,846,348
South Carolina	\$144	2,063,000	0.41	\$121,189,494
Utah	\$176	1,372,000	0.38	\$92,421,733
Vermont	\$283	333,000	0.40	\$37,829,036
Virginia	\$165	4,053,000	0.45	\$303,532,120
West Virginia	\$139	741,000	0.46	\$47,690,959

Source: Participation rates are calculated from March 2013 Current Population Survey data for U.S. workers. Employment levels per state are from the Bureau of Labor Statistics. States are listed in alphabetical order.

C. DERIVING THE REFUNDABLE TAX CREDIT PER WORKER

Dividing total retirement tax expenditures (in the three categories) by the annual average U.S. employment level in 2014 generates the national refundable tax credit per worker (see formula below).

The same method estimates the refundable tax credit per worker in each state (see Table 8A). Table 6A illustrates the latest year for which we have data available.

Table 7A shows the refundable tax credit estimates for each state. Please note that the average refundable tax credit for all 42 states (including the District of Columbia) is obtained by the by dividing the aggregate retirement tax expenditures of all states by the sum of all workers in the 42 states. This yields an average refundable credit of \$172 dollars for the more than 115 million workers in all the 42 states listed below (including the District of Columbia).

National Pension Tax Expenditures per Worker 2014	=	Total Retirement Tax Expenditures (2014)
\$647	=	Employment Level
	=	\$94,600,000,000
	=	146,305,545

Table 6A: Dates of Sources Used to Derive State Estimates

State	Retirement Tax Expenditures**	Annual Employment Statistics
California	FY 2014-2015	2014
New York	FY 2015-2016	2014
Pennsylvania	FY 2014-2015	2014
Georgia	2014	2014
North Carolina	FY 2014-2015	2014
Michigan	FY 2014	2014
Massachusetts	FY 2015	2014
Wisconsin	2012	2012
Minnesota	FY 2014	2014
Kentucky	FY 2014	2014
Oregon	FY 2013-2015*	2014
Iowa	2010	2010
Maine	FY 2014	2014
Montana	FY 2013	2013
District of Columbia	FY 2014	2014

* Figure used is half of the estimate for the 2013-2015 period, given that Oregon's tax expenditure report is published every other year.

** All retirement tax expenditure estimates derive from tax expenditure reports for the listed fiscal years.

Source: Participation rates are calculated from March 2013 Current Population Survey data for U.S. workers. Employment levels per state are from the Bureau of Labor Statistics. States are listed in alphabetical order.

Table 7A: Estimated Retirement Tax Credits

	State Tax Expenditures	Employment level (2014)	Refundable tax credit
National	\$94,600,000,000	146,305,000	\$647
All States	\$19,910,797,336	115,783,000	\$172
Alabama, AL	\$112,785,823	2,013,000	\$56
Arizona, AZ	\$121,002,756	2,869,000	\$42
Arkansas, AR	\$51,800,446	1,218,000	\$43
California, CA	\$5,170,000,000	17,298,000	\$299
Colorado, CO	\$209,132,532	2,670,000	\$78
Connecticut, CT	\$205,397,511	1,773,000	\$116
Delaware	\$35,398,530	426,000	\$83
Georgia, GA	\$711,000,000	4,371,000	\$163
Hawaii, HI	\$80,737,496	639,000	\$126
Idaho, ID	\$45,988,492	735,000	\$63
Illinois, IL	\$498,959,734	6,065,000	\$82
Indiana, IN	\$152,352,803	3,047,000	\$50
Iowa, IA	\$520,000,000	1,633,000	\$318
Kansas, KS	\$78,363,652	1,434,000	\$55
Kentucky, KY	\$539,000,000	1,876,000	\$287
Louisiana, LA	\$92,289,333	2,021,000	\$46
Maine, ME	\$162,000,000	656,000	\$247
Maryland, MD	\$293,558,700	2,915,000	\$101
Massachusetts, MA	\$1,060,000,000	3,349,000	\$317
Michigan, MI	\$946,000,000	4,408,000	\$215
Minnesota, MN	\$881,000,000	2,855,000	\$309
Mississippi, MS	\$48,414,308	1,136,000	\$43
Missouri, MO	\$151,229,468	2,857,000	\$53
Montana, MT	\$159,000,000	500,000	\$318
Nebraska, NE	\$114,446,275	984,000	\$116
New Jersey, NJ	\$350,615,243	4,223,000	\$83
New Mexico, NM	\$32,187,460	851,000	\$38
New York, NY	\$2,826,000,000	8,946,000	\$316
North Carolina, NC	\$914,000,000	4,354,000	\$210
North Dakota, ND	\$15,627,995	409,000	\$38
Ohio, OH	\$256,043,750	5,398,000	\$47
Oklahoma, OK	\$63,555,342	1,693,000	\$38
Oregon, OR	\$411,000,000	1,801,000	\$228
Pennsylvania, PA	\$1,100,300,000	6,018,000	\$183
Rhode Island, RI	\$41,846,348	511,000	\$82
South Carolina, SC	\$121,189,494	2,063,000	\$59
Utah, UT	\$92,421,733	1,372,000	\$67
Vermont, VT	\$37,829,036	333,000	\$114
Virginia, VA	\$303,532,120	4,053,000	\$75
Washington, DC	\$127,000,000	349,000	\$364
West Virginia, WV	\$47,690,959	741,000	\$64
Wisconsin, WI	\$730,100,000	2,920,000	\$250

Source: SCEPA Calculations

D. ESTIMATING THE NUMBER OF WORKERS WHO STAND TO BENEFIT FROM REFUNDABLE TAX CREDITS

We estimate how many workers in each state would benefit from the conversion of retirement tax deferrals to refundable tax credits by multiplying the fraction of workers not participating in a retirement plan at work and by the 2014

employment level for each state. Some of these workers may already benefit from the tax deferral if they in an IRA, even though they are not participating in a workplace retirement plan (see Table 8A).

Table 8A: Number of Workers Who Stand to Benefit from Refundable Tax Credits

State	Fraction of workers who do not participate in an employer- sponsored retirement plan in 2013	2014 Employment Level (Annual average)	Number of workers who do not participate in an employer- sponsored retirement plan as of 2014.
U.S. (National)	0.60	146,302,000	87,783,000
Alabama	0.58	2,013,000	1,161,452
Arizona	0.66	2,869,000	1,882,631
Arkansas	0.65	1,218,000	796,525
California	0.64	17,298,000	11,051,443
Colorado	0.58	2,670,000	1,548,600
Connecticut	0.55	1,773,000	975,150
Delaware	0.59	426,000	251,340
Georgia	0.59	4,371,000	2,587,337
Hawaii	0.54	639,000	347,076
Idaho	0.62	735,000	452,855
Illinois	0.58	6,065,000	3,521,499
Indiana	0.56	3,047,000	1,711,644
Iowa	0.54	1,633,000	880,627
Kansas	0.57	1,434,000	818,203
Kentucky	0.61	1,876,000	1,150,307
Louisiana	0.65	2,021,000	1,311,329
Maine	0.59	656,000	388,252
Maryland	0.52	2,915,000	1,528,903
Massachusetts	0.56	3,349,000	1,871,068

Table 8A: Number of Workers Who Stand to Benefit from Refundable Tax Credits

Michigan	0.59	4,408,000	2,617,841
Minnesota	0.53	2,855,000	1,509,685
Mississippi	0.64	1,136,000	728,207
Missouri	0.59	2,857,000	1,690,669
Montana	0.62	500,000	311,404
Nebraska	0.59	984,000	578,024
New Jersey	0.58	4,223,000	2,433,660
New Mexico	0.72	851,000	612,203
New York,	0.59	8,946,000	5,307,365
North Carolina	0.63	4,354,000	2,747,885
North Dakota	0.57	409,000	231,292
Ohio	0.59	5,398,000	3,159,542
Oklahoma	0.62	1,693,000	1,048,392
Oregon	0.60	1,801,000	1,088,922
Pennsylvania	0.56	6,018,000	3,358,076
Rhode Island	0.57	511,000	291,700
South Carolina	0.59	2,063,000	1,223,594
Utah	0.62	1,372,000	846,416
Vermont	0.60	333,000	199,230
Virginia	0.55	4,053,000	2,213,049
West Virginia	0.54	741,000	398,006
Wisconsin	0.54	2,920,000	1,588,315
District of Columbia	0.50	349,000	175,194

Source: Participation rates are calculated from March 2013 Current Population Survey data for U.S. workers. Employment levels per state are from the Bureau of Labor Statistics.

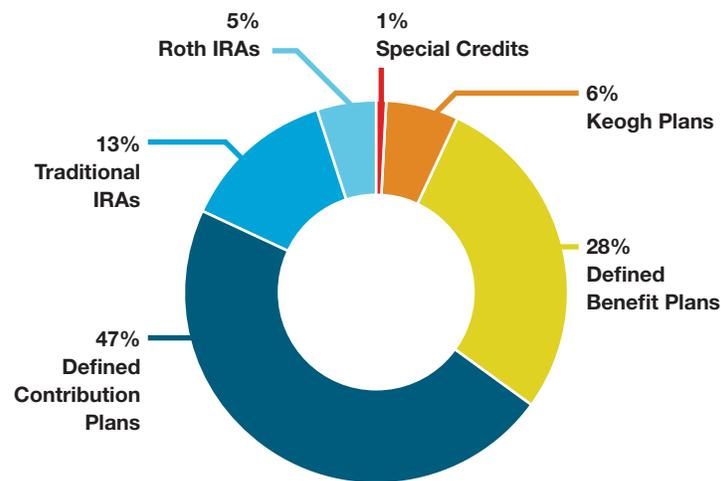
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ENDNOTES

1. The Congressional Budget and Impoundment Control Act of 1974 defined tax expenditures as “revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability.” Tax expenditures take many forms. Some result from tax provisions that reduce the present value of taxable income through deferral allowances, or special exclusion, exemptions, or deductions from gross income. Others affect a household’s after-tax income more directly through tax credits or preferential rates for specific activities. Tax expenditures cost the federal government more than \$1.2 trillion today. To put this number in context, this amounts to approximately one third of total government spending and nearly 7 percent of total GDP in 2014. As a share of total GDP, tax expenditures have increased by more than 20 percent since 1993, when they made up 5.9 percent of GDP (Rogers and Toder 2011). The composition of tax expenditures has also changed since 1986. Individual tax expenditures have increased relative to corporate tax expenditures, and credits and exclusions have increased relative to deductions and deferrals (Rogers and Toder 2011). These changes are important because exclusions, deferrals, exemptions, and deductions all reduce the present value of income subject to tax, and thus all provide larger tax reductions to taxpayers in high marginal rate brackets than to taxpayers in low marginal rate brackets (Gale et al, 2004).
2. The Appropriations Committees, as part of the annual budgeting cycle in Congress, consider funding for all types of discretionary spending. In contrast, tax expenditures, mandatory spending, and net interest payments represent spending on “autopilot” (Gandhi, 2010). Mandatory spending (70 percent of which is on Social Security, Medicare, and Medicaid) is not reviewed during the annual budget process in Congress (ibid). Because tax expenditures resemble mandatory spending in this sense, they have often been called “the hidden entitlements” (McIntyre, 1996).
3. Under the Internal Revenue Code, an employer and employee contribution to a qualified plan is deductible within specific limits. For example, the defined-contribution plans limit, including both employee and employer contributions, was \$52,000 in 2014.
4. Since most retirees earn less income and face a lower tax rate than they did during their working years, our hypothetical worker’s tax liability would be lower upon withdrawal. If we assume no growth over time and a tax rate drop to 5 percent at retirement, our worker’s initial \$200 contribution would pay a \$10 tax. This leaves our hypothetical worker with a higher net worth (\$910) than not having contributed to a retirement plan at all (\$900).
5. Composition of retirement tax expenditures in 2014:

Composition of Retirement Tax Expenditures in 2014



Source: The Joint Committee on Taxation (2014)

6. Ghilarducci and Saad-Lessler (2014) find that the declining bargaining power of workers, along with a decrease in firm size, serve as the largest predictors of the drop in sponsorship rates, from 61 percent in 1999 to 53 percent in 2011.
7. Some states, like California, have begun to provide information on the purpose and cost of some tax expenditures, but the scope of these reports remain limited and very few states are following suit (Leachman et al, 2011) (Gandhi, 2010).
8. This assumes a compound nominal interest rate of 3.5 percent.
9. New Hampshire and Tennessee collect an income tax, but not earnings. Therefore their workers do not receive any tax credits retirement savings.
10. This brief ultimately gives priority to estimates derived from tax expenditure reports in the states that publish them.

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