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Issue BRIEF

The Impact of a Retirement Savings Account Cap

By Jack VanDerhei, Ph.D., Employee Benefit Research Institute

AT A GLANCE

- The Obama administration's FY 2014 budget proposal included a cap on tax-deferred retirement savings that would limit the amounts accumulated in specified retirement accounts to that necessary to provide the maximum annuity permitted for a tax-qualified defined benefit plan under current law.
- The maximum annuity permitted for a tax-qualified defined benefit plan is currently an annual benefit of $205,000 payable in the form of a joint and 100 percent survivor benefit commencing at age 62. This would translate to a maximum permitted accumulation for an individual age 62 of approximately $3.4 million at today's interest rates.
- The budget proposal is targeted at a wide range of retirement plan vehicles, including individual retirement accounts (IRAs); Sec. 401(a) plans (tax-advantaged retirement plans, including 401(k)s); Sec. 403(b) tax-sheltered annuity plans; and funded Sec. 457(b) arrangements maintained by governmental entities—and, of considerable surprise to many who had been following similar proposals in the past, this proposal specifically includes defined benefit plan accruals, as well. If enacted by Congress, the Obama administration's proposal would be effective with respect to contributions and accruals for taxable years beginning on or after Jan. 1, 2014.
- EBRI's analysis finds that although a very small percentage of current 401(k) participants with IRA accounts have combined balances sufficient to be affected by the proposed limit immediately, over time—and depending on the applicable discount rates, whether a defined benefit pension is involved, and the size of the 401(k) plan—the impact could be much greater.
- Simulation results for 401(k) participants assuming no defined benefit accruals and no job turnover show that more than 1 in 10 current 401(k) participants are likely to hit the proposed cap sometime prior to age 65, even at the current historically low discount rate of 4 percent. When the simulation is rerun with higher discount rate assumptions closer to historical averages, the percentage of 401(k) participants likely to be affected by these proposed limits increases substantially.
- For 401(k) participants assumed to have a 2 percent, three-year, final-average defined benefit plan with a subsidized early retirement at 62, nearly a third are assumed to be affected by the proposed limit, at an 8 percent discount rate.
- Additional analysis is performed for small plans (those with less than 100 participants) to assess the potential impact of eventual plan terminations if and when the owners and/or key decision makers of the firms reach the cap threshold. Depending on plan size, this may involve as few as 18 percent of the firms (at a 4 percent discount rate) or as many as 75 percent of the firms (at an 8 percent discount rate).

Jack VanDerhei is the research director at the Employee Benefit Research Institute (EBRI). This *Issue Brief* was written with assistance from the Institute's research and editorial staffs. Any views expressed in this report are those of the author and should not be ascribed to the officers, trustees, or other sponsors of EBRI, Employee Benefit Research Institute-Education and Research Fund (EBRI-ERF), or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

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By Jack VanDerhei, Ph.D., Employee Benefit Research Institute

Introduction

Earlier this year, White House officials unveiled the Obama administration's Fiscal Year 2014 budget proposal, which included a cap on tax-deferred retirement savings. Under the proposal, a taxpayer who accumulated amounts in specified retirement accounts in excess of the amount necessary to provide the maximum annuity permitted for a tax-qualified defined benefit plan under current law would be (at least temporarily) prohibited from making additional tax-deferred contributions or receiving additional accruals under any of those arrangements, although the taxpayer's account balances could continue to grow with subsequent investment earnings and market gains. Additionally, contributions could be resumed in subsequent years if the taxpayer's actual rate of return was less than the assumed rate of return built into the actuarial equivalence calculation. An ability to resume contributions could also arise from increased contribution limits as a result of 415(b) cost-of-living adjustments (COLAs) or a change in the 417(e) rates.

The maximum annuity permitted for a tax-qualified defined benefit plan is currently an annual benefit of $205,000 payable in the form of a joint and 100 percent survivor benefit commencing at age 62. This would translate to a maximum permitted accumulation for an individual age 62 of approximately $3.4 million at interest rates available in April 2013.[1]

It would appear that this particular budget proposal is targeted at amounts within the tax-favored retirement system, including individual retirement accounts (IRAs); Sec. 401(a) plans (tax-advantaged retirement plans, including 401(k)s); Sec. 403(b) tax-sheltered annuity plans; and funded Sec. 457(b) arrangements maintained by governmental entities. Of considerable surprise to many who had been following similar proposals in the past, this one specifically includes defined benefit plan accruals, as well.[2]

If enacted by Congress, the Obama administration's proposal would be effective with respect to contributions and accruals for taxable years beginning on or after Jan. 1, 2014.

EBRI's Pre-Release Analysis

Based on details published by *The Washington Post*[3] five days before the official release, the Employee Benefit Research Institute (EBRI) modeled[4] the percentage of individuals likely to hit a $3 million combined cap by age 65.[5] Taking into account combined IRA and 401(k) balances as of year-end 2011 from the integrated EBRI IRA/401(k) database for certain individuals[6] age 60 or older, EBRI found that about 0.1 percent already had balances totaling $3 million or above.

Analysis of the Actual Proposal

On the day the proposal was released, the Treasury Green Book[7] provided a more detailed explanation, including the aforementioned inclusion of defined benefit accruals in determining whether the cap had been reached and exactly how the cap would be implemented (as well as the "penalty" for exceeding it).

One extremely important difference between the "$3 million cap" originally discussed in media coverage and the way in which the cap would actually be determined deals with the impact of the discount-rate assumption (the interest rate used to determine the present value of future cash flows) on the actuarial present value of the Sec. 415(b) limit, the actual limit contemplated by the proposal. Applying this latter limit with current discount rates of approximately 4 per-cent[8] produces an actuarial present value of $205,000 per year at age 62 (with a 100 percent, joint-and-survivor benefit) of approximately $3.4 million (Figure 1). However, if the current discount rate rises, perhaps reverting to historical norms (as might be expected once the Federal Reserve eases its current monetary policies designed to keep interest rates low), the actuarial present value of the proposed limit would decrease accordingly. For example, at an

effective interest rate of 6 percent, the cap at age 62 drops to approximately $2.7 million, and at 8 percent it declines further, to approximately $2.3 million.

Although an increase in the effective interest rate can have a dramatic impact on the retirement-savings cap contemplated by the White House budget proposal, the employee's age must also be considered in order for retirement plan sponsors to conduct the required annual check of whether the cap has been exceeded. Figure 2 shows the corresponding reductions of the $3.4 million cap at age 62, assuming an effective rate of 4 percent. In this case, a taxpayer age 25 would be subjected to a cap of approximately $800,000. When the effective rate is assumed to be 8 percent, however, the cap for that same 25-year-old would be approximately only $132,000.

While a cap of $132,000 may seem unlikely to impact many 25-year-old taxpayers, it is instructive to note that at the 2013 maximum Sec. 415(c) dollar limit,[9] a 25-year-old would reach the cap resulting from an 8 percent rate within three years, even assuming an investment return of only 1 percent.

Simulation Analysis of the Impact of the Cap on 401(k) Account Balances at Age 65

This *Issue Brief* expands on the earlier EBRI analysis by simulating the 401(k) account balances at age 65 for all of the participants in the EBRI/Investment Company Institute (ICI) 401(k) database with salary information.[10] Each of these participant accounts was simulated 1,000 times assuming a stochastic rate of return (real arithmetic means of 5.9 percent for equity and 3.3 percent for bonds) with no job change and no other individual-account, tax-favored retirement benefits (defined contribution or IRA).[11] Other aspects of the simulation model are similar to that used in VanDerhei (April 2010) and it is further assumed that all are participants in voluntary enrollment plans.[12]

Additionally, a behavioral assumption is made that if the participant is unable to make a contribution in a particular year as a result of hitting the cap, there will be no impact on future contribution behavior (assuming he/she falls below the cap in future years). In other words, he/she will continue to make contributions in the future, if allowed, and at the same rate as if his/her account(s) were not previously limited by the cap. [13]

Assuming No Defined Benefit Accruals

Figure 3 shows the result of an analysis where it is assumed that the 401(k) participant has no defined benefit accruals. For each of three selected Sec. 417(e) deterministic discount rates (4, 6 and 8 percent), the projected percentage reduction in 401(k) balances as a result of the cap is simulated. Looking at the 4 percent effective-rate results under this set of assumptions, somewhere between 10 and 20 percent of the 401(k) participants would have reduced 401(k) account balances as a result of the proposed cap. Ten percent of the participants in this case would suffer at least a 1.7 percent reduction in their simulated 401(k) balance accumulated at age 65, whereas 5 percent of them would have their benefits reduced by at least 5.5 percent. One percent of the participants would have their benefits reduced by at least 10.5 percent at this 4 percent discount rate.

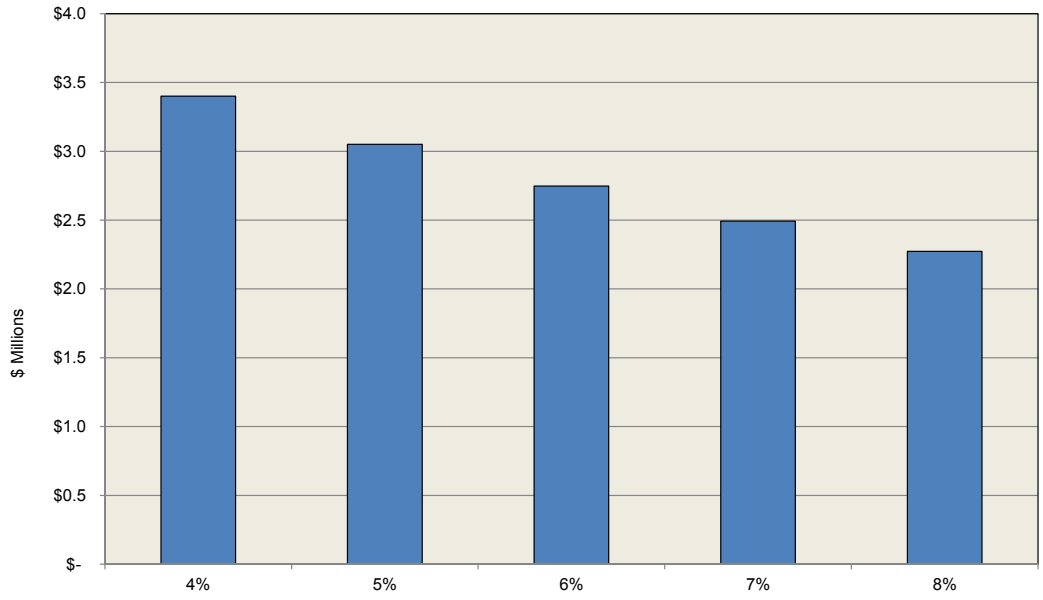
However, if the discount rate is increased to 8 percent, somewhere between 20 and 30 percent of the participants are simulated to have reduced benefits, with 10 percent of them suffering at least a 6.6 percent reduction, 5 percent at least a 10.6 percent reduction, and 1 percent losing more than a quarter of their account balance (25.6 percent). As would be expected, the projected impact of a 6 percent discount rate falls between the results for the 4 percent and 8 percent discount rates.

Including Defined Benefit Accruals

Although the EBRI/ICI 401(k) database has detailed information on millions of 401(k) participants, there is currently no ability to integrate this data with information pertaining to those specific defined benefit accruals. Consequently, Figures 4 through 6 draw on stylized information for final-average defined benefit and cash balance plans to illustrate the potential ramifications of expanding the retirement cap to qualified defined benefit plans in the private sector.

Figure 1

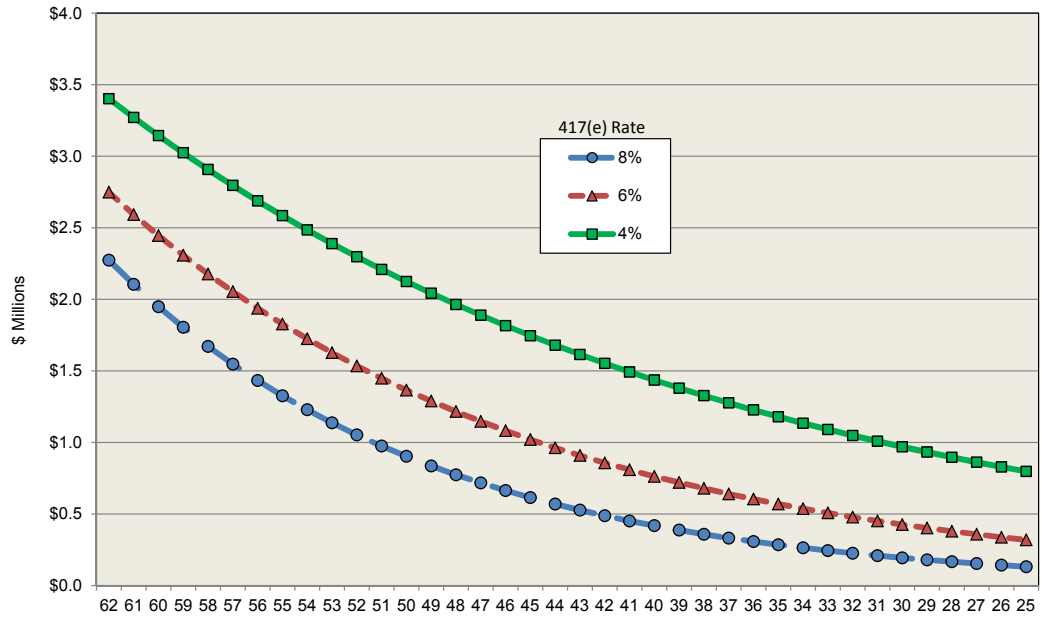
Actuarial Present Values of $205,000/Year at Age 62 (100% J&S*) as a Function of the Effective Interest Rate (Instead of the Three 417(e) Bands)



Source: Employee Benefit Research Institute calculations.
* Joint and survivor annuity.

Figure 2

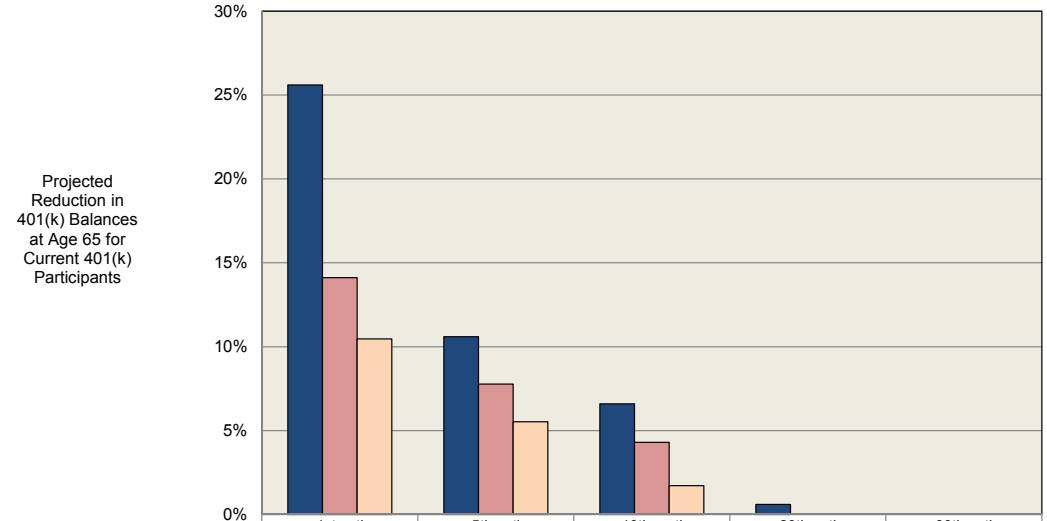
Actuarial Present Values of $205,000/Year at Age 62 (100% J&S*), by Age and Effective 417(e) Rate



Source: Employee Benefit Research Institute calculations.
* Joint and survivor annuity.

Figure 3

Impact of Effective 417(e) Rate on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect Jan. 1, 2014

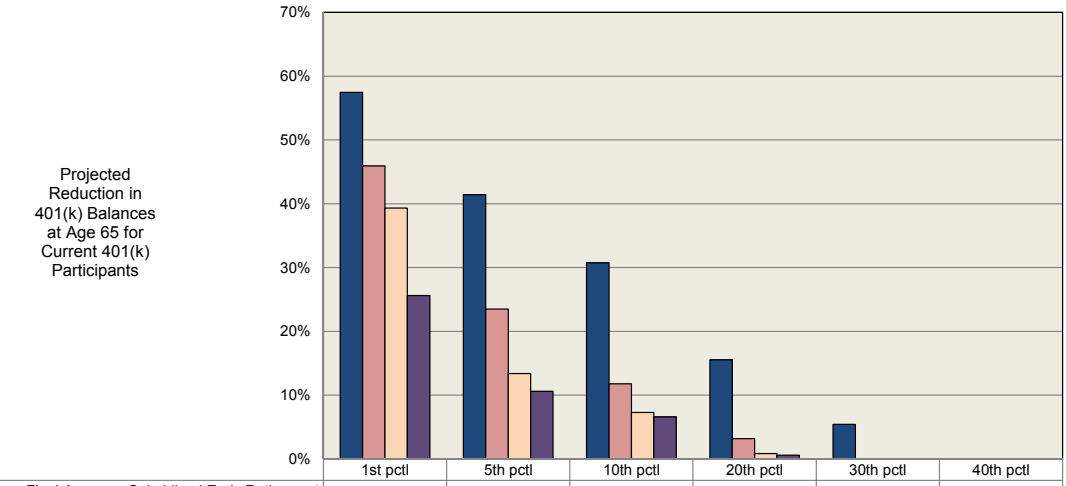


	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl
No Defined Benefit, 8% Effective 417(e) Rate	25.6%	10.6%	6.6%	0.6%	0.0%
No Defined Benefit, 6% Effective 417(e) Rate	14.1%	7.8%	4.3%	0.0%	0.0%
No Defined Benefit, 4% Effective 417(e) Rate	10.5%	5.5%	1.7%	0.0%	0.0%

Source: EBRI Retirement Security Projection Model® versions 1725, 1766, 1768. See text for assumptions and caveats.

Figure 4

Impact of Stylized Defined Benefit Plans on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect Jan. 1, 2014: 8%



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl	40th pctl
2%, 3-yr., Final-Average; Subsidized Early Retirement at 62	57.5%	41.4%	30.7%	15.5%	5.4%	0.0%
1%, 3-yr., Final-Average; Subsidized Early Retirement at 62	45.9%	23.5%	11.8%	3.2%	0.0%	0.0%
Cash Balance (4.5% Pay Credit, 6% Interest)	39.3%	13.4%	7.3%	0.8%	0.0%	0.0%
No Defined Benefit	25.6%	10.6%	6.6%	0.6%	0.0%	0.0%

Source: EBRI Retirement Security Projection Model® versions 1725, 1727, 1729. See text for assumptions and caveats.

The bottom row in the grid of Figure 4 presents the same information as the 8 percent discount rate row for Figure 3, but the top row of Figure 4 assumes that each 401(k) participant is also covered by a stylized, three-year, final-average defined benefit plan with a benefit accrual rate of 2 percent per year. Accruals are assumed to start at the participant's current age[14] and the benefit is assumed to be available for a subsidized early retirement at age 62.[15]

2 percent accrual: When the 2 percent, final-average defined benefit accrual is added at a discount rate of 8 percent, somewhere between 30 and 40 percent of the participants are simulated to have reduced benefits, with:

- 30 percent of them suffering at least a 5.4 percent reduction.
- 20 percent with at least a 15.5 percent reduction.
- 10 percent with at least a 30.7 percent reduction.
- 5 percent with at least a 41.4 percent reduction.
- 1 percent losing more than half of their account balance (57.5 percent).

1 percent accrual: As expected, the results are less dramatic when the defined benefit accrual rate (and resulting projected benefit accrual) is reduced from 2 percent to 1 percent. Assuming a discount rate of 8 percent (row 2 in the grid in Figure 4), somewhere between 20 and 30 percent of the participants are now simulated to have reduced benefits, with:

- 20 percent of them suffering at least a 3.2 percent reduction.
- 10 percent incurring at least a 11.8 percent reduction.
- 5 percent with at least a 23.5 percent reduction.
- 1 percent losing more than 45.9 percent.

In addition to the two final-average, defined-benefit-plan designs mentioned above, the impact of a stylized cash balance plan is also considered in the analysis (third row in the grid in Figure 4). In this case, it is assumed that the annual pay credit is 4.5 percent (for all age and service categories) and the interest credit is 6 percent. The impact of the retirement savings cap on the cash balance plan is less dramatic than either of the final-average DB plans: Somewhere between 20 and 30 percent of the participants are simulated to have reduced benefits, with

- 20 percent of them suffering at least a 0.8 percent reduction.
- 10 percent with at least a 7.3 percent reduction.
- 5 percent with at least a 13.4 percent reduction.
- 1 percent losing more than 39.3 percent.

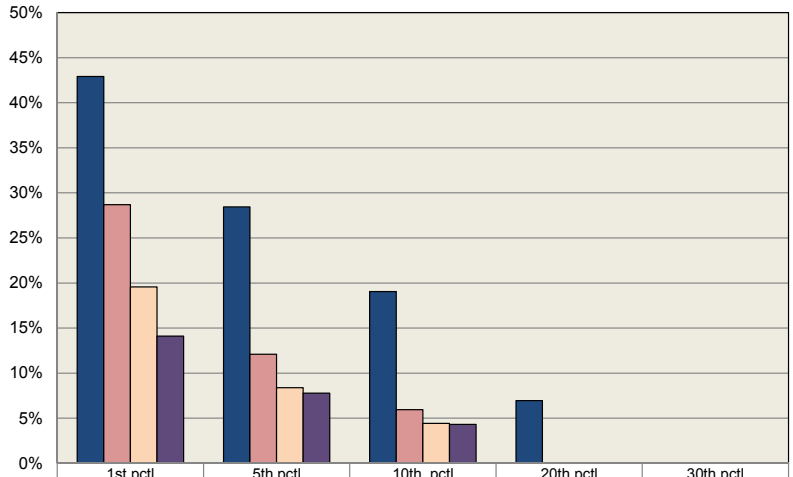
Figures 5 and 6 repeat this analysis for the two stylized, final-average defined benefit plans and the stylized cash balance plan, at effective interest rates of 6 and 4 percent, respectively. As expected, the results are less severe for each of the three plan types as the effective interest rate declines.

The Impact on Small 401(k) Plans

The material in the previous sections quantifies the potential impact of the proposal on 401(k)-participant account balances at retirement, assuming no behavioral response by employers. Although any changes in the current incentives for employers to sponsor 401(k) plans if the retirement savings cap were enacted would likely be minimal for large- and medium-sized plans, it is possible that sponsors of smaller 401(k) plans (those with less than 100 participants) might reconsider the relative advantages of continuing the plans, particularly in situations where the owner of the firm has determined the cost of the employer contributions for the employees can be justified (at least in part) by the ability of the owner to make contributions to his or her own account on a tax-advantaged basis. If this situation were no longer available, or was restricted (at least temporarily) due to the owner's account balance reaching the proposed retirement savings cap, would this be enough of a disruption to cause the owner to terminate the plan or perhaps temporarily suspend employer contributions?[16]

Figure 5

Impact of Stylized Defined Benefit Plans on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect Jan. 1, 2014: 6%

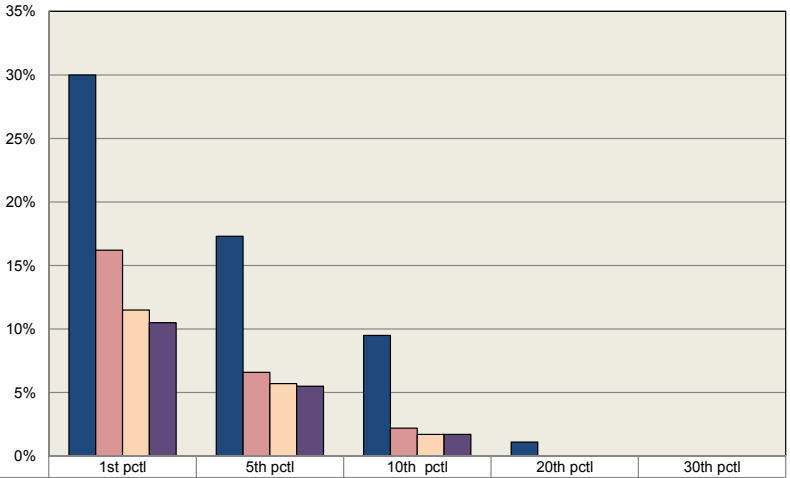


	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl
2%, 3-yr., Final-Average; Subsidzed Early Retirement at 62	42.9%	28.4%	19.0%	6.9%	0%
1%, 3-yr., Final-Average; Subsidzed Early Retirement at 62	28.7%	12.1%	5.9%	0.0%	0%
Cash Balance (4.5% Pay Credit, 6% Interest)	19.6%	8.4%	4.4%	0.0%	0%
No Defined Benefit	14.1%	7.8%	4.3%	0.0%	0%

Source: EBRI Retirement Security Projection Model® versions 1725, 1727, 1729. See text for assumptions and caveats.

Figure 6

Impact of Stylized Defined Benefit Plans on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect Jan. 1, 2014: 4%



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl
2% 3-yr., Final-Average Subsidzed Early Retirement at 62	30.0%	17.3%	9.5%	1.1%	0%
1% 3-yr., Final-Average Subsidzed Early Retirement at 62	16.2%	6.6%	2.2%	0.0%	0%
Cash Balance (4.5% Pay Credit, 6% Interest)	11.5%	5.7%	1.7%	0.0%	0%
No Defined Benefit	10.5%	5.5%	1.7%	0.0%	0%

Source: EBRI Retirement Security Projection Model® versions 1725, 1727, 1729. See text for assumptions and caveats.

While each plan's decision maker is faced with a unique variety of financial and human capital considerations for this choice, smaller plans do stand to be more immediately affected. Figure 7 shows the percentage of 401(k) plans with less than 100 participants analyzed in this study with at least one 401(k) participant simulated to be affected by the proposed retirement savings account cap. Even at a 4 percent discount rate, 18 percent of the plans with 1–10 participants are simulated to have at least one participant affected. As expected, this percentage increases as the number of participants increases; at the 4 percent discount rate, 30 percent of plans with 11–25 employees have at least one participant simulated to reach the age-specific cap. This increases to 46 percent for plans with 26–50 participants and to 62 percent for plans with 51–100 participants.

Moreover, an increase in the discount rate increases the percentage of plans with at least one participant simulated to reach the age-specific cap for each plan-size category. As can be seen in Figure 7, when the discount rate is increased to 8 percent, 29 percent of the plans with 1–10 participants are simulated to have at least one participant affected. This increases to 48 percent of plans with 11–25 employees, 66 percent for plans with 26–50 participants, and 75 percent for plans with 51–100 participants.

While it is not possible in the database analyzed to identify which (if any) of the 401(k) participants in a plan is the owner of the firm, a proxy that is likely highly correlated with that status is the 401(k) participant who would reach the retirement savings account cap in the shortest number of years (if any). Consequently, the number of years until impact is calculated for every 401(k) participant in every plan with less than 100 participants at each of the three discount rates, at which point the minimum number of years to reach the cap is calculated for each plan, and the participant with the shortest number of years is flagged.

As a proxy for the impact of small plans terminating when the flagged participant (owner proxy) reaches the new retirement savings account cap,[17] the impact on all the current participants for those small plans is simulated, assuming the plan would terminate at that point, with the projected reduction in 401(k) balances computed for each participant under each of the three discount-rate scenarios.

Two consequences of this methodological approach should be noted. First, there is a significant percentage of small 401(k) plans that are simulated to never have an individual reach the proposed retirement savings account cap. Depending on plan size and assumed discount rate, this can range from 25 to 82 percent of the plans. Secondly, even in small plans simulated to have a future termination point, not all 401(k) participants would be affected. For example, if an individual plan is simulated to have its first participant reach the cap in 20 years, then by definition any participant currently age 45 or older (and who therefore would be at least age 65 at the point of termination) would not be affected for purposes of this simulation.

Figure 8 shows the projected reduction in 401(k) balances at age 65 for current 401(k) participants in small plans based on the termination scenario described above (meaning that the plan is terminated when any one of the plan's employees hits the tax-advantaged retirement savings cap).[18] At a 4 percent discount rate, between 20 and 30 percent of the 401(k) participants in small plans would have some reduction in their age-65 401(k) balances. Among these:

- 20 percent of them would have at least a 2 percent reduction in balances.
- 10 percent would have at least a 16 percent reduction.
- 5 percent would have at least a 29 percent reduction.
- The top 1 percent would have at least a 52 percent reduction.

When the discount rate is increased to 8 percent, between 30 and 40 percent of the participants would have some reduction in their age-65 401(k) balances. Thirty percent of them would have at least a 9 percent reduction in balances, 20 percent would have at least a 24 percent reduction, 10 percent would have at least a 45 percent reduction, 5 percent would have at least a 60 percent reduction, and the top 1 percent would have at least a 79 percent reduction.

The impact of adding the termination scenario for small plans can be isolated by comparing the values in Figure 8 with the same values for small plans assuming no terminations. Figure 9 shows that, at a 4 percent discount rate without termination, somewhere between 1 and 5 percent of the participants in small 401(k) plans would be affected, and the top 1 percent would have a reduction of at least 8 percent. Figure 10 shows that at a 6 percent discount rate with no plan-termination assumption, somewhere between 5 and 10 percent of the participants in small 401(k) plans would be affected. Five percent of the participants at this discount rate would have at least a 3 percent reduction, and the top 1 percent would have a reduction of at least 10 percent. Figure 11 shows that at an 8 percent discount rate without a plan-termination assumption, somewhere between 5 and 10 percent of the participants in small 401(k) plans would be affected. At this discount rate, 5 percent of the participants would experience at least a 5 percent reduction, and the top 1 percent would see a reduction of at least 15 percent.

The Impact on Younger Workers in Small 401(k) Plans

Although the termination scenarios presented in the previous section quantify the significant impact of the proposal if those small plans terminate, the effect is muted in the foregoing analysis, at least partially, by including 401(k) participants of all ages. For example, it likely includes older participants who may have relatively short tenures with the current employer, and while 401(k) balances from previous employers (or IRA rollovers resulting from these balances) are not included in these projections. In an attempt to at least partially control for that bias, Figure 12 presents the same analysis as Figure 8, but looks only at employees currently ages 26–35 in these small plans. As expected, the percentage reductions increase significantly. At a 4 percent discount rate, between 50 and 60 percent of the participants would have some reduction in their simulated/projected 401(k) balances at age 65: 50 percent of them would have at least a 4 percent reduction in balances, 20 percent would have at least a 29 percent reduction, 10 percent would have at least a 41 percent reduction, 5 percent would have at least a 50 percent reduction, and the top 1 percent would have at least a 67 percent reduction.

When the discount rate is increased to 8 percent, between 70 and 80 percent of the participants would see some reduction in their age-65 401(k) balances. Fifty percent of them would have at least a 21 percent reduction in balances, 20 percent would have at least a 56 percent reduction, 10 percent would have at least a 69 percent reduction, 5 percent would have at least a 77 percent reduction, and 1 percent would have at least an 87 percent reduction.

Summary and Conclusion

This *Issue Brief* provides an initial analysis[19] of the potential financial impact[20] on private-sector retirement benefits of the retirement savings account cap included in the Obama administration's FY 2014 budget proposal. It finds that although a very small percentage of current 401(k) participants with IRA accounts have combined balances sufficient to be immediately affected by the proposed limit, over time (and depending on the applicable discount rates, whether a defined benefit pension is involved, and the size of the 401(k) plan) the impact could be much greater.

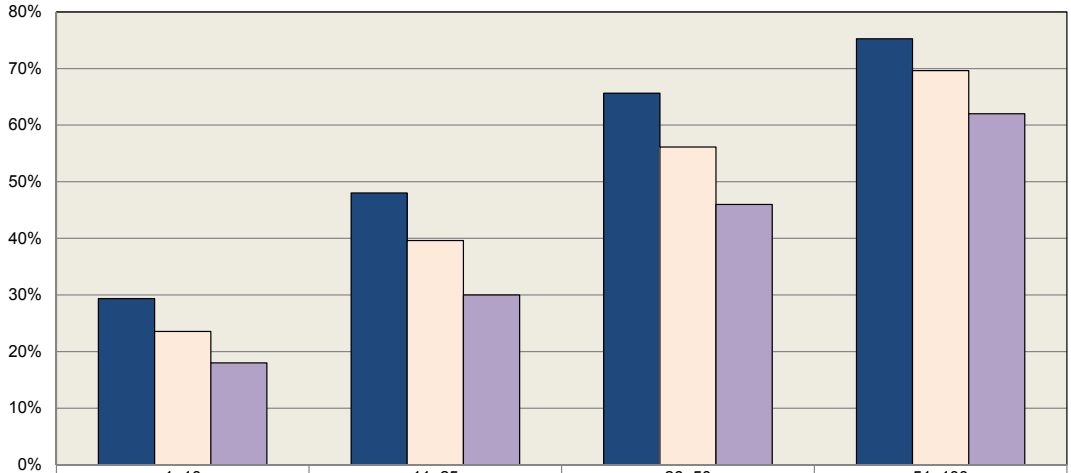
Simulation results for 401(k) participants assuming no defined benefit accruals and no job turnover show that more than 1 in 10 current 401(k) participants are likely to hit the proposed limit sometime prior to age 65, even at the current historically low discount rate of 4 percent. When the simulation is rerun with discount rate assumptions closer to historical averages, the percentage of 401(k) participants likely to be affected by these proposed limits increases substantially: For example, with an 8 percent discount rate, more than 20 percent of the 401(k) participants are simulated to reach the limit prior to retirement.

When the impact of stylized, defined benefit account assumptions are added to the analysis, the percentage of 401(k) participants simulated to reach the proposed limits increases even more: In fact, for 401(k) participants assumed to be covered by a 2 percent, three-year, final-average plan with a subsidized early retirement at 62, nearly a third are assumed to be affected by the proposed limit at an 8 percent discount rate.

Figure 7

Percentage of Small Plans With at Least One 401(k) Participant Affected by the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal, as a Function of Plan Size (Number of Participants) and Effective 417(e) Rate

Assumes no defined benefit accruals



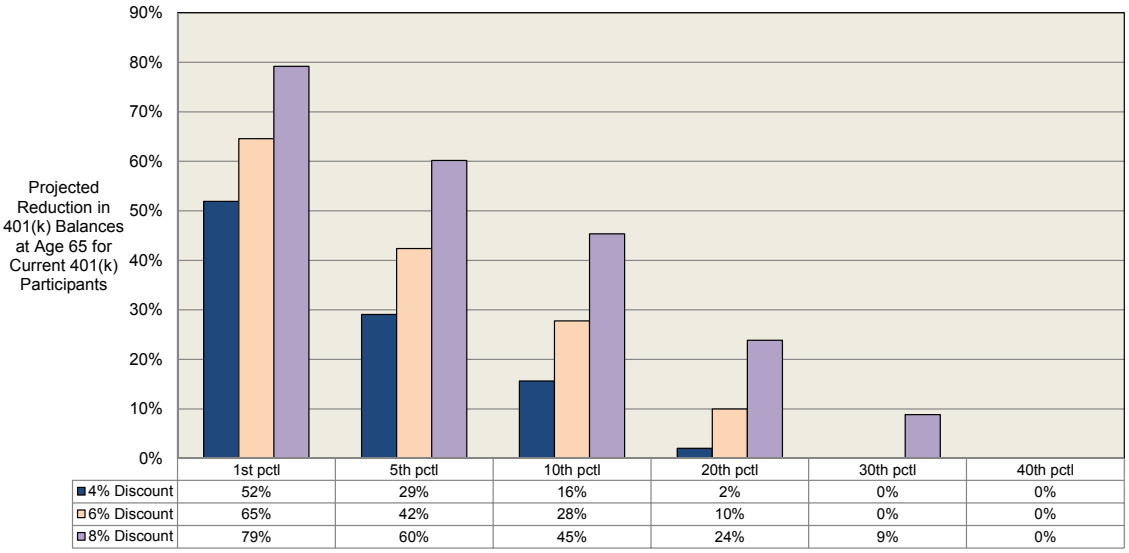
	1–10	11–25	26–50	51–100
8%	29%	48%	66%	75%
6%	24%	40%	56%	70%
4%	18%	30%	46%	62%

Source: EBRI Retirement Security Projection Model® version 1725a. See text for assumptions and caveats.

Figure 8

Impact of Discount Rates on the Termination Scenario for 401(k) Plans With Less Than 100 Participants on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect 1/1/14

Assumes no defined benefit accruals



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl	40th pctl
4% Discount	52%	29%	16%	2%	0%	0%
6% Discount	65%	42%	28%	10%	0%	0%
8% Discount	79%	60%	45%	24%	9%	0%

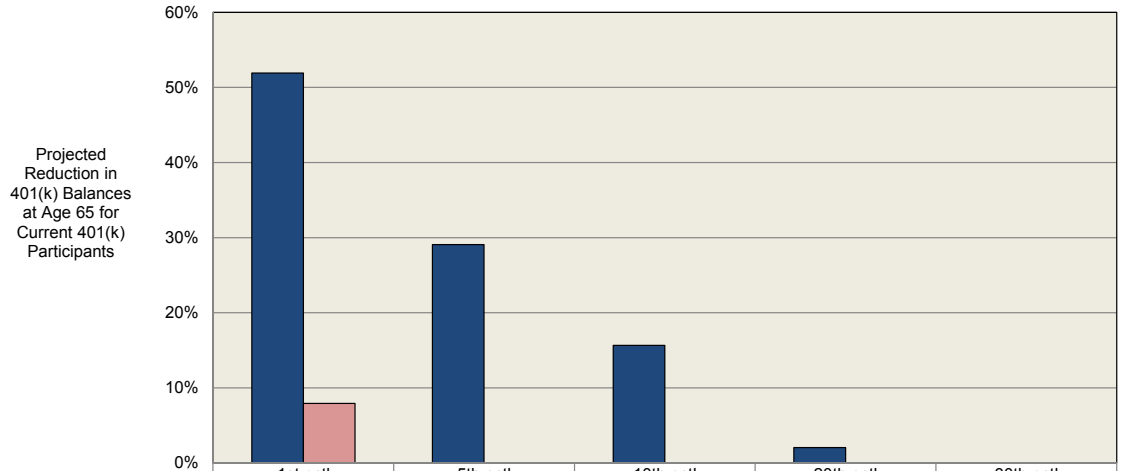
Source: EBRI Retirement Security Projection Model® version 1850. See text for assumptions and caveats.

Figure 9

Impact of the Termination Scenario for 401(k) Plans With Less Than 100 Participants on the Projected Reduction in 401(k) Balances If the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits From the FY 2014 Budget Proposal Took Effect 1/1/14:

4% Discount Rate Assumption

Assumes no defined benefit accruals



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl
Termination Scenario	52%	29%	16%	2%	0%
No Termination Scenario	8%	0%	0%	0%	0%

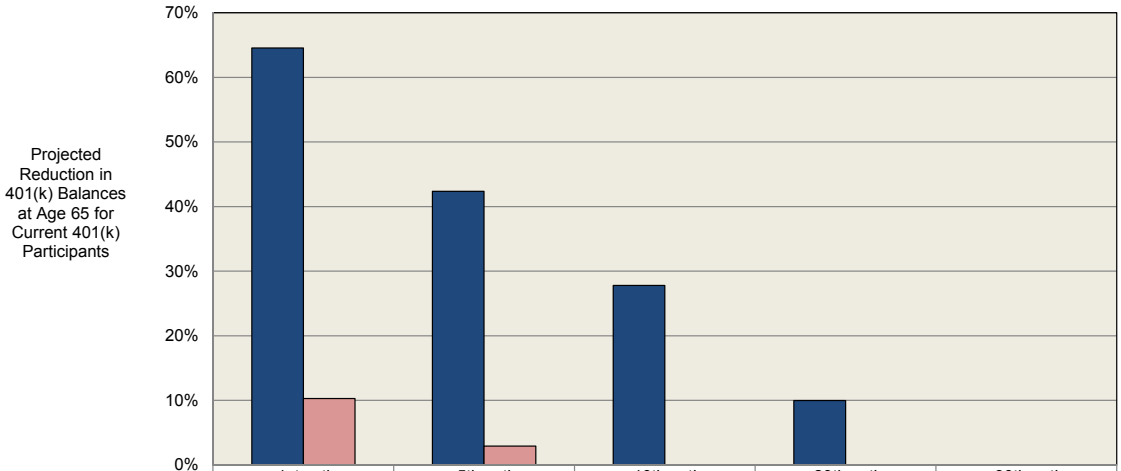
Source: EBRI Retirement Security Projection Model® versions 1850 and 1852. See text for assumptions and caveats.

Figure 10

Impact of the Termination Scenario for 401(k) Plans With Less Than 100 Participants on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect 1/1/14:

6% Discount Rate Assumption

Assumes no defined benefit accruals



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl
Termination Scenario	65%	42%	28%	10%	0%
No Termination Scenario	10%	3%	0%	0%	0%

Source: EBRI Retirement Security Projection Model® versions 1850 and 1852. See text for assumptions and caveats.

Additional analysis is performed for small plans (those with less than 100 participants) to assess the potential impact of eventual plan terminations if and when the owners and/or key decision makers of the firms reach the cap threshold.

Depending on plan size, this may involve as few as 18 percent of the firms (at a 4 percent discount rate) to as many as 75 percent of the firms (at an 8 percent discount rates).

Policy Considerations

At least part of the Obama administration's rationale for proposing these new constraints appears to stem from, among other things, a desire to increase the "fairness" of the current retirement savings system.[21] This "lack of fairness" hypothesis is often mentioned in conjunction with the so-called "upside-down incentives" provided by the current tax system with respect to the tax treatment of contributions in the 401(k) system.

From a financial economics perspective, the current federal tax treatment for 401(k) plans has advantages for workers with higher marginal tax rates (those who pay taxes at higher rates are seen as receiving a greater benefit from the deferral of those taxes) if other elements of the tax code are ignored.[22] However, and as previous EBRI publications have explained, the constraints contained in IRC Secs. 402(g) and 415(c), combined with nondiscrimination requirements for the actual deferral percentage (ADP) and actual compensation percentage (ACP) have resulted in a relatively flat multiple of final earnings at retirement as a function of salary across the income range. Figure 13 shows the ratio of 401(k) account-balance-to-salary for participants in their 60s, by tenure categories, for the year-end 2011 version of the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.[23] These ratios are relatively flat for salaries between $30,000–$100,000, before dropping substantially for those with salaries in excess of $100,000.

Another consideration that should be weighed carefully in setting public policy is the potential impact on retirement income adequacy for those who are still working. Since 2003, the EBRI Retirement Security Projection Model® (RSPM) has shown the impact of several alternative factors to assess the probability that households will *not* run short of money in retirement (i.e., a "successful" retirement) and has repeatedly found that years of future eligibility in a defined contribution plan (such as a 401(k)) is one of the most (if not *the* most) relevant factor in predicting retirement success for households not already on the verge of retirement.

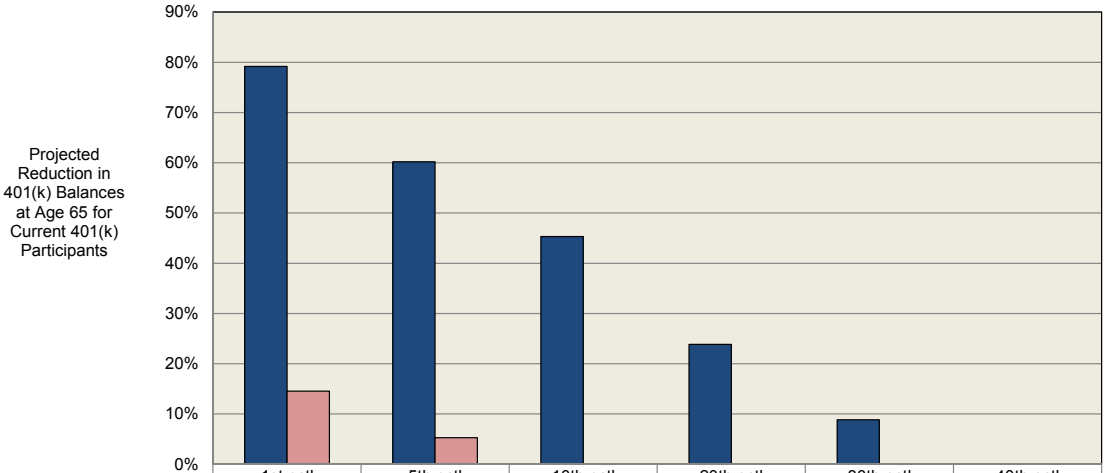
Assuming historical rates of return, Figure 14 shows that, for Generation Xers with no future years of eligibility in a defined contribution plan, only 38.6 percent are simulated to have "successful" retirements (defined as having sufficient retirement income to meet 100 percent of simulated expenses), but that increases to 59.8 percent for those with only one-to-nine years of future eligibility and to 73.4 percent for those with 10–19 years of future eligibility. For those with 20 or more years of eligibility ahead, the percentage simulated to have successful retirements increases to 86.1 percent.

Prior EBRI studies[24] have documented that defined contribution plans (and the IRA rollovers they produce) are the component of retirement security that appears to be generating the most non-Social Security retirement wealth for Baby Boomers and Gen Xers. Given that the financial fate of future generations of retirees appears to be so strongly tied to their eligibility for participation in defined contribution plans, the implications of modifying the current incentive structure—both short-term, and over the long haul—should be carefully and thoroughly examined.

Figure 11

Impact of the Termination Scenario for 401(k) Plans With Less Than 100 Participants on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect 1/1/14: 8% Discount Rate Assumption

Assumes no defined benefit accruals



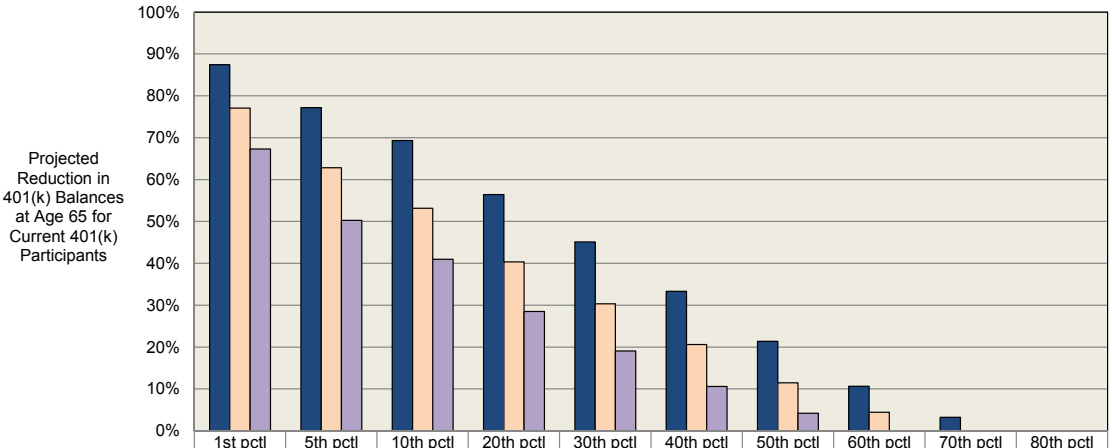
	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl	40th pctl
Termination Scenario	79%	60%	45%	24%	9%	0%
No Termination Scenario	15%	5%	0%	0%	0%	0%

Source: EBRI Retirement Security Projection Model® versions 1850 and 1852. See text for assumptions and caveats.

Figure 12

Impact of Discount Rates on the Termination Scenario for 401(k) Plans With Less Than 100 Participants on the Projected Reduction in 401(k) Balances if the Provision to Limit the Total Accrual of Tax-Favored Retirement Benefits from the FY 2014 Budget Proposal Took Effect 1/1/14: Participants Currently 26–35

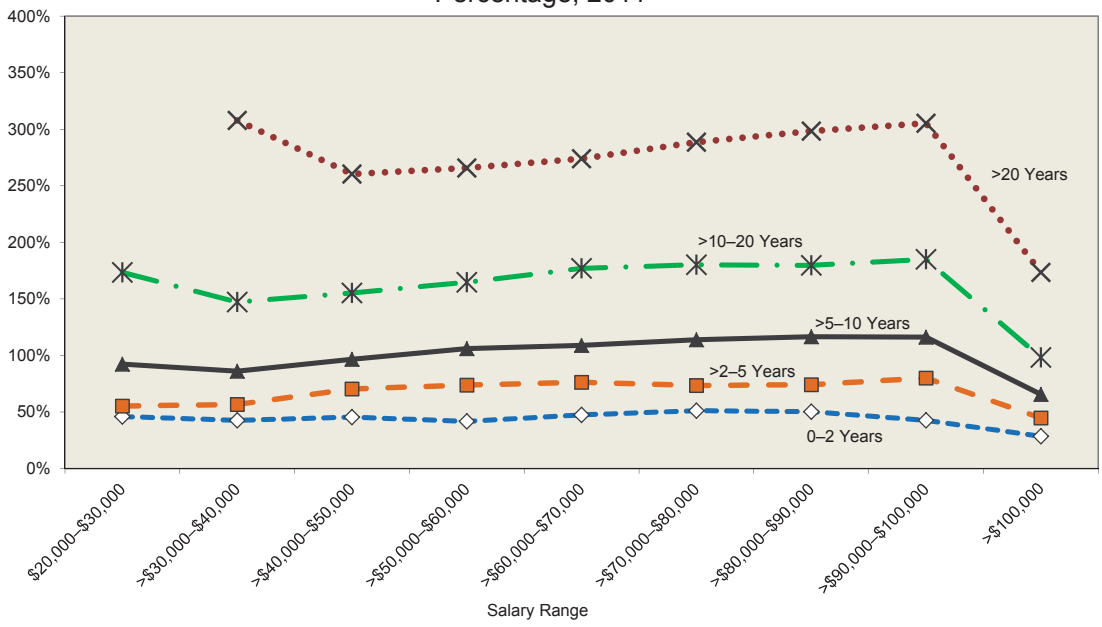
Assumes no defined benefit accruals



	1st pctl	5th pctl	10th pctl	20th pctl	30th pctl	40th pctl	50th pctl	60th pctl	70th pctl	80th pctl
8% Discount	87%	77%	69%	56%	45%	33%	21%	11%	3%	0%
6% Discount	77%	63%	53%	40%	30%	21%	11%	4%	0%	0%
4% Discount	67%	50%	41%	29%	19%	11%	4%	0%	0%	0%

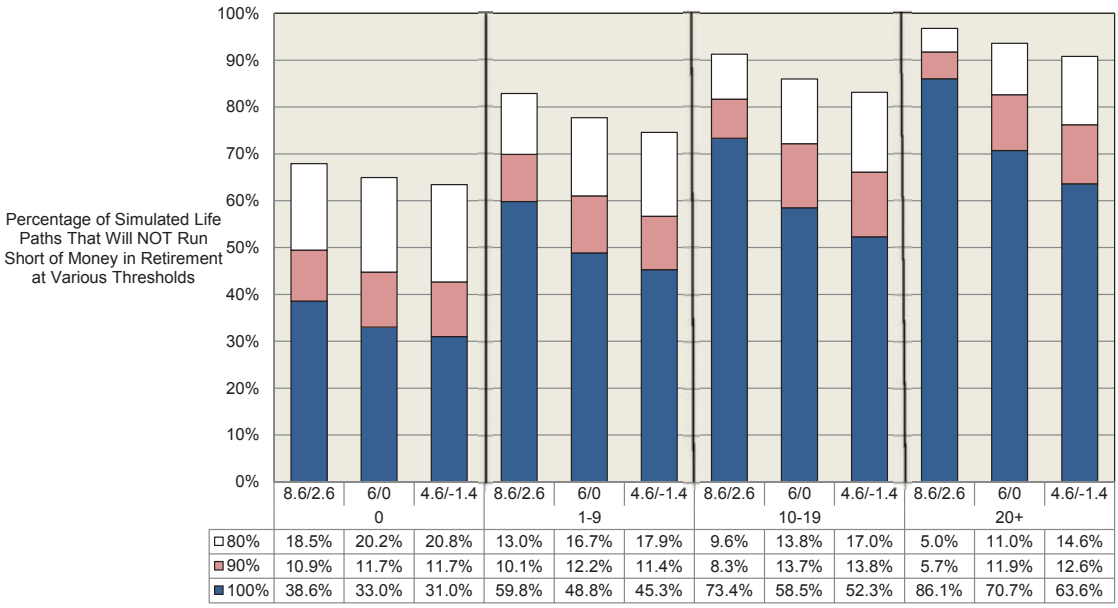
Source: EBRI Retirement Security Projection Model® version 1850. See text for assumptions and caveats.

Figure 13
Ratio of 401(k) Account-Balance-to-Salary for Participants in Their 60s, by Tenure Categories
Percentage, 2011



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project.
Note: The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Figure 14
Impact of Low-Interest-Rate Scenarios on Gen Xers' Retirement Readiness Ratings,™ by Future Years of Eligibility for a Defined Contribution Plan



	0			1-9			10-19			20+		
	8.6/2.6	6/0	4.6/-1.4	8.6/2.6	6/0	4.6/-1.4	8.6/2.6	6/0	4.6/-1.4	8.6/2.6	6/0	4.6/-1.4
□80%	18.5%	20.2%	20.8%	13.0%	16.7%	17.9%	9.6%	13.8%	17.0%	5.0%	11.0%	14.6%
■90%	10.9%	11.7%	11.7%	10.1%	12.2%	11.4%	8.3%	13.7%	13.8%	5.7%	11.9%	12.6%
■100%	38.6%	33.0%	31.0%	59.8%	48.8%	45.3%	73.4%	58.5%	52.3%	86.1%	70.7%	63.6%

Future Years of Eligibility in a Defined Contribution Plan

Source: EBRI Retirement Security Projection Model® Versions 1750, 1755 and 1760.
Return assumptions are presented as arithmetic means for equities and bonds as real returns. Investment expenses are not incorporated in this version of the model.

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Appendix A: Brief Chronology of the EBRI Retirement Security Projection Model®

2001	The Retirement Security Projection Model ™(RSPM) grew out of a multi-year project to analyze the future economic well-being of the retired population at the state level. The Employee Benefit Research Institute (EBRI) and the Milbank Memorial Fund, working with the office of the governor of Oregon, set out in the late 1990s to see if this situation could be evaluated for the state. The resulting analysis (VanDerhei and Copeland, 2001a) focused primarily on simulated retirement wealth with a comparison to ad hoc thresholds for retirement expenditures.
2002	With the assistance of the Kansas Insurance Department, EBRI was able to create the EBRI Retirement Readiness Rating™ (RRR) based on a full stochastic decumulation model that took into account the household's longevity risk, post-retirement investment risk, and exposure to potentially catastrophic nursing-home and home-health-care risks.
	The first state-level RSPM results were presented to the Kansas' Long-Term Care Services Task Force on July 11, 2002 (VanDerhei and Copeland, July 2002), and the results of the Massachusetts study were presented on Dec. 1, 2002 (VanDerhei and Copeland, December 2002).
2003	RSPM was expanded to a national model -- the first national, micro-simulation, retirement-income adequacy model, built in part from administrative 401(k) data. The initial results were presented at the EBRI December 2003 policy forum (VanDerhei and Copeland, 2003). The basic model was subsequently modified to quantify the beneficial impact of a mandatory contribution of 5 percent of compensation for testimony for the Senate Special Committee on Aging (VanDerhei, January 2004).
2004	The model was enhanced to allow an analysis of the impact of annuitizing defined contribution and IRA balances at retirement age (VanDerhei and Copeland, 2004).
2005	Additional refinements were introduced to evaluate the impact of purchasing long-term care insurance on retirement income adequacy (VanDerhei, 2005).
2006	The model was used to evaluate the impact of defined benefit freezes on participants by simulating the minimum employer-contribution rate that would be needed to financially indemnify the employees for the reduction in their expected retirement income under various rate-of-return assumptions (VanDerhei, March 2006).
	Later that year, an updated version of the model was developed to enhance the EBRI interactive Ballpark E$timate® by providing Monte Carlo simulations of the replacement rates needed for specific probabilities of retirement-income adequacy under alternative-risk-management treatments (VanDerhei, September 2006).
2008	RSPM was significantly enhanced for the May 2008 EBRI policy forum by allowing automatic enrollment of 401(k) participants with the potential for automatic escalation of contributions to be included (VanDerhei and Copeland, 2008).
2009	Additional modifications were added for a Pension Research Council presentation that involved a "winners/losers" analysis of defined benefit freezes and the enhanced employer contributions provided to defined contribution plans at the time the defined benefit plans were frozen (Copeland and VanDerhei, 2010).
	Also in 2009, a new subroutine was added to allow simulations of various styles of target-date funds for a comparison with participant-directed investments (VanDerhei, June 2009).
2010	In April 2010, the model was completely re-parameterized with 401(k)-plan design parameters for sponsors that had adopted automatic-enrollment provisions (VanDerhei, April 2010). A completely updated version of the national model was produced for the May 2010 EBRI policy forum and used

	in the July 2010 *Issue Brief* (VanDerhei and Copeland, 2010).
	The new model was used to analyze how eligibility for participation in a defined contribution plan impacts retirement income adequacy in September 2010 (VanDerhei, September 2010), and was later used to compute Retirement Savings Shortfalls (RSS) for Baby Boomers and Generation Xers in October 2010 (VanDerhei, October 2010a).
	In October testimony before the Senate Health, Education, Labor and Pensions Committee on "The Wobbly Stool: Retirement (In)security in America," the model was used to analyze the relative importance of employer-provided retirement benefits and Social Security (VanDerhei, October 2010b).
	In February the model was used to analyze the impact of the 2008–2009 crisis in the financial and real estate markets on retirement income adequacy (VanDerhei, February 2011).
2011	An April 2011 article introduced a new method of analyzing the results from RSPM (VanDerhei, April 2011). Rather than simply computing an overall percentage of the simulated life paths in a particular cohort that would not have sufficient retirement income to pay for the simulated expenses, the new method computed the percentage of households that would meet that requirement more than a specified percentage of times in the simulation.
	As explored in the June 2011 *EBRI Issue Brief,* the RSPM allowed retirement-income adequacy to be assessed at retirement ages later than 65 (VanDerhei and Copeland, June 2011).
	In a July 2011 *EBRI Notes* article (VanDerhei, July 2011), RSPM was used to provide preliminary evidence of the impact of the "20/20 caps" on projected retirement accumulations proposed by the National Commission on Fiscal Responsibility and Reform.
	The August 2011 *EBRI Notes* article (VanDerhei, August 2011) used RSPM to demonstrate the impact of defined benefit plans in achieving retirement income adequacy for Baby Boomers and Gen Xers.
	In September, it was used to support testimony before the Senate Finance Committee (VanDerhei, September 2011) in analyzing the potential impact of various types of tax-reform options on retirement income. This was expanded in the November 2011 *EBRI Issue Brief* (VanDerhei, November 2011).
	A March 2012 *EBRI Notes* article (VanDerhei, March 2012) used new survey results to update the analysis of the potential impact of various types of tax-reform options on retirement income.
2012	The May 2012 *EBRI Notes* article (VanDerhei, May 2012) provided 2012 updates for the previously published RRRs as well as the RSS.
	The June 2012 *EBRI Notes* article (VanDerhei, June 2012) introduced severity categories in the RSS projections for Gen Xers.
	The August 2012 *EBRI Notes* article (VanDerhei, August 2012) provided additional evidence on whether deferring retirement to age 70 would provide retirement income adequacy for the vast majority of Baby Boomers and Gen Xers.
	The September 2012 *EBRI Notes* article (VanDerhei, September 2012) analyzed the impact of increasing the default-contribution rate for automatic enrollment 401(k) plans with automatic escalation of contributions.
	The November 2012 *EBRI Notes* article (VanDerhei, November 2012) reclassified the RRRs to provide additional information on those substantially above the threshold; close to the threshold; and substantially below the threshold.

	The March 2013 *EBRI Notes* article (VanDerhei and Adams, March 2013) used a modified version of RSPM to assess the probability that respondent households would not run short of money in retirement if they did, in fact, accumulate the amount they said would be required in the 2013 Retirement Confidence Survey.
2013	The March 2013 *EBRI Notes* article (VanDerhei and Adams, March 2013) used a modified version of RSPM to assess the probability that respondent households would not run short of money in retirement if they did, in fact, accumulate the amount they said would be required in the 2013 Retirement Confidence Survey.
	The June 2013 *EBRI Issue Brief* (VanDerhei, June 2013a) used RSPM to provide a direct comparison of the likely benefits under specific types of defined contribution (DC) and defined benefit (DB) retirement plans.
	The June 2013 *EBRI Notes* article (VanDerhei, June 2013b) used RSPM to show that 25–27 percent of Baby Boomers and Gen Xers who would have had adequate retirement income under return assumptions based on historical averages are simulated to end up running short of money in retirement if today's historically low interest rates are assumed to be a permanent condition.

Endnotes

[1] Annuity purchase prices in April 2013 were much higher than historical norms due primarily to the dramatic decrease in bond yields in recent years. For more information on this topic, see VanDerhei (2013b).

[2] Limits of this type are in force the United Kingdom and an earnings cap on account-based pensions has been announced in Australia but not yet legislated.

[3] See Goldfarb and Tumulty (2013).

[4] "The Impact of a Retirement Savings Account Cap," Advisory from EBRI, April 12, 2013. Available at: www.ebri.org/pdf/PR-1017.Advise.10Apr13.RetCap1.pdf

[5] *The Washington Post* article had indicated that the proposal would cap "tax-protected retirement accounts" at $3 million in 2013 dollars.

[6] Defined as those with at least one IRA or 401(k) in 2010 *and* at least one IRA or 401(k) in 2011.

[7] www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2014.pdf

[8] In this article, the effective interest rate is used instead of the three Sec. 417(e) bands.

[9] The limitation for defined contribution plans under Sect. 415(c)(1)(A) is increased in 2013 from $50,000 to $51,000.

[10] See VanDerhei, Holden, Alonso and Bass (2012) for more information on the EBRI/ICI 401(k) data. Note that because this is not limited to only very young employees, the estimated impact in this paper is likely to underestimate the true impact to the extent that many of the 401(k) participants may have already rolled over previous balances to IRAs or have non-rollover IRA balances.

[11] The Sec. 415(b) limit is assumed to increase at 3 percent per year.

[12] The reasons for ignoring automatic enrolment plans at this time are described in VanDerhei (June 2013a).

[13] In essence, this implies *neither* of the following reactions are assumed to take place:

- Once the participant is prevented from making a contribution, he/she will never contribute again (regardless of whether the constraint is binding), OR

- Once the participant is prevented from making a contribution, he/she will attempt to make up the missed contribution at the same time he/she makes the regular contribution once the constraint is no longer binding.

[14] This assumption will bias the results of the impact downward, as many of the 401(k) participants have already had significant tenure with their current employers.

[15] This is done solely to aid in the comparison with the Sec. 415(b) limits.

[16] This hypothesis has been expressed in several articles since the release of the proposal. See Block (2013), Sullivan (2013), Novack (2013), and Wilber (2013).

[17] It should be noted that the author does not believe this type of proposed retirement-savings-account cap would result in the termination of *all* such-identified small 401(k) plans. However, similar to the analysis performed in VanDerhei and Copeland (2004) to simulate the impact of freezing accruals in defined benefit plans, this approach provides a quantification of the impact of all plans terminating. Intermediate values (e.g., only 25 percent of such plans terminating) can be obtained by linear interpolation. Moreover, many employees would have the opportunity to make deductible contributions to an IRA if the 401(k) plan were terminated. However, the maximum amount allowed would be subject to lower limits. See Greene (2013) for additional detail.

[18] The small-plan analysis does not assume final-average defined benefit or cash balance accruals. Of course, to the extent that the small plans include these, the impact of the retirement savings cap would increase.

[19] A more refined analysis of this proposal would require an improvement in the defined benefit modeling. This *Issue Brief* assumes stylized, final-average and cash balance plans with no behavioral impact on employee contributions and/or asset allocation. EBRI is currently in the process of collecting additional information on the correlations for defined benefit accruals/defined contribution account balances from sponsors with active defined benefit plans and will update this analysis as soon as the information is available. At that time, the defined benefit analysis will also be modified from the current stylized plans to the actual distribution of generosity parameters in RSPM.

[20] Administrative complications also would likely be a tremendous concern. Feldman (2013) notes the following, inter alia:

- How would the determination of whether a taxpayer was over the limit be made (especially for a taxpayer with multiple accounts, including those from former employers)?
- Who would make the determination?
- Would an employer have to track information in order not to put in excess contributions—including any employer matching contributions—in a 401(k)?
- Would participants have to forgo any matching contributions if they were above the limit, or would companies be able to create alternative plans to compensate those whose savings were too large to qualify?

[21] The Treasury Department's General Explanations of the administration's Revenue Proposals (Greenbook) includes the following under their reasons for change: "Requiring a taxpayer who, in the aggregate, has accumulated very large amounts within the tax-favored retirement system to discontinue adding to those accumulations would reduce the deficit, make the income tax system more progressive, and distribute the cost of government more fairly among taxpayers of various income levels, while still providing substantial tax incentives for reasonable levels of retirement saving."

Constraints in effect today in the United Kingdom and announced in Australia may be attempting to accomplish a similar objective.

[22] See VanDerhei (March 2011) for more detail.

[23] See VanDerhei, Holden, Alonso and Bass (2012) for more detail.

[24] VanDerhei and Copeland (2001c).

Mark Your Calendar!

December 11, 2013

EBRI's 35th Anniversary Celebration

The nonpartisan Employee Benefit Research Institute (EBRI) will celebrate 35 years of providing "Just the Facts" on benefit issues at a reception to be held Wednesday, Dec. 11, 2013, from 6:00–8:00 pm, at The Shriners' Building, 1315 K St. NW, Washington, DC, 20005.

For more information, contact Nevin Adams, nadams@ebri.org, 202/775-6329.

December 12, 2013

Employee Benefits: Hindsight, Foresight, and Insight

Join us on December 12, 2013, from 8:30 am–1:15 pm for EBRI's 73rd policy forum: *"Employee Benefits: Tomorrow, Today, Yesterday,"* where we'll examine the current benefits landscape, the path(s) that led here over the past 35 years, and what the next generation of benefit plan designs will entail, tapping into the perspectives and insights of an array of leading workforce experts, futurists, and "trend trackers," including:

- **Arnold Brown**, Chairman of Weiner, Edrich, Brown, Inc.
- **Mike Davis**, Senior Vice President of General Mills.
- **Howard Fluhr**, Chairman of the Segal Company.
- **Mathew Greenwald**, President, Mathew Greenwald Associates.
- **Ellen Galinsky**, President, Families and Work Institute.
- **Neil Howe**, President of LifeCourse Associates.
- **Dallas Salisbury,** CEO, Employee Benefit Research Institute.
- **Larry Zimpleman**, Chairman of Principal Financial Group.

EBRI was founded in 1978 to:

- Conduct, and to encourage others to conduct, research relating to employee benefit plans, whether governmental, private, or otherwise.
- Assemble and disseminate information on employee benefits, by publication or otherwise, to the general public, including interested organizations, both private and governmental.
- Sponsor lectures, debates, roundtables, forums, and study groups on employee benefit plans.

The work of EBRI is made possible by funding from its members and sponsors, which includes a broad range of public, private, for-profit and nonprofit organizations. For more information go to www.ebri.org or www.asec.org

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Employee Benefit Research Institute

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Retirement and health benefits are at the heart of workers', employers', and our nation's economic security. Founded in 1978, EBRI is the most authoritative and objective source of information on these critical, complex issues.

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EBRI stands alone in employee benefits research as an independent, nonprofit, and nonpartisan organization. It analyzes and reports research data without spin or underlying agenda. All findings, whether on financial data, options, or trends, are revealing and reliable — the reason EBRI information is the gold standard for private analysts and decision makers, government policymakers, the media, and the public.

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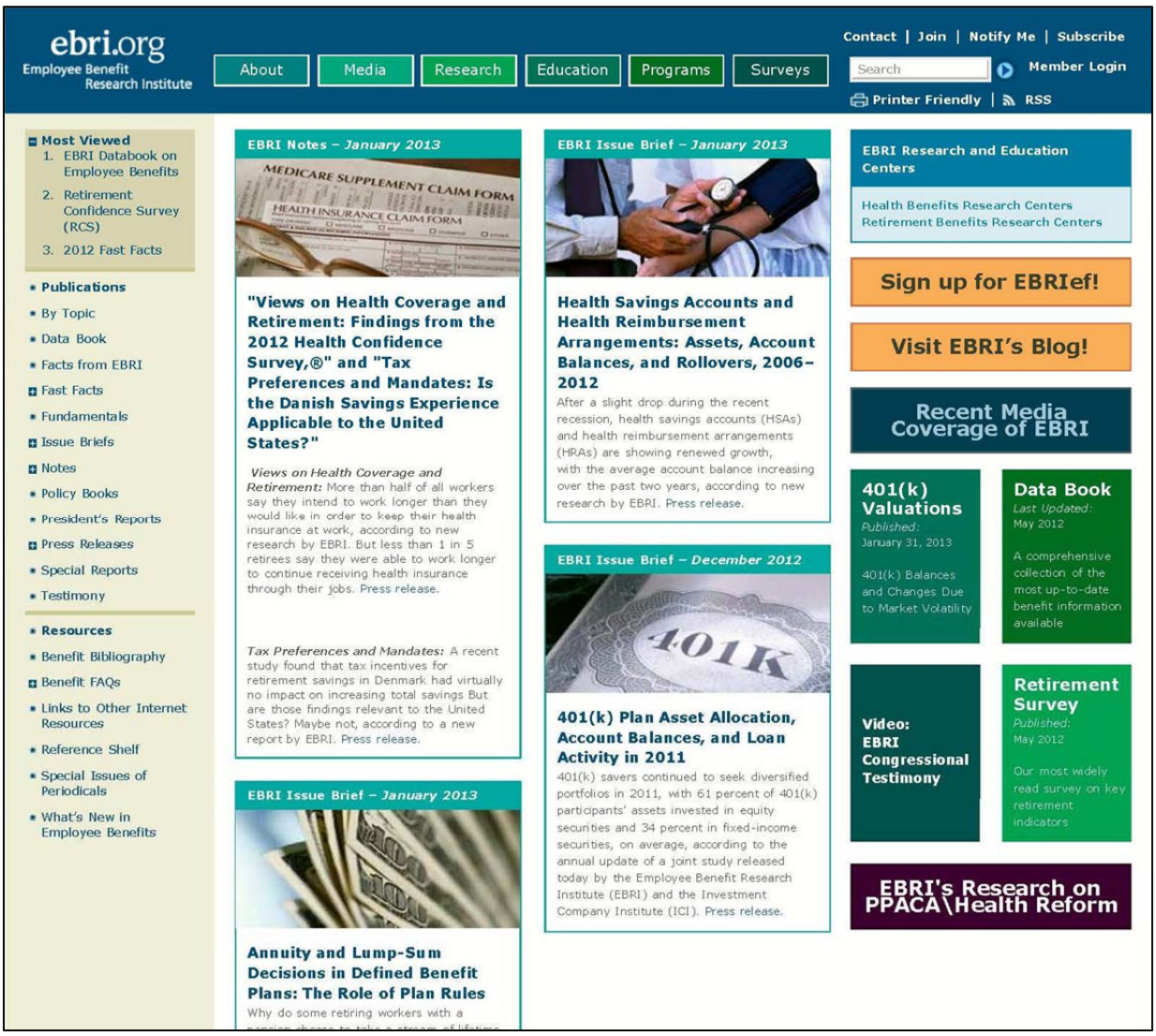

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