

How Much More Secure Does the SECURE Act Make American Workers: Evidence From EBRI's Retirement Security Projection Model[®]

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

AT A GLANCE

This *Issue Brief* uses EBRI's Retirement Security Projection Model[®] (RSPM) to simulate the likely impact on retirement income adequacy of three of the Setting Every Community Up for Retirement Enhancement Act of 2019's (SECURE Act's) most important provisions:

- Widening access to multiple employer plans (MEPs) through open MEPs.
- Increasing the cap under which plan sponsors can automatically enroll workers in "safe harbor" retirement plans, from 10 percent of wages to 15 percent.
- Covering long-term part-time employees.

The impact was measured with three different output metrics:

- Retirement savings shortfalls give the present value of the simulated retirement deficits at retirement age (in 2019 dollars).
- Retirement savings surpluses give the present value of simulated retirement surpluses at retirement age (in 2019 dollars).
- Net retirement savings surpluses give the present value of simulated retirement surpluses less retirement deficits at retirement age (in 2019 dollars).

Given the lack of information currently available on likely take-up rates for open MEPs by small employers that do not currently offer a retirement plan, sensitivity analysis was performed utilizing a wide array of assumed take-up rates:

- 7.3 percent.
- Baseline: 30–31 percent (depending on plan size).
- 66 percent.
- 100 percent.

In addition, the actual plan type of the open MEP was simulated three different ways:

- Automatic enrollment (assuming a 90 percent participation rate).
- Voluntary enrollment (assuming a 60 percent participation rate).
- Baseline: A blended rate (assuming a 75 percent participation rate).

Together, the baseline adoption and non-participation scenarios form the baseline case scenario.

Overall Reductions in Retirement Savings Shortfalls From Open MEPs: Total Impact Aggregated Across All Age Cohorts

- With adoption of open MEPs at approximately one-third and a non-participation rate of zero (everyone who is eligible chooses to participate), there is an overall 1.8 percent reduction in retirement savings deficit. One would assume that younger age cohorts would experience a larger impact from open MEPs given the longer time for which they may potentially benefit from the increased coverage. Indeed, this is what we find. Overall there is a 3.2 percent reduction in retirement deficit for those ages 35–39.
- In the baseline case scenario there is approximately a one-third adoption rate and 25 percent non-participation: The reduction in retirement savings deficit is now 1.4 percent overall and 2.4 percent for those ages 35–39.

Impact of the Increased Cap on Contribution Escalation on the Baseline Case Scenario

The SECURE Act contains a provision that increases the cap on automatic contribution escalation within the 401(k) non-discrimination testing safe harbor from 10 to 15 percent of pay. Also taking into account the increased cap, the overall reduction in retirement savings *deficit* is 2.6 percent and 4.5 percent for those ages 35–39.

Impact of Coverage of Long-Term Part-Time Employees on the Baseline Case Scenario

The SECURE Act also contains a provision that requires coverage of long-term part-time employees. Also taking this into account, the reduction in retirement savings *deficit* is 3.0 percent overall and 5.3 percent for those ages 35–39.

Impact of Changes in Opt-Out Rates on Overall Reduction in Retirement Deficit

- If we assume that all open MEPs under SECURE are designed with automatic enrollment, an automatic contribution escalation cap of 15 percent, coverage of long-term part-time employees, and an opt-out rate of *10 percent* (typical of automatic enrollment plans):
 - The reduction in retirement savings *deficit* is 3.3 percent overall and 5.8 percent for those ages 35–39.
 - The increase in retirement savings *surplus* is 6.1 percent overall and 15.3 percent for those ages 35–39.
 - The increase in *net* retirement savings surplus is 6.9 percent overall and 18.6 percent for those ages 35–39.
- If the non-participation rate is *25 percent*:
 - The reduction in retirement savings *deficit* is 3.0 percent overall and 5.3 percent for those ages 35–39.
 - The increase in retirement savings *surplus* is 5.9 percent overall and 14.4 percent for those ages 35–39.
 - The increase in *net* retirement savings surplus is 6.6 percent overall and 17.5 percent for those ages 35–39.
- If the non-participation rate is *40 percent* (which is commensurate with voluntary enrollment plans):
 - The reduction in retirement savings *deficit* is 2.8 percent overall and 4.9 percent for those ages 35–39.

- The increase in retirement savings *surplus* is 5.6 percent overall and 13.9 percent for those ages 35–39.
- The increase in *net* retirement savings surplus is 6.3 percent overall and 16.8 percent for those ages 35–39.

The Impact of Various Adoption Rates on Overall Reduction in Retirement Deficit

If we go back to the scenario above, where open MEPs are available, the cap on the automatic escalation of contributions in the 401(k) testing safe harbor is 15 percent, long-term part-time employees are covered, and non-participation rates are 25 percent of eligible employees, we can now test the impact of different adoption rates.

- In a more aggressive adoption scenario, we assume adoption of open MEPs is *66 percent*.
 - The reduction in retirement savings *deficit* is 4.4 percent overall and 7.5 percent for those ages 35–39.
 - The increase in retirement savings *surplus* is 7.2 percent overall and 17.3 percent for those ages 35–39.
 - The increase in *net* retirement savings surplus is 8.2 percent overall and 21.2 percent for those ages 35–39.
- In our most aggressive scenario, we assume *all employers* with fewer than 500 employees that do not currently sponsor a retirement plan adopt an open MEP.
 - The reduction in retirement savings *deficit* is now 5.6 percent overall and 9.2 percent for those ages 35–39.
 - The increase in retirement savings *surplus* is 8.7 percent overall and 20.2 percent for those ages 35–39.
 - The increase in *net* retirement savings surplus is 9.9 percent overall and 24.8 percent for those ages 35–39.
- Conversely, a “worst-case scenario” would assume *7 percent adoption* of open MEPs.
 - The reduction in retirement savings *deficit* is 2.0 percent overall and 3.5 percent for those ages 35–39.
 - The increase in retirement savings *surplus* is 4.9 percent overall and 12.3 percent for those ages 35–39.
 - The increase in *net* retirement savings surplus is 5.4 percent overall and 14.8 percent for those ages 35–39.

The Impact of Auto Portability on Overall Reduction in Retirement Deficit

Of course, lack of coverage is not the only consideration in determining how well workers will fare in America’s retirement savings system. Studies have found that plan leakage through cashouts upon termination is another key variable in determining retirement savings outcomes, especially among workers with low plan balances. Auto portability seeks to address retirement plan cashouts by having terminated participants’ former employer accounts automatically combine with their active accounts in new employers’ plans. Where open MEPs are available, the cap on the automatic escalation of contributions in the 401(k) testing safe harbor is 15 percent, long-term part-time employees are covered, and non-participation rates are 25 percent of eligible employees; further assuming that, upon termination, participants would have auto portability, the overall reduction in retirement savings shortfalls is 10.0 percent.

Jack VanDerhei is Director of Research 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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How Much More Secure Does the SECURE Act Make American Workers: Evidence From EBRI's Retirement Security Projection Model®

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

Introduction

The question of whether a retirement “crisis” exists — and if so, to what extent — is still the subject of considerable debate.¹ Nonetheless, the recently passed Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act) was designed to improve retirement coverage as well as the ability of individuals to manage important retirement-related risks. In this *Issue Brief*, the Employee Benefit Research Institute’s (EBRI’s) Retirement Security Projection Model® (RSPM) is used to evaluate the impact of provisions in the SECURE Act on national retirement income adequacy, including:²

- Greater access by allowing providers to offer multiple employer plans (open MEPs).
- Higher cap under which plan sponsors can automatically enroll workers in “safe harbor” retirement plans, from 10 percent of wages to 15 percent.
- Coverage of long-term part-time employees.

The impact of these provisions, by themselves and in combination with others, is analyzed to provide a quantitative estimate of the impact on retirement income adequacy. This impact is measured by changes in the average simulated retirement deficits, average simulated retirement surpluses, and average simulated retirement net surpluses (defined below).

EBRI's Retirement Security Projection Model®

EBRI's RSPM® simulates retirement income adequacy for all U.S. households between the ages of 35 and 64. The model reflects the real-world behavior of 27 million 401(k) participants as well as 20 million individuals with individual retirement accounts (IRAs).

RSPM® produces three important metrics for evaluating retirement income adequacy:

- Retirement savings shortfalls give the present value of the simulated retirement deficits at retirement age (in 2019 dollars).
- Retirement savings surpluses give the present value of simulated retirement surpluses at retirement age (in 2019 dollars).
- Net retirement savings surpluses give the present value of simulated retirement surpluses less retirement deficits at retirement age (in 2019 dollars).

EBRI Retirement Security Projection Model® Methodology

One of the basic objectives of RSPM® is to simulate the percentage of the population at risk of NOT having retirement income to adequately cover average expenses and uninsured health care costs (including long-term-care costs) at ages 65 or older throughout retirement in specific income and age groupings. RSPM® also provides information on the distribution of the likely number of years before those at risk run short of money as well as the percentage of

preretirement compensation they will need in terms of additional savings in order to have a 50, 70, or 90 percent probability of retirement income adequacy.

VanDerhei and Copeland (2010) describe how households are tracked through retirement age and how their retirement income/wealth is simulated for the following components:

- Social Security.
- Defined contribution (DC) balances.
- Individual retirement account (IRA) balances.
- Defined benefit (DB) annuities and/or lump-sum distributions.
- Net housing equity.

A household is considered to run short of money in this model if aggregate resources in retirement are not sufficient to meet average retirement expenditures, defined as a combination of deterministic expenses from the Consumer Expenditure Survey (as a function of income) and some health insurance and out-of-pocket, health-related expenses, plus stochastic expenses from nursing-home and home-health care (at least until the point such expenses are covered by Medicaid). This version of the model is constructed to simulate retirement income adequacy, as noted above. Alternative versions of the model allow similar analysis for replacement rates, standard-of-living calculations, and other ad hoc thresholds.

The baseline version of the model used for this analysis assumes all workers retire at age 65; that they immediately begin drawing benefits from Social Security and defined benefit plans (if any); and, to the extent that the sum of their expenses and uninsured medical expenses exceed the projected, after-tax annual income from those sources, immediately begin to withdraw money from their individual accounts (defined contribution and cash balance plans as well as IRAs). If there is sufficient money to pay expenses without tapping into the tax-qualified individual accounts, those balances are assumed to be invested in a non-tax-advantaged account where the investment income is taxed as ordinary income. Individual accounts are tracked until the point at which they are depleted. At that point, any net housing equity is assumed to be added to retirement savings in the form of a lump-sum distribution (not a reverse annuity mortgage (RAM)). If all the retirement savings are exhausted and the Social Security and defined benefit payments are not sufficient to pay expenses, the individual is designated as having run short of money at that point.

The Potential Impact of Open MEPs

It will be several years before sufficient empirical information is collected to estimate the utilization of open MEPs by employers. As such, several assumptions are used in the following analysis to provide a wide range of sensitivity analysis:

- Prudential³ conducted a survey in 2016 that shows between 31 and 33 percent of employers with fewer than 500 employees would be highly likely to consider a MEP.
- Empower⁴ reported survey results in 2018 finding that 66 percent of small business owners who don't offer a retirement plan are likely to consider an open MEP.
- Pew⁵ conducted a survey in 2017 for a slightly different situation that showed that 7.3 percent of decision-makers at private-sector small and medium-sized businesses would definitely be interested in participating if a plan with similar provisions was available.
- In addition, simulations were run that assumed ALL employers with fewer than 500 employees that were not currently sponsoring a retirement plan would adopt an open MEP.

Another variable to consider is the future plan design of open MEPs, since this is likely to have a major impact on the participation rates of eligible employees. For purposes of estimating the baseline scenario in this *Issue Brief*, we assume that there is a 75 percent participation rate (25 percent non-participation rate) for all employees eligible for an open MEP. However, for several of the analyses, we bifurcate this assumption into those open MEPs with an automatic enrollment design and those with a voluntary enrollment design. The participation rate assumptions are 90 percent for the former and 60 percent for the latter (10 percent and 40 percent non-participation respectively).⁶

Finally, it is important to note that the impact of open MEPs on retirement income adequacy depends to a large extent on an employer-size/job-transition matrix (i.e., do employees who currently work for small employers tend to take a job with another small employer when they change jobs or is the size of their next employer more of a random variable). In all of the analyses in this *Issue Brief*, we assume that there is 100 percent autocorrelation. In other words, we assume that if an employee is working for a small employer today, they will always work for a small employer regardless of the number of job changes they incur.

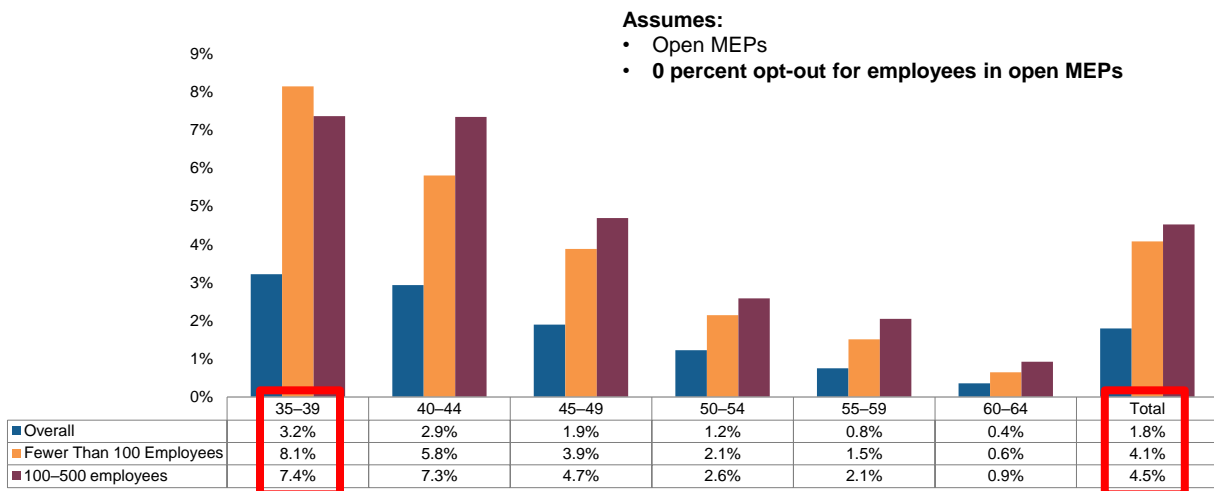
Baseline Case Scenario

We start with Prudential’s assumption that open MEPs will be adopted by approximately one-third of employers — our baseline adoption scenario. We further assume that no eligible employees opt out (Figure 1). As expected, the total impact (aggregated across all age cohorts) is greater for employees working for smaller employers. Overall there is a 1.8 percent reduction in retirement deficit from open MEPs in the baseline scenario. There is a 4.1 percent reduction for employees working for employers with fewer than 100 employees and a 4.5 percent reduction for employees working for employers with 100–500 employees.

One would assume that younger age cohorts would experience a larger impact from open MEPs given the longer time for which they may potentially benefit from the increased coverage. Indeed, this is what we find. Overall, there is a 3.2 percent reduction in retirement deficit for those ages 35–39 compared with the 1.8 percent for all ages combined. There is a similar impact for employees ages 35–39 working for smaller employers. The retirement deficit decreases by:

- 8.1 percent for younger workers of employers with fewer than 100 employees, compared with a 4.1 percent reduction overall in this size range.
- 7.4 percent for younger workers of employers with 100–500 employees, compared with a 4.5 percent reduction overall in this size range.

Figure 1
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

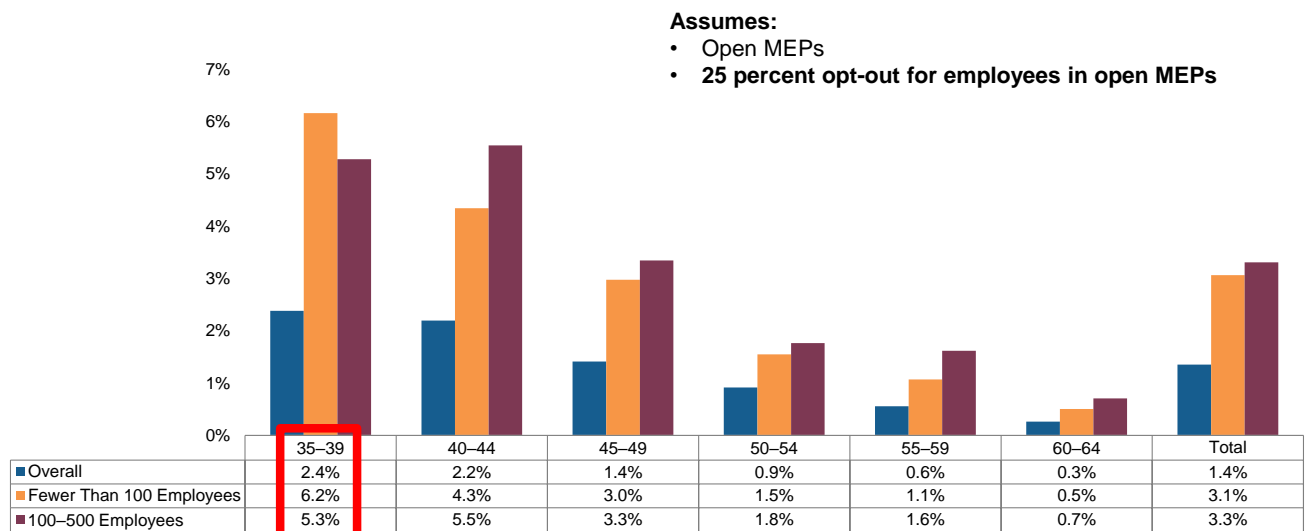


Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

In our baseline, eligible employee participation is 25 percent, which is a blended rate of the assumed 10 percent opt-out rate under automatic enrollment and 40 percent non-participation by eligible employees under voluntary enrollment. If we assume non-participation by eligible employees of 25 percent instead of zero — the “baseline case scenario” — as Figure 2 shows, the decrease in retirement deficit aggregated across all age cohorts and all employer size categories is 1.4 percent. It is 3.1 percent for employees working for employers with fewer than 100 employees and 3.3 percent for employees working for employers with 100–500 employees. For younger employees (ages 35–39) the retirement deficit decreases by:

- 2.4 percent overall.
- 6.2 percent for younger employees working for employers with fewer than 100 employees.
- 5.3 percent for younger employees working for employers with 100–500 employees.

Figure 2
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



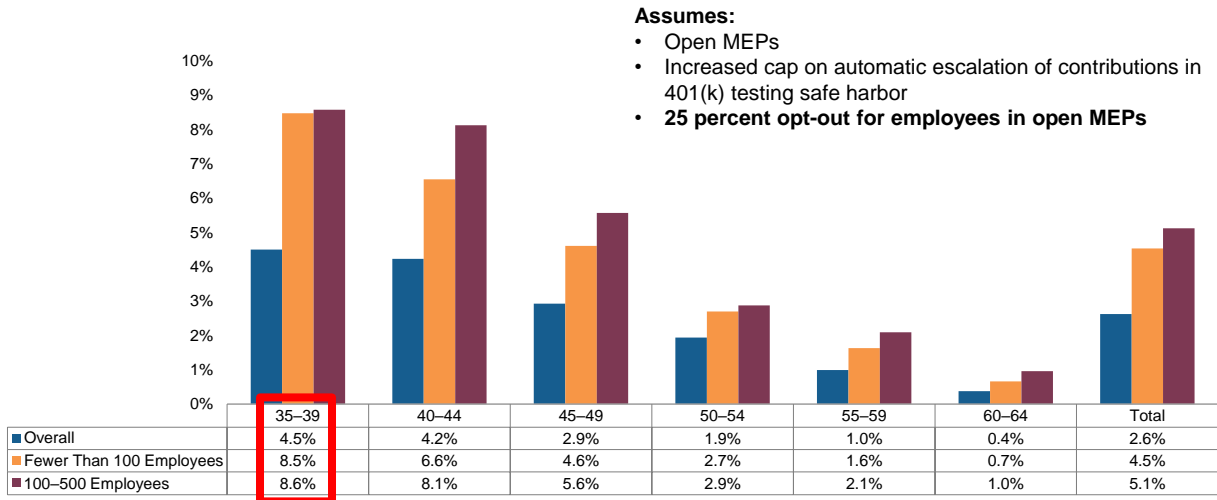
Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Impact of the Increased Cap on Contribution Escalation

The SECURE Act contains a provision that increases the cap on automatic contribution escalation within the 401(k) non-discrimination testing safe harbor from 10 to 15 percent of pay.⁷ Figure 3 modifies the baseline case scenario so that RSPM® further takes into account the increase in auto-escalation cap (aggregated across all age cohorts and all employer size categories). Now the decrease in retirement deficit is 2.6 percent. It is estimated to be 4.5 percent for employees working for employers with fewer than 100 employees and 5.1 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the deficit decreases by:

- 4.5 percent overall.
- 8.5 percent for employees working for employers with fewer than 100 employees.
- 8.6 percent for employees working for employers with 100–500 employees.

Figure 3
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



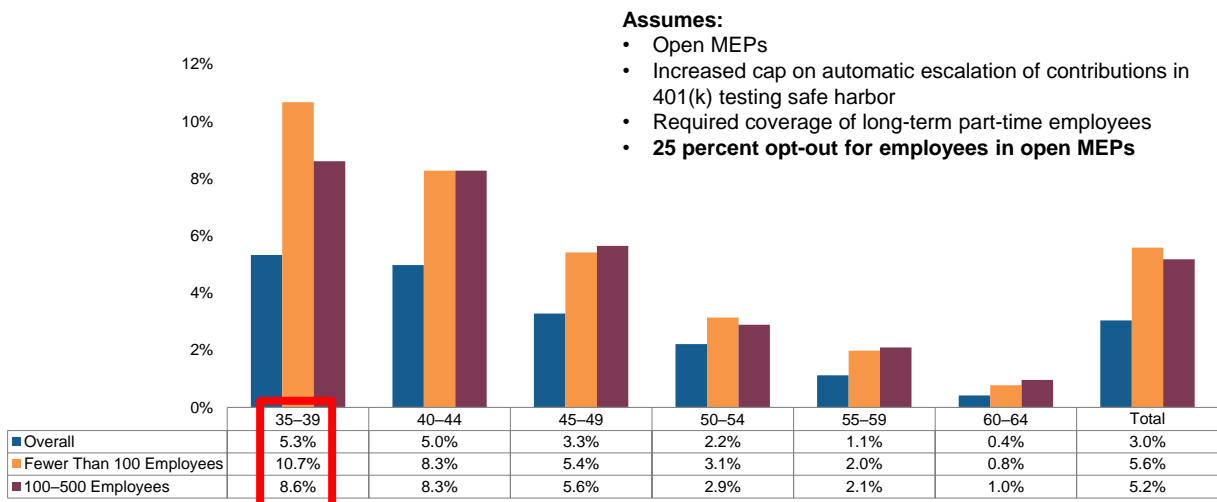
Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Impact of Coverage of Long-Term Part-Time Employees

The SECURE Act also contains a provision that requires coverage of long-term part-time employees. If we also take this into account and modify the assumptions in our prior calculation (baseline case scenario with 15 percent cap on contribution escalation), we now find, aggregated across all age cohorts and all employer size categories, a retirement deficit reduction of 3.0 percent (Figure 4). The deficit reduction is 5.6 percent for employees working for employers with fewer than 100 employees and 5.2 percent for employees working for employers with 100-500 employees. For employees ages 35-39, the deficit is reduced by:

- 5.3 percent overall.
- 10.7 percent for employees working for employers with fewer than 100 employees.
- 8.6 percent for employees working for employers with 100-500 employees.

Figure 4
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



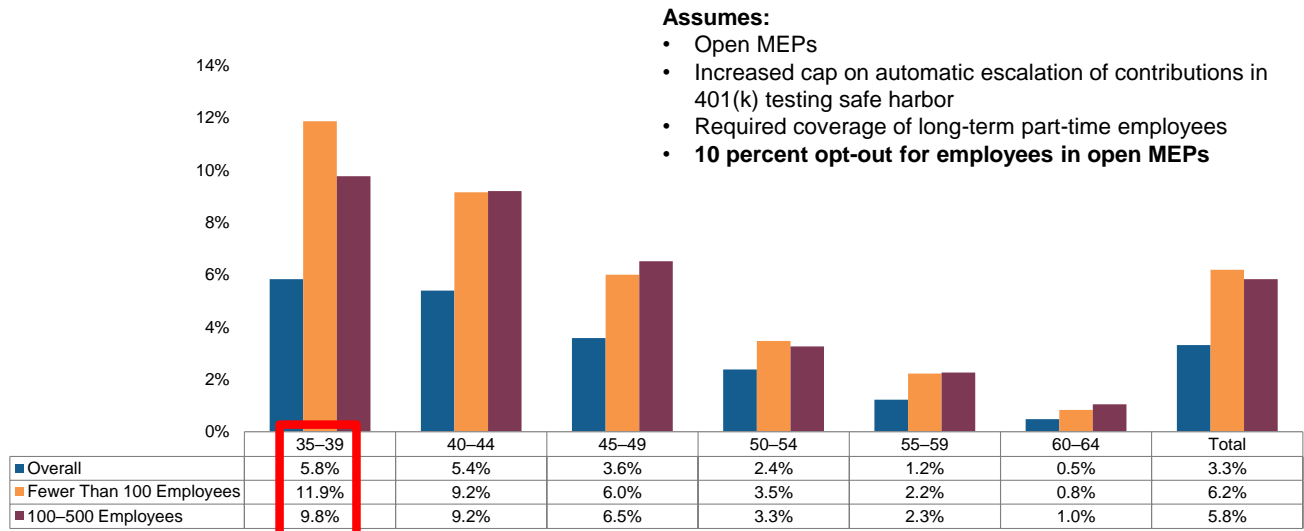
Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Impact of Changes in Opt-Out Rates

We have modeled scenarios with opt-out rates of zero (full participation of all eligible employees) and 25 percent. If we assume that all open MEPs under SECURE are designed with automatic enrollment, an automatic contribution escalation cap of 15 percent in the 401(k) non-discrimination testing safe harbor, coverage of long-term part-time employees, and an opt-out rate of *10 percent* (typical of automatic enrollment plans), the overall reduction in retirement deficit aggregated across all age cohorts and all employer size categories is 3.3 percent (Figure 5). The deficit reduction is 6.2 percent for employees working for employers with fewer than 100 employees and 5.8 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the reduction in retirement deficit is:

- 5.8 percent overall.
- 11.9 percent for employees working for employers with fewer than 100 employees.
- 9.8 percent for employees working for employers with 100–500 employees.

Figure 5
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

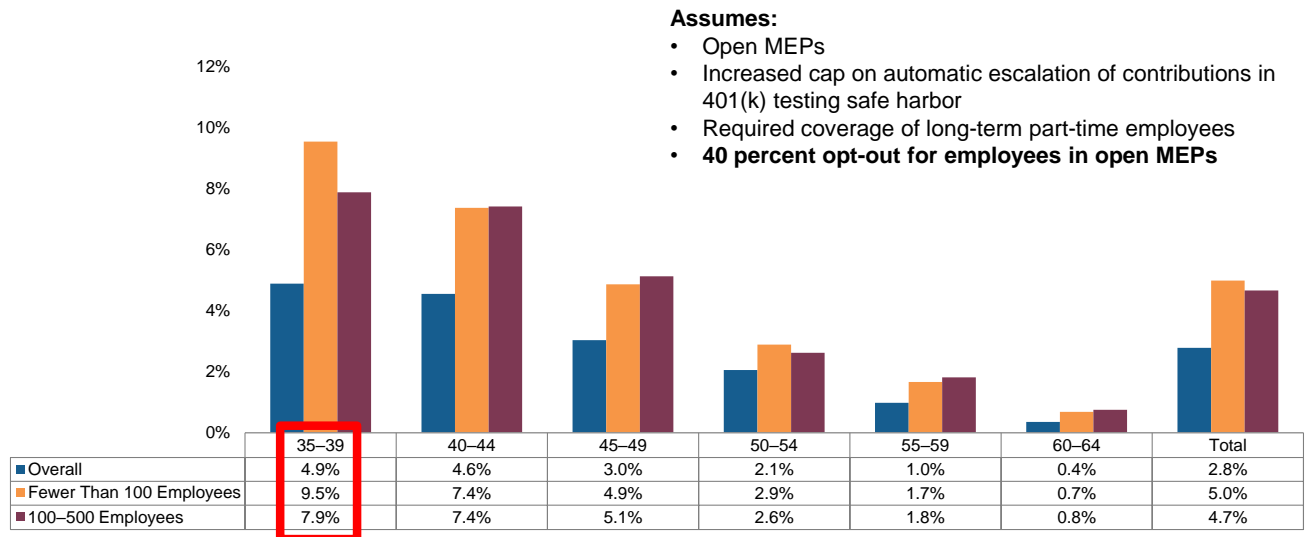


Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Conversely, if we assume under the same scenario that non-participation rates are *40 percent* (which is commensurate with voluntary enrollment plans), the overall reduction in retirement deficit aggregated across all age cohorts and all employer size categories is 2.8 percent (Figure 6). It is 5.0 percent for employees working for employers with fewer than 100 employees and 4.7 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the retirement deficit decreases:

- 4.9 percent overall.
- 9.5 percent for employees working for employers with fewer than 100 employees.
- 7.9 percent for employees working for employers with 100–500 employees.

Figure 6
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

The Impact of Various Adoption Rates

In this next set of sensitivity analyses, we assume that open MEPs are available, the cap on the automatic escalation of contributions in the 401(k) testing safe harbor is 15 percent, long-term part-time employees are covered, and non-participation rates are 25 percent of eligible employees.

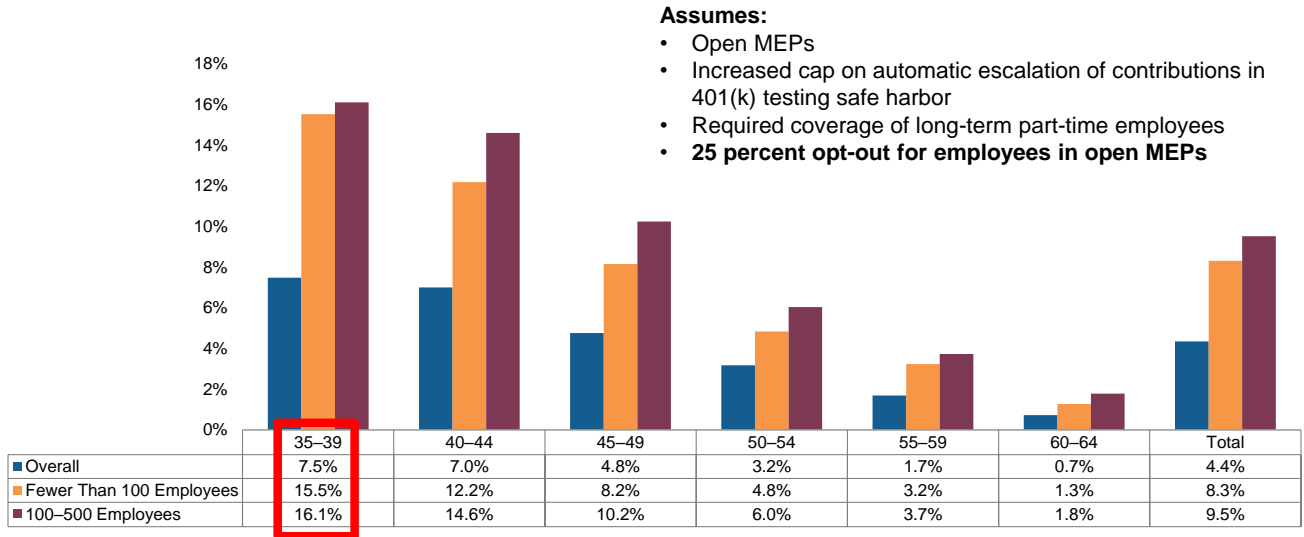
We test a more aggressive adoption scenario, assuming that adoption of open MEPS is 66 percent. The overall reduction in retirement deficit aggregated across all age cohorts and all employer size categories is now 4.4 percent (Figure 7). It is 8.3 percent for employees working for employers with fewer than 100 employees and 9.5 percent for employees working for employers with 100-500 employees. For employees ages 35-39, the deficit reduction is:

- 7.5 percent overall.
- 15.5 percent for employees working for employers with fewer than 100 employees.
- 16.1 percent for employees working for employers with 100-500 employees.

In our most aggressive scenario, we assume all employers with fewer than 500 employees that do not currently sponsor a retirement plan adopt an open MEP. The overall reduction in retirement deficit aggregated across all age cohorts and all employer size categories is now 5.6 percent (Figure 8). It is 10.9 percent for employees working for employers with fewer than 100 employees and 13.2 percent for employees working for employers with 100-500 employees. For employees ages 35-39, the retirement deficit decreases:

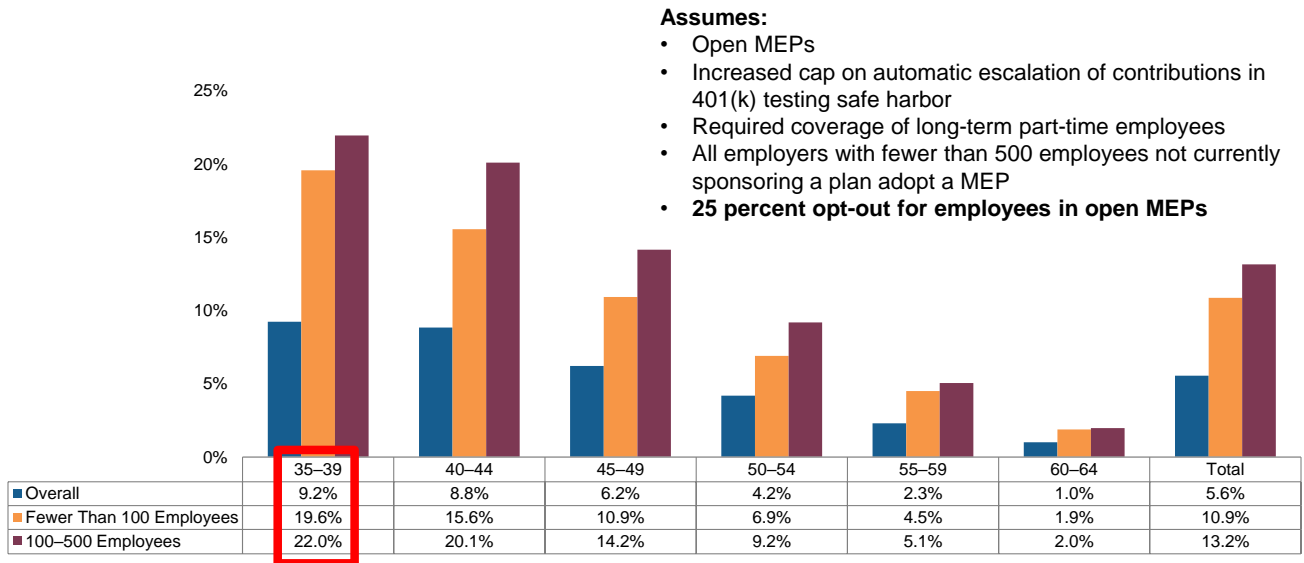
- 9.2 percent overall.
- 19.6 percent for employees working for employers with fewer than 100 employees.
- 22.0 percent for employees working for employers with 100-500 employees.

Figure 7
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From Empower Institute (2018)



Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 8
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer

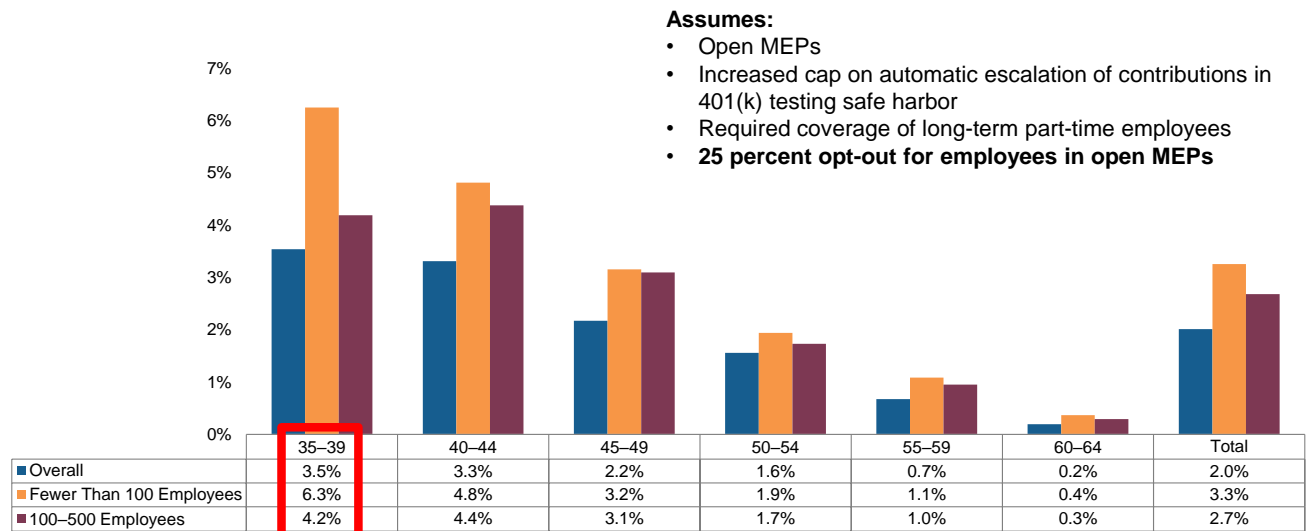


Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Conversely, in a “worst-case scenario” of the above, using Pew’s 7.3 percent adoption of open MEPs assumption, Figure 9 shows an overall reduction in retirement deficit aggregated across all age cohorts and all employer size categories of 2.0 percent. It is 3.3 percent for employees working for employers with fewer than 100 employees and 2.7 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the retirement deficit decreases:

- 3.5 percent overall.
- 6.3 percent for employees working for employers with fewer than 100 employees.
- 4.2 percent for employees working for employers with 100–500 employees.

Figure 9
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From Pew (March 2017)



Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

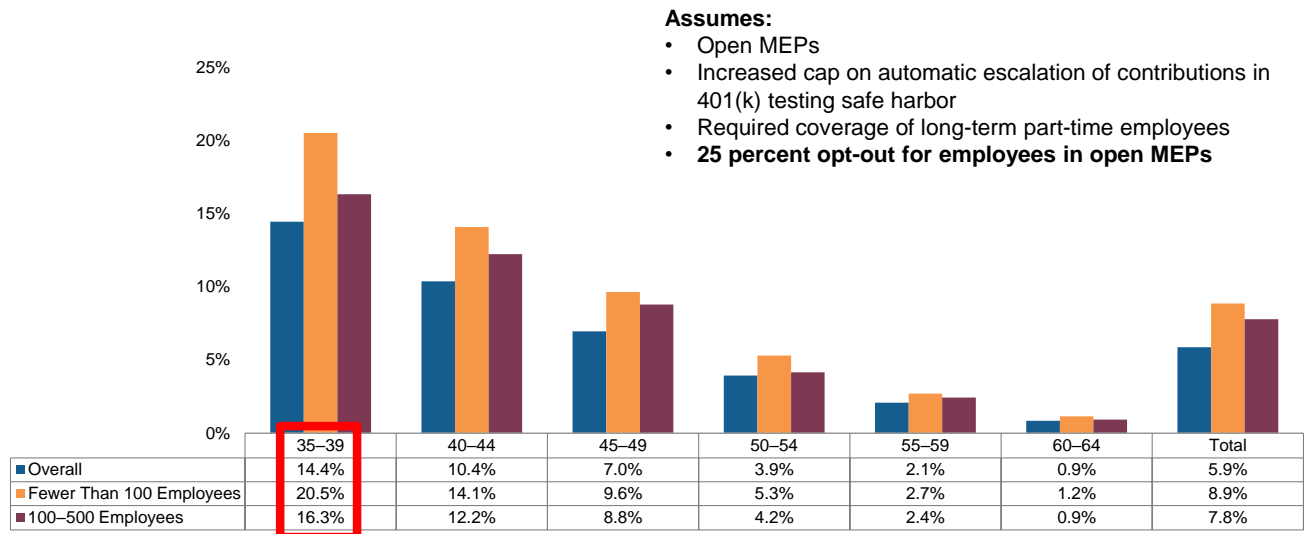
Impact on Retirement Savings Surpluses

We will continue to assume that open MEPs are adopted by about a third of employers, that there is a 15 percent cap on automatic escalation of contributions in 401(k) testing safe harbor, and that long-term part-time employees are covered. However, we now examine the increase in savings surpluses, or savings of those who are not simulated to experience a retirement deficit. Figure 10 shows the total retirement savings surplus increase aggregated across all age cohorts is 5.9 percent under a scenario with 25 percent non-participation. It is 8.9 percent for employees working for employers with fewer than 100 employees and 7.8 percent for employees working for employers with 100–500 employees.

For younger age cohorts, there is a 14.4 percent increase in surplus for those ages 35–39 compared with the 5.9 percent for all ages combined. There is a similar impact for employees working for smaller employers. Retirement surplus increases:

- 20.5 percent for employees ages 35–39 working for employers with fewer than 100 employees compared with the 8.9 percent increase overall in this size range.
- 16.3 percent for employees ages 35–39 working for employers with 100–500 employees compared with the 7.8 percent increase overall in this size range.

Figure 10
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

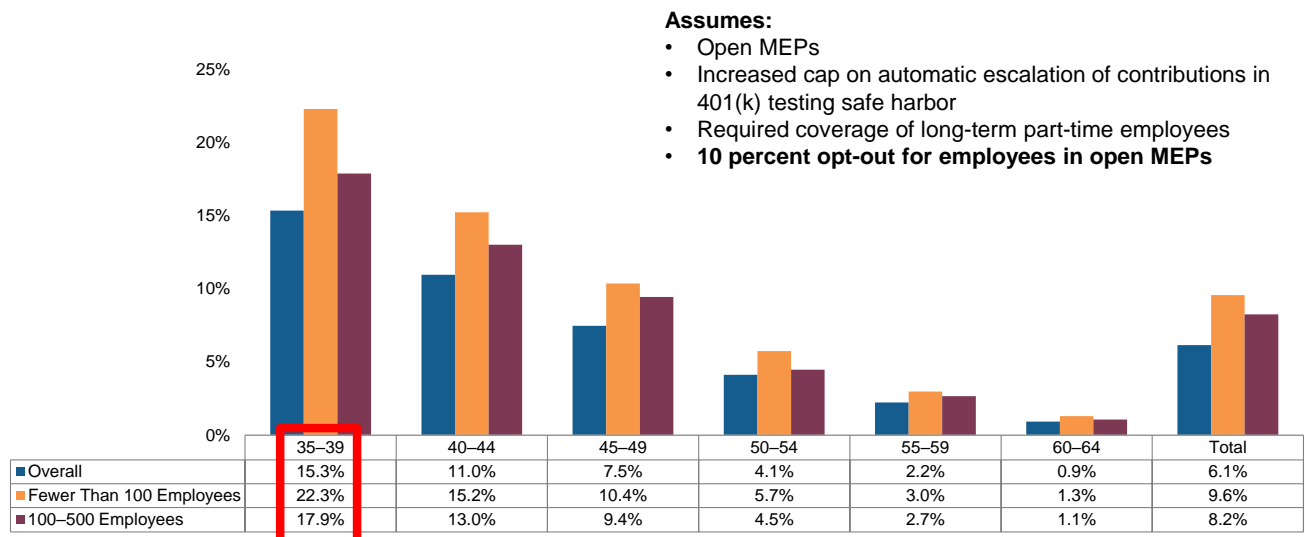


Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Reducing the non-participation rate from 25 percent to 10 percent, the overall increase in surplus aggregated across all age cohorts and all employer size categories is 6.1 percent (Figure 11). It is 9.6 percent for employees working for employers with fewer than 100 employees and 8.2 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the retirement saving surplus increases:

- 15.3 percent overall.
- 22.3 percent for employees working for employers with fewer than 100 employees.
- 17.9 percent for employees working for employers with 100–500 employees.

Figure 11
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

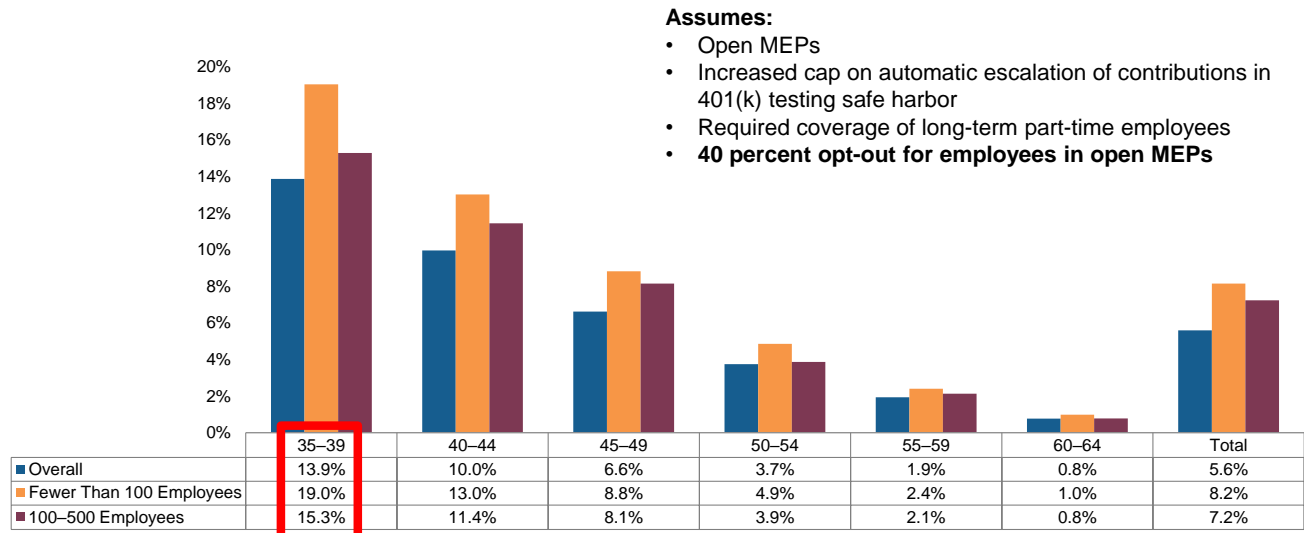


Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Shifting the non-participation rate up to 40 percent, Figure 12 shows the overall increase in retirement savings surplus aggregated across all age cohorts and all employer size categories is 5.6 percent. It is 8.2 percent for employees working for employers with fewer than 100 employees and 7.2 percent for employees working for employers with 100–500 employees. For employees ages 35–39, retirement savings surplus increases:

- 13.9 percent overall.
- 19.0 percent for employers with fewer than 100 employees.
- 15.3 percent for employees working for employers with 100–500 employees.

Figure 12
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

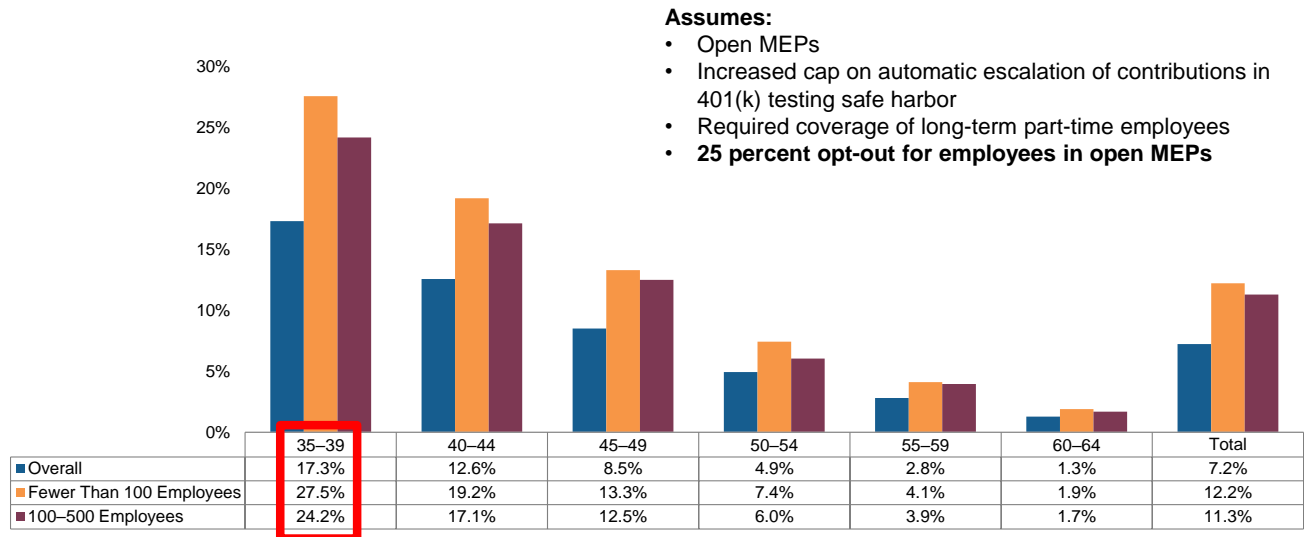
Figure 13 shows the results of simulating a two-thirds vs. one-third adoption rate. The overall increase in retirement savings surplus aggregated across all age cohorts and all employer size categories is 7.2 percent. It is 12.2 percent for employees working for employers with fewer than 100 employees and 11.3 percent for employees working for employers with 100–500 employees. For employees ages 35–39, retirement savings surplus increases:

- 17.3 percent overall.
- 27.5 percent for employees working for employers with fewer than 100 employees.
- 24.2 percent for employees working for employers with 100–500 employees.

Again, in our most aggressive scenario (Figure 14) we examine the impact of assuming all employers with fewer than 500 employees that do not currently sponsor a retirement plan adopt an open MEP. The overall increase in retirement savings surplus aggregated across all age cohorts and all employer size categories is 8.7 percent. It is 15.7 percent for employees working for employers with fewer than 100 employees and 14.8 percent for employees working for employers with 100–500 employees. For employees ages 35–39, retirement savings surplus increases:

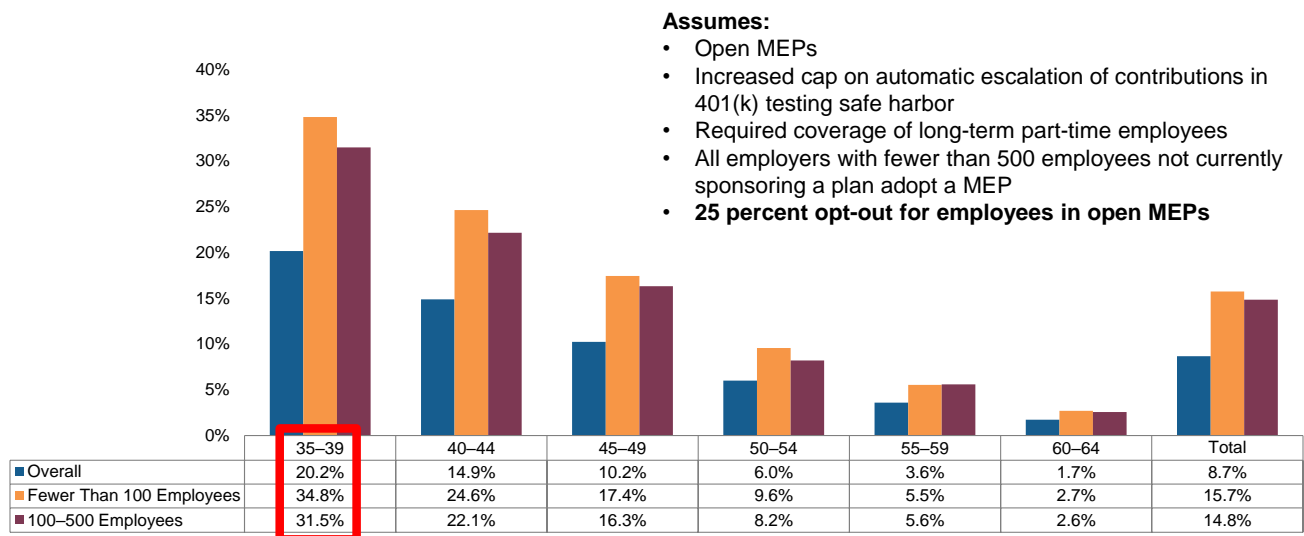
- 20.2 percent overall.
- 34.8 percent for employees working for employers with fewer than 100 employees.
- 31.5 percent for employees working for employers with 100–500 employees.

Figure 13
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From Empower Institute (2018)



Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 14
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer

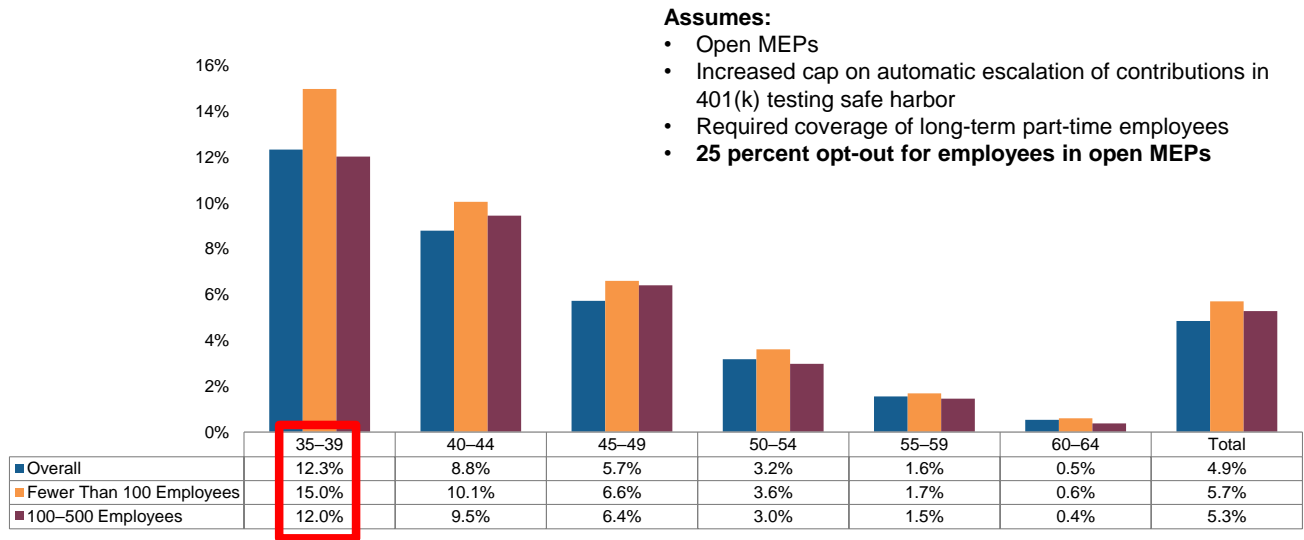


Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

In the “worst-case scenario” (Figure 15) where open MEPs are only adopted by 7.3 percent of employers, the overall increase in retirement savings surplus aggregated across all age cohorts and all employer size categories is 4.9 percent. It is 5.7 percent for employees working for employers with fewer than 100 employees and 5.3 percent for employees working for employers with 100–500 employees. For employees ages 35–39, retirement savings surplus increases:

- 12.3 percent increase overall.
- 15.0 percent for employees working for employers with fewer than 100 employees.
- 12.0 percent for employees working for employers with 100–500 employees.

Figure 15
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From Pew (March 2017)



Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

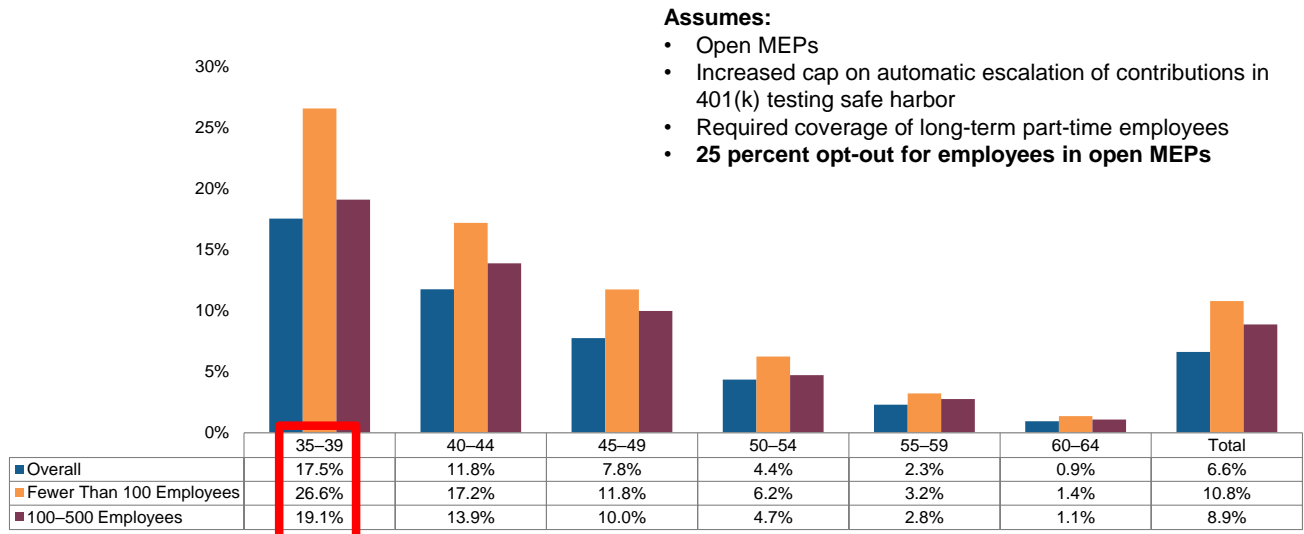
Impact on Net Retirement Savings Surpluses

Net retirement savings surpluses are calculated as estimated retirement savings surpluses less retirement savings deficits. Again, assuming approximately one-third of employers adopt open MEPs, an increased cap on the automatic escalation of contributions in 401(k) testing safe harbor, coverage of long-term part-time employees, and a 25 percent eligible employee non-participation rate, Figure 16 shows that overall there is a 6.6 percent increase in net retirement savings surpluses. However, there is a 10.8 percent increase for employees working for employers with fewer than 100 employees and an 8.9 percent increase for employees working for employers with 100–500 employees.

One would also assume that younger age cohorts would experience a larger impact from open MEPs given the longer time for which they may potentially benefit from the increased coverage. Figure 16 shows that overall there is a 17.5 percent increase in net retirement savings surpluses for those ages 35–39 compared with the 6.6 percent for all ages combined. There is a similar impact for employees working for smaller employers. The net retirement savings surplus increases:

- 26.6 percent for employees ages 35–39 working for employers with fewer than 100 employees compared with the 10.8 percent increase overall in this size range.
- 19.1 percent for employees ages 35–39 working for employers with 100–500 employees compared with the 8.9 percent increase overall in this size range.

Figure 16
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

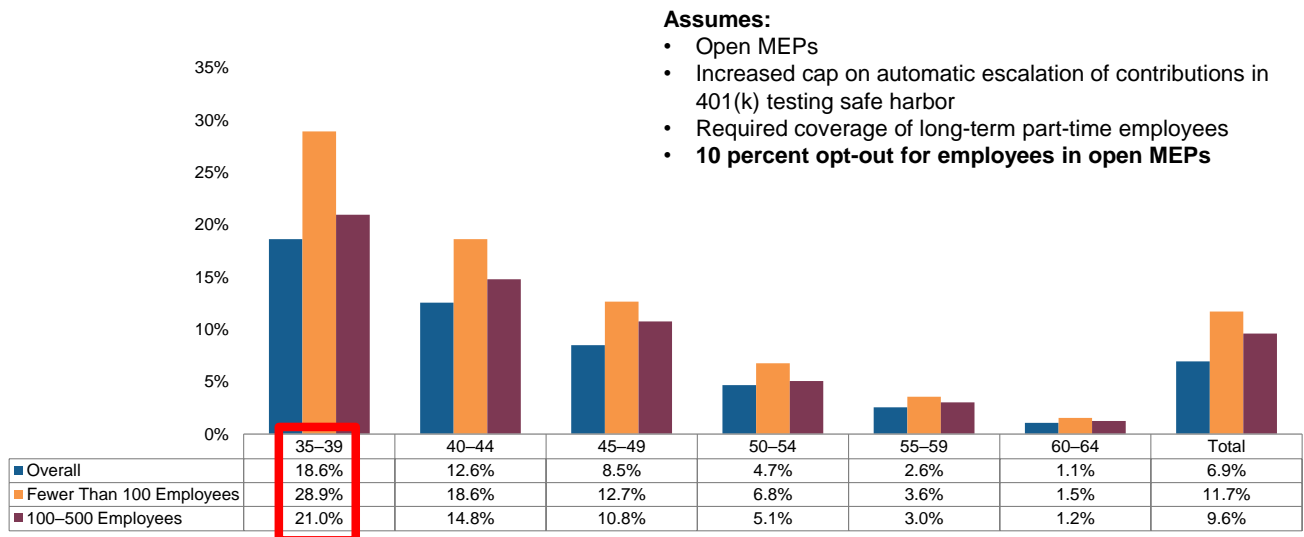


Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 17 shows the results of simulating the same scenario but with a reduced non-participation rate of 10 percent. The overall increase in net retirement savings surpluses aggregated across all age cohorts and all employer size categories is 6.9 percent. However, it is 11.7 percent for employees working for employers with fewer than 100 employees and 9.6 percent for employees working for employers with 100-500 employees. For employees ages 35-39, the net retirement savings surplus increases:

- 18.6 percent overall.
- 28.9 percent for employees working for employers with fewer than 100 employees.
- 21.0 percent for employees working for employers with 100-500 employees.

Figure 17
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement

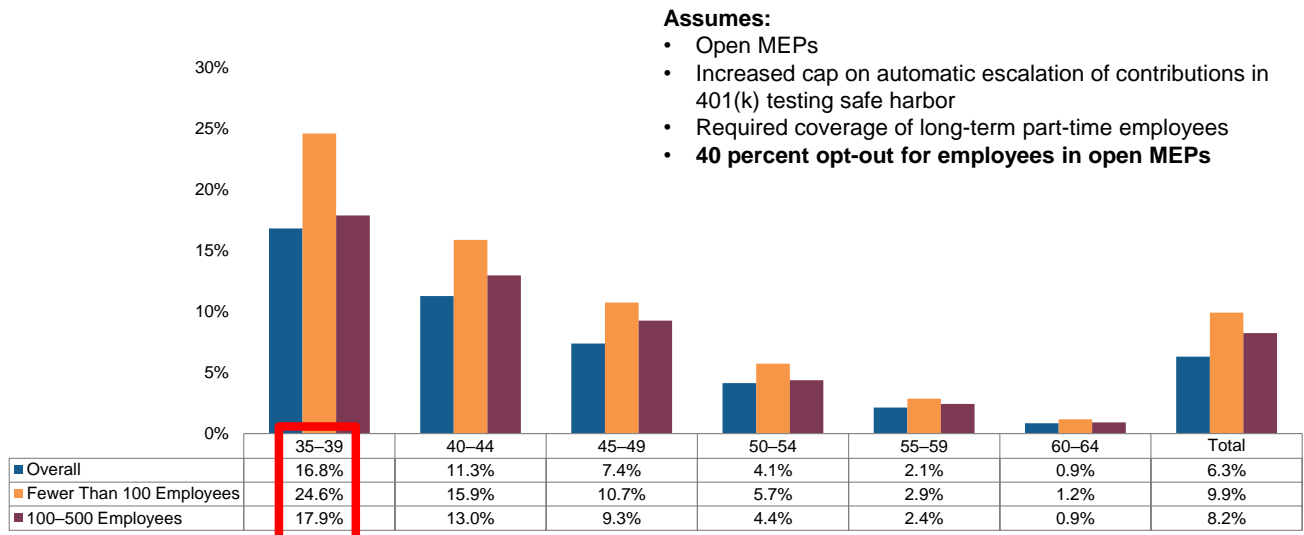


Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 18 increases the non-participation rate to 40 percent. The overall increase in net retirement savings surpluses aggregated across all age cohorts and all employer size categories is 6.3 percent. It is 9.9 percent for employees working for employers with fewer than 100 employees and 8.2 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the net retirement savings surplus increases:

- 16.8 percent overall.
- 24.6 percent for employees working for employers with fewer than 100 employees.
- 17.9 percent for employees working for employers with 100–500 employees.

Figure 18
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

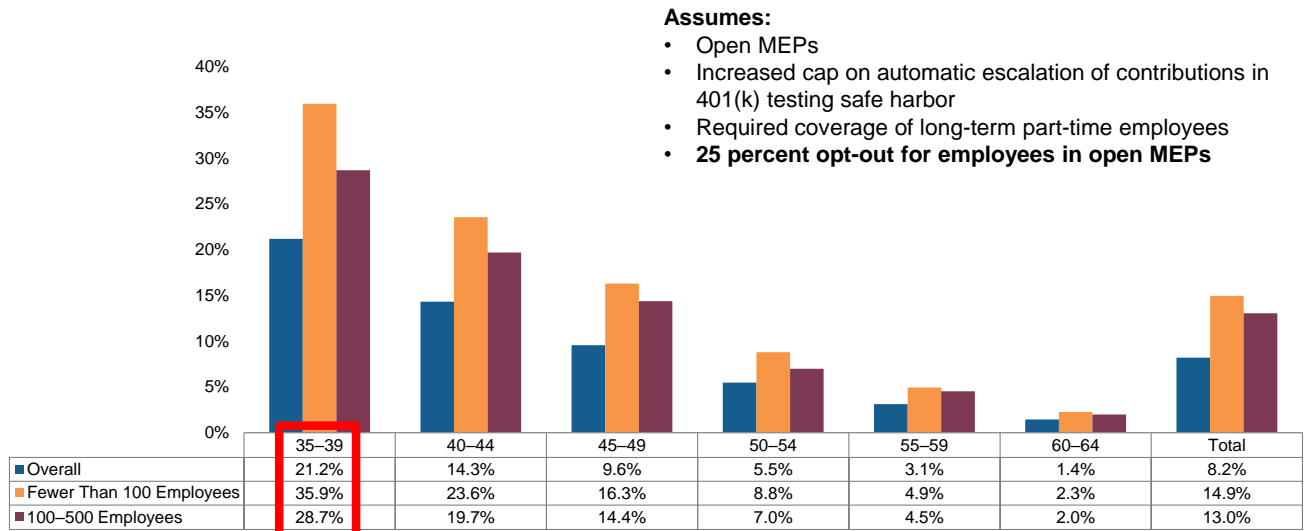
In Figure 19, we boost the adoption of open MEPs to two-thirds. The overall increase in net retirement savings surpluses aggregated across all age cohorts and all employer size categories is now 8.2 percent. It is 14.9 percent for employees working for employers with fewer than 100 employees and 13.0 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the net retirement savings surplus increases:

- 21.2 percent overall.
- 35.9 percent for employees working for employers with fewer than 100 employees.
- 28.7 percent for employees working for employers with 100–500 employees.

Figure 20 is the most aggressive scenario, assuming all employers with fewer than 500 employees that do not currently sponsor a retirement plan adopt an open MEP. The overall increase in net retirement savings surpluses aggregated across all age cohorts and all employer size categories is 9.9 percent. It is 19.3 percent for employees working for employers with fewer than 100 employees and 17.2 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the net retirement savings surplus increases:

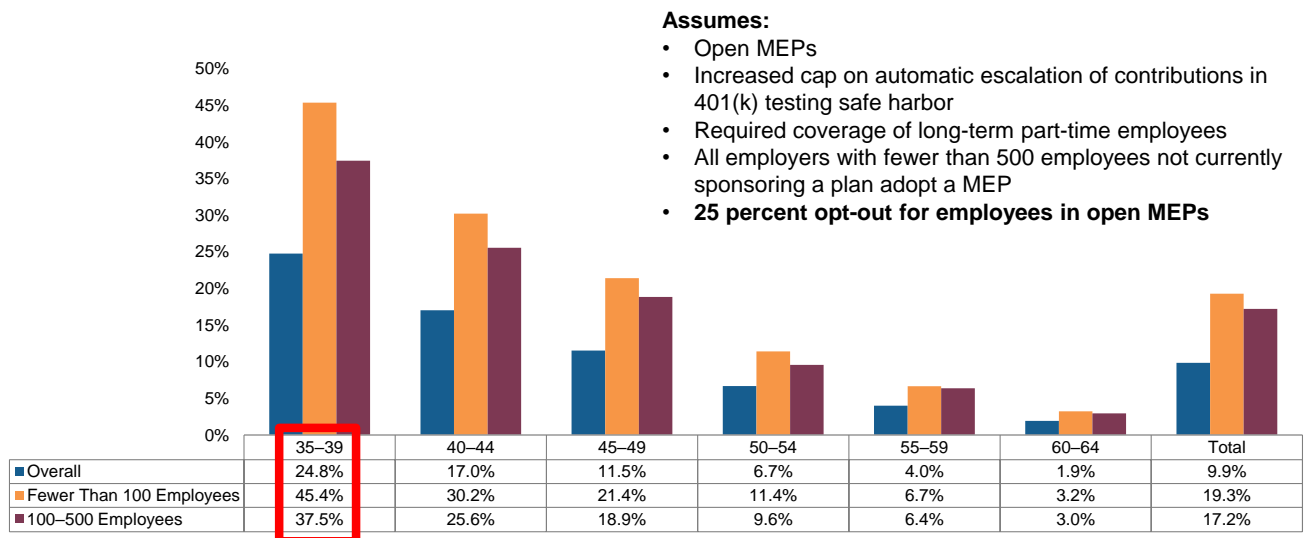
- 24.8 percent overall.
- 45.4 percent for employees working for employers with fewer than 100 employees.
- 37.5 percent for employees working for employers with 100–500 employees.

Figure 19
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From Empower Institute (2018)



Retirement Savings Net Surplus (RSNS) is defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 20
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer

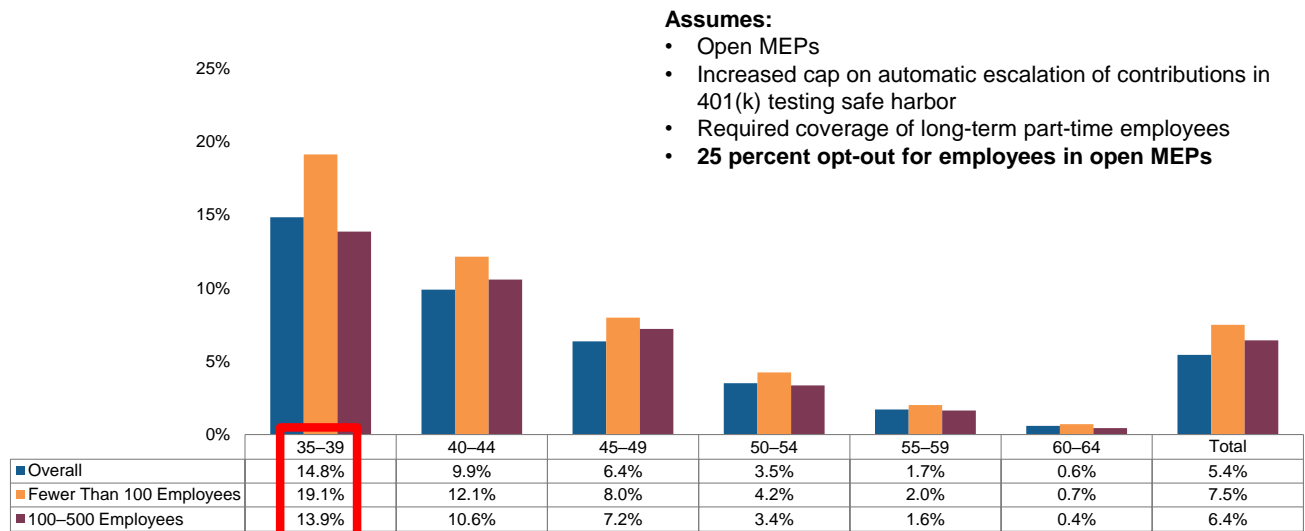


Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Conversely, the worst-case scenario, where adoption is only 7.3 percent, shows an overall increase in net retirement savings surpluses aggregated across all age cohorts and all employer size categories of 5.4 percent (Figure 21). It is 7.5 percent for employees working for employers with fewer than 100 employees and 6.4 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the net retirement savings surplus increases:

- 14.8 percent overall.
- 19.1 percent for employees working for employers with fewer than 100 employees.
- 13.9 percent for employees working for employers with 100–500 employees.

Figure 21
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From Pew (March 2017)



Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

The Impact of Auto Portability

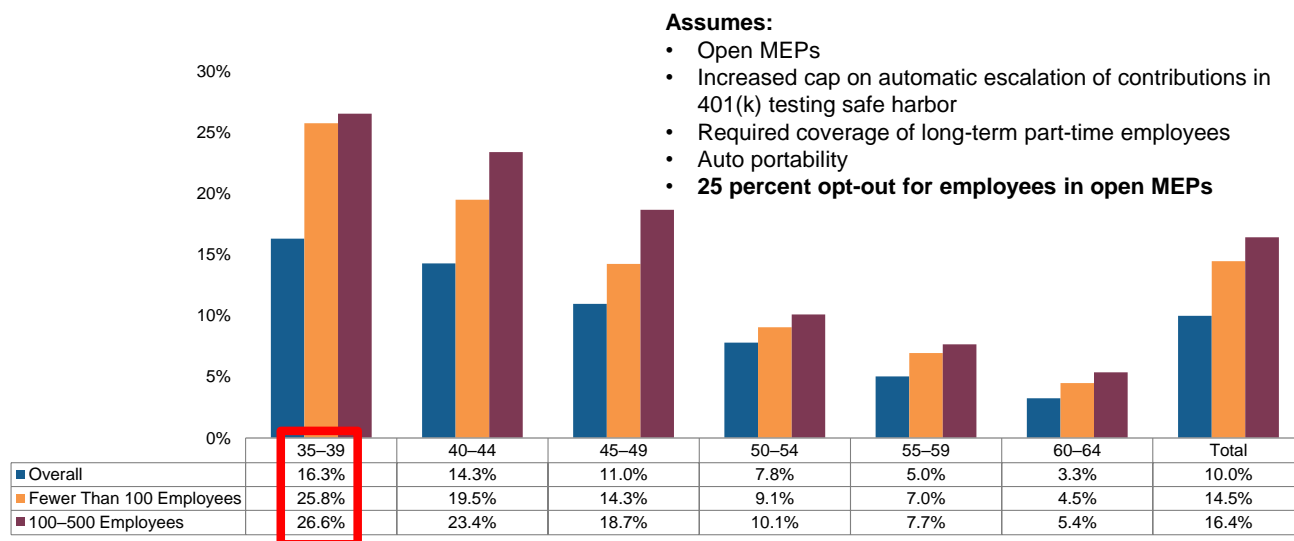
Of course, lack of coverage is not the only consideration in determining how well workers will fare in America’s retirement savings system. Studies have found that plan leakage through cashouts upon termination is another key variable in determining retirement savings outcomes, especially among workers with low plan balances.⁸ Auto portability seeks to address retirement plan cashouts by having terminated participants’ former employer accounts automatically combine with their active accounts in new employers’ plans.⁹ Where open MEPs are utilized according to the baseline assumption, the cap on the automatic escalation of contributions in the 401(k) testing safe harbor is 15 percent, long-term part-time employees are covered, and non-participation rates are 25 percent of eligible employees, we further assume that upon termination, participants would have auto portability.

When auto portability is added, the overall reduction in retirement savings shortfalls aggregated across all age cohorts and all employer size categories is 10.0 percent (Figure 22). It is 14.5 percent for employees working for employers with fewer than 100 employees and 16.4 percent for employees working for employers with 100–500 employees. For employees ages 35–39, shortfalls decline:

- 16.3 percent overall, compared with only 2.4 percent in this same scenario without auto portability.
- 25.8 percent for employees working for employers with fewer than 100 employees, compared with only 6.2 percent without auto portability.

- 26.6 percent for employees working for employers with 100–500 employees, compared with only 5.3 percent without auto portability.

Figure 22
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

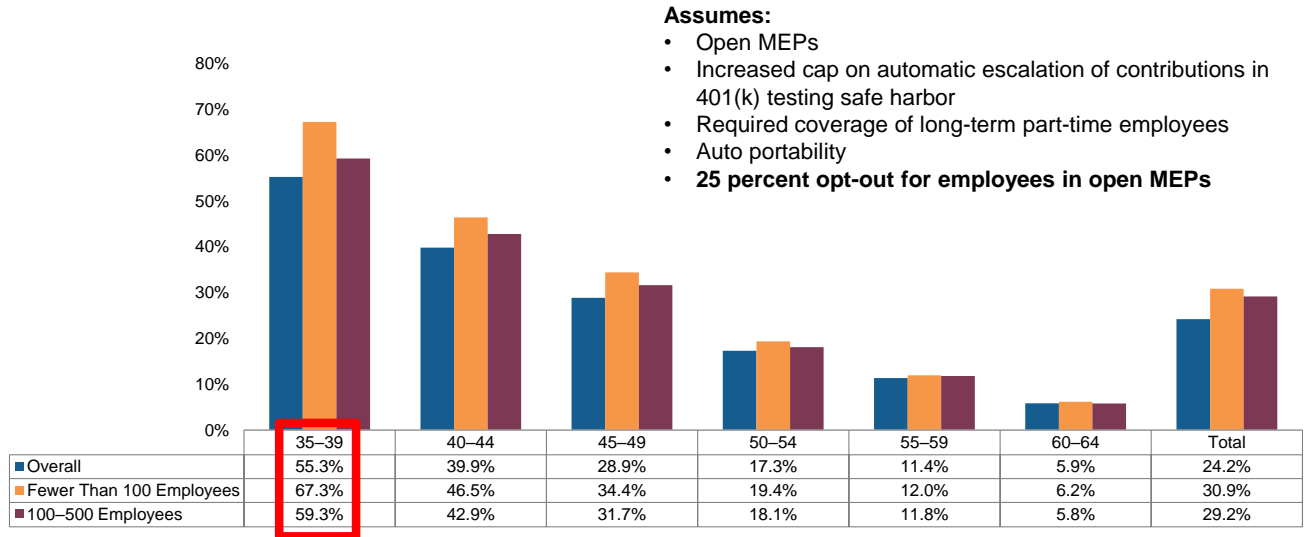
Assuming the same scenario, we now turn to the impact on retirement savings surpluses. When auto portability is added, the overall increase in retirement savings surplus aggregated over all age cohorts is 24.2 percent, compared with only 5.9 percent without auto portability (Figure 23). It is 30.9 percent for employees working for employers with fewer than 100 employees and 29.2 percent for employees working for employers with 100–500 employees. For employees ages 35–39, retirement savings surplus increases:

- 55.3 percent overall, compared with only 14.4 percent in the same scenario without auto portability.
- 67.3 percent for employees working for employers with fewer than 100 employees, compared with only 20.5 percent without auto portability.
- 59.3 percent for employees working for employers with 100–500 employees, compared with only 16.3 percent without auto portability.

In Figure 24 we analyze the impact of auto portability on net retirement savings surpluses. When auto portability is added to the scenario above, the overall increase in net retirement savings surplus aggregated over all age cohorts is 27.1 percent, compared with only 6.6 percent without auto portability added to the scenario. The increase in net retirement savings surplus is 36.9 percent for employees working for employers with fewer than 100 employees and 33.1 percent for employees working for employers with 100–500 employees. For employees ages 35–39, the net retirement savings surplus increases:

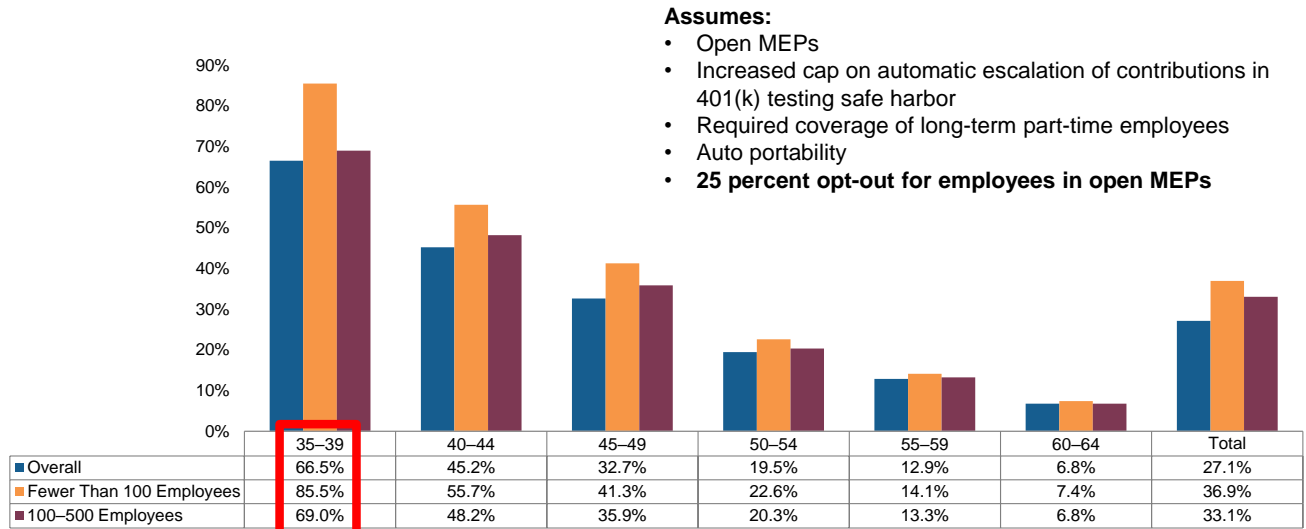
- 66.5 percent overall, compared with only 17.5 percent without auto portability added to the scenario.
- 85.5 percent for employees working for employers with fewer than 100 employees, compared with only 26.6 percent without auto portability.
- 69.0 percent for employees working for employers with 100–500 employees, compared with only 19.1 percent without auto portability.

Figure 23
Percentage Increase in Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Retirement savings surpluses are defined as the present value of surpluses in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Figure 24
Percentage Increase in Net Retirement Savings Surpluses, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



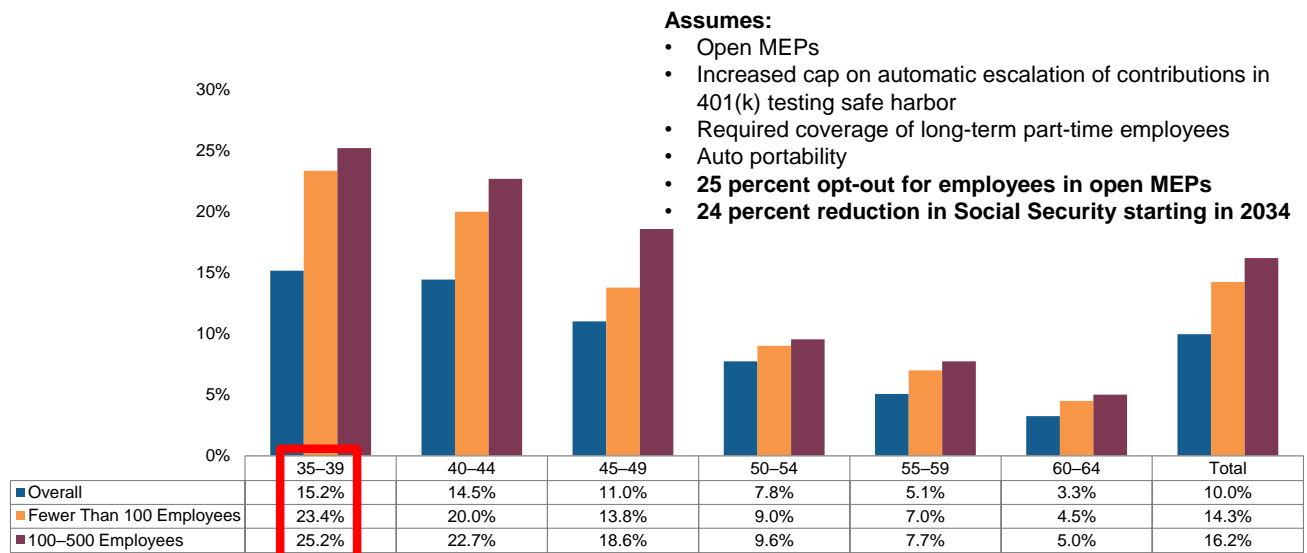
Net retirement savings surpluses are defined as the present value of surpluses in retirement minus the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

The Impact of Auto Portability and Social Security Reductions

Finally, we analyze how reductions in Social Security retirement benefits when the Social Security Trust Fund is projected to become depleted in 2034 might affect workers. Assuming the scenario above with auto portability, Figure 25 further assumes a pro rata reduction of 23 percent in Social Security starting in 2034. Such a reduction would obviously impact the youngest age cohort the most. For employees ages 35–39 in this case, there is an overall reduction in retirement savings shortfall of:

- 15.2 percent, compared with 16.3 percent without the Social Security reduction.
- 23.4 percent for employees working for employers with fewer than 100 employees, compared with 25.8 percent.
- 25.2 percent for employees working for employers with 100–500 employees, compared with 26.6 percent.

Figure 25
Percentage Decrease in Retirement Savings Shortfalls, by Age and Size of Employer
 Based on Assumptions From 2016 Multiple Employer Plan Research, Prudential Retirement



Retirement savings shortfalls are defined as the present value of deficits in retirement valued at age 65 in 2019 dollars.
 Source: EBRI RSPM® Version 3437.

Conclusion

This *Issue Brief* used EBRI’s RSPM® to simulate the likely impact on retirement income adequacy of three of the SECURE Act’s most important provisions:

- Widening access to multiple employer plans.
- Increasing the cap under which plan sponsors can automatically enroll workers in “safe harbor” retirement plans, from 10 percent of wages to 15 percent.
- Covering long-term part-time employees.

Overall, we find that when all three SECURE provisions are included with baseline assumptions on open MEP take-up rates and participation rates, the retirement savings shortfall would have an overall decrease of 3.0 percent. Based on an overall retirement savings shortfall of \$3.83 trillion, this translates to a reduction of \$115 billion in the present value of retirement deficits for households currently ages 35 to 64. As expected, the percentage reductions in retirement savings shortfalls aggregated across all age cohorts would be larger for employees working for smaller employers: 5.6

percent for employers with fewer than 100 employees and 5.2 percent for those with between 100 and 500 employees. The youngest cohort (those currently ages 35–39) will have more time to benefit from these new provisions and their retirement savings shortfall reductions are significantly greater: 5.3 percent for all employer sizes combined, 10.7 percent for those working for employers with fewer than 100 employees, and 8.6 percent for those working for employers with 100–500 employees.

If all the open MEPs are assumed to adopt an automatic enrollment plan, the overall retirement savings shortfalls reduction is 3.3 percent (\$126 billion). If they are assumed to adopt a voluntary enrollment plan, the overall retirement savings shortfalls reduction is 2.8 percent (\$107 billion).

If all small employers without a retirement plan are assumed to adopt an open MEP, the overall retirement savings shortfalls reduction (with the baseline participation assumption) increases to 5.6 percent (\$214 billion). If 66 percent of them adopt an open MEP, the overall retirement savings shortfalls reduction is 4.4 percent (\$169 billion). If only 7.3 percent of them adopt an open MEP, the overall retirement savings shortfalls reduction is 2.0 percent (\$77 billion).

It is important to note that any analysis focusing exclusively on retirement savings shortfalls is limited to households who are simulated to run short of money in retirement. Therefore, the retirement savings surplus measure is used to look at the change in retirement savings surpluses for households who do not run short of money in retirement. Overall, we find that when all three SECURE provisions are included with baseline assumptions on open MEP take-up rates and participation rates, the retirement savings surplus would have an overall increase of 5.9 percent. As expected, the percentage increases in retirement savings surplus (aggregated across all age cohorts) would be larger for employees working for smaller employers: 8.9 percent for employers with fewer than 100 employees and 7.8 percent for those with between 100 and 500 employees. The youngest cohort (those currently ages 35–39) will have more time to benefit from these new provisions, and their retirement savings surplus increases are significantly greater: 14.4 percent for all employer sizes combined, 20.5 percent for those working for employers with fewer than 100 employees, and 16.3 percent for those working for employers with 100–500 employees.

The net retirement savings surplus metric is useful for analyzing the impact on both those households who are simulated to run short of money in retirement as well as those who are simulated to have surpluses. Overall, we find that when all three SECURE provisions are included with baseline assumptions on open MEP take-up rates and participation rates, the net retirement savings surplus would have an overall increase of 6.6 percent. As expected, the percentage increases in net retirement savings surpluses (aggregated across all age cohorts) would be larger for employees working for smaller employers: 10.8 percent for employers with fewer than 100 employees and 8.9 percent for those with between 100 and 500 employees. The youngest cohort (those currently ages 35–39) will have more time to benefit from these new provisions and their net retirement savings surplus increases are significantly greater: 17.5 percent for all employer sizes combined, 26.6 percent for those working for employers with fewer than 100 employees, and 19.1 percent for those working for employers with 100–500 employees.

While the three SECURE Act provisions analyzed in this *Issue Brief* are simulated to reduce the current \$3.83 trillion retirement deficit for households between the ages of 35 and 64 by a significant amount, adding a program to reduce leakages in the system would boost the deficit reductions considerably. Overall, we find that when auto portability is added to the three SECURE provisions with baseline assumptions on open MEP take-up rates and participation rates, the retirement savings shortfall would have an overall decrease of 10.0 percent (\$383 billion). As expected, the percentage reductions in retirement savings shortfalls (aggregated across all age cohorts) would be larger for employees working for smaller employers: 14.3 percent for employers with fewer than 100 employees and 16.2 percent for those with between 100 and 500 employees. The youngest cohort (those currently ages 35–39) will have more time to benefit from these new provisions and their retirement savings shortfall reductions are significantly greater: 15.2 percent for all employer sizes combined, 23.4 percent for those working for employers with fewer than 100 employees, and 25.2 percent for those working for employers with 100–500 employees.

Future Research

EBRI plans to publish at least two additional *Issue Briefs* on the impact of the SECURE Act. The next one scheduled will look at the impact of these provisions on assets under management for the next 10 years under a series of sensitivity analyses. Another *Issue Brief* will be published when we have sufficient information on the likely take-up of in-plan annuity options by employers and employees.

References

- Bajtelsmit, Vickie and Anna Rappaport, "Retirement Adequacy in the United States: Should We Be Concerned? Society of Actuaries," March 2018.
- Empower Institute, "Open MEPS: A promising way to narrow the coverage gap," December 2018.
- Mackenzie, George A. (Sandy), "Does the United States Face a Retirement Crisis?" Forthcoming publication of the CFA Institute.
- Pew Charitable Trusts, "Small-Business Views on Retirement Savings Plans: Topline Results of Employer Survey," March 2017.
- Prudential Retirement, 2016 Multiple Employer Plan Research.
- Utkus, Stephen P. and Jean A. Young, "How America Saves 2019," Vanguard, 2019.
- VanDerhei, Jack. "Retirement Savings Shortfalls: Evidence From EBRI's 2019 Retirement Security Projection Model," *EBRI Issue Brief*, no. 475 (Employee Benefit Research Institute, March 7, 2019).
- _____. "Challenges of Retirement in the Future Economy," SOA Annual Meeting, October 17, 2018
- _____. "How Much Would OregonSaves Decrease Retirement Deficits in Oregon? Preliminary Evidence," *EBRI Fast Facts*, no. 317 (Employee Benefit Research Institute, October 15, 2018).
- _____. "How Much Might Defined Contribution Savings Benefit From Auto Portability?," *EBRI Fast Facts*, no. 309 (Employee Benefit Research Institute, July 30, 2018).
- _____. "EBRI Retirement Security Projection Model®(RSPM) – Analyzing Policy and Design Proposals," *EBRI Issue Brief*, no. 451 (Employee Benefit Research Institute, May 31, 2018).
- _____. "Simulated Retirement Security Outcomes Flowing from Selected Tax Reform Changes Using EBRI's Retirement Security Projection Model." DCIIA 2017 Academic Forum, October 2017.
- _____. "The Impact of 'Rothification' on Retirement Deficits for 401(k) Participants: Stylized Simulations from EBRI's Retirement Security Projection Model.®" EBRI Policy Forum, May 2017.
- _____. "Retirement Savings Shortfalls: Evidence from EBRI's Retirement Security Projection Model," *EBRI Issue Brief*, no. 410 (Employee Benefit Research Institute, February 17, 2015).
- _____. "Contributory 'Negligence?' The Impact of Future Contributions to Defined Contribution Plans on Retirement Income Adequacy for Gen Xers," *EBRI Notes*, vol. 36, no. 8 (Employee Benefit Research Institute, August 14, 2014).
- _____. Testimony submitted by Jack VanDerhei, EBRI research director, to the ERISA Advisory Committee, at a hearing on "Lifetime Participation in Plans," on "The Impact of Leakages on 401(k) Accumulations at Retirement Age." June 17, 2014.

- _____. "What Causes EBRI Retirement Readiness Ratings™ to Vary: Results from the 2014 Retirement Security Projection Model,®" *EBRI Issue Brief*, no. 396 (Employee Benefit Research Institute, February 13, 2014).
- _____. "The Impact of a Retirement Savings Account Cap," *EBRI Issue Brief*, no. 389, (Employee Benefit Research Institute, August 26, 2013).
- _____. "Modifying the Federal Tax Treatment of 401(k) Plan Contributions: Projected Impact on Participant Account Balances." *EBRI Notes*, vol. 33, no. 3 (Employee Benefit Research Institute, March 20, 2012): 2–18.
- _____. "Tax Reform Options: Promoting Retirement Security." *EBRI Issue Brief*, no. 364 (Employee Benefit Research Institute, November 9, 2011).
- _____. Testimony. U.S. Congress. Senate Finance Committee. Tax Reform Options: Promoting Retirement Security (T-170), 15 Sept. 2011.
- _____. "Capping Tax-Preferred Retirement Contributions: Preliminary Evidence of the Impact of the National Commission on Fiscal Responsibility and Reform Recommendations." *EBRI Notes*, vol. 32, no. 7 (July 11, 2011): 2–6.
- VanDerhei, Jack, and Craig Copeland. "The EBRI Retirement Readiness Rating:™ Retirement Income Preparation and Future Prospects." *EBRI Issue Brief*, no. 344 (Employee Benefit Research Institute, July 13, 2010).

Endnotes

- ¹ For an excellent summary of the literature in this regard, see Mackenzie (forthcoming) and Bajtelsmit and Rappaport (2018).
- ² SECURE also provided the option of guaranteed income for life from 401(k) and 403(b) plans and modified required minimum distributions. Both of these topics will be included in a future *Issue Brief* on SECURE.
- ³ Prudential (2016).
- ⁴ Empower Institute (2018).
- ⁵ Pew Charitable Trusts (2017).
- ⁶ Utkus and Young (2019).
- ⁷ The automatic enrollment safe harbor for non-discrimination testing was a provision in the 2006 Pension Protection Act. This safe harbor required that employers automatically enroll participants at no less than 3 percent of pay, increasing their 401(k) contributions annually to no more than 10 percent of pay.
- ⁸ VanDerhei (June 2014).
- ⁹ The impact of adding auto portability to the current defined contribution system was explored in VanDerhei (July 2018).