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Hearing on:

Retirement Savings 2.0: Updating Savings Policy for the Modern Economy

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Statement for the Record

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1   Introduction

Measuring retirement savings and retirement income adequacy for current workers is an extremely important and complex topic, and EBRI started to provide this type of measurement in the late 1990s with the development of the EBRI Retirement Security Projection Model® (RSPM).[1] When we most recently modeled the projected outcomes for Baby Boomers and Gen Xers in 2014, we found that between 57 percent and 59 percent were expected to have adequate retirement income to fund 100 percent of simulated basic retirement expenses (housing, food, etc.—plus uninsured health care costs, using EBRI's Retirement Readiness Ratings[TM] (RRRs) as the gauge). Some retirement planners suggest that many households are able to successfully cut expenditures below the average expenses when financially constrained. Therefore, we also computed thresholds of 80 and 90 percent of simulated expenses and on that basis found that the RRRs for Baby Boomers and Gen Xers at a 90 percent threshold were between 67 and 70 percent. When the threshold was further relaxed to an 80 percent threshold, the RRRs increased to 81–84 percent.[2]

Who is most at risk of not having adequate retirement income? Not surprisingly, lower-income households have much lower RRRs: The 2014 baseline RRRs range from 17 percent for the lowest-income[3] households to 86 percent for the highest-income households with a 100 percent of simulated expenses threshold. The middle class (defined as those in the second and third income quartile for purposes of this statement) had an RRR of 62 percent. At a 90 percent threshold, the RRR for middle class households increases to 74 percent (indicating that nearly 3 in 4 of those households would have sufficient financial resources to cover 90 percent of simulated basic retirement expenses, as detailed above). At an 80 percent threshold, 88 percent of the middle class households are predicted to have sufficient retirement income.

However, it should be noted that these probabilities will depend to a large extent on whether <u>future</u> years of employment take place with employers sponsoring defined contribution retirement plans or not. Previous EBRI analysis[4] shows the positive impact of future years of eligibility for a defined contribution plan on retirement income adequacy. For Gen Xers[5] in the second and third income quartiles with no future years of eligibility in a defined contribution plan, the RRR value when measured with a 100 percent of simulated expense threshold is 51 percent—indicating that almost ½ of this cohort are projected to run short of money in retirement. This value increases to 56 percent for those in the middle class with one to nine future years of eligibility in a defined contribution plan. The RRR value increases further to 71 percent for those in this category who have 10–19 future years of eligibility in a defined contribution plan, and reaches a maximum value of 80 percent for those with 20 or more future years of eligibility in a defined contribution plan. When the threshold for a successful retirement is measured at a 90 percent of simulated expense threshold, the RRRs range from 62 percent for those with no future years of eligibility to 88 percent for those with 20 or more years. At an 80 percent of simulated expense threshold, the RRRs range from 79 for those with no future years of eligibility to 96 percent for those with 20 or more years.

2   The Potential of 401(k) Plans to Produce Adequate Income Replacement for Today's Workers

The EBRI/ICI 401(k) database has been used to provide annual reports based on actual account balances of large cross sections of 401(k) plan participants since 1996.[6] Looking at consistent participants in the EBRI/ICI 401(k) database in the wake of the financial crisis (over the five-year period from year-end 2007 to year-end 2012), a joint EBRI/Investment Company Institute (ICI) analysis found that the average 401(k) account balance fell 34.7 percent in 2008, then rose from 2009 to 2012.[7] Overall, the average account balance in this consistent sample increased at a compound, annual, average growth rate of 6.8 percent over the 2007–2012 period.

While this information is certainly useful to evaluate assertions (and anecdotal claims) with respect to 401(k) plans, it needs to be supplemented with simulation modeling for a proper assessment of the potential of 401(k) plans to produce "adequate" income replacement for several reasons:

- The EBRI/ICI 401(k) database does not contain information on individual retirement account (IRA) rollovers, many of which may have originated as a 401(k) balance at an individual's prior employer(s), and therefore may only provide information on a fraction of the participant's retirement accumulations if there have been one or more job changes in their careers.
- Even if one looks only at 401(k) participants who are on the verge of retirement and have had significant tenure with the current employer, there is a significant likelihood that they would not have been eligible to participate in a 401(k) plan during their entire career with the current employer.[8]
- Since the passage of the Pension Protection Act of 2006, many of the 401(k) plans that had previously allowed eligible employees to voluntarily enroll have been modified to automatically enroll eligible employees. Although these employees will have the ability to opt out of such participation, it is clear that these plans have had a substantial impact on participation rates, especially for lower-income employees.[9]
- An analysis based solely on current balances will, of necessity, not be able to assess the impact of future employee activity (such as potential cash-out behavior at job change) nor the impact of future financial market returns.

In an attempt to assist the Senate Finance Subcommittee on Social Security, Pensions, and Family Policy in its evaluation of the role of 401(k) plans in December of 2013, EBRI's RSPM was used to analyze the potential of 401(k) plans to produce "adequate" income replacement for retirement. That undertaking found that, assuming current Social Security benefits are not reduced, 84 percent of middle class workers with more than 30 years of eligibility in a <u>voluntary enrollment</u> 401(k) plan are simulated to have sufficient 401(k) accumulations that, when combined with Social Security retirement benefits, would be able to replace at least 60 percent of their age 64 wages and salary on an inflation-adjusted basis. When the threshold for a successful retirement financing is increased to 70 percent replacement, 75 percent of these workers will still meet the threshold, based solely on the combination of projected 401(k) savings and Social Security combined. At an 80 percent replacement rate, 62 percent of the middle class will still meet the threshold.

However, when the same analysis is conducted for <u>automatic enrollment</u> 401(k) plans (with an annual 1 percent automatic escalation provision and empirically derived opt-outs), the probability of success for middle class workers with more than 30 years of eligibility increases substantially: 92 percent at a 60 percent threshold; 87 percent at a 70 percent replacement and 81 percent at an 80 percent threshold are assumed to have sufficient resources at those levels.

Note, however, that the analysis of automatic enrollment plans mentioned above used the actual plan-specific default contribution rates (typically 3 percent of compensation). Many have questioned the wisdom of continuing to set the rates at this relatively low level in view of recent empirical evidence suggesting that higher default contribution rates may not result in a substantial increase in opt-out rates. A 2012 EBRI publication[10] simulated the impact of increasing the current plan-specific default rates to 6 percent. Under a set of specified behavioral assumptions, more than a quarter of those in the lowest-income quartile who had previously NOT been projected to have a financially successful retirement under actual default contribution rates were found to be successful as a result of the increase in default deferral percentage. When employees in the highest-income quartile were analyzed under the same set of assumptions, the percentage of those who had NOT previously been successful (under the actual default contribution rates) that now ARE successful as a result of the change in deferral rate was 18.4 percent.

3   Short Falls: Who's Most Likely to Come up Short in Retirement, and When?

A recent EBRI publication[11] provides new results showing how soon after retirement Baby Boomer and Gen Xer households are simulated to run short of money, by preretirement income quartile. Figure 2 shows the results assuming that 100 percent of the simulated deterministic expenses are met; in other words, 100 percent of the average expenses (based on post-retirement income) for components likely to be encountered on a regular basis (e.g., food, housing, transportation). In addition to these relatively predictable expenses, the stochastic costs arising from nursing home and home health-care expenses are assumed to be covered in years when the model simulates their existence.

Note that in Figure 2, by the 10th year in retirement (assuming retirement at age 65), nearly 3 in 4 (72 percent) of the lowest-income quartile households would run short of money, while fewer than 1 in 5 (19 percent) of those in the second-income quartile would face a similar situation. Only 7 percent of those in the third-income quartile and 2 percent of those in the highest-income quartile are simulated to run short of money within a decade. By the 20th year in retirement (again, assuming retirement at age 65), more than 4 in 5 (81 percent) of the lowest-income quartile households would run short of money, compared with 38 percent of those in the second-income quartile that would face a similar situation. Only 19 percent of those in the third-income quartile and 8 percent of those in the highest-income quartile are simulated to run short of money by the 20th year.

These values continue to increase until all households either run short of money or there are no surviving retirees. By the 35th year in retirement (age 100, assuming retirement at age 65), 83 percent of the lowest-income quartile households would run short of money and almost half (47 percent) of those in the second-income quartile would face a similar situation. Only 28 percent of those in the third-income quartile and 13 percent of those in the highest-income quartile are simulated to run short of money eventually.

Figure 3 simulates the same scenario as Figure 2 in terms of deterministic expenses, but this time the model assumes that any cost of nursing home or home health-care expenses are not borne by the household. As expected, the percentage of households in any income quartile that run short of money within a particular time period is smaller in Figure 3 than in Figure 2, where those costs are contemplated. Moreover, the differences illustrate the significance that ignoring these important costs makes in any accurate simulation of retirement income adequacy.

By the 10th year in retirement, 64 percent of lowest-income quartile households would run short of money, but only 11 percent of those in the second-income quartile would face a similar situation. Only 3 percent of those in the third-income quartile and 1 percent of those in the highest-income quartile are simulated to run short of money by the 10th year.

Even ignoring the cost of nursing home or home health-care expenses, by the 20th year in retirement, more than two-thirds (69 percent) of the lowest-income quartile households would run short of money. On the other hand, only 17 percent of those in the second-income quartile would face a similar situation, as would 5 percent of those in the third-income quartile and 1 percent of those in the highest-income quartile. By the 35th year in retirement, 70 percent of the lowest-income quartile households would run short of money and 20 percent of those in the second-income quartile would face a similar situation. Only 6 percent of those in the third-income quartile and 1 percent of those in the highest-income quartile are simulated to run short of money eventually.

4   Employment-Based Retirement Plan Participation

A concern expressed by the several of the Committee members at the September 16th hearing dealt with the percentage of the workforce actually participating in a retirement plan at a particular point in time. While EBRI's RSPM incorporates this information, it focuses more on the overall number of years that an individual participates in a plan during their working career and less on whether they happen to be covered during a particular "snapshot" of the universe.

Still it is valuable to investigate the characteristics of workers who did not participate in a particular year. Forthcoming EBRI research shows that in 2013, 76.6 million workers worked for an employer/union that did *not* sponsor a retirement plan, and 93.1 million workers did *not* participate in an employment-based retirement plan (Figure 4).[12] Of those 76.6 million working for a nonsponsor, 22.9 million (29.9 percent) were younger than age 30. Almost 23 million (29.9 percent) were part-time and 33.3 million (43.0 percent) had annual earnings of less than $20,000. Furthermore, 42.4 million (55.4 percent) worked for employers with less than 50 employees. The number of workers who fall into any of these characteristics—younger than age 30, part-time worker, have annual earnings below $20,000, or work for employer with less than 50 employees—reaches 62.2 million or 81.2 percent of all workers working for employer not offering a retirement plan.

Among private sector wage and salary workers, 63.7 million work for an employer/union not offering a retirement plan and 77.9 million were not participating in an employment-based retirement plan. Looking at the same characteristics as above, 51.3 million of 63.7 million (80.5 percent) workers have at least one of those characteristics. Consequently, an overwhelming majority of those working for an employer not sponsoring a plan have these particular characteristics.

5   Summary

Since 2003, EBRI research has analyzed the retirement savings and retirement income adequacy of Baby Boomers and Gen Xers in the United States. This statement highlights those previous results and summarizes new research showing how soon shortfalls are likely to occur in retirement by income quartile. Two primary findings emerge: First, for those young enough to still have a significant number of years before retirement (i.e., Gen Xers), the probability of retirement income adequacy depends to a large degree on a household's future years of eligibility in a defined contribution plan. Second, the relative pre-retirement income quartile of a household plays a huge role in determining not only if a

household is likely to run short of money in retirement but also how soon after retirement this is likely to take place. We find that 83 percent of the lowest-income quartile households would eventually run short of money in retirement if long-term care costs are considered (even if they are ignored, the value is still 70 percent). Moreover, 72 percent of them will run short of money within ten years of retirement (64 percent if long-term care costs are ignored).

In presenting these results, EBRI does not favor or oppose any specific modification to the current retirement system. Rather, EBRI's mission remains to provide objective analysis that can inform decision making by others. As the various design and program modification alternatives are debated (both reforms and status quo), it is instructive to keep in mind who's most likely to come up short in retirement, when, and why.

EBRI looks forward to assisting the members of the Committee as they continue their investigations into this extremely important public policy topic and we hope that they will be mindful of the necessity of considering potential employer and employee behavioral changes as a result of policy change. For example, at the September 15, 2011 Senate Finance Committee hearing on "Tax Reform Options: Promoting Retirement Security," testimony included a distributional analysis of the winners and losers under the two versions of a proposal to substantially modify the tax incentives of employer-based 401(k) accounts; however, the underlying analysis held retirement saving contributions constant for both employers and participants. While EBRI had testified that day using several alternative results from simulations based on survey responses to generic questions reflecting how workers indicated they would likely react if they were no longer allowed to defer retirement savings plan contributions from taxable income,[13] we made a commitment to include the specific provisions being proposed in the next annual Retirement Confidence Survey. We were able to combine this new participant information with a separate survey by AllianceBernstein that provided information on plan sponsor reactions to the specific proposal. The results suggested significant changes for both employees and employers and, as opposed to the assumption of constant retirement savings contributions, our baseline analysis indicated that plan-sponsor modifications, combined with individual participant reactions, would result in an average percentage reduction in 401(k) balances of between 6–22 percent at Social Security normal retirement age for workers currently ages 26–35.[14]

6   References

Utkus, Stephen P., and Jean A. Young. "How America Saves 2014, A Report On Vanguard 2013 Defined Contribution Plan Data."

VanDerhei, Jack. "'Short' Falls: Who's Most Likely to Come up Short in Retirement, and When?" *EBRI Notes,* no. 6 (Employee Benefit Research Institute, June 2014a): 2–18.

_____. "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 2014).

_____. "What a Sustained Low-yield Rate Environment Means for Retirement Income Adequacy: Results From the 2013 EBRI Retirement Security Projection Model.®" *EBRI Notes,* no. 6 (Employee Benefit Research Institute, June 2013b): 2–12.

_____. "Increasing Default Deferral Rates in Automatic Enrollment 401(k) Plans: The Impact on Retirement Savings Success in Plans With Automatic Escalation." *EBRI Notes,* no. 9 (Employee Benefit Research Institute, September 2012): 12–22.

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_____. "The Impact of Automatic Enrollment in 401(k) Plans on Future Retirement Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors." *EBRI Issue Brief,* no. 341 (Employee Benefit Research Institute, April 2010).

VanDerhei, Jack, Sarah Holden, Luis Alonso, and Steven Bass.. "What Does Consistent Participation in 401(k) Plans Generate? Changes in 401(k) Account Balances, 2007–2012." EBRI Issue Brief, no. 401, and ICI Research Perspective, Vol. 20, no. 4 (July 2014).

_____. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2012." *EBRI Issue Brief*, no. 394, (Employee Benefit Research Institute, December 2013); and *ICI Research Perspective ,* Vol. 19, no. 12 (December 2013).

7   Endnotes

[1] Additional details on RSPM and the assumptions can be found in VanDerhei (June 2013). The financial market results are generated from stochastic annual returns with a log-normal distribution and an arithmetic mean of 8.6-percent real return for stocks and 2.6 percent real return for bonds.

[2] VanDerhei (February 2014).

[3] Preretirement income in RSPM is determined in a manner similar to the average-indexed-monthly-earnings computation for Social Security with the following modifications:

- All earned income is included up to the age of retirement (i.e., there is no maximum taxable wage base constraint, and the calculation terminates at retirement age).
- Instead of indexing for changes in average national wages, the model indexes based on assumed, after-tax rate of return based on asset allocations that are a function of the individual's age in each year.

Percentile distributions are then established based on population statistics for each five-year age cohort.

[4] Figure 3 of VanDerhei (February 2014).

[5] Only Gen Xers are shown in this portion of the analysis given their longer future working careers until age 65.

[6] See VanDerhei, Holden, Alonso and Bass (December 2013) for the most recent results.

[7] VanDerhei, Holden, Alonso and Bass (July 2014).

[8] The proposed regulations for 401(k) plans were first introduced in November of 1981 and it took several years for many sponsors to introduce the plans. Moreover, many plans that were originally introduced as supplemental plans to existing defined benefit plans have been modified to provide more generous employer contributions at the time the defined benefit plans were frozen (VanDerhei, April 2010).

[9] See Figure 24 of Utkus and Young (2014) for recent evidence.

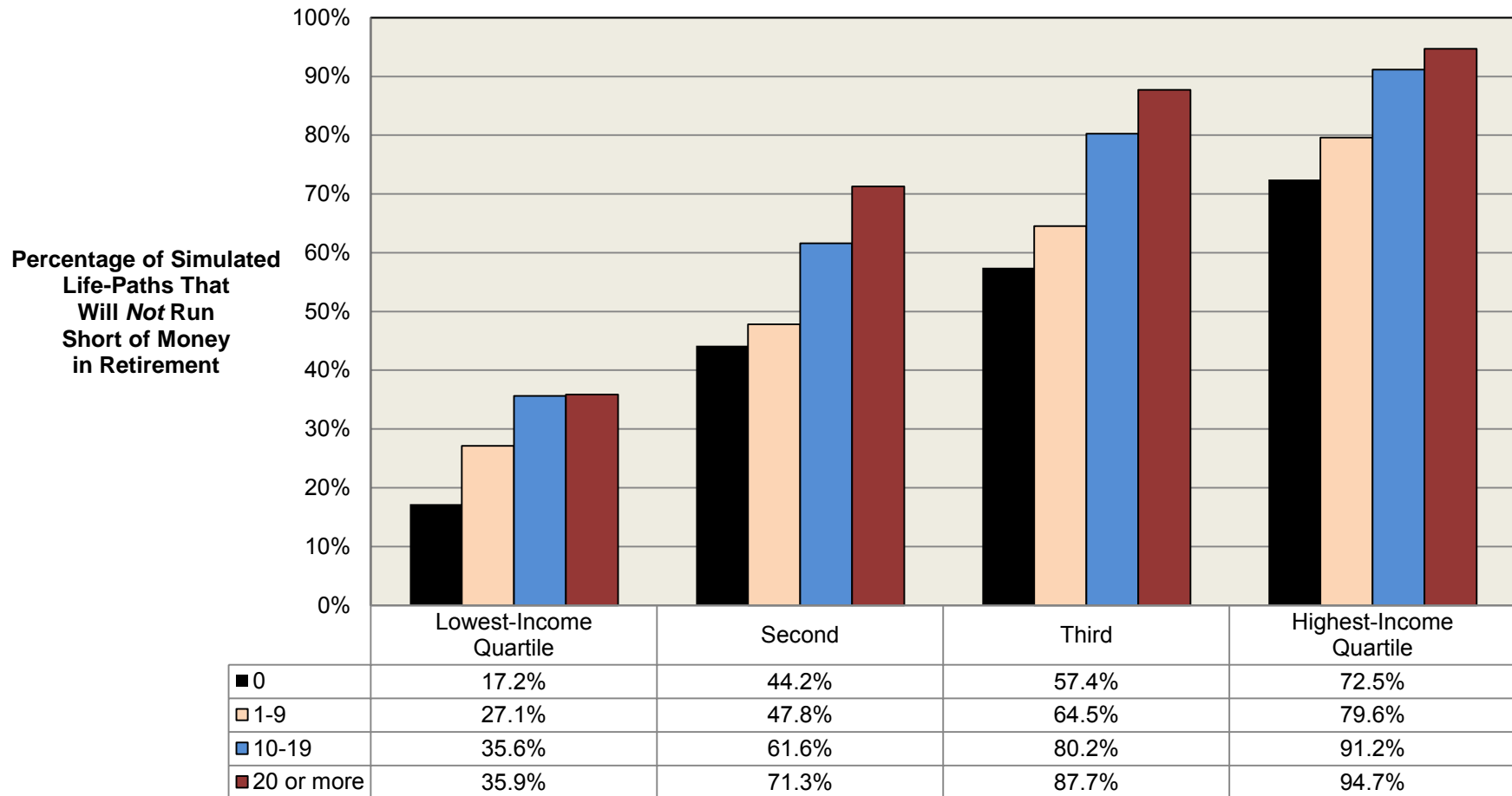[10] VanDerhei (September 2012).

[11] VanDerhei (June 2014)

[12] This includes the 76.6 million who worked for employers/unions that did not sponsor a plan plus 16.5 million who worked for employers that sponsored a plan but did not participate in the plan for whatever reason.

[13] VanDerhei (September 2011)
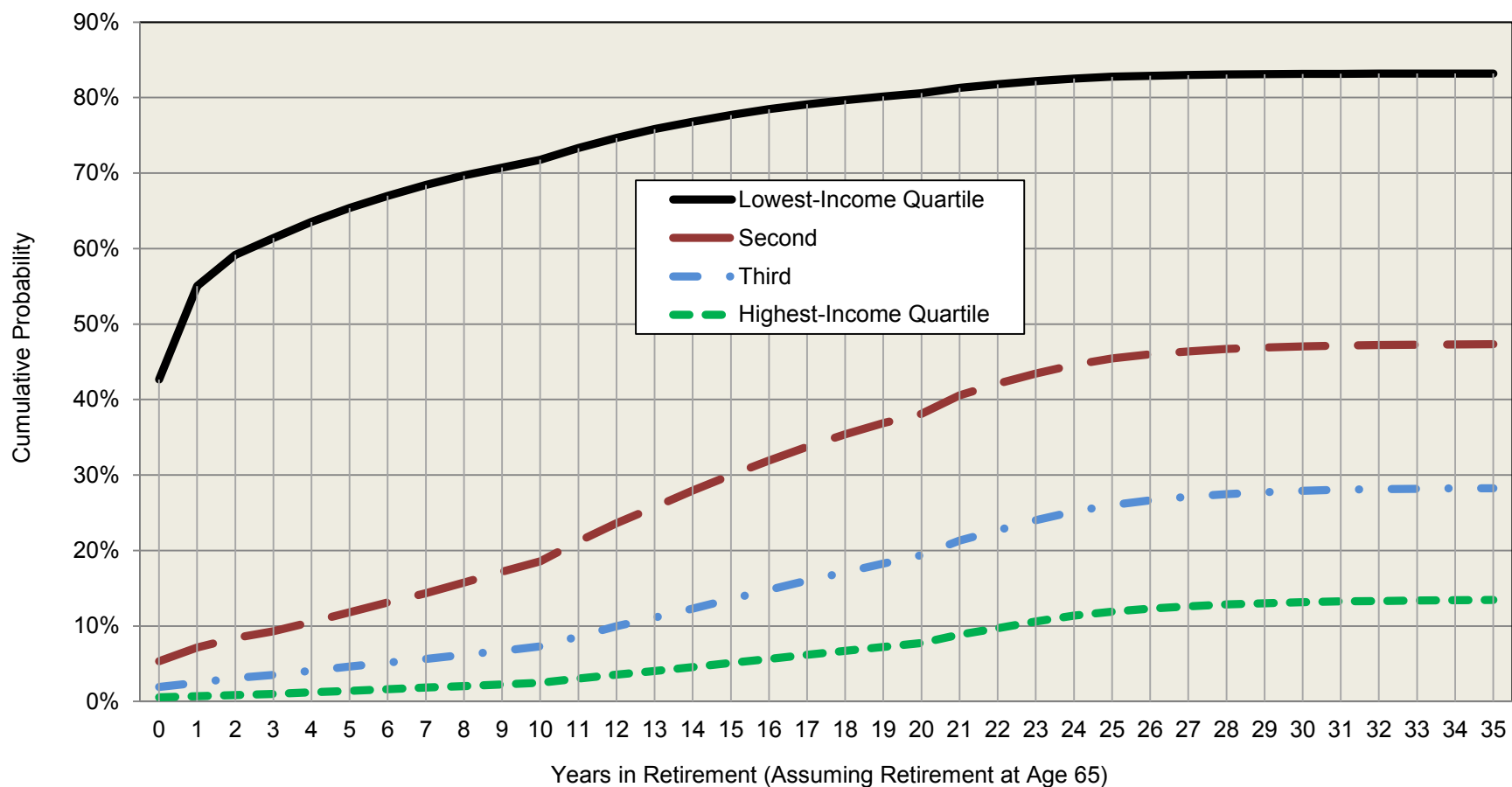
[14] VanDerhei (March 2012)

Figure 1
Impact of Future Years of Eligibility for a Defined Contribution Plan for Gen Xers on 2014 Retirement Readiness Ratings,™ by Preretirement Wage Quartile

Percentage of Simulated Life-Paths That Will *Not* Run Short of Money in Retirement

	Lowest-Income Quartile	Second	Third	Highest-Income Quartile
■ 0	17.2%	44.2%	57.4%	72.5%
☐ 1-9	27.1%	47.8%	64.5%	79.6%
■ 10-19	35.6%	61.6%	80.2%	91.2%
■ 20 or more	35.9%	71.3%	87.7%	94.7%

Source: EBRI Retirement Security Projection Model® Version 1995.
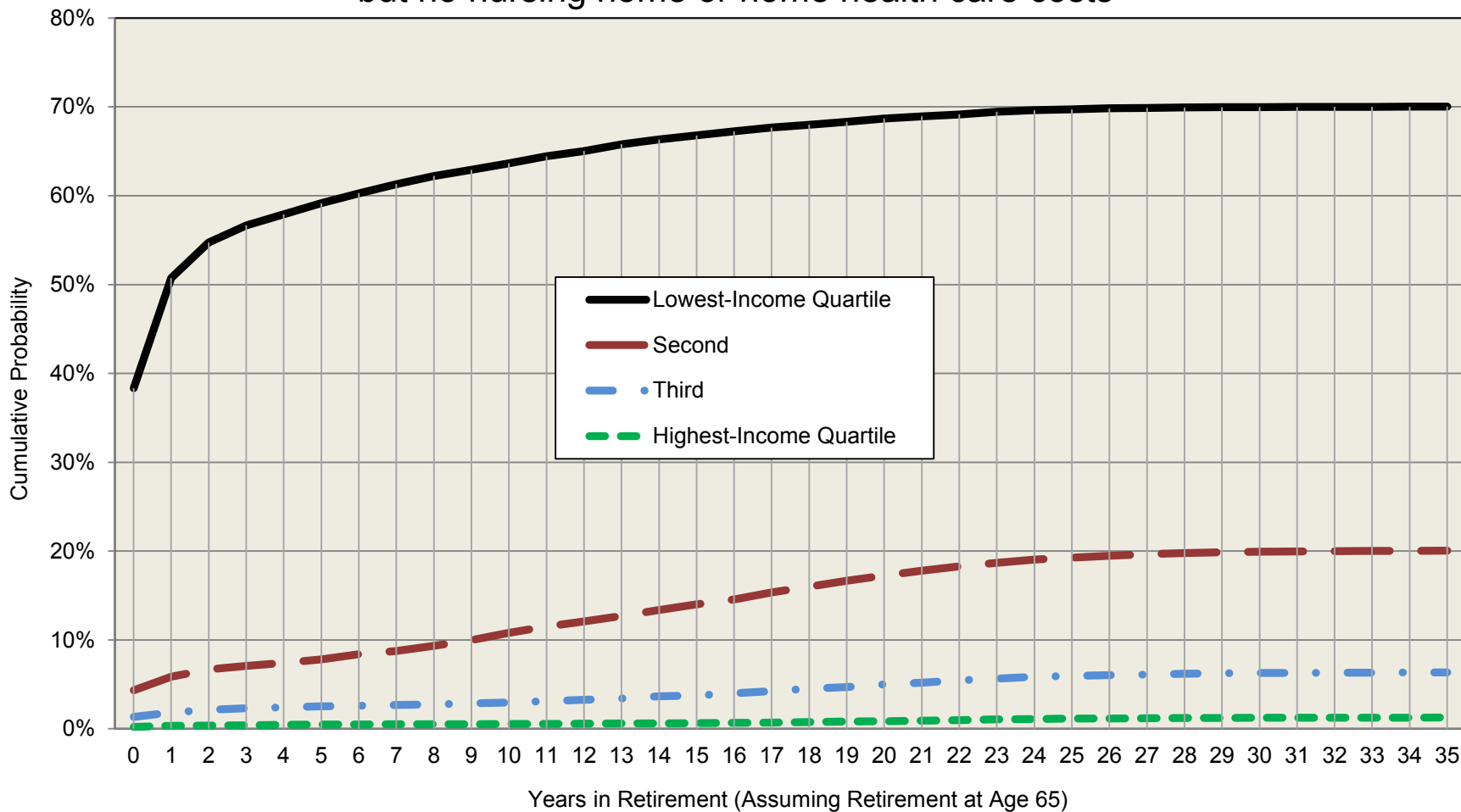Note: The values in this figure represent the percentages of simulated life-paths that will not run short of money in retirement assuming that 100 percent of simulated retirement expenses are paid. Additional information on the percentages that would be able to satisfy less stringent thresholds (viz., 80 and 90 percent of simulated expenses) is provided in Appendix B of VanDerhei (February 2014).

Figure 2
**Years in Retirement Before Baby Boomers and Gen Xers
Run Short of Money, by Preretirement Income Quartile**
Scenario: 100% of deterministic retirement expenses,
100% of nursing home or home health care costs

Legend:
- Lowest-Income Quartile
- Second
- Third
- Highest-Income Quartile

Y-axis: Cumulative Probability

X-axis: Years in Retirement (Assuming Retirement at Age 65)

Figure 3
**Years in Retirement Before Boomers and Gen Xers
Run Short of Money, by Preretirement Income Quartile**
Scenario: 100% of deterministic retirement expenses
but no nursing home or home health care costs

Cumulative Probability

— Lowest-Income Quartile
— Second
· Third
— Highest-Income Quartile

Years in Retirement (Assuming Retirement at Age 65)

Source: EBRI Retirement Security Projection Model® version 2030.

Figure 4

Number of Workers Working for an Employer Who Does NOT Sponsor an Employment-Based Retirement Plan and Number of Workers NOT Participating in an Employment-Based Retirement Plan, by Various Demographic and Employer Characteristics, 2013

Characteristic(s)	Working for an Employer NOT Sponsoring a Plan	NOT Participating In a Plan	Percentage Working for an Employer NOT Sponsoring a Plan	Percentage NOT Participating In a Plan
	(in millions)		(percentage of total)	
Total-All Workers	76.6	93.1	100.0%	100.0%
Under age 30 years old	22.9	29.6	29.9	31.8
Part-time	22.9	28.7	29.9	30.8
Less than $20,000 in annual earnings	33.3	41.2	43.5	44.3
Fewer than 50 employees	42.4	45.1	55.4	48.4
At least one of the above	62.2	74.1	81.2	79.6
Total-Private Wage & Salary Workers	63.7	77.9	100.0%	100.0%
Under age 30 years old	20.9	26.8	32.8	34.4
Part-time	18.4	23.2	28.9	29.8
Less than $20,000 in annual earnings	27.6	34.2	43.3	43.9
Fewer than 50 employees	33.9	36.5	53.2	46.9
At least one of the above	51.3	61.5	80.5	78.9

Source: Employee Benefit Research Institute estimates from the 2014 March Current Population Survey.