



**2019 CRI Annual Policy Innovation Forum
Generating and Protecting Lifetime Income:
An Examination of Key Challenges and Solutions**

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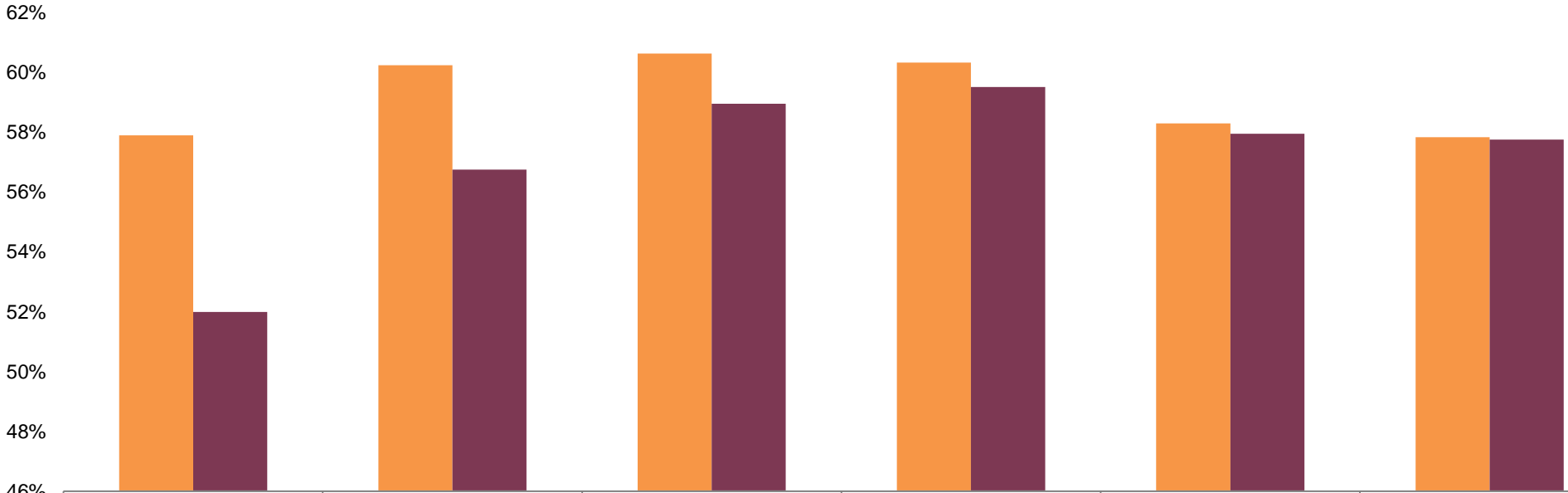
Outline of presentation

- Brief introduction to the EBRI Retirement Security Projection Model®
- Probability of a successful retirement by age
- Retirement deficits by
 - age and pre-retirement income
 - age and DC eligibility
 - age and longevity
- Impact of Leakages
- Appendix
 - Additional information on the simulation model
 - Deficits by age and marital status/gender
 - Additional savings needed for various aggregate probabilities of success: by age
 - Impact of Stochastic Health Care Costs on Retirement Readiness Ratings™ for Boomers and Gen Xers by Preretirement Wage Quartile

EBRI Retirement Security Projection Model[®]

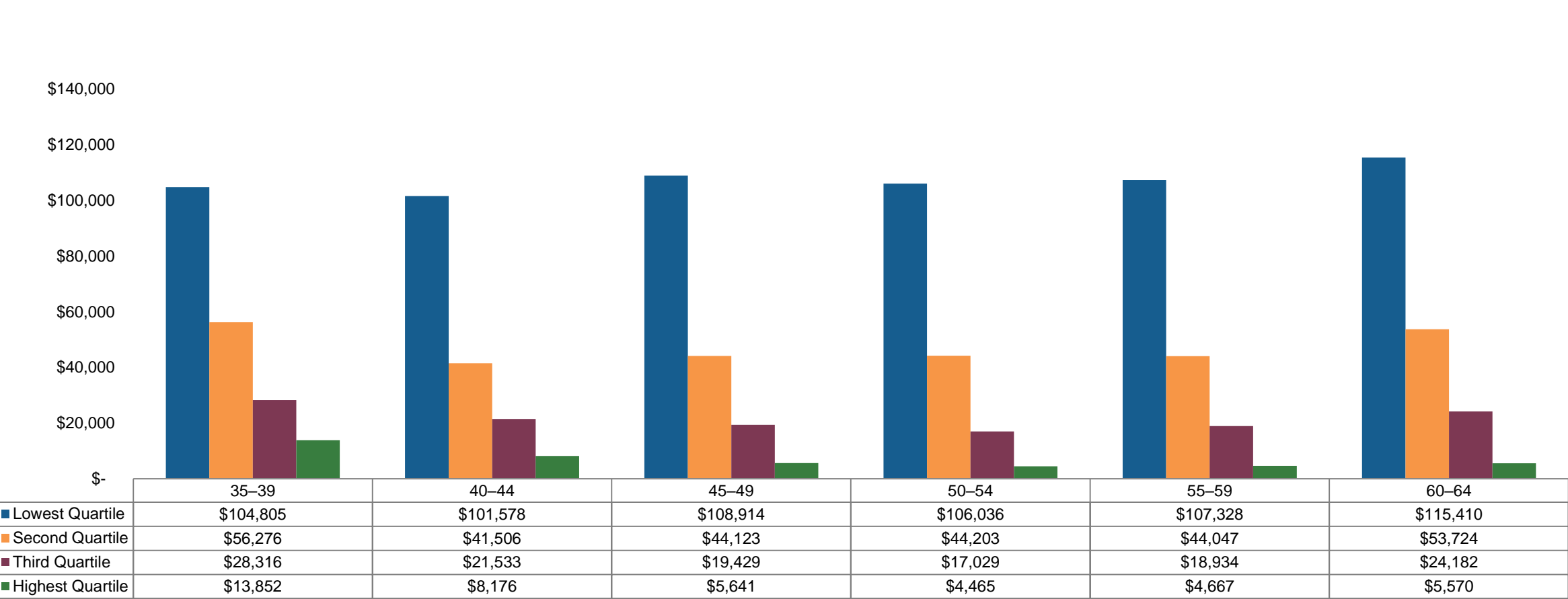
- Accumulation phase
 - Simulates retirement income/wealth for households currently ages 35-64 from defined contribution, defined benefit, IRA, Social Security and net housing equity
 - Pension plan parameters coded from a time series of several hundred plans.
 - 401(k) asset allocation and contribution behavior based on individual administrative records
 - Annual linked records dating back to 1996
 - More than 27 million employees in 110,000 plans
 - More than 25 million IRA accounts owned by 20 million unique individuals
- Retirement phase
 - Simulates 1,000 alternative life-paths for each household, starting at 65
 - Deterministic modeling of costs for food, apparel and services, transportation, entertainment, reading and education, housing, and basic health expenditures.
 - Stochastic modeling of longevity risk, investment risk, nursing facility care and home based health care.
- Produces the following output metrics:
 - Retirement Readiness Rating (RRR) = Percentage of simulated life-paths that do NOT run short of money in retirement
 - Retirement Savings Shortfalls (RSS) = Present value of deficits for those who run short of money in retirement

Probability of a successful retirement by age



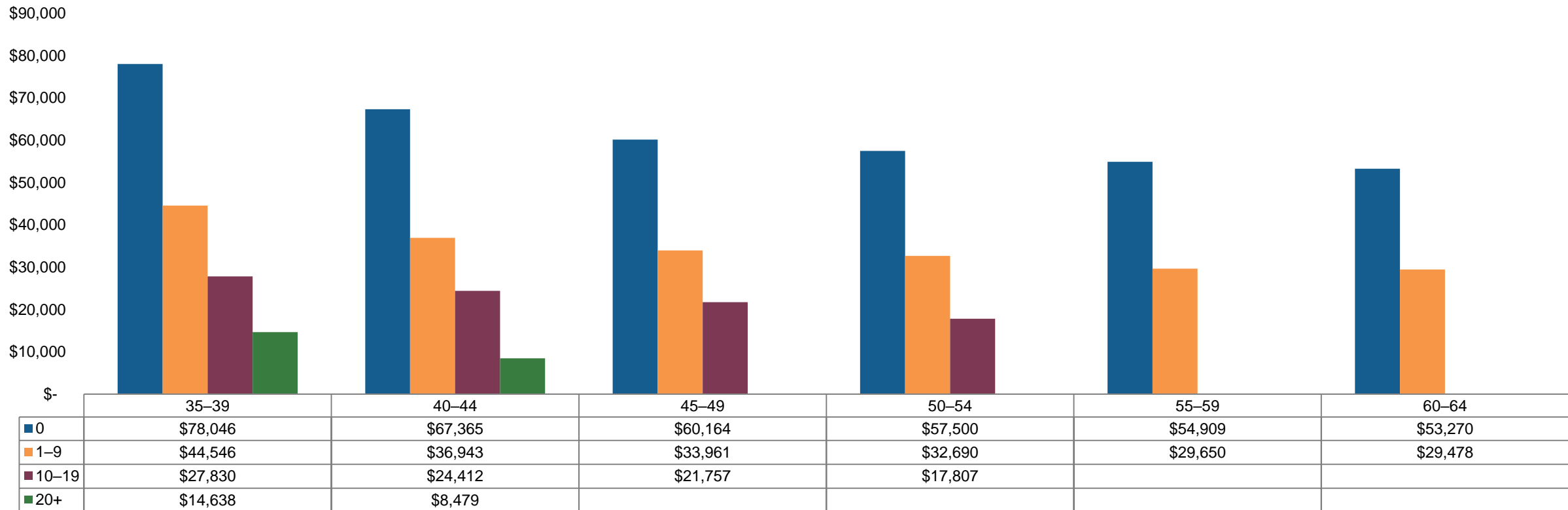
	35-39	40-44	45-49	50-54	55-59	60-64
2019	57.9%	60.3%	60.6%	60.3%	58.3%	57.8%
2019 With Social Security Reduction	52.0%	56.8%	59.0%	59.5%	58.0%	57.8%

Deficits by age and pre-retirement income



Deficits by age and DC eligibility

2019 Retirement Savings Shortfalls,* by Age Cohort and Years of Future Eligibility in Defined Contribution Plans

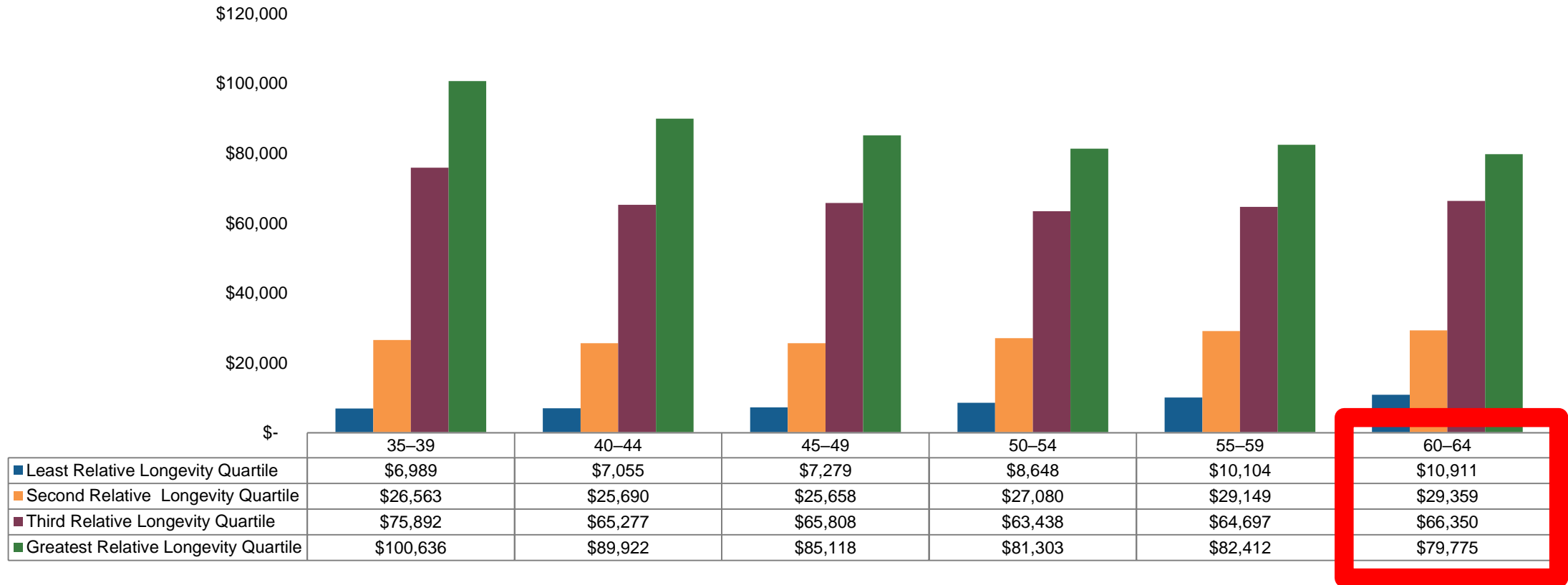


Source: Jack VanDerhei, Retirement Savings Shortfalls: Evidence From EBRI's 2019 Retirement Security Projection Model®, EBRI Issue Brief (March 2019)

* The Retirement Savings Shortfalls (RSS) are determined as a present value of retirement deficits at age 65.

Retirement deficits by age and longevity

2019 Retirement Savings Shortfalls,* by Age Cohort and Relative Longevity Quartile



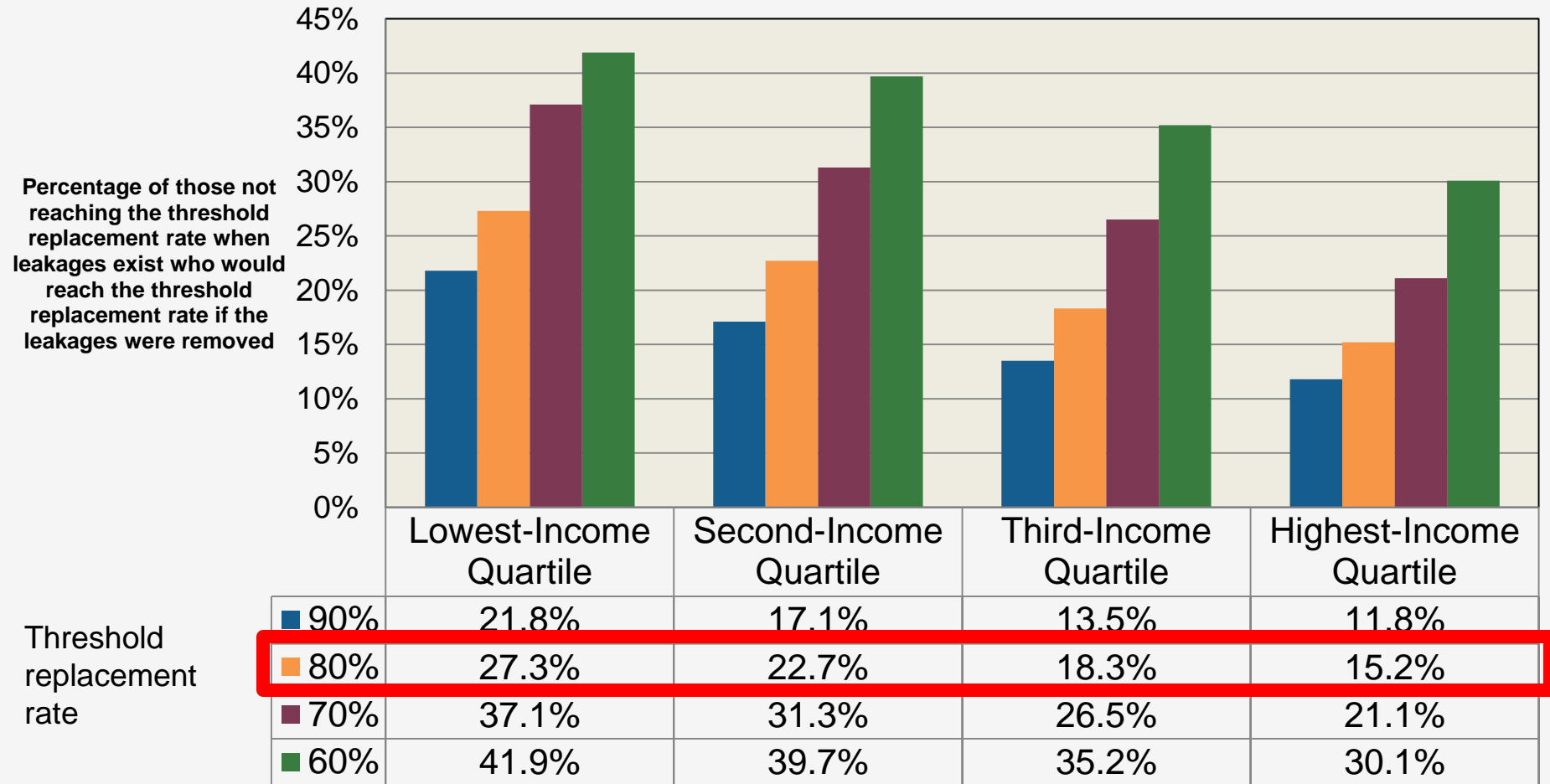
Source: Jack VanDerhei, Retirement Savings Shortfalls: Evidence From EBRI's 2019 Retirement Security Projection Model®, EBRI Issue Brief (March 2019)

* The Retirement Savings Shortfalls (RSS) are determined as a present value of retirement deficits at age 65.

Impact of Leakages for Automatic Enrollment Plans

Assuming No Participant Behavior Change for Participation, Contribution, or Asset Allocation

Comparison scenarios: **No leakages vs. all leakages** (cashouts, hardship withdrawals with 6-month suspension of cont)



THANK YOU!

For additional information please visit us at www.ebri.org or send me an email at vanderhei@ebri.org

APPENDIX

When is a household considered to run short of money in EBRI's simulation model?

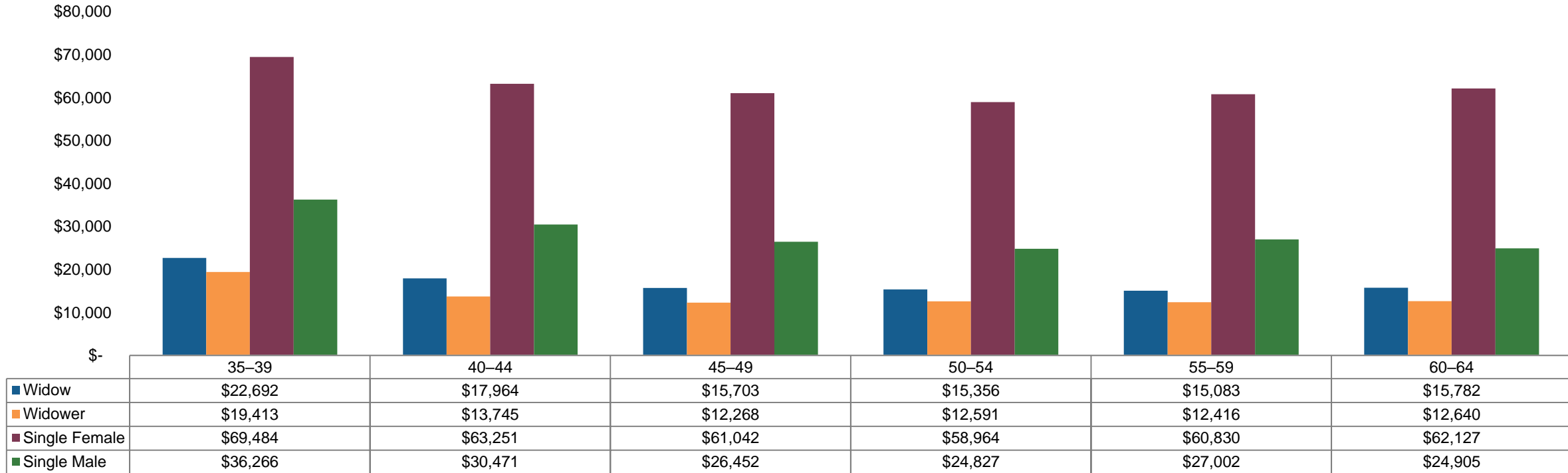
- If aggregate resources in retirement are not sufficient to meet average retirement expenditures
 - This version of the model is constructed to simulate retirement income adequacy
 - Alternative versions of the model allow similar analysis for replacement rates, standard-of-living calculations, and 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)
 - to the extent that the sum of their expenses and uninsured medical expenses exceed the projected after-tax annual income from those sources
 - They immediately begin to withdraw money from their individual accounts (defined contribution and cash balance plans, as well as IRAs).

When is a household considered to run short of money (continued)?

- 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 if the Social Security and defined benefit payments are not sufficient to pay expenses, the household is designated as having run short of money at that point.

Deficits by age and marital status/gender

2019 Retirement Savings Shortfalls,* by Age Cohort and Marital Status/Gender



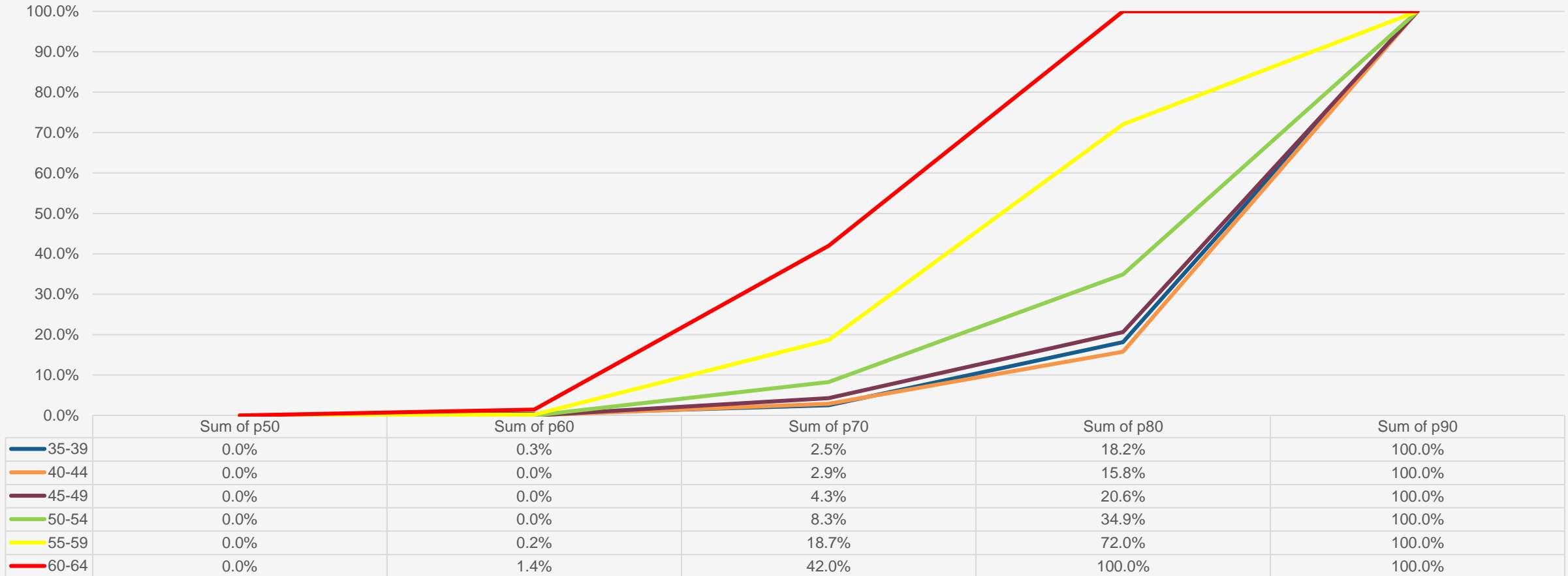
Source: EBRI Retirement Security Projection Model® version 3459.

* The Retirement Savings Shortfalls (RSS) are determined as a present value of retirement deficits at age 65.

Additional savings needed for various aggregate probabilities of success: by age

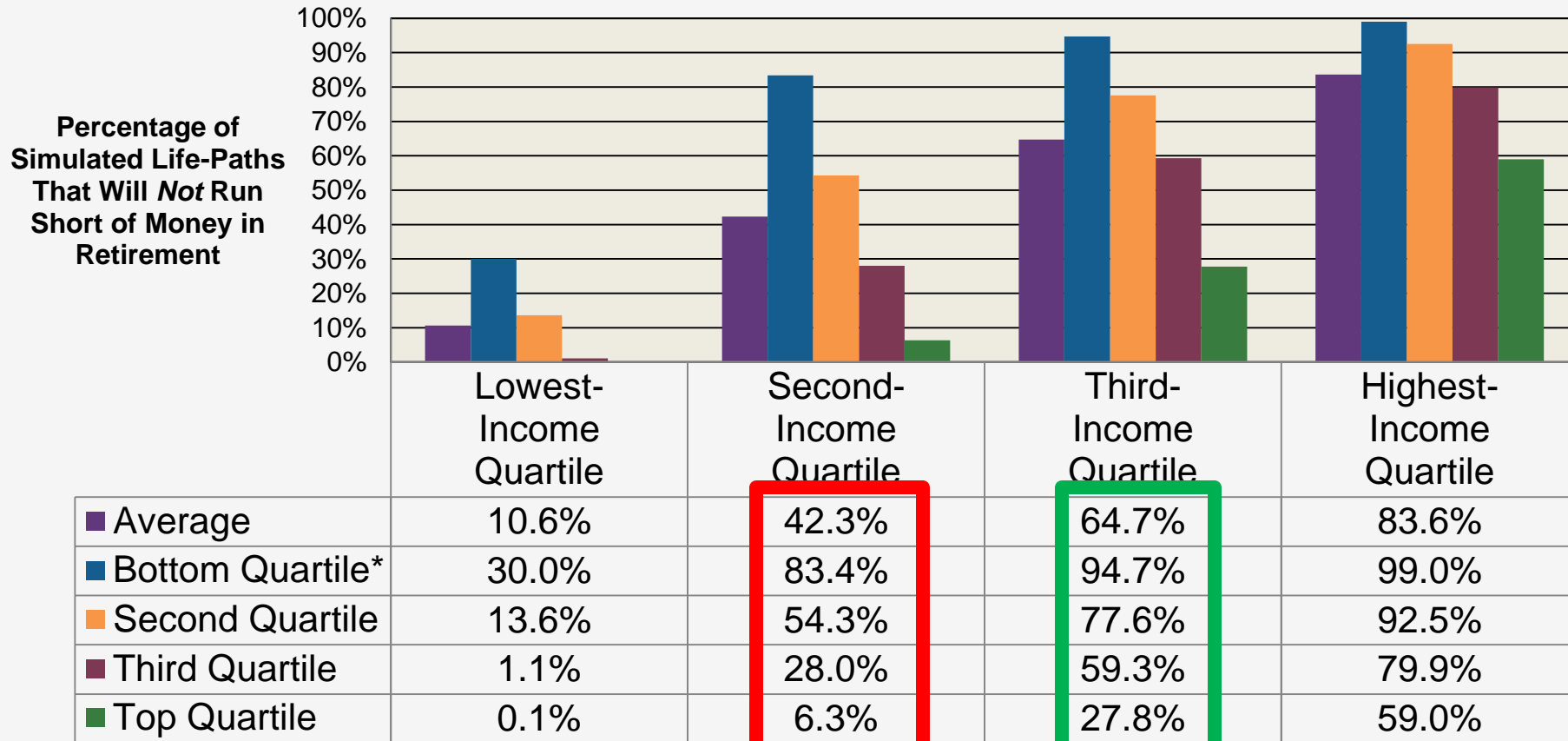
Percentage of compensation that must be saved each year in addition to the savings already projected until retirement age for a specified percentage of the cohort to have "adequate" retirement income (baseline assumptions)

NB: All percentages are capped at 100 percent of compensation



Impact of Stochastic Health Care Costs on Retirement Readiness Ratings™ for Boomers and Gen Xers by Preretirement Wage Quartile

Only Those Simulated Retirement Paths With Stochastic Health Care Costs Greater Than Zero



* Measured as quartile of present value at age 65 per capita stochastic health care costs in 2014 dollars.

Source: Jack VanDerhei, Why Does Retirement Readiness Vary: Results from EBRI's 2014 Retirement Security Projection Model®, *The Journal of Retirement* (April 2014)

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