

**Will Boomer and Gen X Women be Able to Afford
Retirement at Age 65?
Evidence from the 2012 EBRI Retirement Security
Projection Model®**

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Key points from today's presentation

- “At-risk” ratings have improved since 2003
 - Average of 4 percentage points for both single male and single female
 - However, single females have an at-risk rating approximately 80 percent higher than single males
 - 26 percentage points
- Eligibility in qualified retirement plans matters a great deal
 - For single female Gen Xers, at risk rating drops from 74 percent to only 25 percent depending on just future years of eligibility in a 401(k) plan
 - Impact still very significant after controlling for “income” quartile
- How much would it take for a single female to reduce retirement deficits to zero
 - Average of \$104,000 to 133,000 (2010 dollars)
- Importance of nursing home costs
- Some retirees will run “short” of funds within a relatively short period of time if they retire at age 65
 - 41 percent of the lowest income quartile for ALL early boomers will run short within ten years

Modeling Innovations in the EBRI Retirement Security Projection Model[®]

- 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
 - 2010: More than 24 million employees in 60,000 plans.
- Stochastic modeling of nursing facility care and home based health care.

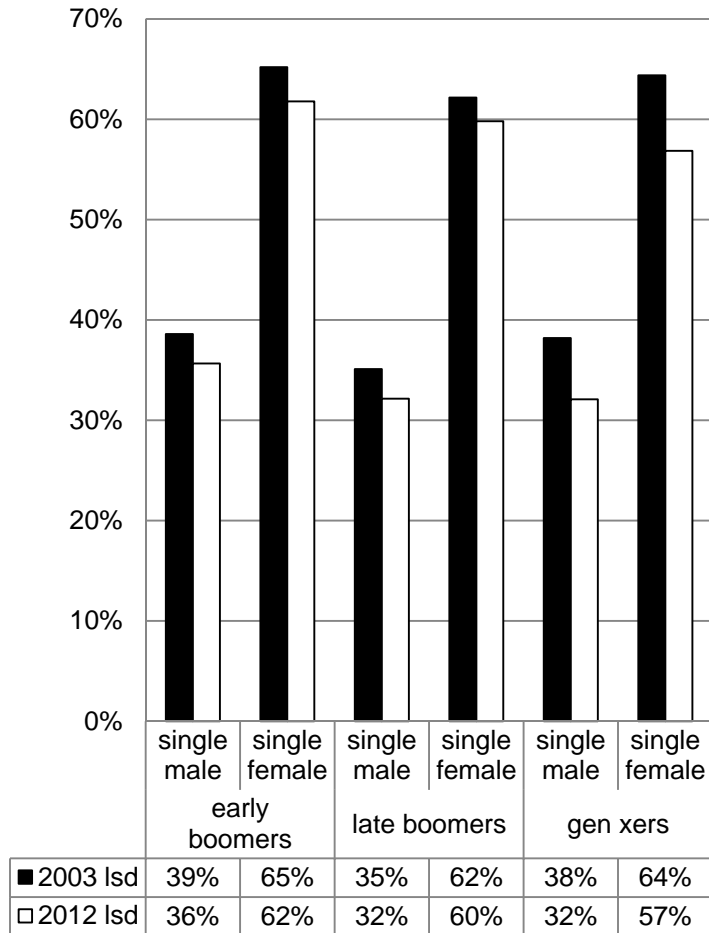
Retirement Income

- Limited to income produced by
 - Public and private retirement plans (including IRAs)
 - Social Security
 - Housing equity
 - Assumes used as LSD when the retiree runs “short” of money
- Baseline scenario assumes retirement income commences at age 65
 - See appendix for results of deferring retirement age

Retirement Expense Assumptions

- Decomposed total expenditures for retirees into:
 - Those that are deterministic:
 - ✓ Food, apparel and services, transportation, entertainment, reading and education, housing, and basic health expenditures.
 - Those that are stochastic:
 - ✓ Home health care and nursing home care.

Figure 1: Improvement of at-risk* ratings from 2003-2012 by age cohort and gender



Employees Currently Ages 25–29: Median 401(k) Accumulation Multiples for 401(k) "Accumulations" as a Function of Salary Quartile by Type of Plan (Assumes 31-40 Years of Eligibility)

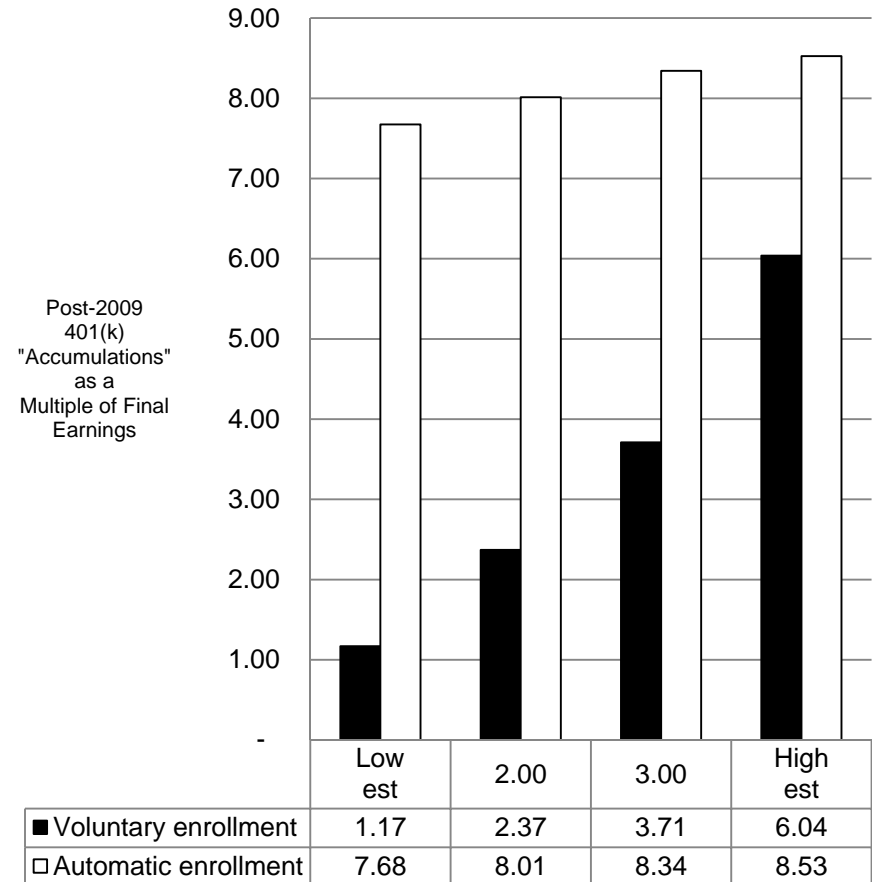


Figure 2: Impact of future years of 401(k) eligibility on 2012 at-risk* ratings for Gen Xers by gender

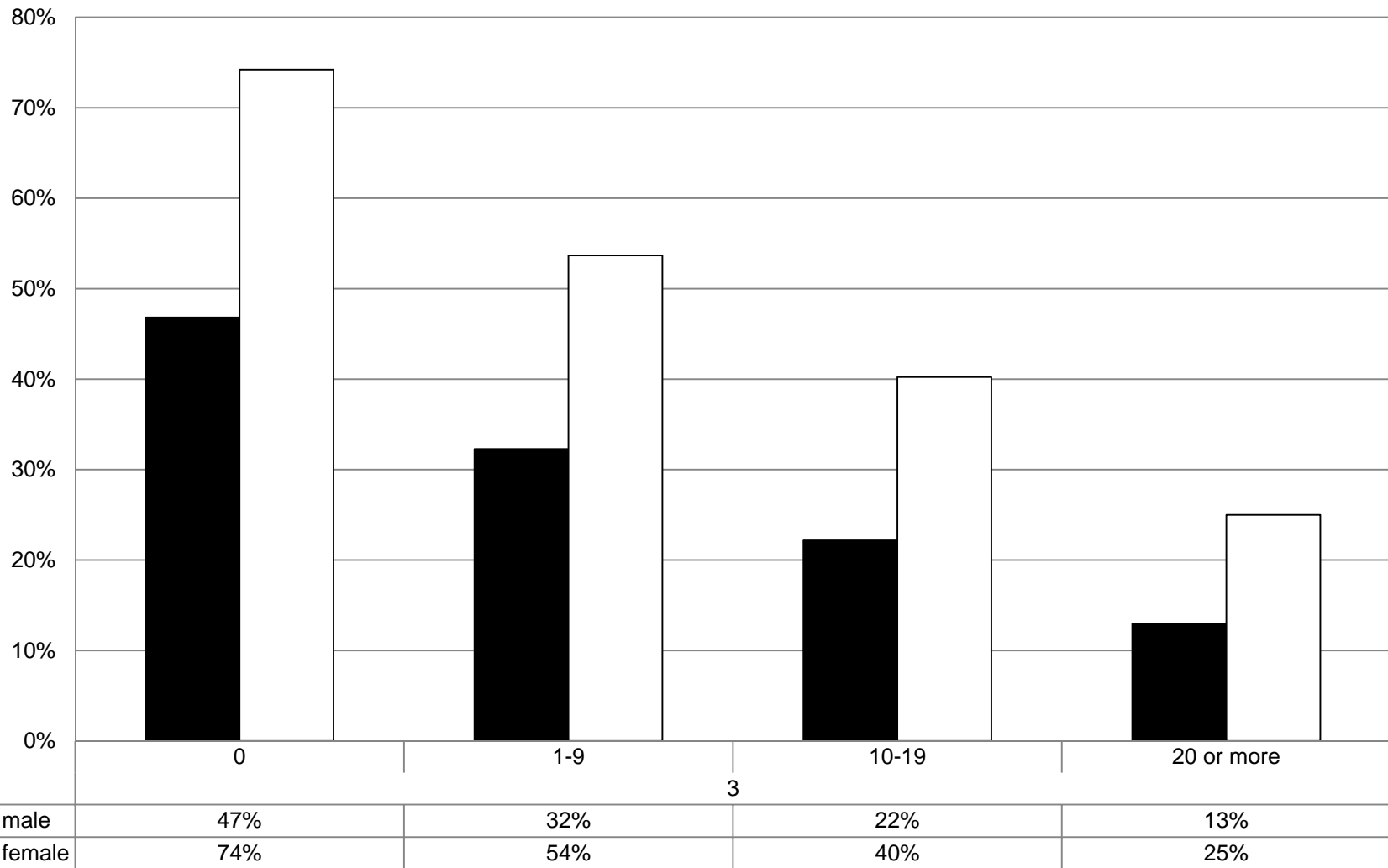


Figure 3: Impact of future years of 401(k) eligibility and "income" quartile on at-risk* ratings for Gen Xers by gender

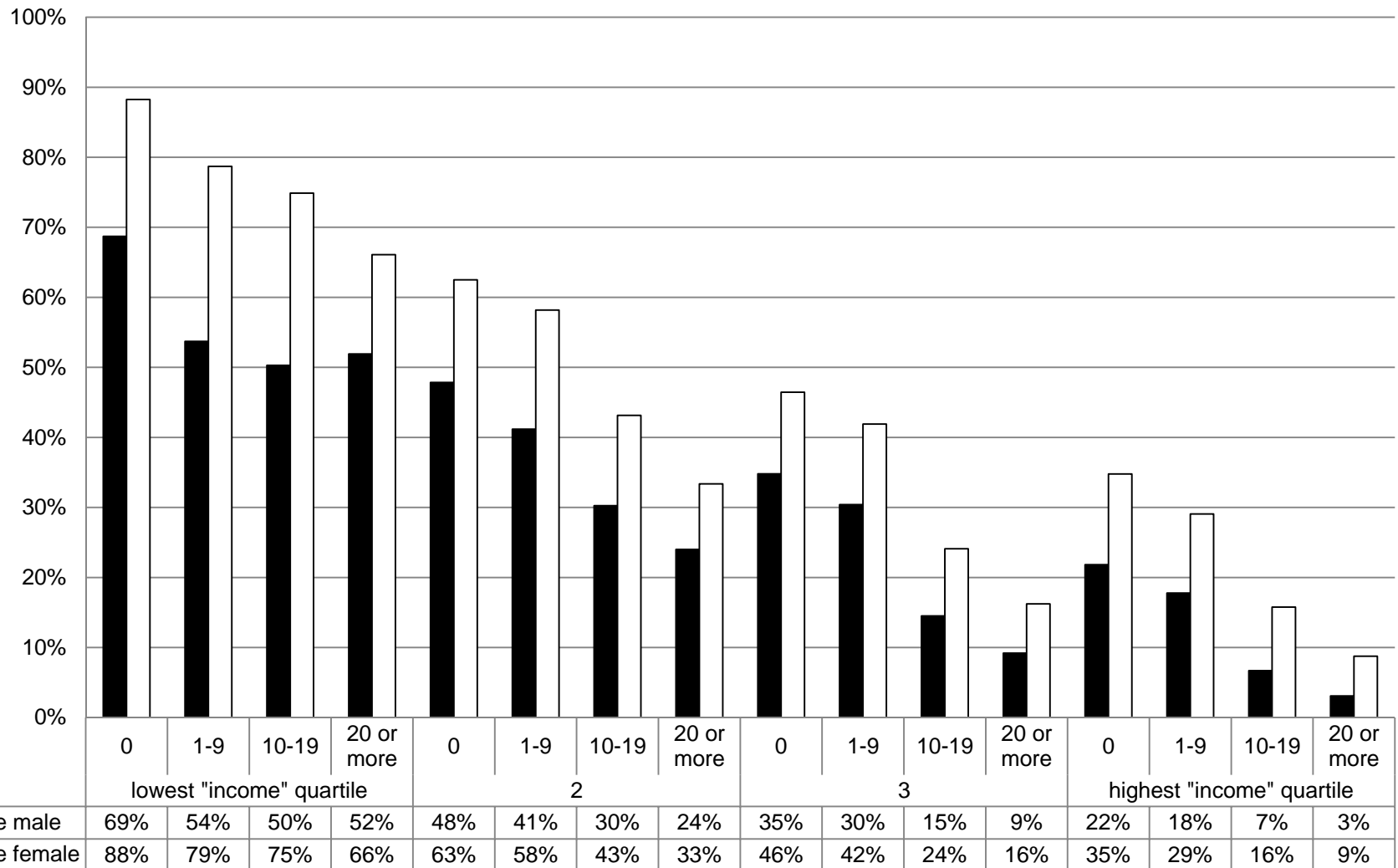
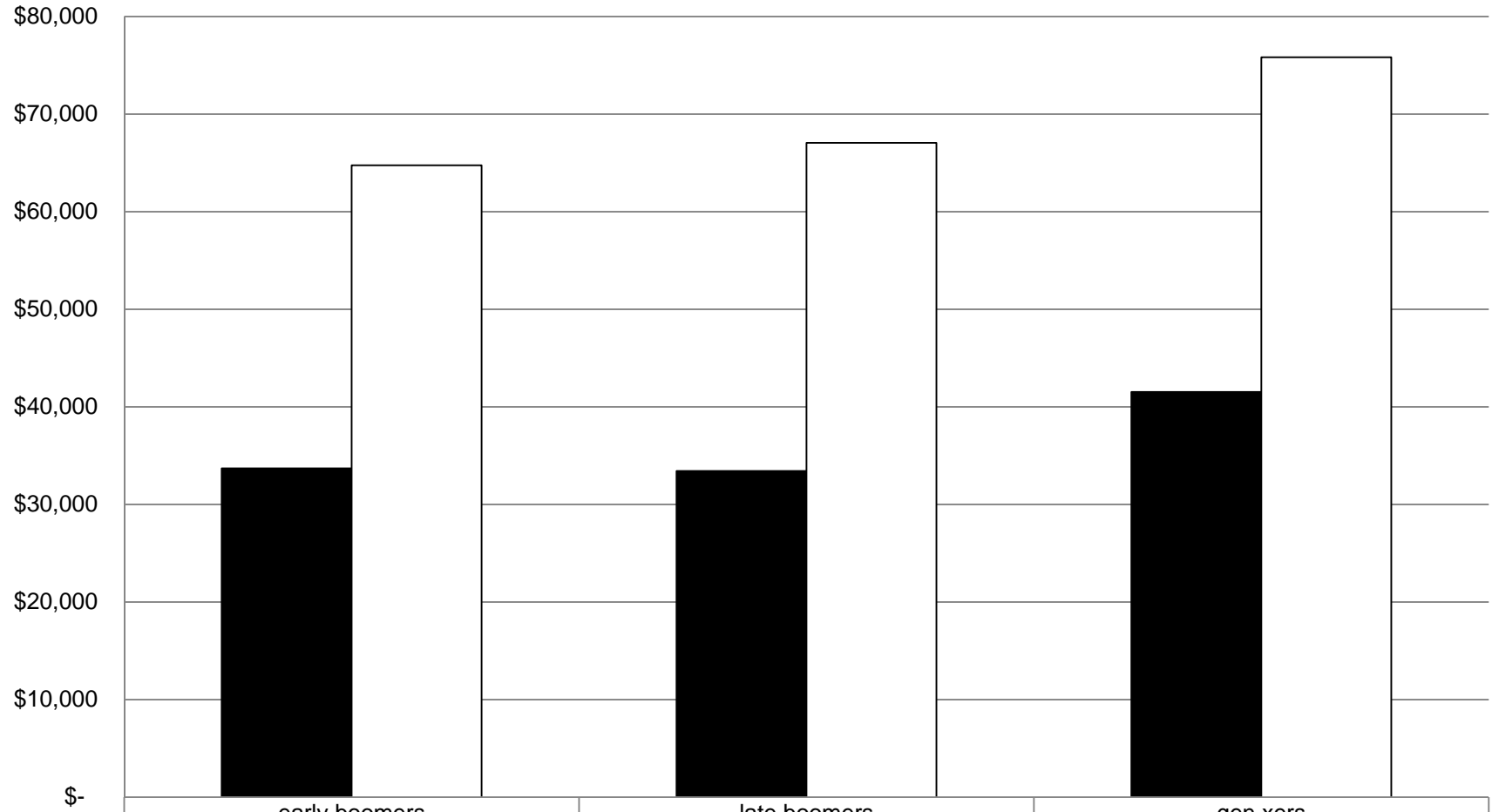


Figure 4: 2012 unconditional Retirement Savings Shortfall* numbers by age cohort and gender



	early boomers	late boomers	gen xers
■ single male	\$33,704	\$33,420	\$41,529
□ single female	\$64,749	\$67,057	\$75,827

Figure 5: 2012 conditional Retirement Savings Shortfall* numbers by age cohort and gender

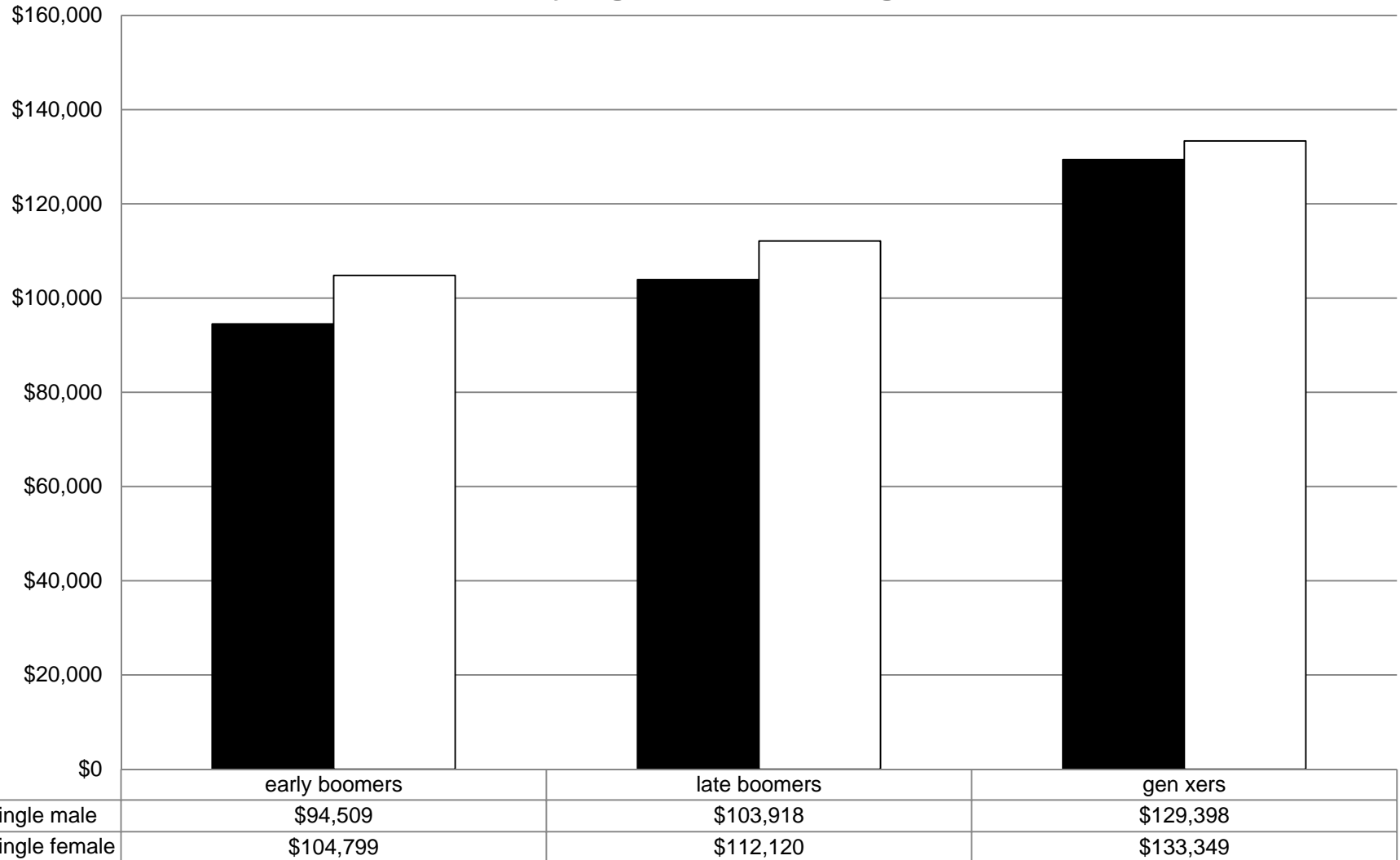


Figure 6: Average 2010 Retirement Savings Shortfalls,* by Gender, Marital Status and Age Cohort: With and Without Stochastic Health

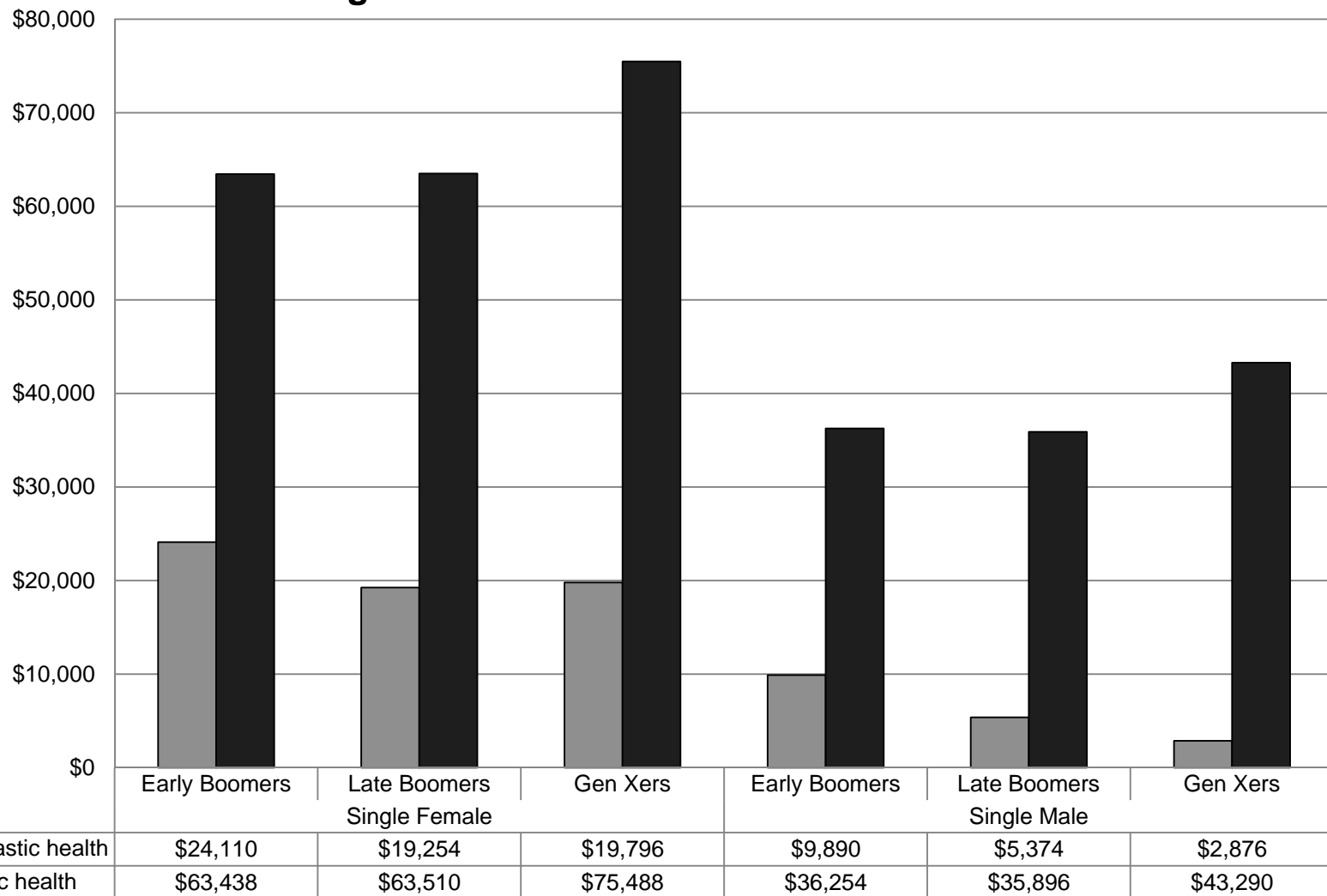
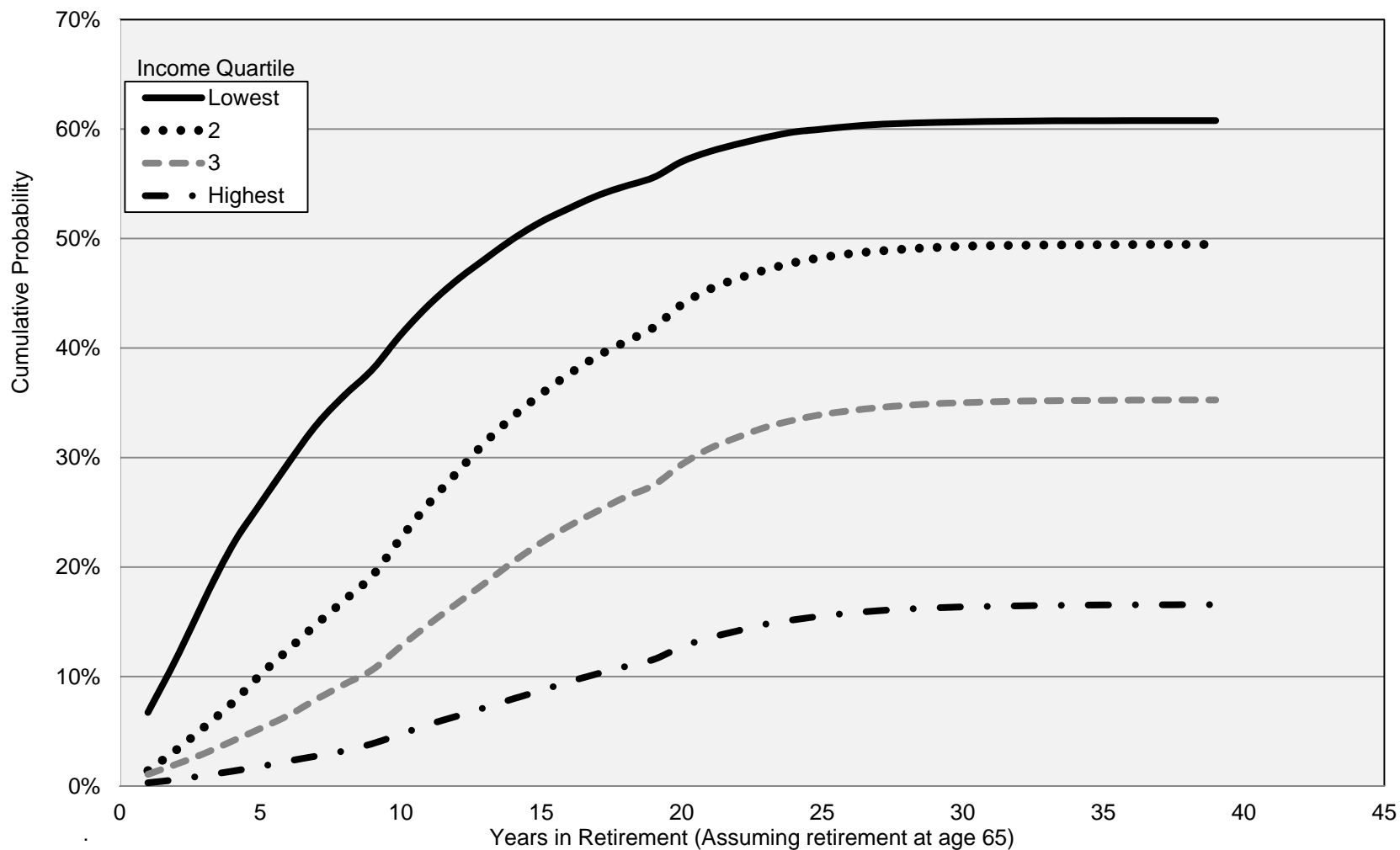


Figure 7: 2010 RSPM Estimate of Years in Retirement Before Early Boomers Run Out of Money,* by Preretirement Income Quartile



Definition of terms

Figures 1- 3 : An individual is considered to be at-risk in this version of the model if their aggregate resources in retirement are not sufficient to meet aggregate minimum 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 expenses (at least until the point they are picked up by Medicaid). The resources in retirement will consist of Social Security (either status quo or one of the specified reform alternatives), account balances from defined contribution plans, IRAs and/or cash balance plans, annuities from defined benefit plans (unless the lump-sum distribution scenario is chosen), and net housing equity (in the form of a lump-sum distribution). This version of the model is constructed to simulate "basic" retirement income adequacy; however, alternative versions of the model allow similar analysis for replacement rates, standard-of-living and other thresholds.

Figures 4-6: The Retirement Savings Shortfalls (RSS) are determined as a present value of retirement deficits at age 65.

Figures 7- 11: An individual is considered to be at-risk in this version of the model if their aggregate resources in retirement are not sufficient to meet aggregate minimum 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 expenses (at least until the point they are picked up by Medicaid). The resources in retirement will consist of Social Security (either status quo or one of the specified reform alternatives), account balances from defined contribution plans, IRAs and/or cash balance plans, annuities from defined benefit plans (unless the lump-sum distribution scenario is chosen). Net housing equity is not considered in this run. This version of the model is constructed to simulate "basic" retirement income adequacy; however, alternative versions of the model allow similar analysis for replacement rates, standard-of-living and other thresholds.

Appendices

- Brief chronology of RSPM
- Impact of reducing Social Security benefits by 24 percent starting in 2037
- Impact of deferring retirement age past 65
- Impact of lowering the stochastic rate of return assumptions
- Impact of the crisis in the financial and real estate markets in 2008/9

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

- 2001, Oregon
 - Simulated retirement wealth vs. ad hoc thresholds for retirement expenses
- 2002, Kansas and Massachusetts
 - Full stochastic retiree model: Investment and Longevity risk, Nursing home and home health care costs
 - Net housing equity
- 2003, National model
 - Expanded to full national sample
- 2004, Senate Aging testimony
 - Impact of everyone saving another 5 percent of compensation
- 2004, EBRI Policy forum
 - Impact of annuitizing defined contribution/IRA balances
- 2006, EBRI Issue Brief
 - Evaluation of defined benefit freezes on participants
- 2006, EBRI Issue Brief
 - Converted into a streamlined individual version for the ballpark estimate Monte Carlo
- 2008, EBRI policy forum
 - Impact of converting 401(k) plans to automatic enrollment
- 2009, Pension Research Council
 - Winners/losers analysis of defined benefit freezes and enhanced defined contribution employer contributions provided as a quid pro quo
- 2010, EBRI Issue Brief (April)
 - Impact of modification of employer contributions when they convert to automatic enrollment for 401(k) plans
- 2010, EBRI Issue Brief (July)
 - Updated model to 2010, included automatic enrollment for 401(k) plans
- 2010, EBRI Notes (Sept and Oct)
 - Analyzes how eligibility for participation in a DC plan impacts retirement income adequacy
 - Computes Retirement Savings Shortfalls for Boomers and Gen Xers
- 2010, Senate HELP testimony
 - Analyzes the relative importance of employer-provided retirement benefits and Social Security

Appendix (continued)

- 2011, EBRI Issue Brief (February)
 - Analyzes the impact of the 2008/9 crisis in the financial and real estate markets on retirement income adequacy
- 2011, EBRI policy forum
 - Analyzes impact of deferring retirement age
- 2011, July Notes article
 - Analyzes the impact of the 20/20 limit recommended by the National Commission on Fiscal Responsibility and Reform
- 2011, August Notes article
 - Analyzes value of defined benefit plans
- 2011, Senate Finance Hearing
 - Analyzes the impact of modifying tax incentives for defined contribution plans

Figure 8: Percentage of Baby boom and Gen X Households Simulated to Have Adequate* Retirement Income for at Least 50 Percent of Simulated Life Paths After Retirement Age by Pre-Retirement Income Quartiles

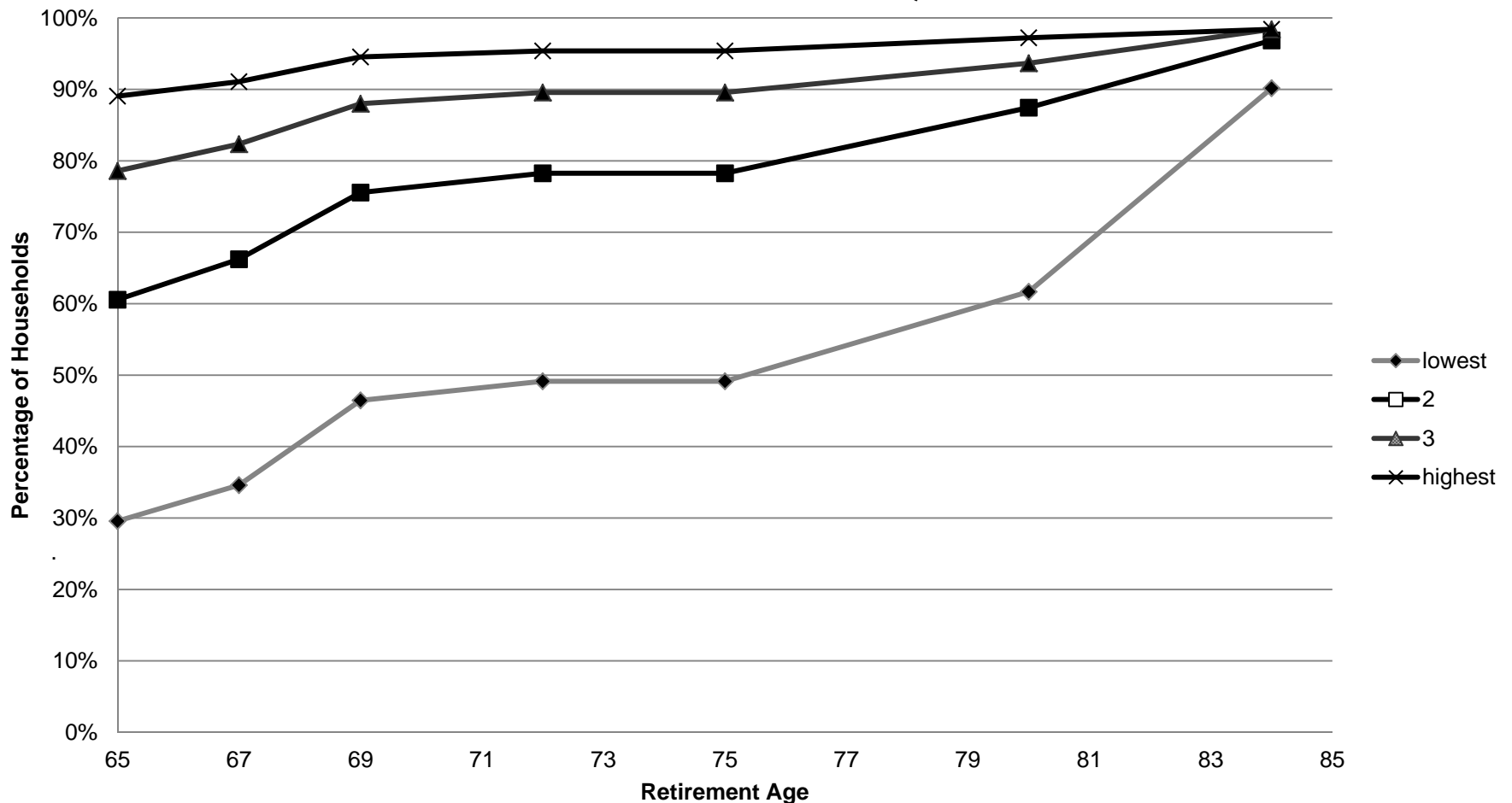


Figure 9: 2010 RSPM: Impact of reducing Social Security benefits by 24 percent starting in 2037

Percentage of population “at risk” for inadequate retirement income, by age cohort

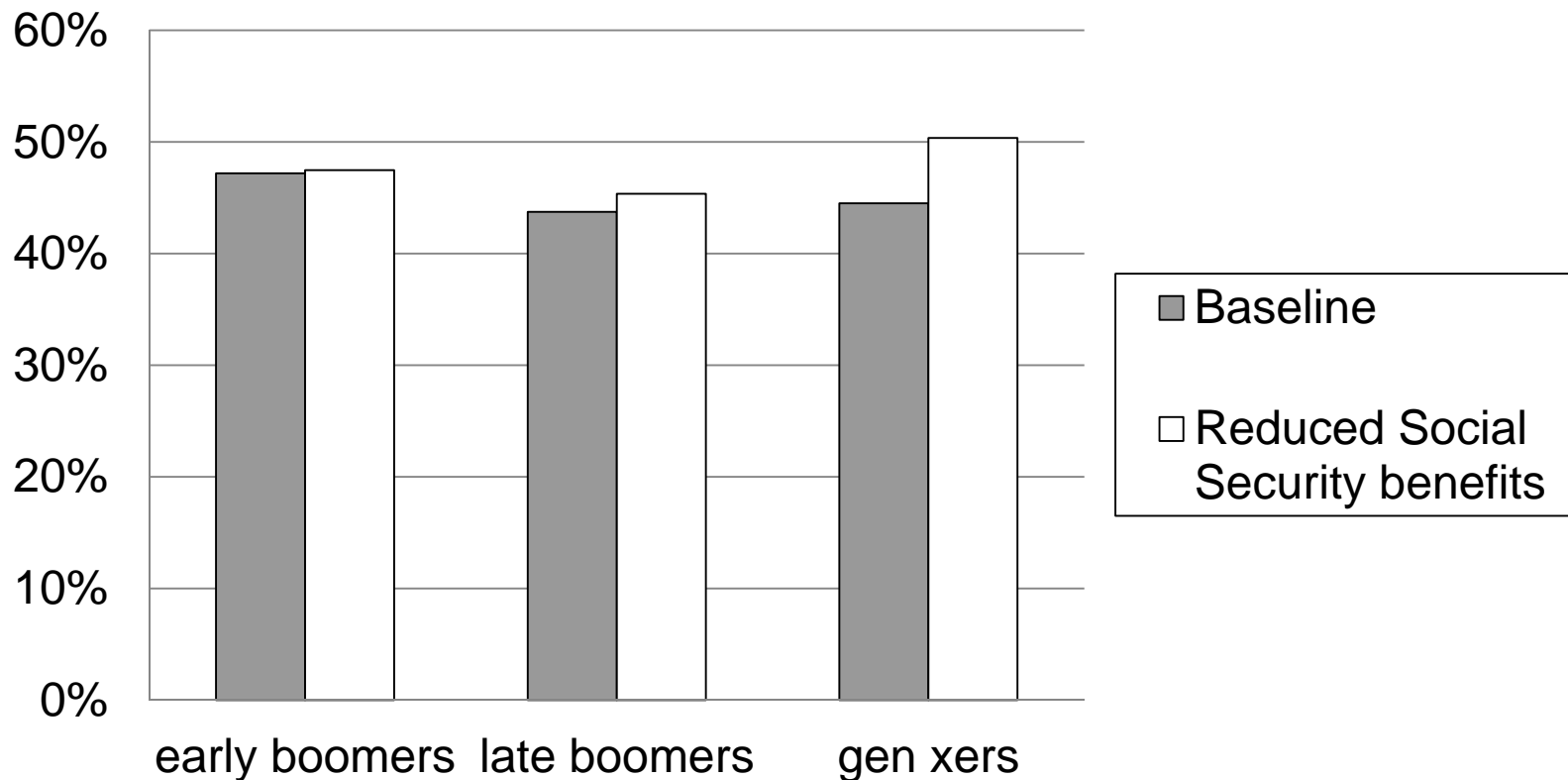


Figure 10: 2010 RSPM: Impact of lowering the stochastic rate of return assumptions from a mean of 8.9% equity and 6.3% fixed income, to 4.45% equity and 3.8% fixed income

Percentage of population “at risk” for inadequate retirement income, by age cohort

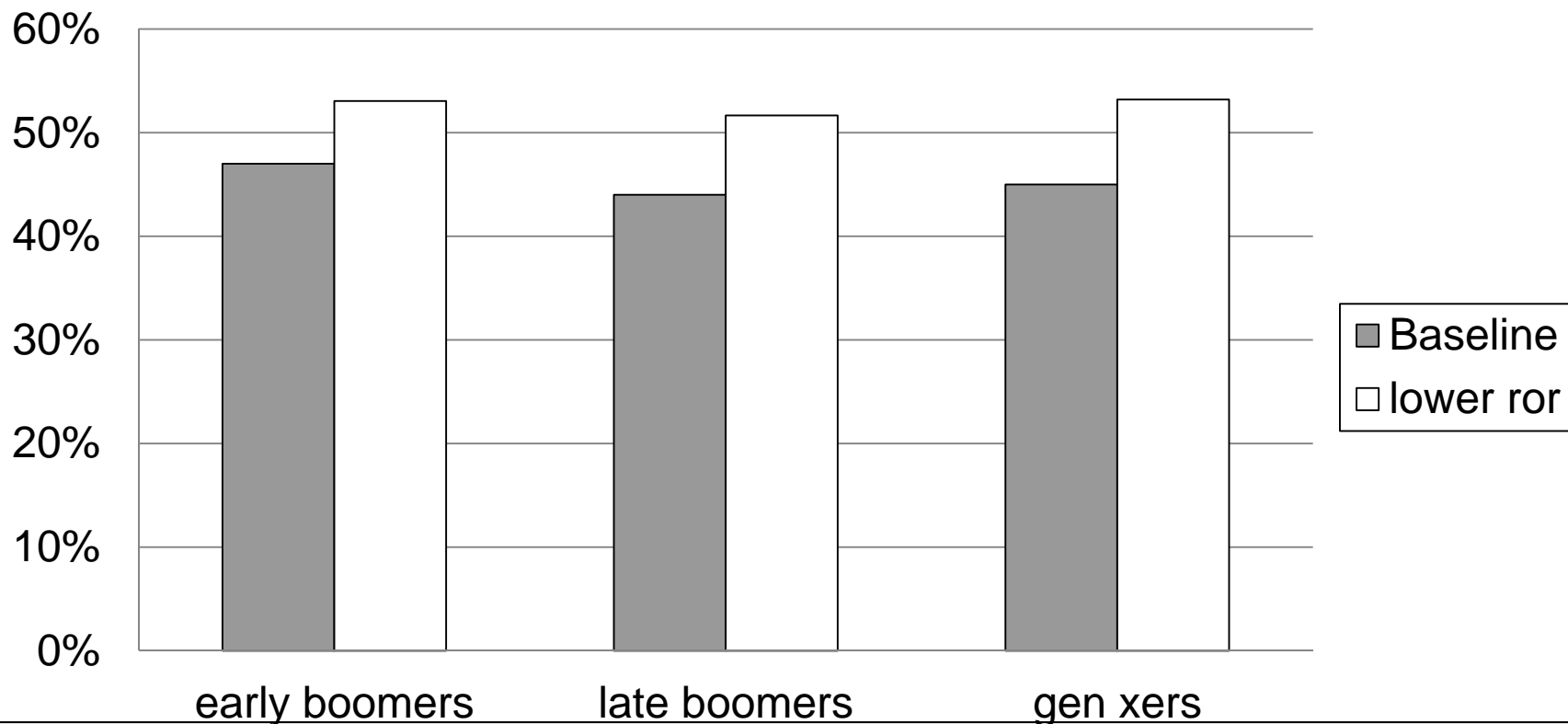


Figure 11: Baseline 2010 EBRI Retirement Readiness Rating™ (RRR) vs. Baseline With 1/1/08 Market Values and Home Equity

[This analysis is limited to households that had positive values for all of the following on 1/1/08: **Defined contribution plan balance, IRA balance and housing equity**]

Percentage of population “at risk” for inadequate retirement income, by age cohort.

