The State of Retirement Income Preparation and Future Prospects

(Results from the updated EBRI/ERF Retirement Security Project Model (RSPM))

EBRI Policy Forum #66

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Key Points from Today's Presentation

- What percentage of the population is "at risk" with respect to retirement income adequacy?
  - Who are they (age and/or income)?
  - Impact of employer-sponsored retirement plans.
  - Impact of changing baseline assumptions (rate of return).
  - Impact of the utilization of net housing equity.
- How will future policy changes affect who is at risk?
  - Social Security benefits.
  - Medicare benefits.
- How much would those at risk need to save to eliminate the deficits?
- How "secure" do they want to be?
  - Simply using average life expectancy, rates of return, medical costs, etc.
    - ✓ In essence, only enough to expect adequacy 50 percent of the time.
  - Or would a 70 or 90 percent probability of success be a "better" target?

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 risk
    - ✓ 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 symposium
  - Winners/losers analysis of defined benefit freezes and enhanced defined contribution employer contributions provided as a quid pro quo
- 2010, *EBRI Issue Brief*
  - Impact of modification of employer contributions when they convert to automatic enrollment for 401(k) plans

Modeling Innovations in the EBRI/ERF 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:
  - More than 24 million employees in 50,000 plans.
- Housing equity modeled under three scenarios.
- 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 retirement income commences at age 65 (baseline)
  - Purposely conservative with respect to reported deficits

Retirement "Adequacy"

- Year-by-year comparison of:
  - Deterministic and simulated retirement expenditures vs.
  - Retirement income (for most defined benefit plans and Social Security) and
  - Account balances that may be spent as desired (defined contribution and cash balance plans and IRAs).

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.

- Performed annual simulations on U.S. families with a retiree to determine if each retiree would:
  - Require home health care,
  - Enter a nursing home,
  - Die, or
  - Continue to survive without incurring any of these stochastic health costs.

Model Output: Simulated Expenditure Analysis

- Modeled the health expenditures covered by Medicaid based on the federal Supplemental Security Income program resource and income standards.
- Computed the annual differential, if any, between the total expenses (less those covered by Medicaid) and the retirement income.
- If total net expenses are simulated to exceed the total retirement income for a year:
  - The households are assumed to spend down their individual account balances until the point at which they are exhausted.
- The present value of the annual deficits are then accumulated for each observation.

Housing Equity Assumptions

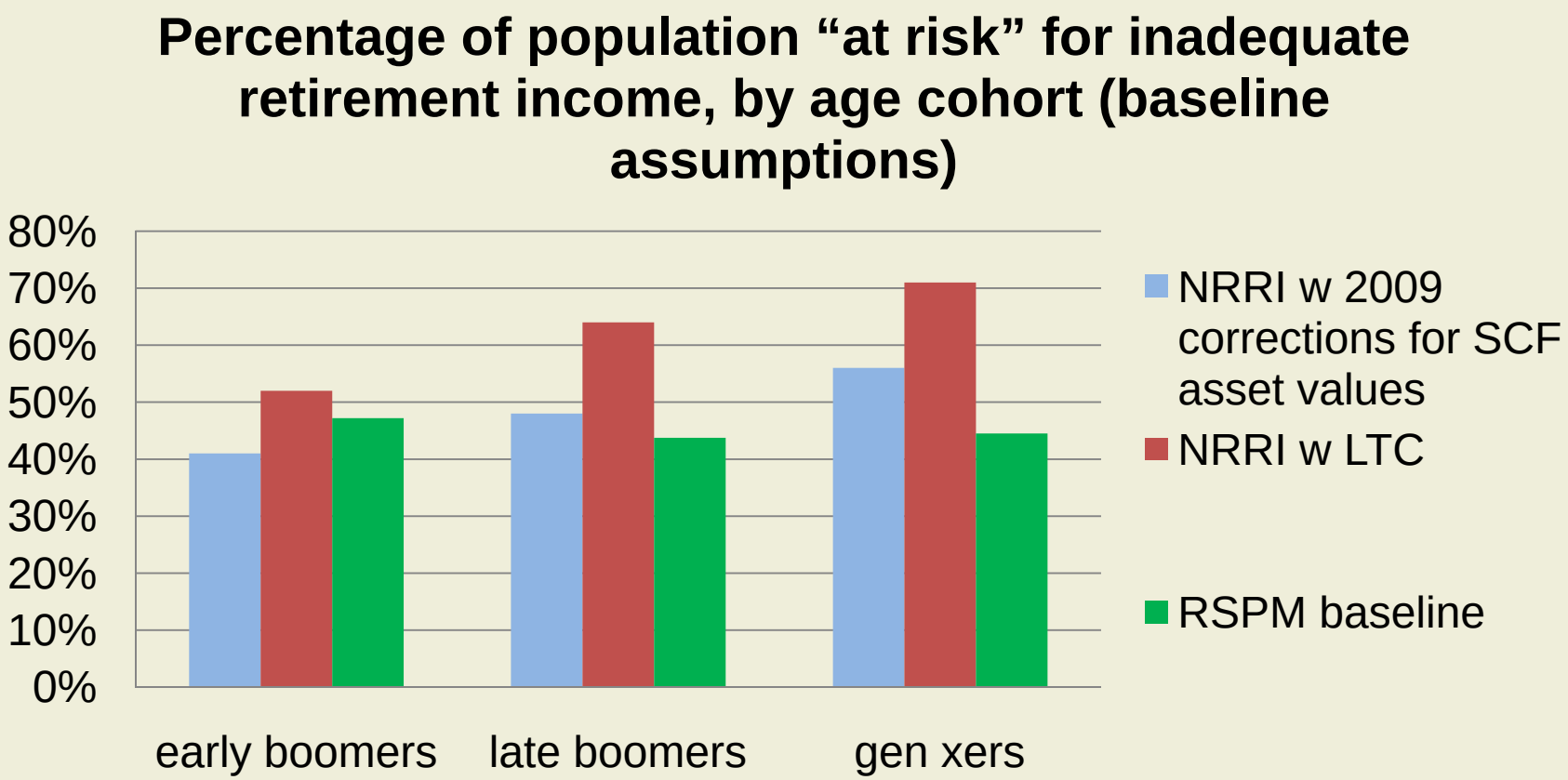
Three different scenarios were modeled:

1. Housing equity never liquidated.
2. Housing equity annuitized at retirement.
3. Housing equity is not liquidated until "needed" and then the residual value is not annuitized.

Individual Savings Shortfalls for Meeting Basic Expenses

- Definition of basic expenses:
  - Basic living expenses and any expense associated with an episode of care in a nursing home or from a home health care provider.
- Following slides shows results by:
  - Birth cohort.
  - Income quartile:
    - ✓ Function of all future years of work, not just current year or year prior to retirement.
- We assume individuals want a better than 50/50 chance of having "sufficient" retirement income to cover basic expenses:
  - Model a 50, 70 and 90 percent probability of retirement income adequacy
- For those with retirement income deficits, the model computes ADDITIONAL savings needed from 2010 until age 65 as a percentage of compensation.

Chart 1: Baseline RSPM vs. National Retirement Risk Index (NRRI)



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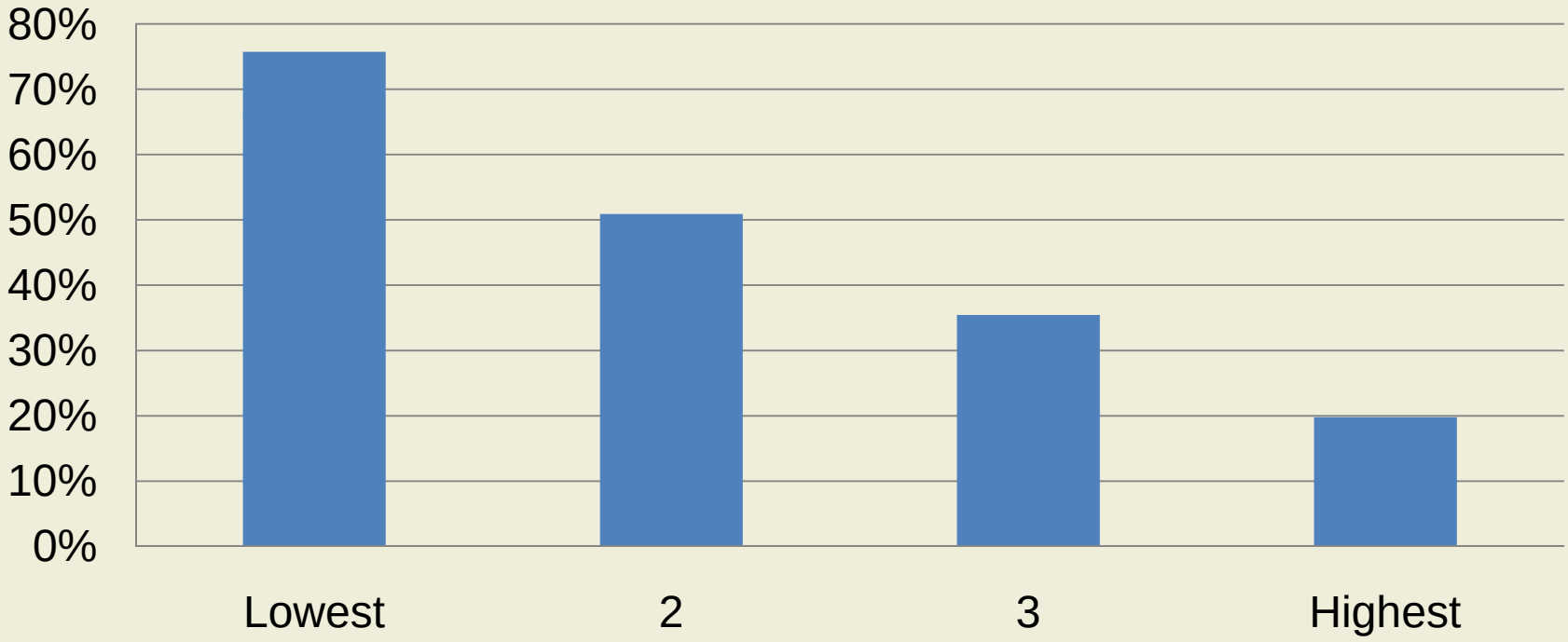
Sources: EBRI/ERF Retirement Security Projection Model ™ version 100504e; "The National Retirement Risk Index: After the Crash," Center for Retirement Research at Boston College, October 2009; "Long-term Care Costs and the National Retirement Risk Index," Center for Retirement Research at Boston College, March 2009

Chart 2: Impact of “salary” on at risk probability

Percentage of population “at risk” for inadequate retirement income, by age-specific remaining career income quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e

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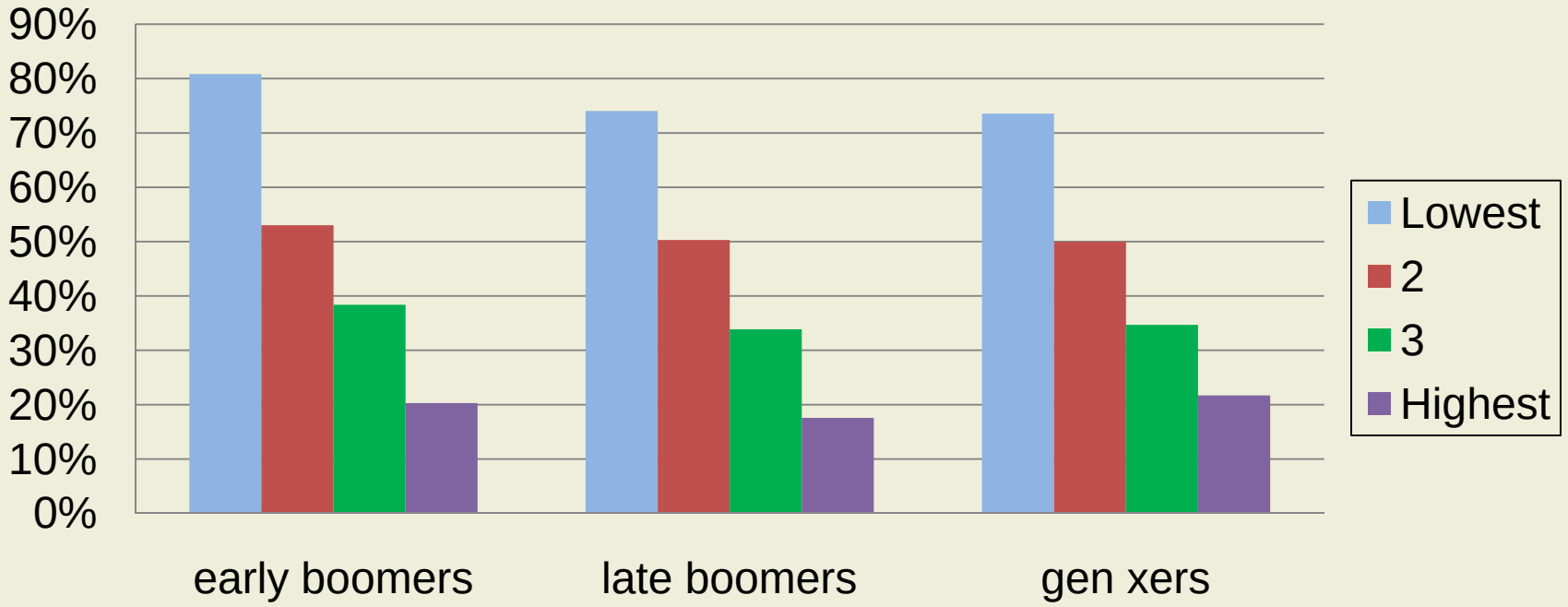
Chart 3: Impact of age and "salary" on at risk probabilities

Percentage of population "at risk" for inadequate retirement income, by age cohort and age-specific remaining career income quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e

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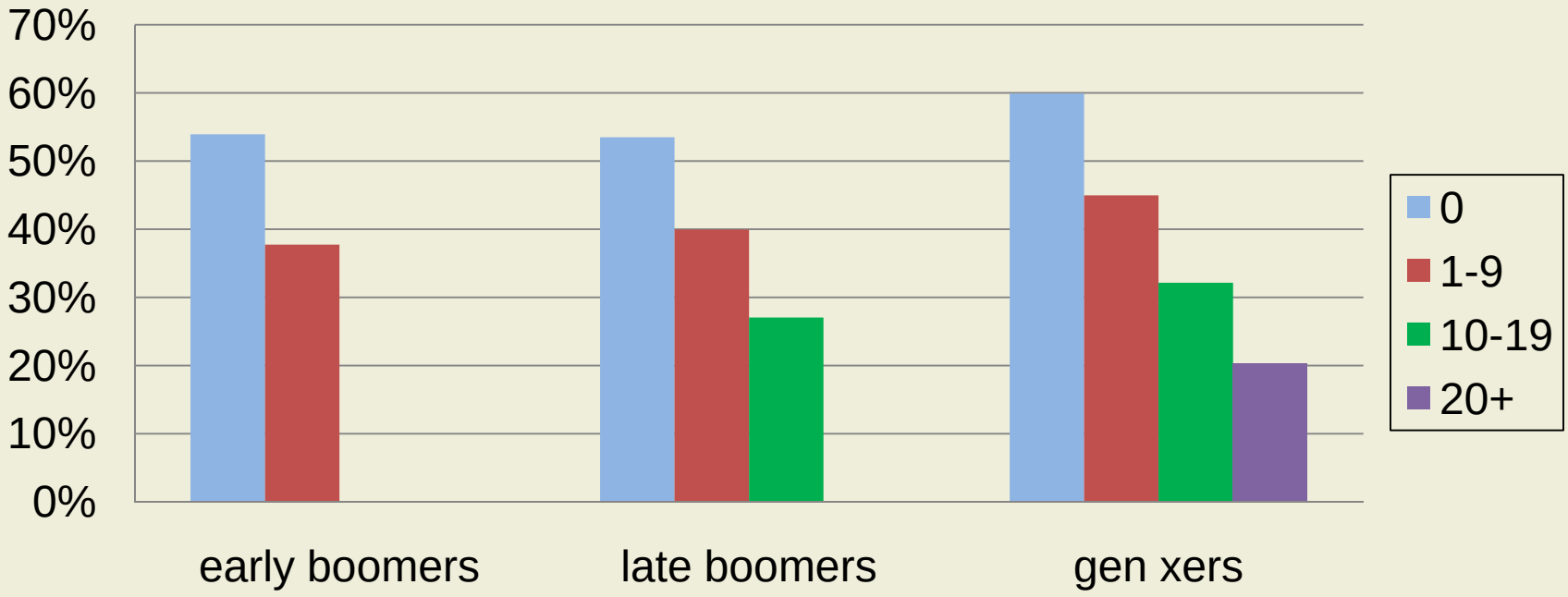
Chart 4: Impact of age and future years of eligibility for participation in a defined contribution plan on at risk probabilities

Percentage of population "at risk" for inadequate retirement income, by age cohort and future years eligible for participation in a defined contribution plan (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e

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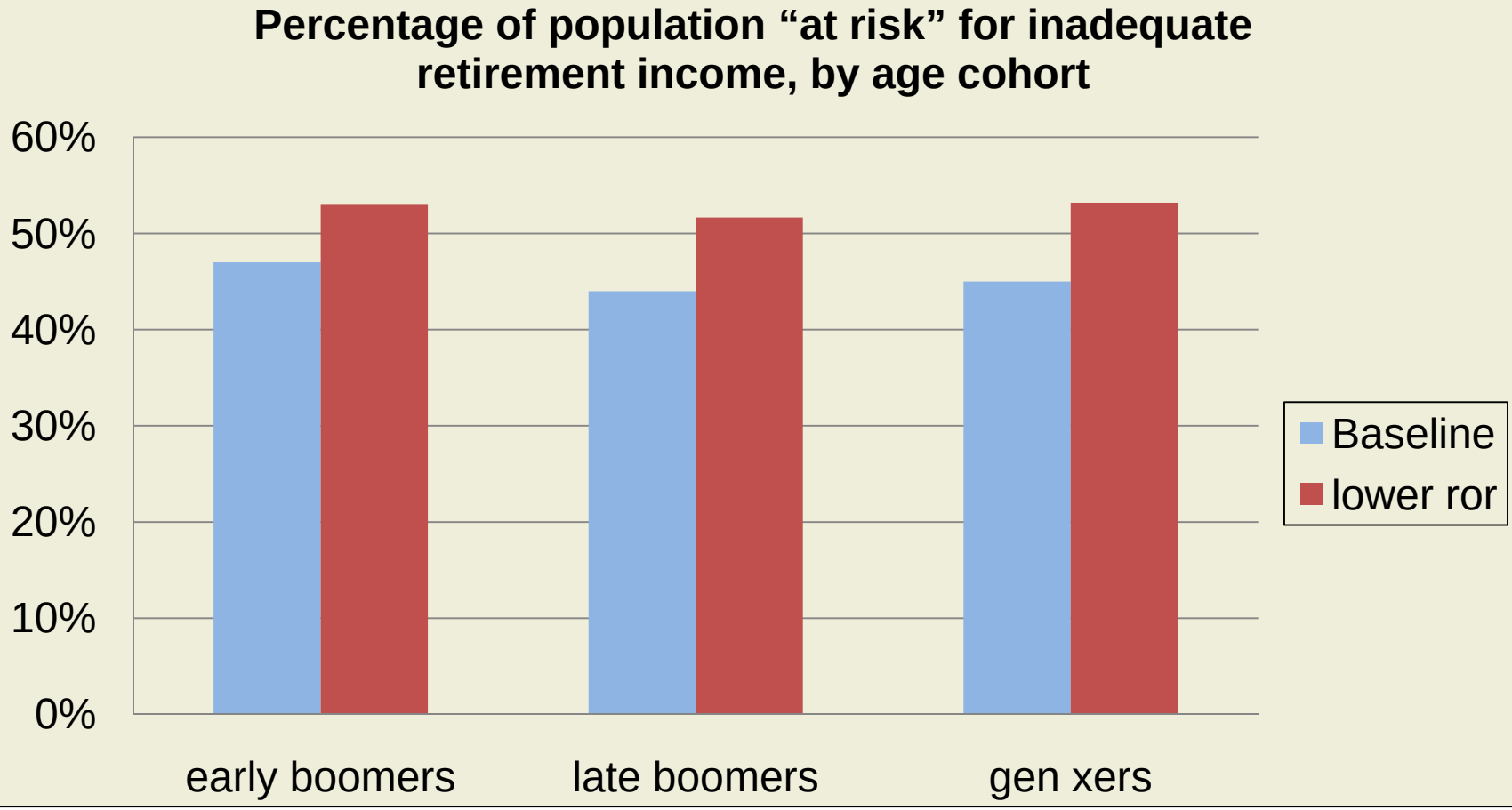
Chart 5: Impact of lowering the rate of return assumptions from 8.9% equity and 6.3% fixed income, to 4.45% equity and 3.8% fixed income



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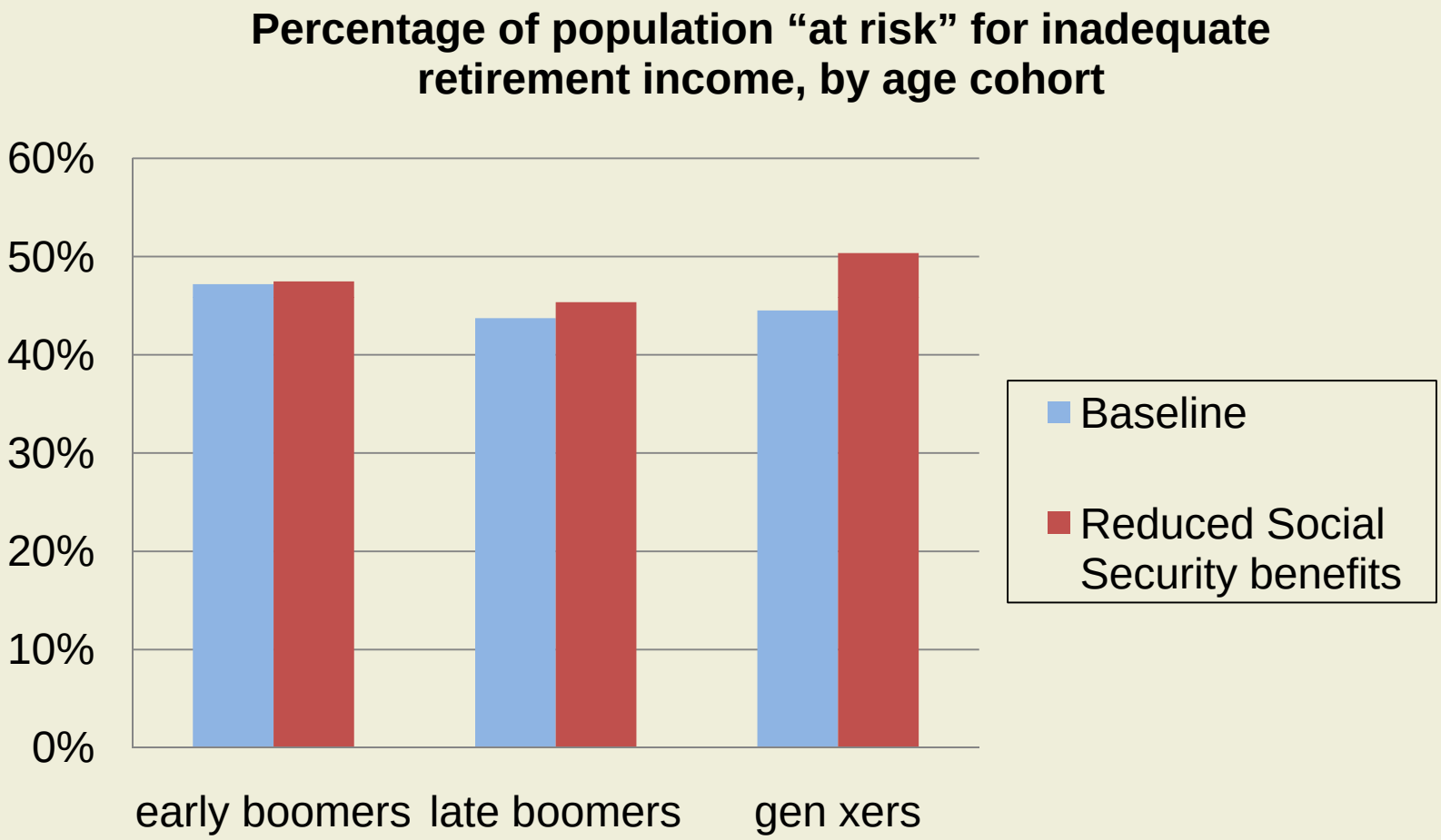
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100505e

Chart 6: Impact of reducing Social Security benefits by 24 percent starting in 2037

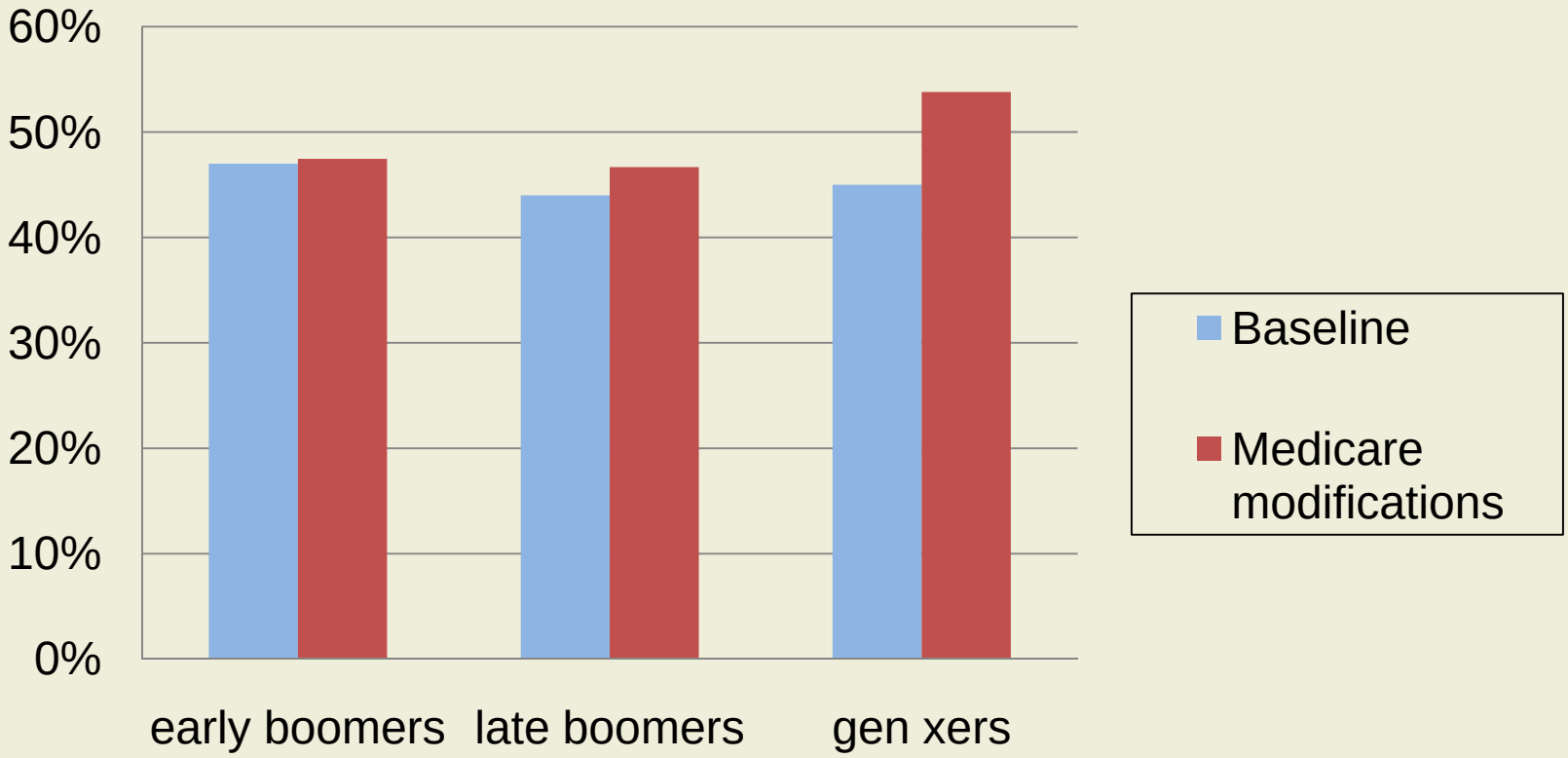


Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e1

Chart 7: Impact of Medicare modifications*

*Medicare beneficiaries will receive on average $11,000 per year indexed for inflation by a blended rate of the CPI and the medical care component of the CPI. The payment amount is modified based on income: beneficiaries with incomes below $80,000 ($160,000 for couples) receive full standard payment amounts; beneficiaries with annual incomes between $80,000 and $200,000 ($160,000 to $400,000 for couples) receive 50 percent of the standard; and beneficiaries with incomes above $200,000 ($400,000 for couples) receive 30 percent.

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



Sources: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e2;
http://www.roadmap.republicans.budget.house.gov/plan/#Healthsecurity

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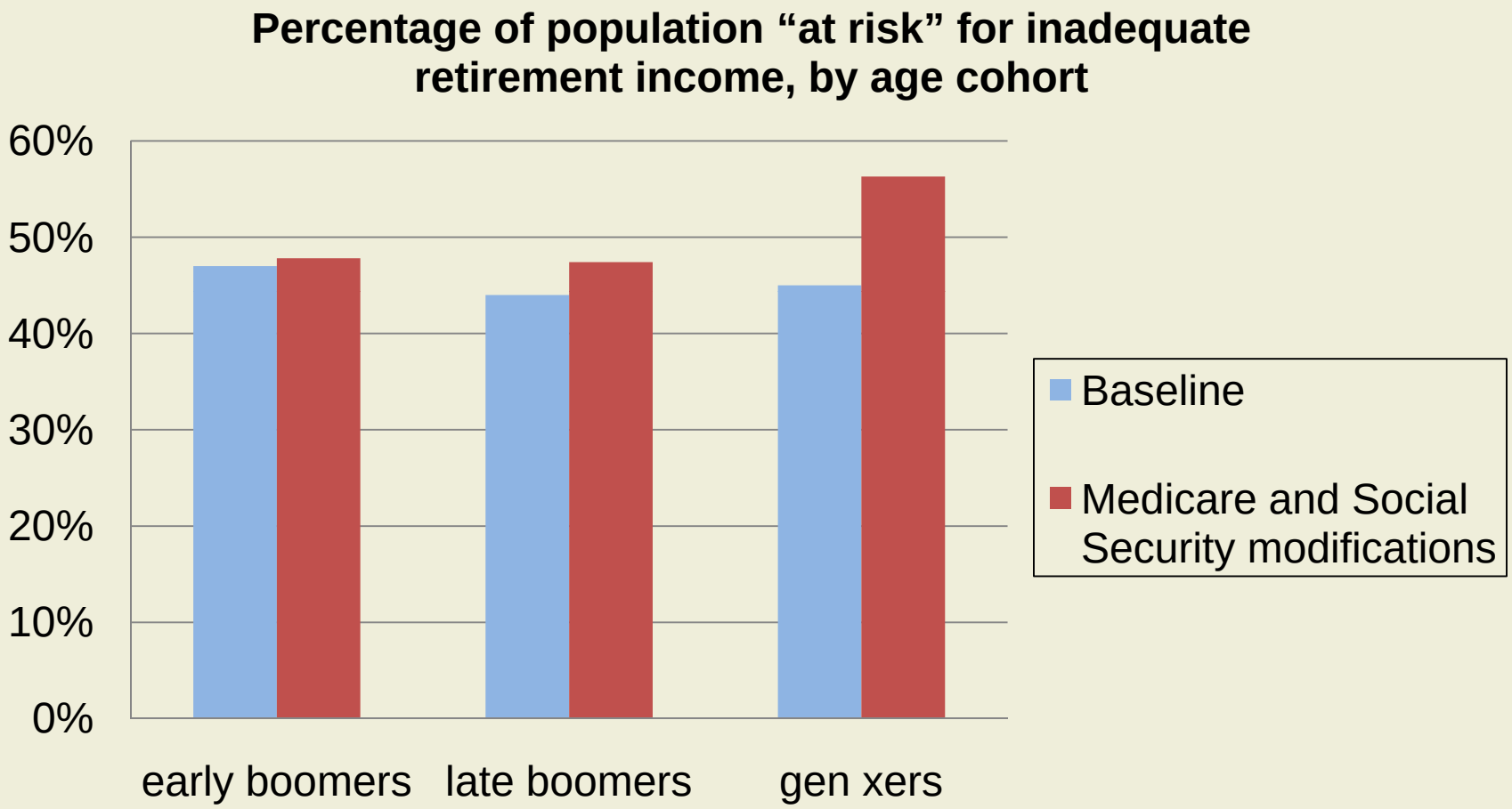
Chart 7a: Impact of Medicare and Social Security modifications combined



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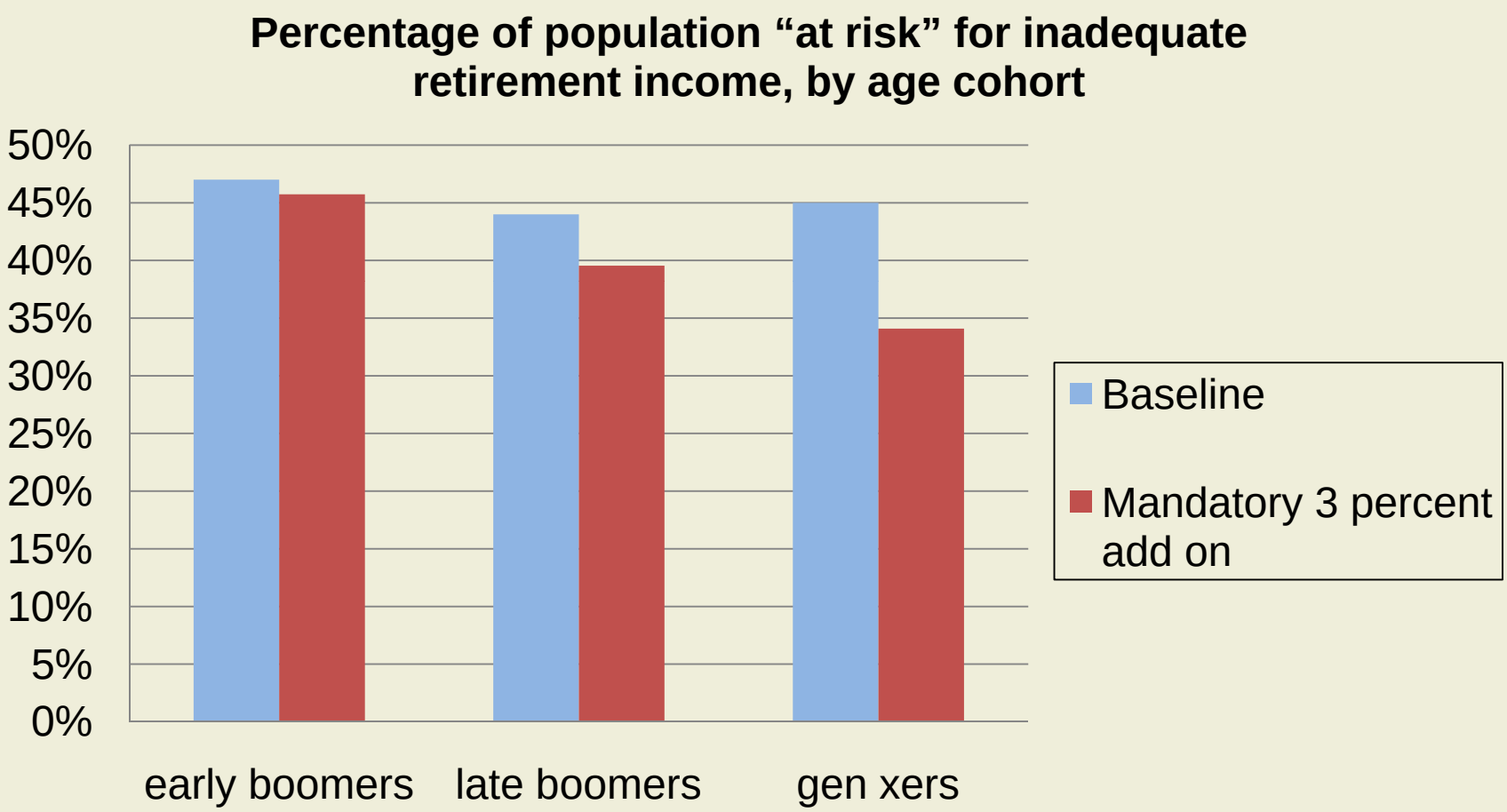
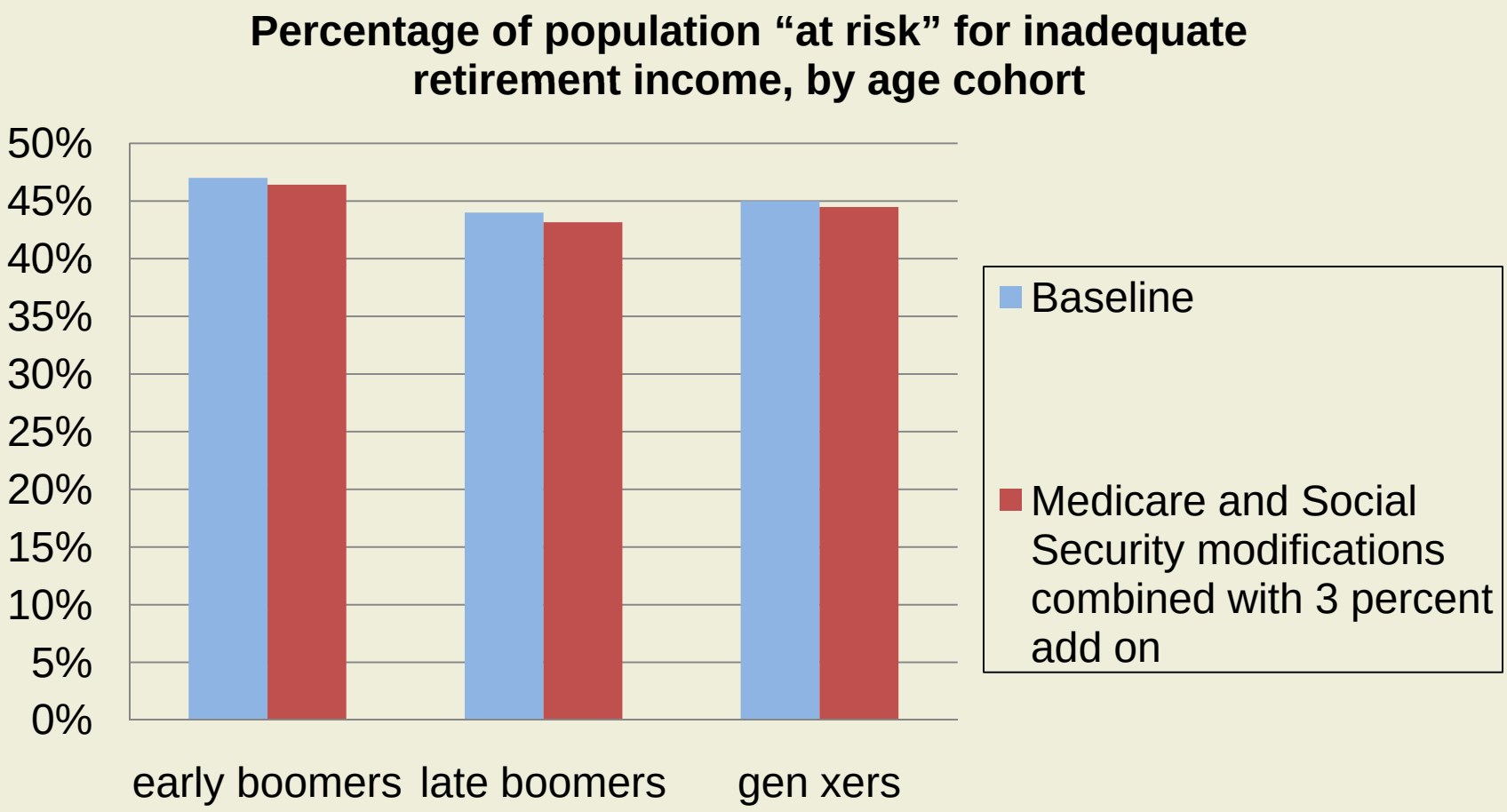
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e6

Chart 7b: Impact of mandatory 3 percent add-on



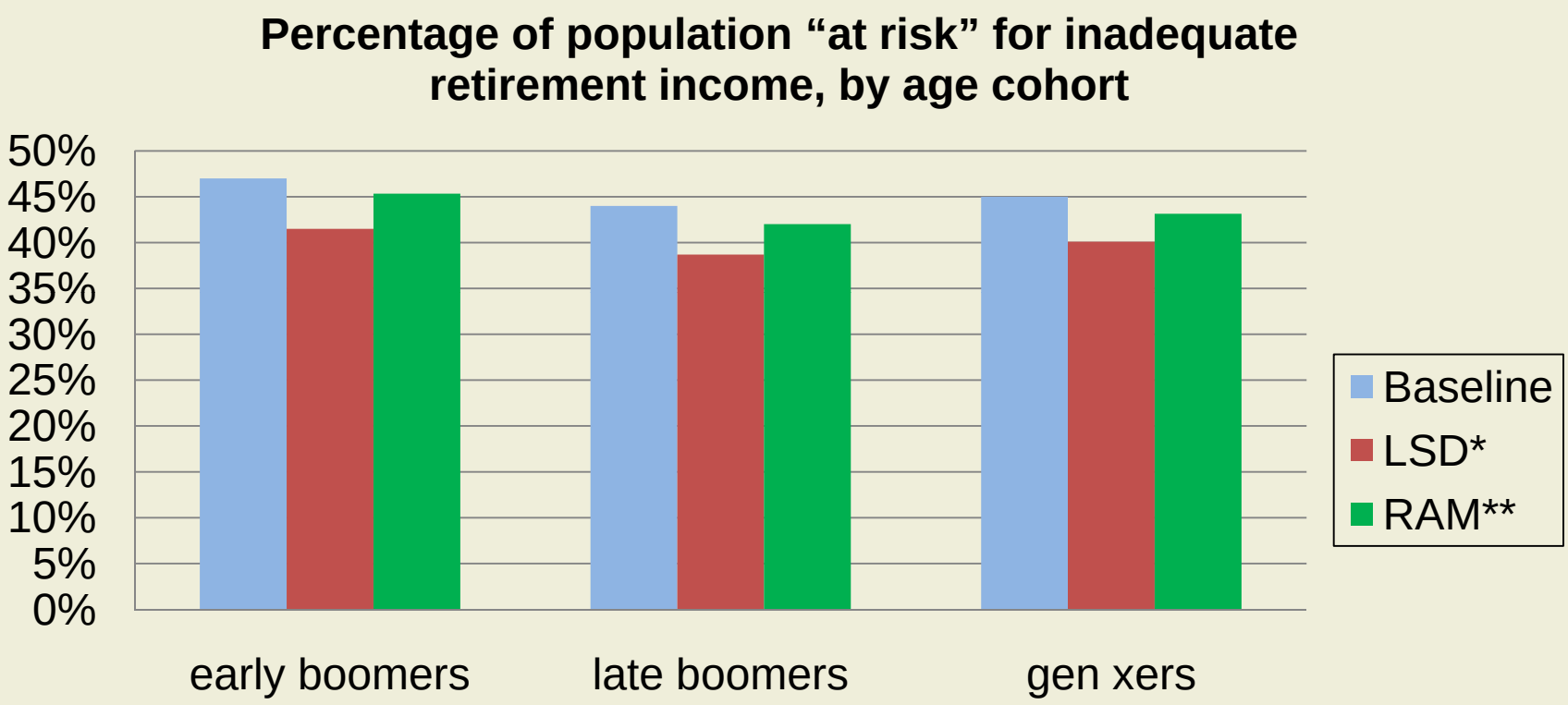
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e7

Chart 7c: Impact of Medicare and Social Security modifications, combined with 3 percent add-on



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e8

Chart 8 Impact of net housing equity utilization



* This option assumes the net housing equity is used when other financial resources are exhausted and used as a lump-sum distribution.
** This option assumes the net housing equity is annuitized at the time of retirement

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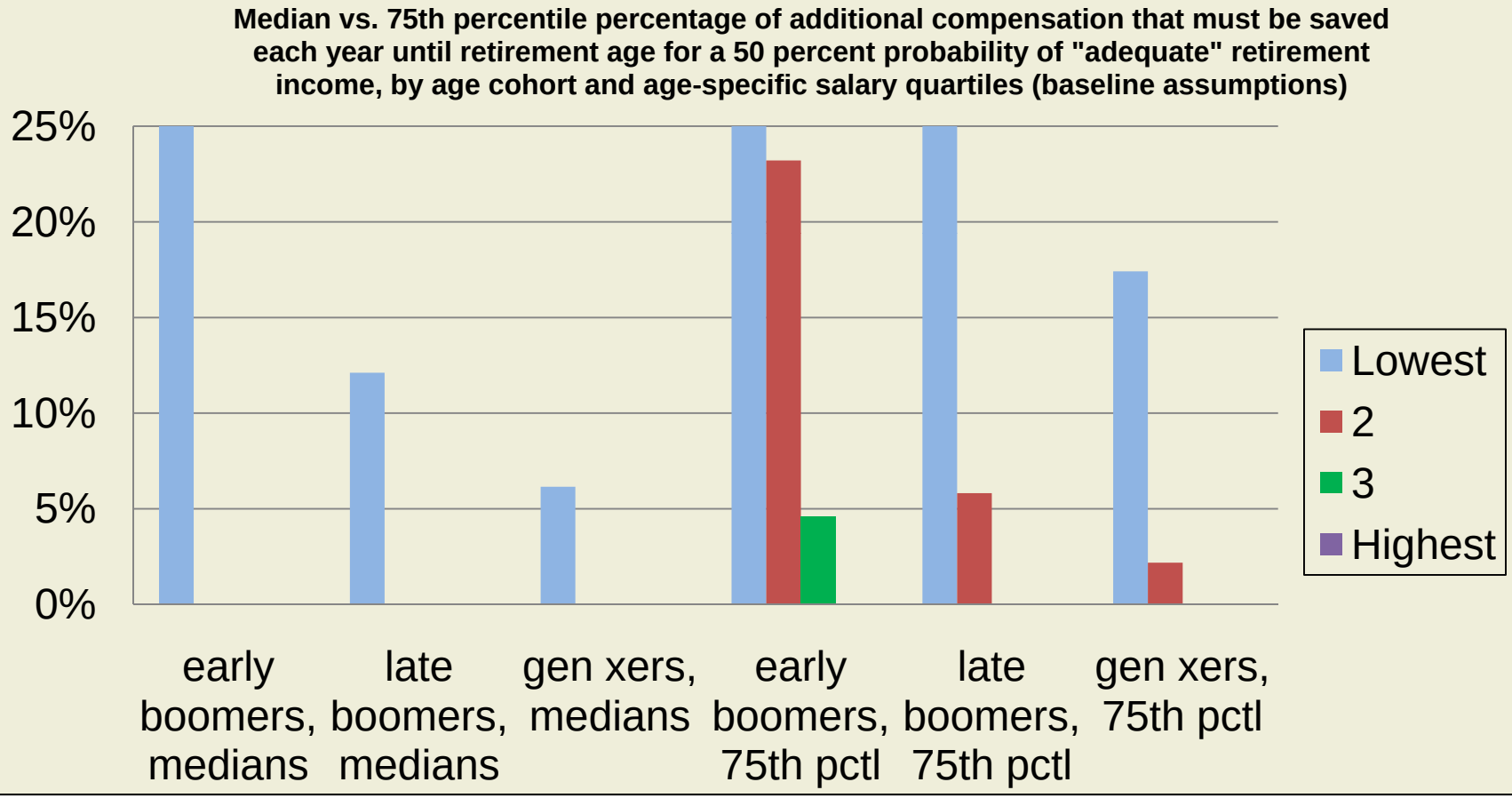
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e vs. 100504e3 and 100504e4

Percentage of additional compensation that needs to be saved each year from 2010 until age 65 to eliminate retirement income inadequacy

- Three different levels of certainty:
  - 50 percent.
  - 70 percent.
  - 90 percent.
- Two different summary statistics from each distribution:
  - Median.
  - 75th percentile.

Chart 9: Amounts needed to be saved for a 50 percent probability of success



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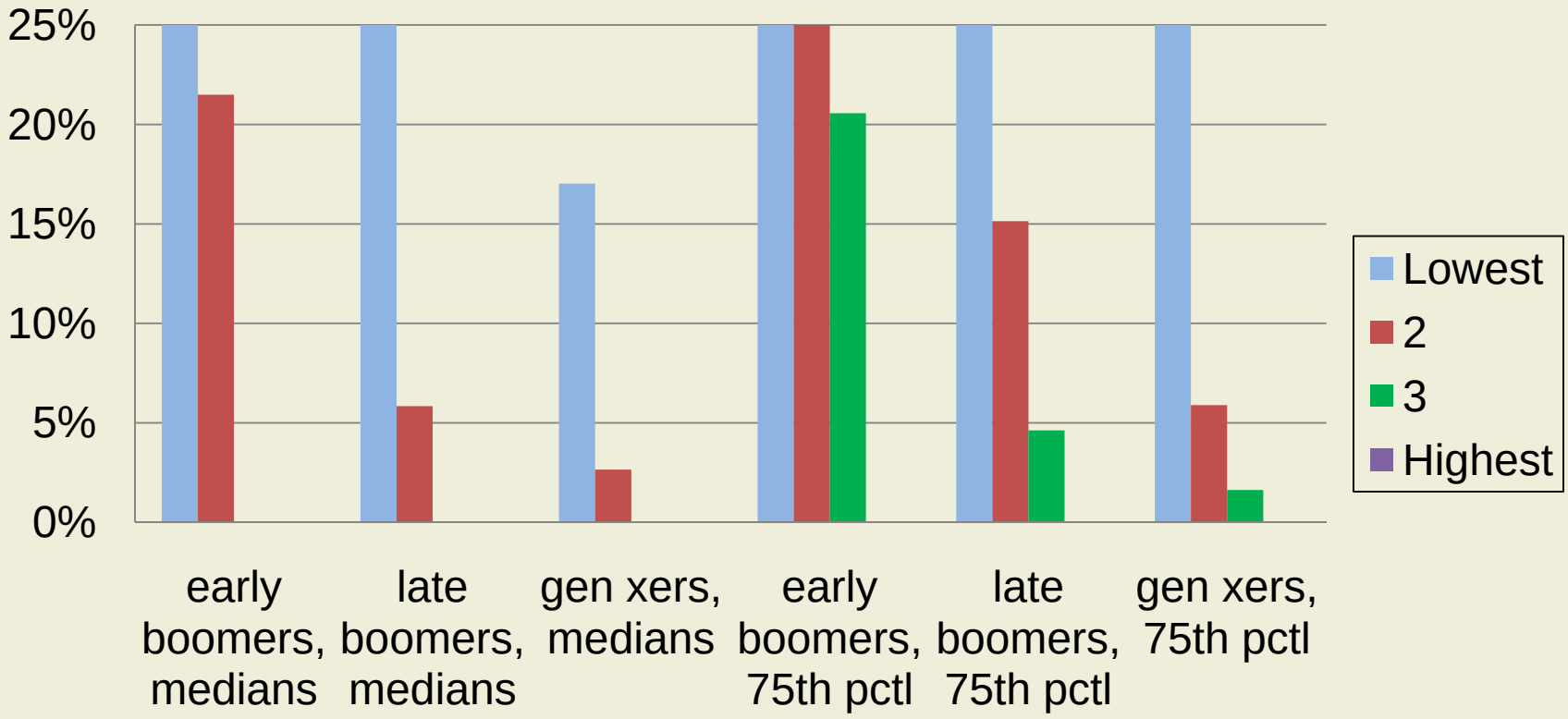
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e
Note: 25% = 25% or more

Chart 10: Amounts needed to be saved for a 70 percent probability of success

Median vs. 75th percentile percentage of additional compensation that must be saved each year until retirement age for a 70 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



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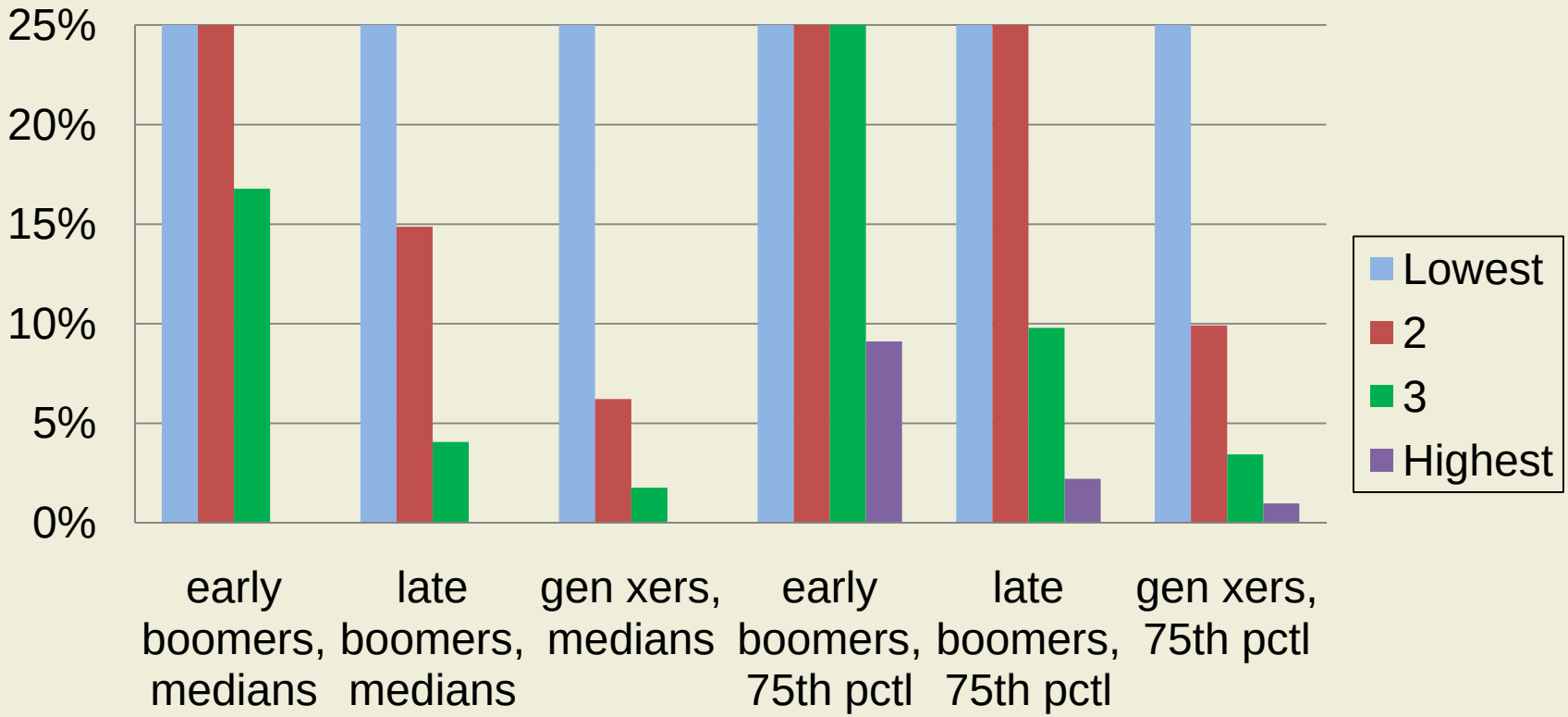
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e
Note: 25% = 25% or more

Chart 11: Amounts needed to be saved for a 90 percent probability of success

Median vs. 75th percentile percentage of additional compensation that must be saved each year until retirement age for a 90 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



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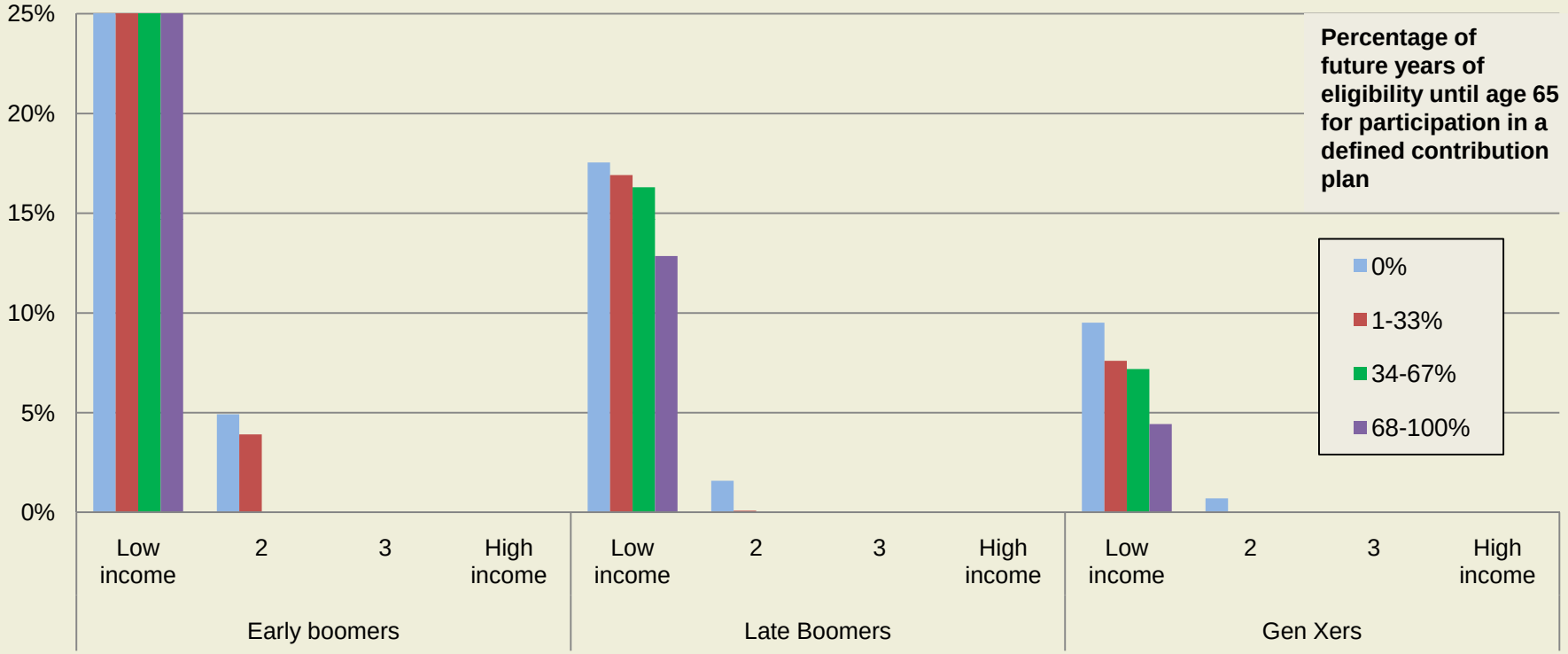
Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e
Note: 25% = 25% or more

This type of analysis can be broken down by several additional variables

- The next six slides are similar to the previous three:
  - However, the results are broken down as a function of what percentage of FUTURE years of employment will the employee be eligible to participate in a defined contribution plan.
- Similar results (not shown here) can be run for:
  - Years actually participating in a defined contribution plan.
  - Years eligible and/or participating in a defined benefit plan.
  - Years eligible and/or participating in either a defined benefit plan or defined contribution plan.
  - Years eligible and/or participating in both a defined benefit plan or defined contribution plan.
  - Type of 401(k) plan offered (e.g., automatic enrollment).
  - Cashout behavior at job change:
    - ✓ Number of times or percentage of account balance.

Chart 12: Amounts needed to be saved for a 50 percent probability of retirement income adequacy, as a function of the percentage of future years of eligibility for participation in a defined contribution plan

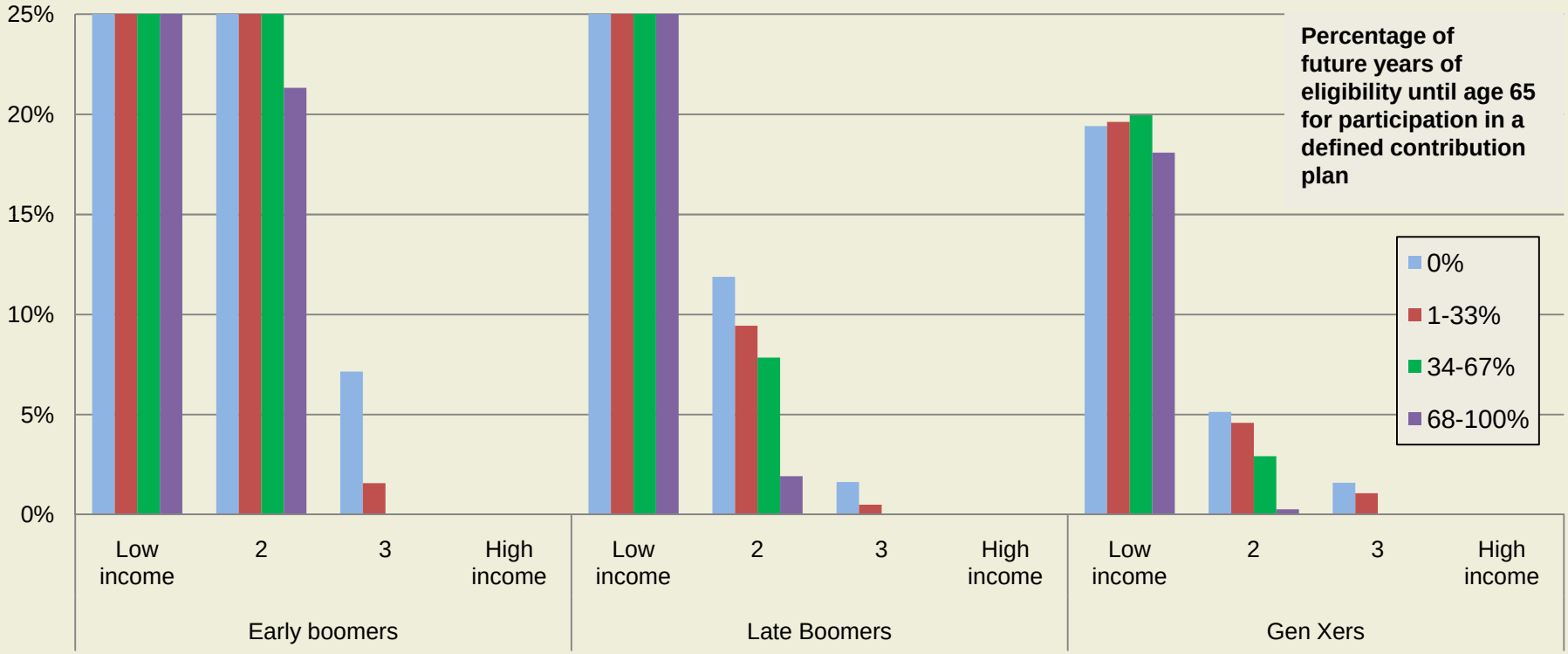
Median percentage of additional compensation that must be saved each year until retirement age for a 50 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e.
Note: 25% = 25% or more.

Chart 13: Amounts needed to be saved for a 70 percent probability of retirement income adequacy as a function of the percentage of future years of eligibility for participation in a defined contribution plan

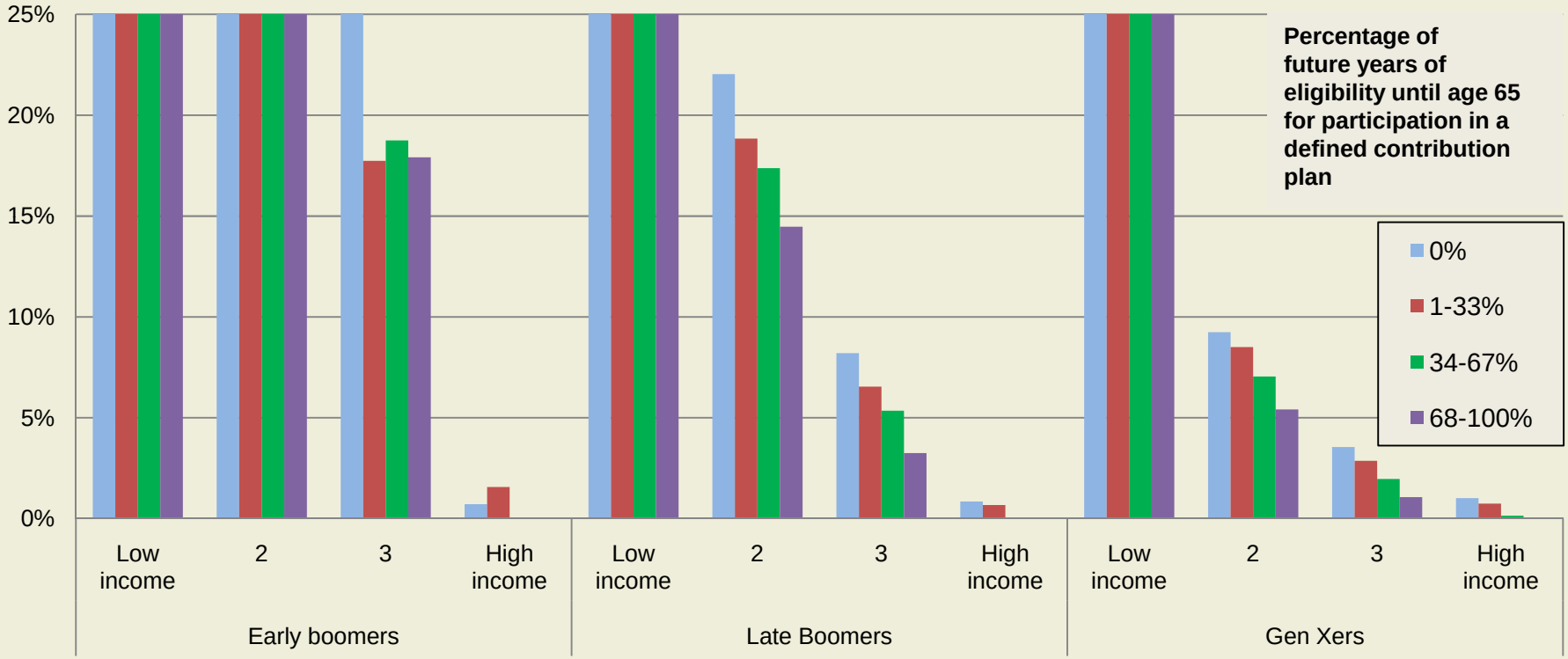
Median percentage of additional compensation that must be saved each year until retirement age for a 70 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e.
Note: 25% = 25% or more.

Chart 14: Amounts needed to be saved for a 90 percent probability of retirement income adequacy as a function of the percentage of future years of eligibility for participation in a defined contribution plan

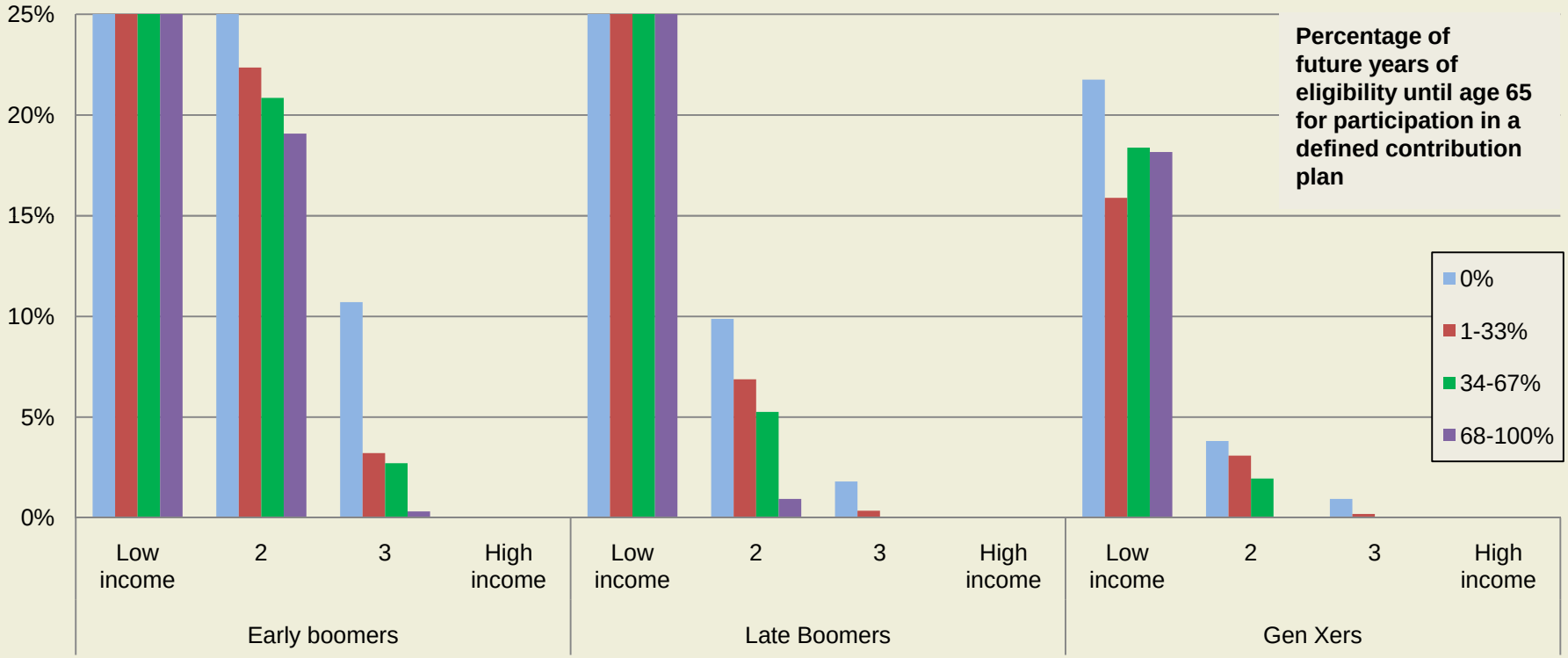
Median percentage of additional compensation that must be saved each year until retirement age for a 70 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e.
Note: 25% = 25% or more.

Chart 15: Amounts needed to be saved for a 50 percent probability of retirement income adequacy as a function of the percentage of future years of eligibility for participation in a defined contribution plan

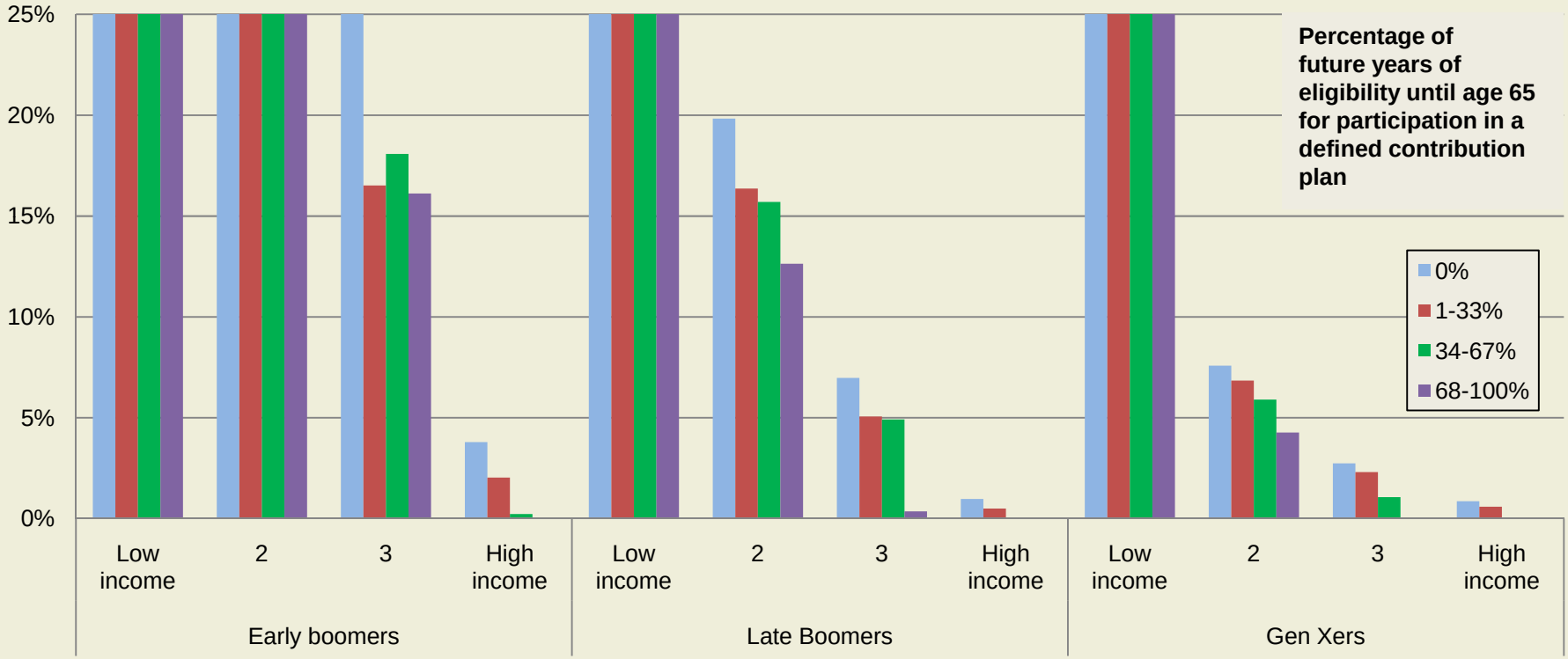
75th percentile percentage of additional compensation that must be saved each year until retirement age for a 50 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e.
Note: 25% = 25% or more.

Chart 16: Amounts needed to be saved for a 70 percent probability of retirement income adequacy as a function of the percentage of future years of eligibility for participation in a defined contribution plan

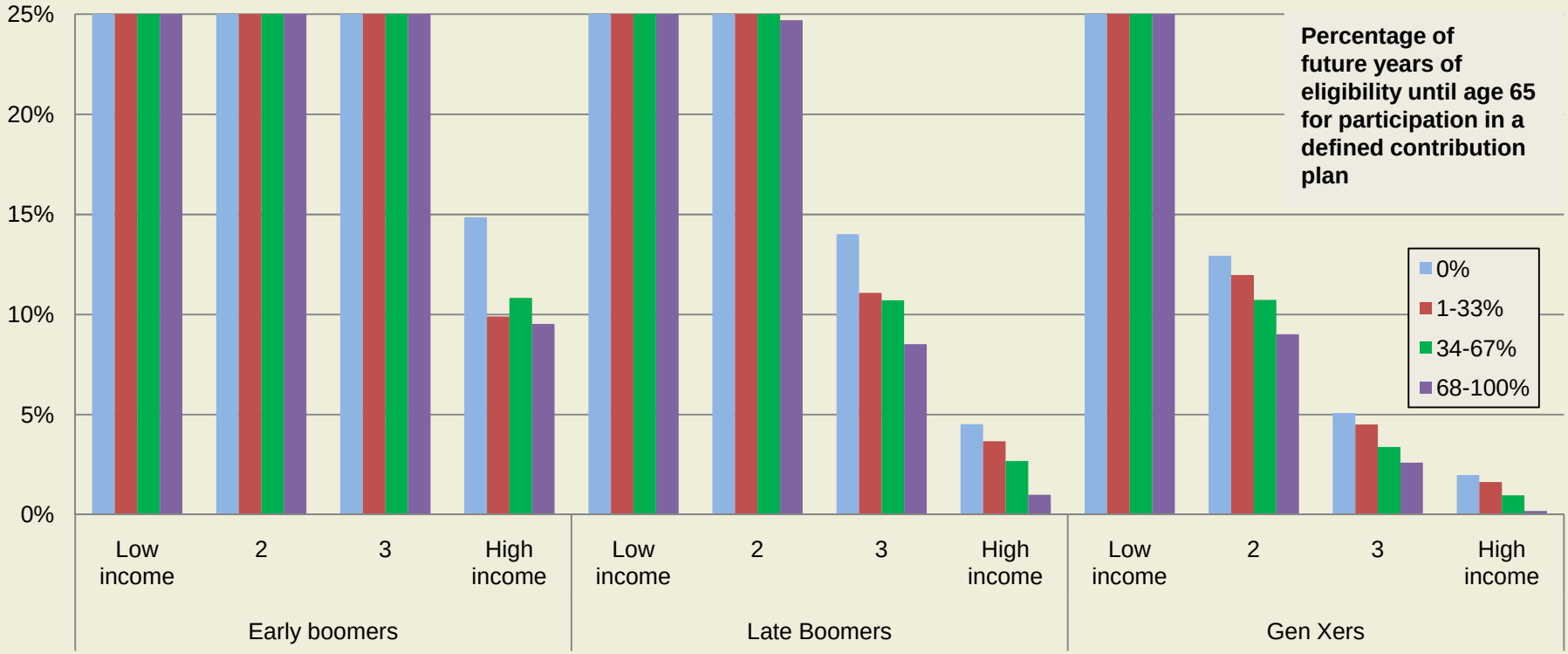
75th percentile percentage of additional compensation that must be saved each year until retirement age for a 70 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e
Note: 25% = 25% or more

Chart 17: Amounts needed to be saved for a 90 percent probability of retirement income adequacy as a function of the percentage of future years of eligibility for participation in a defined contribution plan

75th percentile percentage of additional compensation that must be saved each year until retirement age for a 90 percent probability of "adequate" retirement income, by age cohort and age-specific salary quartiles (baseline assumptions)



Source: EBRI/ERF Retirement Security Projection Model ™ version 100504e.
Note: 25% = 25% or more.

Discussion

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