Future retirees and their prospects for income and health security in retirement

National Health Policy Forum

Jack VanDerhei
Research Director
Employee Benefit Research Institute
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vanderhei@ebri.org
Key Points from Today’s Presentation

• Estimating financial risk in retirement
  • The importance of including both predictable and unpredictable costs (especially for health care)

• What percentage of the population is “at risk” with respect to retirement income adequacy?
  o Who are they (age and/or income)?
  o Impact of the utilization of net housing equity.

• How will future policy changes impact who is at risk?
  o Social Security benefits.
  o Medicare benefits (appendix)

• How much more would those at risk need to save to eliminate the deficits?
  • Importance of long-term care costs
The building blocks of risk during retirement

- **Building Block 1** focuses exclusively on *investment risk*.
  - As retirees increase their equity allocation, they could potentially benefit from a higher *expected* investment income; however, they will also face more volatility in annual results and a larger potential downside.

- **Building Block 2** introduces *longevity risk* into the planning process, in addition to the investment risk from the previous level.
  - In addition to providing the retiree with decisions with respect to investments, there is the opportunity to mitigate overall risk through the purchase of immediate annuities at retirement age.

- **Building Block 3** introduces the risk of unpredictable (*stochastic*) *health care costs* into the calculations.
  - This provides the framework necessary to evaluate the potential benefits of long-term care insurance as a way of increasing overall probability of retirement adequacy.
A stylized example of the impact of adding long-term care as a stochastic variable

Replacement rate is the percentage of pre-retirement wages needed in retirement to cover “regular” retirement expenses plus uninsured medical care (including nursing home costs)

<table>
<thead>
<tr>
<th>Probability of Having Adequate Retirement Income</th>
<th>Building Block 2</th>
<th>Building Block 3</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>50%</td>
<td>52%</td>
<td>2%</td>
</tr>
<tr>
<td>75%</td>
<td>68%</td>
<td>78%</td>
<td>10%</td>
</tr>
<tr>
<td>90%</td>
<td>87%</td>
<td>119%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Source: VanDerhei (September 2006)
Assumes retiree in the highest income category, with no equity allocation and none of the initial retirement wealth is annuitized.
How do we apply these building blocks to all Baby Boomers and Gen Xers?

- **EBRI Retirement Security Projection Model (RSPM)**
  - 1999-2002: Developed for three states to help analyze future Medicaid trends
  - 2003: National retirement income adequacy model
  - Used for 32 research reports and 9 congressional testimonies
- **Modeling innovations in RSPM**
  - 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 23 million employees in 60,000 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
- Other sources of retirement income
  - Typically de minimis for those found to be at-risk of running “short” of money in retirement
- Assumes retirement income commences at age 65 (baseline)
  - VanDerhei and Copeland (2011) analyze the impact of deferring retirement age
Impact of age and “salary” on at risk

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

Source: VanDerhei and Copeland (2010)
An individual or family 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 (in some cases) net housing equity (either in the form of an annuity or as 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 ad hoc thresholds.

Source: VanDerhei and Copeland (2010)
Impact of housing equity utilization

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

- Early boomers
- Late boomers
- Gen xers

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

Source: VanDerhei and Copeland (2010)
Impact of reducing Social Security benefits by 24 percent starting in 2037

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

Source: VanDerhei and Copeland (2010)
Average Retirement Savings Shortfalls, by Gender, Marital Status and Age Cohort (in 2010 $):
With and Without Unpredictable (Stochastic) Health Costs

Source: EBRI Retirement Security Projection Model™ versions 100920f1 and 100922f1.

Source: VanDerhei (October 2010)
References (available for free download at ebri.org)

- VanDerhei, Jack, Retirement Savings Shortfalls for Today’s Workers, October 2010, Vol. 31, No. 10, EBRI Notes
- VanDerhei and Copeland (June 2011), The Impact of Deferring Retirement Age on Retirement Income Adequacy. EBRI Issue Brief.
- VanDerhei and Copeland (July 2010), The EBRI Retirement Readiness Rating:™ Retirement Income Preparation and Future Prospects. EBRI Issue Brief.
Appendix: Brief Chronology of the EBRI 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 (January)
  - Impact of everyone saving another 5 percent of compensation
- 2004, EBRI Policy forum (May)
  - Impact of annuitizing defined contribution/IRA balances
- 2006, EBRI Policy forum (March)
  - Evaluation of defined benefit freezes on participants
- 2006, EBRI Issue Brief (September)
  - Converted into a streamlined individual version for the ballpark estimate Monte Carlo
- 2008, EBRI Policy forum (May)
  - 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 (September)
  - Analyzes how eligibility for participation in a DC plan impacts retirement income adequacy
- 2010, EBRI Notes (October)
  - Computes Retirement Savings Shortfalls for Boomers and Gen Xers
- 2010, Senate HELP testimony (October)
  - Analyzes the relative importance of employer-provided retirement benefits and Social Security
- 2010, EBRI Issue Brief (November)
  - The Impact of Auto-enrollment and Automatic Contribution Escalation on Retirement Income Adequacy
### Appendix (continued)

- **2011, February EBRI Issue Brief**
  - Analyzes the impact of the 2008/9 crisis in the financial and real estate markets on retirement income adequacy

- **2011, EBRI policy forum (May)**
  - Analyzes impact of deferring retirement age

- **2011, July EBRI Notes article**
  - Analyzes the impact of the 20/20 limit recommended by the National Commission on Fiscal Responsibility and Reform

- **2011, August EBRI Notes article**
  - Analyzes value of defined benefit plans

- **2011, Senate Finance Hearing (September)**
  - Analyzes the impact of modifying tax incentives for defined contribution plans

- **2012, Urban Institute Presentation (February)**
  - Analyzes whether Boomer and Gen X women will be able to afford retirement at age 65

- **2012, March EBRI Notes article**
  - Analyzes employer and employee reaction to proposal to modify tax incentives for defined contribution plans and simulates the expected impact on account balances at retirement age

- **2012, May EBRI Notes article**
  - Updates RSPM to 2012

- **2010, June 2012 EBRI Notes article**
  - Analyzes the impact of eligibility for participation in a 401(k) plan on Gen Xers
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

Source: VanDerhei and Copeland (2010)
Impact of Medicare and Social Security modifications combined

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

Baseline vs. Medicare and Social Security modifications

Source: VanDerheji and Copeland (2010)
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:
  o 50 percent.
  o 70 percent.
  o 90 percent.

• Two different summary statistics from each distribution:
  o Median.
  o 75th percentile.
Amounts needed to be saved for a 50 percent probability of success

Median vs. 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
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)

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

Note: 25% = 25% or more
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)

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