

***What Can 401(k) Plans Produce for Retirement Income?
New Results from the EBRI/ICI 401(k) Accumulation
Projection Model***

***Retirement Income Security
EBRI-ERF Policy Forum #57***

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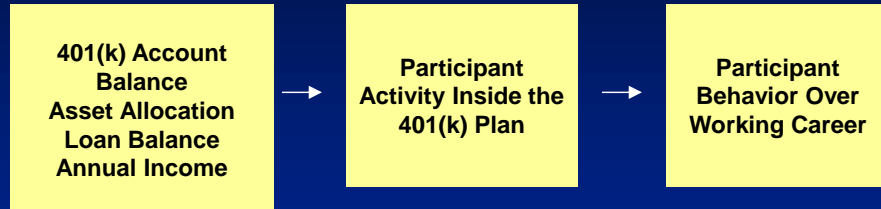
*The remarks reflect the views of the authors and do not necessarily reflect those of the Investment Company Institute, the Employee Benefit Research Institute, or Temple University.

Outline

- **Brief Overview of EBRI/ICI 401(k) Accumulation Projection Model**
 - Behavior Inside 401(k) Plans
 - Behavior Over Working Career
- **Baseline Model Results**
- **New Scenarios**
 - IRA Contributions When Not in a 401(k) Plan
 - Catch-Up Contributions
 - Automatic Enrollment in 401(k) Plans

Basic Elements of the EBRI/ICI 401(k) Accumulation Projection Model

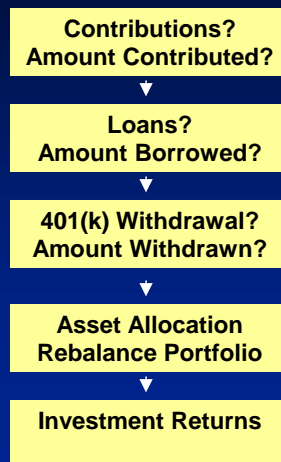
- Start at Year-End 2000



- Project for Each Participant: Account Balances and Income Until Age 65

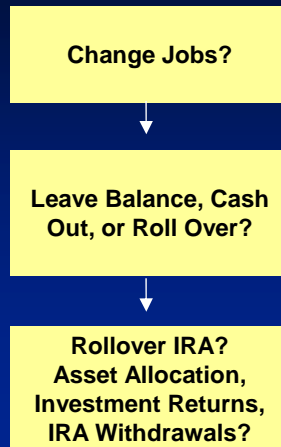
Source: EBRI/ICI 401(k) Accumulation Projection Model

Basic Model Elements: Participant Activity Inside the 401(k) Plan



Source: EBRI/ICI 401(k) Accumulation Projection Model

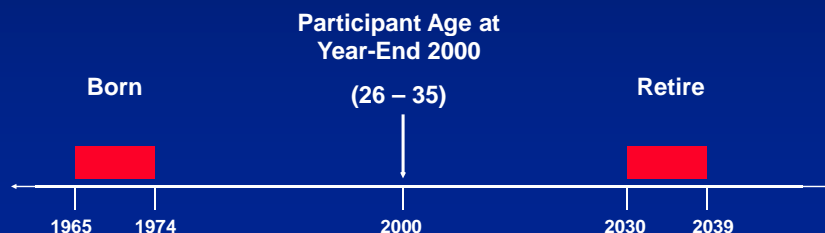
Basic Model Elements: Participant Behavior Over Working Career



Source: EBRI/ICI 401(k) Accumulation Projection Model

Income and 401(k) Accumulation Projections

- Project income for each participant (using current income in 2000, gender, education, and growth in national average wage)
- Project account balances in 401(k) plans and rollover IRAs (“401(k) Accumulation”)
- Birth cohort analyzed:



Model Assumptions

Baseline

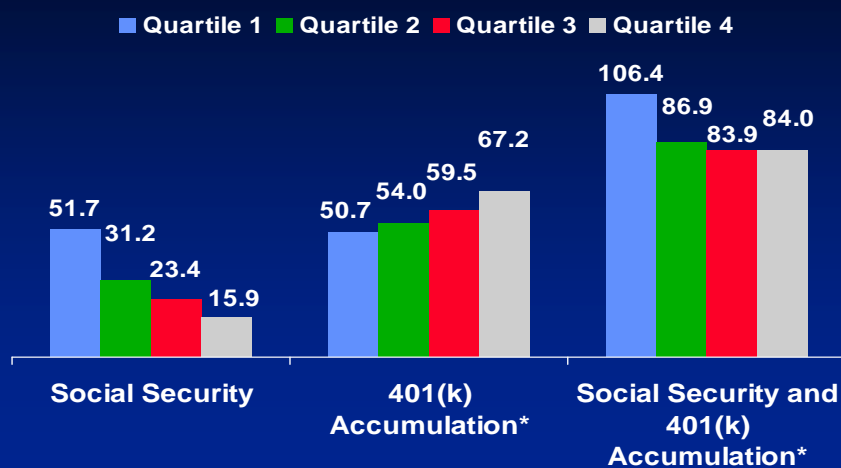
- Continuous coverage in 401(k) plans
- Equity returns based on 1926 to 2001
- Participants behave as they age as the current participants' behaviors vary by age (also consider tenure and salary)

Other Scenarios

- Timing of bull/bear markets
- Modify contribution/loan/withdrawal/cashout activity
- Discontinuous 401(k) coverage

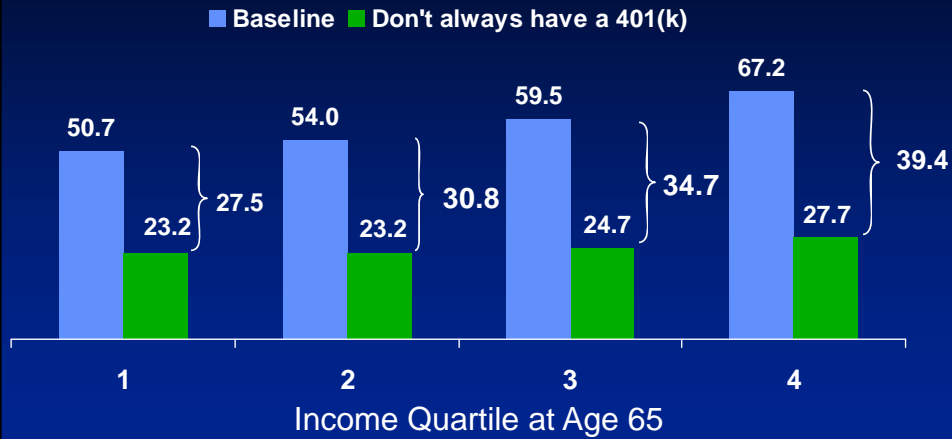
Median Replacement Rates for Participants Reaching Age 65 Between 2030 and 2039, by Income Quartile at Age 65

(percent of final five-year average salary)



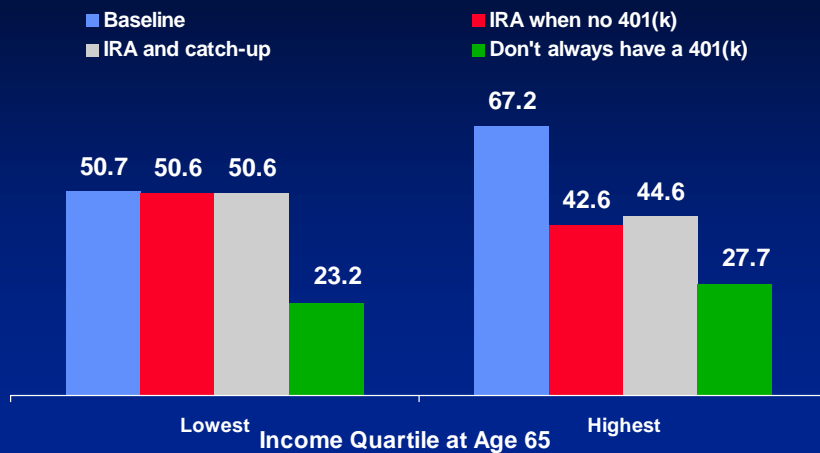
*The 401(k) accumulation includes 401(k) balances at employer(s) and rollover IRA balances.
Source: Tabulations from the EBRI/ICI 401(k) Accumulation Projection Model

Median Replacement Rates for 401(k) Accumulations* for Participants Reaching Age 65 Between 2030 and 2039 (percent of final five-year average salary)



*The 401(k) accumulation includes 401(k) balances at employer(s) and rollover IRA balances.
Source: Tabulations from the EBRI/ICI 401(k) Accumulation Projection Model

Median Replacement Rates for 401(k) Accumulations* for Participants Reaching Age 65 Between 2030 and 2039 (percent of final five-year average salary)

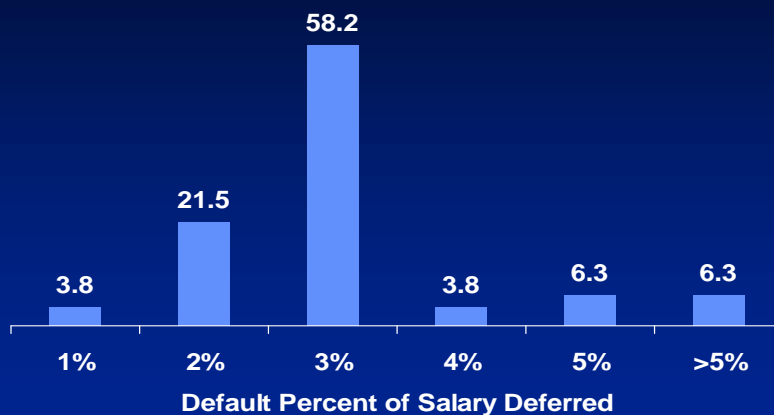


*The 401(k) accumulation includes 401(k) balances at employer(s) and rollover IRA balances.
Source: Tabulations from the EBRI/ICI 401(k) Accumulation Projection Model

Automatic Enrollment

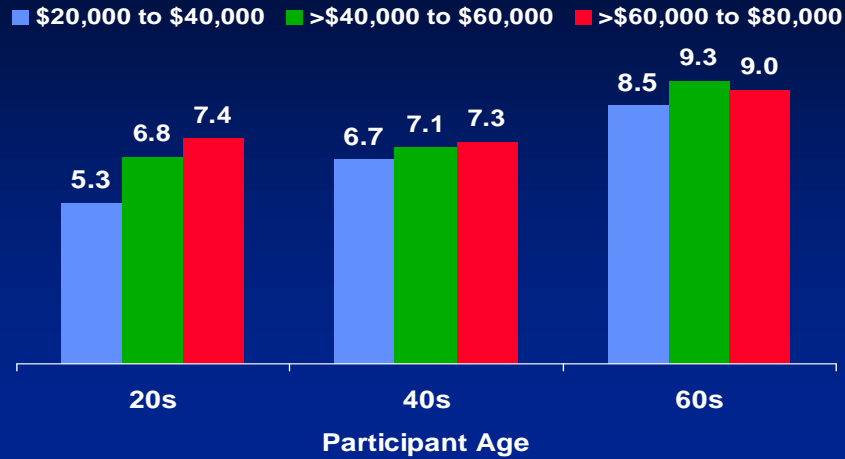
- **Must add non-participants to the model**
- **Automatic enrollment**
 - Plan sponsor sets default contribution rate (3%)
 - Plan sponsor sets default investment option (money market fund)
 - Participant may opt out

Default Deferral Percentage in Plans with Automatic Enrollment (percent of plans)



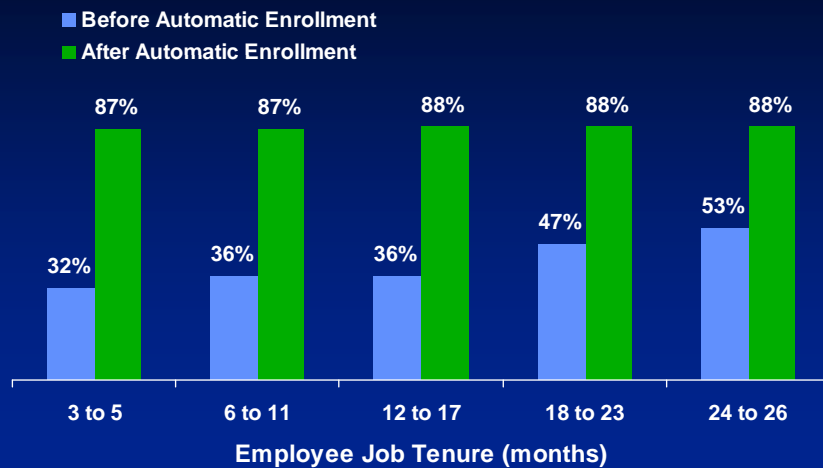
Source: Profit Sharing/401(k) Council of America (PSCA), 47th Annual Survey of Profit Sharing and 401(k) Plans, Reflecting 2003 Plan Year Experience

Average Participant Before-Tax Contribution Rates by Age and Salary, 1999 (percent of salary)



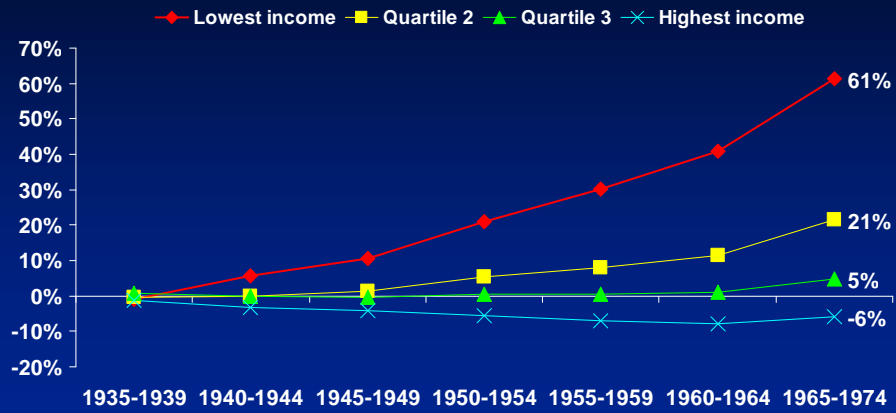
Source: EBRI/ICI Participant-Directed Retirement Plan Data Collection Project (see Holden and VanDerhei (October 2001))

Participation Rates Before and After Automatic Enrollment by Employee Job Tenure (percent)



Source: Choi, Laibson, Madrian, and Metrick (2001)

Conservative Estimate of Impact of Automatic Enrollment on Median Replacement Rates from 401(k) Accumulations by Age and Income (percent change in replacement rates)



Sources: Tabulations from the EBRI/ICI 401(k) Accumulation Projection Model and Automatic Enrollment Parameters from Choi, Laibson, Madrian, and Metrick (2001 and 2004)

Appendix

- Methodology for Automatic Enrollment

Methodology for Automatic Enrollment

- **Run new set of baselines for all eligible employees, not just the EBRI/ICI participants**
 - Create a set of synthetic observations with the characteristics of the EBRI/ICI participants
 - Assume they are not currently participating
 - Provide them weights based on Fidelity's Building Futures experience
 - Function of age and income
- **Each time a non-participant is simulated to change jobs, predict the new probability of participation based on the new age and income**
 - Simulate whether they become a participant on the new job based on the conditional probability
 - Once they become a participant, assume they remain in that status until retirement (assuming the employer sponsors a plan)

Methodology for Automatic Enrollment (continued)

- **Assume automatic enrollment is immediately implemented in the year 2000**
- **Assume same defaults and same employee behavior as the health services company analyzed by Choi, et. al.**
 - Provides information on the percentage and type of employees likely to participate and use defaults
 - As well as the likelihood they will move away from the defaults with time
- **Conservative bias built in re the benefits of automatic enrollment**
 - Employees not assumed to learn from automatic enrollment experience
 - Currently no behavioral information available to parameterize such learning