Congressional Research Service
Retirement Savings: How Much Will Workers Have When They Retire?

This report shows how varying the age at which households begin to save for retirement, the percentage of their earnings that they save, and the rate of return on investment can affect the amount of retirement savings the household will have accumulated by age 65.

Lead Agency:

Congressional Research Service

Agency Mission:

The Congressional Research Service provides, exclusively to the United States Congress, objective, non-partisan assessments of legislative options for addressing the public policy problems facing the nation.

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General Description:

Retirement Savings: How Much Will Workers Have When They Retire?

This report presents the results of an analysis of the amount of retirement savings that households might be able to accumulate by age 65 under a number of different scenarios. The analysis shows how varying the age at which households begin to save for retirement, the percentage of their earnings that they save, and the rate of return on investment can affect the amount of retirement savings the household will accumulate. Based on Monte Carlo simulations of the variability of investment rates of return, a married-couple household that contributes 8% of pay annually for 30 years beginning at age 35 to a retirement plan invested in a mix of stocks and bonds could expect to accumulate $468,000 (in 2004 dollars) by age 65 if rates of return were at the median over the 30-year period. Nevertheless, given the variability of rates of return, there is a 5% chance that the couple would have $961,000 or more and a 5% chance that the couple would have $214,000 or less. Higher contribution rates and longer investment periods lead to higher account balances, but also increase the impact of the variability of investment rates of return. At a 10% contribution rate over 30 years, the household could expect to accumulate $594,000, with a 90% probability that account would total between $301,000 and $1.2 million. Saving 8% of pay over 40 years, the household could expect to accumulate $844,000, with a 90% probability that the account would total between $370,000 and $2 million.

Excellence: What makes this project exceptional?

Rather than estimating future retirement account balances based on average historical rates of return on stocks and bonds, the estimates presented in this report are based on Monte Carlo analysis, which simulates thousands of possible outcomes. The results of the analysis provide estimates of retirement account balances under favorable and unfavorable market conditions as well as the average outcome.

Significance: How is this research relevant to older persons, populations and/or an aging society?

Over the past 25 years, although the percentage of the workforce who participate in employer-sponsored retirement plans has remained relatively stable at approximately half of all workers, the type of plan by which most workers are covered has changed from *defined benefit* (DB) pensions to *defined contribution* (DC) plans. The responsibilities of managing a DB plan — making contributions, investing the assets, and paying the benefits to retired workers and their survivors — lie mainly with the employer.   In a typical DC plan, the worker must decide whether to participate in the plan, how much to contribute, how to invest the contributions, and what to do with the money in the plan when he or she changes jobs or retires. As a result of the shift from DB plans to DC plans, workers today bear more responsibility for preparing for their financial security in retirement. This report illustrated the impact of those decisions on retirement savings.

Effectiveness: What is the impact and/or application of this research to older persons?

The impact of this report on older persons would be indirect, as a result of informing the Congress on this issue. The oldest members of the "baby boom" – the 78 million Americans who were born between 1946 and 1964 – are 62 years old in 2008. The youngest members of the baby boom, however, are just 44 years old. The report illustrates how those who have postponed saving for retirement until after age 40 can still accumulate substantial retirement savings, but that it requires a substantially higher savings rate than would have been needed if they had begun to save for retirement at an earlier age.

Innovativeness: Why is this research exciting or newsworthy?

The research is innovative in the application of Monte Carlo simulation techniques that clearly illustrate the effects of the variability in rates of return on retirement savings.