How Important is Asset Allocation to Financial Security in Retirement?

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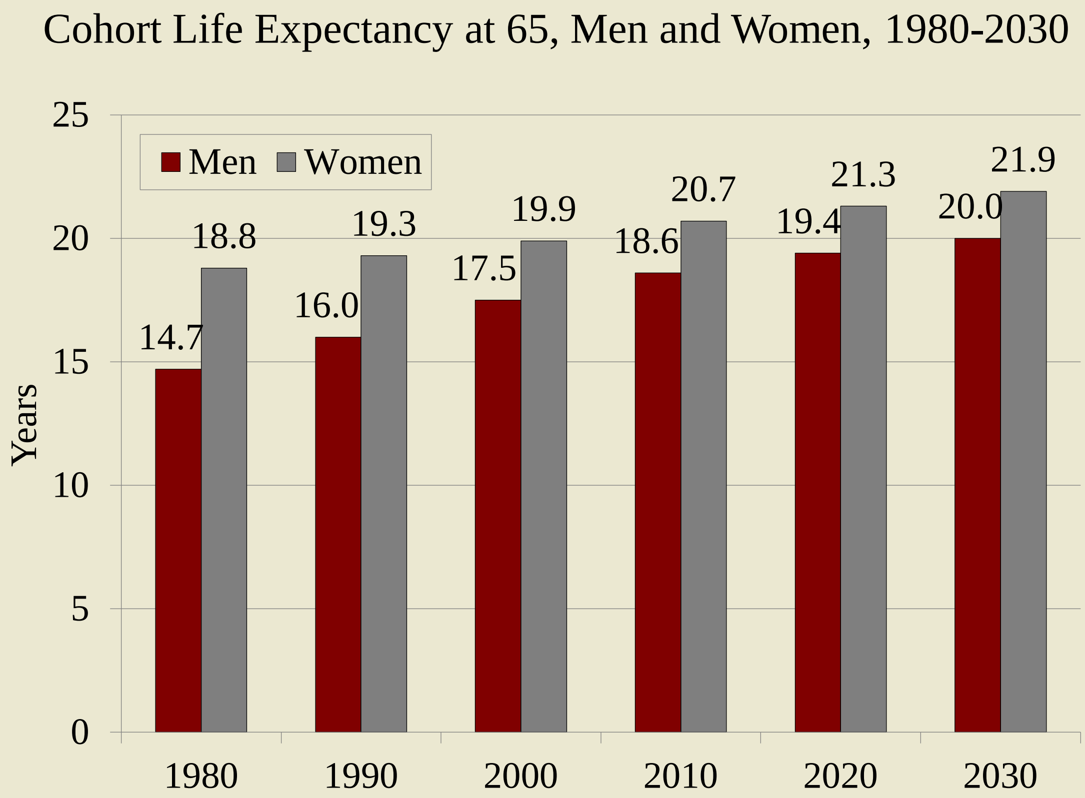
Retirement needs are increasing – people are living longer and…



Source: U.S. Social Security Administration. 2012. *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office.

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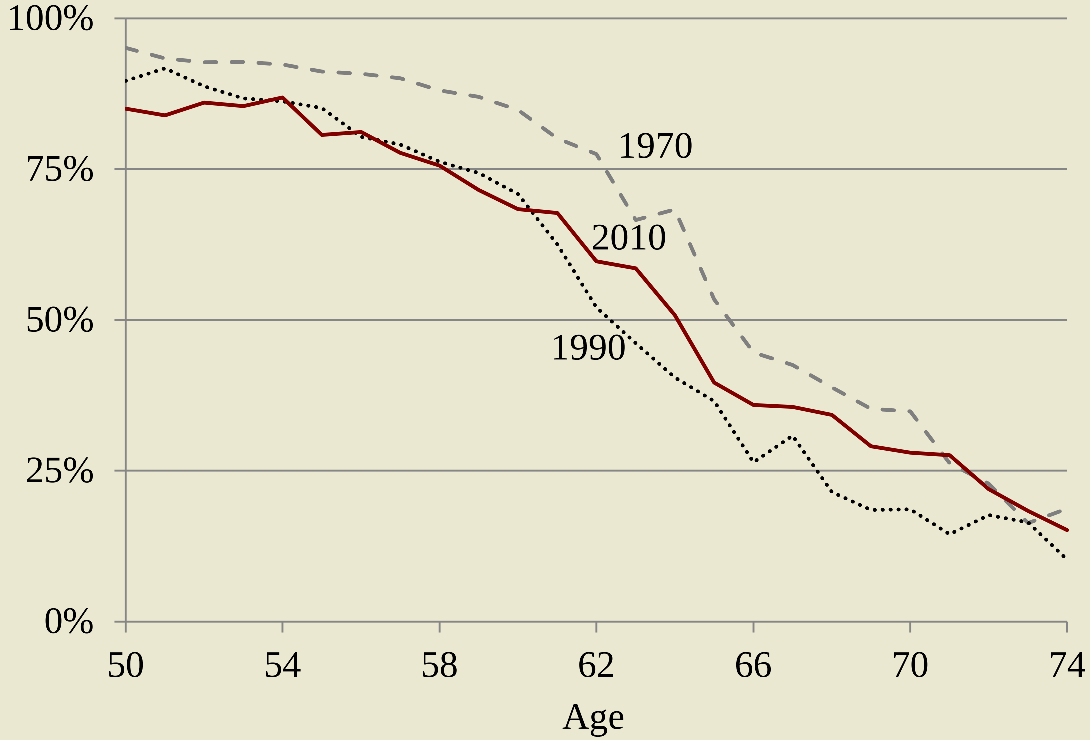
…they continue to retire early.

Workforce Participation Rates of Men Ages 50-74, 1970, 1990, and 2010



Source: U.S. Bureau of Labor Statistics. *Current Population Survey*, 1970, 1990, and 2010. Washington, DC.

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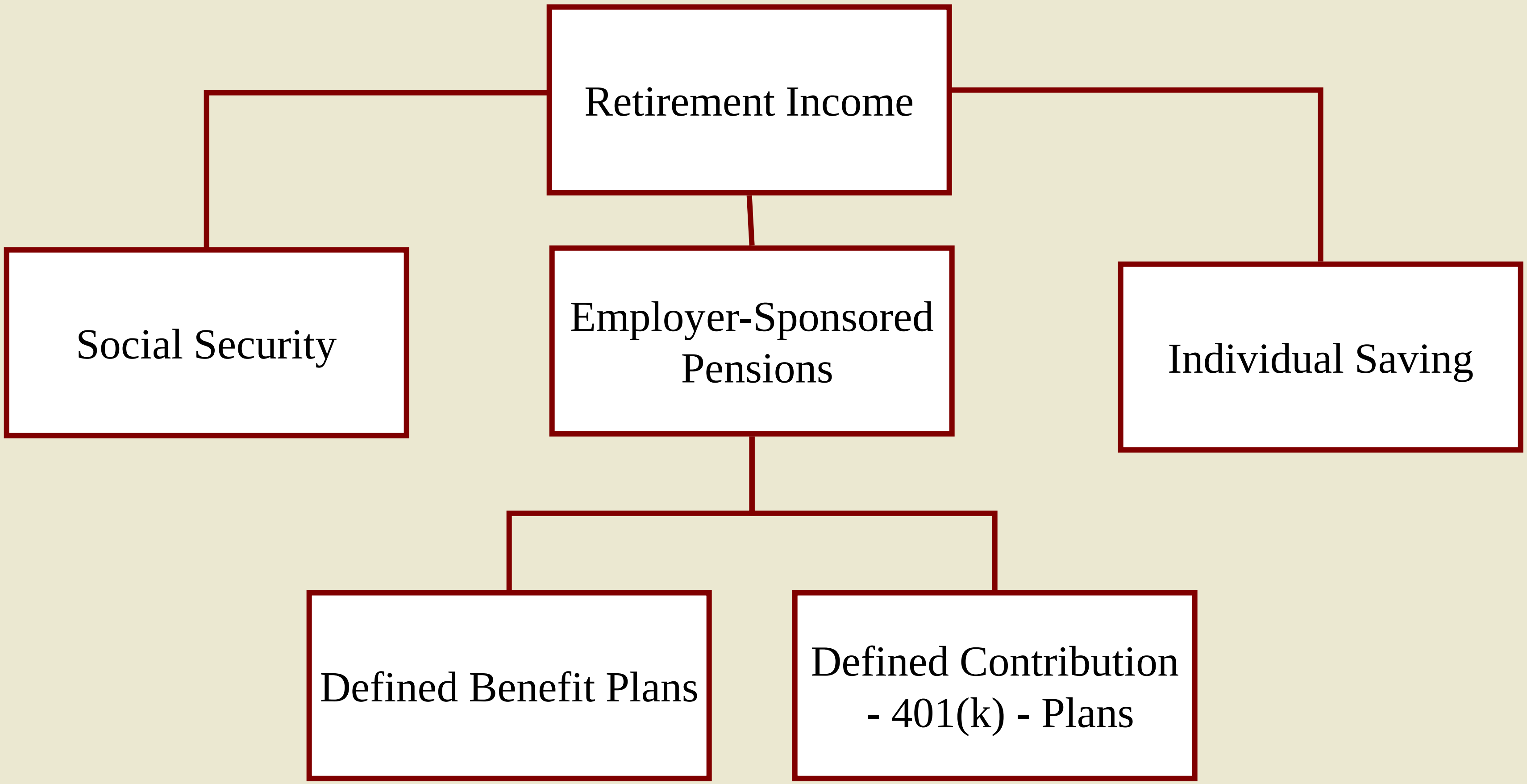
But the retirement system is contracting.



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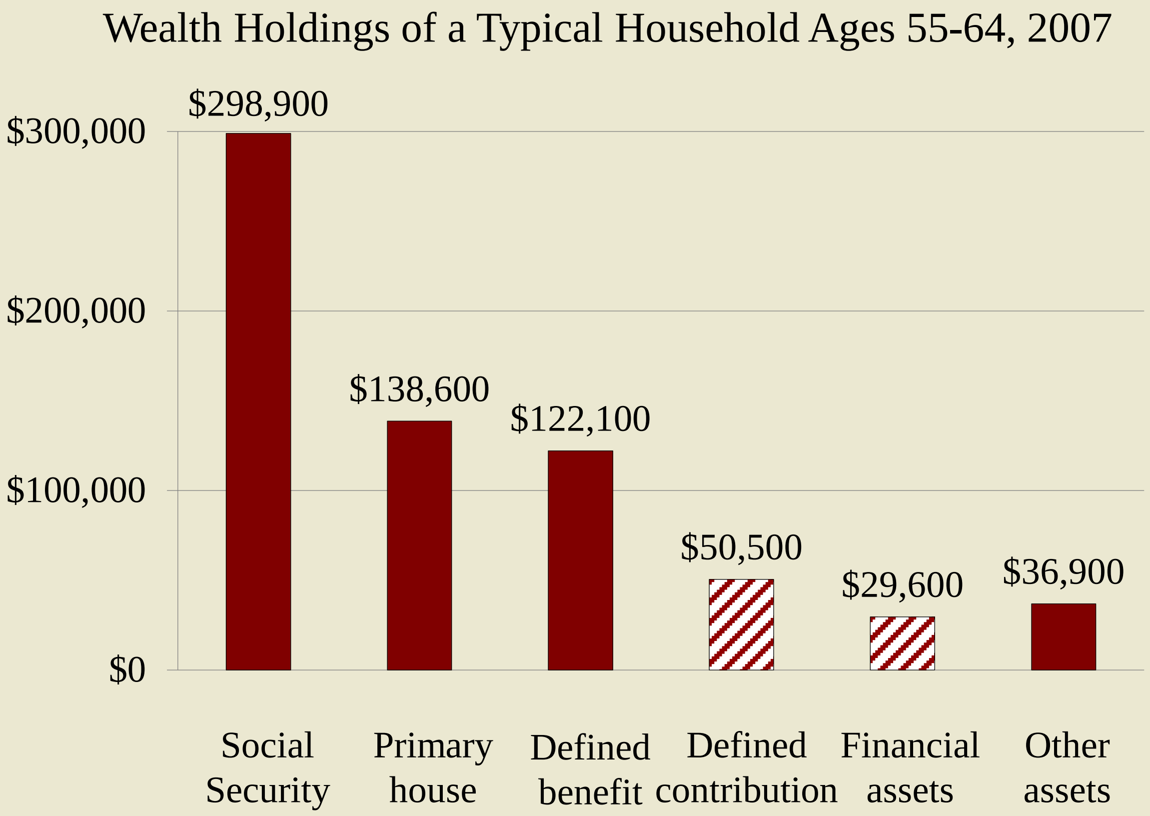
To bridge the gap between needs and resources, households have four levers.

- Adopt optimal asset allocation
- Work longer
- Take out reverse mortgage
- Control spending

Financial advice focuses on asset allocation, despite most households' modest wealth.



Sources: Authors' calculations based on U.S. Board of Governors of the Federal Reserve System. *Survey of Consumer Finances, 2007*. Washington, DC.

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Three exercises suggest that other levers may be more effective:

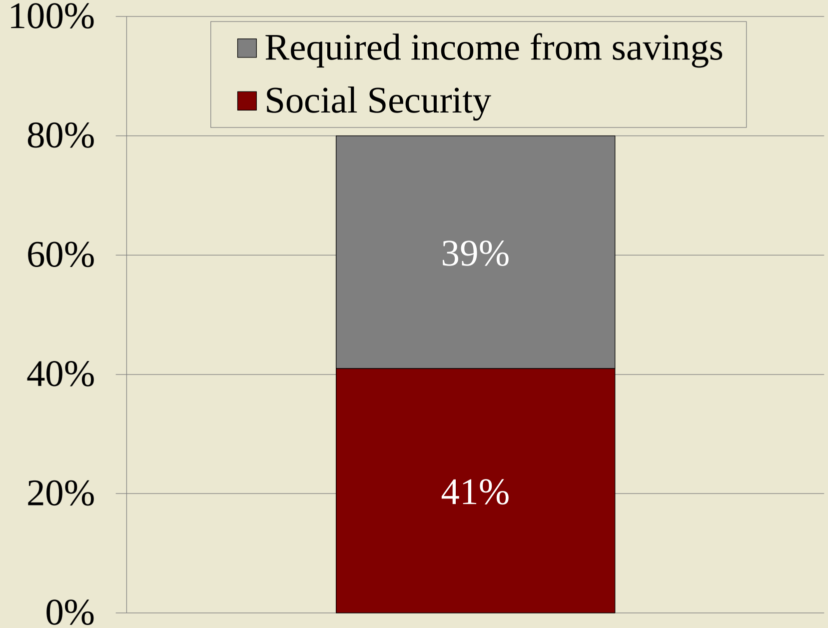
- A simple stylized example of households' required saving rates.

- An HRS analysis showing how each lever affects the percent of households unprepared for retirement.

- A dynamic programming model that calculates the risk-adjusted value of moving to an optimal portfolio.

The first analysis calculates the required savings rate for a hypothetical individual.

Replacement Rate Needed to Maintain Pre-Retirement Income



Source: U.S. Social Security Administration. 2012. *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office; and B. A. Palmer. 2008. "2008 GSU/Aon RETIRE Project Report." Research Report Series 08-1. Atlanta, GA: J. Mack Robinson College of Business, Georgia State University.

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The most important factors are the age the worker starts saving and the retirement age.

Saving Rate Required for a Medium Earner to Attain an 80-Percent Replacement Rate with a 4-Percent Rate of Return

Retire at:	Start saving at:		
	25	35	45
62	22%	35%	65%
65	15	24	41
67	12	18	31
70	7	11	18

Source: Authors' calculations.

And working a few years longer can offset a lifetime of low returns.

Saving Rate Required for a Medium Earner to Attain an 80-Percent Replacement Rate with a 2-, 4-, and 6-Percent Rate of Return

Retire at:	Real rate of return		
	2 percent	4 percent	6 percent
62	46%	35%	26%
65	32	24	17
67	26	18	13
70	16	11	7

Source: Authors' calculations.

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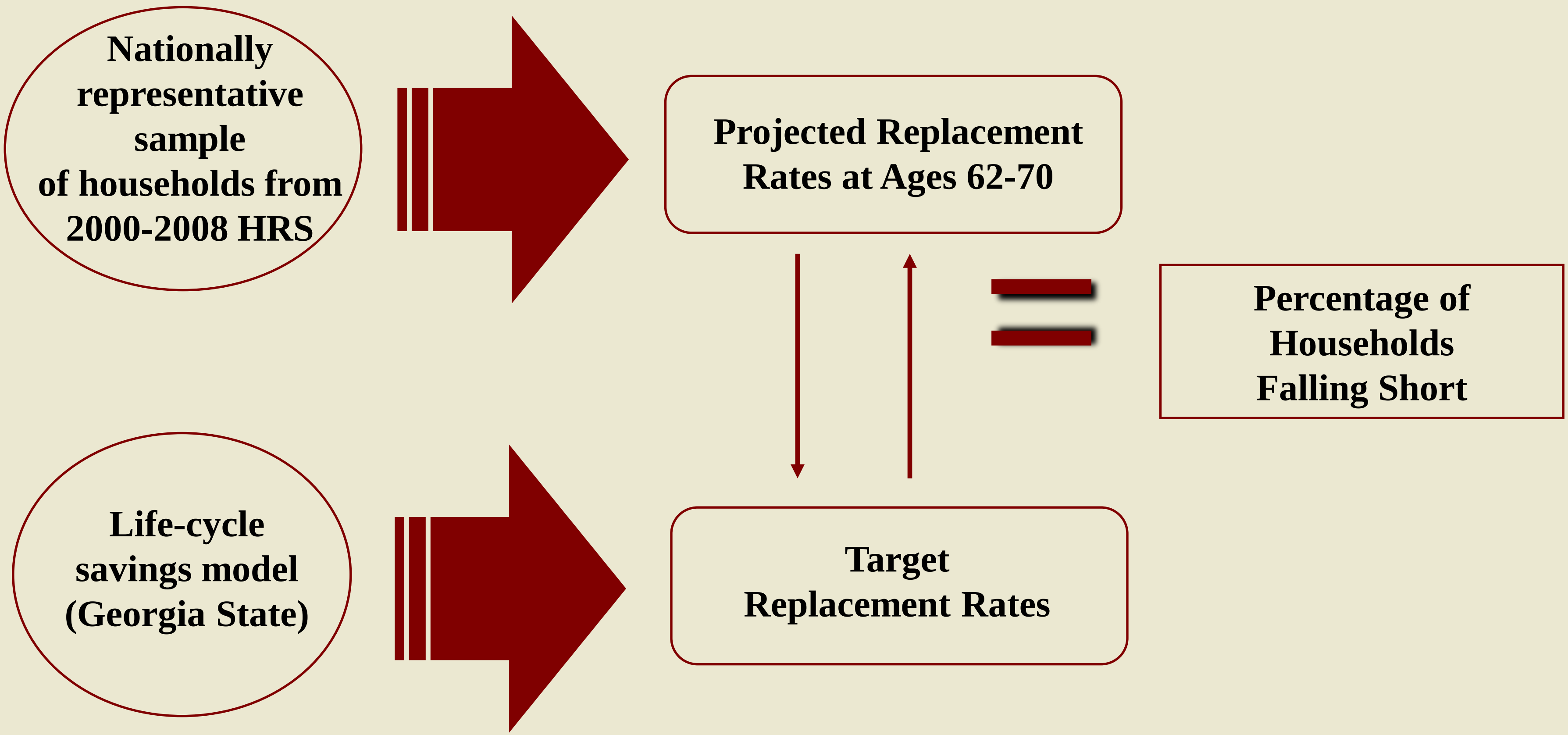
The second analysis uses the HRS to calculate the impact of each lever.



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Projected replacement rates are based on the following assumptions/data:

Item	Key assumption/data sources
Social Security	HRS Social Security earnings records.
Defined benefit pension wealth	Self-reported data.
Returns on financial assets	Equities = 6.5%, bonds = 3%, short-term deposits = 1%.
House	At retirement, mortgage repaid from financial assets to extent possible.
Income in retirement	Financial assets used to purchase inflation-indexed annuity.

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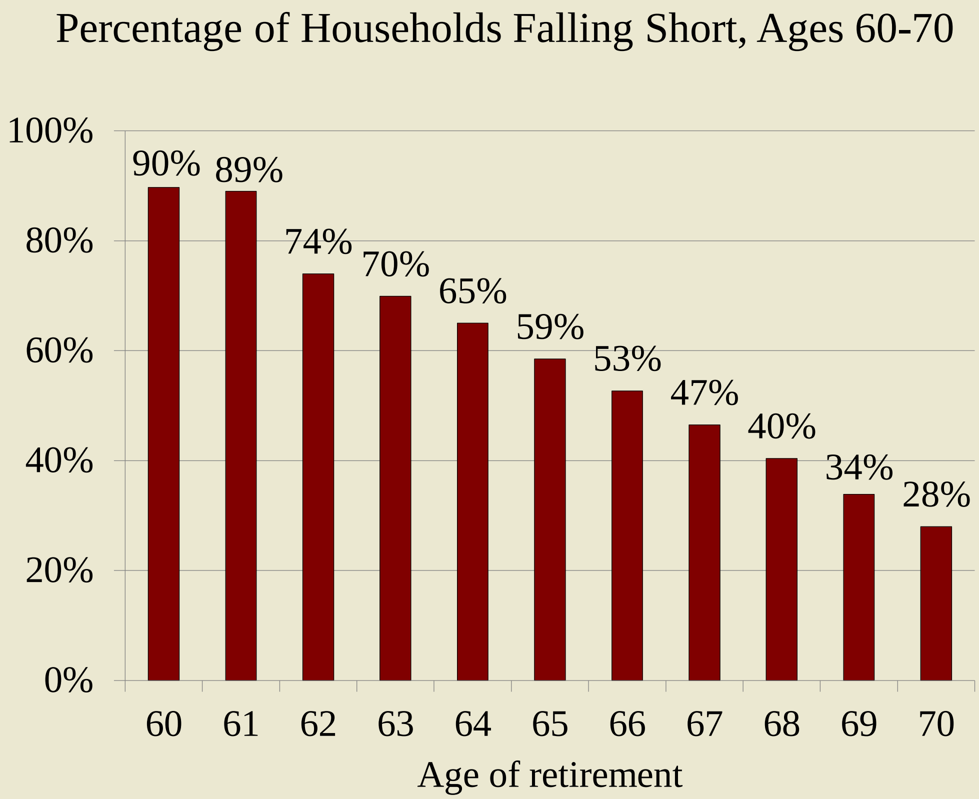
The levers are defined as follows:

Item	Key assumption
Asset allocation	Invest 100 percent of financial assets in “riskless equities.”
Working longer	Higher Social Security benefits, 401(k) balances, and annuity rates.
Reverse mortgage	Take out maximum loan and exercise lifetime income option.
Control spending	Save additional 5 percent of income and reduce target by 5 percentage points.

Baseline results at different ages show the power of working longer.



Source: Authors' calculations.

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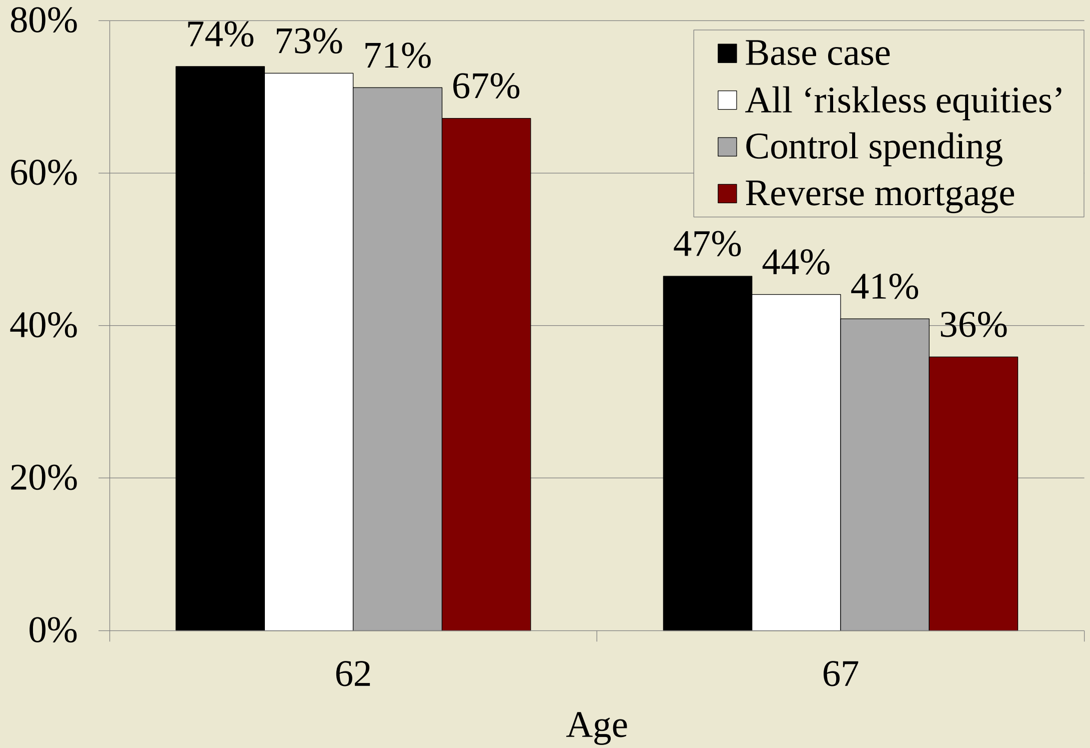
Comparing the power of each lever shows that asset allocation is less effective.

Percent of Households Falling Short of Target at Ages 62 and 67, Full Sample



Source: Authors’ calculations.

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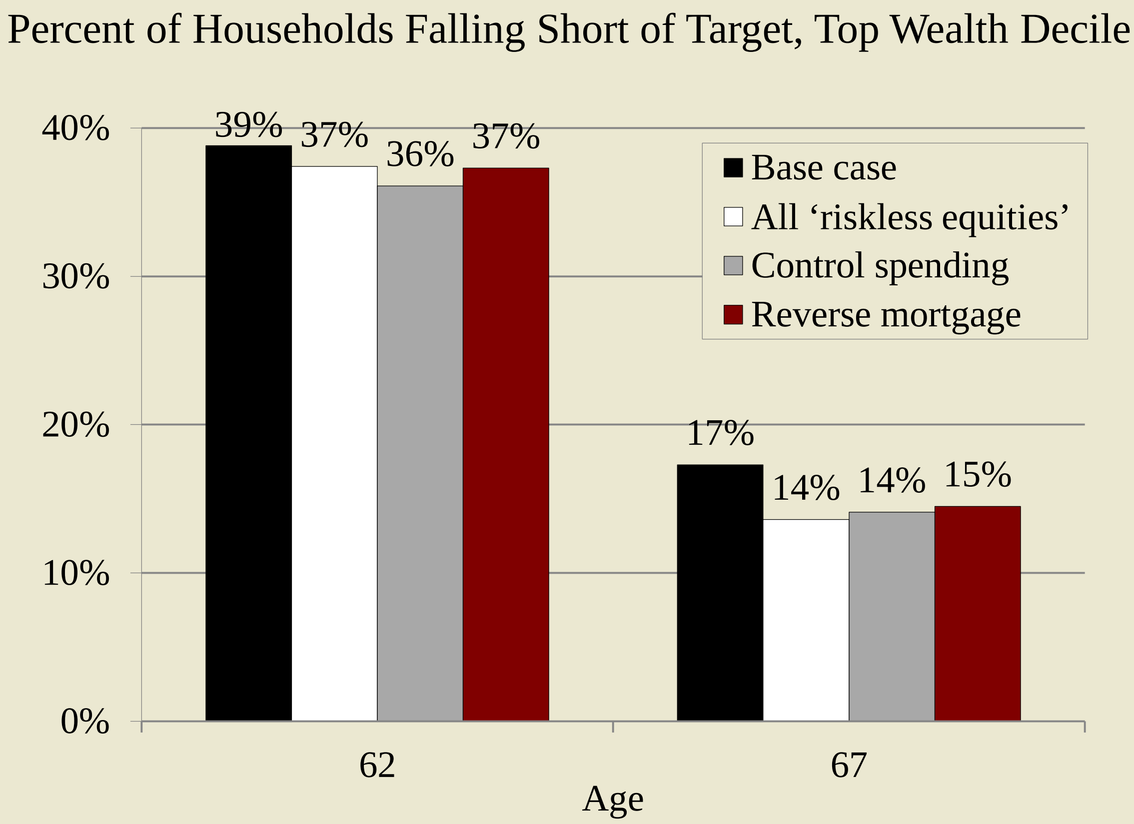
Households in the top decile are less at risk, but otherwise the story is similar.



Source: Authors' calculations.

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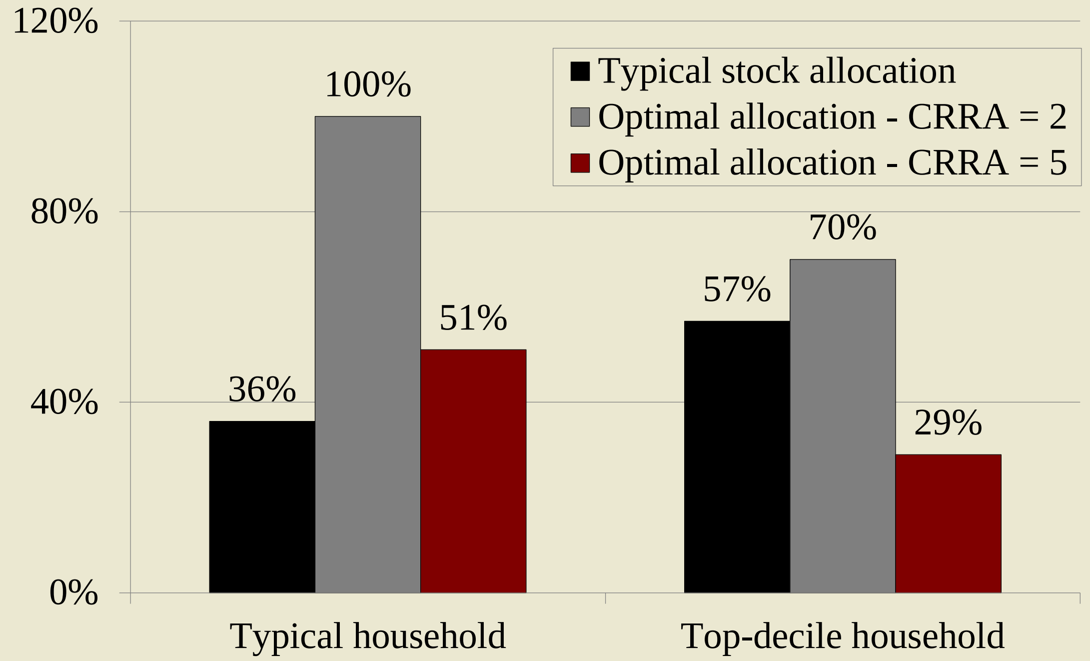
The final analysis takes account of risk, using dynamic programming.

- Calculates optimal consumption given:
  - optimal asset allocation; and
  - typical asset allocation.
- Calculates the dollar amount the household requires to move from optimal to typical.

Optimal equity allocation varies with wealth and risk aversion.

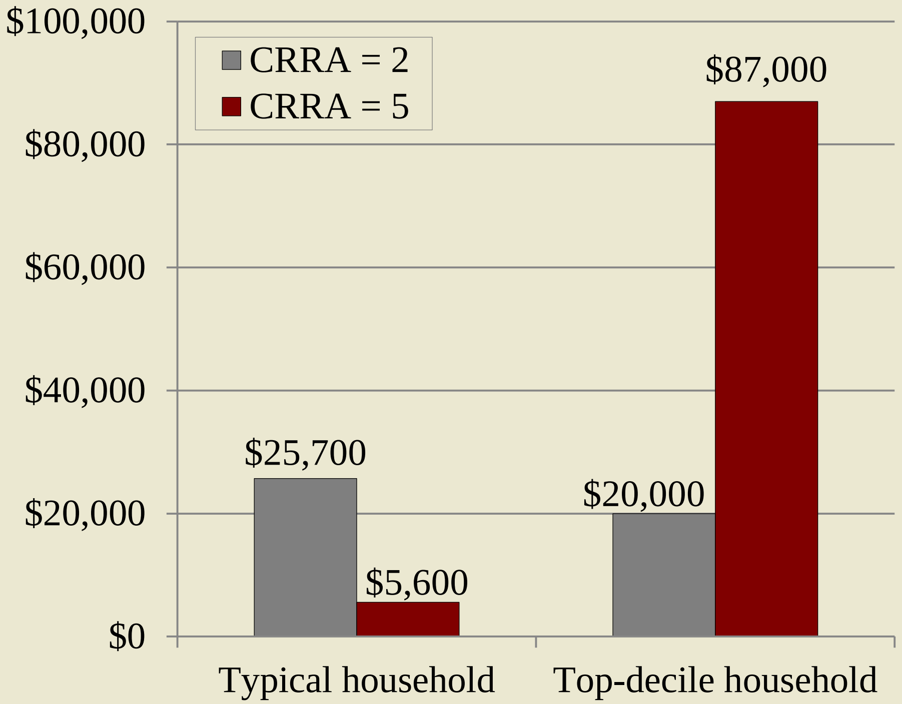
Typical and Optimal Portfolio Allocations, Percentage in Equities



Note: Optimal stock allocations are shown at age 65.
Source: Authors' calculations.

The results show only modest payments are required.

Amount Required as Compensation for Retaining Typical Portfolio Allocation, 2008 Dollars



Source: Authors' calculations.

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Conclusion

- Many households are not on track to maintain their living standard in retirement.

- Financial advice tends to focus on asset allocation.

- But most households don't have many assets.

- So asset allocation is generally less powerful than working longer, taking a reverse mortgage, and controlling spending.

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