

LIVING IN RETIREMENT: CREATING A PLAN FOR AGING

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Retirement Living

- Your goal is to get the most out of the retirement years
- What makes retirees happy?
- *Source: Health and Retirement Study, 2012*

Does Money Make you Happy?



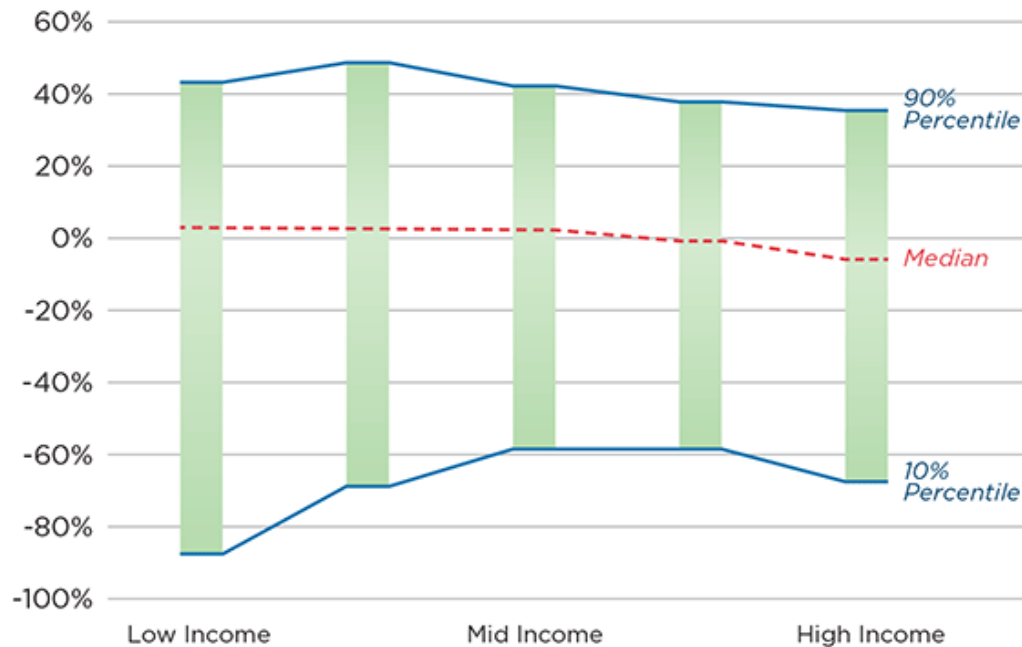
Source: Ho and Finke, 2015

What Do We Know About Spending in Retirement?



What We Spend Right After Retirement

CHANGE IN SPENDING UPON RETIREMENT

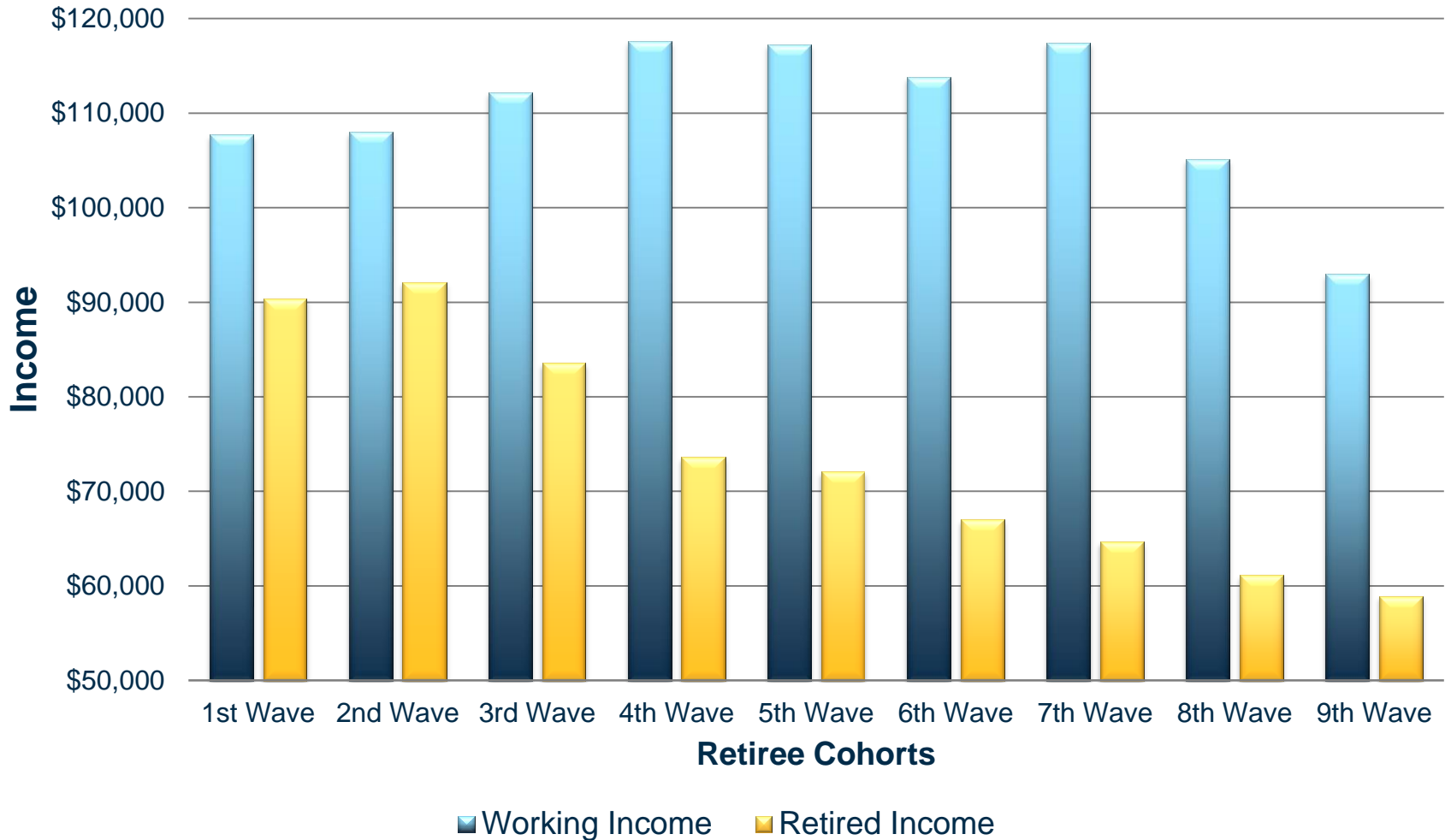


Source: Health and Retirement Study; calculations by Tao Guo

Source: Finke & Guo, 2015

Trends in Income Before & After Retirement

Post Retirement Income Falling at 75 Percentile



Source: Health & Retirement Study, 1994 - 20121

How Much Will I Spend in Retirement?

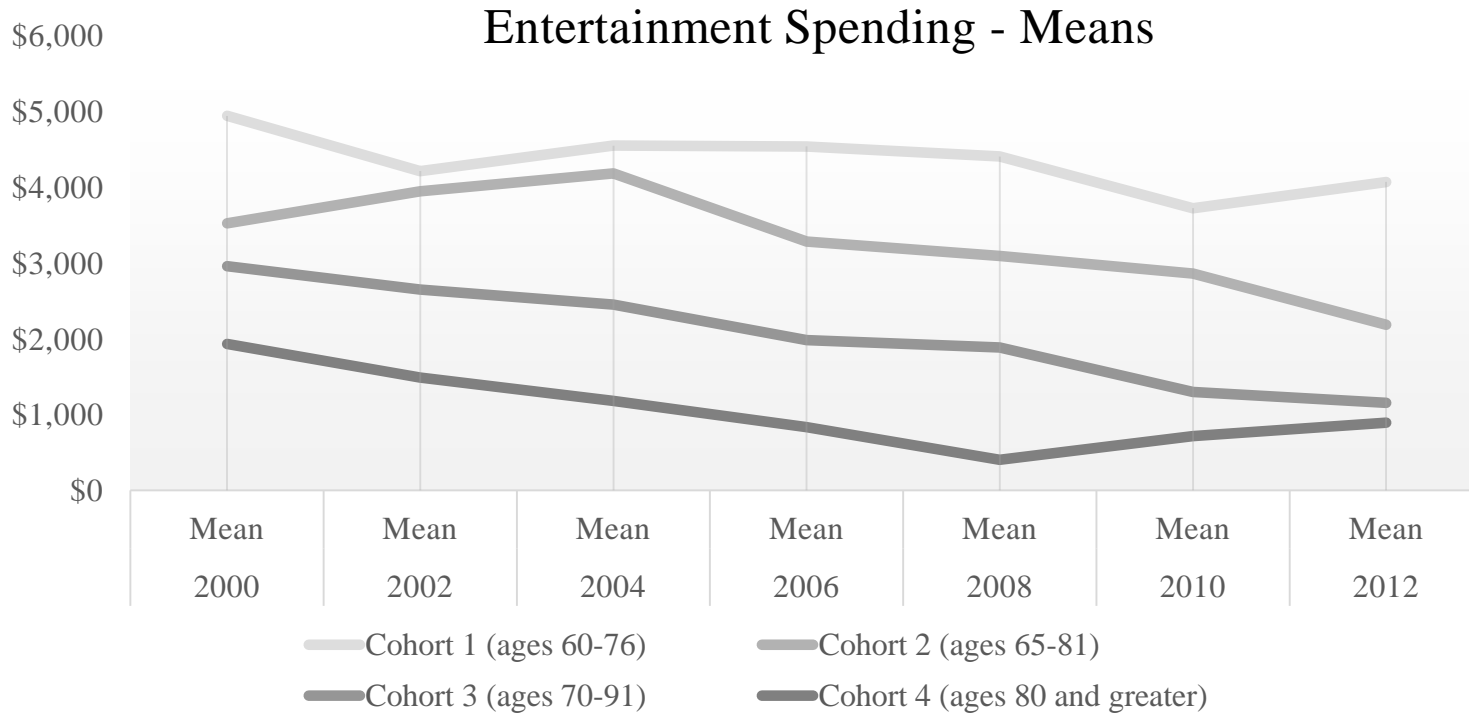


Spending Falls Faster among Wealthy



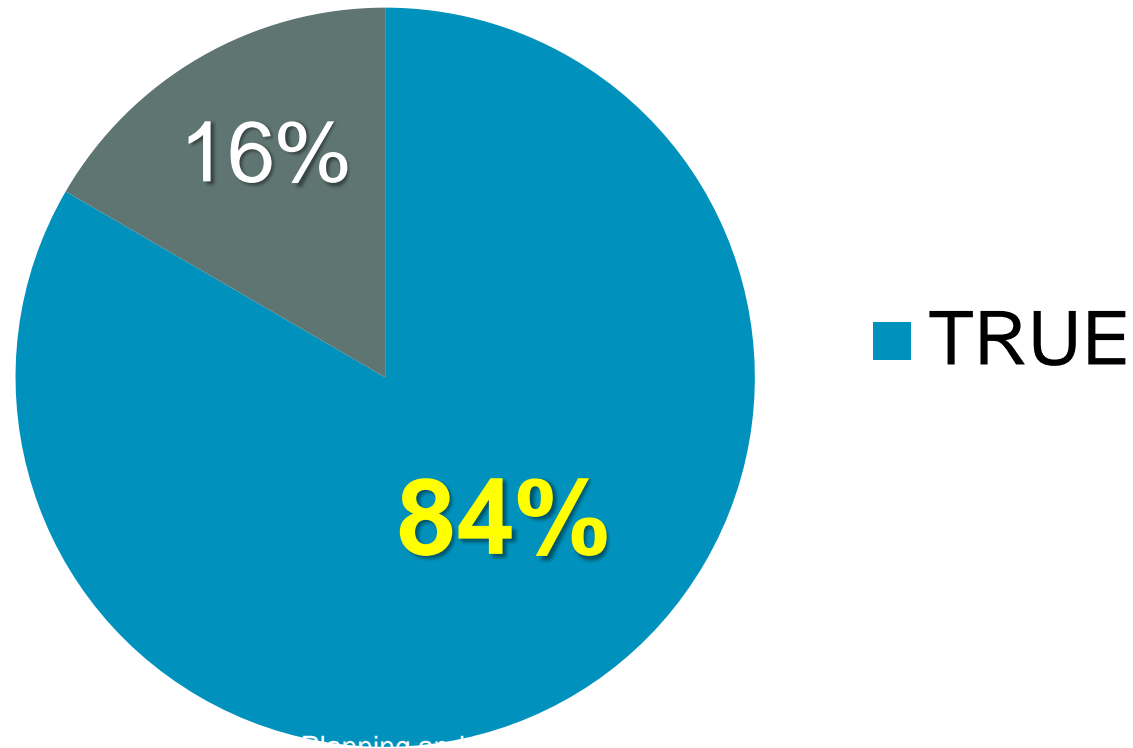
Entertainment Spending Falls with Age

Top Wealth Quintile

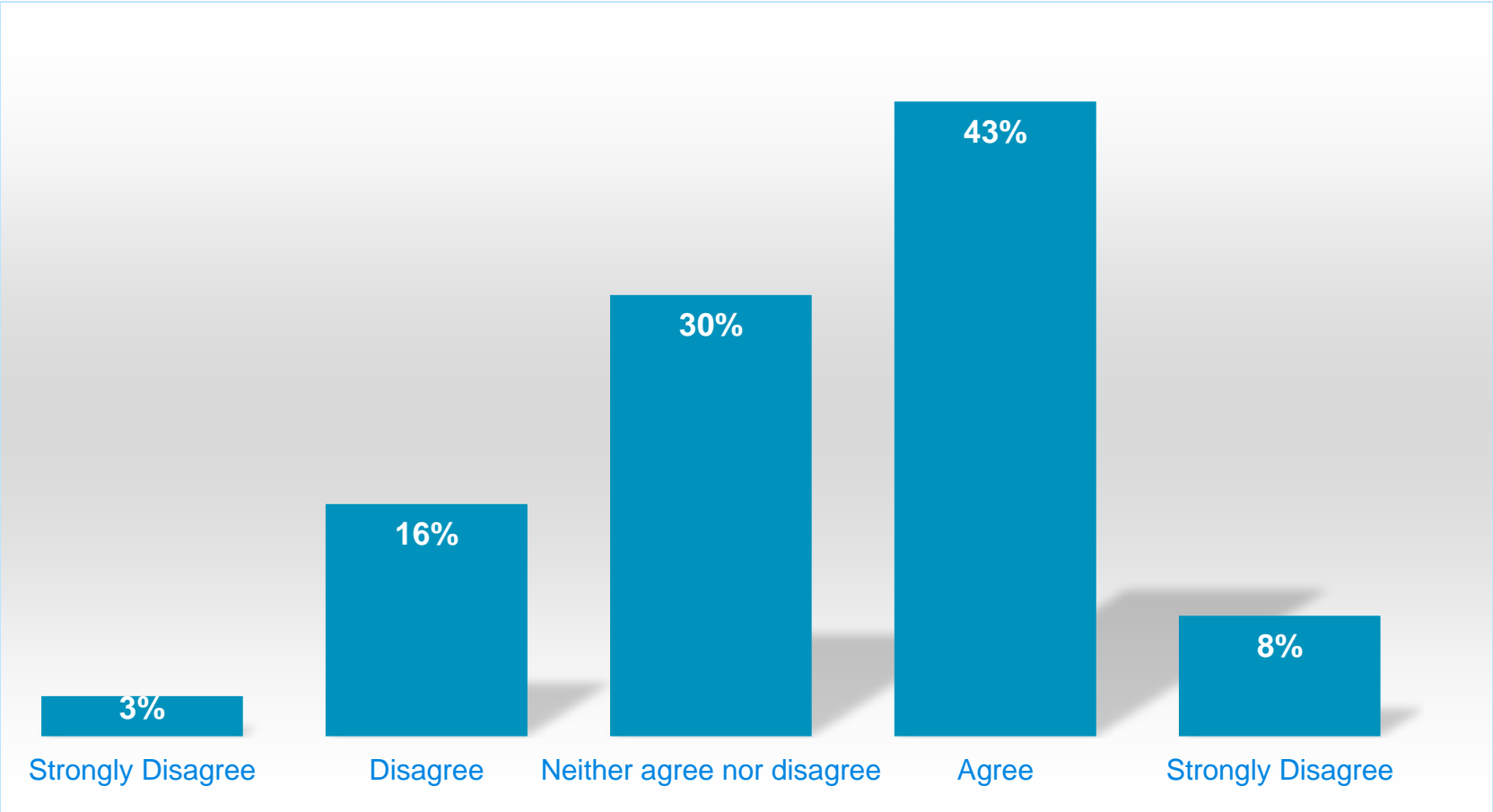


Source: Health and Retirement Study

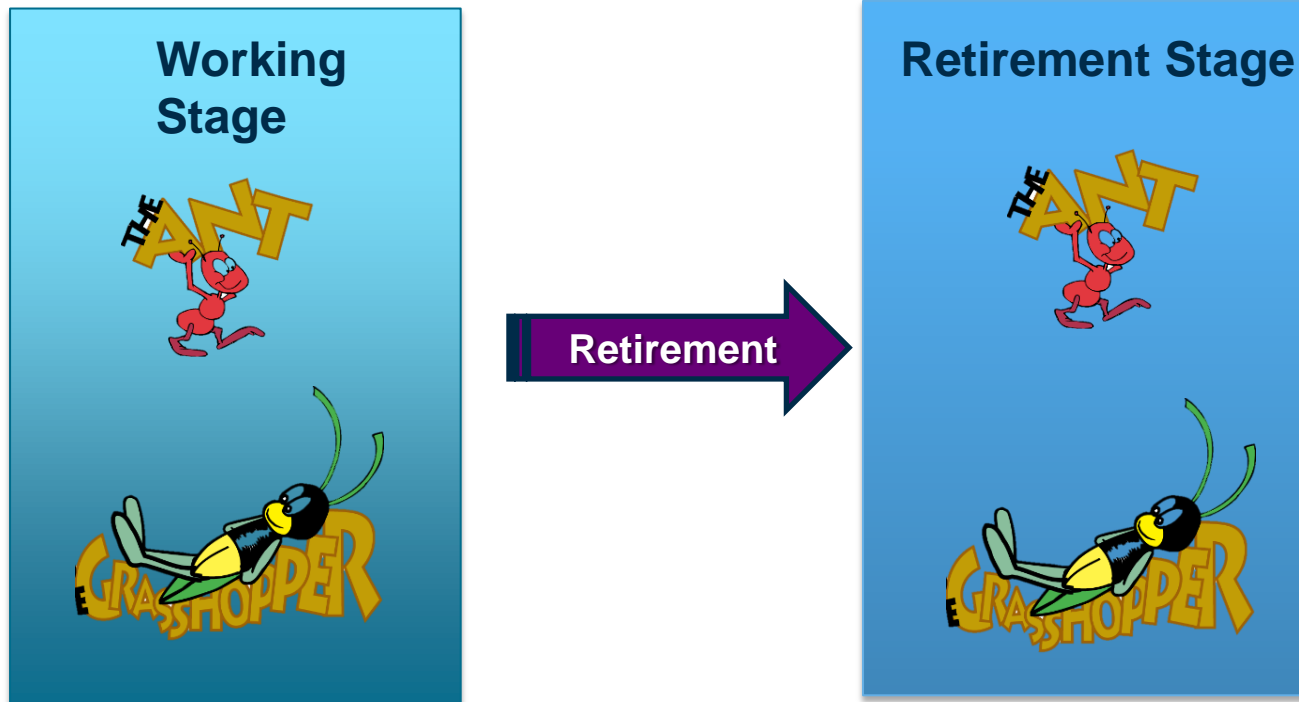
I would feel uncomfortable spending more than my income in retirement.



The thought of my retirement portfolio balance going down over time brings me discomfort, even if the decline in value is a result of spending money on my retirement goals.



Grasshoppers and Ants in Retirement



- Datasets: HRS and CAMS
- Pooled cross-sectional analysis, starts in 2002

Identifying Grasshoppers and Ants

Wealth Rank	Pre-Retirement Spending		Pre-Retirement Income		Retirement Wealth	
	Ants	G-hoppers	Ants	G-hoppers	Ants	G-hoppers
80 th up to 90 th Percentile	\$42,040	\$83,620	\$82,561	\$78,267	\$646,172	\$629,807
90 th Percentile and Up	\$57,530	\$125,496	\$156,238	\$201,137	\$1,431,005	\$1,532,886

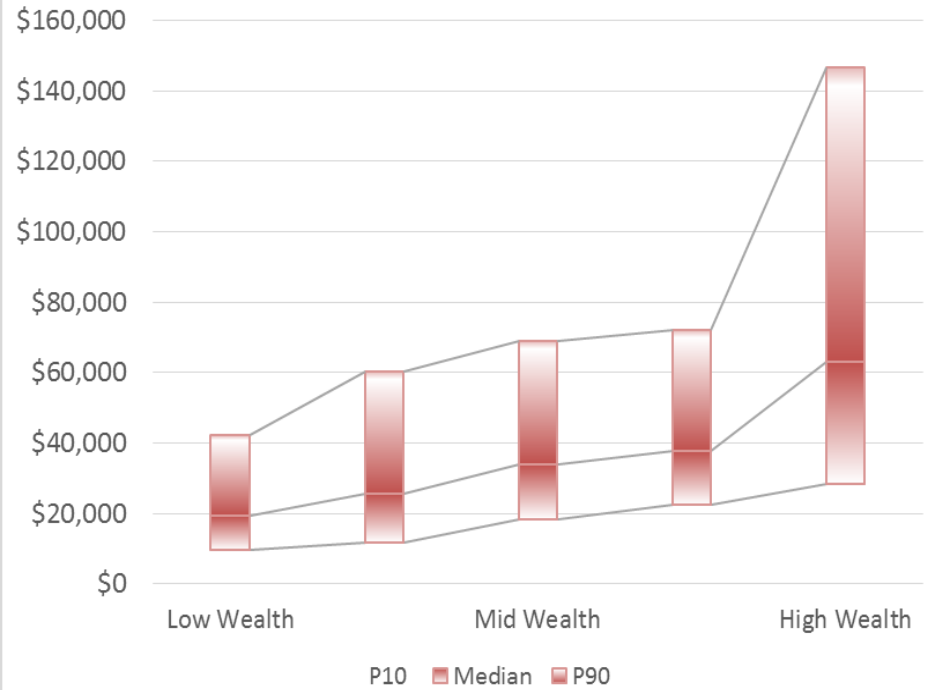


Grasshoppers and Ants Spending After Retirement

Post-retirement Consumption (Ant)

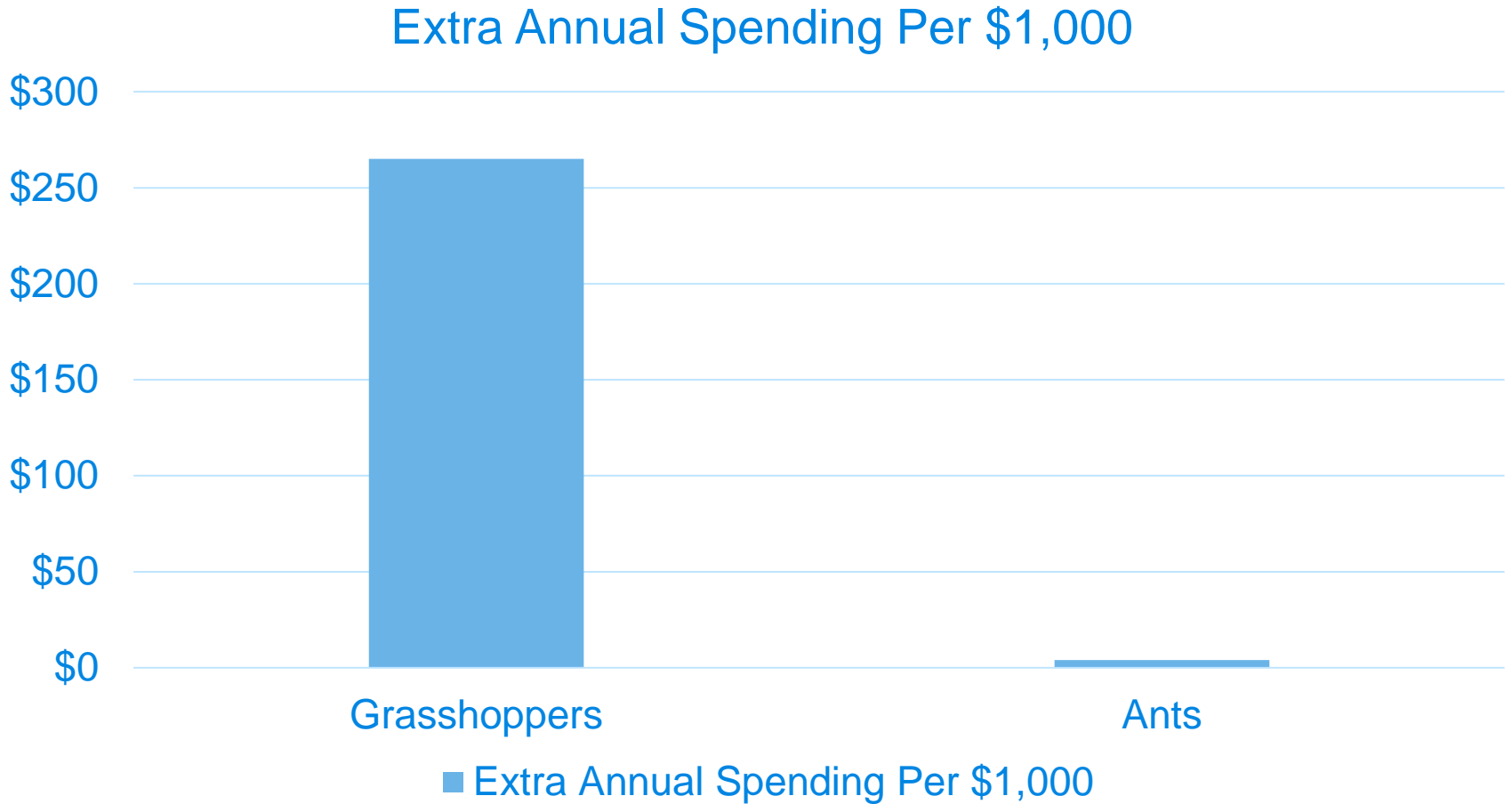


Post-retirement Consumption (Grasshoppers)



Impact of a Windfall on Spending

Amount Spent Annually per \$1,000 windfall



Retirement: Revenge of the Grasshopper?



What Predicts Life Satisfaction In Retirement?

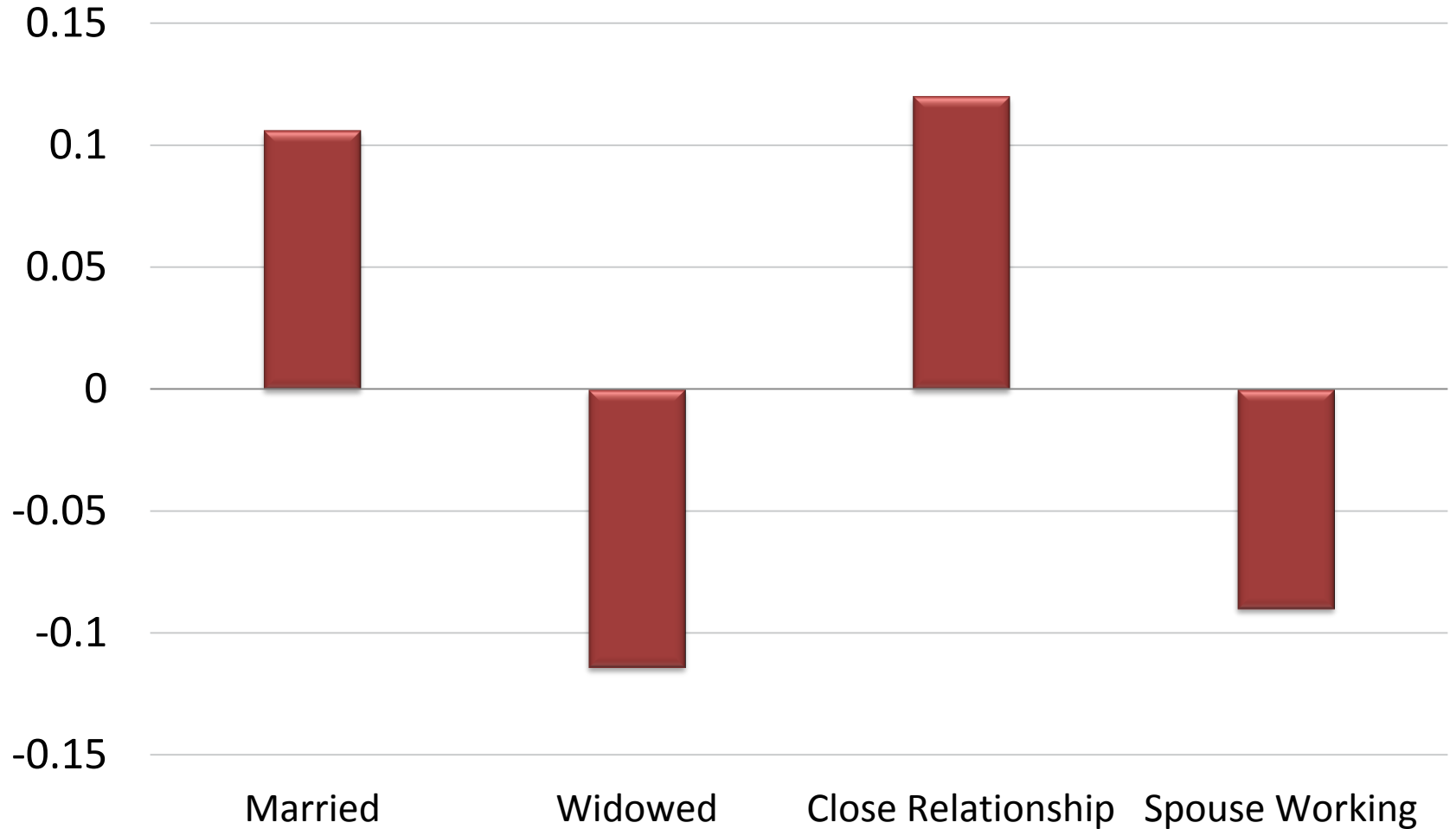


Importance of Health

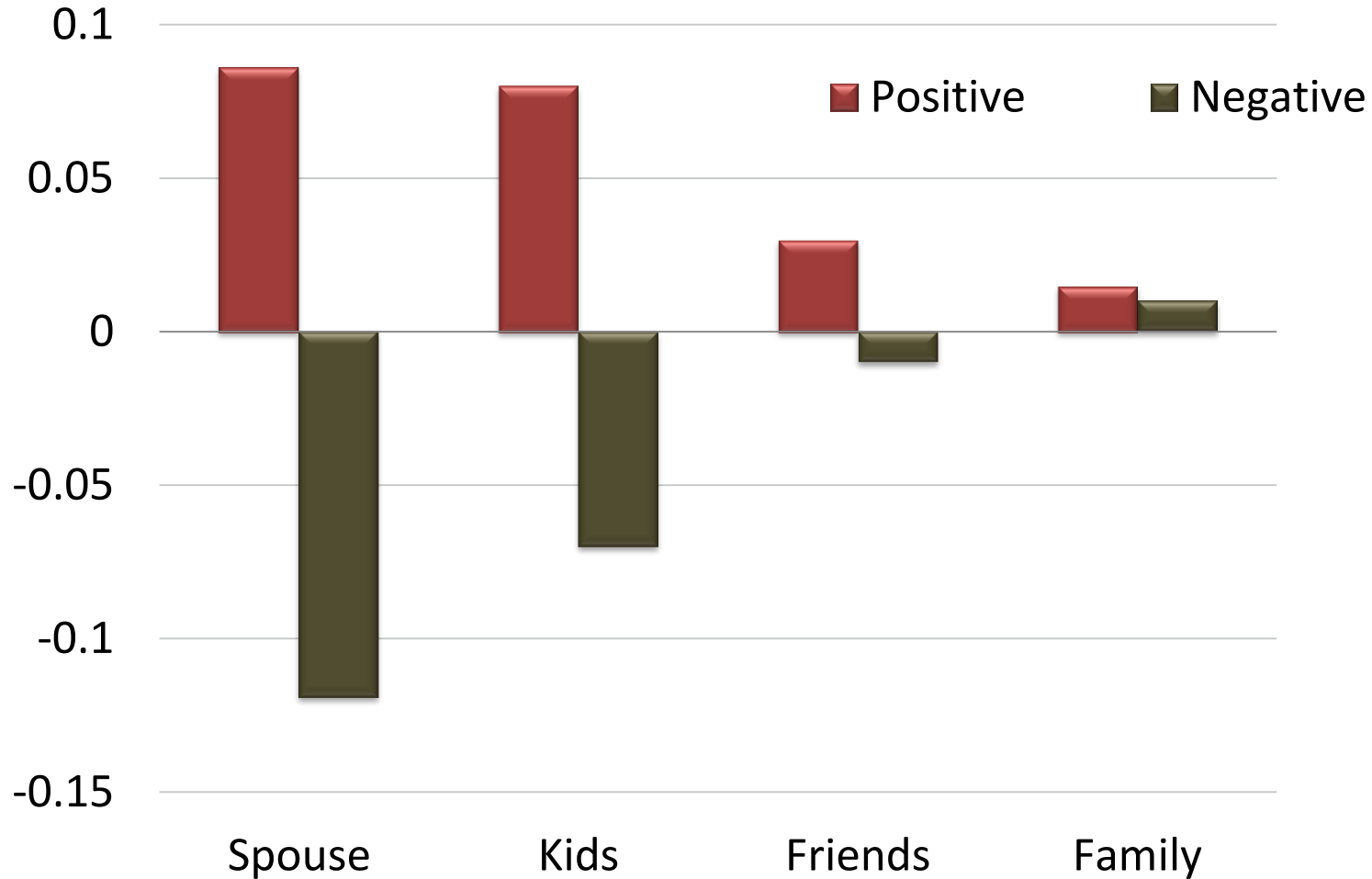
Retirement Satisfaction



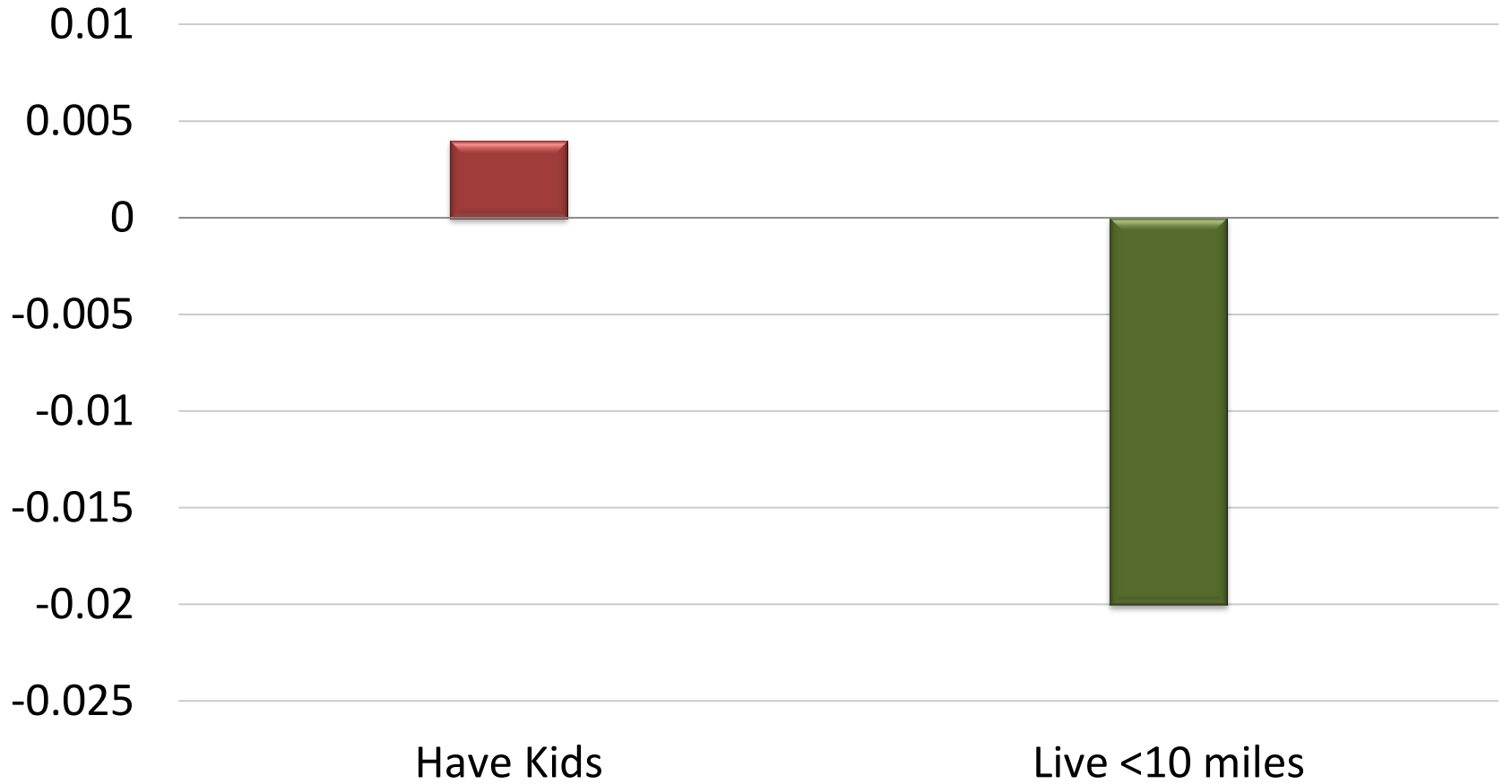
Importance of Spouse/Partner



Importance of Positive Relationships



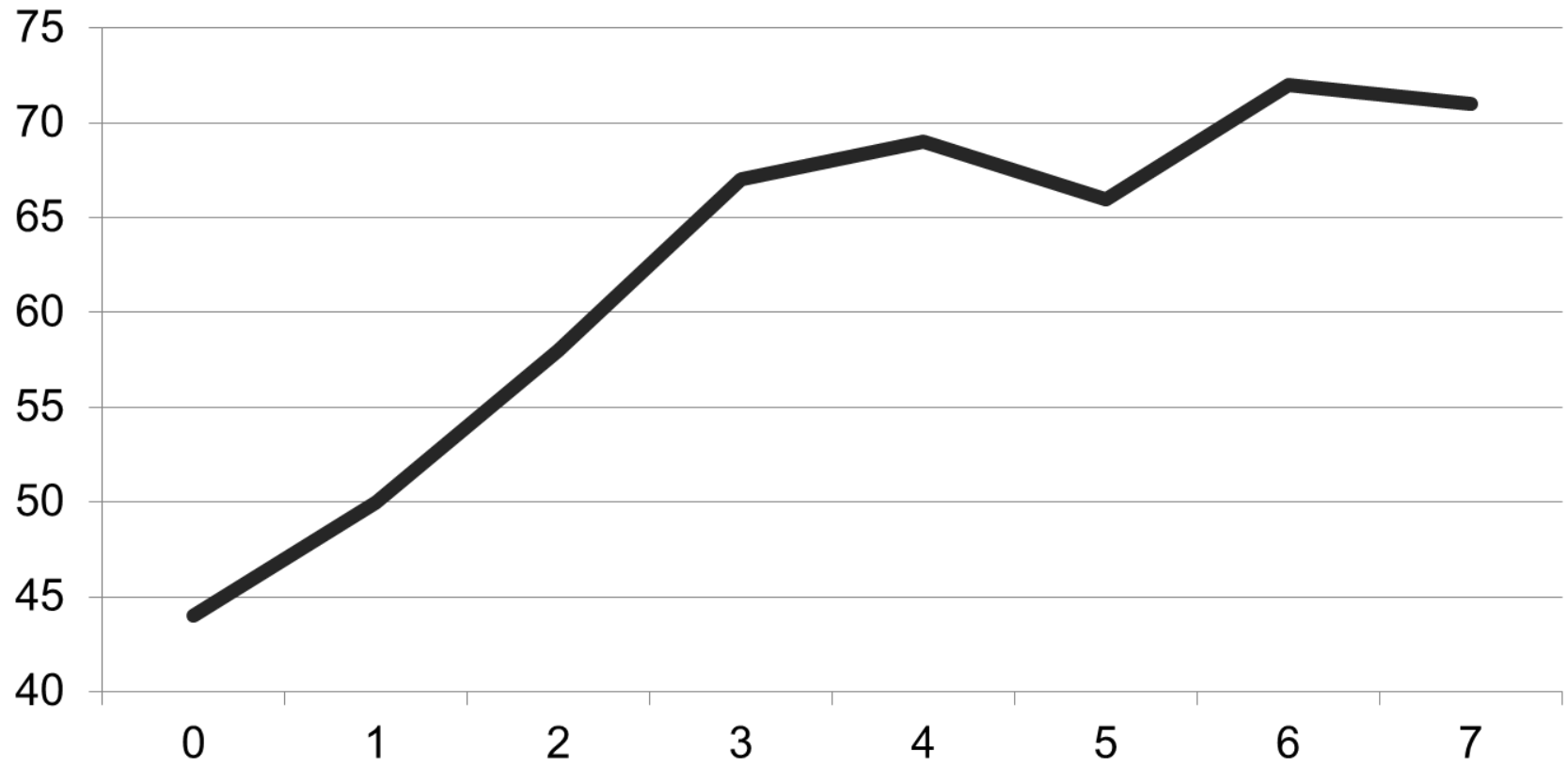
A Note on Children



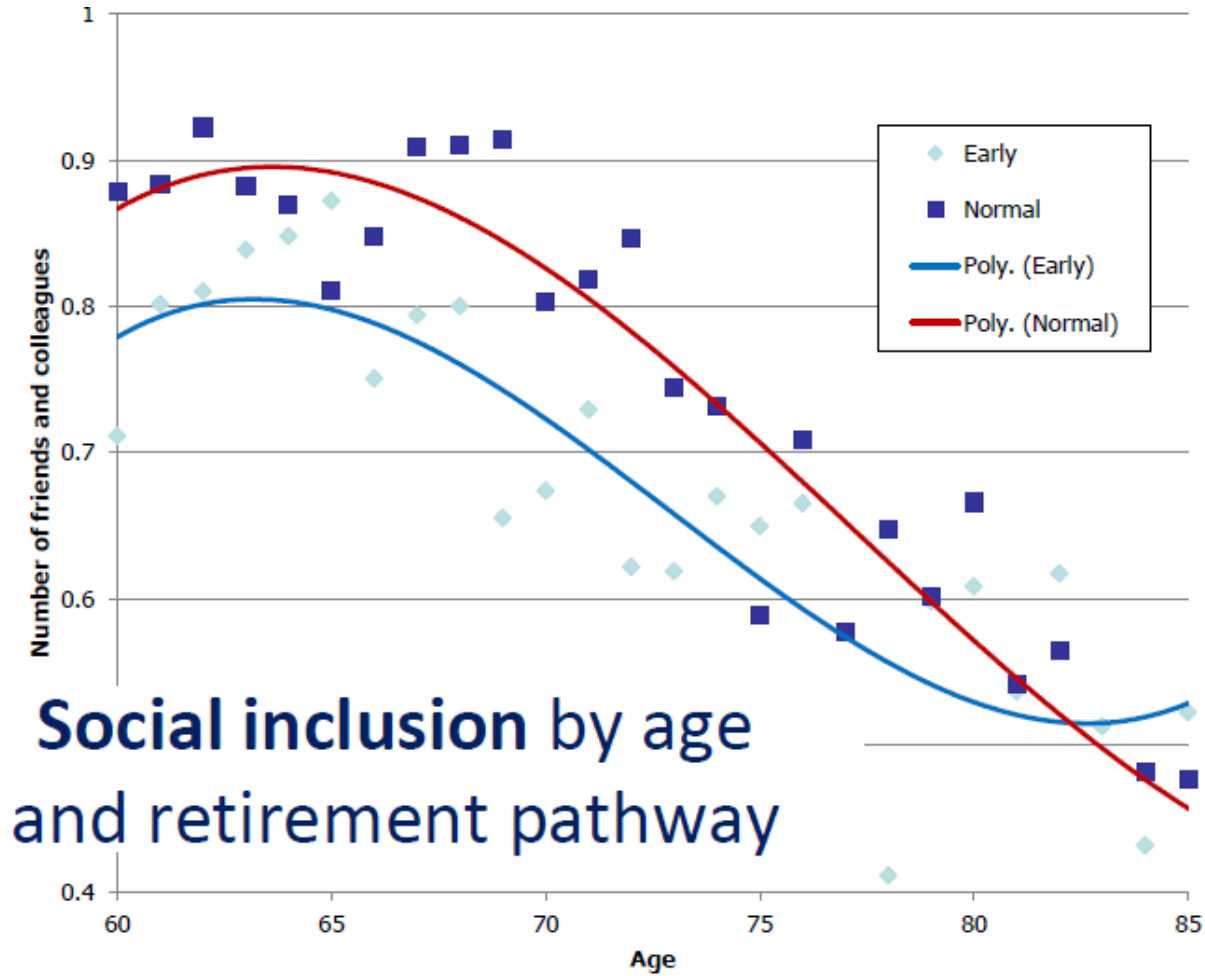
Happiness and Hours Social Time

Age 65 and older, Gallup 2011

Percent Happy

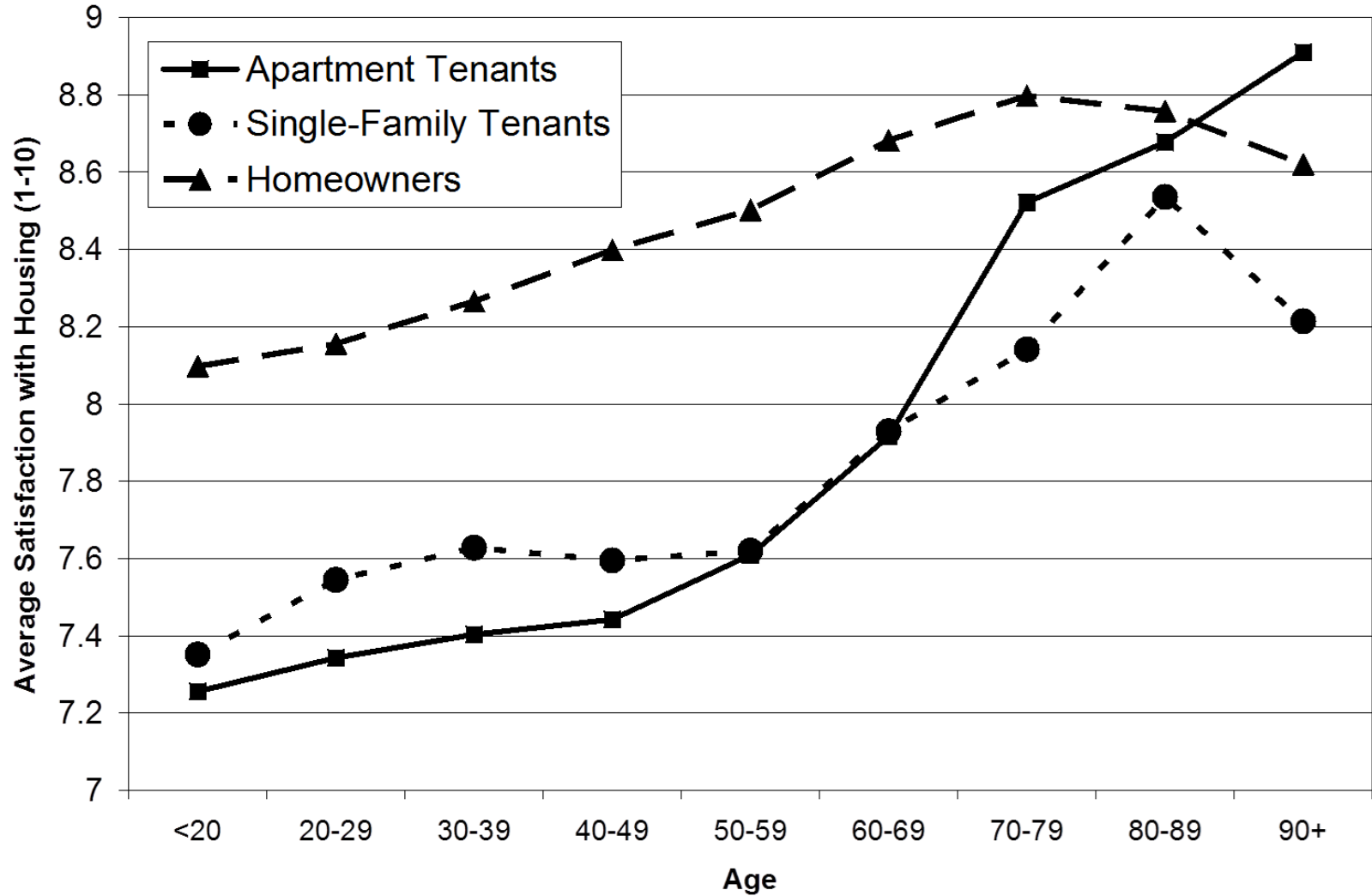


Decline in Social Network



**Social inclusion by age
and retirement pathway**

Housing Decisions



Source: James, 2007

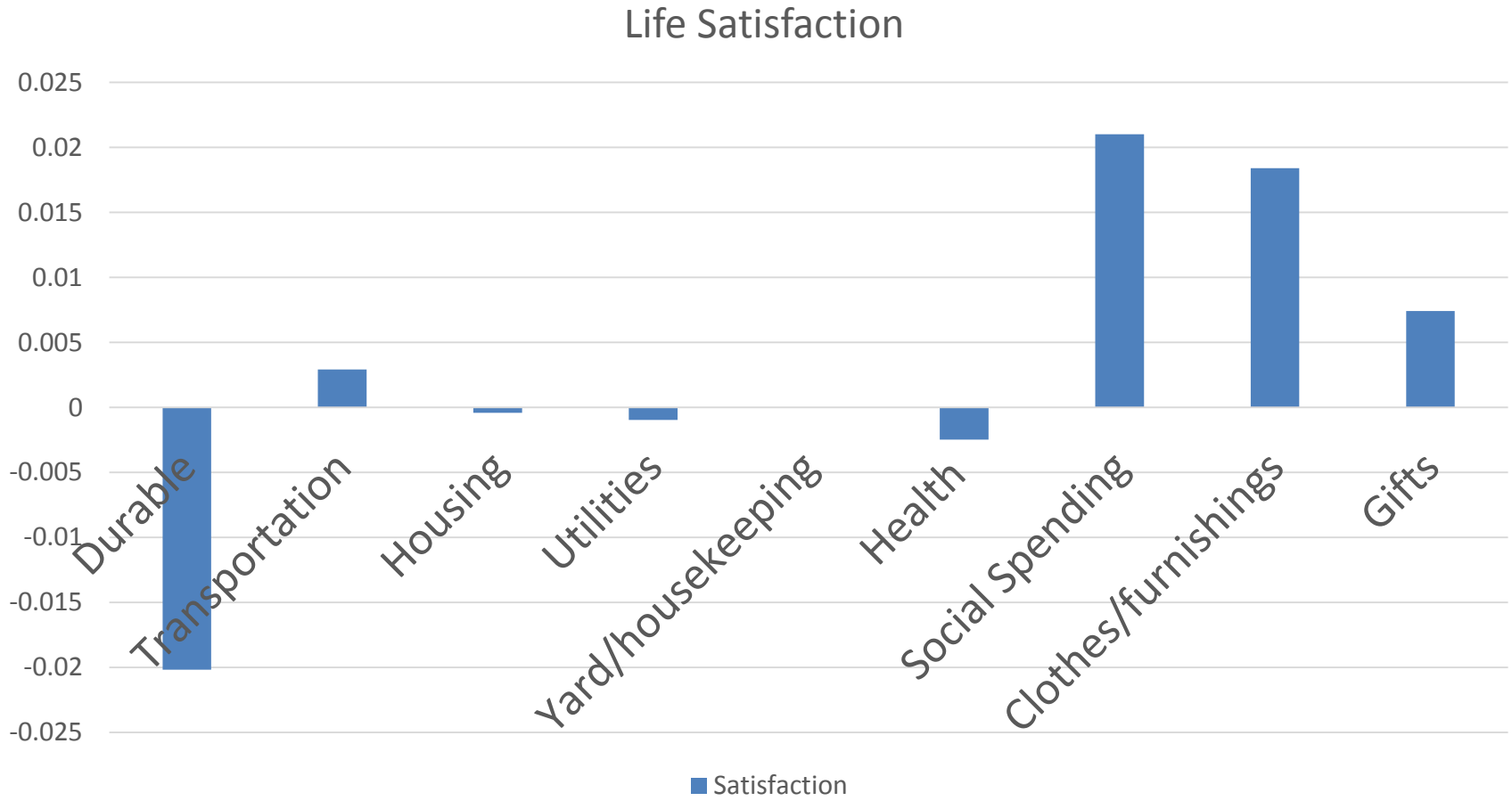
Wealth and Time Use

Minutes Per Day

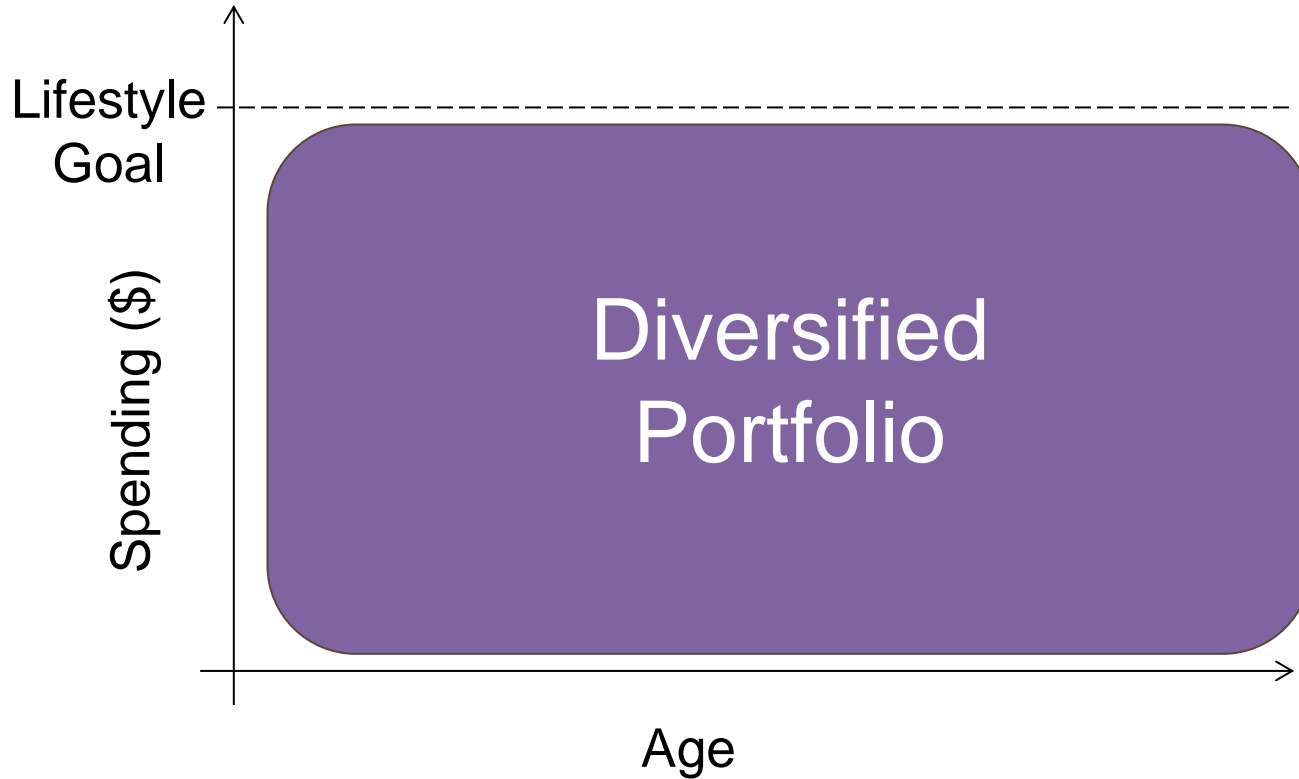


Importance of Social Spending

(dining out, vacations, tickets, hobbies, sports, personal care)

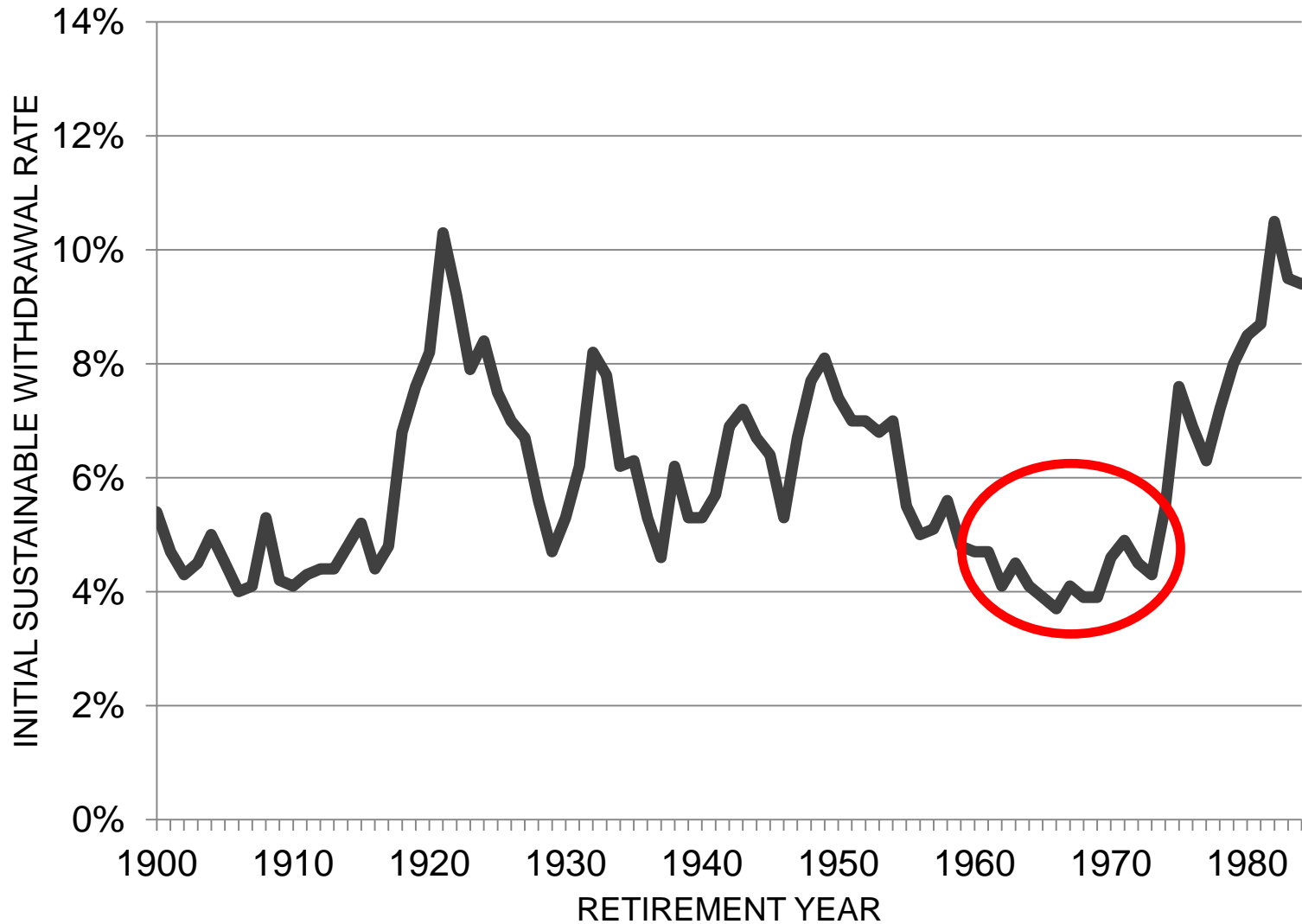


Spending Your Nest Egg

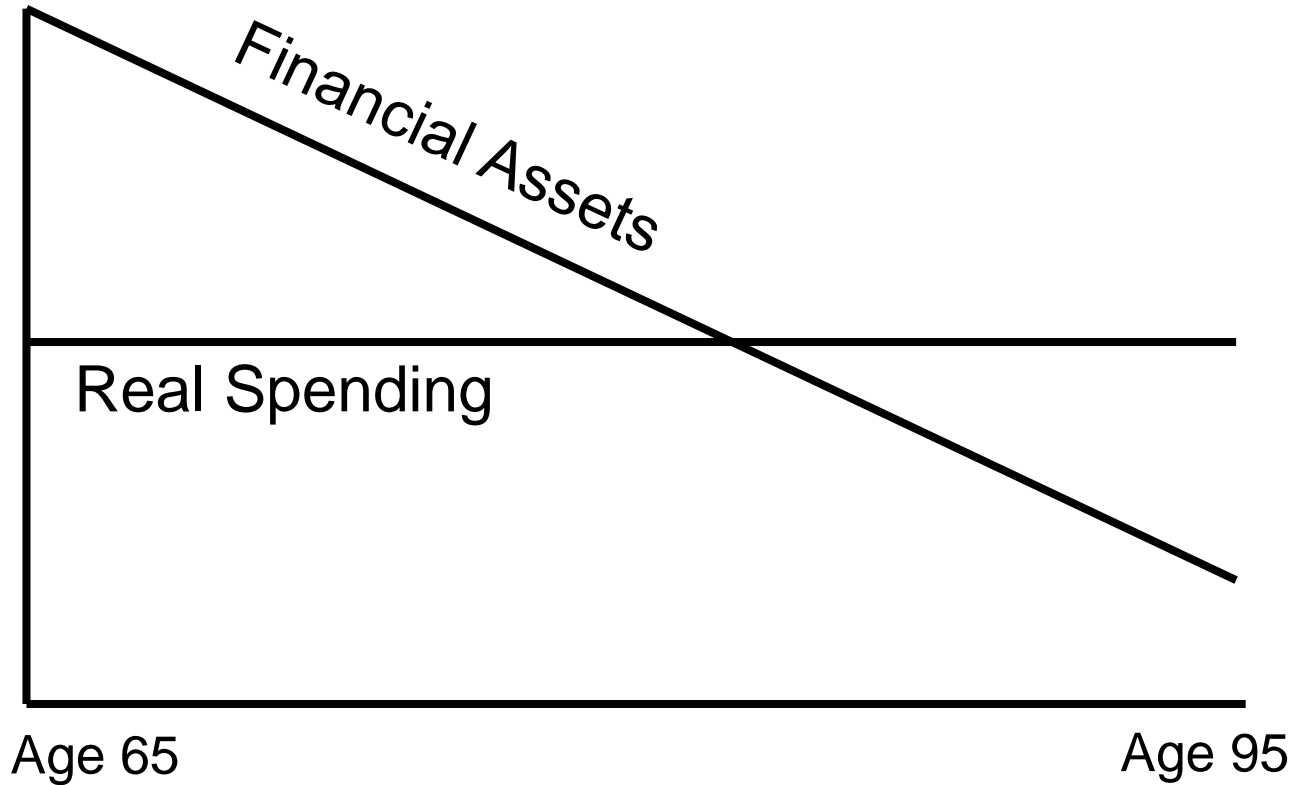


The 4% Rule

30-Year Time Horizon

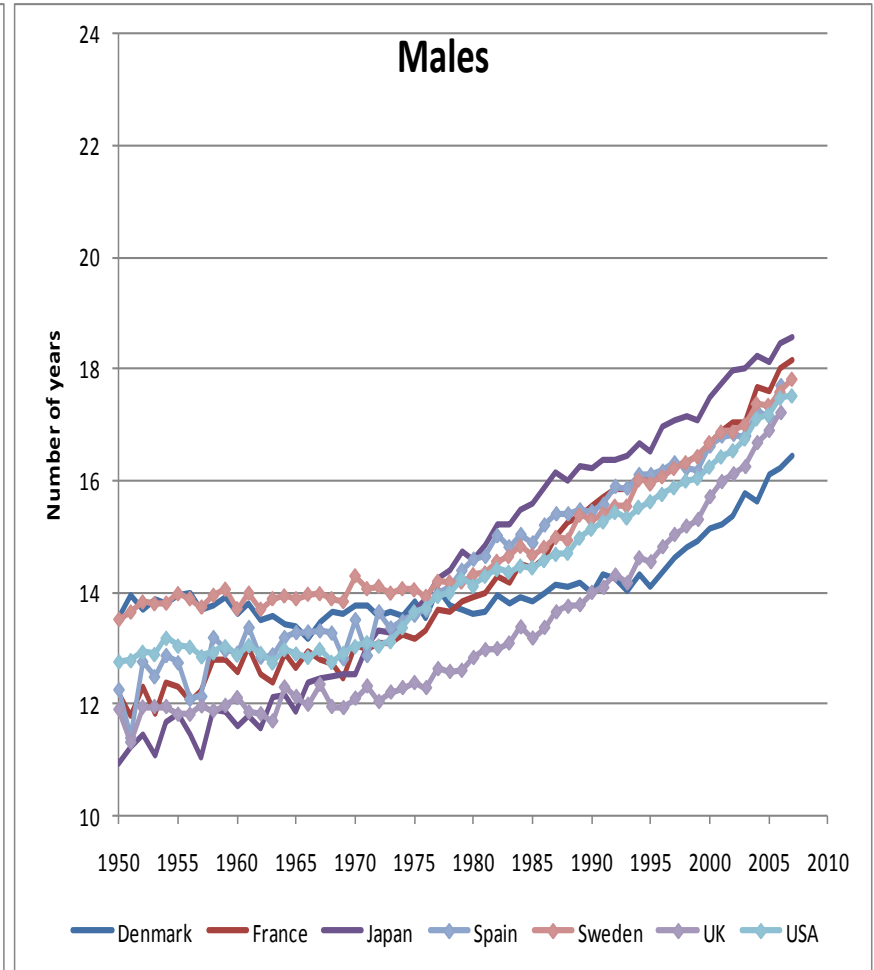
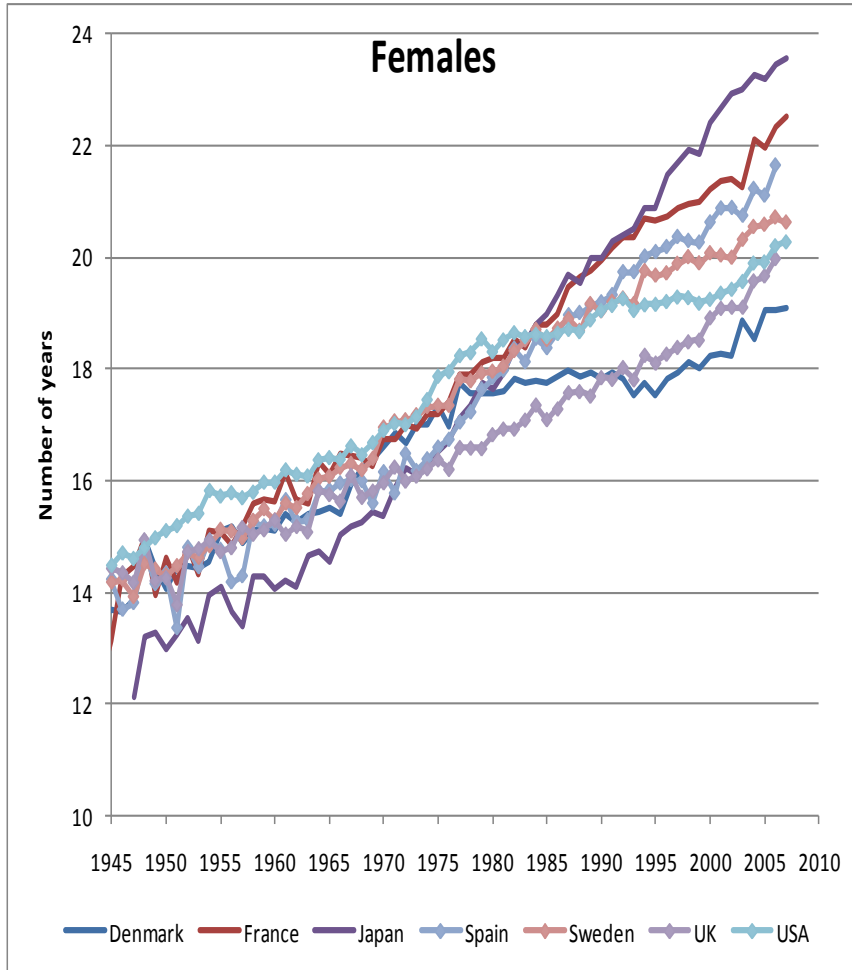


Assumptions About 4% Rule



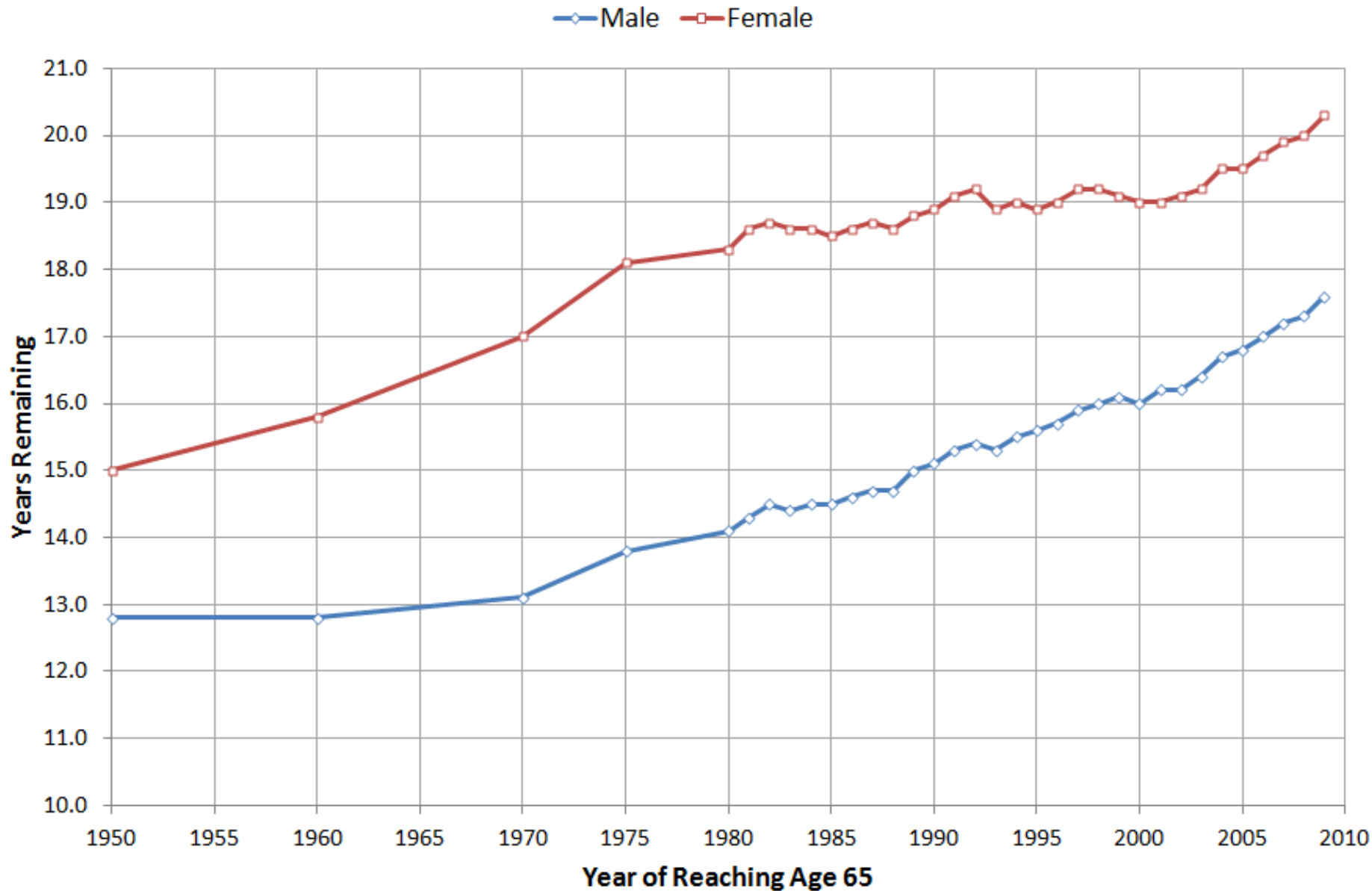
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An International Perspective of Longevity at Age 65



Source: Robine, 2012

Remaining Life Expectancy at At 65, 1950 - 2009



Some Perspective on Probabilities

Probability of a 65-year-old living to age 95, based on different mortality tables.



Male

Female

Both

≥1

Average American

7%

13%

1%

19%

Healthy American

20%

29%

6%

43%

Healthy American in 15 Years

25%

33%

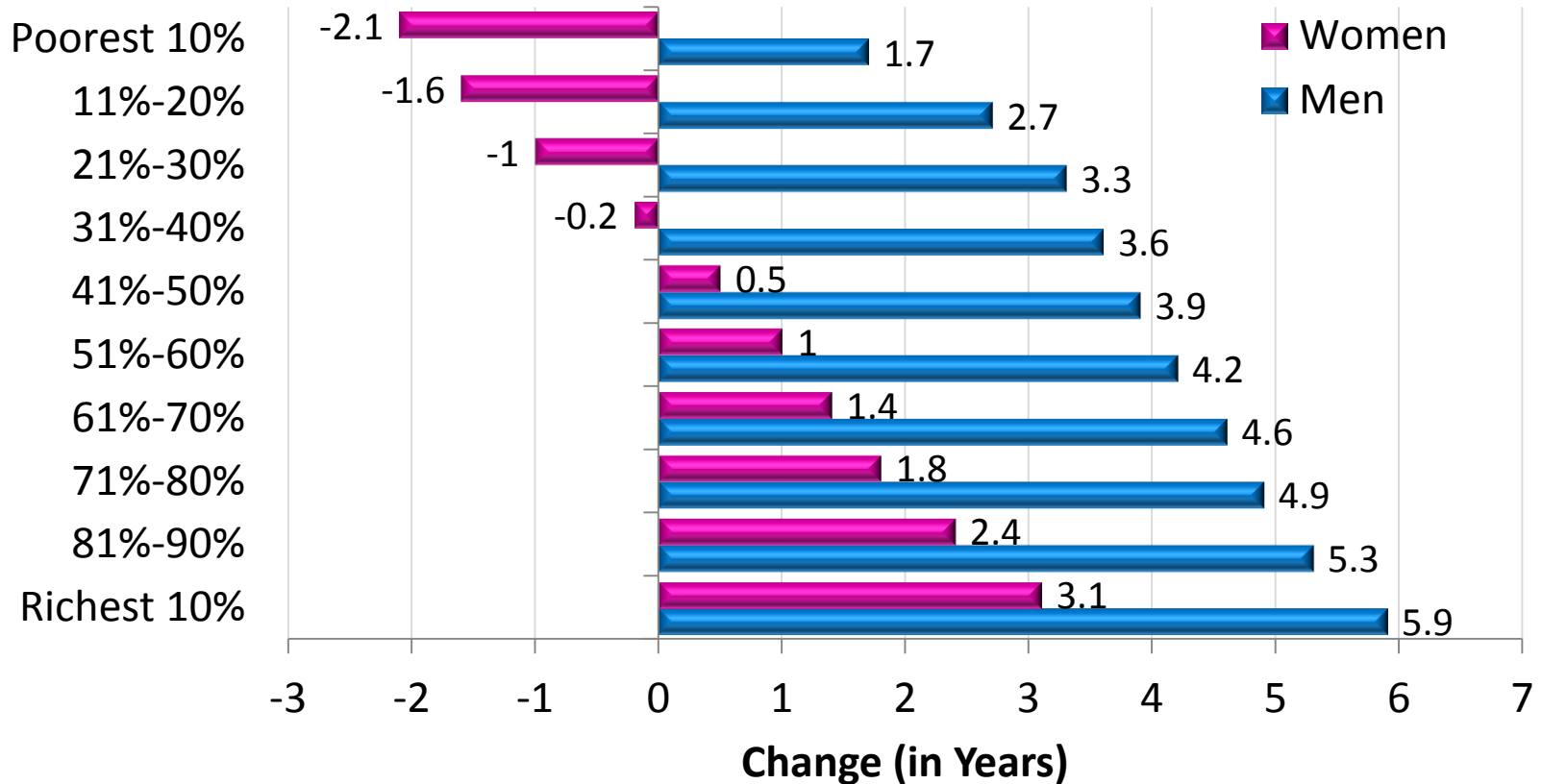
8%

50%

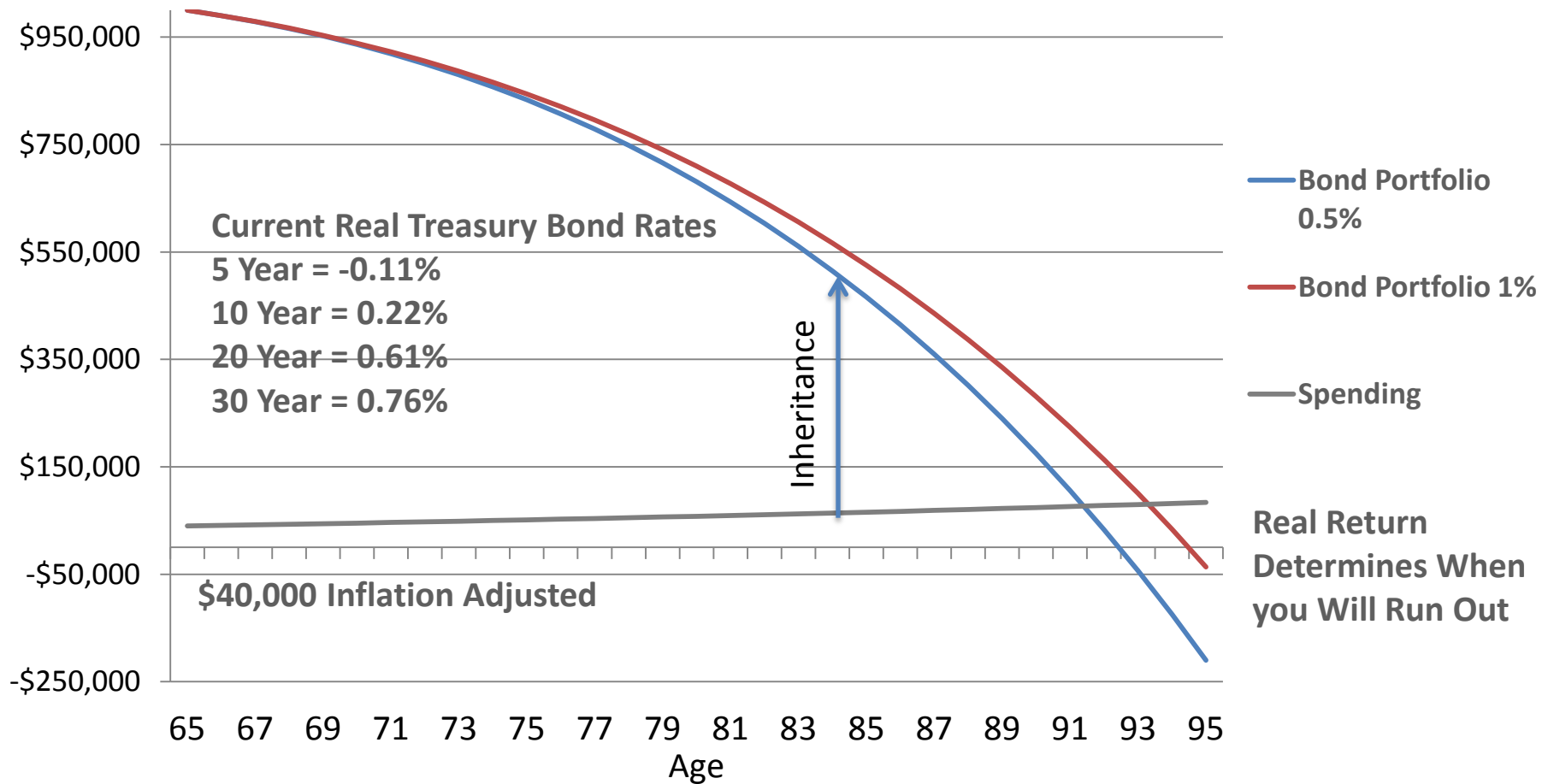
Source: Social Administration 2010 Periodic Life Table, Society of Actuaries 2012 Annuity Mortality Table

Wealthier People Tend to Live Longer

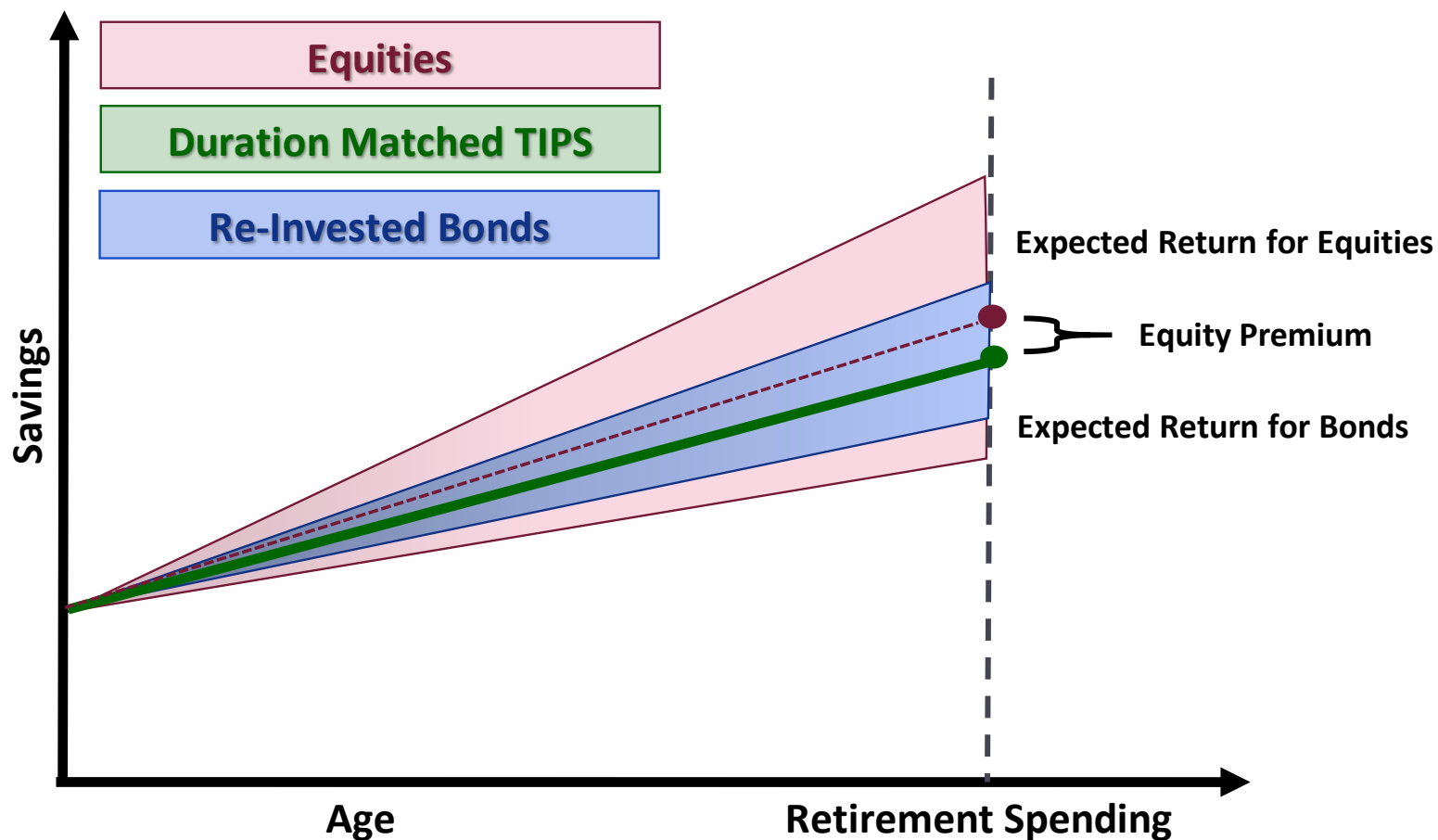
Change in average additional life expectancy (in years) at age 55, by wealth, between cohorts born in 1920 and 1940



When Will My Money Run Out with Safe Investments? Following the 4% Rule

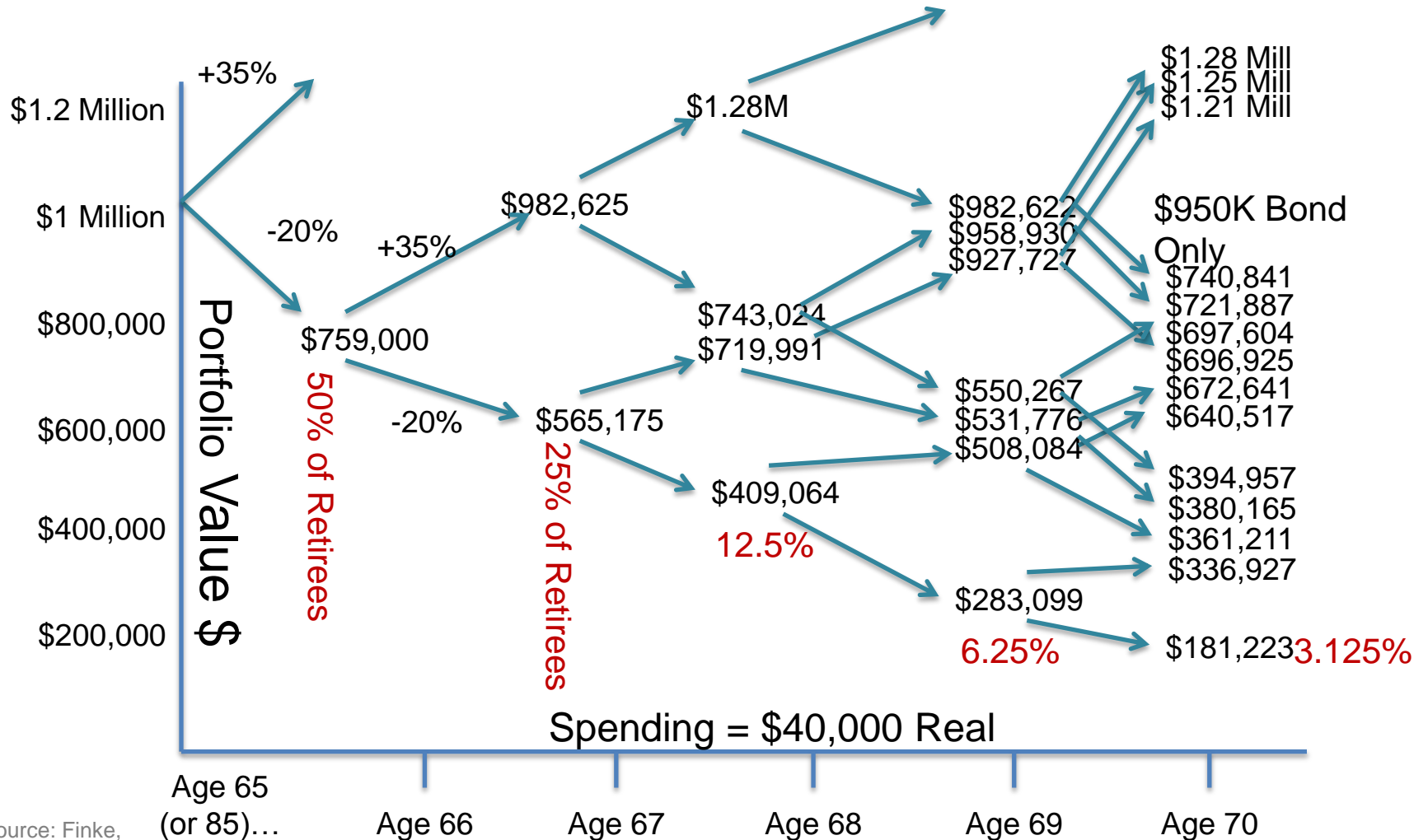


The Retirement Risk and Spending Tradeoff



Using Risky Investments in Retirement

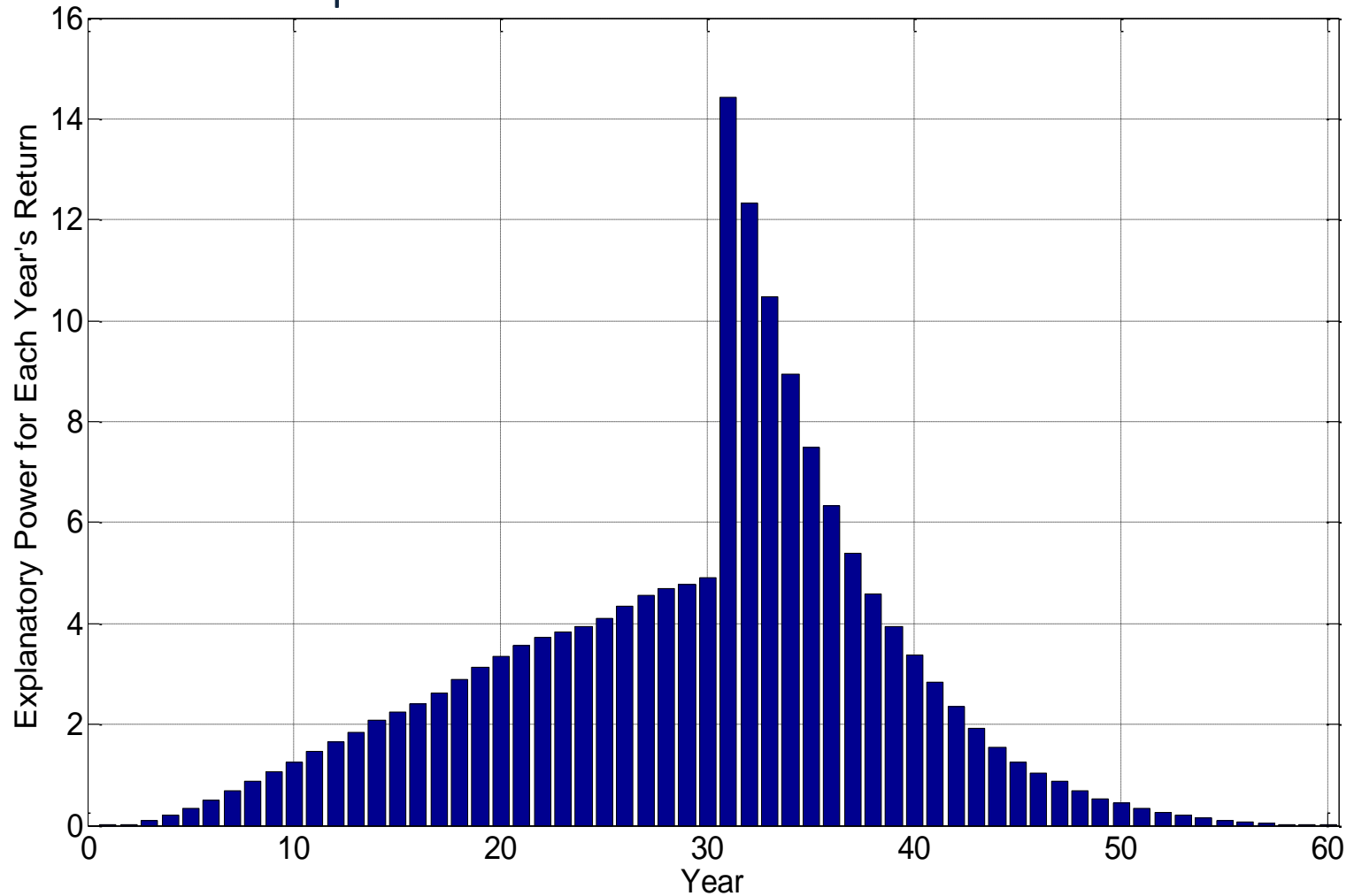
Hypothetical Example: 50/50 Chance of -20% or 35% (7.5% Average)



Source: Finke, 2015

Returns right after retirement matter the most

Sequence of Returns Risk Over the Lifetime



Source: Calculations by Wade Pfau, 2014

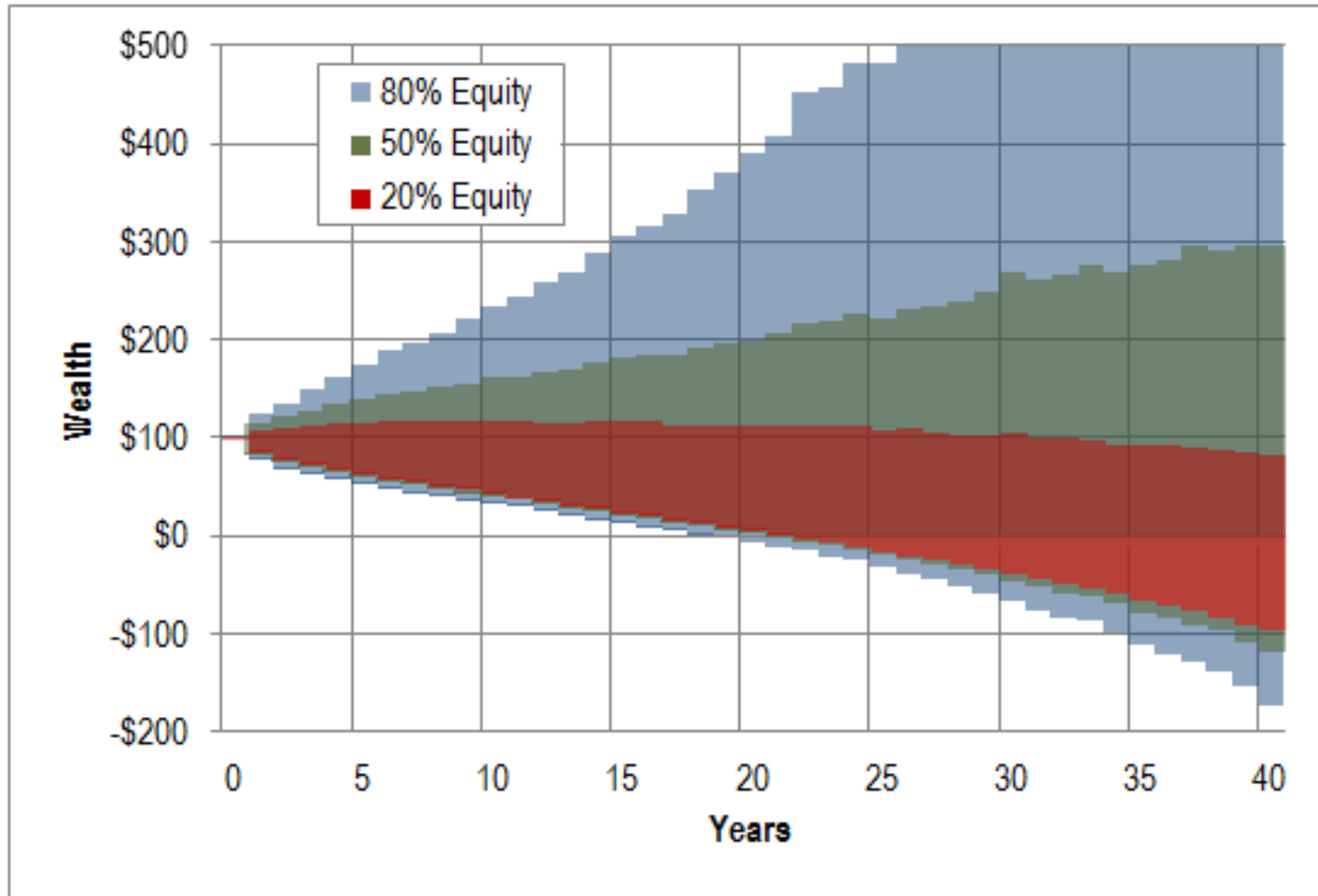
Examples of Sequence of Return Risk

What is the effect of negative returns and withdrawals?

Year	S&P Returns	T-Bill Returns	Withdrawal First of Year	Balance at Beginning of Year
12/31/99			\$80,000	\$2,000,000
2000	-9.03%	5.76%	\$82,192	\$1,788,358
2001	-11.85%	3.67%	\$85,258	\$1,613,681
2002	-21.97%	1.66%	\$86,230	\$1,358,160
2003	28.36%	1.03%	\$88,472	\$1,461,410
2004	10.74%	1.23%	\$90,179	\$1,451,508
2005	4.83%	3.01%	\$92,857	\$1,408,902
2006	15.61%	4.68%	\$96,563	\$1,448,095
2007	5.48%	4.64%	\$98,571	\$1,416,198
2008	-36.55%	1.59%	\$102,790	\$1,062,340
2009	25.94%	0.14%	\$103,098	\$1,092,060
2010	14.82%	0.13%	\$105,810	\$1,062,677
2011	2.10%	0.03%	\$107,534	\$962,102
2012	15.89%	0.05%	\$110,685	\$923,631
2013	32.15%	0.07%	\$112,445	\$954,963
2014	13.52%	0.05%	\$114,222	\$901,293
2015	1.36%	0.21%	\$114,119	\$790,822

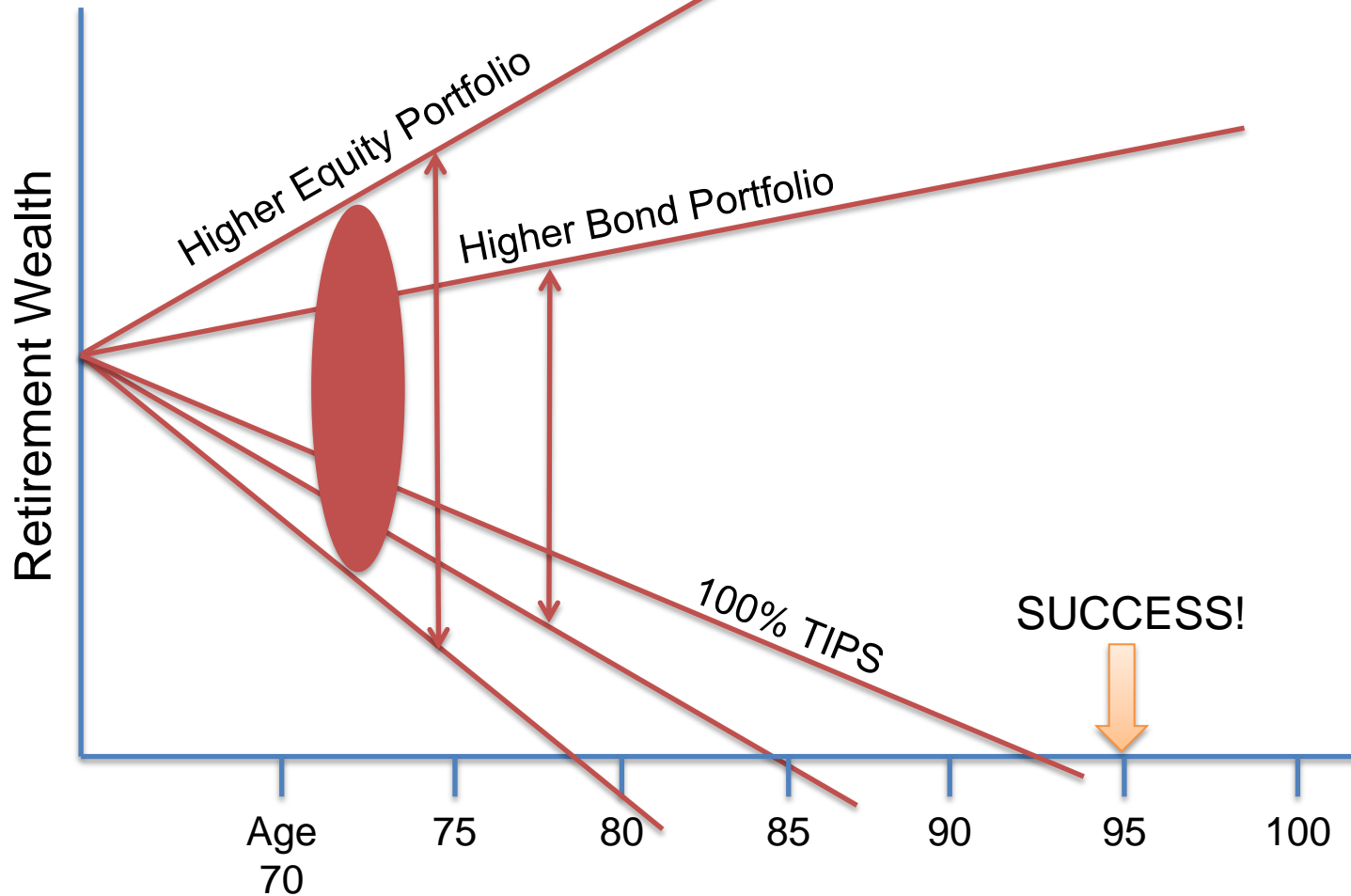
50% S&P Allocation, 50% T-Bills, Annual Rebalance, 1% Fees

Simulating Retirement Outcomes

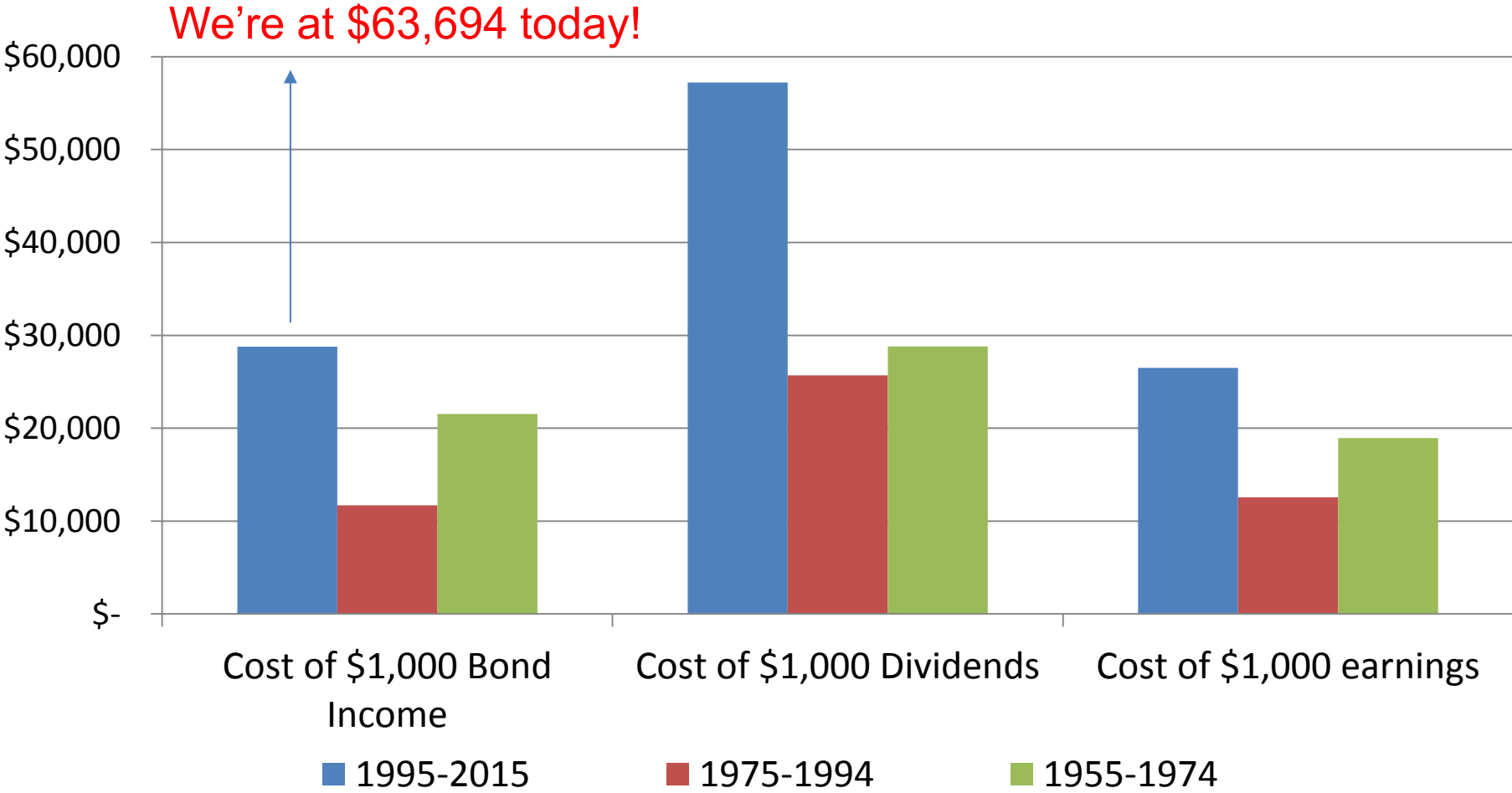


Source: Finke, 2015

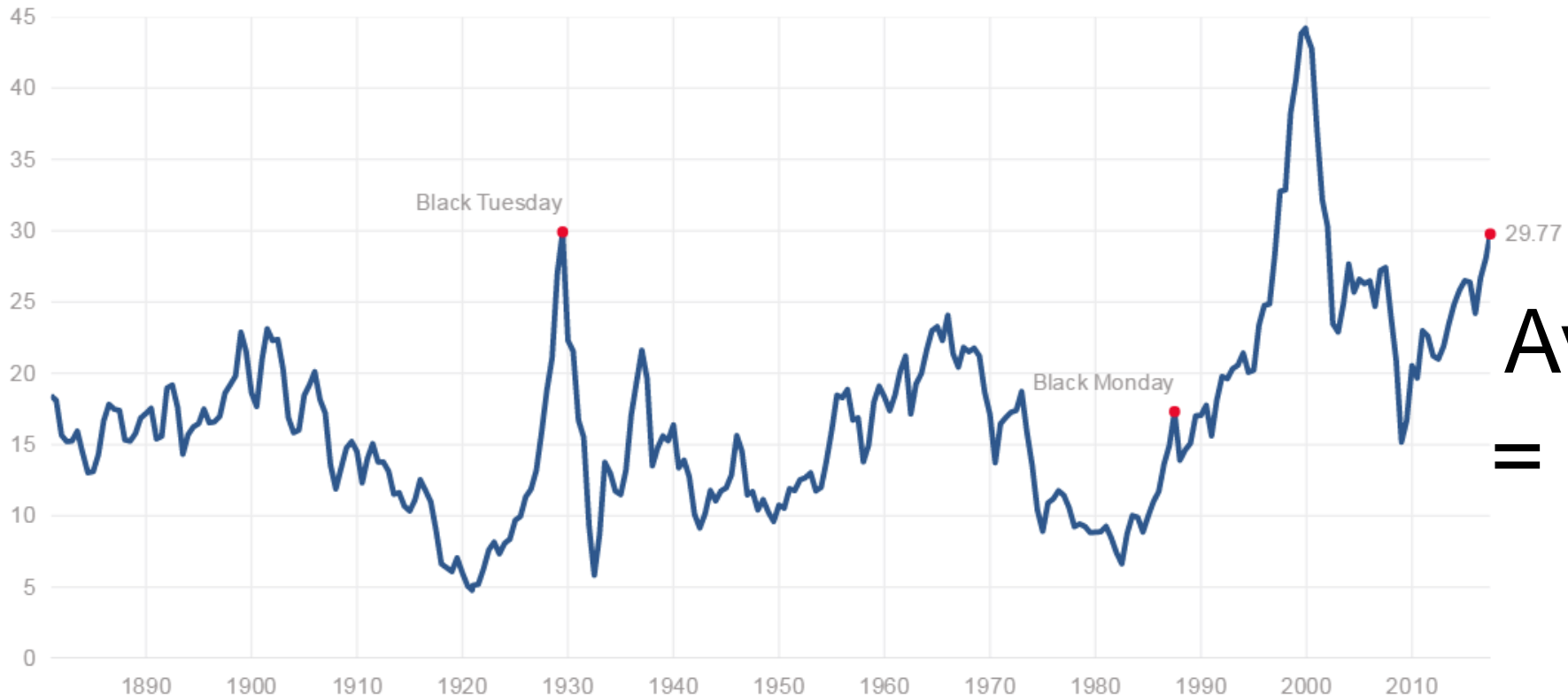
The Cone of Retirement Outcomes



Financial Assets Today are More Expensive



Equities – Shiller P/E

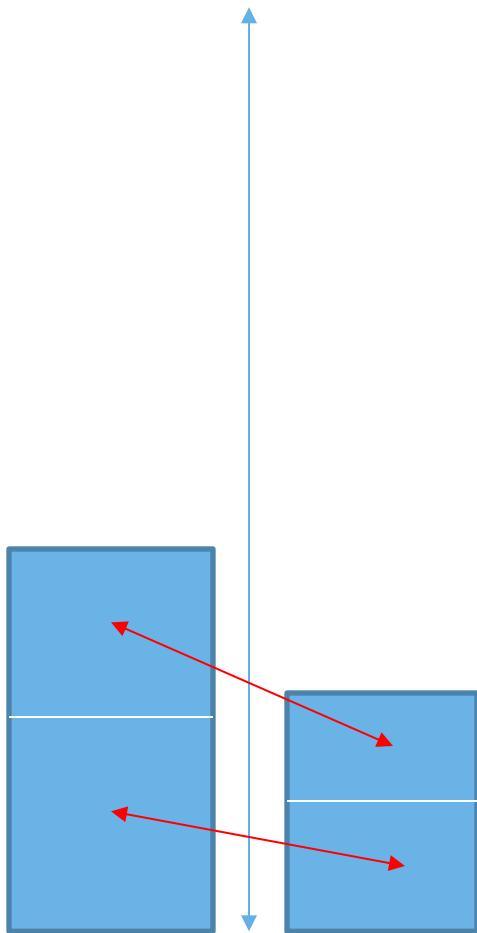


**Avg
= 16**

\$100 Stock Price

\$6.25 in
Profits
Historically
\$2.87
Reinvested

\$3.38
Dividends



\$3.44 in
Profits Today

\$1.51
Reinvested

\$1.95
Dividends

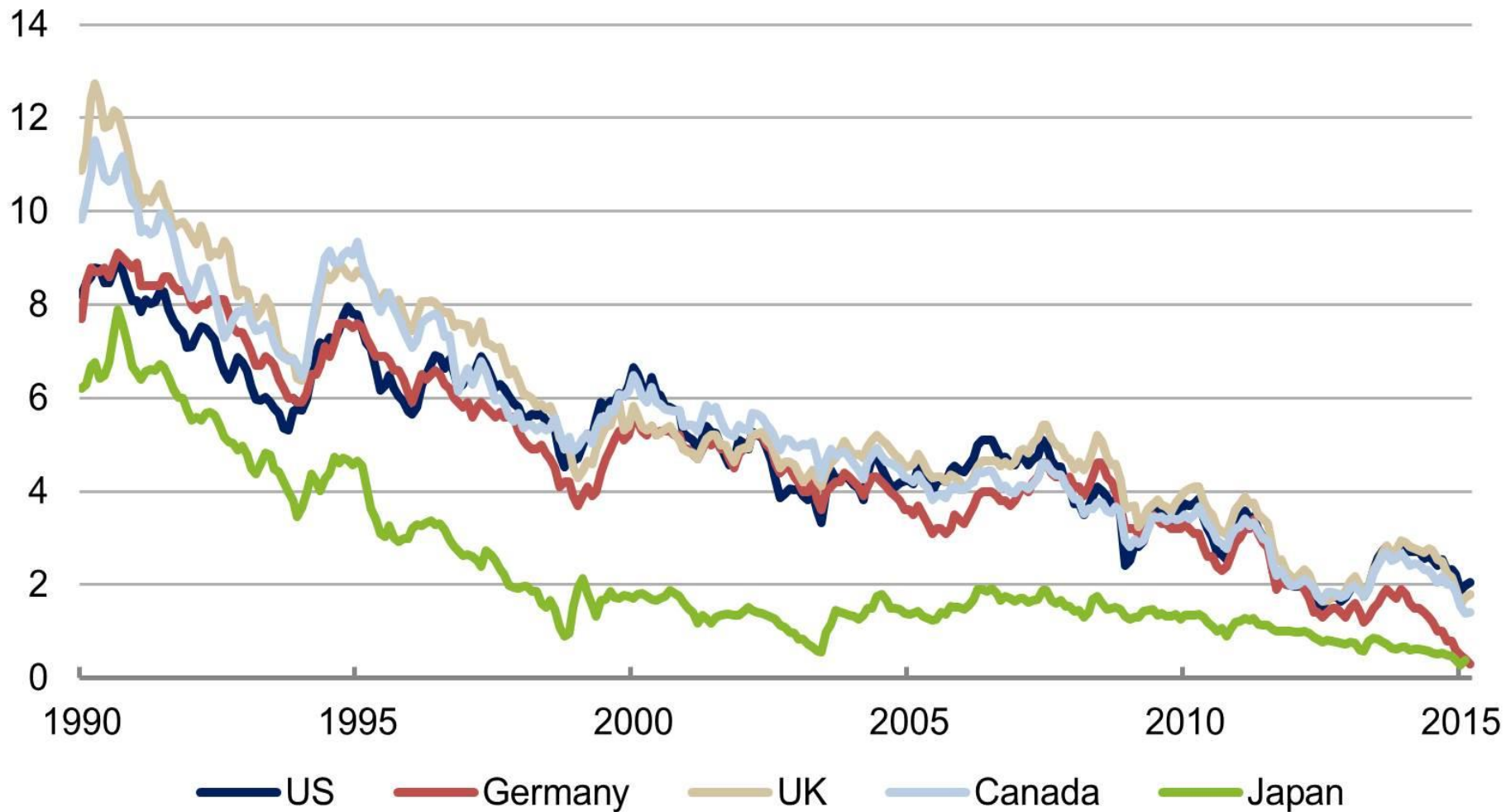
What Does Current P/E Imply?

Results For S&P 500 From Different Starting Shiller P/Es 1926-2012

Starting P/E		Avg. Real	Worst Real	Best Real	Standard
<u>Low</u>	<u>High</u>	<u>10 Yr Return</u>	<u>10 Yr Return</u>	<u>10 Yr Return</u>	<u>Deviation</u>
5.2	9.6	10.3%	4.8%	17.5%	2.5%
9.6	10.8	10.4%	3.8%	17.0%	3.5%
10.8	11.9	10.4%	2.8%	15.1%	3.3%
11.9	13.8	9.1%	1.2%	14.3%	3.8%
13.8	15.7	8.0%	-0.9%	15.1%	4.6%
15.7	17.3	5.6%	-2.3%	15.1%	5.0%
17.3	18.9	5.3%	-3.9%	13.8%	5.1%
18.9	21.1	3.9%	-3.2%	9.9%	3.9%
21.1	25.1	0.9%	-4.4%	8.3%	3.8%
25.1	46.1	0.5%	-6.1%	6.3%	3.6%

Source: *Asness, 2012*

Figure 1: 10-Year Government Bond Yields (%)



Sources: National Central Banks, Haver Analytics

BROOKINGS

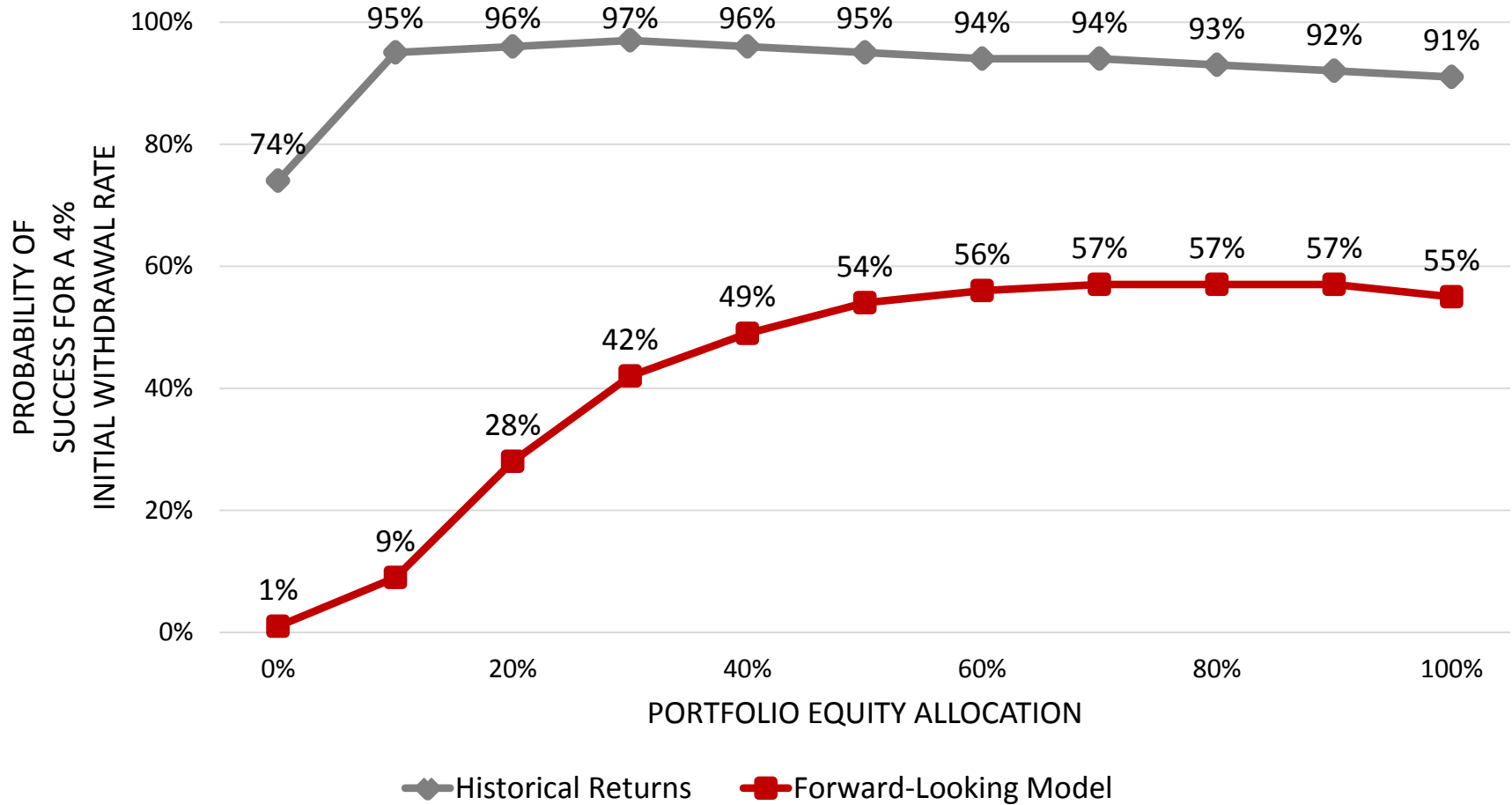
Cost of Real \$1 Annuity Income Has Doubled Since 1982



Source: Blanchett, 2016

Male Female

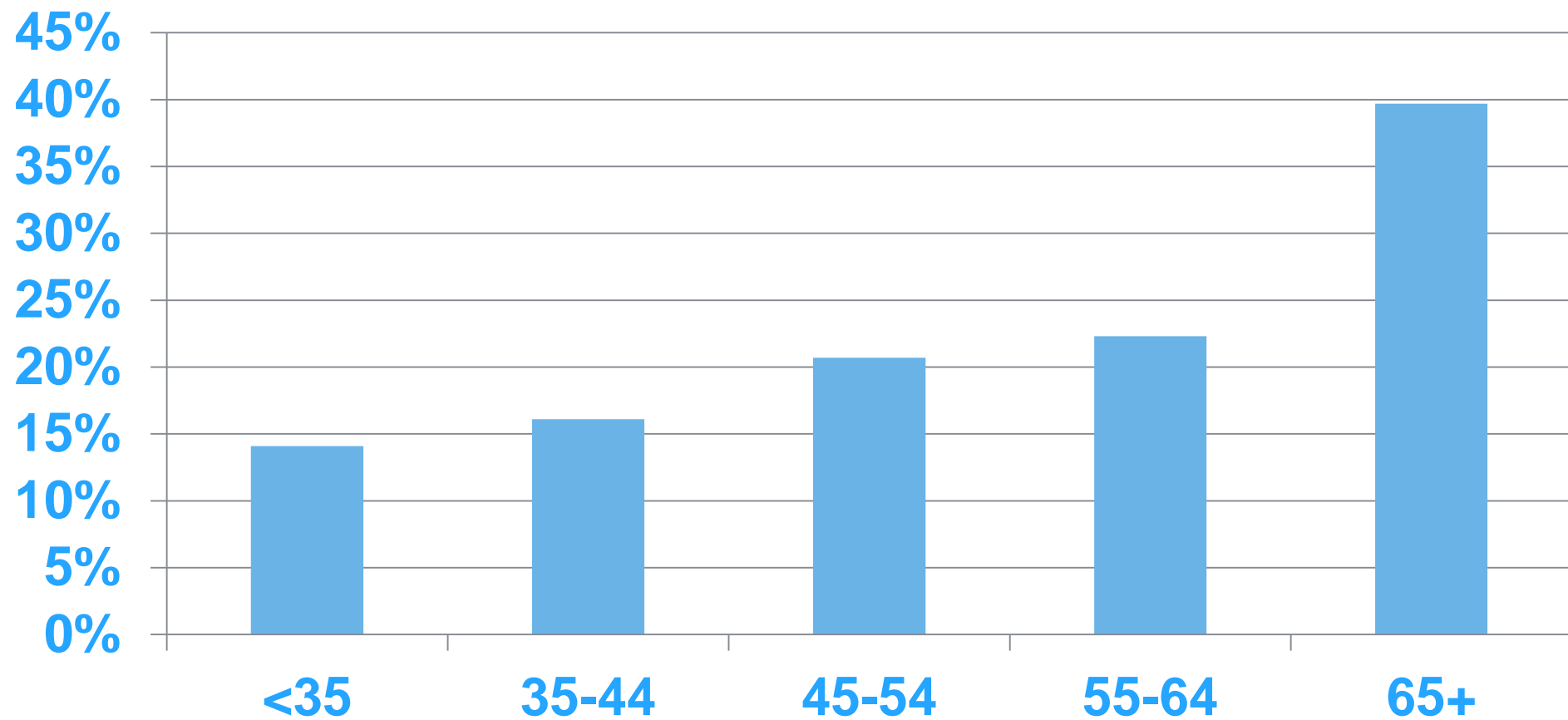
Future Return Risk is Real



Source: Blanchett, Finke and Pfau, 2015

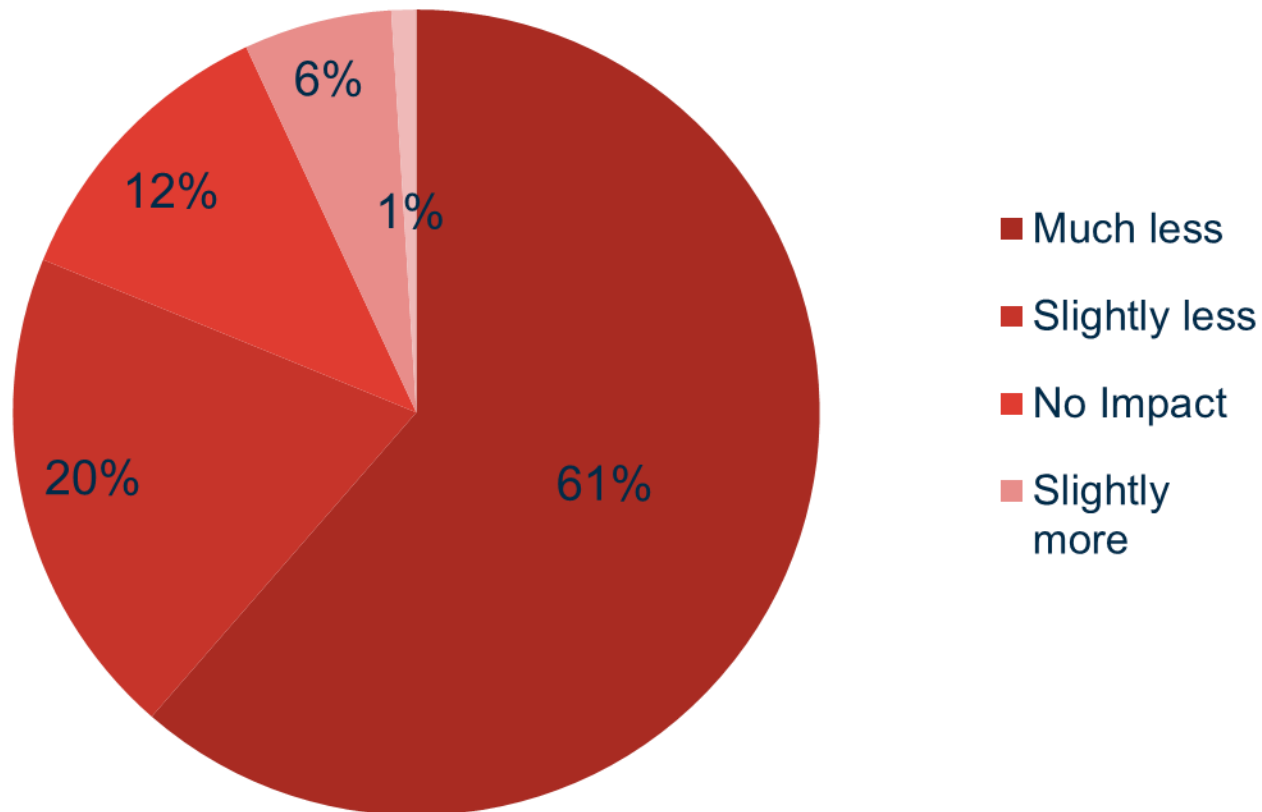
When thinking about your retirement assets, which strategy best describes your objective?

Steady income + growth



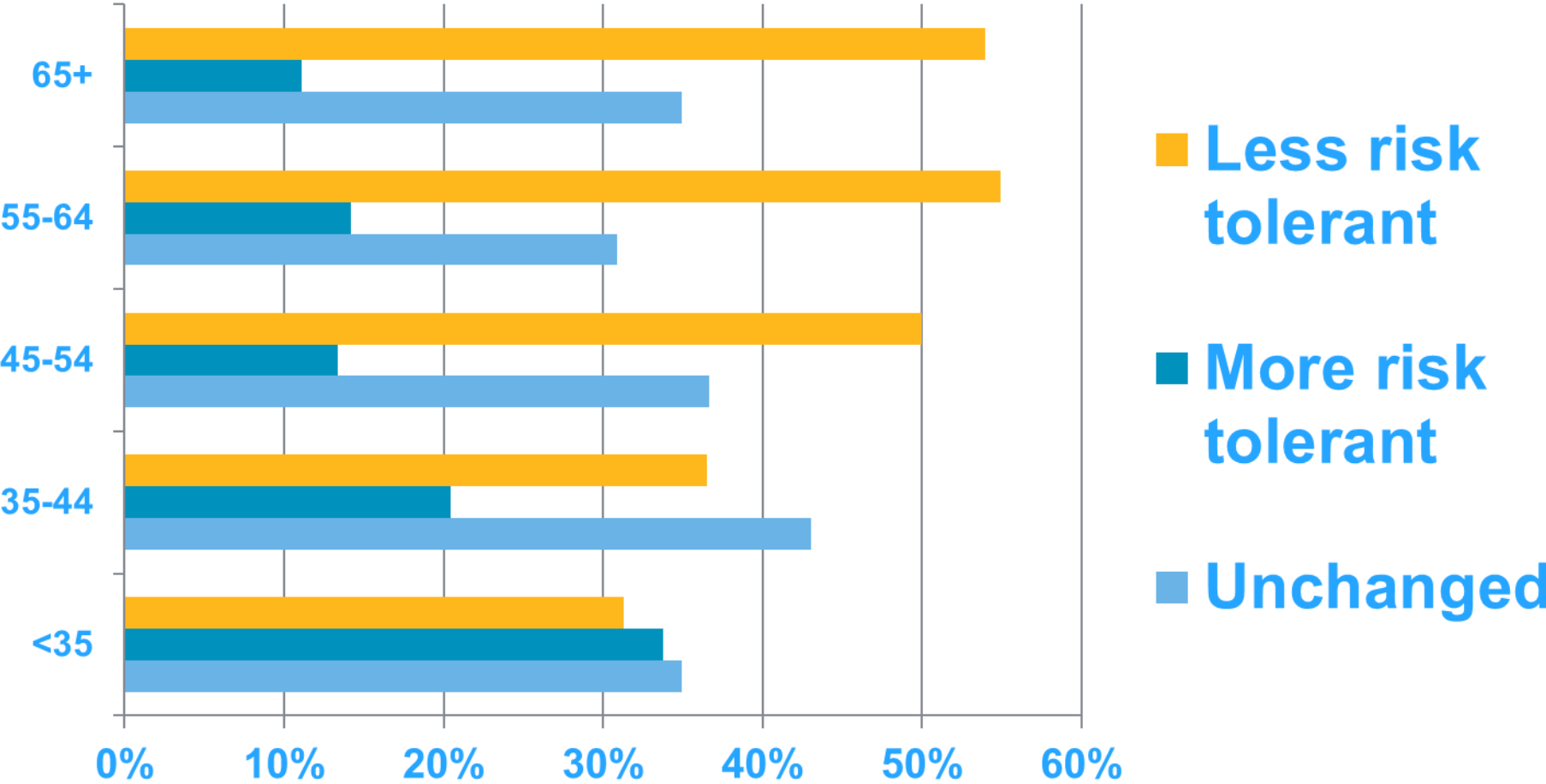
Loss Aversion with Retirement Investments

How comfortable would you feel about accepting a loss after retirement compared to before retirement?



How would you describe your change in attitude towards risk over the past year?

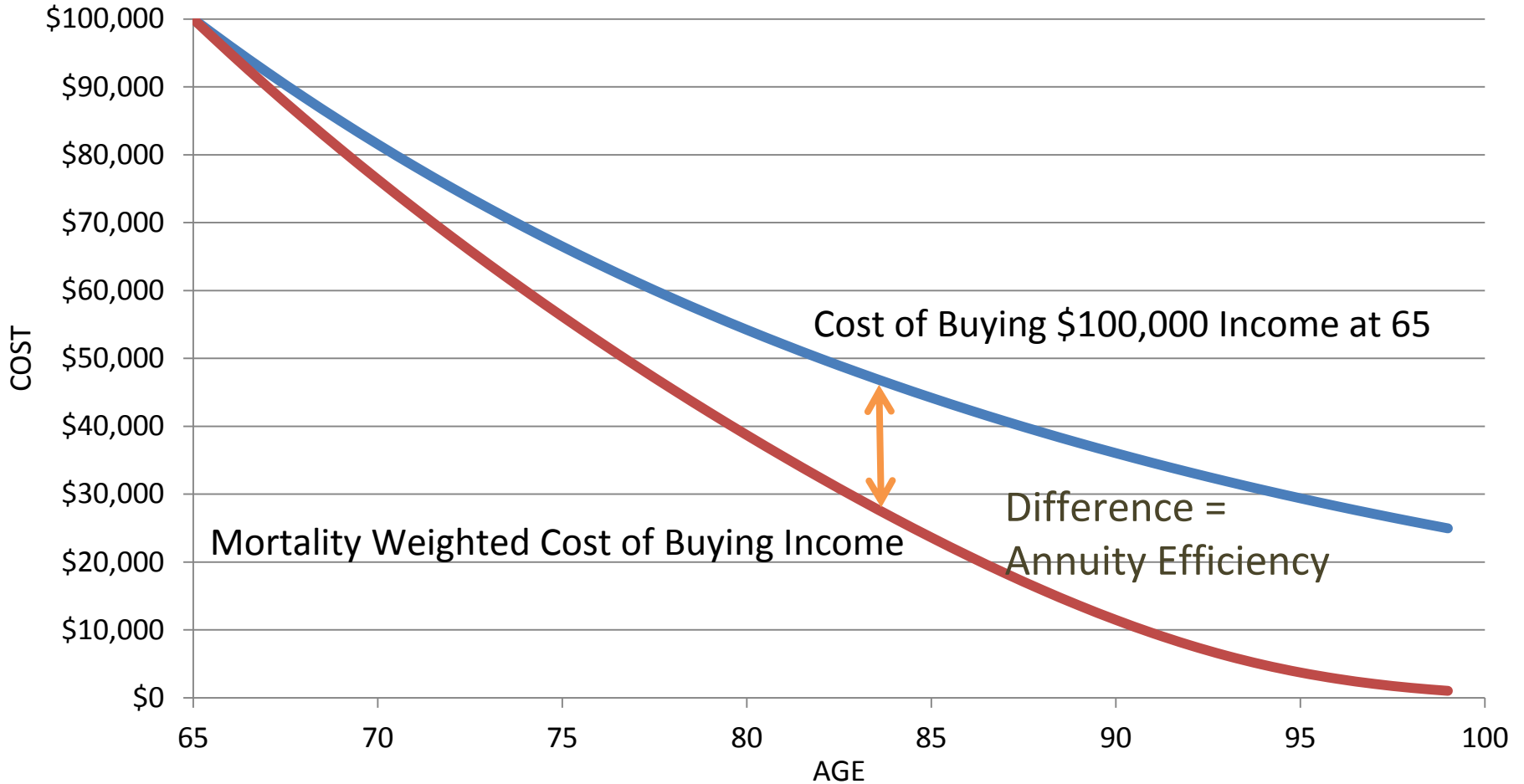
Age



Low Return Retirement Portfolio Choices

- 1) Take more risk and hope for the best
- 2) Spend a lot less (safe = 2.75%)
- 3) Start out conservative but be flexible if returns rise
- 4) Maximize net expected return on retirement investments
 - › Strategic Roth conversion
 - › Delay claiming Social Security
- 5) Find ways to increase income from safe assets

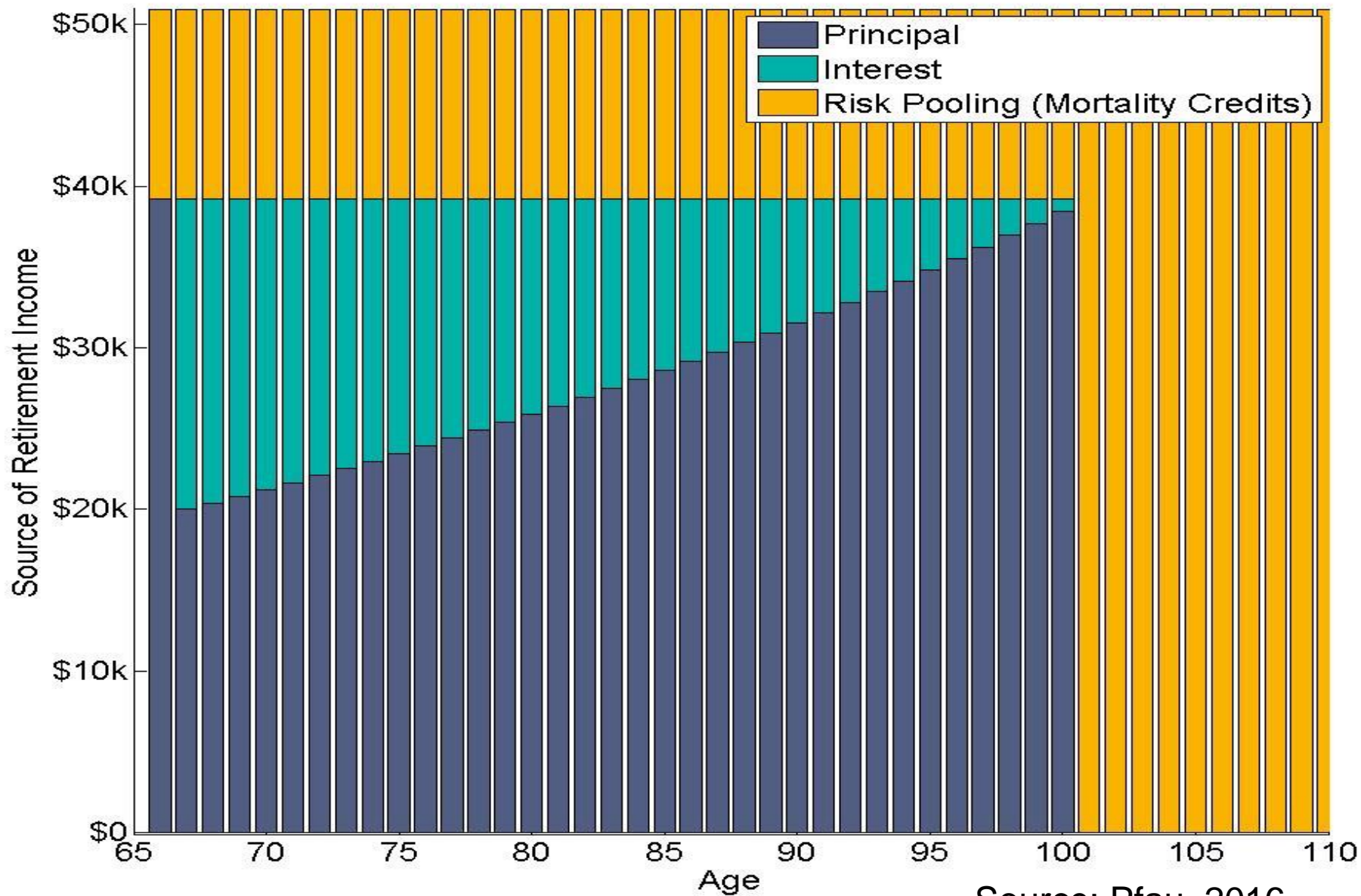
Annuity = Same Safe Income at Lower Price



Source: Finke, 2015

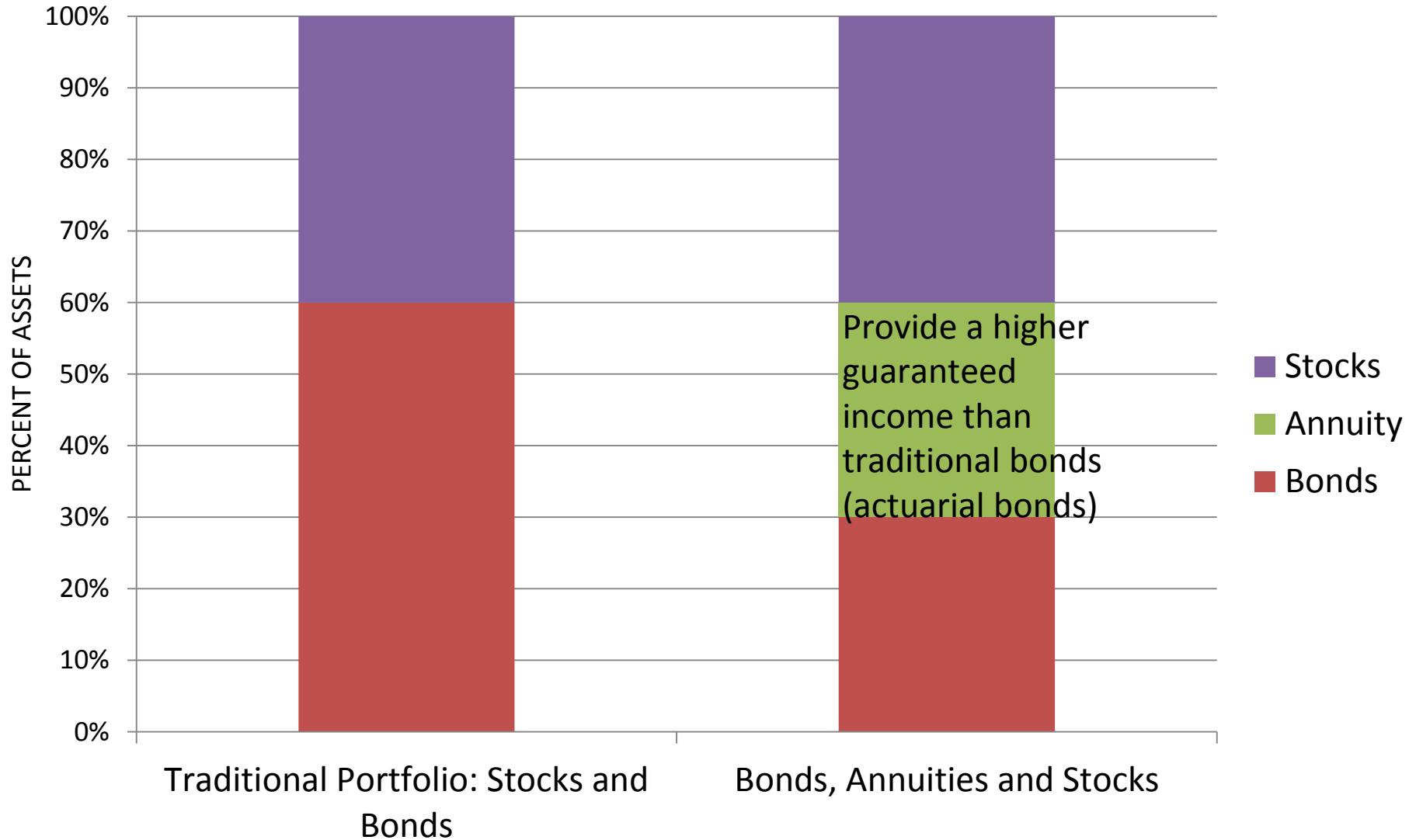
Assumes 4% Corporate Bond Rate and 2012 Society of Actuaries and American Academy of Actuaries Mortality Table

Bonds vs. Annuitization



Source: Pfau, 2016

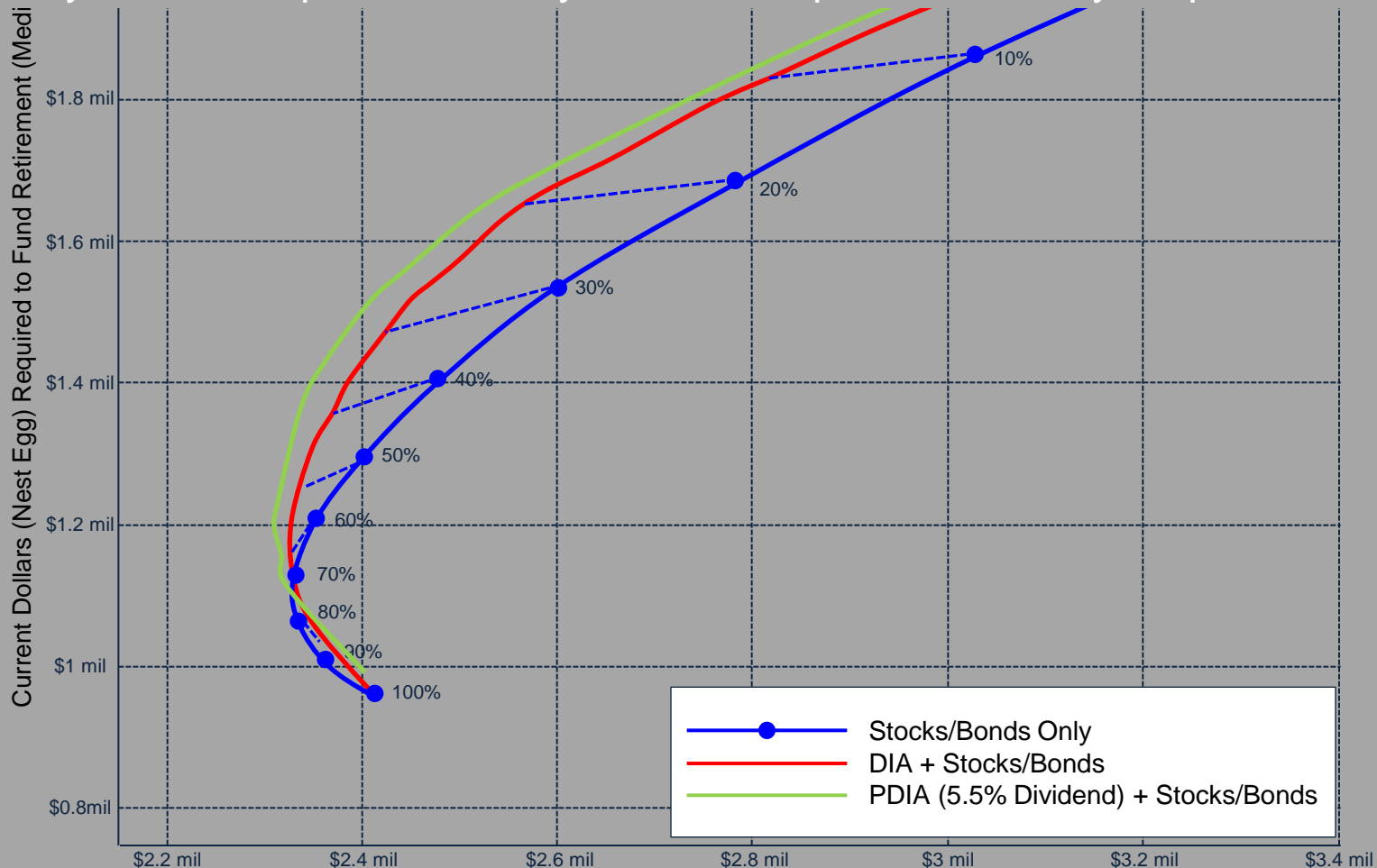
Retirement Asset Optimization



Retirement Income Frontier

Downside Retirement Cost vs. Average Retirement Cost

55-year old couple with a 10-year deferral period and 10-year period certain



Current Dollars (Nest Egg) Required to Fund Retirement (90th Percentile) = **RISK**

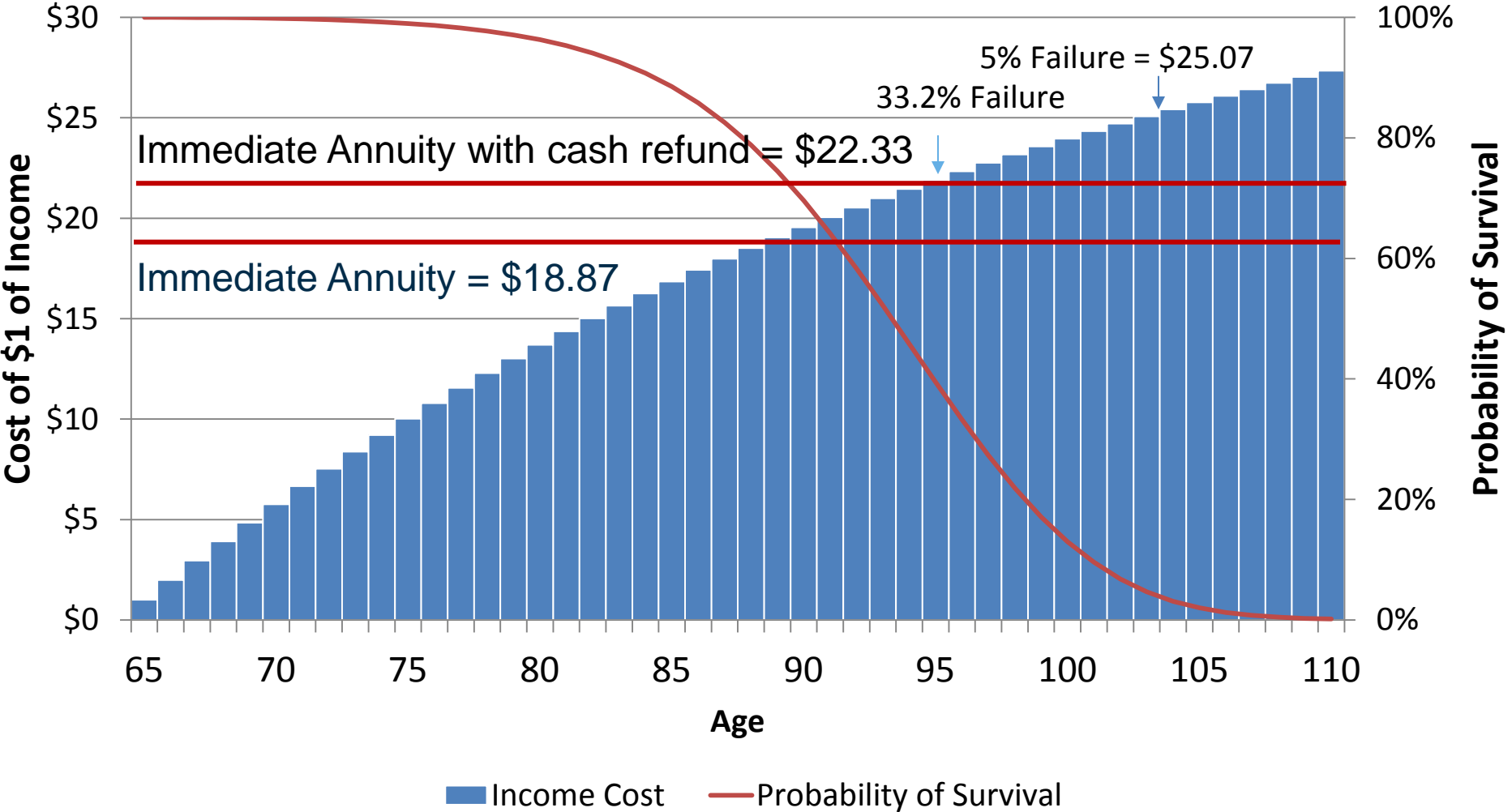
Note: Percentages in chart represent stock allocation for "Stocks/Bonds Only" asset allocations.

Source: Finke and Pfau's Northwestern Mutual Whitepaper, 2014

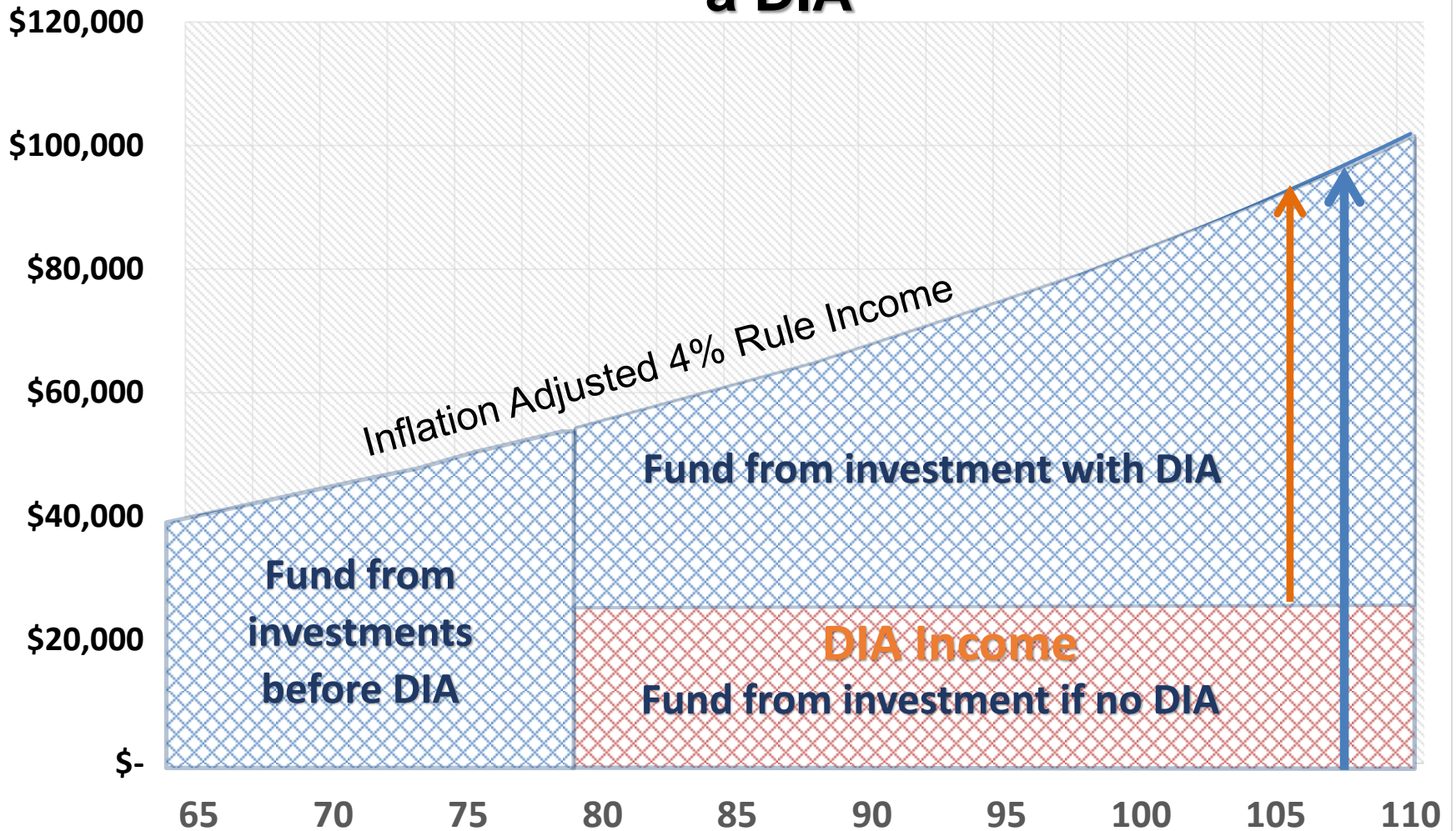
Cannex Annual Income Quotes for 65 Year Old Couple (Joint) Cash Refund Option at \$100,000

Financial Institution	Annual Income	Annual Taxable Portion
The Lincoln National Life Insurance Company	\$5,254.59	\$1,529.09
Integrity Life Insurance Company (W&S)	\$5,230.59	\$1,506.41
Forethought Life Insurance Company - A Global Atlantic Company	\$5,178.74	\$1,450.05
New York Life Insurance and Annuity Corporation	\$5,110.97	\$1,425.96
Nationwide Life Insurance Company	\$5,086.97	\$1,361.48
Principal Financial Group	\$5,080.75	\$1,392.13

Cost of Bond Ladder Income vs. Annuity



Funding Late Life Retirement Income with a DIA



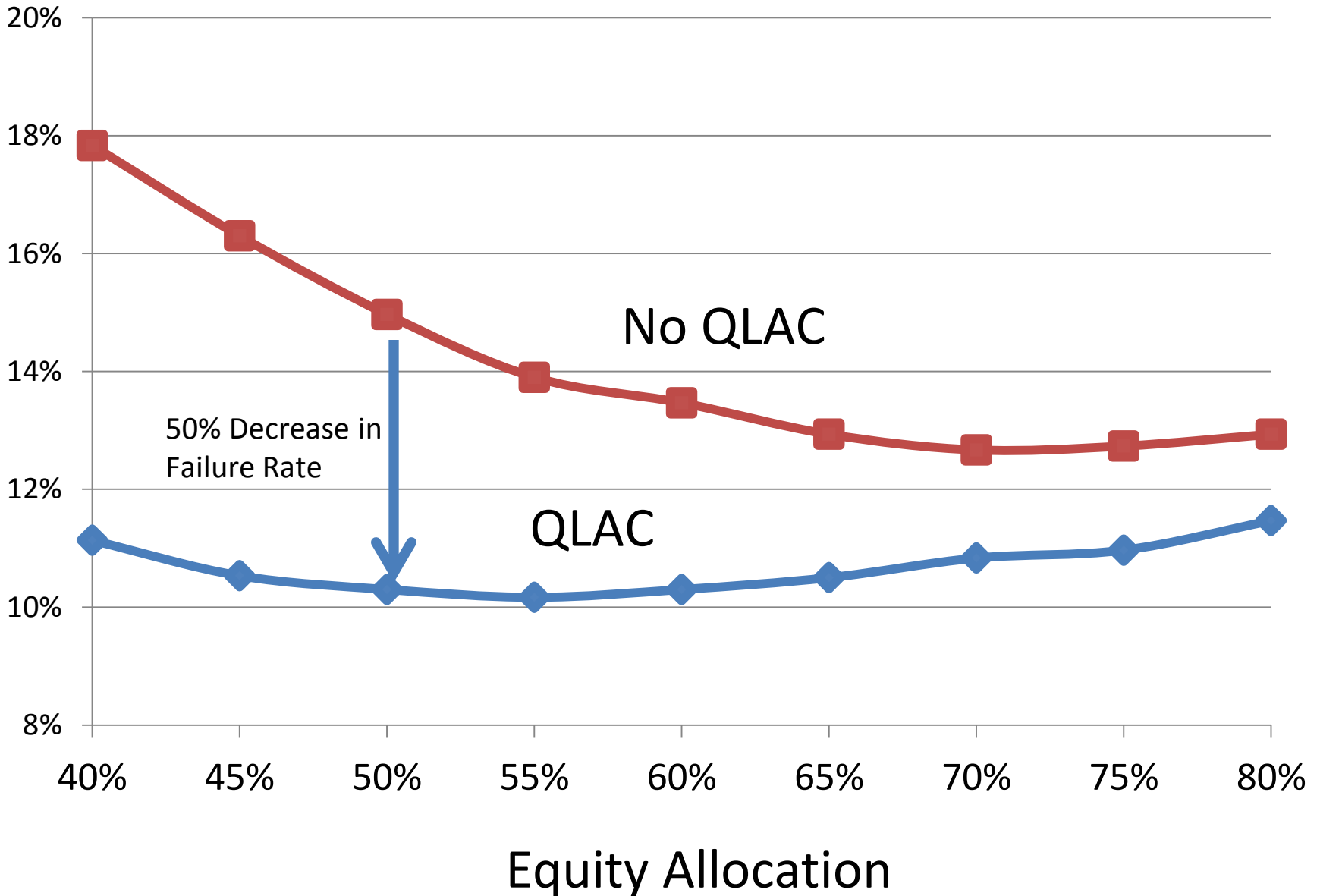
Making DIAs More Efficient: The QLAC

- Qualified Longevity Annuity Contract
- Use up to \$125,000 (or 25%) of IRA assets to purchase a DIA
- Avoid RMDs on \$125k, taxed on income when DIA begins
- Assets within DIA wrapper grow tax free between 70.5 and when the income begins

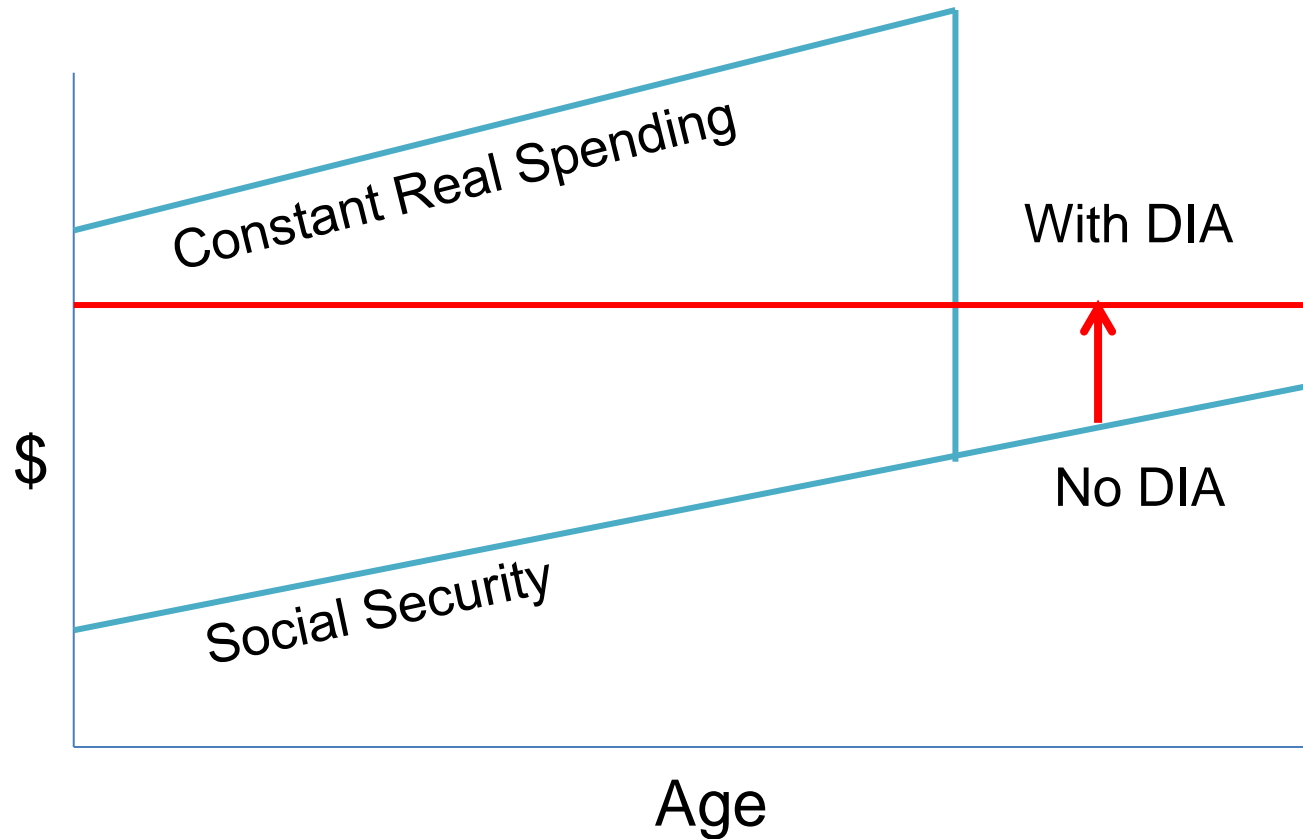


Asset Depletion in Simulated Lifetimes

Percentage of Simulation Where Client Runs Out of Money









What Happens When Assets Are Depleted?



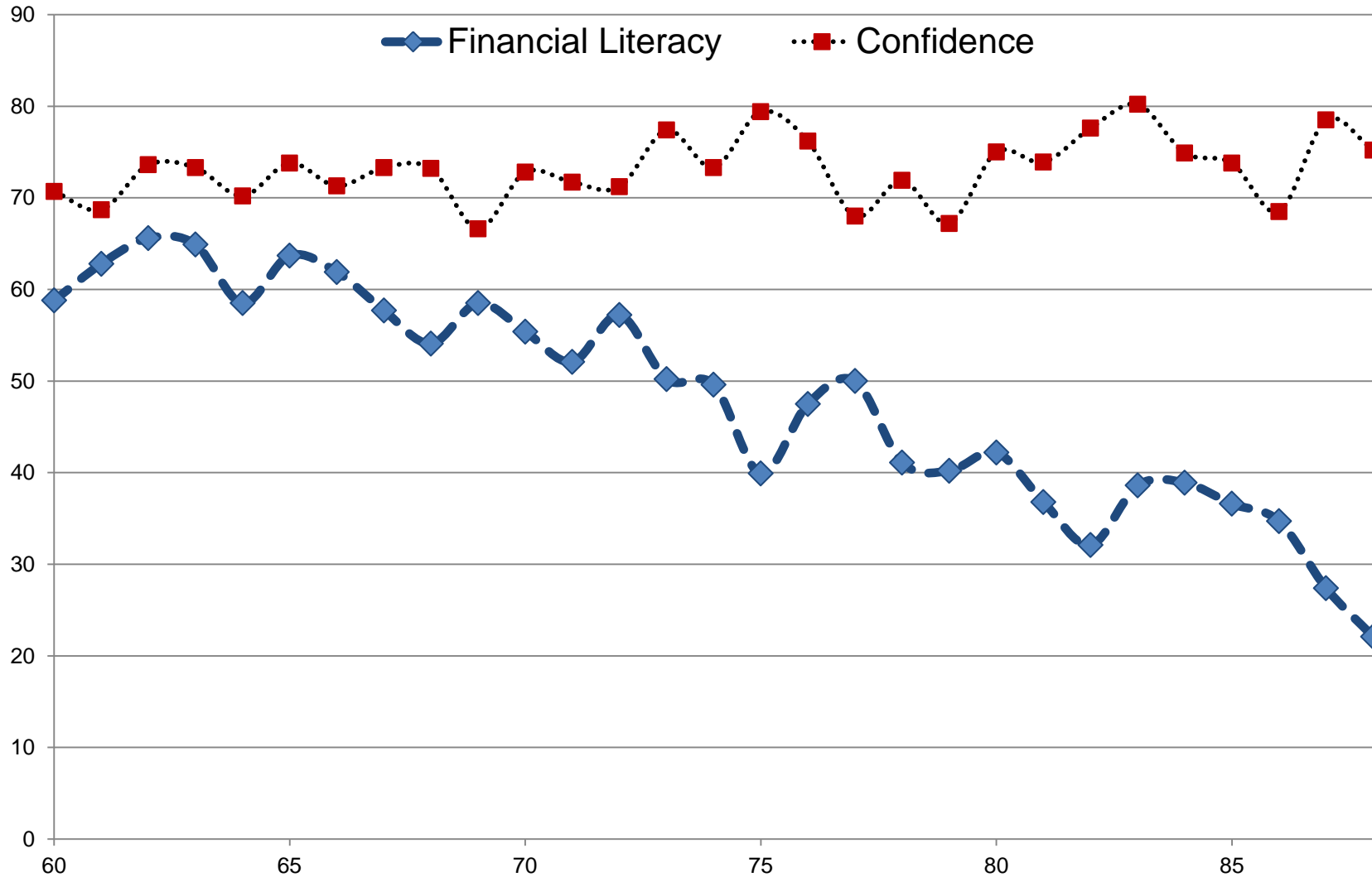
Benefit of Automating Late Life Income

Figure 2. Prevalence of Dementia in North America

60-64	0.8%		x 2.1
65-69	1.7%		x 1.9
70-74	3.3%		x 2.0
75-79	6.5%		x 2.0
80-84	12.8%		x 2.4
85+	30.1%		

Source: Ferri et al, 2006.

Financial Literacy and Confidence



Source: Finke, Howe and Huston, 2013

QUESTIONS/COMMENTS

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