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Lifetime Income from Defined Contribution Retirement Plans

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Today's Agenda

I. Summary of retirement planning environment

II. Review of current and future trends at employer-sponsored DC plans

III. Retirement income solutions and offerings are robust

IV. Evaluation methodology for retirement income generators (RIGs)

V. Stay in employer plan or IRA rollover? Pros and cons

VI. Putting it all together: Retirement income strategies

VII. Behavioral finance is next frontier in plan design

VIII. Safe harbor guidelines could be game-changer

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Today's Agenda

THE NEXT EVOLUTION IN DEFINED CONTRIBUTION RETIREMENT PLAN DESIGN

A Guide For DC Plan Sponsors To Implementing Retirement Income Programs

By Steve Vernon, FSA
Consulting Research Scholar, Stanford Center on Longevity

Stochastic analyses by Dr. Wade Pfau
Professor of Retirement Income
The American College

Fiduciary discussion by Fred Reish, Bruce Ashton, and Joshua Waldbeser
Drinker Biddle & Reath LLP

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I. Retirement Planning Environment
Three Retirement Challenges with DC Plans

1. Not enough money being contributed
   - Need 10%-20% of pay contributed consistently for 30+ years

2. Leakage due to loans, early withdrawals

3. Retirees are on their own to generate reliable, lifetime retirement income

I. Retirement Planning Environment
Retirees face substantial planning risks

- Quantifiable risks
  - Market/sequence of returns
  - Longevity
  - Withdrawal rates too high
  - Inflation
  - High fees
  - Insurer insolvency
  - Liquidity
  - Inadequate protection for surviving spouse
- Behavioral risks
  - Inadequate understanding of issues with generating income
  - Temptation to spend more today
  - Mistakes, fraud, or cognitive decline
  - Poor/biased advice
  - Inability to assess and self-execute

I. Retirement Planning Environment

Retirement planning is complicated

- Decisions on retirement income made in following context
  - Social Security claiming
  - Existence of traditional pensions
  - Deploying home equity
  - Role of continued work
  - Threat of high expenses for medical or long-term care
  - Desire to leave a legacy
  - Expected pattern of living expenses
  - Amount of debt
  - Level of income taxes

I. Retirement Planning Environment

- For many people, being asked to solve their own retirement savings problems is like being asked to build their own cars.
  - Richard Thaler, University of Chicago

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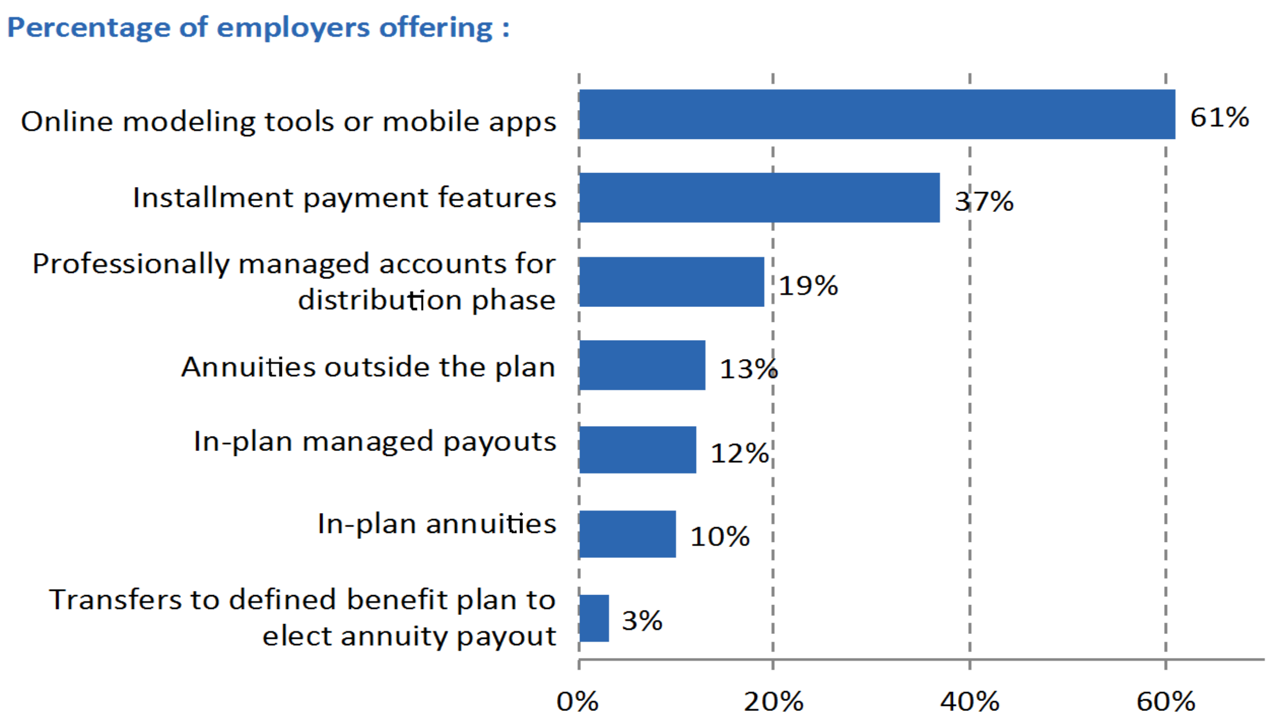
I. Retirement Planning Environment
There are distinct differences in abilities

- Segmenting the population:
  - Do it for me
  - Help me do it
  - I'll do it myself

II. Review Trends Employer-Sponsored DC Plans

Retirement income options not yet widespread in employer-sponsored DC retirement plans

Figure 2.8 Retirement Income Options Provided by Employers[12]



Source: 2013 Hot Topics in Retirement, AonHewitt

From Society of Actuaries' report: The Next Evolution in Defined Contribution Retirement Plan Design

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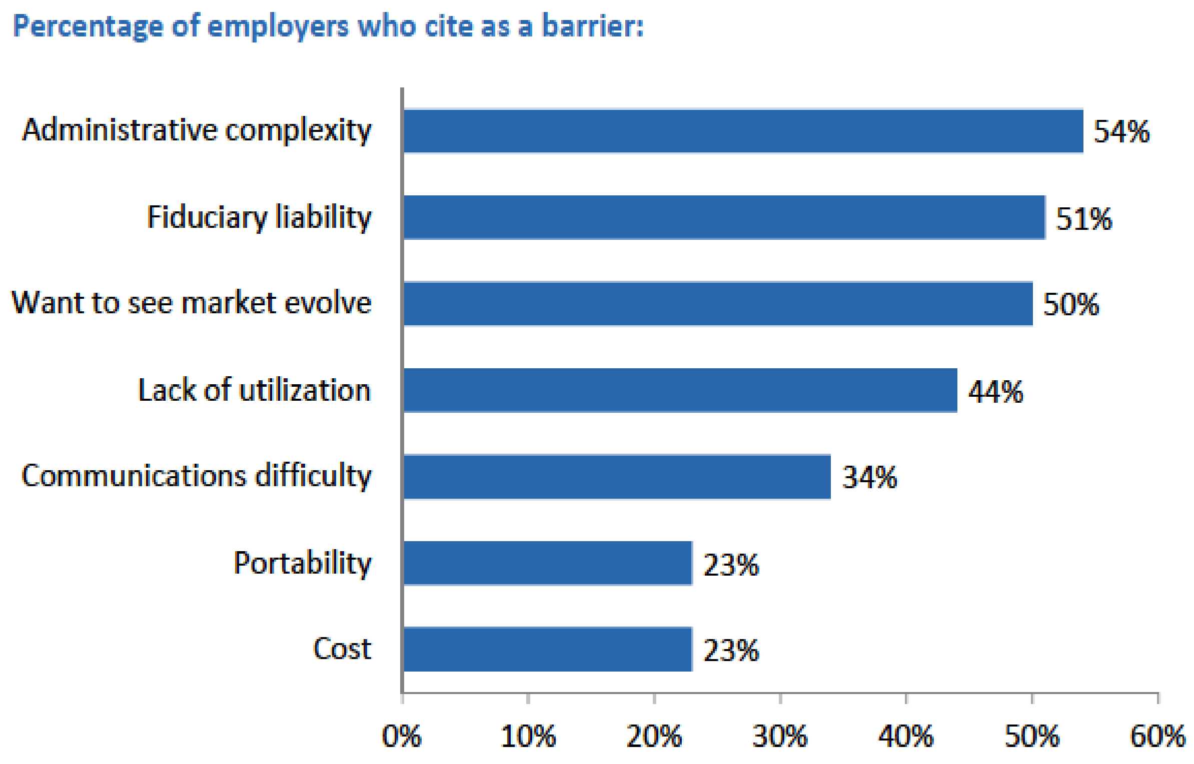
II. Review Trends Employer-Sponsored DC Plans

Employers cite barriers to retirement Income options

Figure 3.1 Barriers to Adding Retirement Income Solutions[12]



Source: AonHewitt.

III. Three Types of Retirement Income Generators (RIGs)

1. Investment income: Invest savings, spend investment income, leave principal intact

2. Systematic withdrawals: Invest savings, withdraw principal cautiously to avoid outliving principal (but no guarantee)

3. Annuity: Purchase guaranteed lifetime income from insurance company

Many possible variations and combinations with each approach

III. There Are Many Retirement Income Generators (RIGs)

Systematic withdrawals	Annuities
Constant amount, real or nominal (4% rule)	Single premium immediate annuities (SPIA)
Endowment method (constant % of assets)	Fixed deferred annuities
Life expectancy method (IRS RMD)	Variable deferred annuities
Payout over fixed period	Variable immediate annuities
	GLWB/GMWB
	Longevity annuities

III. Retirement Income Generators (RIGs) Offerings are robust

In-plan	Out-of-plan
SWPs through managed accounts: Financial Engines, Guided Choice	SPIA bidding platforms: Fidelity, Income Solutions, Schwab, Vanguard
SPIA bidding platforms: Income Solutions	Managed payout funds: Fidelity, Schwab, Vanguard
GMWB: Great-West, Pru, Transamerica	
GMWB bidding platform: AllianceBernstein	
Group immediate or deferred fixed income	
SWPs combined with deferred annuities: UBS	

IV. Analysis of RIGs

How do you choose a RIG? Evaluation Criteria

- Amount of income
- Lifetime guarantee
- Pre-retirement protection
- Post-retirement potential for increases
- Post-retirement protection
- Access to savings
- Inheritance potential
- Investment control
- Withdrawal control

IV. Analysis of RIGs
Evaluation Criteria for RIGs in DC Plans

Table 8.1 How Different RIGs Meet Various Criteria from Retiree Perspective

Criteria	Systematic withdrawals (any self-managed method)	Systematic withdrawals (advisory service or managed payout fund)	Deferred fixed income annuity	Immediate fixed income annuity	Immediate variable income annuity	Immediate inflation-adjusted income annuity	GMWB annuity
Lifetime guarantee	No	No	Yes	Yes	Yes	Yes	Yes
Preretirement protection	No	No	Yes	No	No	No	Yes
Postretirement increase potential	Yes[1]	Yes[1]	No	No	Yes[1]	Yes[3]	Yes[2]
Postretirement protection	No[1]	No[1]	Yes	Yes	No[1]	Yes	Yes
Access to savings	Yes	Yes	No	No	No	No	Yes[4]
Inheritance potential	Yes	Yes	No	No	No	No	Yes[4]
Investment control	Yes	No[5]	No	No	Yes[6]	No	Yes[6]
Withdrawal control	Yes	No[5]	No	No	No	No	Yes[7]

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IV. Analysis of RIGs
Evaluation Criteria for RIGs in DC Plans

- Simpler approach for disclosure to participants: **A-LIFE** rating system
  - **A**mount of income
  - **L**ifetime guarantee
  - **I**nflation protection
  - **F**lexibility, financial legacy
  - **E**xposure to market risk

From *Money for Life: Turn Your IRA and 401(k) Into a Lifetime Retirement Paycheck*

IV. Analysis of RIGs
Evaluation Criteria for RIGs in DC Plans

A simpler approach for disclosure to participants – systematic withdrawals

Goal	Systematic Withdrawals Cautious	Systematic Withdrawals Optimistic
Amount of initial income	○	◑
Longevity protection	◑	○
Inflation protection	●	◑
Flexibility and Financial legacy	●	◑
Exposure is minimized	◑	○

● = high or strong
◑ = medium or maybe
○ = low or none

From *Money for Life: Turn Your IRA and 401(k) Into a Lifetime Retirement Paycheck*

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IV. Analysis of RIGs

Evaluation Criteria for RIGs in DC Plans

A simpler approach for disclosure to participants -- annuities

Goal	Immediate fixed annuity	Immediate inflation-adjusted annuity	Immediate variable annuity
Amount of initial income	●	○	●
Longevity protection	●	●	●
Inflation protection	○	●	◐
Flexibility and Financial legacy	○	○	○
Exposure is minimized	●	●	○

● = high or strong
◐ = medium or maybe
○ = low or none

From *Money for Life: Turn Your IRA and 401(k) Into a Lifetime Retirement Paycheck*

IV. Analysis of RIGs
Projections of Retirement Income

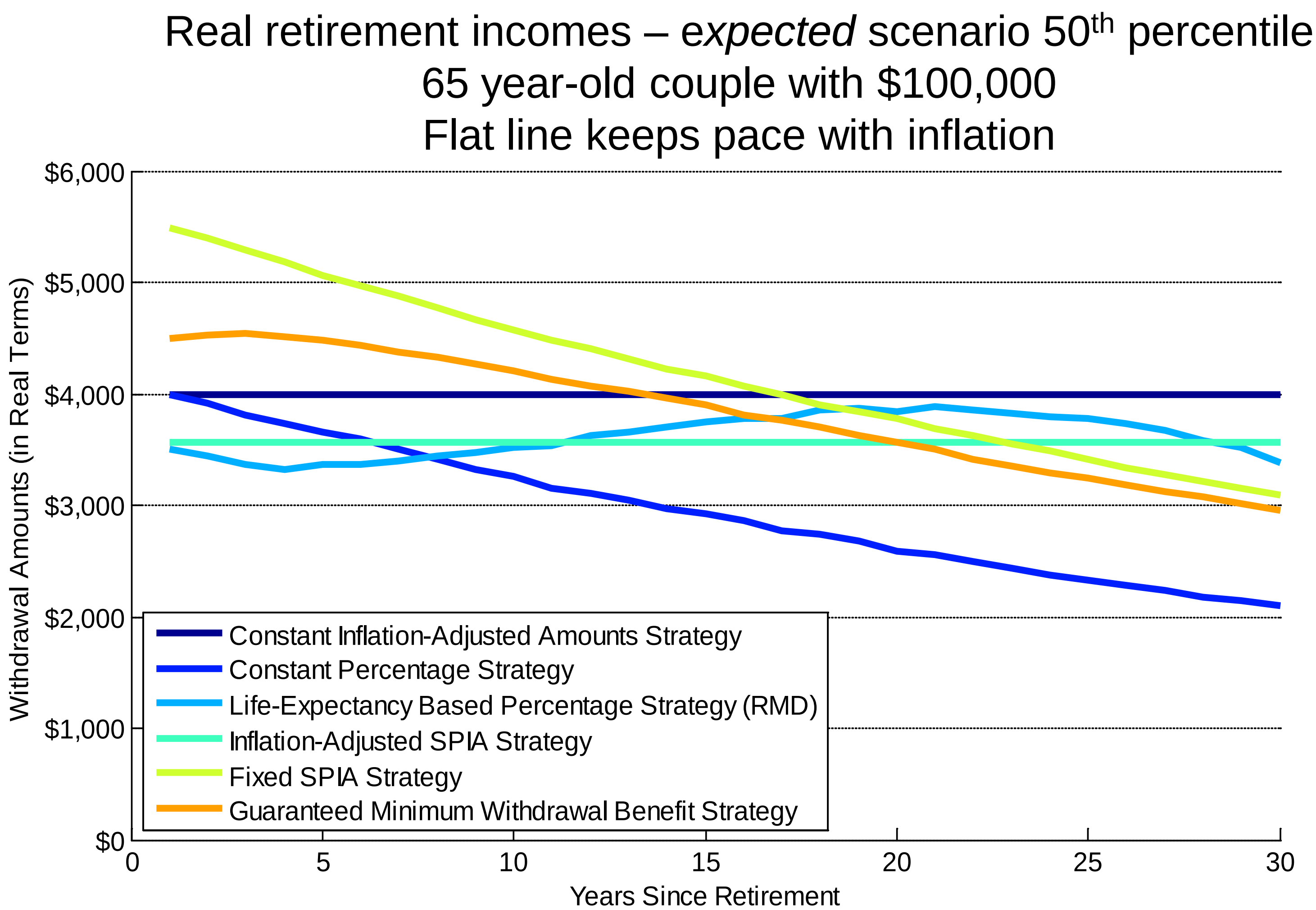
- Stochastic forecasts of:
  - Systematic withdrawals – constant amount 4% rule
  - Systematic withdrawals – constant percentage 4% of assets
  - Systematic withdrawals – IRS RMD
  - SPIA – inflation adjusted
  - SPIA – fixed
  - GMWB

- Assumptions
  - Systematic withdrawals and GMWB assume 60/40 equity/bond allocation
  - Institutional pricing
  - Assumptions on inflation, investment returns and annuity pricing reflect current low-interest environment
  - See Appendix for details

- Forecasts prepared by Dr. Wade Pfau, professor of retirement income at The American College

IV. Analysis of RIGs

RIGs produce different amounts of retirement income



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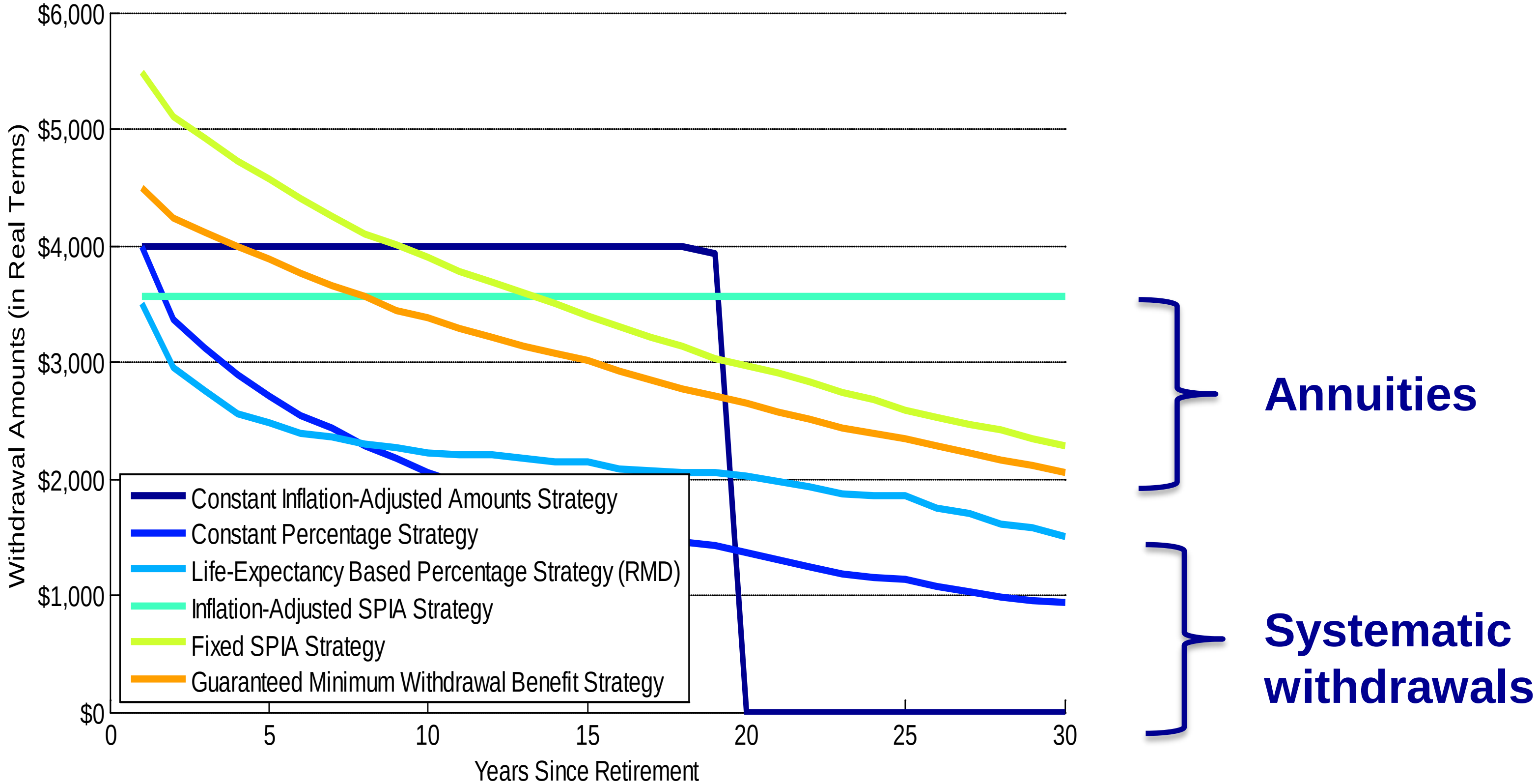
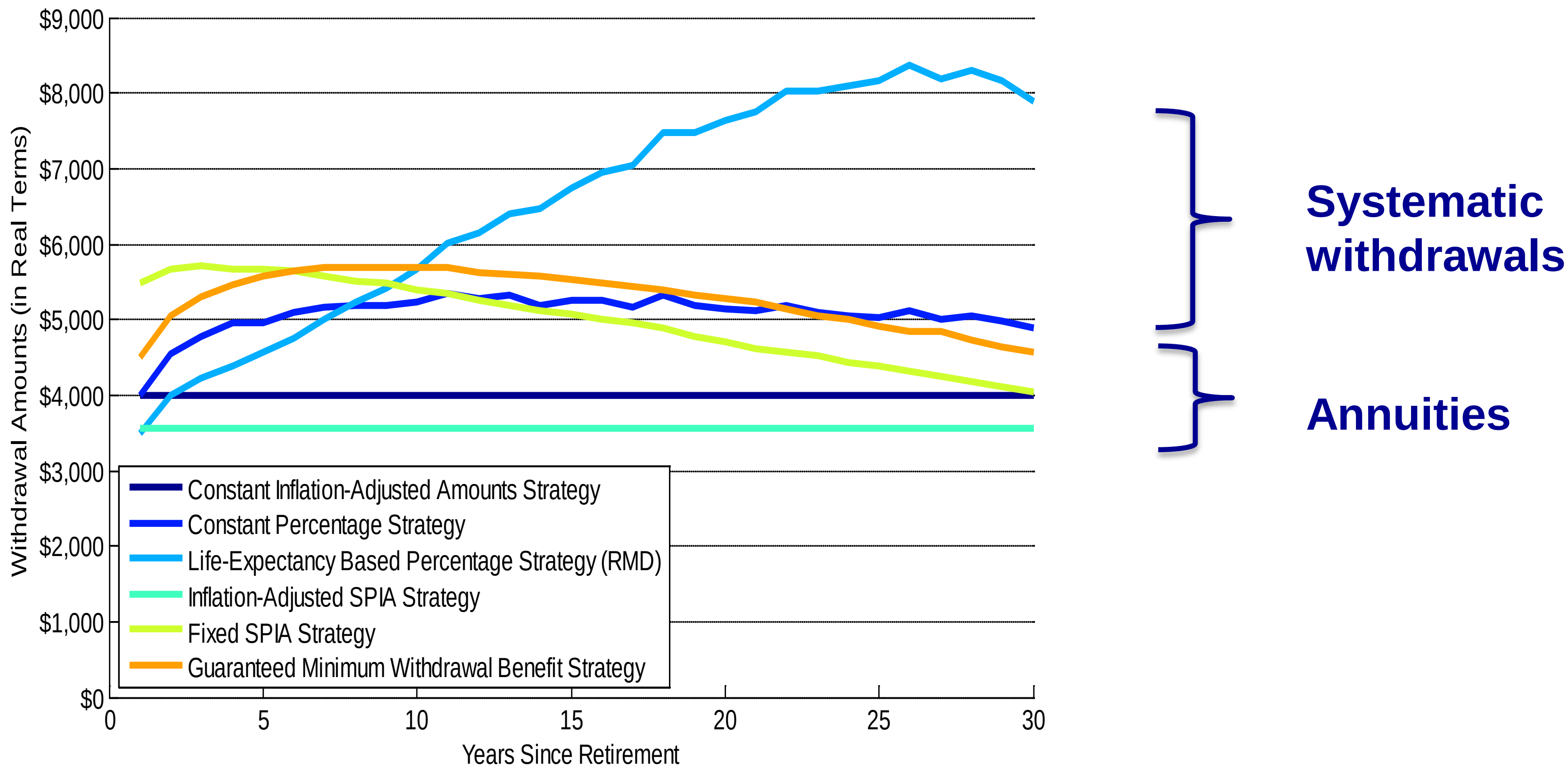
Insured Products Fare Better in *Unfavorable* Scenarios

Real retirement incomes – *unfavorable scenario* 10th percentile
Flat line keeps pace with inflation



Investing Solutions Fare Better in *Favorable* Scenarios

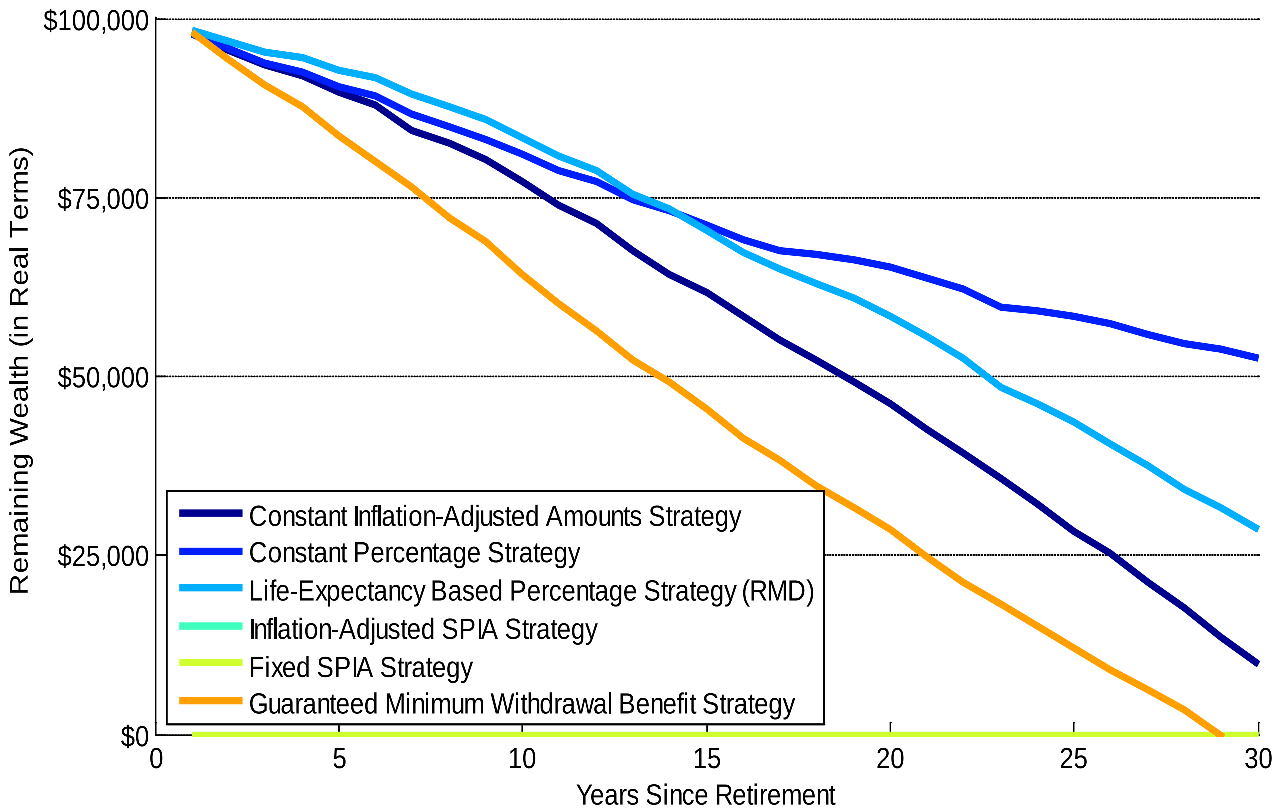
Real retirement incomes – *favorable scenario* 90th percentile
Flat line keeps pace with inflation



IV. Analysis of RIGs

Remaining/accessible wealth key part of the story

Expected scenario - 50th percentile



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V. Stay in Employer Plan vs. IRA Rollover?
Pros and cons

- Large employers may negotiate fees and performance not available on retail basis

- Examples:
  - Equity index fund with 2 bps
  - Stable value fund earning 3%/year, full liquidity
  - SPIA transaction fees of 2% with competitive bidding
  - GMWBs with insurance and investment fees totaling 150 to 200 bps

- On the other hand, small employers may have 401(k) funds with 150 bps or higher

V. Stay in Employer Plan vs. IRA Rollover? Institutional pricing can make a difference

- SPIAs: competitive bidding platform has potential to increase retirement incomes by 10% to 20%

- GMWBs: institutional pricing can produce retirement incomes 12-1/2% to 20% higher than retail

- SWPs: 50 bps vs. 150 bps
  - Constant percent and RMD can result in retirement incomes 10% higher after 10 years, 21% higher after 20
  - Four percent rule: savings exhausted 2-3 years earlier

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VI. Putting It All Together

Retirement Income Strategies

- Solutions combining SWPs and annuities may produce reasonable compromise
  - For example, cover nondiscretionary expenses by guaranteed sources of lifetime income: Social Security, pension, annuity
  - Cover discretionary expenses with SWP strategy
    - May justify higher withdrawal rate and/or aggressive asset allocation
  - Subject of next phase of analyses by Stanford Center on Longevity

VI. Putting It All Together
Retirement Income Strategies

- Use DC assets to enable delaying Social Security to age 70
  - Increase in Social Security income can be viewed as "annuity purchase" at a rate far more favorable than open market
  - Analysis by Dr. John Shoven, director Stanford Institute for Economics Policy Research, and Sita Slavov, American Enterprise Institute
  - To enable, set up SWP program to replace SS benefits that are being delayed, up to 8 years from age 62 to 70

Lump sum from DB plan may not be best choice

RIG Comparisons
How much annual income does $100,000 buy?
Age 65 Retirement

Type of RIG	Single Male	Single Female
RIG #2: Systematic w/d with 4% payout	$4,000	$4,000
RIG #3: Monthly income, Cash Balance Plan	$7,870	$7,870
RIG #3: Annuity purchase, fixed income	$6,458	$6,006

Notes:

- Amounts shown are for single life annuities.
- Comparisons similar for joint and survivor annuities.

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VII. Behavioral Finance is the Next Frontier in Plan Design

- Few distinct choices are best
- Include both emotional and rational messaging
- Powerful factors are loss aversion, framing, endorsement effect
- The default is powerful and never neutral
- Remove barriers and make it easy to implement
- Individual differences matter

VIII. Safe Harbor Guidelines Could Be a Game-Changer

- Analogous to 404(c) regulations on investment options
- Plan sponsors not liable for losses resulting from participant’s retirement income decisions if they comply with safe harbor design
- Provide three distinct retirement income options with materially different characteristics
  1. Systematic withdrawal intended (but not guaranteed) to last for life
  2. Annuity guaranteed to last for life
  3. Period certain payment (to enable delay of Social Security benefits)
- Allow participants flexibility to split money among different options
- Provide opportunity for participants to obtain enough information to made educated decisions
  - Disclosure similar to **A-LIFE** rating system

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DISCUSSION

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Appendix: Assumptions for Stochastic Forecasts
Institutional Pricing

Table C.1. Assumptions Used for Stochastic Forecasts

	Real Returns			Correlation Coefficients		
	Arithmetic Mean	Geometric Mean	Standard Deviation	Stocks	Bonds	Inflation
Stocks	5.1%	3.1%	20.0%	1.0	0.1	-0.2
Bonds	0.3%	0.2%	7.0%	0.1	1.0	-.6
Inflation	2.1%	2.0%	4.2%	-0.2	-0.6	1.0

Annuity purchase rates as percent of assets:

- 5.49% fixed SPIA
- 3.57% inflation-adjusted SPIA
- 4.50% GMWB

For 100% J&S, both age 65

SWP investment expenses: 50 bps
GMWB investment and insurance expenses: 150 bps

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