

# What Makes Annuitization More Appealing?

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# Annuitization: motivation

- Decline in annuitization provided by pensions
  - Private plans: dramatic decline in DB prevalence
  - State and local govt plans: modest decline, more likely on the way
  - Fairly high cash-out rates from DB pensions
  - Very little annuitization in DC plans (although much discussion about it)
- COLAs in pensions and annuities
  - Not common in private sector DB plans
  - Very prevalent in public sector DB plans
  - Private annuities (SPIA): almost none are sold with either COLAs or graded payments

## Our broad research agenda

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- Why don't people seem to want/choose/value annuities?
  - Economic barriers
  - Psychological barriers
  - Biases in choice architecture (DB and DC)
- What can be done to make annuities more appealing?
  - Product design
  - Choice architecture
- Current paper: conduct and analyze an internet survey on hypothetical choices
- Future work: data on actual choices in DB and DC settings

## Key findings in this paper

- What do people say is important?
  - Obstacles: loss of flexibility/control, counterparty risk
  - Motivations: ensure late life income
- Allowing/highlighting partial annuity option increases annuitization
- Slopes and COLAs
  - Individuals do not want declining real income paths
  - Highlighting inflation increases COLA take-up rates
- Framing influences choices
  - Flexibility and control
  - Investment
- Substantial demand for annuities with bonus payments

# Outline

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- Description of our surveys
- Motivations and obstacles to annuitization
- Partial annuitization
- Slopes and COLAs
- Framing and annuitization
- Bonuses
- Summary, implications, and next steps

# Design and implementation of our two surveys (S1 and S2)

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- Internet surveys
  - Panel provided by Toluna
    - U.S. residents, aged ~ 50-75
    - Paid for participation
    - Number of respondents: 1000 (S1), 4000 (S2)
    - Time periods: August 2011 (S1), June 2012 (S2)
- Survey design
  - 20 questions
  - Median completion time: 13 minutes (S1), 7.6 minutes (S2)
  - Presented hypothetical situations
  - Asked which factors were important to them
  - Demographic questions

# Advantages and disadvantages of using an internet survey on hypothetical choices

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- Advantages
  - Can examine taste for products that are not currently available in the market
  - Can ask people about economic environments different from the current one
- Disadvantages
  - Life outcomes do not actually depend on choices
  - Survey responses may consequently not correspond to what people would choose in real life

## What the participants were told (Survey 1)

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- Just before you retire at age 65, you are working for a company that will give you pension payments every month for the rest of your life after you retire.
- This income is guaranteed, but the payments will stop when you die.
- You will also receive Social Security benefits every month for the rest of your life after you retire.
- The company lets you choose between retirement income options. The total cost to the company of providing these lifetime payments to you is expected to be the same under each option.



## What the participants were told (Survey 2)

- Suppose that you are 65 years old. You are about to retire and have accumulated \$500,000 in the pension plan at your current employer.
- Your employer wants to know whether you prefer to receive this balance as a lump sum payment right now (in other words, a single \$500,000 payment) or as a stream of fixed payments over your lifetime, which your employer calls the guaranteed lifetime income option.
- This stream of fixed payments is based on current market interest rates. The fixed payments won't change in the future even if market interest rates do change.

# Survey questions and treatments

- Questions
  - How much to annuitize
  - Slopes and COLAs
    - Choice between different payout slopes (survey 1)
    - COLA take-up (survey 2)
  - Reasons behind choices
  - Demographics
- Treatments
  - Product design
    - “All or nothing” vs. partial annuitization (S2)
  - Framing
    - Changing the language used to describe the annuity (S2)

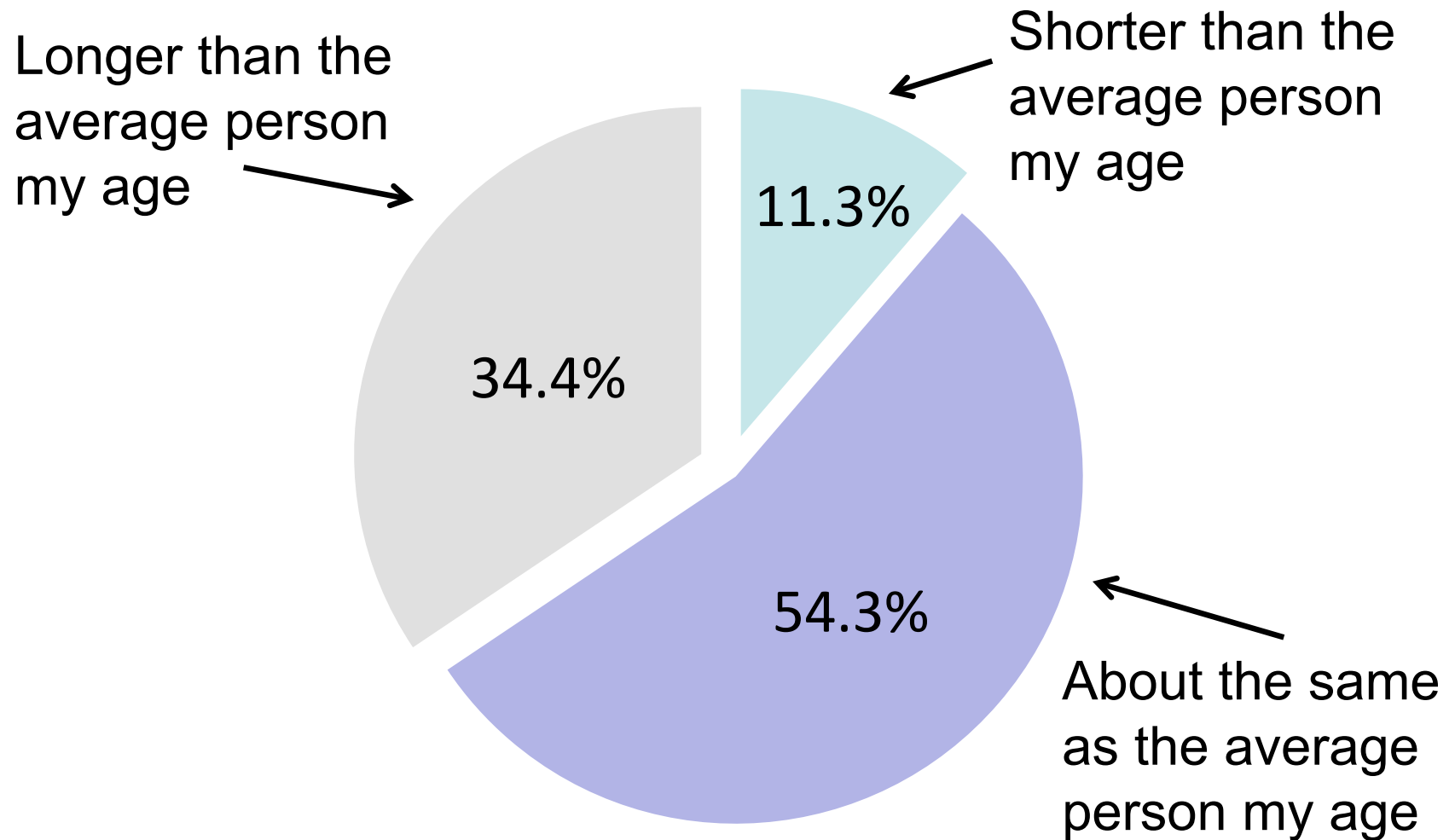
## Demographics (S1: Inflation Only, S2: Full Sample)

Demographics similar across all treatment arms in both surveys

Category	Survey 1	Survey 2
Age (mean)	59.5	59.6
Male (%)	50.2	49.7
Married (%)	55.4	54.5
# of Children	2.1	2.0
Retired (%)	35.6	40.3
Existing Pension (%)	39.3	37.6
Own Home (%)	70.4	69.5
Net Worth		
Median	\$165,000	\$150,000
Mean	\$257,619	\$248,598
Sample Size	1,000	4,130

Category	Survey 1	Survey 2
Education (%)		
< High School	1.9	1.7
High School	22.9	23.8
Some College	35.0	35.8
College	27.1	26.6
> College	12.8	11.8
Missing	0.3	0.3

## Life expectancy: “How much longer do you expect to live?”



- Note: Those reporting shorter than average life expectancies have significantly lower annuitization rates

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## Rate the importance of the following reasons for your choices between the lump sum and guaranteed income payments

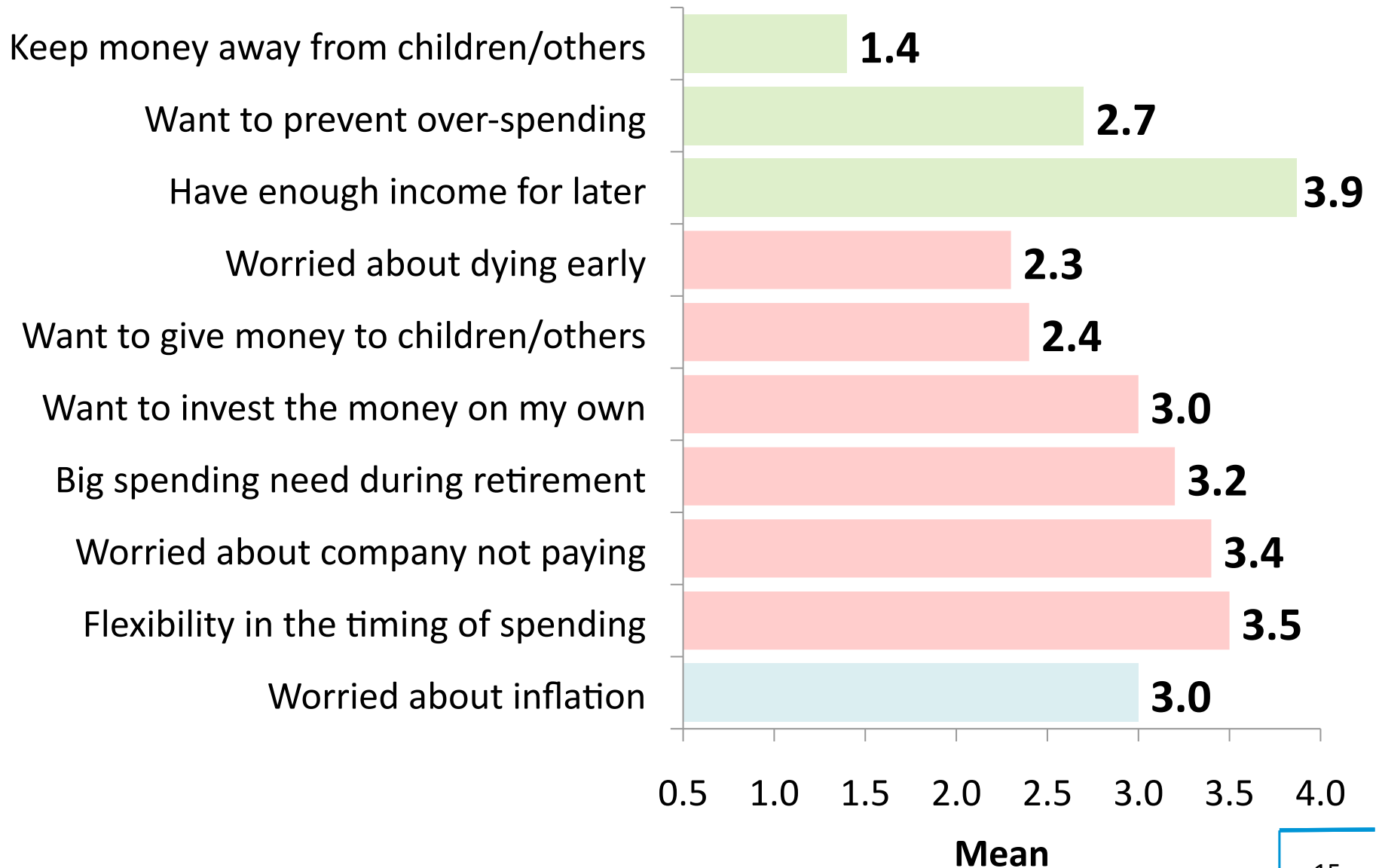
- Want to invest the money on my own
- Want flexibility in the timing of my spending
- I might have a big spending need sometime during retirement
- Want to give money to children or others
- Worried about dying early
- Worried about inflation
- Worried about company not being able to pay me in the future
- Want to prevent overspending
- Want to keep money away from children or others
- Want to make sure I have enough income for later
- Other (Please Specify)

0 (Not Important)	1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Motivations

and

## Obstacles



## Motivations and Obstacles: Take-aways

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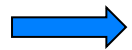
- People indicated the following were important:
  - Motivations
    - Ensuring late life income (not outliving resources)
  - Obstacles
    - Loss of flexibility and control
    - Counterparty risk



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# Treasury proposal to encourage partial annuitization

RETIREMENT PLANNING | February 2, 2012, 5:29 p.m. ET

## Feds Disclose New 401(k) Rules

By ANNE TERGESEN

THE WALL STREET JOURNAL.  
WSJ.com

“A ... Treasury proposal would ... encourage the use of partial annuities in traditional defined-benefit pension plans. Rather than choose between taking a lump sum or an annuity upon retirement, ‘employees might prefer to take some of each,’ said a Treasury official.”

## Mark Iwry: Bringing Annuities to 401(k)s

Bloomberg  
Businessweek

By Ben Steverman on April 17, 2012

“If framed as an all-or-nothing choice, too often people pick the lump sum. We’re trying to encourage plans to get away from an all-or-nothing ‘choice architecture.’ ”

Mark Iwry, Deputy Assistant Secretary for Retirement and Health Policy, U.S. Treasury Dept, BusinessWeek, April 2012

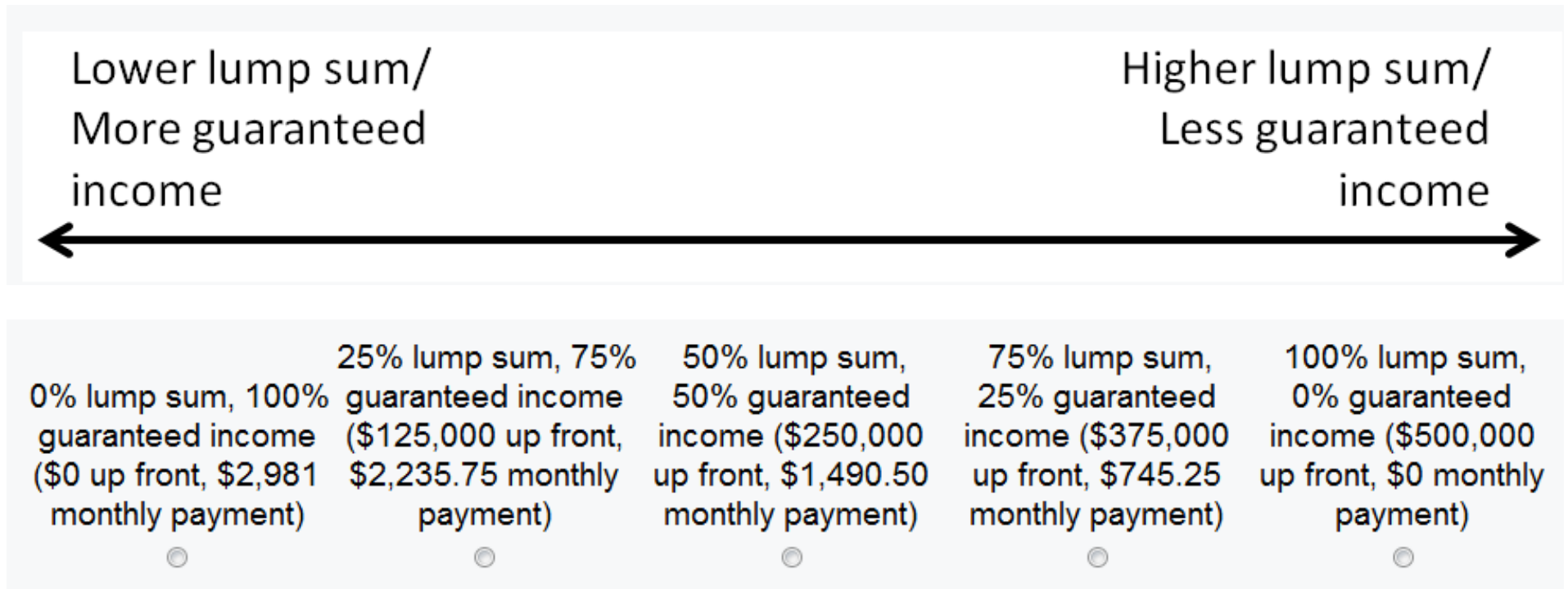
## Partial annuitization: survey questions

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- Two treatments
  - Treatment 1: “All or nothing”
    - Only choices are 0% or 100% annuitization
  - Treatment 2: Partial annuitization
    - Range of choices: 0, 25%, 50%, 75%, 100% annuitization

## Annuitization question: partial annuitization

How would you choose to receive your pension payments?



## Impact of the partial annuitization menu

	All or Nothing	Partial Annuitization	P-value
Subjects choosing partial annuitization	---	58.8%	---
Subjects choosing any annuitization	50.2%	80.0%	---
Dollar-weighted annuitization rate	50.2%	57.3%	0.008

- Significant demand for partial annuitization
- Allowing partial annuitization increases
  - Fraction of people taking any annuitization AND
  - Average percent of wealth annuitized

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## Features of COLAs

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- Two features of typical COLA
  - Increases the slope of expected income stream
  - Hedges inflation risk
- These two features can be separated
  - First survey focuses on desired slope of income stream
  - Second survey focuses on both together (typical COLA)

## Preferences over slopes of payouts

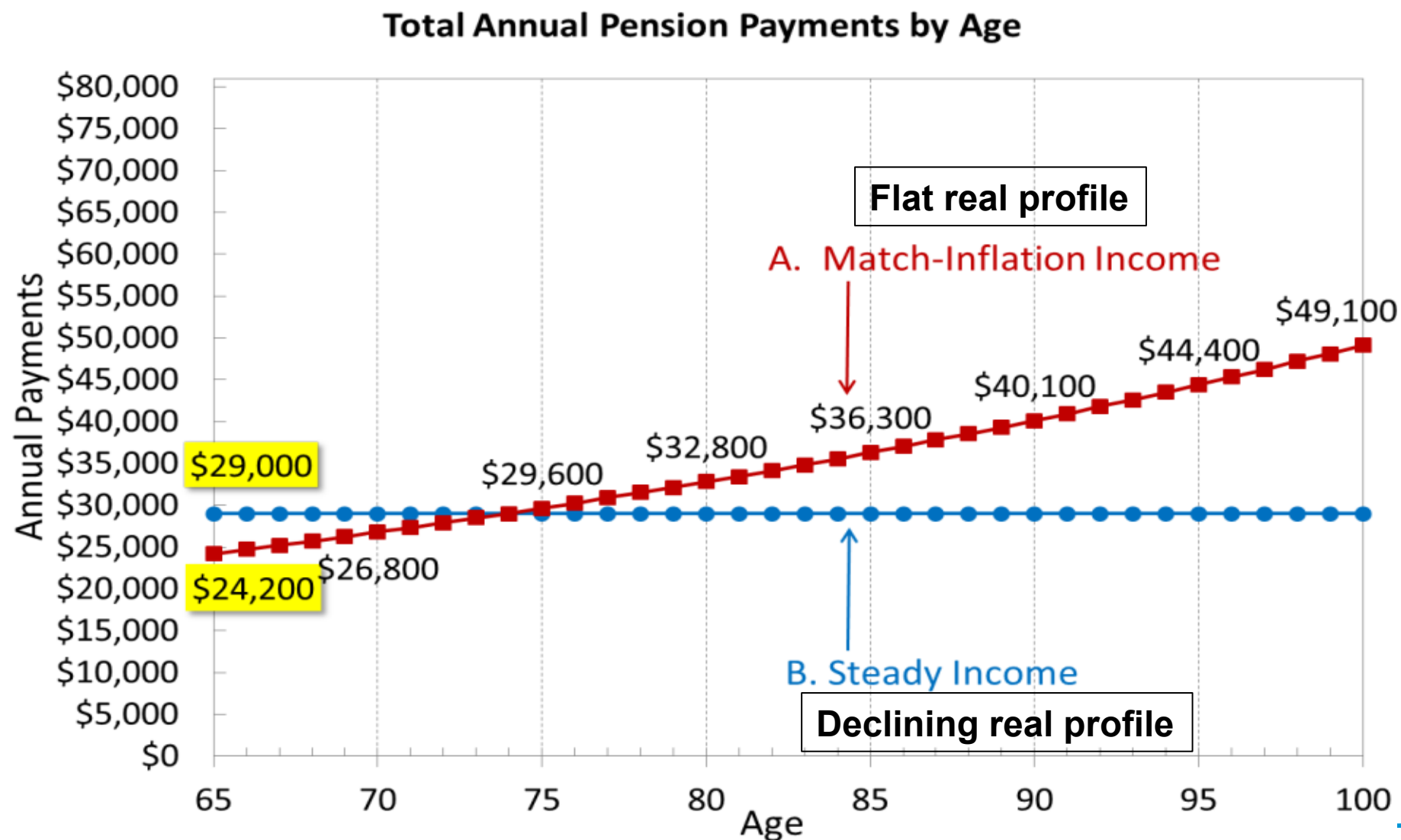
- Offered choices between different (real) slopes

Annuity slope (real)	Growth rate of payments (real)	Choice 1	Choice 2
Declining	-2 %		
Flat	0 %		
Rising	+2 %		

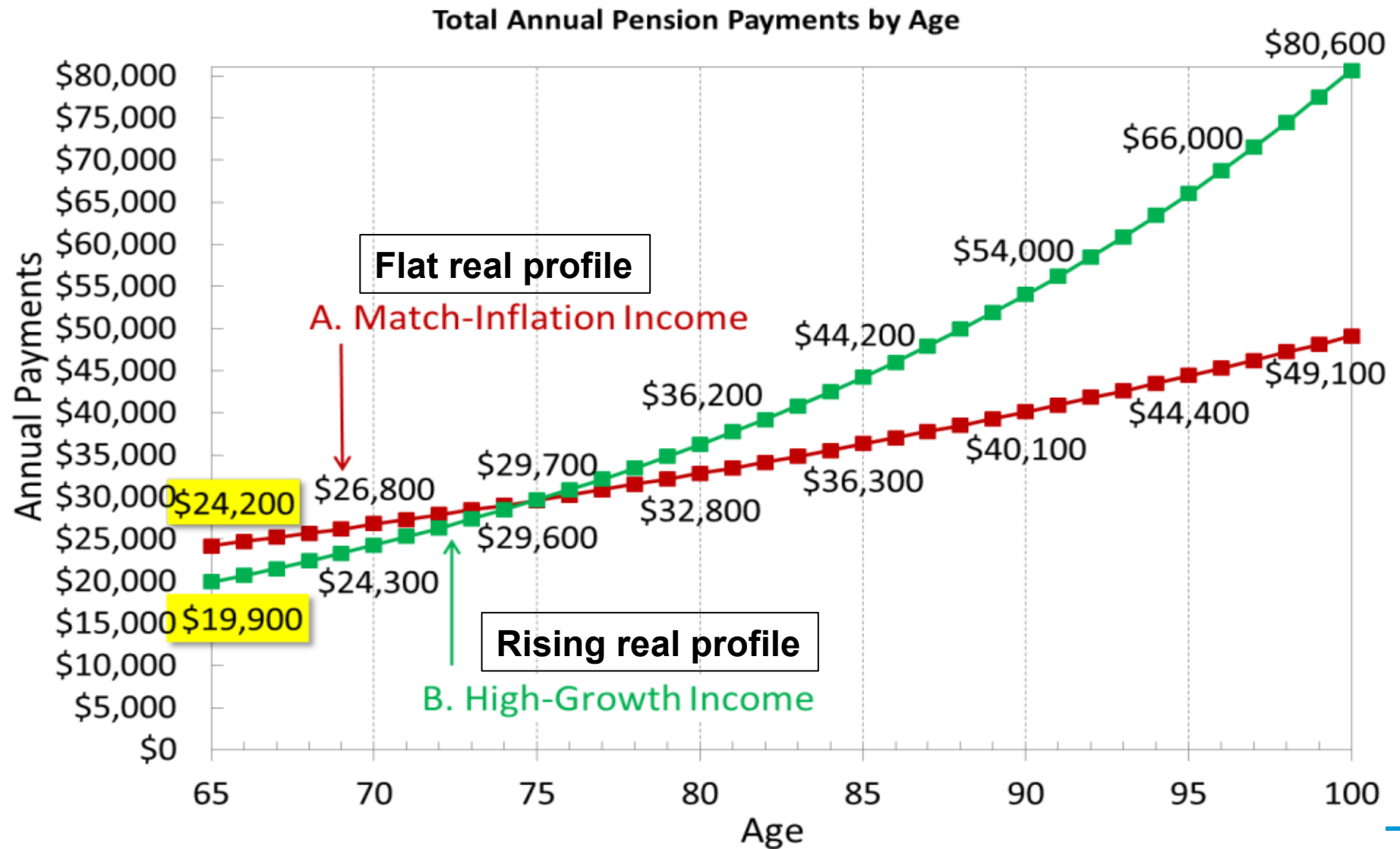
- In all cases PV of payments identical



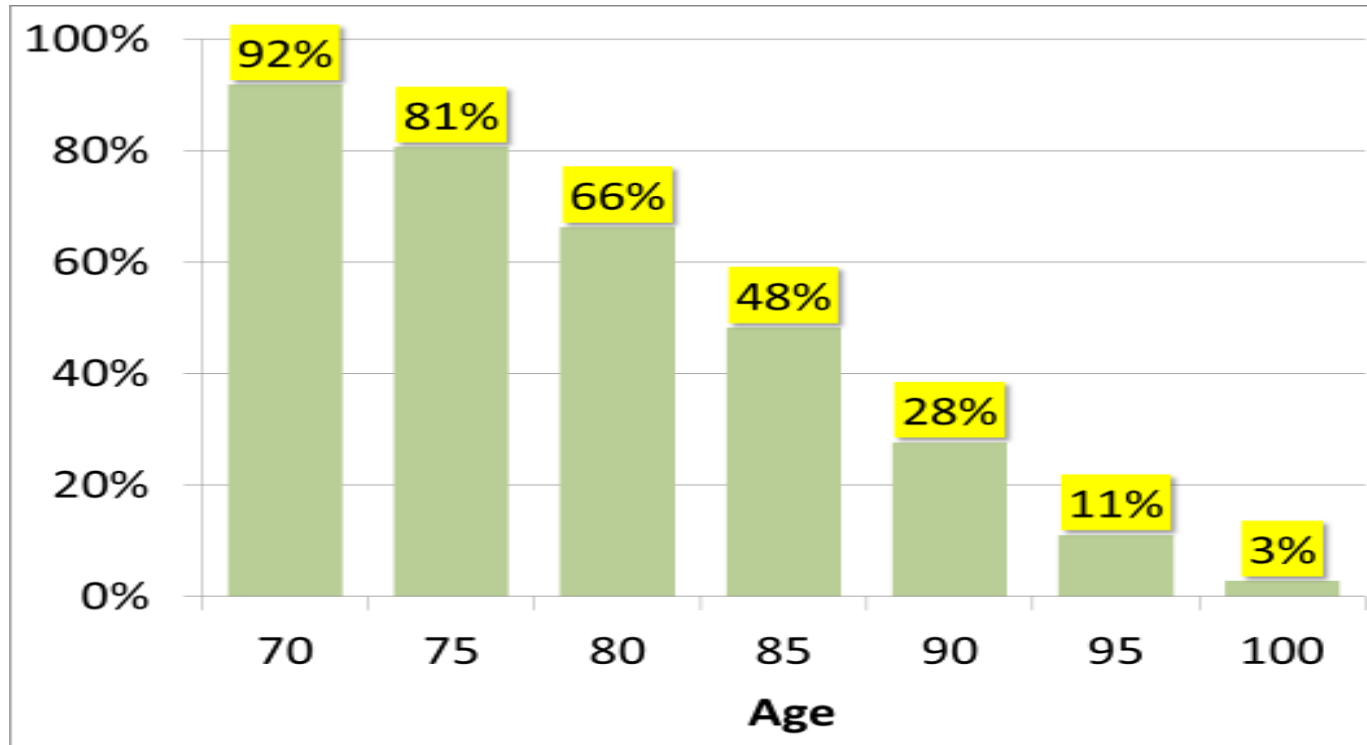
# Nominal payment profiles shown to participants: Choice 1



# Nominal payment profiles shown to participants: Choice 2



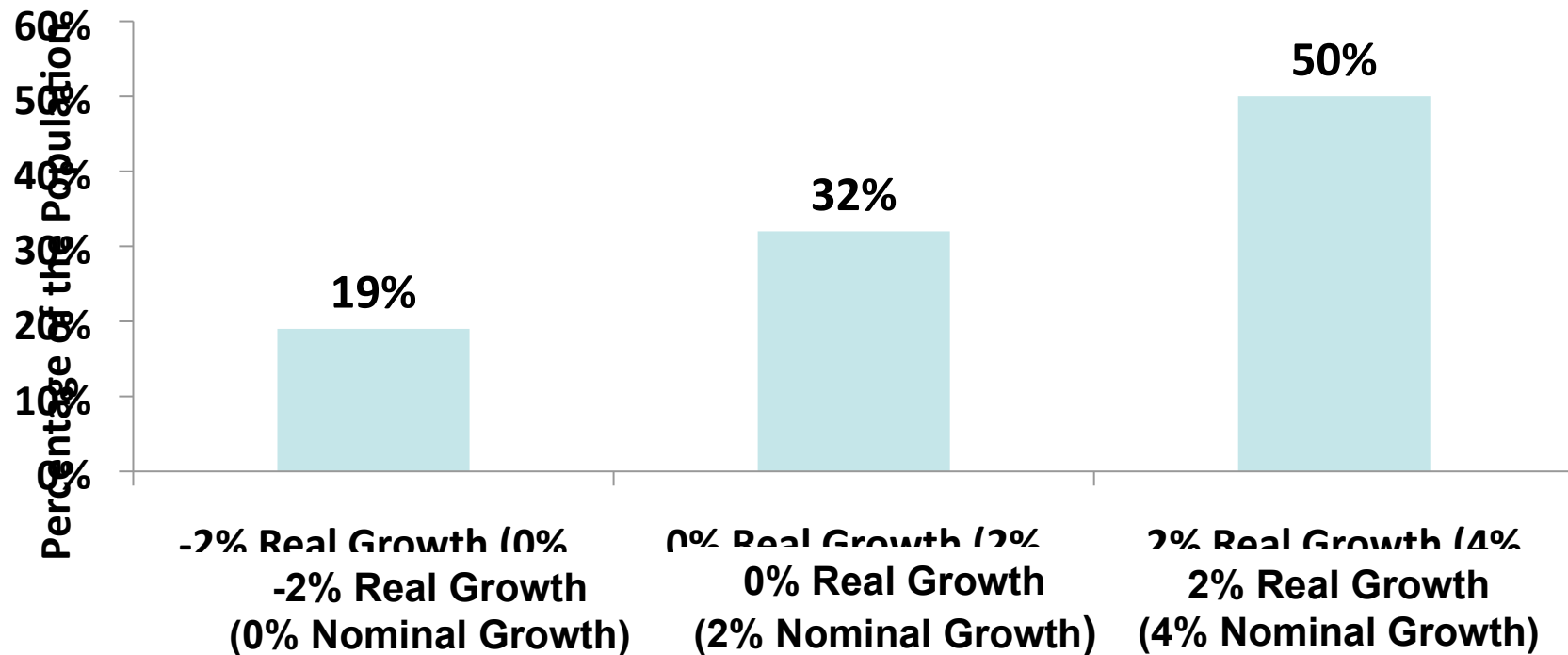
## We also showed them a graph of survival probabilities



The graph shows the likelihood that a person aged 65 today will live to at least age 70, 75, 80, 85, 90, 95 and 100.

# What kinds of slopes do people want?

- Individuals dislike declining real pension payouts



- Suggests households don't want declining real consumption profile during retirement

# Preferences over slopes, inflation, and money illusion

- In separate work, we examine how varying inflation alters people's choices across real slopes
- See Beshears, Choi, Laibson, Madrian, and Zeldes, "Money Illusion: Evidence from Annuitization Patterns," in progress
- Find that aversion to declining real slopes even higher when there is no inflation (so that nominal path also declining)

→ Evidence of money illusion

→ Money illusion more prevalent among those without college degrees

## Framing and COLAs (S2)

Now suppose that your employer only offers a guaranteed lifetime income option. But you can choose whether you want a cost-of-living adjustment (COLA) to your payments.

If you don't choose a cost-of-living adjustment, then your monthly pension payment will be \$2,981 a month for the rest of your life.

This means that as the cost of living increases, \$2,981 per month will buy fewer goods and services. For example, if the cost of living increases by 2% per year for the rest of your life and you don't have a cost-of-living adjustment, your monthly pension payment will buy 33% fewer goods and services at age 85 than it does at age 65.

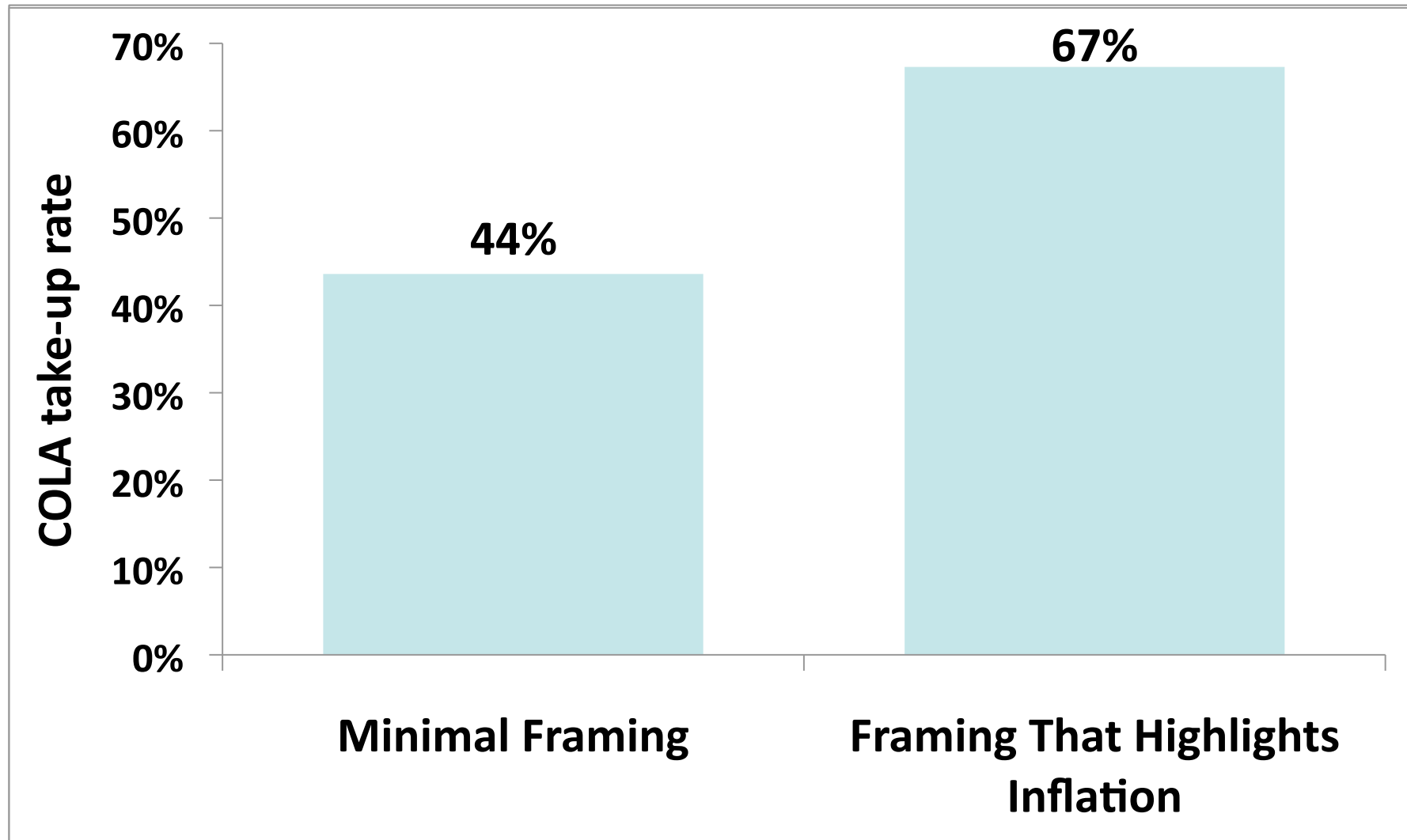
If you do choose a cost-of-living adjustment, then your first monthly pension payment will be \$2,033 a month, but this amount will increase over time at a rate equal to the inflation rate (as measured by the Consumer Price Index).

So your monthly payment will buy about the same amount of goods and services at every age in the future as it does at age 65.

Which option do you prefer?

- No cost-of-living adjustment
- Cost-of-living adjustment

## Framing and COLA take-up rates: results



## COLAs: takeaways

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- Strong dislike of declining real payouts
- Money illusion → lack of understanding that flat nominal payout = declining real payout
- Highlighting the decline in purchasing power arising from inflation significantly increases the demand for COLAs



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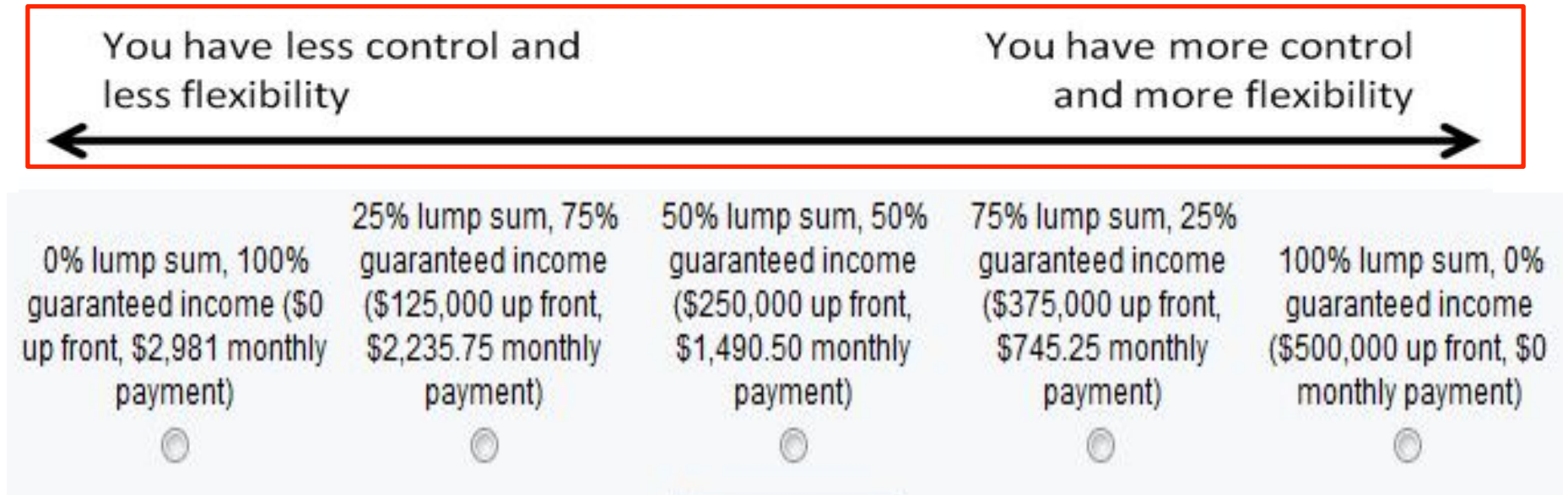
# Framing effects: Does changing the language alter annuitization choices?

- Framing Treatments
  - Minimal Framing (F1)
  - Good Deal (F2)
  - Total Income (F3)
  - Investment Framing (F4)
  - Flexibility and Control (F5)
  - Longevity Insurance (F6)
  - Mortality credits (F7)

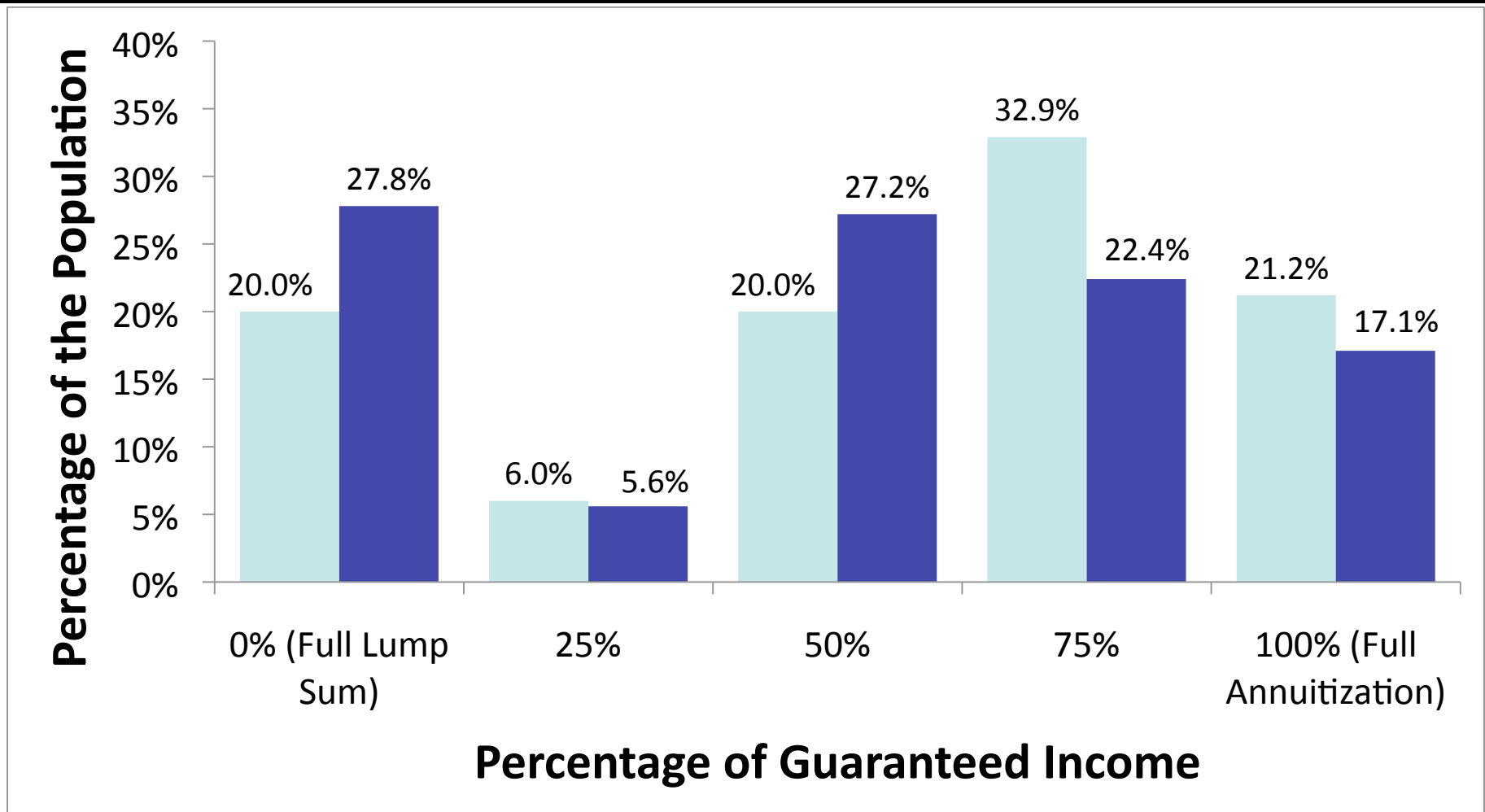
# Framing: Flexibility and Control

- Choosing a bigger lump sum gives you more control over your investments and more flexibility over the timing of your spending

How would you choose to receive your pension payments?



## Minimal Framing vs. Flexibility and Control



- Overall, highlighting that annuitization reduces flexibility and control reduces annuitization rates by 8.4 percentage points

# Investment framing and annuitization:

## Prior literature

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- Brown, et al (AER, 2008)
  - Investment frame reduced annuitization
- Brown, Mitchell, and Kapteyn (Working paper, 2011)
  - Investment frame had no significant effect on annuitization (i.e. no change in Social Security claiming age)

# Framing: Investment

- Under the guaranteed income option, you get a higher return on your \$500,000 investment if you and your spouse die old and a lower return if you and your spouse die young.
- Under the lump sum, you get the same return whether you and your spouse die young or old

How would you choose to receive your pension payments?

Higher return if you die old/  
Lower return if you die young

Same return whether you die young or old



0% lump sum, 100%  
guaranteed income (\$0  
up front, \$2,616 monthly  
payment)



25% lump sum, 75%  
guaranteed income  
(\$125,000 up front,  
\$1,962 monthly  
payment)



50% lump sum, 50%  
guaranteed income  
(\$250,000 up front,  
\$1,308 monthly  
payment)



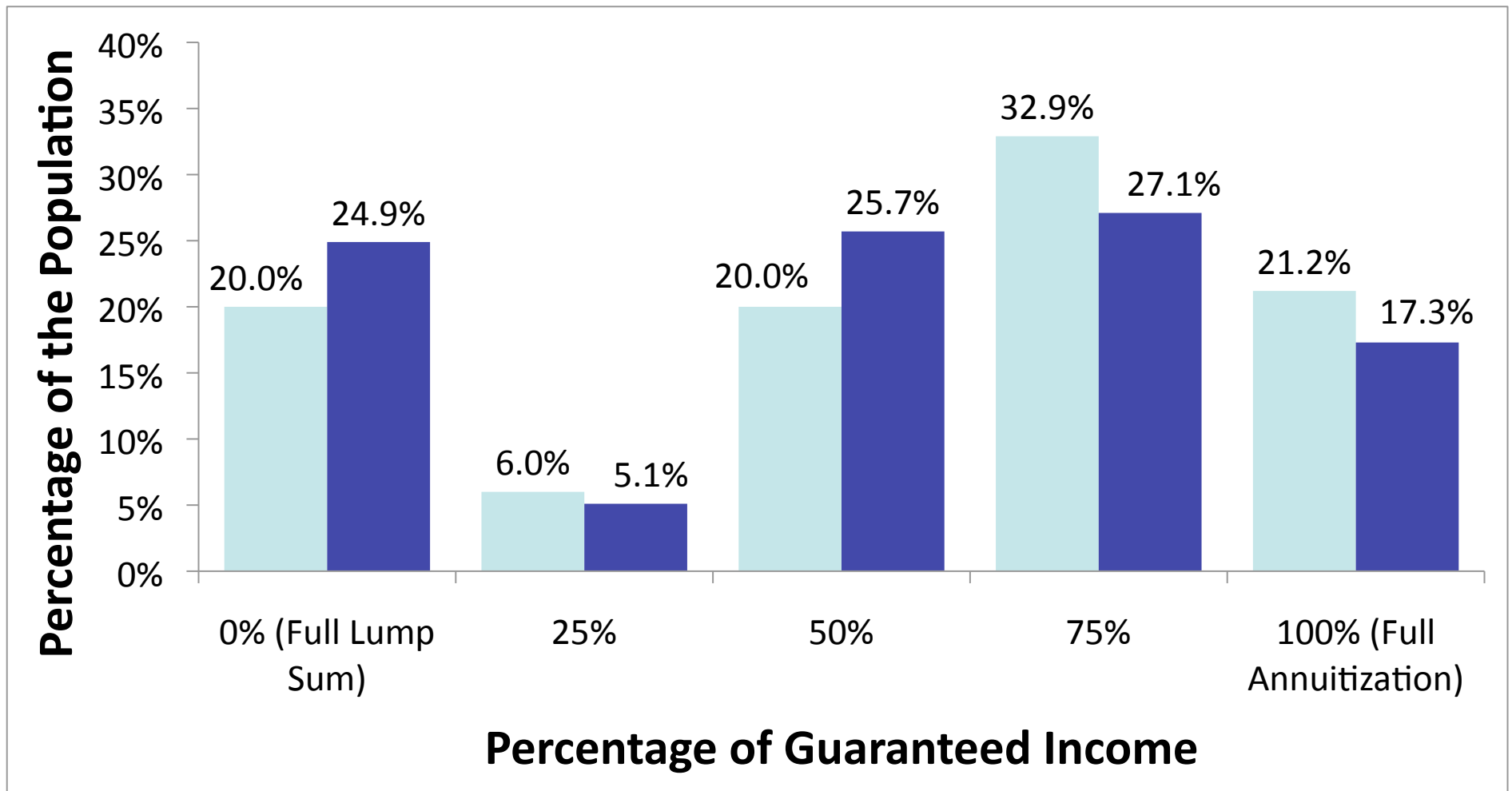
75% lump sum, 25%  
guaranteed income  
(\$375,000 up front,  
\$654 monthly payment)



100% lump sum, 0%  
guaranteed income  
(\$500,000 up front, \$0  
monthly payment)



## Framing: Minimal Framing vs. Investment Framing



Overall, framing annuity as an investment reduces annuitization rate by 5.6 percentage points.

# Framing that did not influence annuitization

- **Good deal**
  - The guaranteed lifetime income option gives you higher payments than you would get by buying an identical product from an insurance company because your employer will not charge you fees
- **Total income**
  - If you choose to receive guaranteed income, your total payments will depend on the length of your life. The average individual who chooses 100% guaranteed income will receive total lifetime payments of \$695,765
- **Longevity insurance**
  - Choosing more guaranteed income gives you more assurance that you and your spouse will not outlive your savings, since the monthly payments will continue as long as you or your spouse are alive
- **Mortality credits**
  - The monthly payment from the guaranteed lifetime income option is much higher than the interest you would receive from investing the lump sum
  - The guaranteed income option stops payments when you are no longer alive. In return, the guaranteed income option delivers very high pay-outs as long as you live. You are giving up payments when you are no longer alive (and don't need the money) and receiving extra-large payments as long as you are alive (and need the money)



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# Bonuses

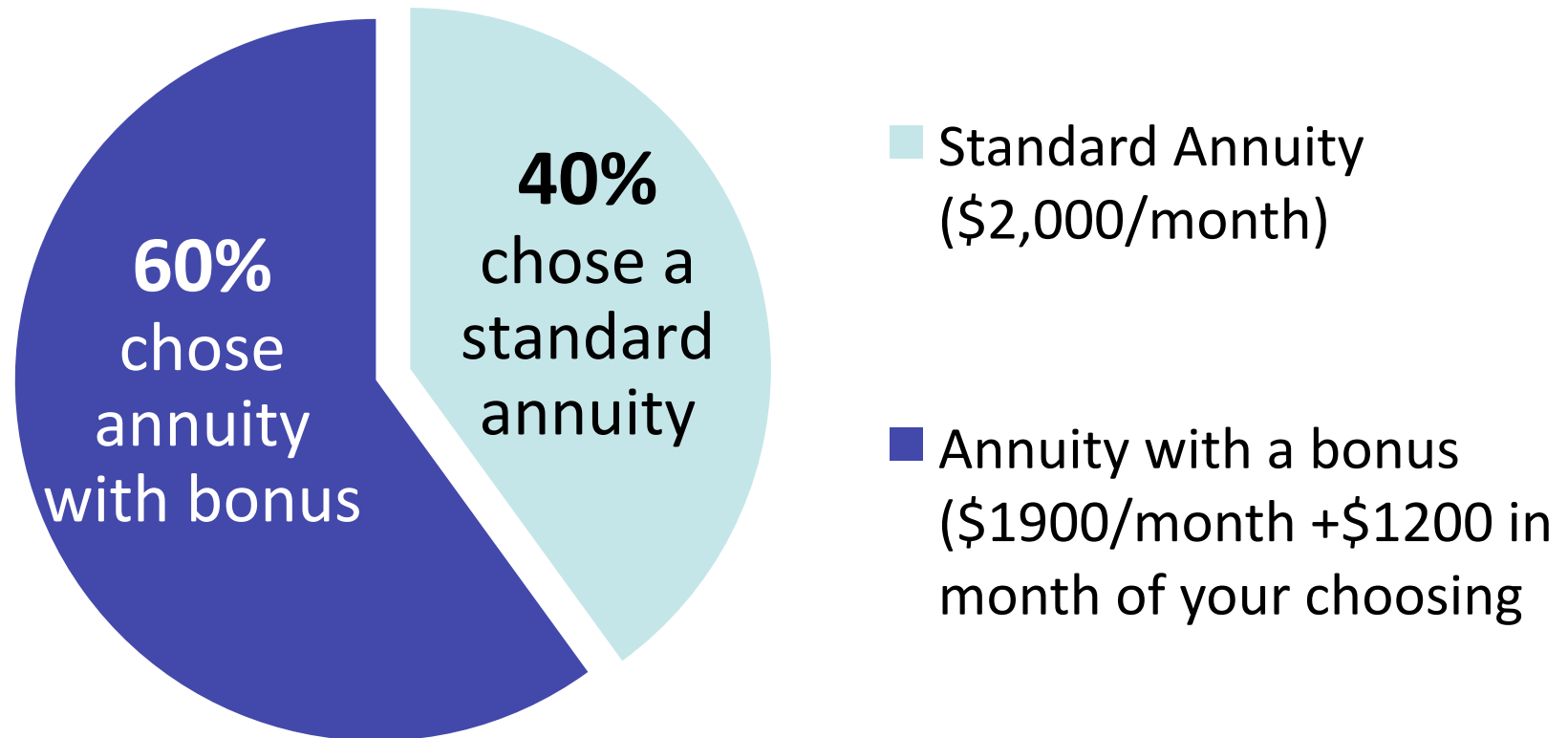
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Choice between

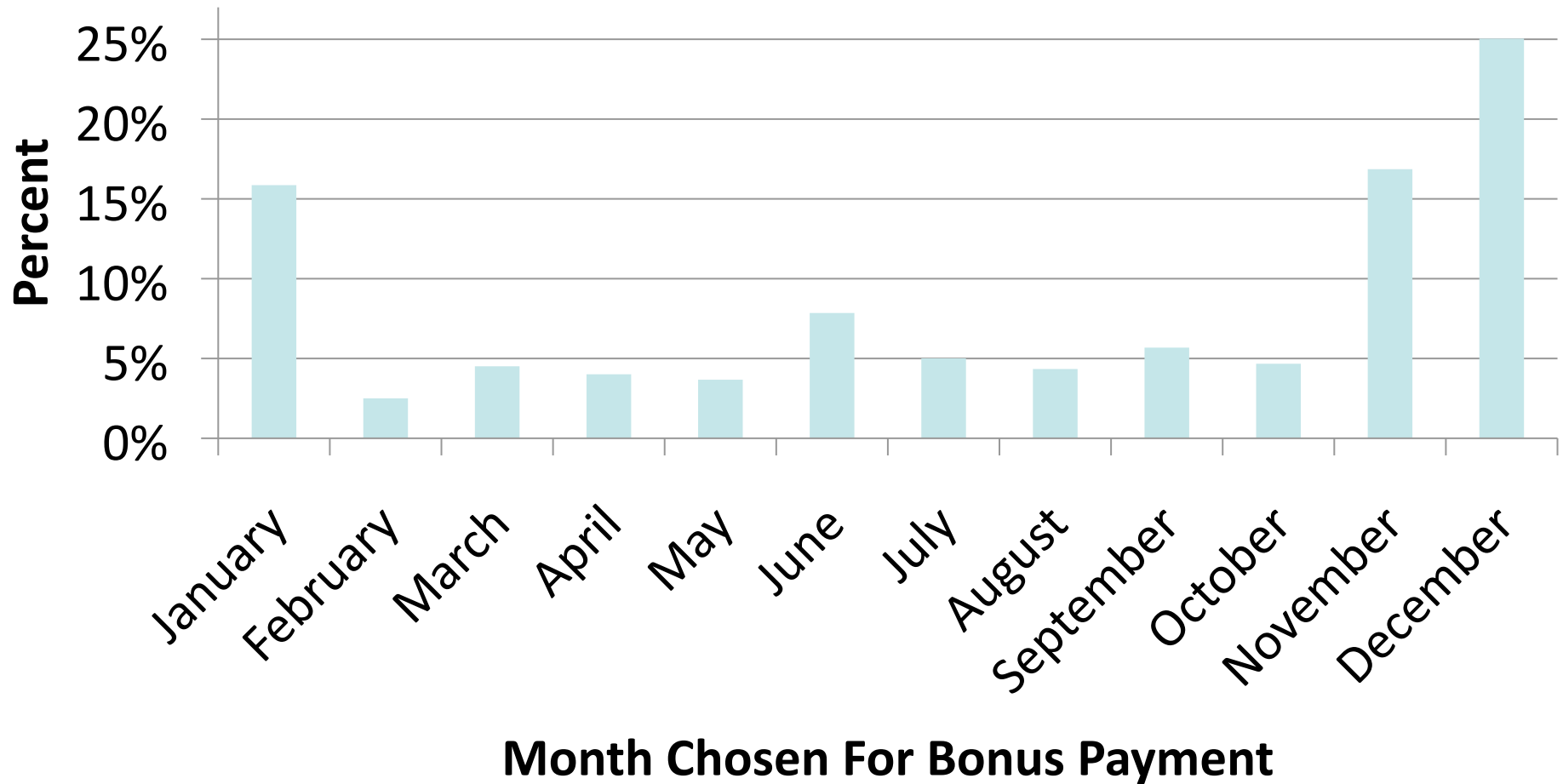
- Standard annuity
- An annuity with “bonus” payment

The bonus is offset by a reduction in the payments during the non-bonus months, so that total annual payment is the same

## Standard annuity vs annuity with bonus: (percent choosing each)



## Preferences for bonus timing: holiday season



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## Summary of key findings

- What do people say is important?
  - Obstacles: loss of flexibility/control, counterparty risk
  - Motivations: ensure late life income
- Allowing/highlighting partial annuity option increases annuitization
- COLAs
  - Individuals do not want declining real income paths
  - Highlighting inflation increases COLA take-up rates
- Framing influences choices
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# Implications for product design and choice architecture

- Flexibility and control
  - Bonuses
    - Time to spending needs
    - Personalization (tension with complexity)
  - Deferred annuities (e.g. age 85)
  - Increase flexibility and control in other ways  
(tension with adverse selection and complexity)
- Counterparty risk
  - Diversification
  - Highlighting backstop insurance
- Partial annuitization
- Inflation protection
  - Tension with money illusion / annuity demand?

## Next steps in our research program

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- Build behavioral model of annuity choices
- Obtain and analyze data on annuitization choices made by individuals in *actual* DB and DC settings
- Use lessons from behavioral economics to improve
  - Choice architecture
  - Product design
  - Public policy
- Study any resulting changes in behavior