

The Importance of Default Options for Retirement Saving Outcomes: Evidence from the United States

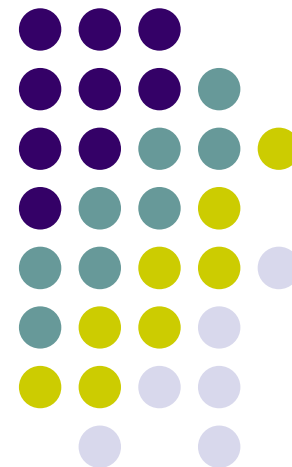
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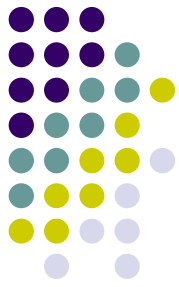
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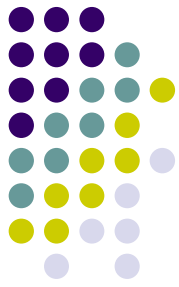
October 14, 2005



Introduction: Should Defaults Impact Economic Outcomes?



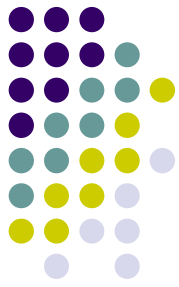
- Standard neoclassical theory: If transactions costs are small, defaults should not matter
- In practice, defaults have sizeable effects
 - Organ donation
 - Car insurance
 - Car purchase options
 - Consent to receive e-mail marketing
 - Savings outcomes



Outline

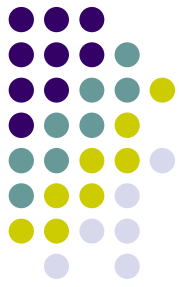
- U.S. retirement savings institutions
- Empirical evidence on saving and defaults
 - Savings plan participation
 - Contributions
 - Asset allocation
 - Pre-retirement cash distributions / leakage
 - Decumulation/annuitization
- Explaining the impact of defaults on saving
- The role of public policy when defaults matter

U.S. Retirement Saving Institutions



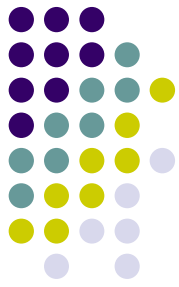
- Social Security
 - While employed, workers and firms make contributions
 - Benefits determined by formula tied to earnings history
 - Benefits formula progressive
 - Inflation indexed
 - Workers can begin claiming benefits at age 62
 - Higher benefits if workers delay claiming until later
 - Benefits paid until death; surviving spouse gets reduced benefit
 - In practice, Social Security replaces ~40% of pre-retirement earnings
 - No private account component

U.S. Retirement Saving Institutions



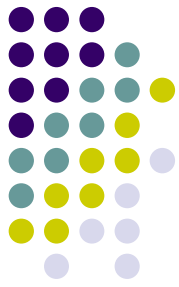
- Employer sponsored defined benefit pensions
 - Benefits determined by formula typically tied to age, tenure and earnings
 - Benefits typically paid as an annuity, but may be option for lump sum payout
 - Move away from defined benefit pensions → defined contribution savings plans
 - Lower administrative costs
 - Less financial risk to companies

U.S. Retirement Saving Institutions

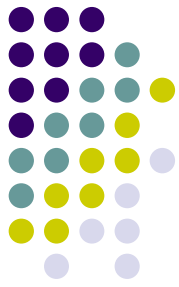


- Employer sponsored defined contribution savings plans (e.g. 401(k))
 - Benefits determined by
 - Elective employee contributions
 - Employer match
 - Asset allocation
 - Market performance
 - Benefits typically paid as a lump-sum distribution
 - Option for periodic and variable distributions
 - Some employers offer the option to purchase annuity

U.S. Retirement Saving Institutions



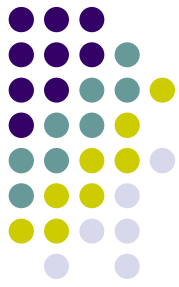
- Personal savings accounts (e.g. IRA)
 - Benefits determined by
 - Elective individual contributions
 - Asset allocation
 - Market performance
 - Direct contributions allowed as well as rollovers from employer sponsored savings plan



Motivation

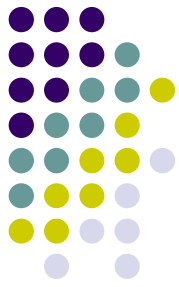
- U.S. Savings Institutions
 - Low Social Security replacement rate
 - Shift from defined benefit to defined contribution/IRA savings plans
- Increased individual responsibility for savings outcomes
- How can we ensure adequate retirement savings when individuals are primarily responsible for the outcome?

Defaults and Savings Outcomes



- Institutionally specified defaults
 - Savings plan participation
 - Contributions
 - Asset allocation
 - Pre-retirement cash distributions / leakage
 - Decumulation / annuitization
- “Elective” defaults

Participation Defaults: Automatic Enrollment



- Standard enrollment: opt-in
- Automatic enrollment: opt-out
 - Employer specifies default contribution rate and asset allocation
 - Employees have pre-specified time period (e.g., 30 days) to opt-out
- Company A
 - December 2000: 3% + money market fund
 - New hires going forward
 - Currently non-participating employees
 - October 2001: 6% + money market fund
 - New hires going forward

FIGURE 1. Automatic Enrollment for New Hires and Savings Plan Participation: Company A

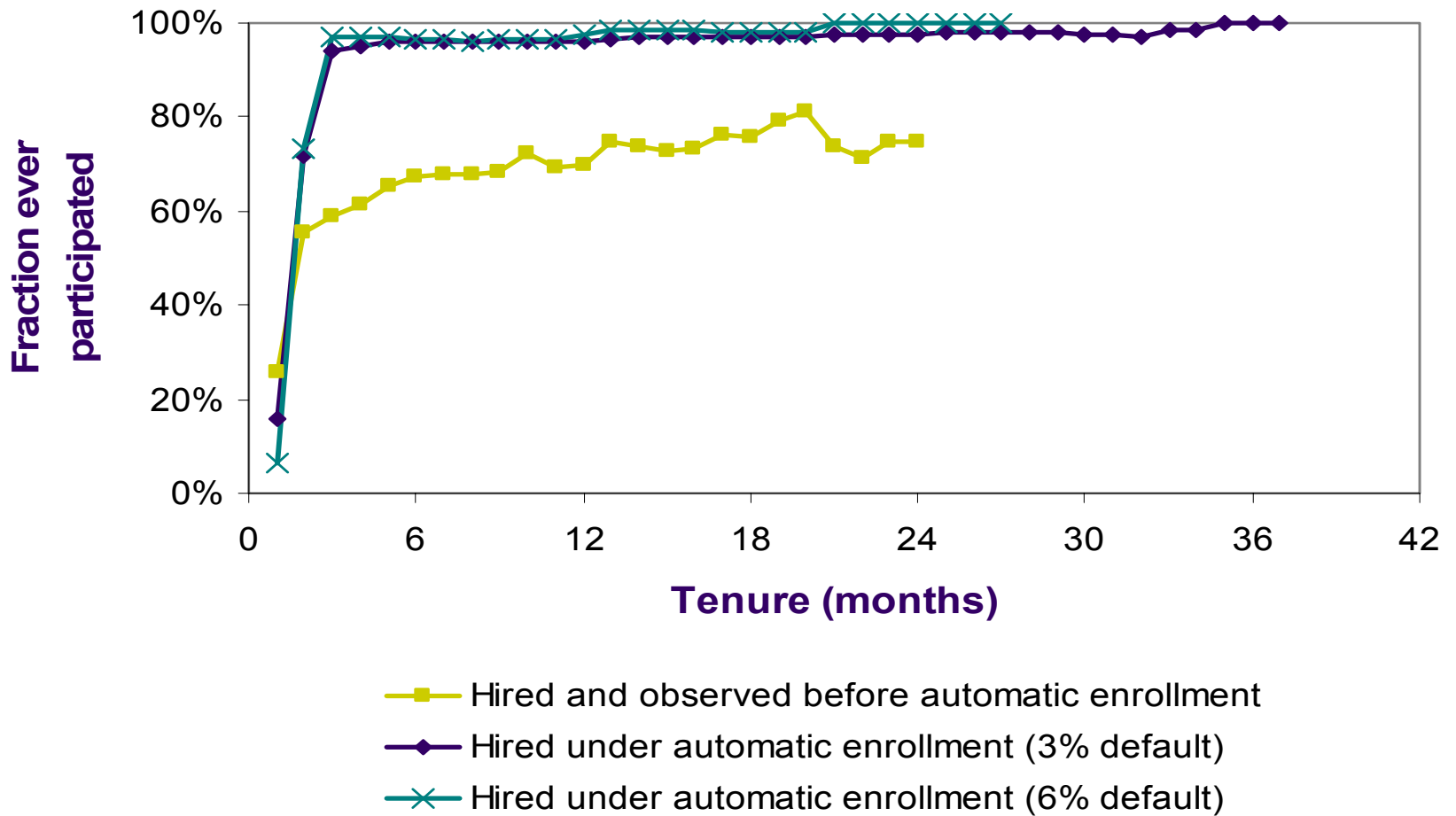


FIGURE 2. Automatic Enrollment for Existing Non-Participants and Savings Plan Participation: Company A

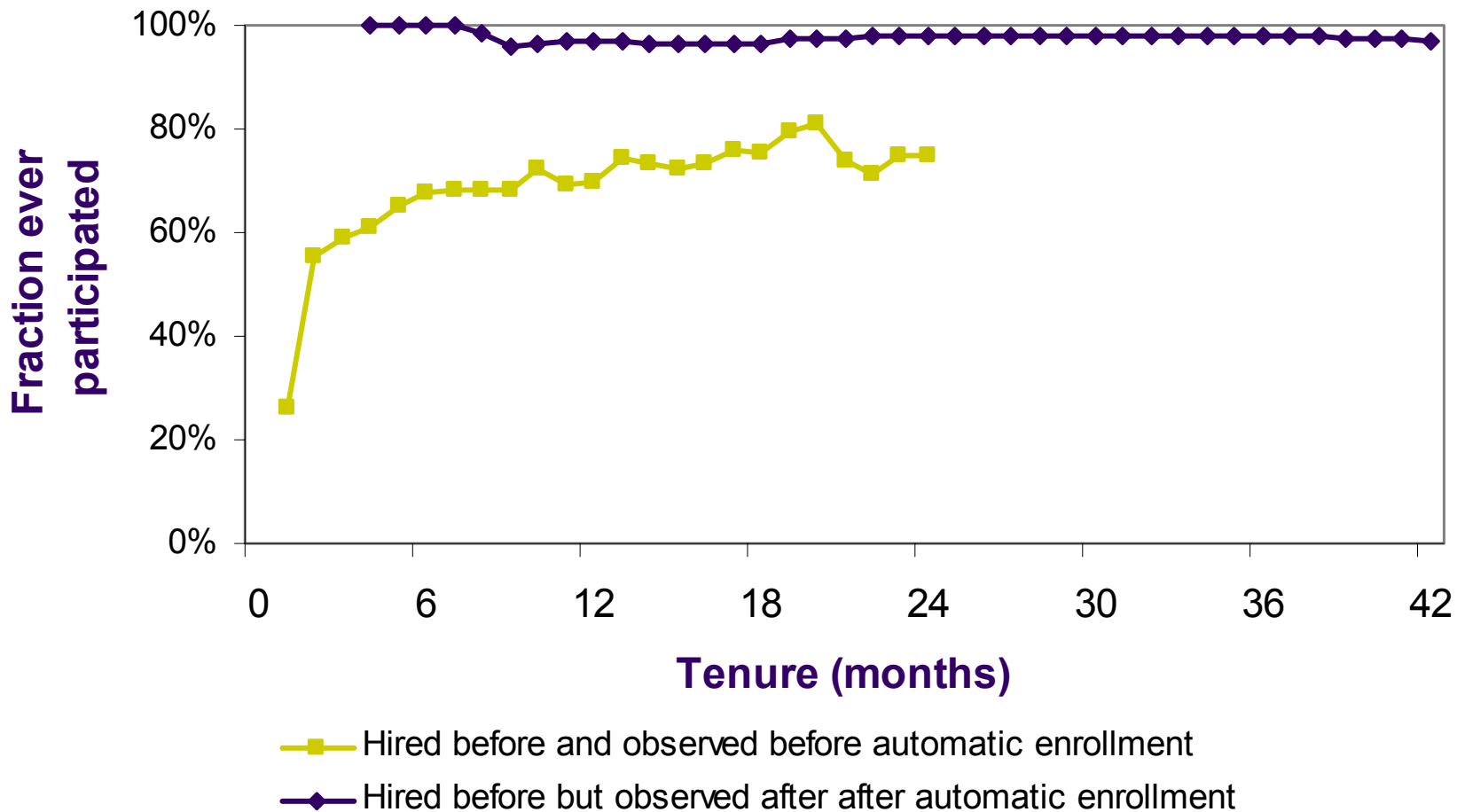


FIGURE 3. Automatic Enrollment for New Hires and the Distribution of 401(k) Contribution Rates: Company A (15-24 months tenure)

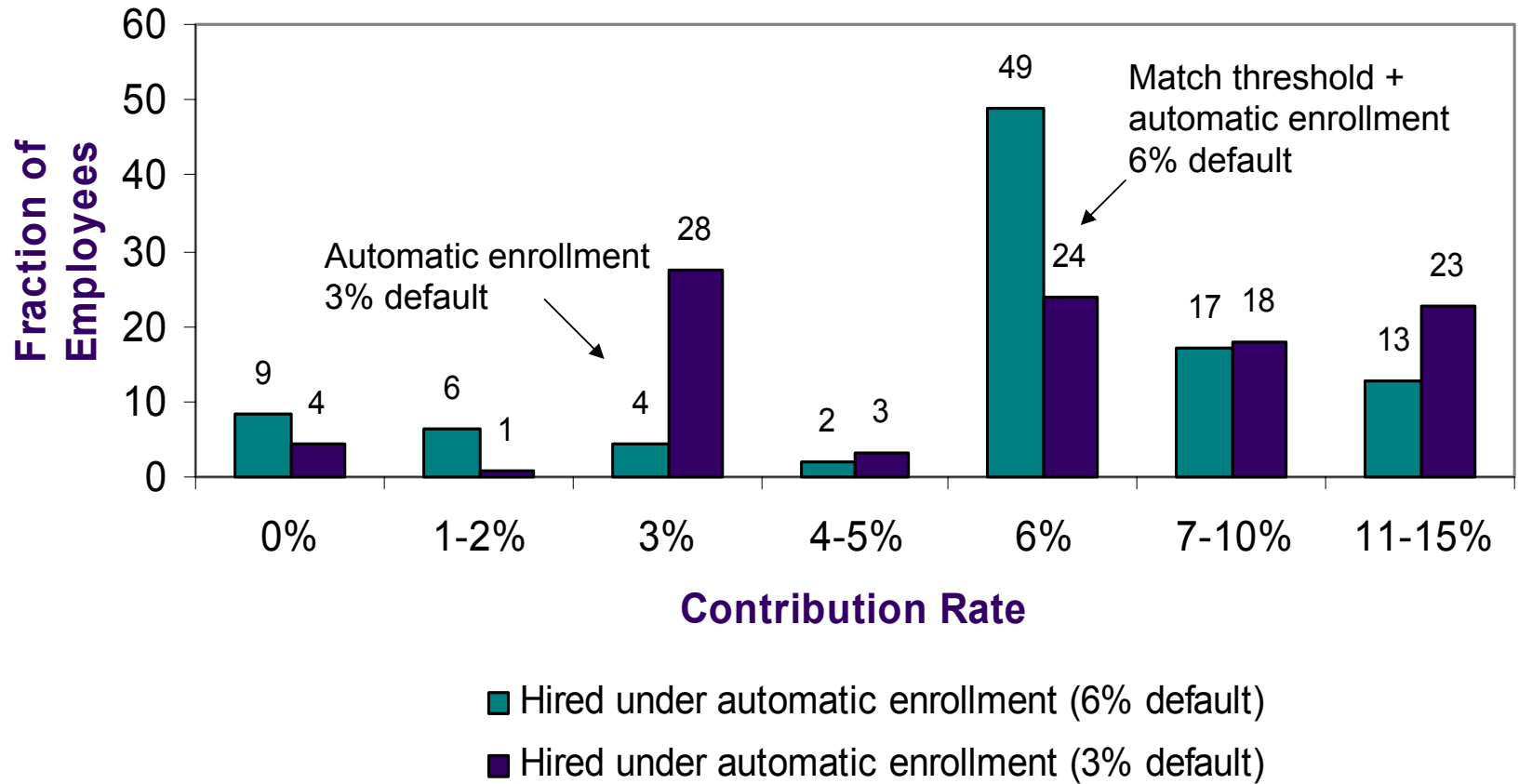


FIGURE 4. Automatic Enrollment for Existing Hires and the Distribution of 401(k) Contribution Rates: Company A (25-48 months tenure)

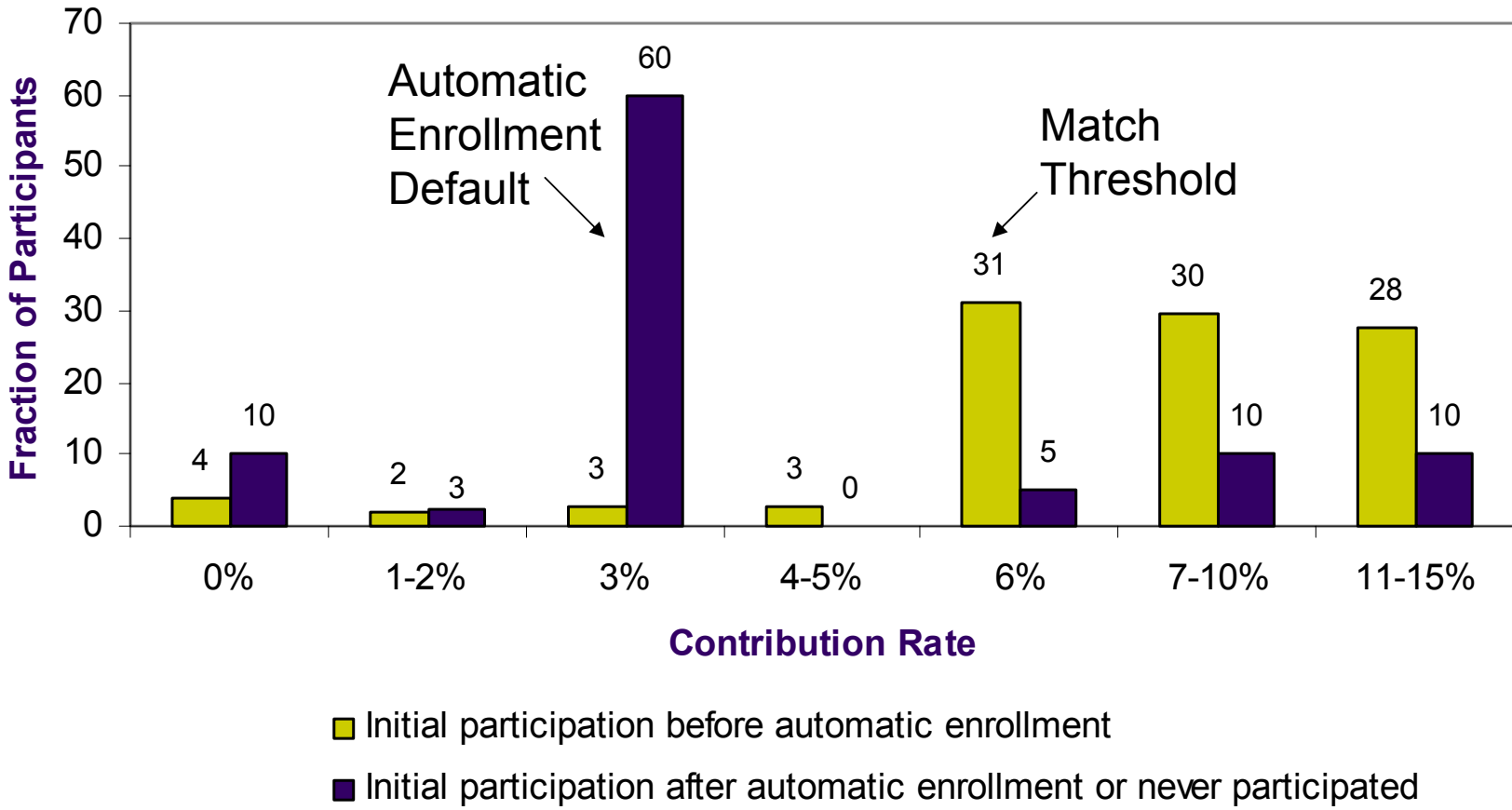
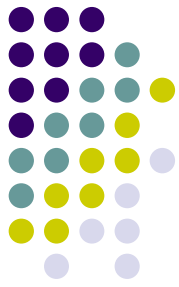


TABLE 1

Automatic Enrollment and Asset Allocation Outcomes

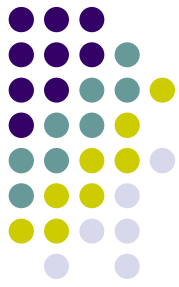
	Hired after automatic enrollment (15-24 months tenure)		Hired before automatic enrollment (25-48 months tenure)	
	3% default	6% default	No default	3% default
Any balances in default fund	34%	47%	10%	86%
All balances in default fund	26%	40%	1%	61%
100% default fund + default contribution rate	18%	33%	0%	63%



Asset Allocation Defaults

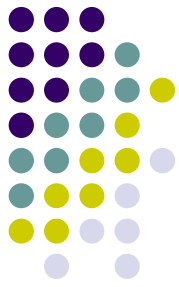
- Automatic Enrollment
- Company match in employer stock (Choi, Laibson and Madrian, 2005b)
- Private account component of Swedish Social Security system (Cronqvist and Thaler, 2004)
 - Enrolled at the transition: one-third of assets in default fund
 - Subsequent enrollees: 90% of assets in default fund

Pre-Retirement Cash Distributions



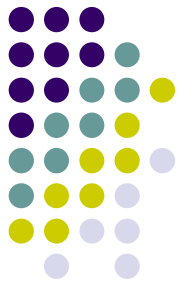
- What happens to savings plan balances when employees leave their jobs?
 - Employees can request a cash distribution or roll balances over into another account
 - Balances $> \$5000$: default is stay with former employer
 - Balances $< \$5000$: default is cash distribution
 - For employees with balances $< \$5000$, 70% receive a cash distribution (Choi et al. 2002, 2004a and 2004b)
 - When employees receive small cash distributions, balances typically consumed (Poterba, Venti and Wise 1998)

Post-Retirement Distributions



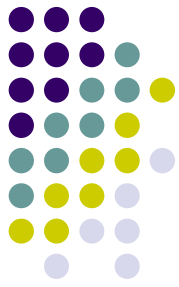
- Social Security
 - Joint and survivor annuity (reduced benefits)
- Defined benefit pension
 - Annuity
 - Lump sum payout if offered
- Defined contribution savings plan
 - Lump sum payout
 - Annuity if offered

Defined Benefit Pension Annuitization



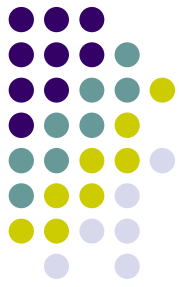
- Annuity income and economic welfare of the elderly
 - Social Security replacement rate relatively low on average
 - 17% of women fall into poverty after the death of their spouse (Holden and Zick 2000)
- For married individuals, three distinct annuitization regimes
 - Pre-1974: no regulation
 - ERISA I (1974): default joint-and-survivor annuity with option to opt-out
 - ERISA II (1984 amendment): default joint-and-survivor annuity, opting out required notarized permission of spouse

Defined Benefit Pension Annuitization



- Effect of joint-and-survivor default on annuitization
 - Pre-1974: Less than half of married men have joint-and-survivor annuity
 - Post-ERISA (I + II): joint-and-survivor annuitization increases 25 percentage points (Holden and Nicholson 1998)
 - Post-1984 amendments: joint-and-survivor annuitization increases 10 to 25 percentage points (Saku 2001)

Elective Defaults: Save More Tomorrow



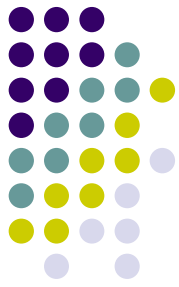
- Conceptual Idea
 - Get employees to commit today to automatic contribution rate increases in the future
- Implementation in one company:
 - Employees met individually with a financial planner, who in most cases recommended an increase in the 401(k) contribution rate
 - Some employees were willing to raise their contribution rates at that time (**Group A**)
 - Most employees were not willing to raise their contribution rates at that time (**Group B**)
 - These latter individuals were given the option to sign-up for automatic 3% 401(k) contribution rate increases to coincide with future annual pay raises

The Effect of SMT[®] on 401(k) Savings

	401(k) Contribution Rate		
	Before meeting with planner	After 3 raises	Increase
GROUP A			
▪Willing to save more now	4.4%	8.6%	+4.4%
▪Not offered SMarT			
GROUP B			
▪Unwilling to save more now	3.5%	13.6%	+10.1%
▪Offered SMarT			

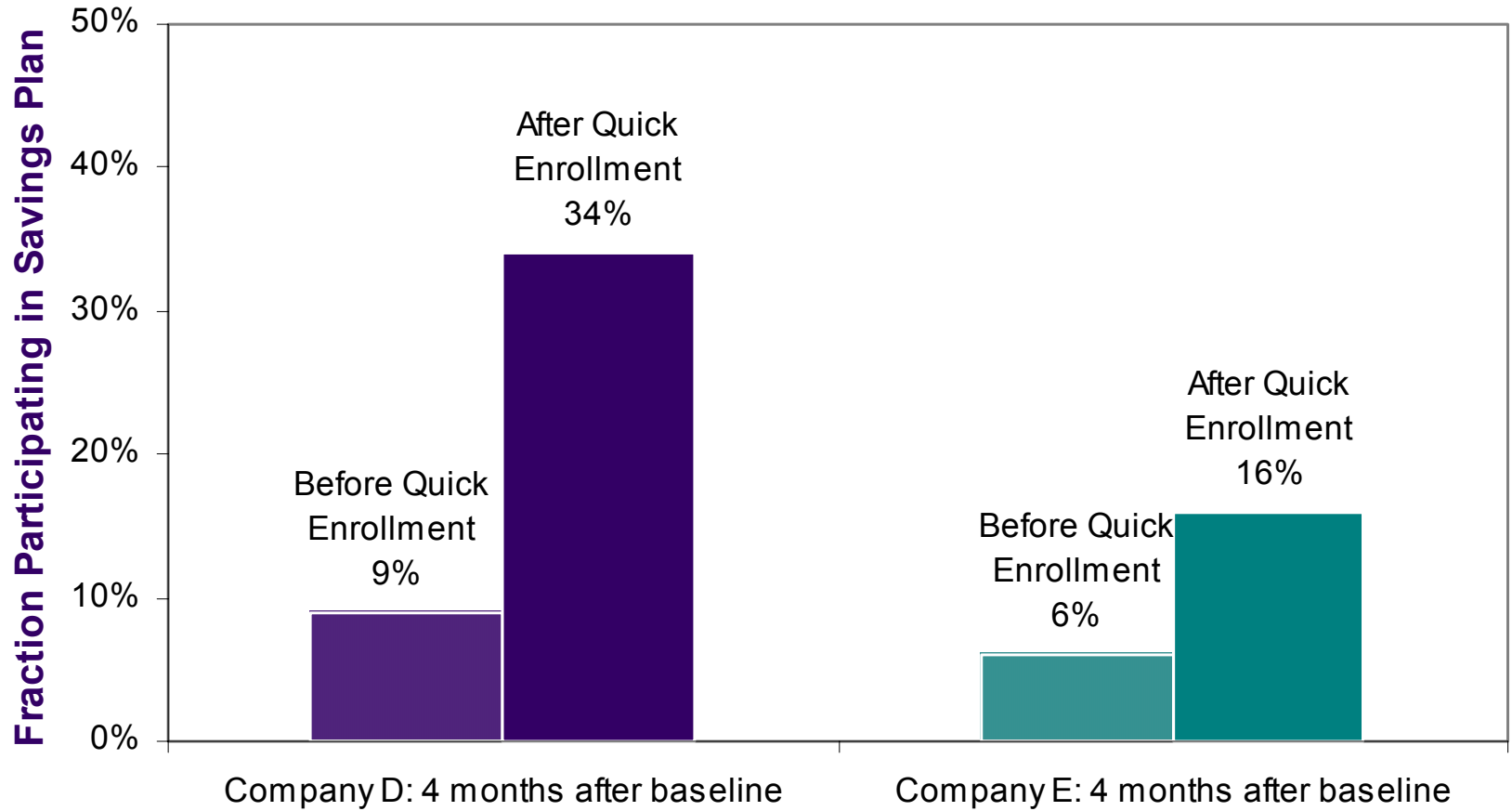
Source: Benartzi and Thaler (2004); Utkus and Young (2004)

Elective Defaults: Quick Enrollment

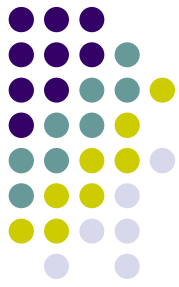


- Conceptual Idea
 - Simplify the savings plan enrollment decision by giving employees an easy way to elect a pre-selected contribution rate and asset allocation bundle
- Implementation at Company B
 - New hires at employee orientation: 2% contribution rate invested 50% money market / 50% stable value
 - Existing non-participants: employee selects contribution rate invested 50% money market / 50% stable value
- Implementation at Company C
 - Existing non-participants: 3% contribution rate invested 100% in money market fund

FIGURE 5. Quick Enrollment and Savings Plan Participation: Companies B and C

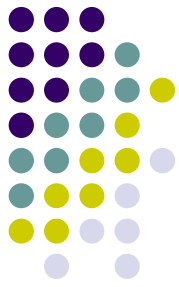


Explaining the Impact of Defaults: Complexity



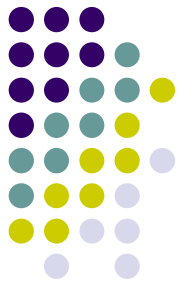
- John Hancock Financial Services Defined Contribution Plan Survey (2002)
 - 38% of respondents report that they have little or no financial knowledge
 - 40% of respondents believe that a money market fund contains stocks
 - Two-thirds of respondents don't know that it is possible to lose money in government bonds
 - Respondents on average believe that employer stock is less risky than a stock mutual fund
 - Two-thirds report that they would be better off working with an investment advisor than managing investments solo

Explaining the Impact of Defaults: Complexity



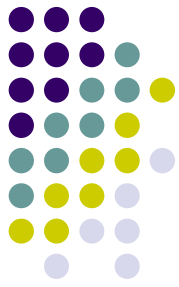
- Typical defined contribution savings plan task:
 - Pick contribution rate: options 1% to 15%
 - Pick asset allocation: 10-15 funds
 - → Myriad of total options
- Complexity → delay
 - Psychology literature (Tversky and Shafir 1992, Shafir, Simonson and Tversky 1993, Dhar and Knowlton 1999, Iyengar and Lepper 2000)
 - Savings literature: each additional 10 funds → 1.5 to 2.0 percentage point decline in participation (Iyengar, Huberman and Jiang 2004)

Explaining the Impact of Defaults: Complexity



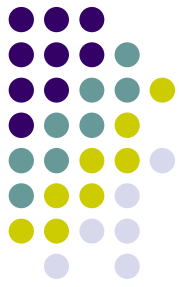
- Automatic enrollment and Quick Enrollment both decrease dimensionality of the decision-making task → participation increases
- Participation increases larger under automatic enrollment than with Quick Enrollment → the effect of automatic enrollment due to more than just reduced complexity

Explaining the Impact of Defaults: Present-Biased Preferences



- Self control and savings outcomes: why do today what you can put off until tomorrow? (Laibson, Repetto and Tobacman 1998; O'Donoghue and Rabin 1999; Diamond and Koszegi 2003)
- Evidence
 - Participation rates under standard enrollment never exceed those under automatic enrollment
 - Employees forego employer match (Choi, Laibson, Madrian 2005a)

Explaining the Impact of Defaults: Endorsement



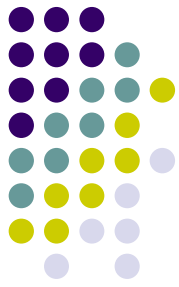
- The default as advice
- Evidence
 - Automatic enrollment and asset allocation of employees hired before automatic enrollment
 - Automatic enrollment and asset allocation of employees hired after automatic enrollment who move away from the default
 - Elective employer stock allocation in firms that do and do not match in employer stock

Asset Allocation Outcomes of Employees not Subject to Automatic Enrollment

	Any balances in default fund	All balances in default fund
Company D		
Hired before, participated before AE	13%	2%
Hired before, participated after AE	29%	16%

Automatic Enrollment and Asset Allocation Outcomes

	Any balances in default fund	All balances in default fund
Company A		
Hired before AE	9.8%	1.4%
Hired after AE: non-default	86.1%	61.1%
Company D		
Hired before AE	18.2%	5.2%
Hired after AE: non-default	71.3%	30.8%



‘Optimal Defaults’

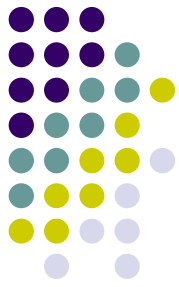
- Model of optimal savings plan enrollment/contribution rate default (Choi et al. 2005)
- Defaults matter for three reasons
 - Cost of opting-out of the default
 - Cost varies over time → option value of waiting
 - Present-biased preferences → delay
- Optimal default depends on two key parameters
 - The degree of heterogeneity in savings preferences
 - How large the tendency to procrastinate is



‘Optimal Defaults’

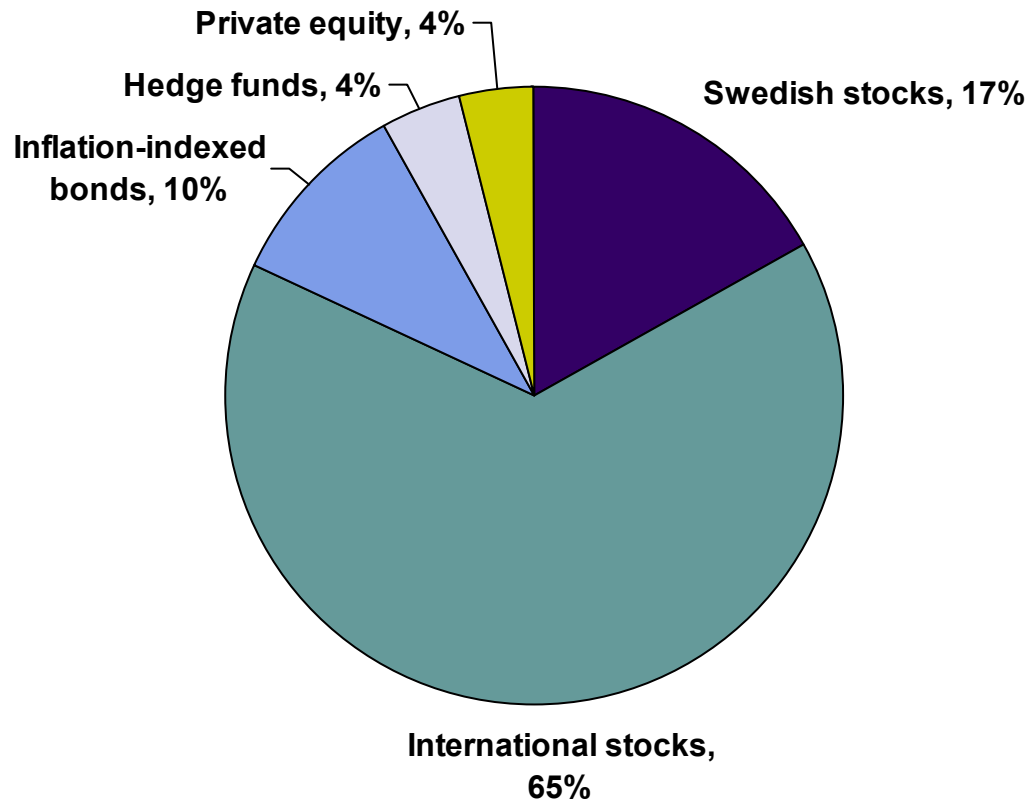
- Three classes of optimal defaults
 - Automatic enrollment
 - Optimal when employees have similar savings preferences (e.g. match threshold)
 - Limited expertise → tendency to procrastinate
 - Standard enrollment
 - Note: special case of automatic enrollment
 - Shared preference not to participate by many (e.g., high SS replacement rate of generous DB pension)
 - Heterogeneous preferences + no tendency to procrastinate
 - “Active Decision”—require individuals to take action
 - Optimal with heterogeneous preferences + tendency to procrastinate
- Key point: no single optimal default

Public Policy and Defaults: Swedish Social Security Personal Account Asset Allocation

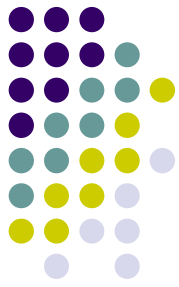


- Swedish default vs. automatic enrollment
 - Many funds vs. only one fund
 - Well diversified across geography, sectors, assets
- Expense ratio
- Actual performance of those in the default fund exceeds that of those who elected their own asset allocation

Asset Allocation of the Swedish Social Security Personal Account Default Fund

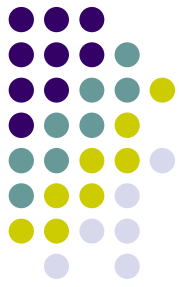


Public Policy and Defaults: Annuitization



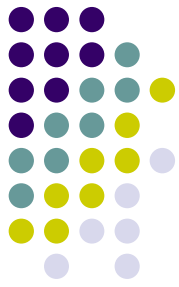
- Interesting aspects of the joint-and-survivor annuity default discussed earlier
 - Differentiated default: singles vs. marrieds
 - Annuity election irrevocable
 - Implicit deadline—must either accept or opt-out of the default before receiving pension payments
- Note
 - Largely homogenous preferences
 - Similarities to active decision approach
 - Reduced scope for procrastination
 - Those who do opt-out of joint-and-survivor annuity appear to have economically sound reasons for doing so (Johnson, Uccello and Goldwyn 2003)

Public Policy and Defaults: Annuitization



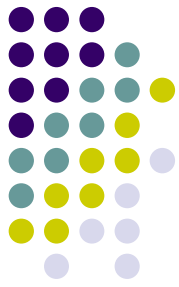
- Thinking more generally about retirement income annuitization and defaults
 - Understanding annuitization options is complicated for financial novices → strong endorsement effect likely
 - Taking a lump-sum is the only way to preserve option value
 - BUT, lump-sums → potential self-control problems
- Annuitization and defined contribution savings plans
 - Required annuitization?
 - Default annuitization option?
 - Active decision approach

Public Policy and Defaults: Pre-Retirement Cash Distributions



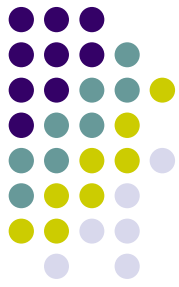
- Cash distribution default for balances of <\$5000 → leakage from retirement savings
- Response: balances of \$1000-\$5000
 - Employers can maintain these balances
 - Employers can roll over into an IRA
- Default asset allocation for IRA rollover must preserve principal

Public Policy and Defaults: Match in Employer Stock



- Employer stock in defined contribution savings plan: little regulation
- Employer stock in defined benefit pension plan: strict 10% limit
- Strong evidence that employees misperceive the risks of employer stock (familiarity bias)
- Policy alternatives
 - Preclude employer stock from savings plans altogether (correlated risks)
 - Preclude employers from defaulting matching contributions into employer stock (e.g., preclude companies from choosing a single life annuity as a default for married individuals)

Conclusion



- Defaults are not neutral when it comes to savings outcomes
- Implications
 - Employers/institutions can enhance savings outcomes by establishing sensible defaults
 - Governments can regulate employers/institutions so as to encourage defaults that promote better outcomes
- Current public policies include examples of defaults that both help and hinder better savings outcomes