INNOVATIONS FOR POVERTY ACTION

SUPER SAVERS?

A Randomized Evaluation of Commitment Savings and Financial Counseling in New York City

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U.S. Household Finance Initiative

- Launched in 2011; today have field experiments in 10 states
- Led by Profs. Dean Karlan and Jonathan Zinman
- U.S. policy priorities:
  1. Savings promotion
  2. Reduced borrowing as a strategy for saving
  3. Actionable financial advice

What’s the problem?

- “We’re all predictably irrational” - Dan Ariely
  - People tend to make bad decisions (*mistakes*) in particular, predictable directions
  - These *biases* tend to be easier for other parties (e.g., businesses) to exploit

Common Cognitive Biases

Limited Attention (e.g. Karlan et al. 2011)	Planning Fallacy (e.g. Peetz & Buehler 2009)
Present Bias (Self Control) (e.g. Laibson 1997)	Exponential Growth Bias (e.g. Stango & Zinman 2011)

Why does it matter?

- Setting goals, meeting goals and sticking to plans is hard, psychologically and cognitively
  - Staying out of debt
  - Drafting and sticking to a budget
  - Get started and continue saving

- Leads to…
  - … low household savings rates, low net worth, low financial resiliency
  - … high debt loads and debt reliance in emergencies

- Biases are not limited to low and middle income consumers
  - But LMI consumers have less room for mistakes

Our approach

Test two interventions for their impact on savings, net assets and borrowing behavior:

1. Pre-commitment to save
   - Evidence from the Philippines (Ashraf et al. 2006, Gine et al. 2010) suggests that commitment savings products can be welfare-improving
   - Addresses self-control problems

2. Financial counseling (one-on-one)
   - May be better suited to address other behavioral factors such as exponential growth bias, limited attention, planning fallacy
   - May be better suited for clients with limited numeracy or literacy (Lusardi & Tufano 2009)

Sample creation

- We partnered with Neighborhood Trust Federal Credit Union (NTFCU) of Washington Heights, New York City
  - Nearly 4,000 active NTFCU members
  - Washington Heights median household income $31,000
- Participants were enrolled in the study via a request to complete a baseline survey in the credit union, in March 2010 – May 2011
- Upon survey completion, the electronic survey tool created a random treatment assignment:
  - 1/3 - Super Saver CD
  - 1/3 - Financial Counseling
  - 1/3 - Control Group (survey only)

Sample creation, cont'd

Results of random treatment assignment:

Full Sample	Control	Super Saver CD Offer	Counseling Offer
1167	389	381	397

Super Saver CD

Commitment: **Savings Goal**	○ Identify savings goal ○ Select maturity date (by when do you want to save this amount) ○ Frequency of deposits (weekly, monthly)
Balance-building	○ Minimum initial deposit ○ Clients then make contributions in order to build savings balance and reach savings goal to which s/he committed ○ Does not require full lump sum in order to open the CD
Competitive dividend rate	○ Varied during course of study
Minimum initial deposit	○ $15
Fixed maturity term	○ 3 months, 6 months, 12 months, 18 months (chosen by member) ○ CD closes on maturity date (and all funds are transferred to the member's main account
Contributions	○ Automatic or manual contributions ○ Manual if member makes them in person or by mail ○ NTFCU recommends contribution amount so member can reach goal
Withdrawals and Penalties	○ Penalty for withdrawal before reaching goal is forfeited dividends and forfeited $15 of initial deposit ○ If member reaches maturity date but does not meet goal, then only forfeits dividends upon withdrawal

Financial Counseling

One-on-one financial counseling

- Hour-long session with Neighborhood Trust's trained financial advisors
- Focus on goal-setting, budgeting and financial discipline, debt management and saving
- Clients receive a comprehensive financial diagnostic, copy of their credit report, and a customized budget
- Sessions are free of charge and clients can return for free follow-ups

Sample characteristics

Demographics

- Annual Income: 55% less than $20,000 , 86% less than $40,000
- Education: 51% high school or less, 43% some college, 7% bachelors degree
- Gender: 67% female
- Mean Age: 49
- Spanish Language Surveys: 74%

Sample characteristics, cont’d

Financial Situation

- Household financial situation: 24% “good or better”; 40% “OK”; 36% “not very good" or “bad“

- Considerable financial distress: 19% unable to make rent, utilities, or mortgage; 14% skipped meals; 24% turned down for credit; 40% discouraged from applying

- 18% utilizes non-mainstream credit (refund anticipation loan, payday loan, auto title loan, pawn loan, loan-shark loan, or rent-to-own arrangement)

Sample characteristics, cont'd

Behavioral Biases

- Self-control: regrets spending lacks financial discipline **48% "strongly agree"**; 80% agree at least somewhat

- Exponential Growth Bias (savings compounding): **48% underestimate**, 27% linear approximation, 7% missing/don't know, 13% overestimate, 5% correct

- Patience over different time horizons: 9% "standard" reversal (impatient now, more-patient in future), 3% nonstandard reversal (patient now, impatient in future), 15% always impatient, 69% always patient

Baseline balances & financial products

Baseline Balances at Survey:	
Savings and CD Accounts	819.02
	[sd=2773.25]
Savings, Checking, and CD Accounts	1006.17
	[sd=3261.83]
Net Assets at Credit Union	693.79
	[sd=3440.93]
Financial Products Held at Survey:	
Checking Account	75%
Savings Account	98%
CD/Investment Account	21%
Credit Card	49%
Auto Loan	5%
Negative Checking Balance / Overdraft	5%
Retirement Account/401k	12%
Prepaid Loan	6%

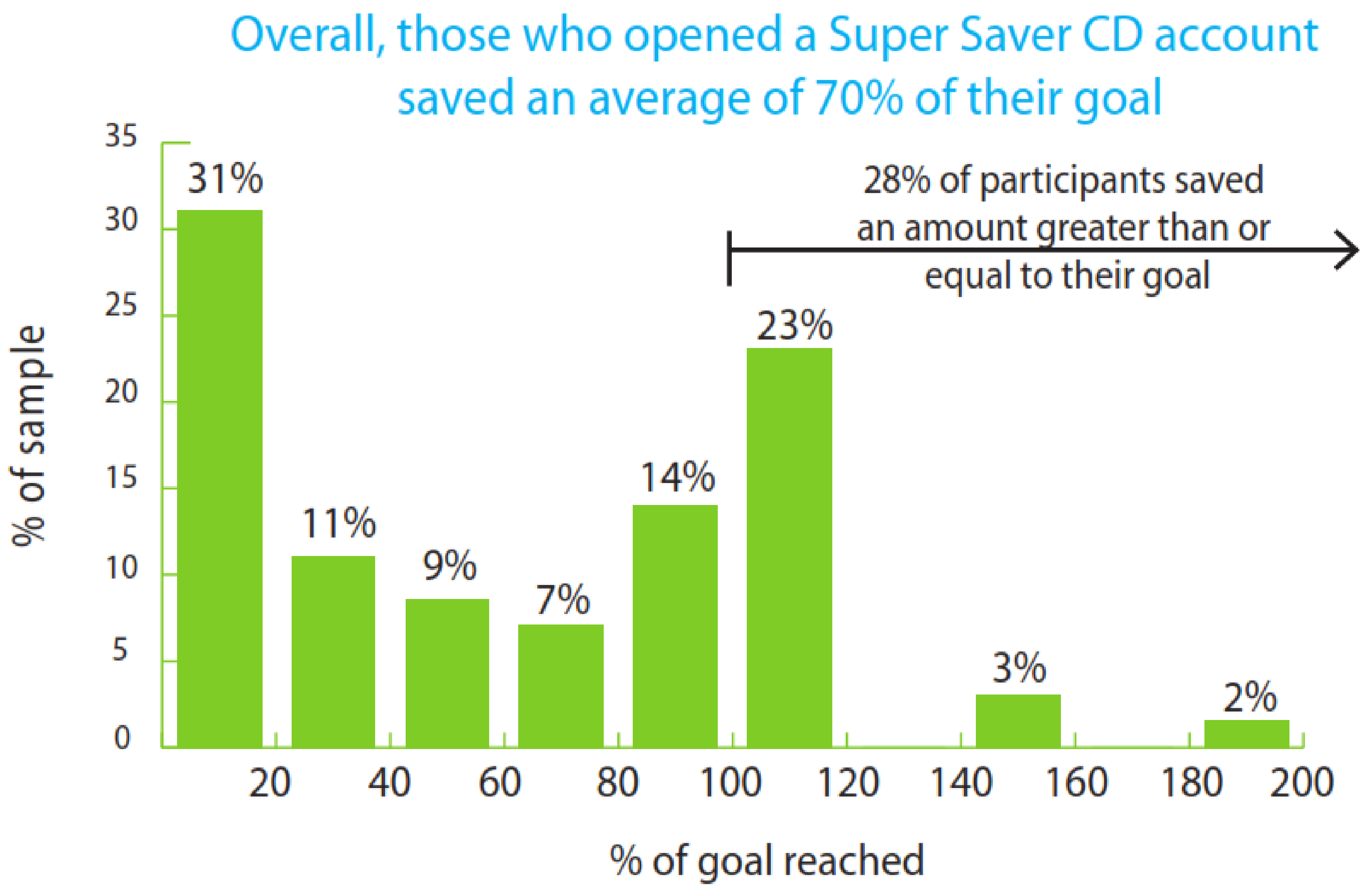
CD take-up analysis: demand model

- Women were 11% more likely to take up than men
- Lower-income respondents were much more likely to take up
  - Take-up very low amongst >$60k
- Demand for the CD is correlated with individual-level proxies for being "behavioral".
  - Surprisingly, strongest results here is that participants who understand compounding are much less likely to take-up.
- Maturity Term: mean = 13.6 months, median = 18 months, N= 81
- Goal: mean = $1701 (sd = 2046), median = $ 1000, N = 81

Counseling take-up: demand model

- 15.9% of counseling-group respondents took up a counseling offer and subsequently went to their counseling appointment
- Another 33.0% made an appointment but did not keep it
- Some evidence that behavioral variables may be correlated with take up of counseling
- Respondents who viewed their financial situation as “good” or better were far less likely to take up
- Timing of entry into the sample was strongly correlated with take-up

Descriptive results for CD



Balances at closing: mean = $910, median = $417

Measuring impacts

Outcomes of Interest:

Credit union balances

- Checking account + CD, vs. all accounts, vs. net assets
- Maximum vs. average
- Measured at quarter-end after account opens. So: *no flows*, just snapshots

Year-later credit report

- FICO score, credit card balances, utilization, delinquencies

Approach:

- Use treatment *offer* (intention-to-treat) to identify causal effect of CD or counseling treatment.
- I.e., compare outcomes across the 3 different treatment groups

Key results

- Effects on balances, measured various ways: Imprecisely estimated zeros
- Effects on credit report variables: Imprecisely estimated zeros, except:
  - Can rule out large effects on credit scores in either direction
- Non-compliance challenges and noisy measurement of balances (no flows)
- Ongoing work may address some of these issues

Treatment effects on savings balances

Table 3: Treatment Effects on Savings Balances (Super Saver CD Account Balances + Savings Account Balances)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable:	*Maximum End of Quarter Balance*	*Maximum End of Quarter Balance*	*Log (Max End of Quarter Balance + 1)*	*Mean End of Quarter Balance*	*Mean End of Quarter Balance*	*Log (Mean End of Quarter Balance + 1)*	*Level Balance at End of Quarter*	*Log (Level Balance at End of Quarter + 1)*
Estimator:	*OLS*	*Median*	*OLS*	*OLS*	*Median*	*OLS*	*OLS*	*OLS*
Savings Treatment	-146.4	48.71	0.0821	-131.7	29.73*	0.0790	-21.73	0.197
	(242.0)	(34.03)	(0.165)	(161.5)	(16.67)	(0.157)	(190.4)	(0.222)
Counseling Treatment	339.4	38.35	-0.134	159.8	16.68	-0.166	247.2	0.0515
	(408.9)	(34.32)	(0.176)	(283.6)	(16.34)	(0.169)	(343.4)	(0.220)
Number of Observations	1167	1167	1165	1167	1167	1161	5767	5747
R-Squared	0.178		0.132	0.255		0.141	0.003	0.069
Dependent Variable Baseline Mean	819.02	819.02	819.02	819.02	819.02	819.02	819.02	819.02
[Median]	[46.34]	[46.34]	[46.34]	[46.34]	[46.34]	[46.34]	[46.34]	[46.34]
<u>Control variables included</u>:								
Timing of Entry into Study	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Timing of Observation	No	No	No	No	No	No	Yes	Yes
Baseline Dependent Variable	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Individual FEs	No	No	No	No	No	No	Yes	Yes

Notes

Standard errors in parentheses, Huber-White for intent-to-treat specifications, clustered on individual for fixed effect specifications. Sample sizes differ for regressions with logged dependent variables because of some negative values for the level dependent variables. Maximum or mean savings balance is the dependent variable in cross-sectional regressions, and is defined over 4 observations taken at treatment-quarter end dates; level balance is the dependent variable in panel regressions, and is simply the observed balance levels at treatment-quarter end dates. All regressions also control for baseline balances, and for month-year of entry (and hence treatment assignment) into our sample, except in the individual fixed effects specifications, where instead we control for the month-year of each observation. *p<0.10 ** p<0.05 *** p<0.01.

Treatment effects on credit scores

Table 4: Treatment Effects on Credit Scores

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent Variable:	*Has Report and Credit Score (dummy)*	*Credit Score (level)*	*Active Trade Lines (count)*	*Credit Card Balance (level)*	*Credit Card Balance (level)*	*Credit Card Balance (log level)*	*Credit Utilization (level)*	*Negative Trades (count)*	*Has Delinquent or 90 Days Past Due Account (dummy)*	*Delinquent or 90 Days Past Due Account (count)*
Estimator:	*OLS*	*OLS*	*OLS*	*OLS*	*Median*	*OLS*	*OLS*	*OLS*	*OLS*	*OLS*
Savings Treatment	0.061*	-2.733	-0.096	-610.638*	-98.000	-0.307	0.012	0.052	-0.005	0.606
	[0.034]	[7.646]	[0.426]	[365.563]	[143.223]	[0.307]	[0.034]	[0.211]	[0.040]	[0.576]
Counseling Treatment	0.031	-8.008	0.683	108.259	-98.000	-0.241	-0.012	0.107	0.030	1.083*
	[0.034]	[7.430]	[0.455]	[467.879]	[147.911]	[0.310]	[0.033]	[0.213]	[0.040]	[0.591]
Number of Observations	1,157	792	934	934	934	934	678	934	934	934
R-Squared/Pseudo R-Squared	0.013	0.010	0.019	0.029	0.010	0.019	0.007	0.014	0.031	0.021
Dependent Variable Baseline Mean	0.65	651.80	4.60	2682.50	2682.50	4.68	0.44	1.46	0.55	3.84
[Median]	[1.00]	[654]	[3.00]	[548.00]	[548.00]	[6.30]	[0.41]	[0.00]	[1.00]	[1.00]
Control variables included:										
Timing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
Huber-White standard errors in parentheses. Median regression reports bootstrapped standard errors with 1000 repititions. All regressions control for month of entry into sample. Sample size differs because credit reports, credit scores, and utilization rates are unavailable for some individuals. *p<0.10 ** p<0.05 *** p<0.01.

Ongoing work with District Gov't Employees FCU, Washington DC

- Fieldwork conducted May – December 2011 at three branches
- Take-up: 9% of treatment-group individuals (36 / 381) set up a Super Saver CD
- Maturity Term: mean = 14 months; median = 18 months
- Goal: mean = $1680 (sd=1499), median =$1000

DGFCU CD usage (so far)

- 14 CDs have closed as of September 1, 2012 (22 still in play)
- Percent of goal reached at closing: mean 71.2%, median = 90%
- Balances at closing: mean = $979, median = $793, N=14
- So far, about 36% of members reached goal
  - Slightly higher than 30% in New York, but very small sample

Next steps: future studies?

Improving commitment features?

- Offer option of stronger commitment
- Decision aids: (are people failing because they overshoot?)
- How important is goal-setting per se? (test a pure goal-setting treatment, no commitment)

Improving counseling sign-up -> take-up?

- Offer commitment? (e.g., performance bond for showing up)
- Follow-up messaging?

Counseling content (and reinforcing it)?

- Should credit scores be moving?
- Failure to complete follow-up tasks?