

When a Nudge Isn't Enough: Defaults and Saving Among Low-Income Tax Filers



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Three Motivations

(1) “Under-saving” by low income households?

- Low income families typically save little.
 - Encouraging asset building among low income populations is often seen as an appropriate policy goal.
 - Why might individuals save “too little”?
 - Present-bias, lack of financial sophistication, inattention, transaction costs
 - Why it be optimal to save little: credit constraints, high MU of consumption.
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Three motivations

(2) Tax time = “savable moment”?

- Tax time is often suggested as an opportune time to encourage saving (e.g., Tufano et al. 2005).
 - A time when people have a chunk of money, a portion of which could be saved.
 - Various attempts to encourage saving refund.
 - E.g., Duflo et al. (2006) use matching grants.
 - Behavior can be influenced; decisions are improved?
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Three motivations

(3) Active choice/ default can affect savings

- Evidence from 401(k)s:
 - Forcing active choice lead to roughly 25 percentage point increase in participation.
 - Change to automatic enrollment increased participation by 50 percentage points.
- Defaults are soft-touch, always allow opt-out



Active Choice/ Default Effects: Mechanisms

- Exact mechanisms still unclear, several potential explanations:
 - Active choice counteracts procrastination
 - Default offer Implicit expert recommendation
 - Reduces the complexity of the decision
 - Increases confidence about saving something.
 - Acts of commission are psychologically costly
 - If deviate from default, can only blame self for a bad decision (regret).
 - Procrastination in changing from default
 - Put off paying decision-making costs (e.g., due to hyperbolic discounting).
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Research Question

- *Can active choice/default interventions increase saving at tax time by low income households?*
 - Important to investigate because:
 - Potentially low cost intervention.
 - All evidence on defaults and savings is from 401(k)s
 - Defaults in that setting some particular features that are not easily implemented in all settings.
 - Are defaults still powerful without?
 - Do defaults address the cause of low saving among low-income households at tax time?
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Our Paper

- Exploits new federal initiative designed to encourage saving, allowing people to buy bonds with refund.
- Presumption is that this reduces transactions costs, helps counteract under-saving.
- Two conditions:
 - Baseline: Asked if they want to buy bonds or not.
 - Treatment: Automatically save, unless decide to opt out.



Agenda

- Introduction/Motivation
 - Experiment Procedure
 - Data and Results
 - Discussion
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Experiment

- Study population: Low-income tax filers at 8 VITA sites in Delaware and Montgomery counties.
- Experiment implemented by volunteer tax preparers during the tax preparation session.
- Eligible participants:
 - Positive refund amount
 - Receiving refund through direct deposit
- Filers also complete a “site survey” (demographic info., etc.) at some point during their visit to the VITA site.



Experiment Procedure

- Volunteer prepares taxes and calculates refund as usual.
 - Once refund amount is calculated, preparer checks to see if filer is using direct deposit to receive refund.
 - If client is using direct deposit, preparer introduces *Your Refund/Savings-Bond Worksheet*.
 - To ensure random assignment, worksheets are in a tear-off pad that alternates between T and C versions.
 - Within-preparer randomization.
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Experiment Procedure

- Preparer takes the worksheet off the top of the pad.
- Fills in required information and hands it to the client...



Baseline Version of Worksheet

YOUR REFUND/SAVINGS-BOND WORKSHEET
(Note: Only use this form if receiving a refund by direct deposit)

Your Adjusted Gross Income (AGI) \$ _____

Your tax refund \$ _____

U.S. Savings Bonds
U.S. Savings Bonds are a safe and easy way to build savings for the future. You can choose to receive \$0 to \$5,000 of your refund (in multiples of \$50) as U.S. Savings Bonds.

Indicate the amount of U.S. Savings Bonds you want here
(Enter 0 if no bonds purchased; your amount must be a multiple of \$50) \$ _____ .00

Please return this form to your tax preparer

FOR YOUR TAX PREPARER

Complete if filer wants to purchase U.S. Savings Bonds

On Form 8888, one of the "account spots" will be for the bonds:

1. Line a – Enter amount of bonds purchased (must be a multiple of \$50)
2. Line b – Enter account number 043736881 in the boxes
3. Line c – Mark "Savings" in the box
4. Line d – Enter "B O N D S" in the first 5 boxes

***** Staple this worksheet to the filer's site survey when you are finished! *****

Site: _____ Preparer Name: _____ Date: _____

Hands to client and helps complete if necessary

If buys bonds, preparer follows these instructions to fill out Form 8888

Preparer fills in

Client decides whether to buy savings bonds (in multiples of \$50)

Preparer fills out info and staples to site survey

Treatment Version of Worksheet

YOUR REFUND/SAVINGS-BOND WORKSHEET
(Note: Only use this form if receiving a refund by direct deposit)

Your Adjusted Gross Income (AGI) \$ _____

Your tax refund \$ 231845

U.S. Savings Bonds
 U.S. Savings Bonds are a safe and easy way to build savings for the future. You can choose to receive \$0 to \$5,000 of your refund (in multiples of \$50) as U.S. Savings Bonds.

The circled amount below - approximately 10% of your refund - will be automatically directed to U.S. Series I Savings Bonds in your name unless you decide to change that amount.

Tax Refund:	U.S. Savings Bonds:	Tax Refund:	U.S. Savings Bonds:
\$0 - \$500	\$0	\$2500 - \$2999	\$250
\$500 - \$999	\$50	\$3000 - \$3499	\$300
\$1000 - \$1499	\$100	\$3500 - \$3999	\$350
\$1500 - \$1999	\$150	\$4000 - \$4499	\$400
\$2000 - \$2499	\$200	\$4500 - \$4999	\$450
\$2500 - \$2999	\$250	\$5000 or greater	\$500

(Optional)
 If you would want a different amount of U.S. Savings Bonds, indicate the amount here
 (Enter \$0 if no bonds purchased; your amount must be a multiple of \$50) \$ _____ .00

Please return this form to your tax preparer

FOR YOUR TAX PREPARER

Complete if filer wants to purchase U.S. Savings Bonds

On Form 8888, one of the "account spots" will be for the bonds:

5. Line a - Enter amount of bonds purchased (must be a multiple of \$50)
6. Line b - Enter account number 043736881 in the boxes
7. Line c - Mark "Savings" in the box
8. Line d - Enter "B O N D S" in the first 5 boxes

***** Staple this worksheet to the filer's site survey when you are finished! *****

Site: _____ Preparer Name: _____ Date: _____

Hands to client and helps complete if necessary

Preparer fills in and circles associated "default" bond amount in table

Makes sure "0" gets recorded if client opts out

If filer buys bonds, preparer follows these instructions to fill out Form 8888

Preparer fills out info and staples to site survey

The Nudge

- The treatment condition captures key mechanisms believed to drive default effects:
 - Reduces complexity/uncertainty by offering an implicit recommendation of a good amount to save.
 - Individual can “blame the recommendation” rather than themselves if this is a mistake (reduces potential regret).
 - Treatment harnesses “status quo bias”, fundamental tendency to go with status quo.
 - One feature typical of 401(k) defaults is notably missing:
 - People feel less nervous going with the default because they can change at any time; but almost never get around to changing...
 - Tax preparation setting dictates our treatment, where people must commit to the default on the spot.
 - Many other policy relevant settings may have same constraint.
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Site Survey

DelCoAD Delaware County Asset Development Group
A consortium of agencies, educational, and financial institutions dedicated to economic & community development in Delaware County, PA

This survey was provided to every client at this VITA site. It was designed to help us improve our services in the future. All responses will remain anonymous. Contact information for follow up is optional.

SITE: _____ DATE: _____

QUESTIONS FOR THE HOUSEHOLD:

Q1: HOW DID YOU HAVE YOUR TAXES DONE LAST YEAR?
 1: Here
 2: Another free place like this
 3: Did my own
 4: Family or friend did them for free
 5: Paid someone and got an instant refund
 6: Paid someone without getting an instant refund
 7: Did not file last year
 8: Have never filed before

Q2: DO YOU HAVE A BANK ACCOUNT?
 BO: Checking & Savings
 CH: Checking
 SA: Saving
 NO: No, not interested
 NB: No, but would like one

Q3: HOUSING:
 1: I own my home and have a mortgage
 2: I own my home without a mortgage
 3: I rent a home or apartment
 4: I live with my family
 5: I live with someone else
 6: I live in a dorm or group setting
 7: I am currently homeless
 8: I own my home, but my mortgage is delinquent

Q4: WHO HAS HEALTH COVERAGE IN YOUR FAMILY? (SELECT ONE)
 1: Me only
 2: My spouse only
 3: My children only
 4: Me and my spouse only
 5: Me and my children only
 6: My spouse and my children only
 7: All of us
 8: No one

Q5: WHAT BILLS ARE GIVING YOU THE MOST TROUBLE NOW? (Select One)
 1: Past-due utility bills
 2: Credit cards
 3: Payday loan
 4: Back child support
 5: Medical bills
 6: Car loan
 7: Mortgage or back rent
 8: Health-insurance
 9: Not having any trouble

Q6: DID YOU RECEIVE PUBLIC BENEFITS (such as Food Stamps, TANF, Medicaid, subsidized housing) in 2009?
 1: Yes
 2: Don't recall
 3: No, but I am interested in _____
 4: No, not interested

Q7: HAVE YOU DONE ANY OF THE FOLLOWING IN THE PAST YEAR? (Circle all that apply)
 1: Put money in a savings account
 2: Put money in a retirement account
 3: Saved money with someone other than a bank or credit union
 4: Used a money order to pay bills
 5: Used a check casher (instead of bank/credit union)
 6: Wired money to a friend or family member
 7: Used a payday loan
 8: Used direct deposit for a paycheck
 9: None of the above

DelCoAD is comprised of the following partners:

Community Agencies	Educational Partners	Financial Partners
Chester Microenterprise Partnership/Widener SBDC Chester Student Center Community Action Agency of Delaware County, Inc. Consumer Credit Counseling Services of Delaware Valley Darby Borough Community Development Corporation DelCo Family Centers Pathways PA YWCA Chester United Way of Southeast Delaware County United Way of Southeastern Pennsylvania	US Internal Revenue Service (IRS) Stakeholder Partnerships, Education & Communication (SPEC) PHENND Swarthmore College Villanova University Widener University	Franklin Mint Federal Credit Union Citizens Bank

FRONT

Q8: WHAT IS YOUR TAX FILING STATUS?
 1: Single
 2: Single with dependents
 3: Married filing jointly
 4: Married filing separately
 5: Qualified widow or widower

Q9: ARE YOU USING DIRECT DEPOSIT TO RECEIVE YOUR REFUND?
 1: Yes, and have used direct deposit before
 2: Yes, this is my first time using direct deposit
 3: No

QUESTIONS FOR THE PRIMARY EARNER:

Q10: GENDER
 1: Male
 2: Female

Q11: IN WHAT YEAR WERE YOU BORN? _____

Q12: HOW MANY DEPENDENTS DID YOU CLAIM ON YOUR TAX RETURN?

Q13: HOW MANY OF THESE DEPENDENTS WERE CHILDREN UNDER 19?

Q14: WHICH ONE OF THESE BEST DESCRIBES YOUR CURRENT WORK STATUS?
 FT: Full-time
 PT: Part-time

Q15: WHICH ONE OF THESE BEST DESCRIBES YOUR OCCUPATION?
 1: Executive or manager
 2: Professional
 3: Technician
 4: Sales worker
 5: Administrative support
 6: Service worker
 7: Production operative or laborer
 8: Construction, installation, or repair craft worker
 9: Transportation
 10: Other

Q16: HIGHEST LEVEL OF EDUCATION COMPLETED:
 1: Less than high school or GED
 2: High School or GED
 3: Some college or tech school
 4: Two-year degree (Associates)
 5: Four-year degree (Bachelors)
 6: Some graduate school
 7: Graduate degree

Q17: RACE/ETHNICITY:
 AA: African American
 NA: Native American/Hawaiian
 AS: Asian/Pacific Islander
 LA: Hispanic or Latino/a
 CA: Caucasian
 OT: Other

HOW DID YOU HEAR ABOUT THIS PLACE? (Circle all that apply)
 1: I came here last year
 2: Radio or TV ad
 3: I saw a flyer or something in the paper
 4: I walked by
 5: Friend or family member
 6: Some else told me
 7: Not sure

I would like someone to call me to CONFIDENTIALLY follow up on my survey answers:

Name: _____

Phone Number: _____ - _____ - _____

DelCoAD

BACK

Buy a U.S. Savings Bond with some of your refund



- Easy & No Fees
- Low Minimum
- Start with as little as \$50.00
- Competitive Rate
- Safe & Secure

"I used some of my tax refund to buy a savings bond."



You decide what to save and what to spend!

If you use direct deposit, you can buy savings bonds today!



- Easy & No Fees
- Safe & Secure
- Low Minimum
- Competitive Rate
- Start with as little as \$50.



You decide what to save and what to spend!

If you use direct deposit, you can buy bonds today!

Buying a U.S. Savings Bond with some of your refund

Easy:

Buy today using part of your tax refund, for as little as \$50. Saves you a trip to the bank and adds to your savings today.

Safe:

Savings protected by U.S. Government. If lost or stolen, you can get a replacement bond.

Fast:

You receive your paper bond in the mail within a few weeks.

Smart:

Pays more interest than many savings accounts and involves no fees.

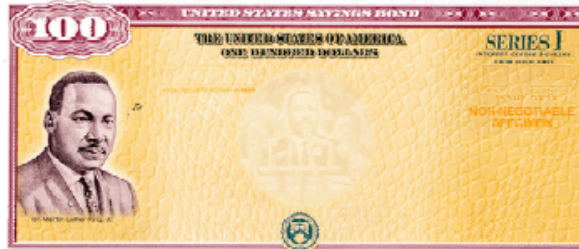
Long-Term:

A \$50 bond is worth \$50 today and is worth far more later! Helps achieve long-term goals like education or retirement. Must be held for a minimum of 1 year before it can be cashed.

Portable:

May be cashed at most banks and credit unions, even if you do not have an account there.

Saving Part of Your Refund with Series I U.S. Savings Bonds



Easy:

Buy today using part of your tax refund, for as little as \$50. Saves you a trip to the bank and adds to your savings today.

Safe:

Savings protected by U.S. Government.
If lost or stolen, you can get a replacement bond.

Fast:

You receive your paper bond in the mail within a few weeks.

Smart:

Pays more interest than many savings accounts (3.36%) and involves no fees.

Long-Term:

Pays interest for up to 30 years.
Helps achieve long-term goals like education or retirement.
Must be held for a minimum of 1 year before it can be cashed.

Portable:

May be cashed at most banks and credit unions, regardless of whether you have an account there.

Maximizing Preparer Fidelity

- Randomization within preparers → crucial that preparers implement each version according to design
 - Preparer training:
 - Introduce worksheet with suggested language; no reference to savings bonds.
 - Allow filer time to read and complete worksheet; help if needed but stick to reading script on worksheet.
 - Answer questions using Savings Bond FAQ sheet.
 - Do not offer advice, sales pitch, over-emphasize opt out, et cetera.
 - Continuous monitoring by members of research team.
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Minimizing Chances of Contamination

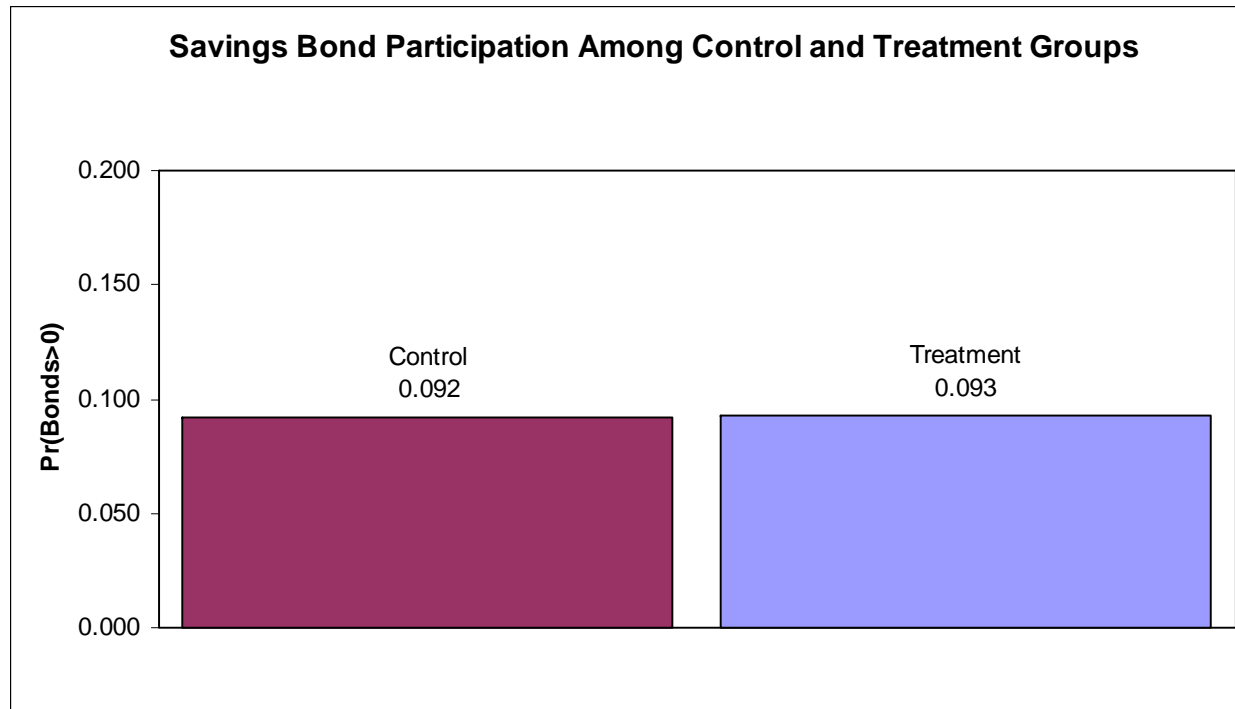
- Possibility #1: Filers overhear/see another filer receiving the other presentation of savings bond decision.
 - At several sites, filing stations were private cubicles without much potential for overhearing.
 - At all sites, tax preparation sessions began at staggered times and took different amounts of time to reach the savings bond decision.
 - Tax filers did not appear to pay attention to other filing sessions.
 - Possibility #2: Filers see the other version of the worksheet during their own tax prep session.
 - Each worksheet pad was kept inside a brown folder.
 - Preparer instructed to remove top sheet from pad and replace pad in folder before proceeding.
-

Data

- 259 tax filing sessions at 8 VITA sites.
 - Experiment ran from February 1 – April 15.
 - Average AGI of filers = approx. \$18,000.
 - Approximately 10-15% have some missing demographic data.
 - Also conducted a retrospective survey of tax preparers; matched to tax filers' data.
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Results

- Treatment effect on Savings Bond participation?

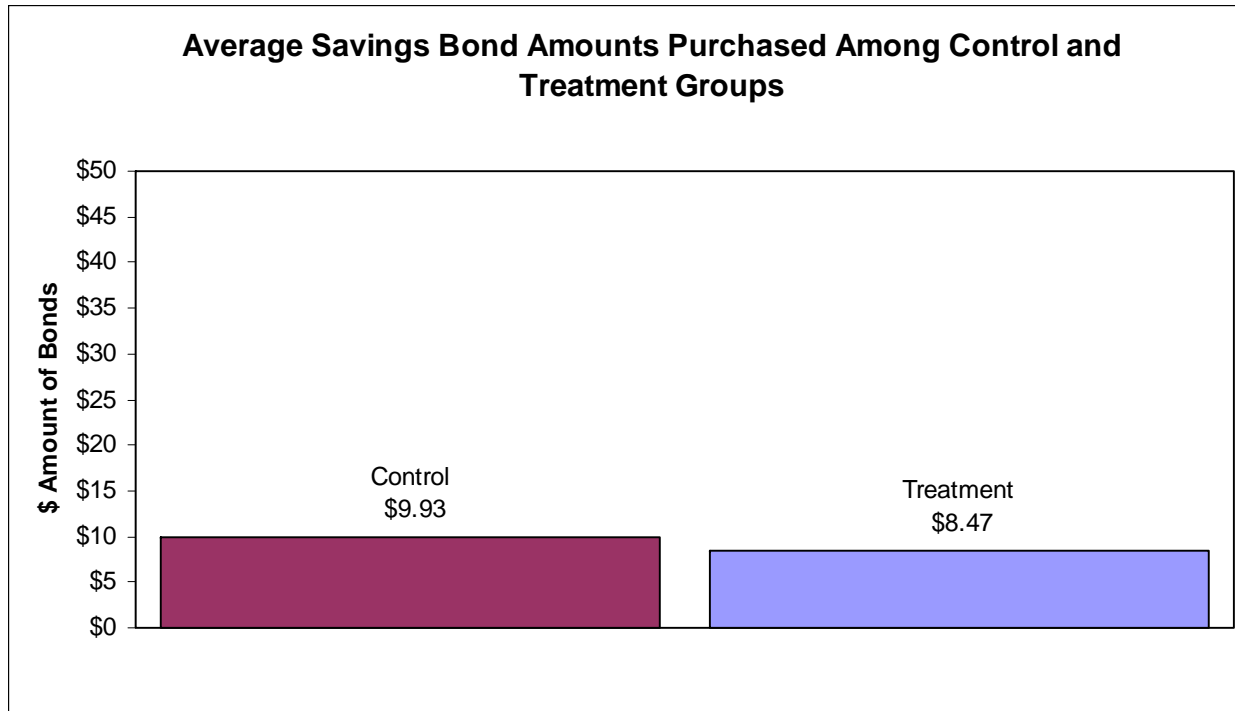


Point estimates for participation rates are essentially identical.

- C.I. allows for maximum possible treatment difference of 8 percentage points, only about 1/5 the size of 401(k) effects.

Results

- Treatment effect on amount of Savings Bonds purchased?



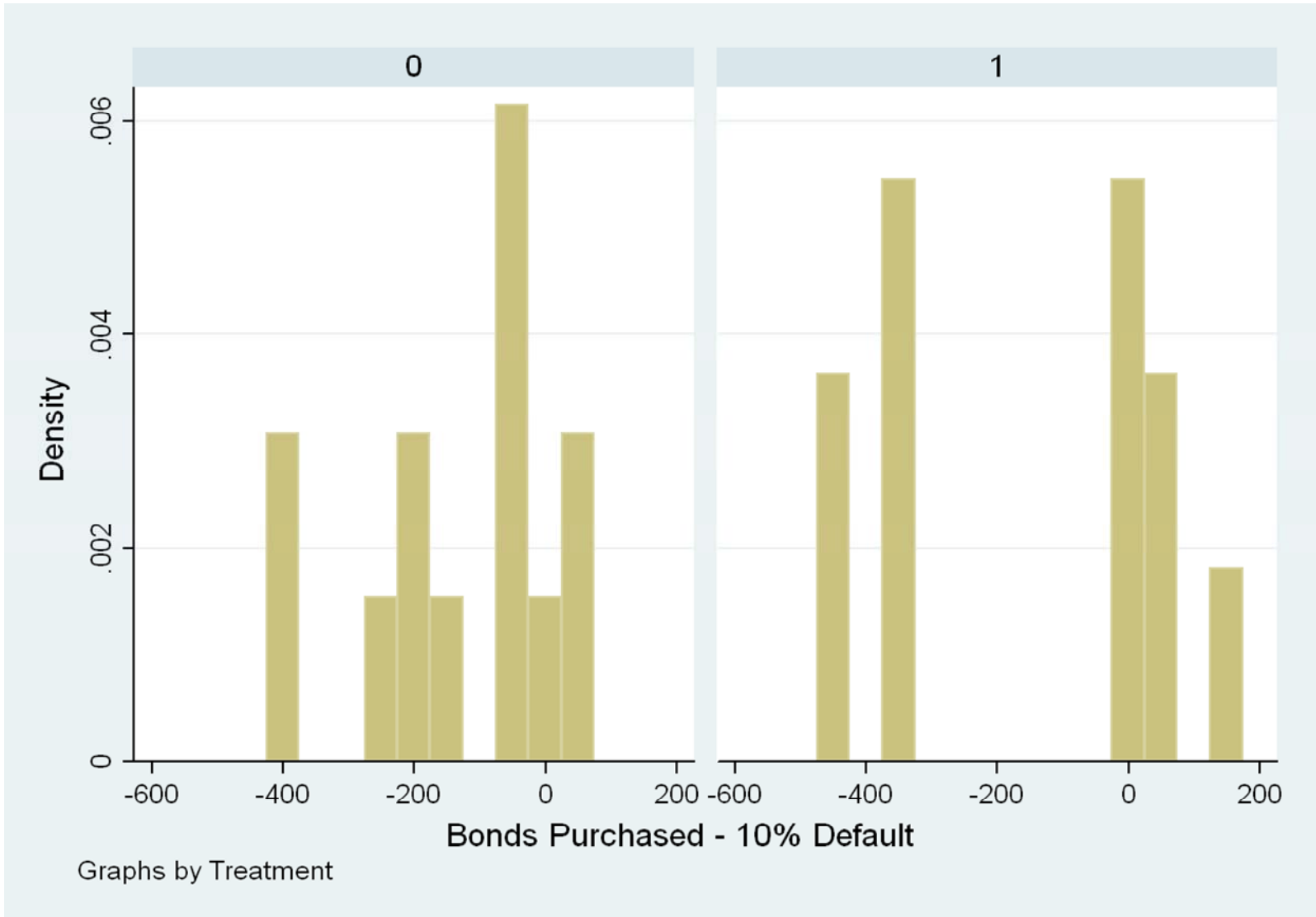
Results

- No effect of the treatment on take-up of savings bonds.
 - Does treatment affect amount of bonds purchased (i.e., is there an effect on the intensive margin)?
 - Conditional on purchasing bonds, does treatment have a positive effect on amount purchased?

No (Tobit and OLS regression results both confirm)
 - Conditional on purchasing bonds, does treatment make it more likely that filer chooses his/her “default” amount?

Not really (see next slide)
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Figure 1: Bonds Purchased Minus 10% Default, by Treatment Status



Results

- What does affect participation in savings bonds?
-

Results

- What does affect participation in savings bonds?

Filing during month of April → positive and significant ($\approx .15$)

Race = Black → positive and significant effect ($\approx .10$).

Female*(Dependents>0) → positive and significant effect ($\approx .20$).

Complying tax preparer → positive and significant ($\approx .08$)

- Suggests looking more closely for heterogeneous treatment effects.

But no evidence of an effect, any way you slice it...

Conclusions

- Key Findings

Default manipulation appears not to have had any significant effect on tax filers' decisions regarding savings bonds.

- No treatment effect at extensive margin (savings bonds participation).
- No treatment effect at intensive margin (bonds purchased, conditional on participation).
- No treatment effect
 - by month of filing
 - among subgroups of tax filers
 - among filers with “complying” or “enthusiastic” preparers

Participation rate also very low in Baseline, suggestive that active choice has little impact.

Conclusions

- Further research is needed to sort out what elements of defaults are important.
 - Why might it be particularly hard to induce saving by low income filers at tax time?
 - Particularly strong decision biases, or costs.
 - Or people opt out of default because the default does what it's supposed to, and allows people to do the optimal thing?
 - But other indications that financial decisions of low income (also 401(k) holders) not perfectly rational, well-informed?
 - Further discussion on whether encouraging savings out of tax refund is a good policy goal.
-

Thank You!

Informing Filers about Savings Bonds

- Wanted to ensure that filers were sufficiently informed about U.S. Savings Bonds before they were presented with the savings decision.
- Decorated sites with numerous posters and flyers, including a Spanish-language version.
- Framed flyer at each tax prep station so filer could read during “dead time” and refer to when presented with the savings decision.



Buying a U.S. Savings Bond with some of your refund



Easy: Buy today using part of your tax refund, for as little as \$50. Saves a trip to the bank and adds to your savings today.

Safe: Savings protected by U.S. Government. If lost or stolen, you can get a replacement bond.

Fast: Receive your paper bond in the mail within a few weeks.

Smart: Pays more interest than many savings accounts and involves no fees.

Long-Term: A \$50 bond is worth \$50 today and is worth far more later! Helps achieve long-term goals like education or retirement. (Must be held for at least 1 year before it can be cashed.)

Portable: May be cashed at most banks and credit unions, even if you do not have an account there.

Compre un Bono de Ahorro Nacional de EEUU con parte de su reembolso



Ahorre
un Poco

Gaste
un Poco

Facil y gratis

Valores altos

Minimo bajo

Asegurado

Empiece con solo \$50

¡Usted decida lo que quiere ahorrar y
lo que debe gastar!

Table 1: Mean Characteristics of Low-Income Tax Filers in Sample

Variable	Mean	Std. Dev.
Federal Refund Amount (\$)	1905.60	(2013.90)
Adjusted Gross Income (AGI) (\$)	17990.30	(14382.40)
Amount of Savings Bonds Purchased (\$)	9.27	(37.50)
Any Savings Bonds Purchased?	0.093	(0.291)
Treatment	0.456	(0.499)
Female	0.683	(0.466)
Sex Missing	0.085	(0.279)
Age	36.9	(21.6)
Age Missing	0.131	(0.338)
Black	0.444	(0.498)
Race Missing	0.108	(0.311)
Less than High School Education	0.154	(0.362)
Completed High School or GED	0.375	(0.485)
Some College / Associates Degree	0.363	(0.482)
Bachelor's Degree or Higher	0.108	(0.311)
Filing Status Single	0.571	(0.496)
Filing Status Missing	0.120	(0.325)
Any Dependents	0.517	(0.501)
Any Dependents Missing	0.139	(0.347)
Having Trouble with Any Bills?	0.772	(0.420)
Plans to Save Some of Refund? (N=90)	0.156	(0.364)
Number of Observations		259

Table 2: Treatment-Control Balance
Results of Regressions of Treatment Status Indicator on Observable Characteristics

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Federal Refund (thousands)	0.0175	0.0170	0.0161	0.0172	-0.0033	-0.0058
	(0.016)	(0.017)	(0.020)	(0.020)	(0.026)	(0.027)
AGI (thousands)	-0.0015	-0.0014	-0.0009	-0.0010	0.0004	0.0006
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Female		-0.0037	-0.0047	0.0108	0.0021	-0.0110
		(0.078)	(0.079)	(0.095)	(0.107)	(0.117)
Age		0.0003	0.0004	0.0003	0.0005	0.0000
		(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Black		0.0618	0.0442	0.0444	0.0750	0.0733
		(0.067)	(0.068)	(0.068)	(0.079)	(0.086)
Any Dependents			0.0882	0.1256	0.0449	0.0438
			(0.090)	(0.157)	(0.185)	(0.199)
HS/GED Completer			-0.1072	-0.1093	-0.1206	-0.1557
			(0.123)	(0.124)	(0.138)	(0.144)
Some College/Associates Degree			-0.1152	-0.1152	-0.1176	-0.1585
			(0.127)	(0.127)	(0.143)	(0.150)
Bachelors Degree			-0.1098	-0.1135	-0.1297	-0.1492
			(0.150)	(0.151)	(0.168)	(0.172)
Filing Status Single			0.0795	0.0798	0.0871	0.0798
			(0.085)	(0.085)	(0.099)	(0.104)
Female with Dependents				-0.0510	0.0973	0.1044
				(0.174)	(0.206)	(0.220)
Preparer: Savings Bonds a Good Idea					-0.1345	-0.1437
					(0.237)	(0.245)
Site dummies?	No	No	No	No	No	Yes
Observations	259	259	259	259	195	195
R-squared	0.006	0.011	0.031	0.031	0.049	0.059

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Note: All regressions also included controls for missing age, race, education, dependent, or filing status information. None of the coefficients on these variables was statistically significant.

**Table 3: Effect of Default on Savings Bond Participation Among Low-Income Tax Filers
(Results from LPM/OLS regressions; standard errors in parentheses)**

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Treatment	-0.0054 (0.036)	0.0005 (0.036)	-0.0116 (0.036)	-0.0069 (0.036)	-0.0056 (0.036)	-0.0104 (0.037)	-0.0043 (0.036)	-0.0119 (0.036)	-0.0111 (0.036)	-0.0110 (0.037)	-0.0118 (0.036)
Federal Refund (thousands)	0.0208** (0.009)	0.0582*** (0.020)	0.0162* (0.009)	0.0097 (0.011)	0.0057 (0.012)	0.0077 (0.012)	0.0421* (0.024)	0.0069 (0.012)	0.0034 (0.012)	0.0106 (0.012)	0.0059 (0.012)
AGI (thousands)	-0.0014 (0.001)	-0.0022 (0.003)	-0.0009 (0.001)	-0.0008 (0.001)	-0.0005 (0.001)	-0.0006 (0.001)	-0.0009 (0.001)	-0.0006 (0.001)	-0.0004 (0.001)	-0.0010 (0.001)	-0.0007 (0.001)
Female			0.0240 (0.044)	0.0170 (0.045)	-0.0383 (0.054)	0.0156 (0.048)	-0.0551 (0.058)	0.0157 (0.048)	-0.0434 (0.058)	0.0004 (0.048)	-0.0658 (0.058)
Sex Missing			-0.1617 (0.133)	-0.1660 (0.142)	-0.2187 (0.144)	-0.2089 (0.145)	-0.2737* (0.147)	-0.2022 (0.144)	-0.2605* (0.147)	-0.2310 (0.143)	-0.2909** (0.146)
Age			-0.0009 (0.001)	-0.0009 (0.001)	-0.0008 (0.001)	-0.0012 (0.001)	-0.0007 (0.001)	-0.0012 (0.001)	-0.0011 (0.001)	-0.0016 (0.001)	-0.0015 (0.001)
Age Missing			0.0897 (0.094)	0.1489 (0.113)	0.1465 (0.112)	0.1713 (0.116)	0.1822 (0.115)	0.1427 (0.116)	0.1408 (0.115)	0.1726 (0.115)	0.1443 (0.114)
Black			0.0999*** (0.038)	0.1002** (0.039)	0.0993** (0.038)	0.1147*** (0.040)	0.1169*** (0.040)	0.1112*** (0.040)	0.1114*** (0.040)	0.1173*** (0.040)	0.1148*** (0.040)
Race Missing			0.0711 (0.106)	0.0851 (0.111)	0.1106 (0.111)	0.0954 (0.111)	0.1162 (0.111)	0.0967 (0.111)	0.1202 (0.111)	0.0954 (0.110)	0.1230 (0.110)
Any Dependents				0.0323 (0.051)	-0.1015 (0.089)	0.0427 (0.053)	-0.1320 (0.093)	0.0445 (0.053)	-0.0916 (0.092)	0.0421 (0.053)	-0.1090 (0.091)
Any Dependents Missing				-0.1614 (0.100)	-0.1600 (0.099)	-0.1683* (0.101)	-0.1658* (0.100)	-0.1535 (0.101)	-0.1566 (0.100)	-0.1703* (0.100)	-0.1609 (0.099)
HS/GED Completer				0.0102 (0.070)	0.0179 (0.070)	-0.0103 (0.071)	0.0012 (0.071)	-0.0167 (0.071)	-0.0099 (0.071)	-0.0109 (0.071)	-0.0090 (0.070)
Some College/Associates Degr				0.0118 (0.072)	0.0121 (0.072)	-0.0133 (0.074)	-0.0191 (0.074)	-0.0124 (0.074)	-0.0136 (0.073)	-0.0151 (0.074)	-0.0159 (0.073)
Bachelors Degree				-0.0145 (0.085)	-0.0012 (0.085)	-0.0280 (0.087)	-0.0115 (0.086)	-0.0350 (0.086)	-0.0182 (0.086)	-0.0238 (0.086)	-0.0119 (0.086)
Filing Status Single				-0.0016 (0.048)	-0.0027 (0.048)	-0.0002 (0.049)	-0.0020 (0.049)	0.0039 (0.049)	0.0015 (0.049)	0.0023 (0.049)	0.0030 (0.048)
Filing Status Missing				0.1046 (0.101)	0.1059 (0.100)	0.1183 (0.102)	0.1144 (0.101)	0.1351 (0.102)	0.1398 (0.102)	0.1124 (0.101)	0.1326 (0.100)
Federal Refund Squared		-4.40E-09** (2.13E-09)					-4.07E-09* (2.26E-09)				
AGI Squared		5.32E-06 (4.55E-05)									
Female with Dependents					0.1819* (0.098)		0.2040** (0.100)		0.1817* (0.101)		0.2041** (0.101)
Complying Tax Preparer							0.0883** (0.043)	0.0800* (0.043)			0.0688 (0.043)
March										0.0206 (0.043)	0.0238 (0.043)
April										0.1520*** (0.058)	0.1532*** (0.058)
Site Dummies?	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	259	259	259	259	259	259	259	259	259	259	259
R-squared	0.022	0.038	0.064	0.078	0.091	0.104	0.131	0.120	0.132	0.131	0.159

Table 4: Effect of Default on Savings Bond Participation Among Low-Income Tax Filers, by Month of Filing
(Results from LPM/OLS Regressions; standard errors in parentheses)

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment - February	0.0291 (0.060)	0.0373 (0.060)	0.0262 (0.059)	0.0311 (0.061)	0.0278 (0.060)	0.0215 (0.061)	0.0294 (0.060)	0.0129 (0.061)	0.0113 (0.060)
Treatment - March	-0.0313 (0.052)	-0.0254 (0.052)	-0.0415 (0.052)	-0.0396 (0.052)	-0.0385 (0.052)	-0.0396 (0.053)	-0.0354 (0.052)	-0.0374 (0.052)	-0.0377 (0.052)
Treatment - April	0.0108 (0.095)	0.0127 (0.095)	0.0057 (0.094)	0.0212 (0.096)	0.0306 (0.096)	0.0025 (0.097)	0.0102 (0.095)	0.0111 (0.096)	0.0172 (0.096)
March	0.0181 (0.053)	0.0150 (0.053)	0.0283 (0.053)	0.0333 (0.055)	0.0398 (0.054)	0.0482 (0.056)	0.0514 (0.056)	0.0383 (0.056)	0.0464 (0.056)
April	0.1277* (0.072)	0.1288* (0.072)	0.1325* (0.073)	0.1263* (0.074)	0.1310* (0.074)	0.1596** (0.076)	0.1671** (0.075)	0.1422* (0.076)	0.1505** (0.076)
Federal Refund (thousands)	0.0230** (0.009)	0.0607*** (0.020)	0.0188** (0.009)	0.0136 (0.011)	0.0094 (0.012)	0.0112 (0.012)	0.0451* (0.024)	0.0103 (0.012)	0.0065 (0.012)
AGI (thousands)	-0.0019 (0.001)	-0.0025 (0.003)	-0.0013 (0.001)	-0.0013 (0.001)	-0.0010 (0.001)	-0.0011 (0.001)	-0.0013 (0.001)	-0.0011 (0.001)	-0.0008 (0.001)
Female			0.0106 (0.044)	0.0047 (0.045)	-0.0554 (0.054)	-0.0022 (0.048)	-0.0799 (0.058)	-0.0003 (0.048)	-0.0673 (0.058)
Sex Missing			-0.1775 (0.132)	-0.1786 (0.141)	-0.2357 (0.143)	-0.2369 (0.144)	-0.3092** (0.146)	-0.2281 (0.144)	-0.2954** (0.146)
Age			-0.0011 (0.001)	-0.0011 (0.001)	-0.0010 (0.001)	-0.0016 (0.001)	-0.0010 (0.001)	-0.0015 (0.001)	-0.0014 (0.001)
Age Missing			0.0906 (0.094)	0.1520 (0.114)	0.1464 (0.113)	0.1781 (0.116)	0.1887 (0.115)	0.1534 (0.116)	0.1499 (0.115)
Black			0.0961** (0.038)	0.0982** (0.039)	0.0977** (0.038)	0.1177*** (0.040)	0.1201*** (0.040)	0.1138*** (0.040)	0.1148*** (0.040)
Race Missing			0.0633 (0.106)	0.0774 (0.110)	0.1058 (0.111)	0.0900 (0.111)	0.1130 (0.110)	0.0924 (0.110)	0.1192 (0.110)
Any Dependents				0.0206 (0.052)	-0.1242 (0.089)	0.0370 (0.053)	-0.1523* (0.092)	0.0396 (0.053)	-0.1133 (0.092)
Any Dependents Missing				-0.1647* (0.100)	-0.1634* (0.099)	-0.1758* (0.101)	-0.1740* (0.099)	-0.1617 (0.101)	-0.1660* (0.100)
HS/GED Completer				0.0135 (0.070)	0.0233 (0.070)	-0.0117 (0.071)	0.0004 (0.070)	-0.0161 (0.071)	-0.0078 (0.071)
Some College/Associates Degree				0.0185 (0.072)	0.0193 (0.072)	-0.0151 (0.074)	-0.0211 (0.073)	-0.0131 (0.074)	-0.0147 (0.073)
Bachelors Degree				-0.0055 (0.086)	0.0083 (0.086)	-0.0251 (0.087)	-0.0068 (0.086)	-0.0294 (0.086)	-0.0115 (0.086)
Filing Status Single				-0.0025 (0.049)	-0.0047 (0.048)	0.0000 (0.049)	-0.0020 (0.049)	0.0044 (0.049)	0.0011 (0.049)
Filing Status Missing				0.1040 (0.101)	0.1055 (0.100)	0.1181 (0.102)	0.1150 (0.101)	0.1333 (0.102)	0.1385 (0.101)
Federal Refund Squared		-0.0000** (0.000)					-0.0000* (0.000)		
AGI Squared		0.0000 (0.000)							
Female with Dependents					0.1973** (0.099)		0.2233** (0.100)		0.2047** (0.101)
Complying Tax Preparer							0.0779* (0.043)		0.0677 (0.043)
Site Dummies?	No	No	No	No	No	Yes	Yes	Yes	Yes
Prob > F (F-test: febXt=marXt=aprXt)	0.7381	0.7247	0.6827	0.6509	0.6552	0.7435	0.7095	0.7960	0.7856
Observations	259	259	259	259	259	259	259	259	259
R-squared	0.047	0.064	0.089	0.102	0.117	0.133	0.163	0.145	0.160

**Table 5: Effect of Default on Savings Bond Participation among Subgroups of Low-Income Tax Filers
(Results from LPM/OLS regressions; standard errors in parentheses)**

Variable	(1) Full Sample	(2) Black	(3) Not Black	(4) Female	(5) Male
Treatment	-0.0104 (0.037)	-0.0064 (0.074)	0.0023 (0.042)	-0.0046 (0.048)	0.0788 (0.078)
Observations	259	115	116	177	60
R-squared	0.104	0.104	0.138	0.143	0.360

Variable	(6) Dependents	(7) No Dependents	(8) High School or Less	(9) Some College or More	(10) Single Filer ^a	(11) Not a Single Filer
Treatment	-0.0383 (0.074)	0.0632 (0.048)	0.0140 (0.064)	-0.0395 (0.058)	0.0053 (0.049)	0.0981 (0.081)
Observations	98	125	114	122	148	80
R-squared	0.214	0.136	0.173	0.127	0.083	0.275

Variable	(12) AGI > Median	(13) AGI < Median	(14) Refund > Median	(15) Refund < Median	(16) No Bill Trouble	(17) Bill Trouble
Treatment	0.0057 (0.058)	-0.0578 (0.051)	0.0265 (0.061)	0.0174 (0.050)	-0.0078 (0.072)	0.0057 (0.043)
Observations	129	130	129	130	64	195
R-squared	0.160	0.231	0.216	0.090	0.457	0.136

Note:

*** p<0.01, ** p<0.05, * p<0.1

All regressions include controls for refund, AGI, gender, age, race, filing status, dependents, educational attainment, and site dummies (i.e., model (6) in Table 3).

^aSingle here is defined as filing status = 1 ("Single") and does not include "Single with dependents" (filing status=2) or "Qualified Widow/Widower" (filing status=5).

**Table 6: Effect of Default on Savings Bond Participation Among Low-Income Tax Filers, by Preparer Traits
(Results from LPM/OLS regressions; standard errors in parentheses)**

Variables	(2) "Compliers" (Responded and followed protocol)	(3) Preparer Thought It Was a Good Idea for Filers to Purchase Savings Bonds
Treatment	-0.0321 (0.047)	-0.0741 (0.067)
Observations	192	124
R-squared	0.144	0.224

Note:

All regressions include controls for refund, AGI, gender, age, race, filing status, dependents, educational attainment, and site dummies (model (6) in Table 3).

*** p<0.01, ** p<0.05, * p<0.1

New Initiative: Tax Refunds and Savings Bonds

“We’ll make it easier for people to save their federal tax refunds, which 100 million families receive. Today, if you have a retirement account, you can have your refund deposited directly into your account. With this change, we’ll make it easier for those without retirement plans to save their refunds as well. You’ll be able to check a box on your tax return to receive your refund as a savings bond.”

- President Obama, Weekly Radio Address, Sept. 5, 2009
