Refund to Savings: Evidence of Tax-Time Saving in a National Randomized Control Trial

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Note: Statistical compilations disclosed in this document relate directly to the bona fide research of and public policy discussions concerning the use of the IRS “split refund” capability and promotion of increased savings in connection with the tax compliance process. All compilations are anonymous and do not disclose cells containing data from fewer than ten tax returns. IRS Reg. 301.7216
About the Refund to Savings Initiative

• Largest saving experiment ever conducted in the United States in terms of sample size

• Developing and testing model for a universal, scalable savings policy

• Tax time is a major financial event for households

  ➢ 146M individual returns filed
  ➢ $323 billion refunded
2013 Refund to Savings Initiative

Randomized controlled trial in TurboTax

- TurboTax Online Freedom Edition
- 684,000 participants
- Household Financial Survey
- 20,000 survey takers
- 6 months
- 8,300 survey takers
You qualify for FREE FEDERAL filing if any or all of the following apply:

- You earned...
  - $31,000 or less
    - Your Adjusted Gross Income (AGI)
    - Learn more

- You were...
  - Active Duty Military
    - in 2011 with an AGI of $57,000 or less
    - Learn more

- You qualify for the...
  - Earned Income Credit (EIC)
    - Find out if you qualify
    - It could be worth up to $5,751 to you!
    - Learn more

I qualify! Start now.

You may also qualify for Free State filing...
Do you have enough money for an emergency?

A Harvard study found that most Americans could not come up with $2,000 for something unexpected. We can help you stay prepared.

We suggest saving at least 25% ($350)

Amount to save:

Choose a savings method:

- An existing savings account
- A U.S. Series 1 Savings Bond

Amount that stays in your Bank of America checking account ending in 1234: $950

Your total federal refund: $1,300
Motivational Prompts

Family
Have a family or thinking of starting one?
Start building a bright future for them.

Future
Save for your future, and get peace of mind
Feel more secure about your future with a little extra money in the bank

Emergency
Do you have enough money for an emergency?
A Harvard study found that most Americans could not come up with $2,000 for something unexpected. We can help you stay prepared.
Anchors

Why not save a little money?
You can split your federal refund into a savings account or get a U.S. Series 1 Savings Bond.

Amount to save:
Choose a savings method:
- An existing savings account
- A U.S. Series 1 Savings Bond

Amount that stays in your Bank of America checking account ending in 1234: $950

Your total federal refund: $1,300

Enter Direct Deposit Information

We suggest saving at least 25% ($350)

I don't need to save
Continue
R2S Participant Characteristics

- Household Income: $13,294
- Federal Tax Refund: $921
- Claiming EITC: 39%; Median: $1,985
- Age: 28
- 68% Single; 21% Head; 11% Married
Key Questions

1. Can behavioral economics techniques increase deposits to savings at tax time?

2. Does R2S increase savings 6 months later?

3. What factors are associated with saving?
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1. Can behavioral economics techniques increase deposits to savings at tax time?

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3. What factors are associated with saving?
Overall Tax Time Impact

• Increased **number** of people who deposited to savings
  ➢ 4,800 additional savers

• Increased **amount** deposited to savings
  ➢ $5.9 million dollars more deposited into savings
Percentage Who Split Refunds into Savings

- Control: 1.3%
- Anchor only (no prompt) 25%*: 2.5%
- Anchor only (no prompt) 50%*: 2.1%
- Emergency 25%*: 2.4%
- Emergency 50%*: 2.4%
- Future 25%*: 2.4%
- Family 25%: 2.0%

n = 228,828
Amount Deposited into Savings

- Control: $197
- Anchor only (no prompt): $216
- Anchor only (no prompt): $214
- Emergency 25%*: $224
- Emergency 50%*: $221
- Future 25%*: $213
- Family 25%: $198

n = 228,828
Splitters: Amounts Deposited into Savings

- Control: $387
- Anchor only (no prompt) 25%*: $619
- Anchor only (no prompt) 50%*: $695
- Emergency 25%*: $656
- Emergency 50%*: $573
- Future 25%*: $619
- Family 25%: $562

$n = 10,365$
Key Questions

1. Can behavioral economics techniques increase deposits to savings at tax time?

2. Does R2S increase savings 6 months later?

3. What factors are associated with saving?
Probability of Saving Refund 6 Months

- Control: 25%
- Anchor 25%: 26%
- Anchor 50%*: 30%
- Anchor 75%*: 30%
- Anchor $100 or $250: 23%

$n = 4,833$
Percentage of Refund Saved 6 Months

Control Group
Mean = 19.2%

- Anchor 25%: 0.7%
- Anchor 50%*: 2.6%
- Anchor 75%**: 5.0%
- Anchor $100 or $250: -1.2%

$n = 4,833$
Probability of Access to $2K in an Emergency 6 Months after Tax Time

Control: 44%
Anchor 25%*: 48%
Anchor 50%*: 50%
Anchor 75%*: 56%
Anchor $100 or $250: 51%
Key Questions

1. Can behavioral economics techniques increase deposits to savings at tax time?

2. Does R2S increase savings 6 months later?

3. What factors are associated with saving?
Factors Associated with Saving

- Financial shocks
- Debt
- Use of alternative financial services
- Asset limits
66% experienced at least one of the following:

- **26%**
  Trip to hospital

- **37%**
  Major vehicle repair

- **34%**
  Period of unemployment

- **9%**
  Legal fees/expenses

*n = 5,552*
Saving 6 Months by Financial Shock

- Experienced a period of unemployment: Yes 20%, No 30%
- Had to make one or more trips to the hospital: Yes 19%, No 29%
- Needed a major vehicle repair: Yes 23%, No 29%
- Faced legal fees/expenses: Yes 18%, No 28%

$n = 5,556$
Saving 6 Months by Type of Debt

% of Participants Who Saved Refund

- Secured debt
- Unsecured debt

- Debt holder
- Non debt holder

n = 8,126
Saving 6 Months by Alternative Financial Services Use

- Check cashier
- Non-bank money order
- Non-bank wire transfer
- Payday loan
- Rent-to-own
- Payroll card
- Auto title loan

n = 5,825
Asset Limits – Percentage of Refund Saved 6 Months

“If I saved more, I would lose government benefits.”

n = 8,300
Summary

- R2S increased both the number and amount of deposits to savings
- Impact observed 6 months after tax filing
- Anchors more effective than prompts
- Financial shocks, debt, use of AFS, and asset limits associated with less saving
Thank You

Intuit Inc.
Ford Foundation
Annie E. Casey Foundation
University of North Carolina
Anonymous funder
Why Tax Time Saving?

• Universal, Permanent, and Recurring

• Major Financial Event for Households
  o Approximately 146M individual returns filed every year¹
  o $323 billion refunded each year²
  o 27M low-income households received nearly $63 billion in EITC for TY2012³

• Golden opportunity

• Evidence from asset-building research

2. IRS Data Book. 2012.
HFS - Insights

- 22% homeowners
- $2,500 in credit card debt
- 38% used alternative financial services in previous year
- 57% skipped paying a bill in previous year
## Products Used by Savers

<table>
<thead>
<tr>
<th>Type of Account</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings Acct</td>
<td>66%</td>
</tr>
<tr>
<td>Checking Acct</td>
<td>33%</td>
</tr>
<tr>
<td>Prepaid Card</td>
<td>1%</td>
</tr>
<tr>
<td>IRA</td>
<td>5%</td>
</tr>
<tr>
<td>Education Acct</td>
<td>1%</td>
</tr>
<tr>
<td>Savings Bonds</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
</tbody>
</table>

N = 2,224
Anchoring

- Subject spins a wheel to generate random number
- Asked, “What % of countries in Africa belong to the UN?”
- Guess is influenced by “anchor”:
  - Wheel says 65, avg. guess = 45%
  - Wheel says 10, avg. guess = 25%

Tversky & Kahneman, 1974
DEMOGRAPHICS
Gender and family status

- 61% are women
- 59% are single, never married
- 20% are unmarried, divorced
- 62% have no kids under 18 in the household
- 77% have 2 or fewer adults in the household
Race

- White: 75%
- Black: 11%
- Asian: 8%
- Hispanic: 2%
- Other: 4%

N=19,269
Education

43% college degree or more
38% some college
27% currently enrolled
FINANCIAL POSITION
Income

- Median household: $17,600
- National Median Household Income: $50,502
- 279 households (2%) report $0 or negative income
- 25th percentile: $8,500
- 75th percentile: $26,593
Highest interest rate

- 42% don’t know the rate on their debt with the highest interest rate
- Among those who do know:

<table>
<thead>
<tr>
<th>Type of Debt</th>
<th>N</th>
<th>Mean rate by %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit cards</td>
<td>2544</td>
<td>19.6</td>
</tr>
<tr>
<td>Student loans</td>
<td>553</td>
<td>8.2</td>
</tr>
<tr>
<td>Personal loans</td>
<td>17</td>
<td>2.1</td>
</tr>
<tr>
<td>Bank loans</td>
<td>132</td>
<td>14.2</td>
</tr>
<tr>
<td>Payday loans</td>
<td>153</td>
<td>221.9</td>
</tr>
<tr>
<td>Medical bills</td>
<td>44</td>
<td>14.5</td>
</tr>
<tr>
<td>Past due rent/bills</td>
<td>41</td>
<td>28.5</td>
</tr>
<tr>
<td>Negative balances</td>
<td>6</td>
<td>24.3</td>
</tr>
</tbody>
</table>
Among those who bank…

(94% of sample)

9% at a 2-12% rate

22% for a $1-10 fee

4% for a $10-25 fee

9% with an average Annual Percentage Rate of 400%

15% with an Annual Percentage Rate up to 240%

1% that cost 10% of the refund

5% at prices well above market price

6% with an Annual Percentage Rate up to 250%
Assets

- Median liquid assets: $600

% of responders that own:
- 3%
- 22%
- 85%
- 4%
Current money management strategy

- 35% pen and paper
- 18% software
- 50% bank website
- 10% internet service
- 16% smartphone app
- 2% accountant
- 23% don’t use anything

(people could circle as many as they use)
Average refund saved is more than average monthly income.

Median Monthly Income  Median Refund Saved
$1,000  $839
$900  
$800  
$700  
$600  
$500  
$400  
$300  
$200  
$100  
$0  

$951

Among Low Income Refund Savers

Source: 2012 R2S Experiment
Debt

Credit Card
- Median debt = $1,500
- 63%

Medical
- Median debt = $1,522
- 42%

Education
- Median debt = $20,000
- 51%

Past-due rent/bills
- Median debt = $500
- 33%
Bank Access

Access

- Banked: 57%
- Underbanked: 37%
- Unbanked: 6%
Plan for the tax refund

• 62% plan to save part of their refund for at least a few months

• How does the average person plan to allocate their refund?
  ~ 1/3 to spending within one month
  ~ 1/3 to debt clearing
  ~ 1/3 to savings
Overall Impact 6 Months Later

• Anchors affected the number of people with any portion of the refund 6 months later
• Anchors also influenced the percentage of refund saved
• Higher anchors tended to be more effective (50% and 75%)
Tax Time Intention for Refund

- Spend short term*: 32%
- Pay down debt*: 31%
- Save medium term*: 22%
- Save long term: 15%
Actual Allocation

- Spend short term*: 32%
- Pay down debt*: 31%
- Save medium term*: 22%
- Save long term: 15%

**Intention**

**Follow-up**

- Time 1: Intention
- Time 2: Follow-up
Tax Time Intention vs. Actual Allocation

- **Spend short term**:
  - Intention: 32%
  - Follow-up: 23%

- **Pay down debt**:
  - Intention: 41%
  - Follow-up: 31%

- **Save medium or long term**:
  - Intention: 37%
  - Follow-up: 36%
### % of Refund Saved for Six Months

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Robust Standard Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchor 25%</td>
<td>0.664</td>
<td>1.322</td>
<td>0.616</td>
</tr>
<tr>
<td>Anchor 50%</td>
<td>2.565</td>
<td>1.465</td>
<td>0.080</td>
</tr>
<tr>
<td>Anchor 75%</td>
<td>5.034</td>
<td>2.431</td>
<td>0.038</td>
</tr>
<tr>
<td>Anchor $100 or $250</td>
<td>-1.226</td>
<td>2.455</td>
<td>0.617</td>
</tr>
</tbody>
</table>
Does tax time deposit predict 6 months saving?

Saved any amount

Proportion Saved

% who saved 6 months

No Deposit | Deposit

Proportion of refund saved 6 months

No Deposit | Deposit
Access to $2,000 in an Emergency

N=7,645
Financial Hardships

![Bar chart showing financial hardships]

- Skipped rent*
- Skipped a bill*
- Skipped medical care*
- Skipped dental care*
- Skipped prescription drugs*
- Skipped food*
- Overdrafted bank account
- Declined credit card*

*indicates financial hardship

$ n = 7,624 $
Financial Insecurity (% who skipped...)

70% skipped at least one of the following

- 25% Rent
- 57% Bills
- 45% Medical Care
- 33% Medications

N=20,558
Highest interest rate

Out of the kinds of debt you indicated having, which has the highest interest rate?

13% don’t know
56% credit or charge cards
18% student loans
5% pay day loans
3% medical bills
Are you familiar with U.S. savings bonds?

58% YES
34% SORT OF
8% NO
Saving by Hardship Experience

- Skipped rent: 31% (Yes), 13% (No)
- Skipped bill: 40% (Yes), 15% (No)
- Skipped medical care: 19% (Yes), 33% (No)
- Skipped prescriptions: 32% (Yes), 15% (No)
Difficulty in Covering Expenses

- 46% of participants found it not at all difficult to cover expenses.
- 23% found it somewhat difficult.
- 11% found it very difficult.

n = 8,267
Types of Debt

- **Secured debt**
  - Car: 68%
  - Credit card: 56%
  - Education: 51%
  - Medical: 42%
  - Negative balances: 8%
  - Other: 7%

- **Unsecured debt**
  - Other bank loan: 14%
  - Owed friends/family: 24%
  - Past due bills: 33%
  - Payday loan: 8%

Total participants with debt: **n = 18,956**
Interest in Alternative Refund Methods

- New checking account
- New savings account
- New retirement account
- New education account
- Add to existing retirement account
- New prepaid debit card
- Pay debt directly
- Some other thing

n = 17,901
Interest in Alternative Refund Methods by Banked Status

$n = 961$
Conclusions

• R2S interventions increased:
  – Number of savers
  – Amount of savings
  – Number of splitters
  – Proportion of split to savings

• Follow-up survey revealed:
  – Tax time deposits saved 6 months
  – Many barriers to saving for low-income people
  – Interest in tax time product innovation