



Center for Social Development

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SCHOOL OF SOCIAL WORK



Washington University in St. Louis

# **Refund to Savings (R2S): Overcoming Barriers to Economic Security**

Krista Comer, Michal Grinstein-Weiss, Dan Ariely, and Clint Key  
Southern Regional Asset Building Coalition

October 17, 2013



# American families are facing big challenges



3-4 million workers (3% of the work force) separate from jobs each month



In 2011, almost 20% of households lost at least a quarter of their resources and during the recession, 40% of households were unemployed, missed housing payments, or had an underwater loan.



“Unexpected” short-term events threaten long-term economic security.





# The personal safety net is in tatters



- Only a minority of households have as much saved as they want (or as much as experts think they need)
- The median-income household has about \$3,500 in its checking and savings accounts (lower-income households typically have \$1,500 or less)
- About half of households say they couldn't find \$2,000 in 30 days to pay for an emergency



# 40% of working-age households do not have enough savings to meet three quarters of one month's expenses



Key, Clinton C. 2013. "The Finances of Typical Households After the Great Recession" in " *The Assets Perspective: The Rise of Asset Building and Its Impact on Social Policy*", Reid Cramer and Trina Williams-Shanks (eds.). Palgrave Macmillan. (Forthcoming)

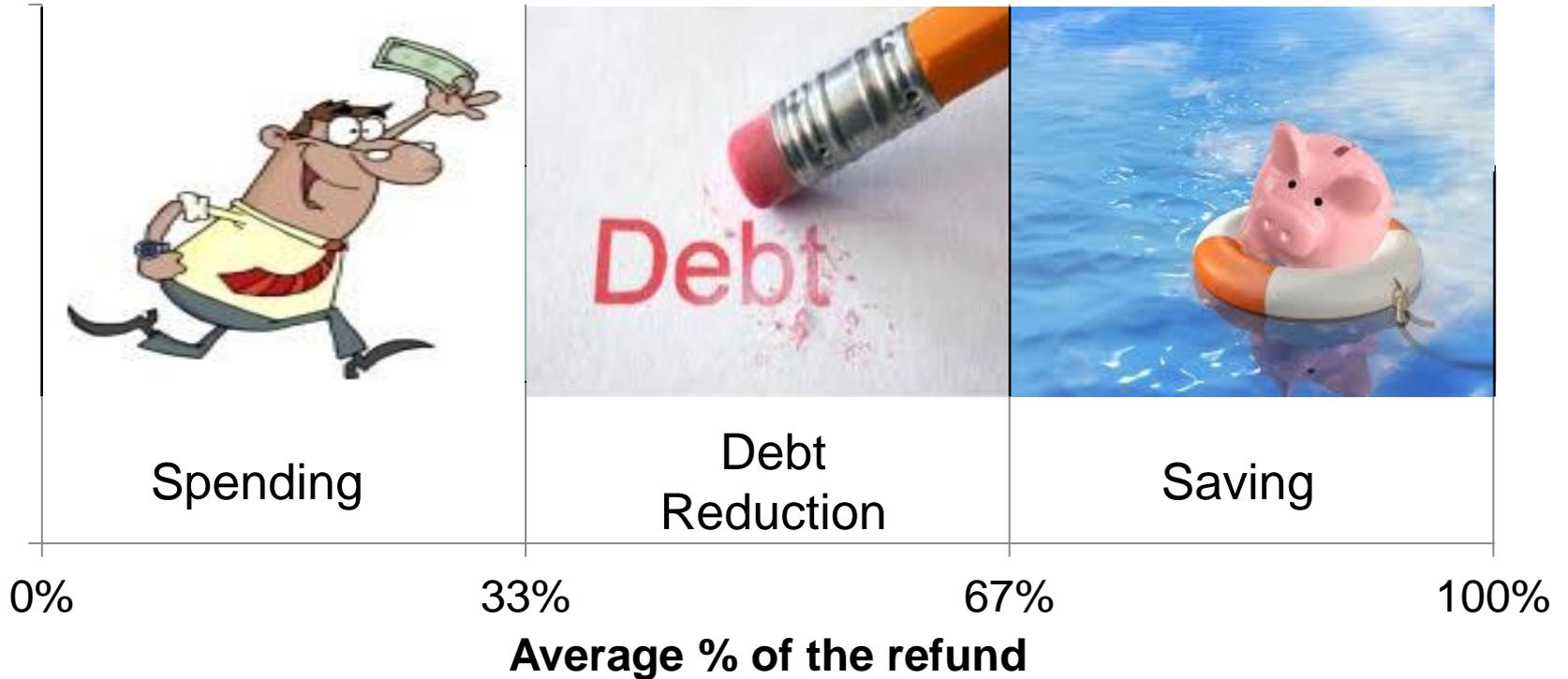
Shapiro, T., Oliver, M., & Meschede, T. (2009). *The Asset Security and Opportunity Index*. Institute for Assets and Social Policy.



# People want to save at tax time

- Overall
  - 56% plan to clear debt
  - 60% plan to save
  - Average: plan to save 41% of refund
- Lower-income filers
  - 60% plan to clear debt
  - 55% plan to save
  - Average: plan to save 30% of refund

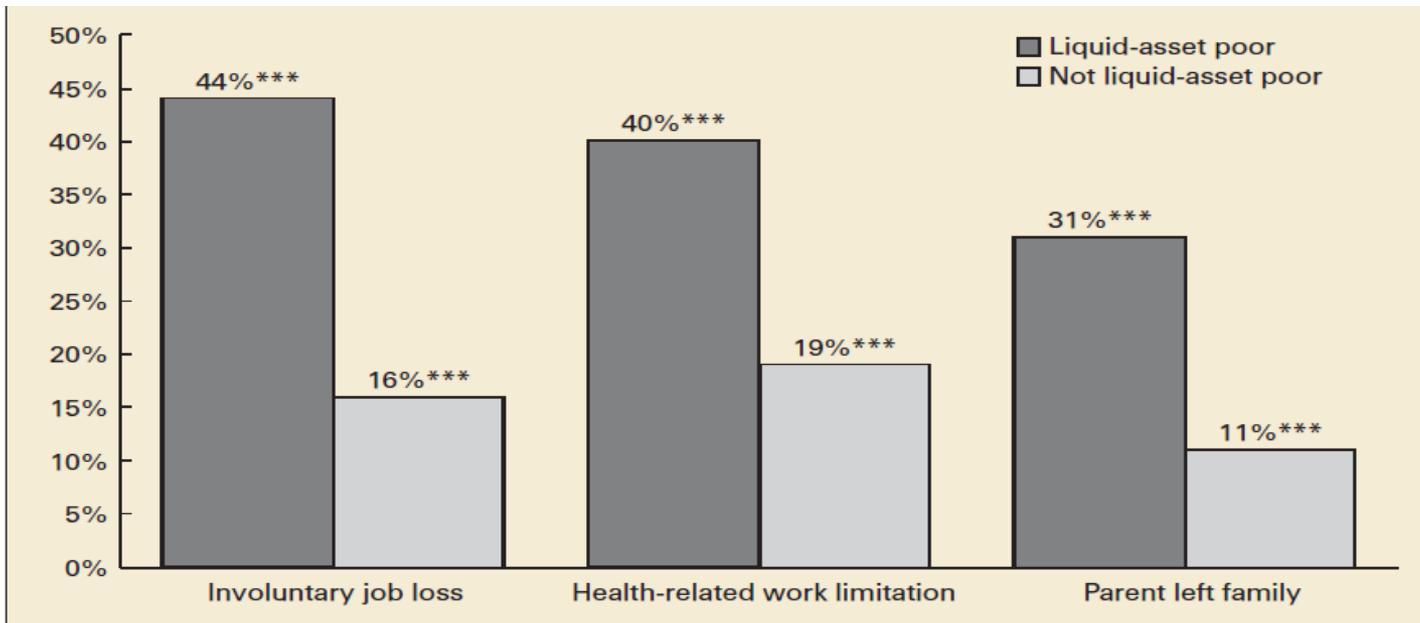
# Refund used for spending, debt and saving



According to our data, households typically spend a third, put a third towards debt reduction, and save the final third of their refund.



## Even resource constrained households, are better off when they save



Source: Authors' tabulations of the 1996 and 2001 SIPP panels; data are weighted using SIPP weights.

Notes: Statistical significance is calculated on the difference between families that are liquid-asset poor and families that are not liquid-asset poor. The total unweighted sample size is 17,057 families; 1,194 experienced an involuntary job loss, 1,565 experienced a health-related work limitation, and 1,392 experienced the loss of a parent. A family is considered liquid-asset poor if they are without enough liquid assets to finance consumption for three months at the federal income poverty level.

\* =  $p < 0.1$ , \*\* =  $p < 0.05$ , \*\*\* =  $p < 0.01$ .

Compared to households with liquid assets, those that are “liquid-asset poor” are 2-3 times more likely to experience material hardship after a job loss, health emergency, death in the family, or other adverse event.

Source: McKernan, Ratcliffe, and Vinopal 2009



**Even though we know that people need to save, want to save, and are better off when they save; we know there are many barriers that prevent people from saving.**





# There are substantial barriers to saving

## Individual Barriers

- Lack of sufficient income<sup>1</sup>
- Behavioral and psychological barriers
  - The difficulty of giving up money one would like to spend today in order to have more resources in the future<sup>2</sup>
  - Procrastination<sup>3</sup>
  - Limited attention<sup>4</sup>
- Limited financial know-how<sup>5</sup>
- Asset limits, real or perceived, that discourage saving among recipients of public assistance<sup>6</sup>

1. Neuberger, Z., Greenstein, R., & Orszag, P. (2006). *Barriers to Saving*. Federal Reserve Bank of Boston.

2. Harris, C., & Laibson, D. (2001). The Dynamic Choices of Hyperbolic Consumers. *Econometrica*.

3. Beshears, J., Choi, J., Laibson, D., & Madrian, D. (2012). Simplification and Saving. *Journal of Economic Behavior and Organization*.

4. Shah, A., Mullainathan, S., & Shafir, E. (2012). Some Consequences of Having Too Little. *Science*.

5. Lusardi, A., Michaud, P., & Mitchell, O. (2012). *Optimal Financial Knowledge and Wealth Inequality*. Financial Literacy Research Consortium.

6. O'Brien, R. (2008). Ineligible to Save? Asset Limits and the Saving Behavior of Welfare Recipients. *Journal of Community Practice*.



# Barriers to saving (*continued*)

## Institutional Barriers

- Lack of high-quality, affordable savings products<sup>1</sup>
- Unequal access to mainstream financial services<sup>2</sup>
- Regulatory changes that made small-dollar deposit accounts less profitable for financial services providers<sup>3</sup>
- Low interest rates and few incentives for short-term savings<sup>4</sup>
- Few tax incentives for middle- and low-income households to save<sup>5</sup>

1. Fellowes, M. (2007). Making Markets an Asset for the Poor. *Harvard Law and Policy Review*.

2. FDIC. (2012). *National Survey of the Unbanked and Underbanked*. FDIC.

3. Schneider, R., & Sledge, J. (2011). *The Future of Financial Services*. Center for Financial Services Innovation.

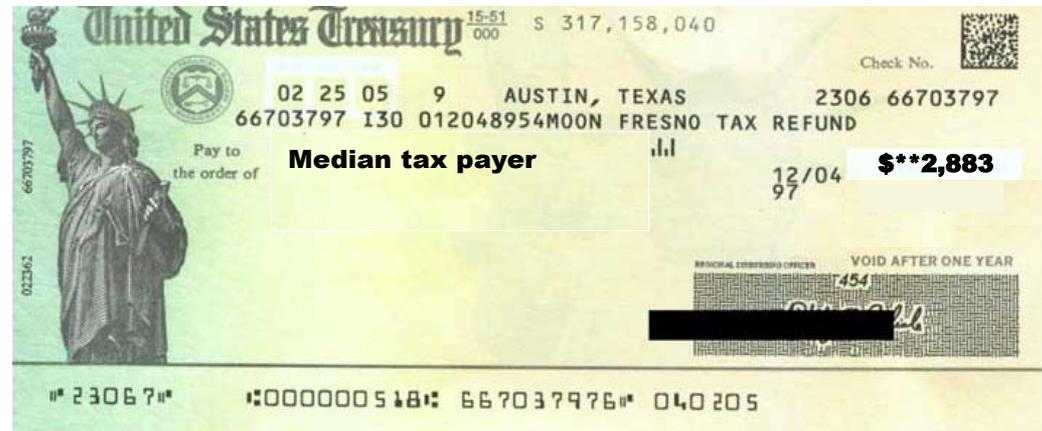
4. Chan, P. (2011). *Beyond Barriers: Designing Attractive Savings Accounts for Lower-Income Consumers*. New America Foundation.

5. Black, R., & Cramer, R. (2011). *Incentivizing Savings at Tax Time*. New America Foundation.



# Tax time is a golden opportunity to overcome barriers to saving

- Universal, Permanent, and Recurring
- Major Financial Event for Households
  - Approximately 143M individual returns filed every year<sup>1</sup>
  - \$338 billion refunded each year<sup>2</sup>
  - 26.5M low-income households received nearly \$60.7 billion in EITC for TY2011<sup>3</sup>



1. IRS Data Book. 2011. Publication 55B. <http://www.irs.gov/pub/irs-soi/11databk.pdf>
2. IRS Data Book. 2011.
3. IRS Earned Income Tax Credit Table 2012. <http://www.eitc.irs.gov/central/eitcstats>



# R2S is a unique partnership



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Social Development

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SCHOOL OF SOCIAL WORK

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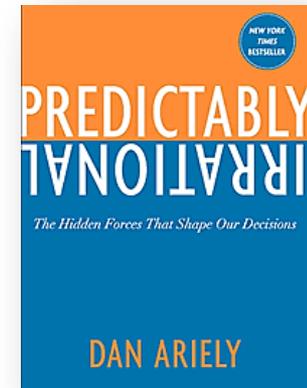


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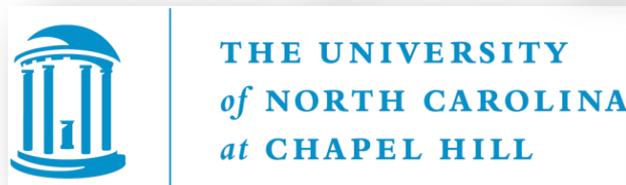
Intuit®  
Tax  
Freedom  
Project<sup>SM</sup>  
From the makers of **TurboTax** 

Duke  
UNIVERSITY



[Dan Ariely on R2S](#)

# We gratefully acknowledge



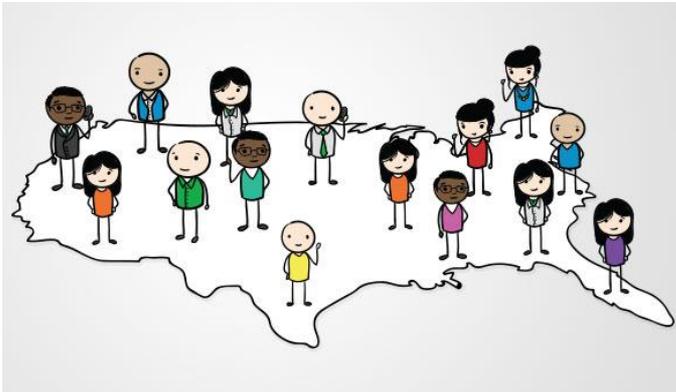


# R2S is guided by two principles

universal

scalable

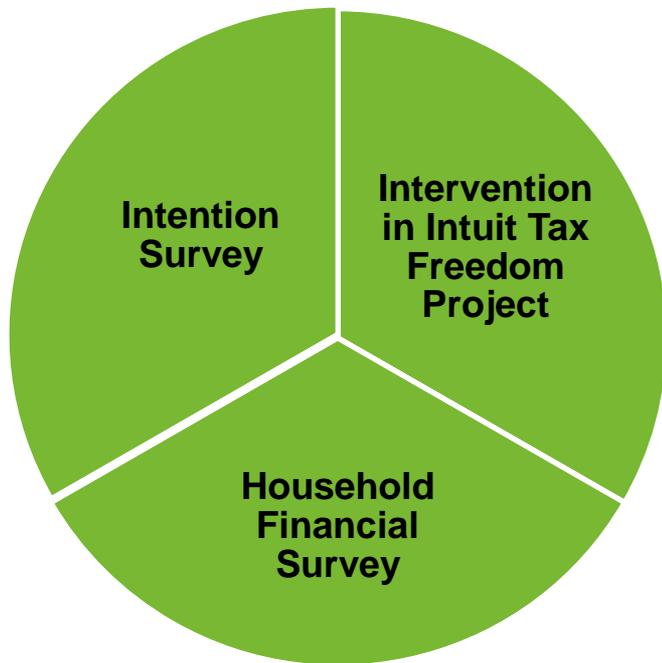
savings policy



**Refund  
to  
Savings  
Initiative**



# Refund to Savings Initiative

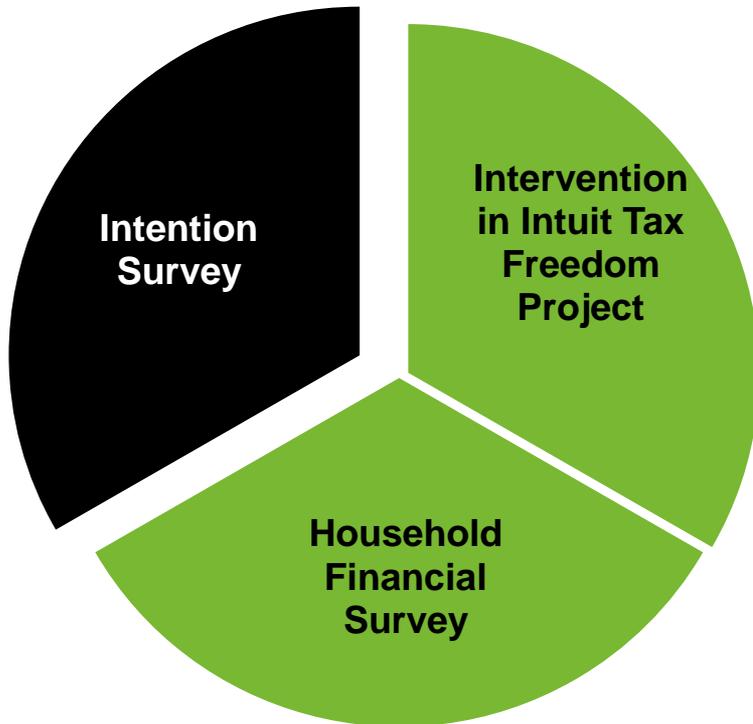


## Research Components

- **Intention survey** to test possible intervention
- **In-product intervention** to test concept at scale
- **Household financial survey** to test impact of intervention on financial lives of participants



# Refund to Savings Initiative



## 2011 and 2012 Intention Surveys

- Fielded in Intuit's Customer Experience Survey
- Sample size:
  - 2011: 1,720
  - 2012: 4,087
- Tests potential intervention components



# Do people want to save at tax time?

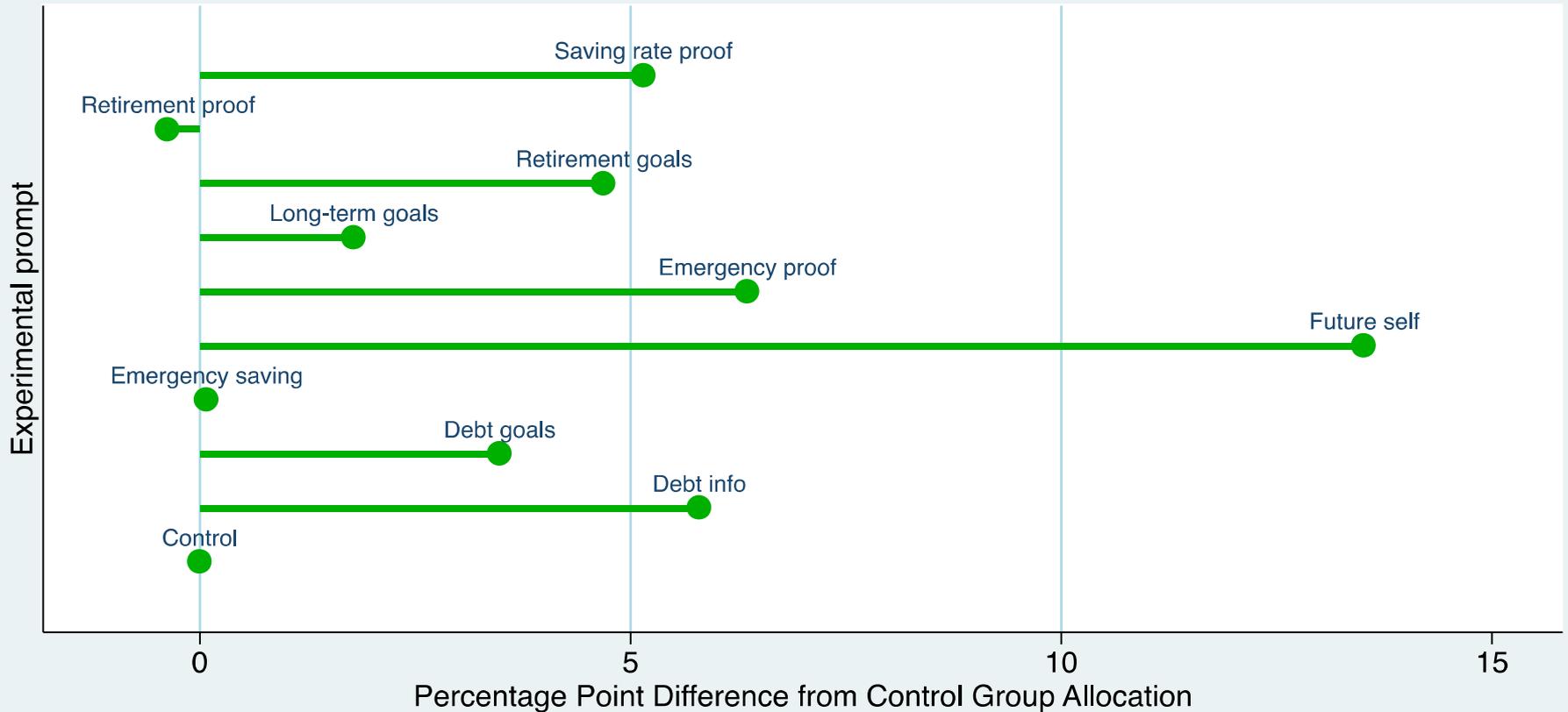
## With no intervention (control group)

- Overall
  - 56% plan to clear debt
  - 60% plan to save
  - Average: plan to save 41% of refund
- Lower-income filers
  - 60% plan to clear debt
  - 55% plan to save
  - Average: plan to save 30% of refund



# Prompts can increase saving motivation.

Percentage of Refund Allocated to Savings  
Below \$35,000 AGI





# Intention survey

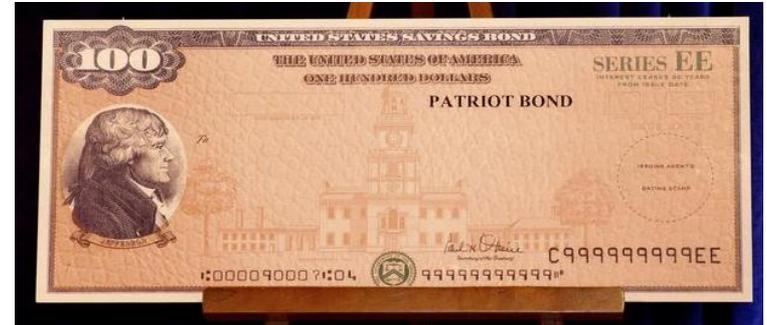
The screenshot shows a software window titled 'Savings Accounts' with a sub-header 'Savings Account'. The form includes the following fields and values:

- Account Name: Piggie Savings
- Bank Name: Piggie Savings
- Address: 1212 Havg Heaven Blvd, Porkerville, PA 19334
- Phone: 888 555-4022
- Account #: PS 4021163
- Starting Balance: \$124.75
- Minimum Balance: \$30.00
- Current Balance: \$124.75
- Division: Company
- Comments: Free slab of bacon with every deposit over \$500
- Include in Starter File:

**50%** are interested in saving some of the refund in a savings account

**26%** don't have a savings account

**28%** of those who don't, want a savings account

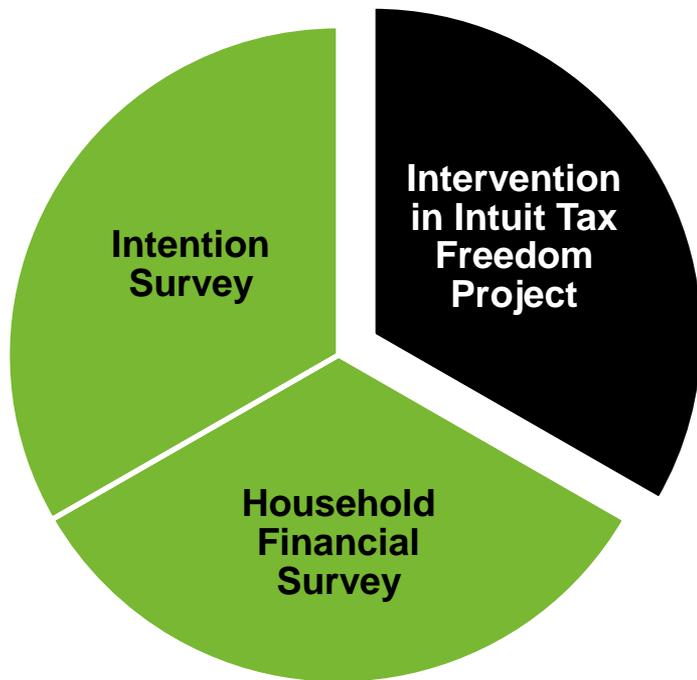


**12.5%** are interested in saving some of the refund in a savings bond

**7%** have a savings bond



# Largest saving experiment ever conducted in the United States



## 2012 Pilot Intervention

- Randomized controlled trial
- Sample size: 148,619
- Testing behavioral interventions with end of season filers

## 2013 Intervention

- Randomized controlled trial
- Sample size: ~870,000
- Testing behavioral interventions during the full tax season



# Research questions

1. Can motivating prompts increase saving?
2. Does default presentation affect saving performance?
3. Which combination of motivational prompts and default presentation of choice produces the largest impact on saving behavior?



# Outcome variables

- Any saving
- Amount saved
- Proportion of refund saved
- Split refund





# Example of motivational prompts

## CDC's Take the Stairs Campaign



Research shows that motivational prompts (like those in the Center of Disease Control poster campaign) can effectively change behavior at key decision points.



# Choice architecture



The goal is to get people to do the right thing at the right moment.



# Anchoring

**Anchoring:** the tendency to stay on or closer to the default.

- **Example anchoring research:**
  - Subject spins a wheel to generate random number (anchor)
  - 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%
- Even when the anchor is random, the default or reference number affects people’s choice.
- In this example the anchor was random but in our study it is not.



Tversky & Kahneman, 1974



Choose Easy.



Support

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## Intuit Tax Freedom Project

## TurboTax Freedom Edition:

### Prepare and eFile your federal taxes for FREE

- Get FREE online federal tax preparation from the most trusted name in tax software
- Prepare and e-file your return at no cost
- You may also qualify for free state tax filing

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**Fastest Refund Possible**


Free e-filing gets your federal refund in as fast as 7 days with direct deposit\*

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*\*IRS typically estimates 7-14 days for efile with direct deposit.*

Time's almost up!  
 (Or not.)



The tax deadline is April 17th. Need more time to get your tax forms together?

TurboTax Easy Extension makes filing a tax extension easy.

[File a free tax extension now](#) >

TurboTax Freedom Edition Supports Most Forms

TurboTax Freedom Edition

## 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](#) >

OR

### You were...

**Active Duty Military**

in 2011 with an AGI of \$57,000 or less

[Learn more](#) >

OR

### 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...

If you qualify for a Free Federal filing, you may also



# 2013 emergency prompt

**TurboTax**  
Freedom Edition

Create User ID | Exit

Home Personal Info Federal Taxes State Taxes Review **File**

Search Topics or Forms Topic List Help

**Federal Refund \$1,300**

Get Answers  
Find Tax Help  
Using TurboTax  
Contact Us

My Return  
View Tax Summary  
Print My Return  
View Past Returns  
My TurboTax Fees  
Amend a Return  
Other Options

**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:** \$ 350

Choose a savings method:

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

**Recalculate**

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

**Your total federal refund: \$1,300**

Go Back I don't need to save **Continue**

Filers are presented with prompts meant to motivate them to save their return.

# 2013 additional motivational prompts

## Family

**Have a family or thinking of starting one?**

Start building a bright future for them.

We suggest saving at least 25% (\$350)



## Future

**Save for your future, and get peace of mind**

Feel more secure about your future with a little extra money in the bank

We suggest saving at least 25% (\$350)



**Federal Refund**  
**\$1,300**

**Get Answers**

Find Tax Help  
Using TurboTax  
Contact Us

**My Return**

View Tax Summary  
Print My Return  
View Past Returns  
My TurboTax Fees  
Amend a Return  
Other Options

## 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.



**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

**Recalculate**

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

**Your total federal refund: \$1,300**

**Enter Direct Deposit Information**

Johnathan Doe  
1200 Main St  
Anytown, CA 12345

DATE

ACH TO THE ORDER OF

**Your Bank Name**  
657 Melanie Ln.  
San Diego, CA 92123  
**ACH R/T 28237356**

**ACH Routing / Transit #**

**DO NOT INCLUDE**  
Check Number

0001234567890 #

Routing # Account #

**Routing #**  
Between the # symbols

**Account #**  
Include all zeros

Type of Account  Checking  Savings

Name of Bank

[Routing Number](#)

Account Number

(From your check. Don't use your deposit slip. Use the ACH number if your check has one.)

**Note:** Make sure to choose a U.S. based financial institution for your direct deposit transaction. [Learn More](#)

Go Back

I don't need to save **Continue**

**Federal Refund**  
**\$1,300**

## Get Answers

[Find Tax Help](#)  
[Using TurboTax](#)  
[Contact Us](#)

## My Return

[View Tax Summary](#)  
[Print My Return](#)  
[View Past Returns](#)  
[My TurboTax Fees](#)  
[Amend a Return](#)  
[Other Options](#)

## 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.



### 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

**Recalculate****Amount that stays in your Bank of America checking account ending in 1234:** **\$950****Your total federal refund: \$1,300**

Your U.S. Savings Bonds will be mailed to the address on your federal tax return.

Name on savings bond: Chris Customer &amp; Susy Customer

Savings bond amount: \$350

Beneficiary name (optional): **Go Back****I don't need to save****Continue**



# In-product offer sample size

148,619  
Total sample



40,939  
Took paper  
check



107,680  
Took bank  
deposit



# 2012 sample characteristics ( $N = 107,680$ )

- Very low-income
  - AGI mean: \$13,000
  - AGI median: \$11,166
- Modest refund amount
  - Mean: \$1,019
  - Median: \$589
- Estimated: 10% have children
- Late season filers: March 15–April 17



# 2012 Results: Full Sample



Saved **\$1.8 million** more than they would have without the R2S intervention

- Total Saved: \$9.8 Million
- 26% increase in any saving
- 9.8% of treatment group saved compared to 7.7% of control group ( $p < .001$ )



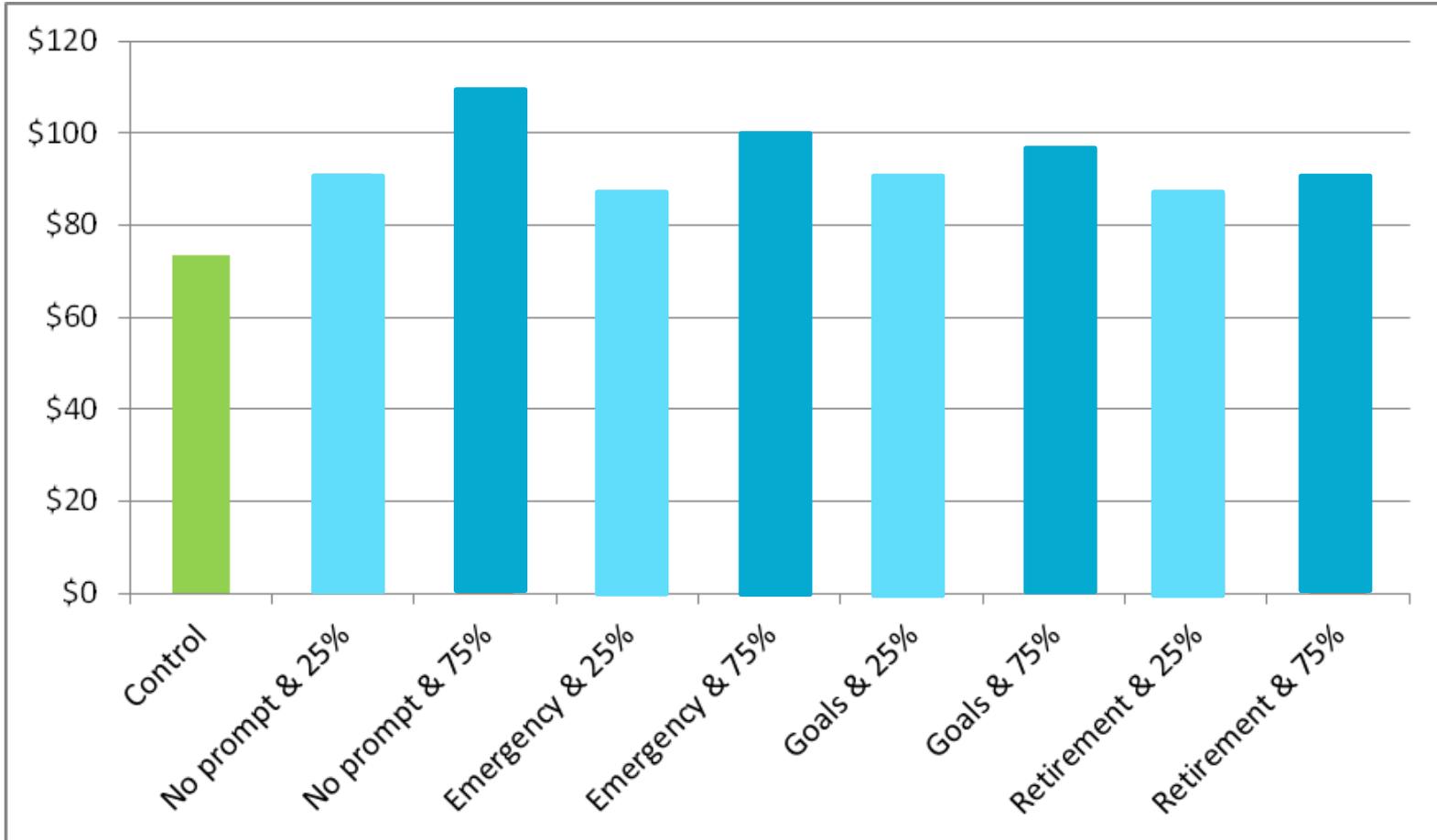
# 2012 Results: Full Sample



Doubled the number of  
people who split



# Amount saved



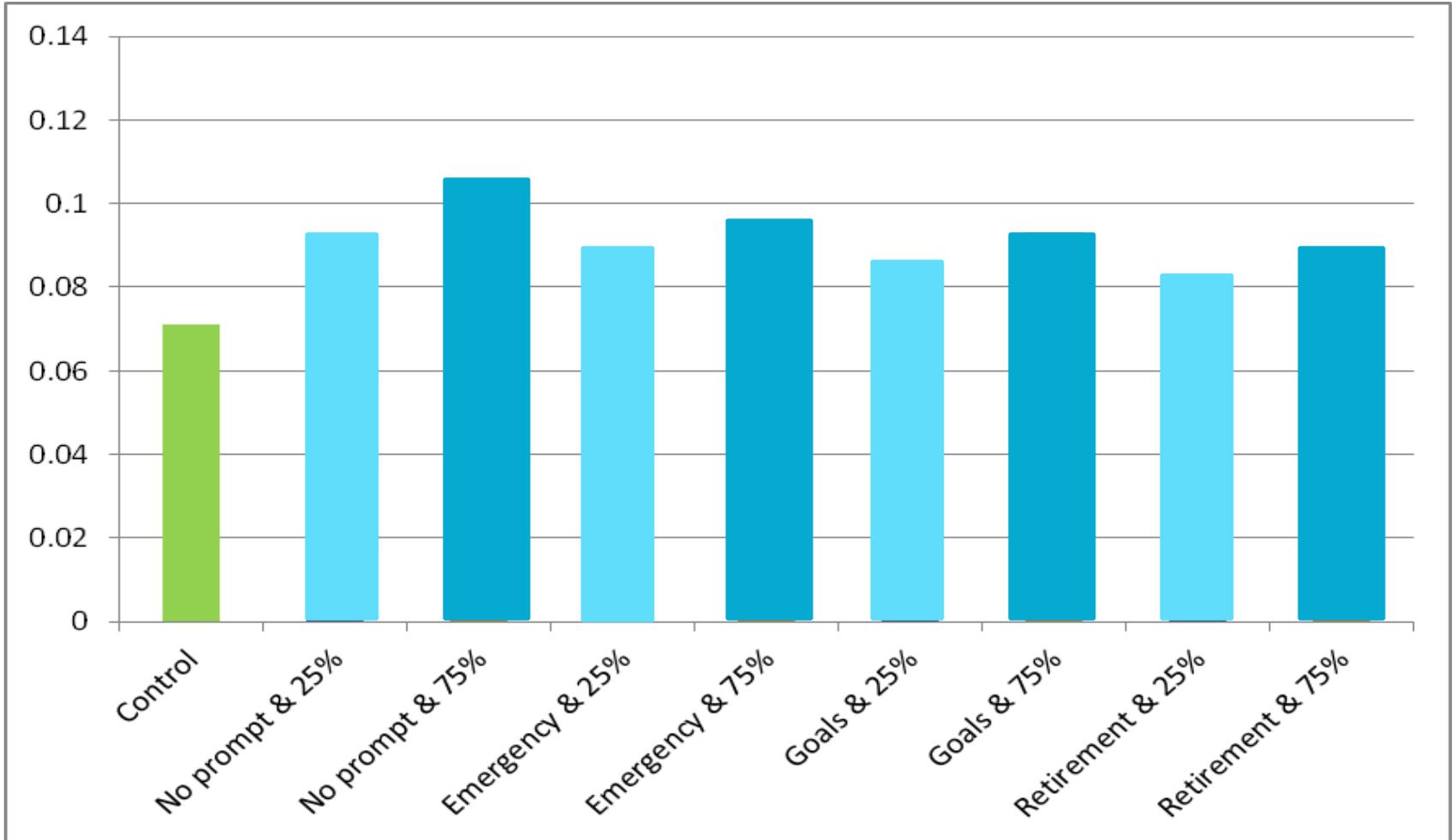
All treatment groups increased savings compared to the control.

A 75% anchor was most effective at increasing saving.

***n* = 107,680**



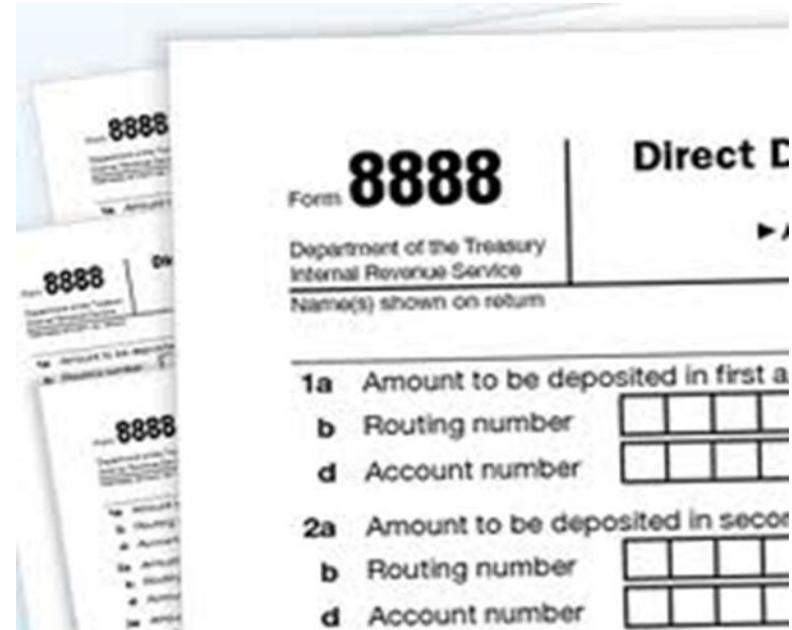
# Proportion of refund saved



***n* = 107,680**



# AMONG THOSE WHO SPLIT THE REFUND...



Form **8888** Direct D

Department of the Treasury  
Internal Revenue Service  
Name(s) shown on return

**1a** Amount to be deposited in first a

**b** Routing number 

--	--	--	--

**d** Account number 

--	--	--	--

**2a** Amount to be deposited in second

**b** Routing number 

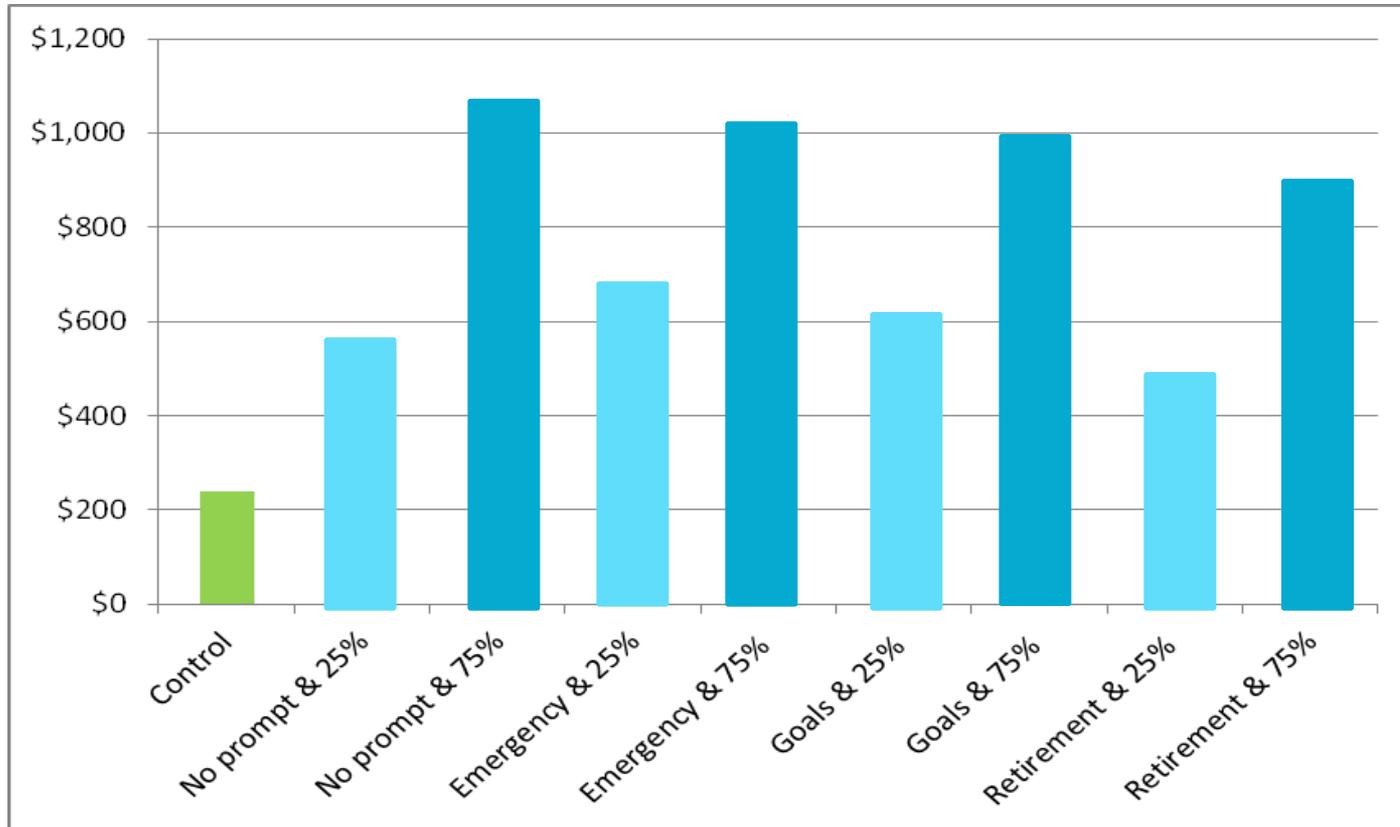
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**d** Account number 

--	--	--	--



# Splitters: Amount saved

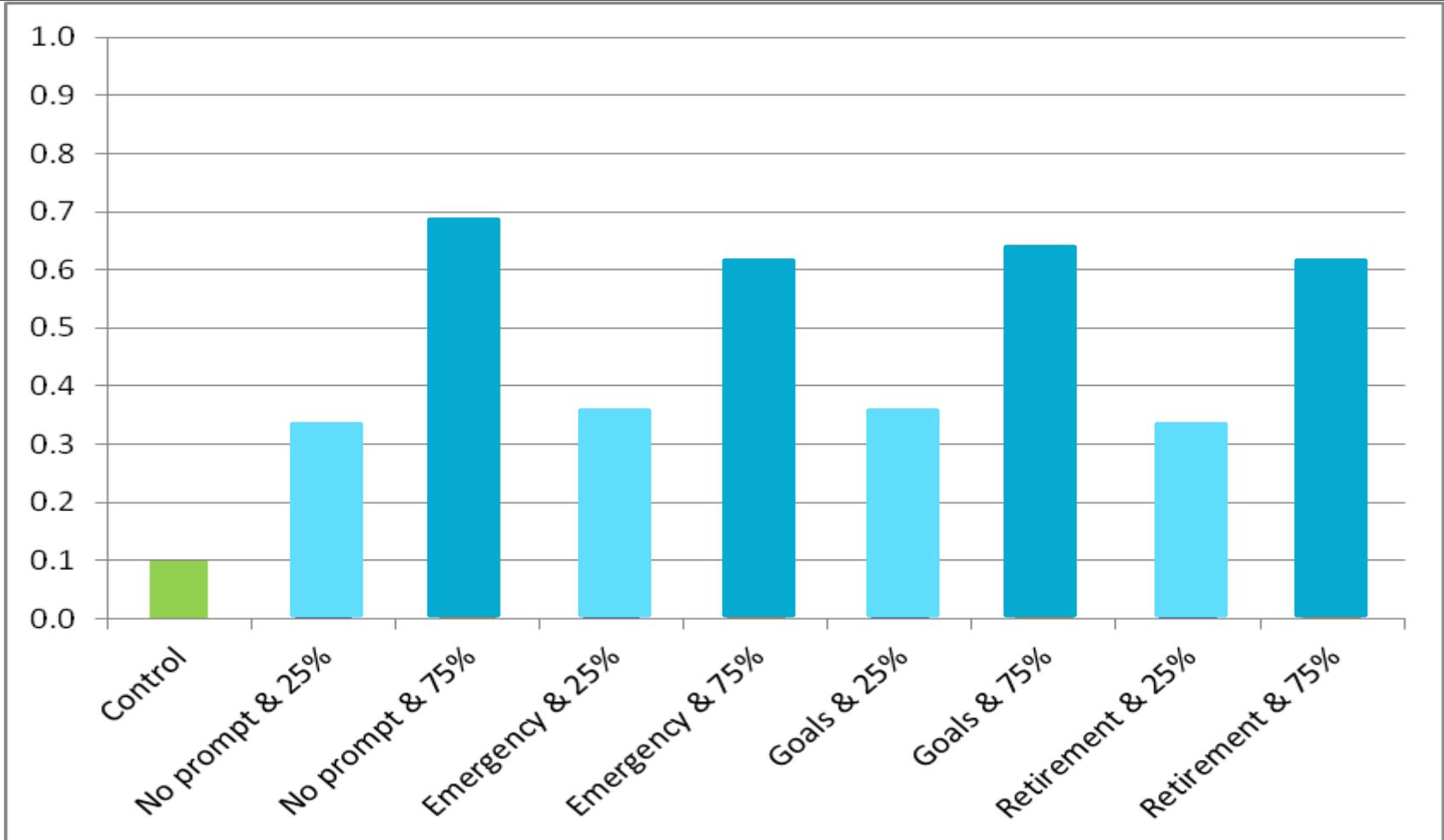


Of those who split their refund, we see a large effect of the intervention. Again, 75% anchors were most effective.

***n* = 1,357**



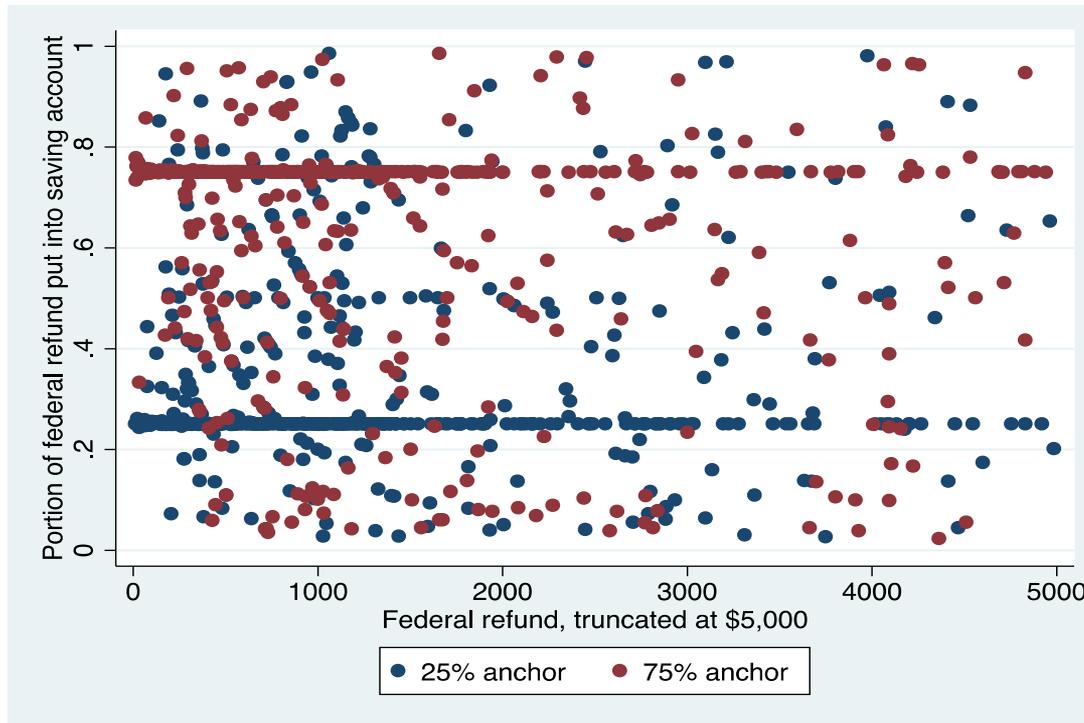
# Splitters: Proportion of refund saved



*n* = 1,357



# Anchors are powerful!



- On average participants given a 25% anchor saved 34% of their refund.
- On average participants given a 75% anchor saved 64% of their refund.
- Between 10 and 20% of those who split their refund used the exact value suggested by the anchor.



# People with larger refunds or with children are saving



Commit more money to saving



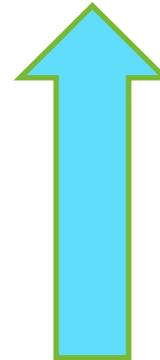
More likely to split refund



# People in poverty are saving



Commit less money  
to saving



But split at the  
same rate as those  
not in poverty

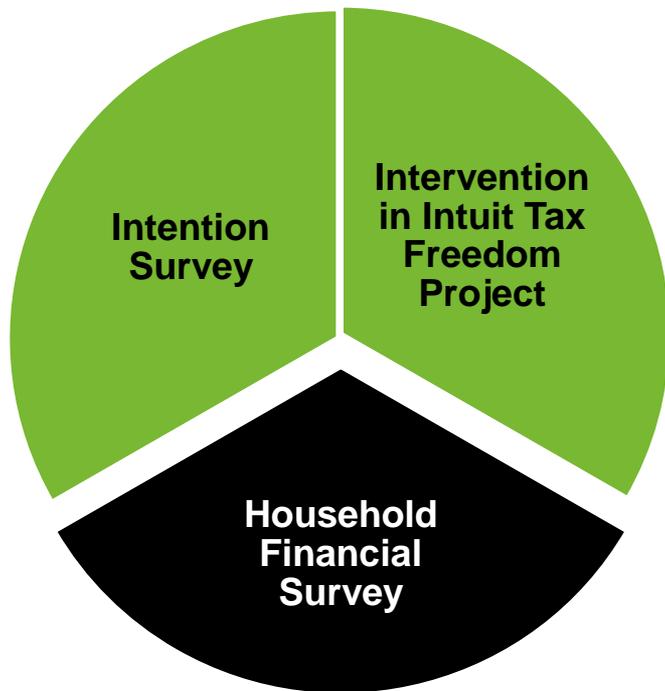


# 2012 In-product offer findings: Summary

- Impacted savings behavior
- Anchoring works
- Large magnitude of effect on small percentage of people

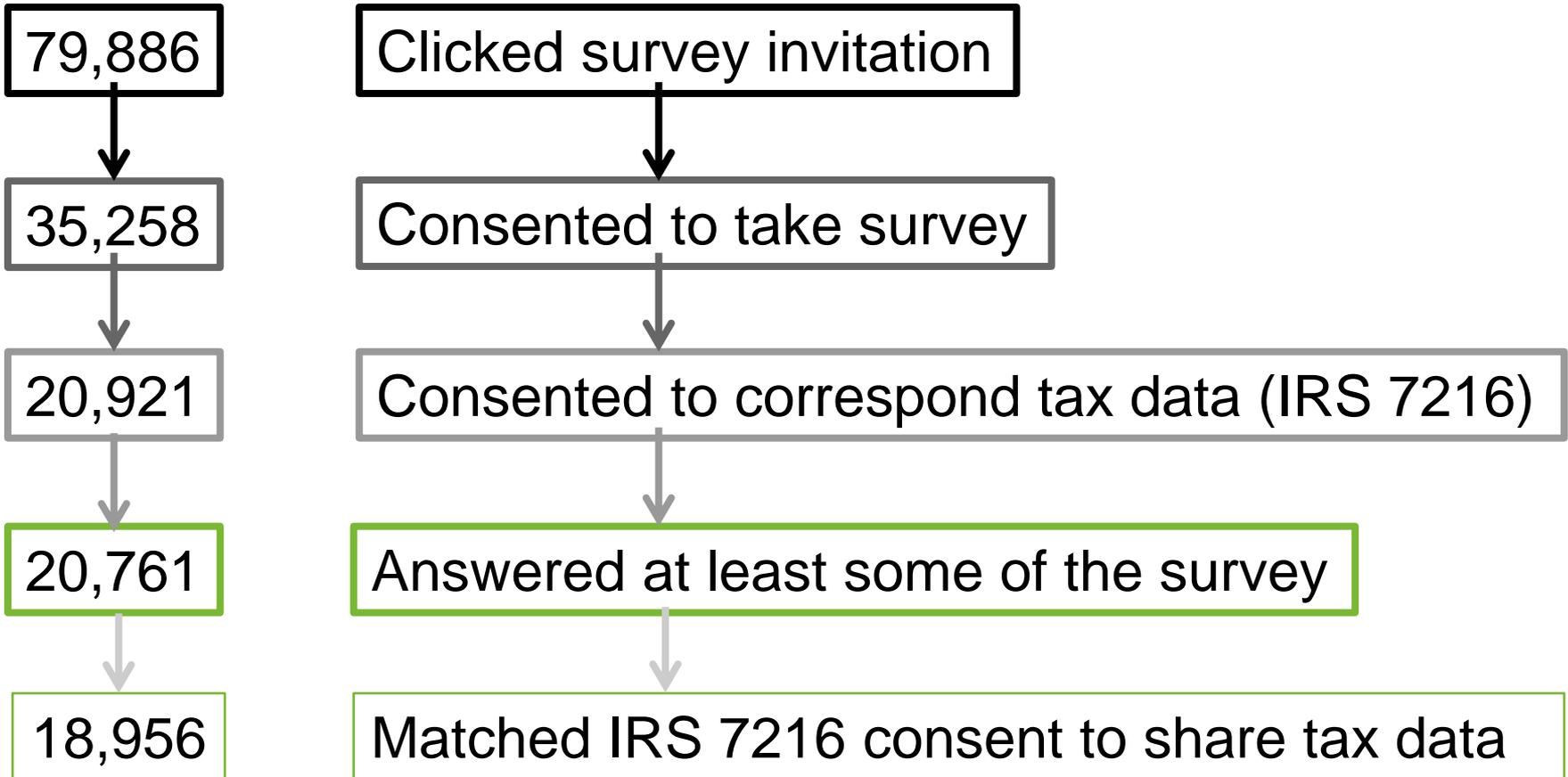


# Refund to Savings Initiative



## Household Financial Survey

- 2 wave follow-up survey with participants
- Sample size: 20,761
- Key Questions
  1. Constraints on saving
  2. Plan for and use of refund
  3. Impact of intervention after filing





# DEMOGRAPHICS

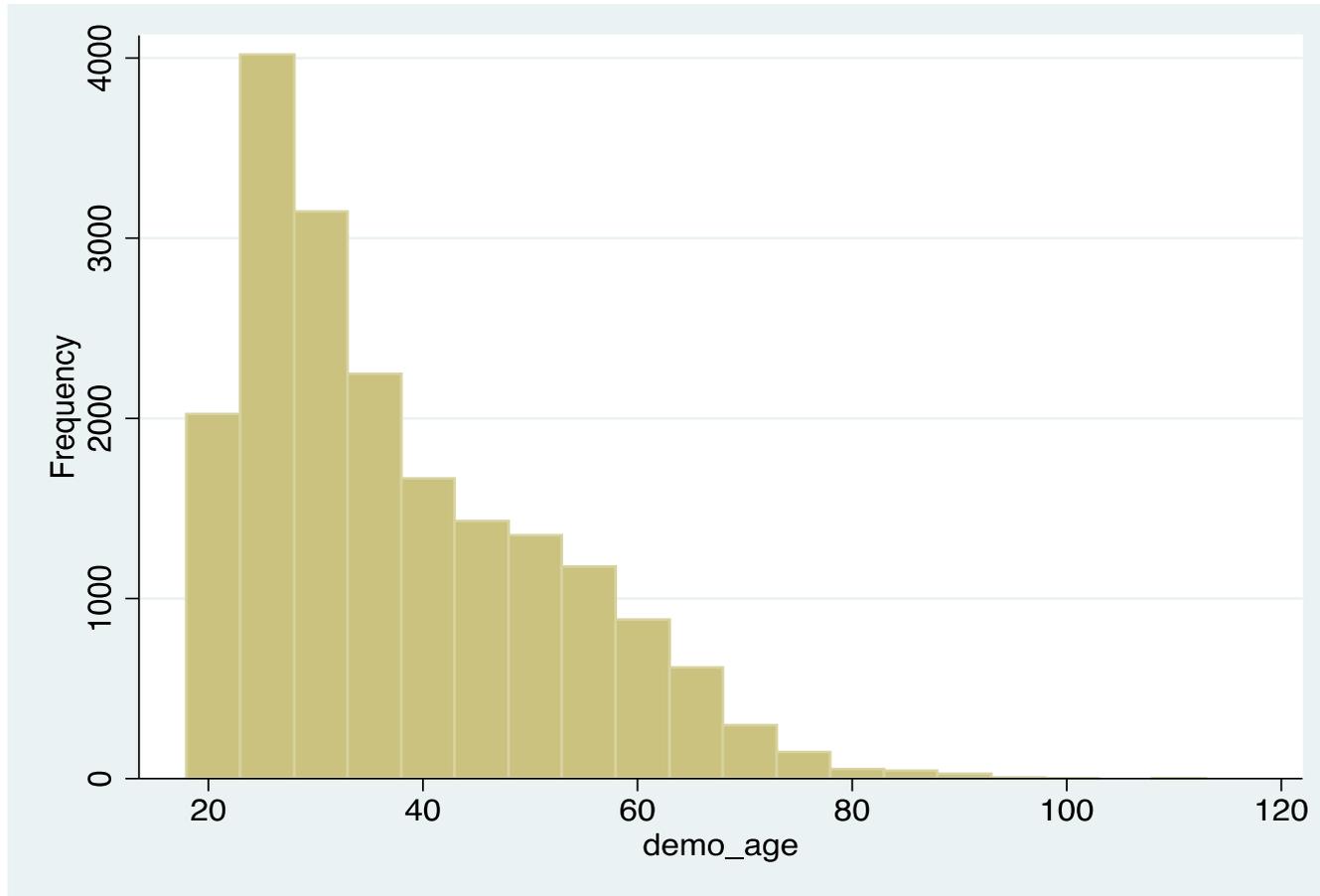


# Gender and family status

- 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



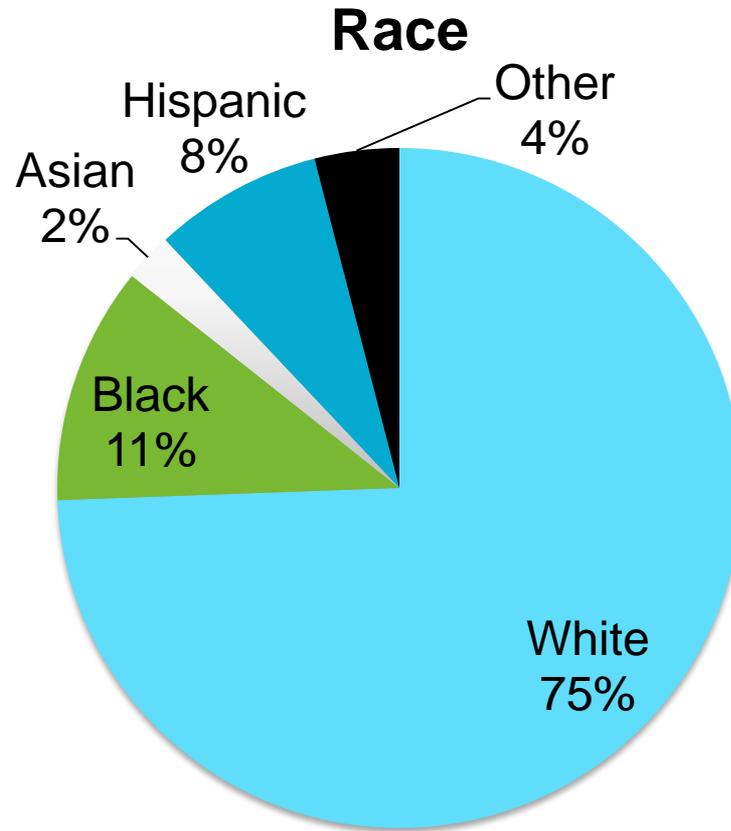
# Age



n=19,122



# Race



N=19,269

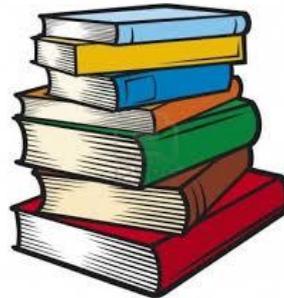


# Education



**43%**

college degree or more



**38%**

some college



**27%**

currently enrolled



# FINANCIAL POSITION



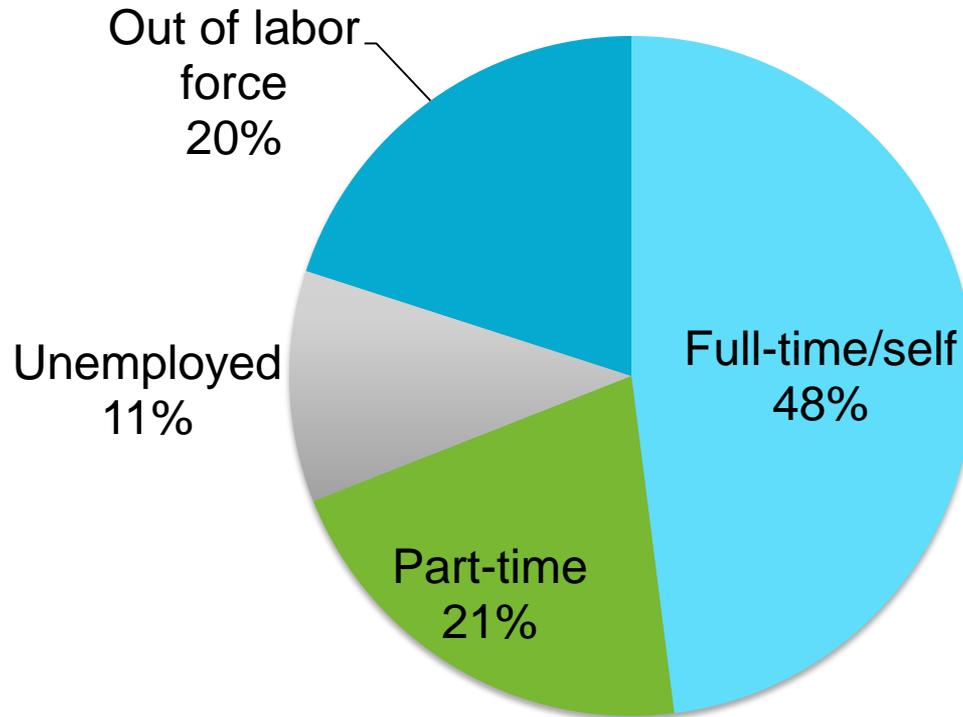
# Income

- **Median household: \$17,600**
- National Median Household Income: \$50,502
- 279 households (2%) report \$0 or negative income
- 25<sup>th</sup> percentile: \$8,500
- 75<sup>th</sup> percentile: \$26,593



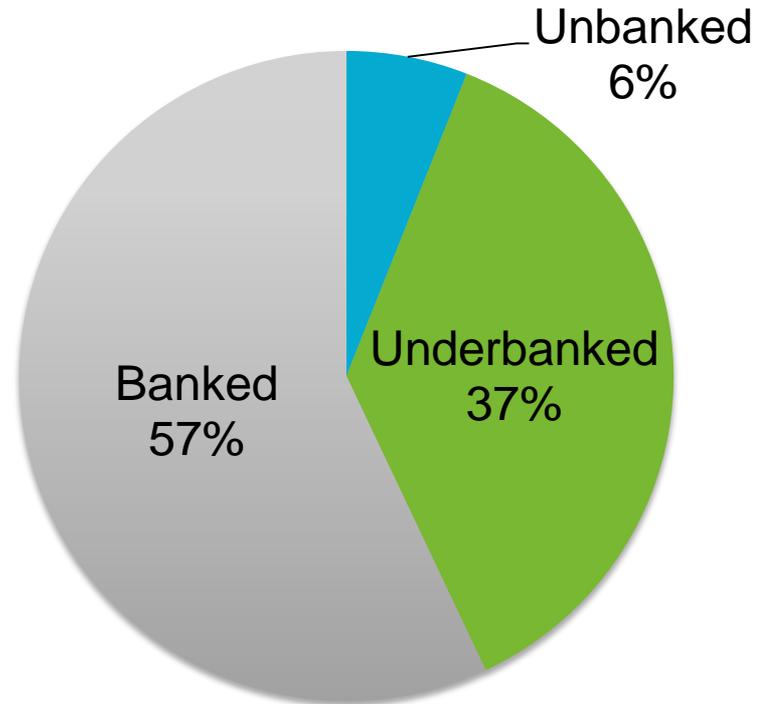
# Employment

## Employment





# Access



Underbanked households are defined as those households that have a checking and/or a savings account and had used non-bank money orders, non-bank check cashing services, non-bank remittances, payday loans, rent-to-own services, pawn shops, or refund anticipation loans (RALs) in the past 12 months.



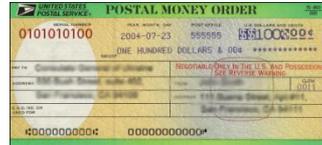
# Among those who bank...

(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  
**\$600**  
liquid assets

% of responders that own...



**3%**



**22%**



**85%**



**4%**



# Debt

Credit Card



**63%**

Median debt =  
\$1,500

Medical



**42%**

Median debt =  
\$1,522

Education



**51%**

Median debt =  
\$20,000

Past-due  
rent/bills



**33%**

Median debt =  
\$500

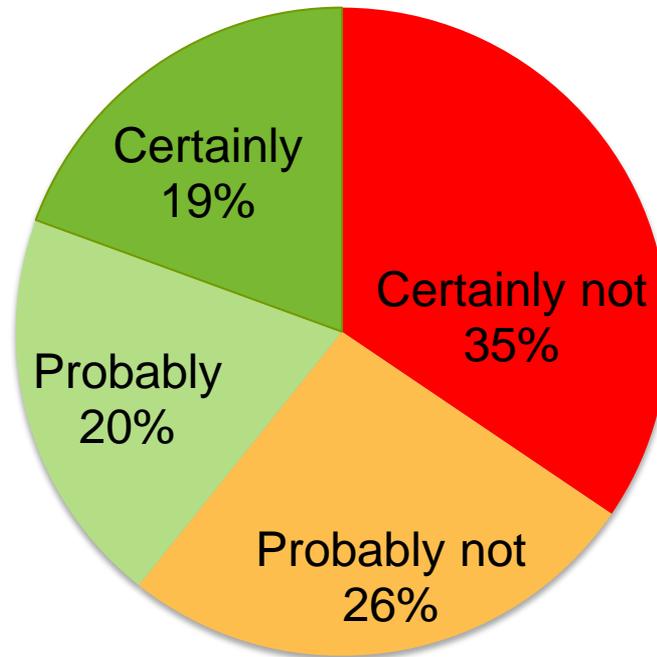


# **ECONOMIC INSECURITY**



# Perception of insecurity

Could you come up with \$2,000 in an emergency?





# Experience of insecurity

## Percentage in last year who...

Missed a rent payment	25%
Skipped a bill	58%
Skipped medical care	45%
Skipped dental care	52%
Did not get needed medications	33%
Over-drafted bank acct	37%
Had credit card declined	19%



# Habits

Percentage who...	
Say all money goes to regular expenses	61%
Say they want to pay off debt before saving	63%
Say paying debt leaves no extra money	56%
Would save more if interest rates were higher	24%
Budget	49%
Try to save a little each month	45%

# 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)



# **INTEREST IN PRODUCTS AND SERVICES**



# Compared to how they received their refund this year...

Percentage who would prefer to...	
Open a new checking acct	6%
Open a new savings acct	12%
Open a new retirement acct	11%
Open a new education acct	9%
Use an existing retirement acct	13%
Open a prepaid card	6%
Pay debt directly	15%



# Actions don't match aspirations

The wave 2 survey is currently in the field and will be merged with the experimental data and tax data to create a very rich data set - one of the largest on the household finances of low and moderate-income households.

This dataset will hopefully shed light on what we can do to change actions – both at the individual and institutional levels.

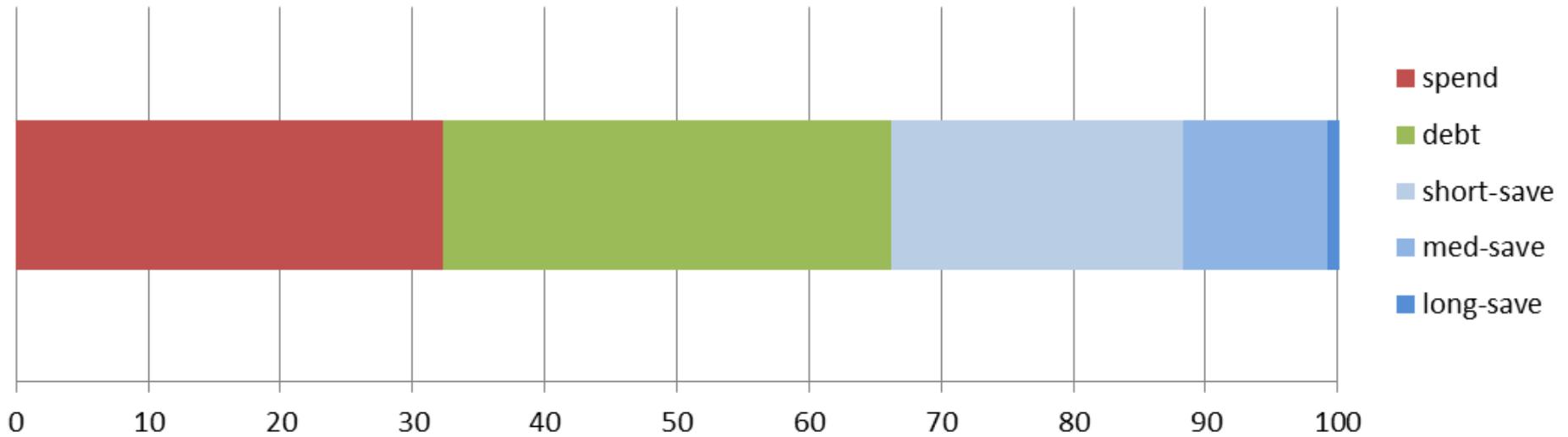




# **Preliminary Findings: Follow-Up Survey**

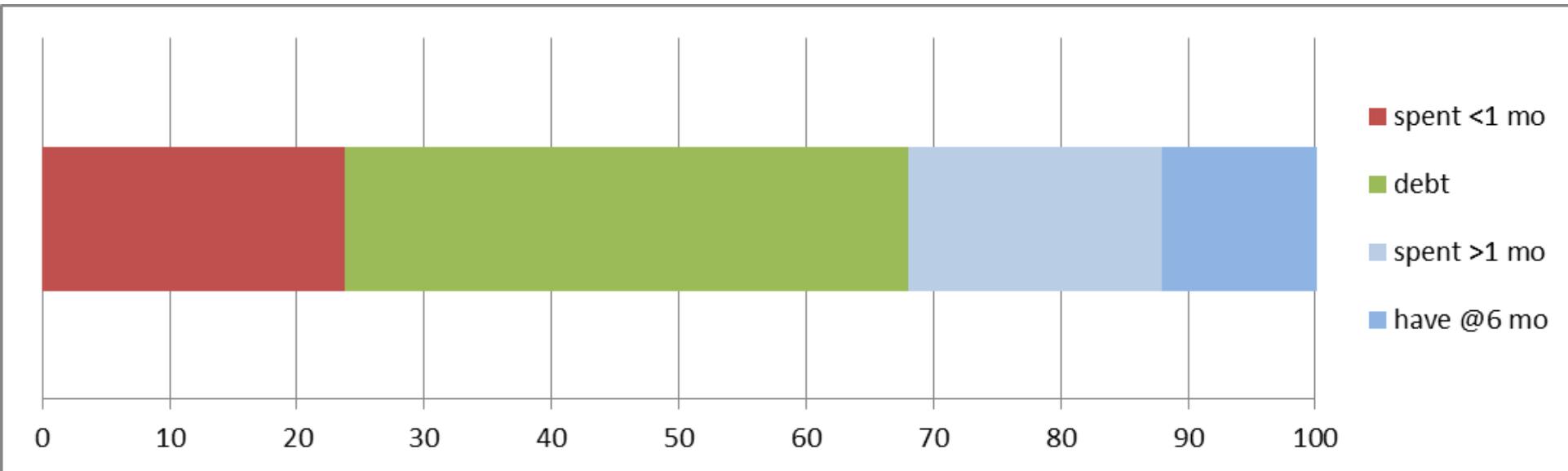


# Intentions at the Time of Filing



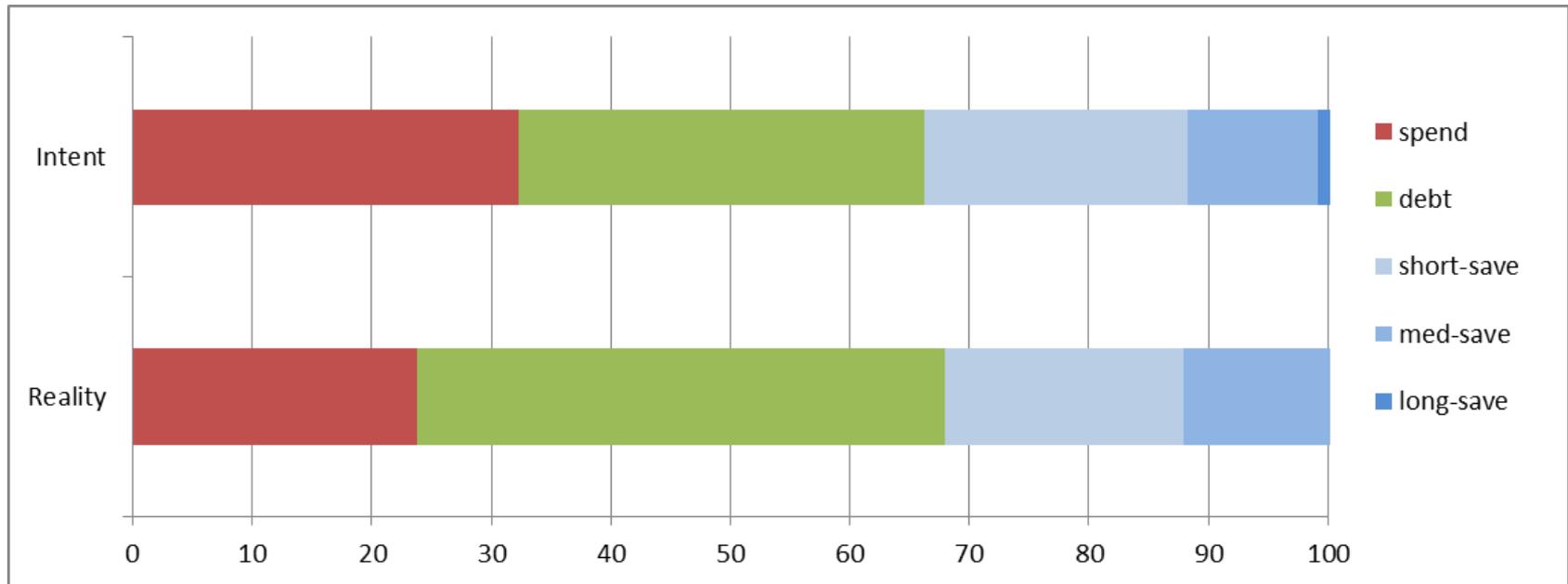


# Allocation reality: Preliminary sample





# Intention at filing vs. reality at 6 months

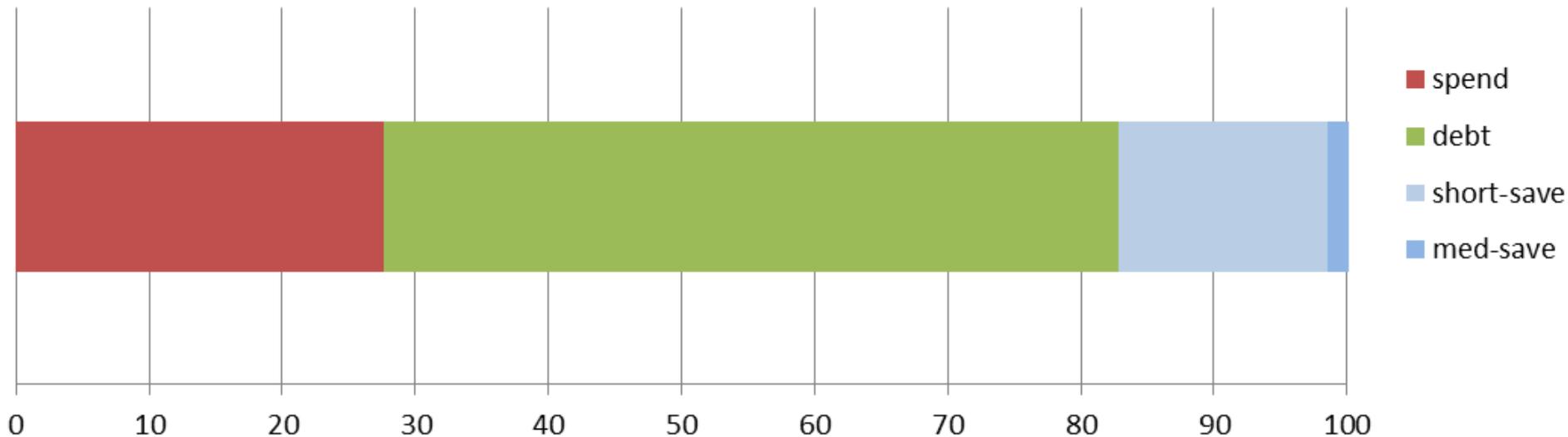


spent after 1 month but before 6 months = short-term saving  
still have at 6 mo = medium-term saving



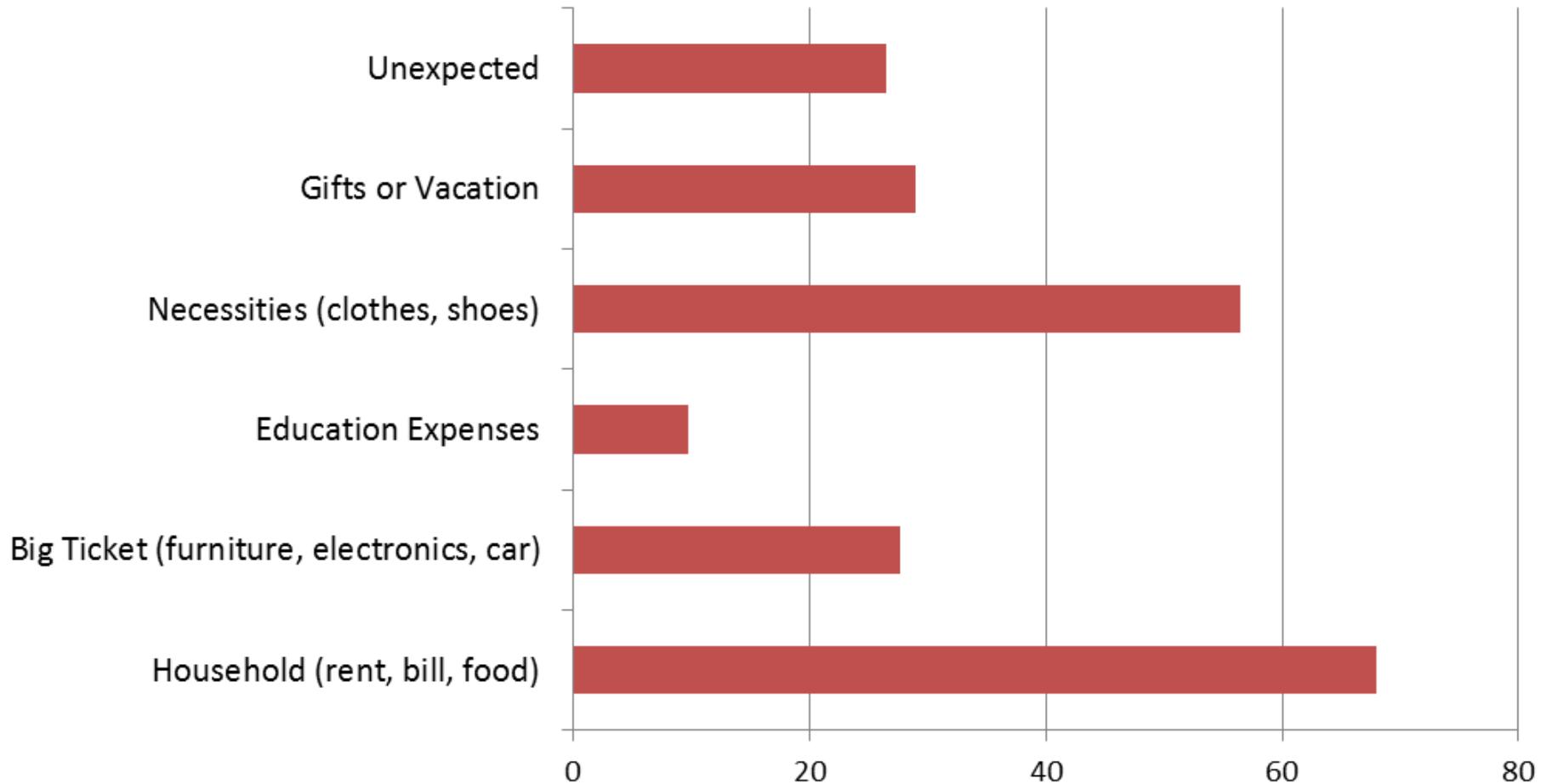
# Predictors of saving

Among those who respond “very difficult” to question: "In a typical month, how difficult is it for you to cover your expenses and pay all of your bills?"





# How did people spend the refund?





# 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

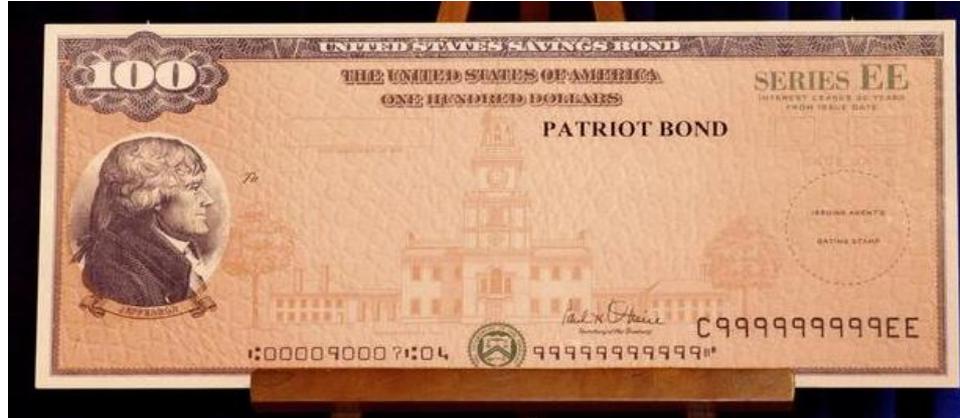


# Highest interest rate

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

Type of Debt	N	Mean rate by %
Credit cards	2544	19.6
Student loans	553	8.2
Personal loans	17	2.1
Bank loans	132	14.2
Payday loans	153	221.9
Medical bills	44	14.5
Past due rent/bills	41	28.5
Negative balances	6	24.3

 Are you familiar with U.S. savings bonds?



**58%**  
YES

**34%**  
SORT OF

**8%**  
NO



# Frequency of financial shocks in 6-month period



**27.7%**

trip to hospital



**36.4%**

major vehicle  
repair



**32.5%**

period of unemployment



**9.6%**

legal  
fees/expenses

65.2% experienced one of the above shocks.

# Other stressors over a 6-month period



**35.6%**

started a new job  
or changed jobs



**22.0%**

moved  
**10.4% to new  
city/town**



# Insurance status (preliminary sample)

Insurance Type	% of Sample
Thru Employer	42.4%
<b>Uninsured</b>	<b>27.1%</b>
Medicaid	8.6%
Via Parents/Family	5.2%
Medicare	4.6%
Private	4.6%
Student thru School	3.9%
VA	1.2%
State/Other Government	0.9%
Other	1.5%



Stay tuned for complete analysis  
of the 2013 experiment in the  
coming months!



# Discussion questions

- How can we improve upon the R2S interventions?
- How do you see these concepts applying to your work?



# Innovative ideas for future testing



Pre-filing  
E-mails



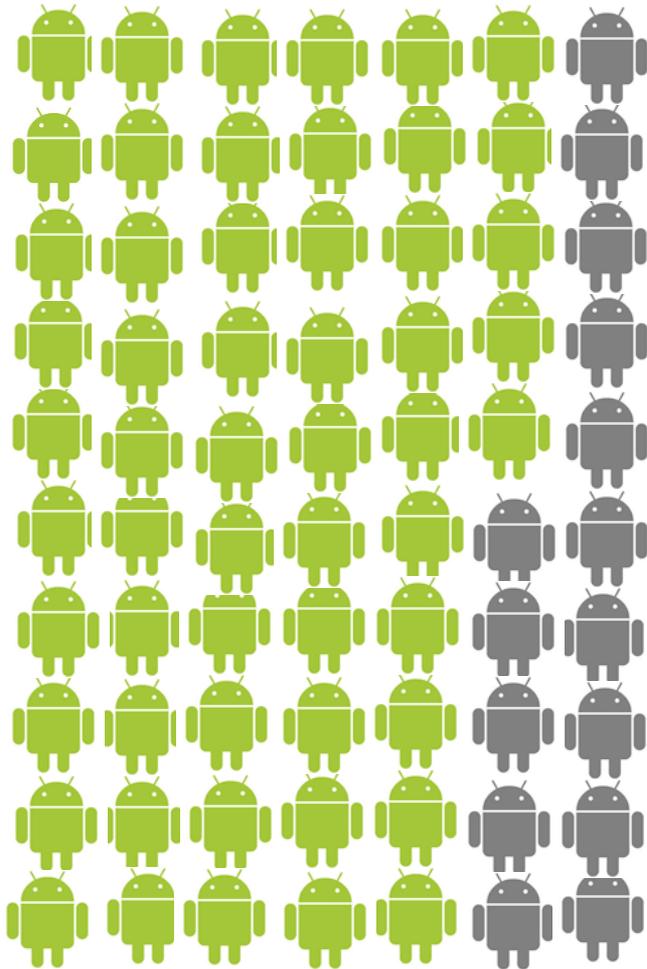
Personalized  
Prompts



Automatically Open  
Accounts



# Expected Results



**Existing Savers**



**New Savers**

**55,000 savers**

**70,000 savers!**



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**THANK YOU!**