



## REFUND TO SAVINGS:

### CREATING CONTINGENCY SAVINGS AT TAX TIME

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#### Abstract

A series of rigorously designed and scalable interventions, the Refund to Savings (R2S) initiative seeks to help low- and moderate-income households build small-dollar unrestricted savings and increase financial security and mobility. To help tax filers overcome psychological, behavioral, and institutional barriers that limit the accumulation of savings, R2S leverages the potential of tax-time savings interventions by using a scalable delivery platform (online tax preparation software) and incorporating mechanisms grounded in behavioral economics theory. The 2013 R2S intervention is designed as a randomized controlled trial. With a sample of approximately one million tax filers, it is the largest savings experiment ever conducted in the United States.

**Key Words:** tax refund, contingency savings, emergency savings, behavioral economics, randomized controlled trial

## Introduction

The Refund to Savings (R2S) initiative aims to help households build short-term contingency savings by providing motivation and opportunity to save the tax refund, the largest single check many households receive all year. It is not the first initiative to seize on tax time as a promising moment to build savings; several other research projects have intervened at tax time and show promising findings (Beverly, Tescher, and Romich 2004; Tufano 2010; Key et al. 2012).

However, R2S expands the potential of tax-time savings interventions by using a scalable delivery system (online tax preparation software) and incorporating mechanisms grounded in behavioral economics theory. The delivery of the intervention is seamlessly integrated with an existing infrastructure, ensures high fidelity between the intervention's design and its implementation, and minimizes the cost of the intervention. The intervention's mechanisms are designed to help tax filers overcome psychological and behavioral barriers that limit the accumulation of savings.

The R2S initiative is the product of a unique collaboration among researchers at Washington University in St. Louis, Duke University, and Intuit Inc., the makers of TurboTax. Focusing on low- and moderate-income (LMI) households that use the TurboTax Freedom Edition to prepare their tax returns online, the intervention is implemented as a randomized controlled experiment to enable the R2S team to rigorously evaluate its impact. With a sample of approximately one million tax filers, it is the largest savings experiment ever conducted in the United States. Because of the unique partnership and innovative design, R2S offers substantial promise as an effort to increase contingency savings among economically vulnerable LMI households.

The purposes of this paper are to show that lack of contingency savings is a salient problem in the United States, propose an innovative way to build savings at tax time, and offer a critical analysis of the costs and benefits of the proposed approach. The first section of the paper details the prevalence of household financial insecurity, the consequences associated with insufficient savings, and the importance of contingency savings for household economic security and mobility. The second section discusses current psychological and behavioral barriers to saving. The third part shows why and how tax time can be an ideal period for helping households build savings. The paper then presents an example of a scalable, tax-time savings intervention. We discuss the potential costs, impacts, and limitations of the intervention. Finally, the paper sets a clear direction for the R2S project, specifying how it can prompt contingency saving at scale.

### **Statement of the Problem**

American households at all levels of the income distribution are unprepared for financial contingencies like reductions in income, unexpected expenses, and unforeseen opportunities. About half of American households indicate that they probably or certainly could not find \$2,000 within 30 days to cover an unexpected expense (Lusardi, Schneider, and Tufano 2011). Likewise, 40% of working-age households and 60% of households of color lack the financial assets to meet 75% of their current monthly expenses (Shapiro, Oliver, and Meschede 2009). Jacob Hacker's (2012) research suggests that almost 20% of American households lost at least a quarter of household resources in 2011.

Both the experience of financial shock and the lack of sufficient savings to meet such a shock expose households to economic, social, psychological, and physical consequences. Without contingency savings, households in need turn to risky, often-predatory alternative financial products and services; use high-cost short-term credit; raid savings accounts dedicated

for long-term needs; and put off purchasing necessities (Rawlings and Gentsch 2008; Chase, Gjertson, and Collins 2011; Couch, Daly, and Gardiner 2011; Heflin, London, and Scott 2011; Barr 2012). 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 (McKernan, Ratcliffe, and Vinopal 2009, 2).<sup>1</sup> Also, economic distress is associated with general household stress. Such distress can reduce the quantity and quality of interactions within the household (Rothwell and Han 2010), affect children and marriages, and lead to poor physical and mental health outcomes (Conger et al. 2002; Finke and Pierce 2006).

Contingency savings protect households from economic, social, psychological, and physical consequences but may also help households get ahead. Possession of savings may limit the everyday financial stress of a household, allowing it to be future oriented (Mullainathan and Shafir 2009; Shah et al. 2012). Research suggests that low-income households with high levels of savings are more upwardly mobile than low-income counterparts with low or no savings (Cramer et al. 2009).

## **Background**

Helping households to make financial preparations for the unexpected is not easy. Households face very real material constraints on saving; many households only have sufficient income to meet consumption needs. Even when households have some slack in their budget, they may fall short of their savings goals and desires. Dan Ariely’s (2010, 2011) work on choice and behavior

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1. Liquid-asset poverty is measured by the lack of sufficient liquid assets to subsist at the poverty level for 3 months in the absence of income. McKernan and colleagues (2009, 2) define liquid assets as “those that are held in cash or can be liquidated quickly: bank accounts and other interest-earning assets; and equity in stocks, mutual funds and retirement accounts (IRAs, 401(k)s and KEOGH accounts).”

demonstrates that people are irrational in all areas of their lives but in ways that are predictable and can be overcome with smart program design. This perspective helps to explain why economic insecurity remains high even though people know that they will be better off if they have contingency savings. Tax time may be the ideal moment to circumvent some of the barriers that keep emergency savings rate low among LMI households.

### **Psychological and Behavioral Influences on Savings Decisions and Actions**

An array of psychological and behavioral factors limits the ability of LMI households to accumulate savings. Numerous studies demonstrate that individuals are present biased; that is, they hold a strong preference for current and near-term spending and consumption over saving for future consumption (Laibson 1997; Angeletos et al. 2001; Harris and Laibson 2001; Frederick, Loewenstein, and O'Donoghue 2002; Stango and Zinman 2007; Meier and Sprenger 2010). For instance, the average person may require the promise of an interest rate above 50% on an investment before he or she will consider it worthwhile to forgo consumption and save. This can be put another way: a person would rather have \$100 to spend today than \$150 to spend a year from now (Frederick et al. 2002).

Procrastination, inertia, and limited attention also play roles in financial decision making. Individuals who intend to save often procrastinate instead of taking action (O'Donoghue and Rabin 1999). Households embrace financial inertia, continuing whatever habits, accounts, and transactions they have in place—even if those are not optimal (Madrian and Shea 2001; Barr 2007; Benartzi and Thaler 2007). When facing multiple savings options, households tend to accept defaults in order to avoid exerting mental effort (Beshears et al. 2009; Bronchetti et al. 2011). They also tend to flee from difficult decisions (Choi et al. 2006; Ariely and Norton 2008; Ariely et al. 2009; Mullainathan and Shafir 2009).

Finally, the accumulation of emergency savings is limited by households' perceptions concerning their emergency savings needs and the costs of not having emergency savings. Households may underestimate the incidence and costs of financial emergencies (Brobeck 2008). Also, they often underestimate the true costs of using credit, debt, and alternative financial services, choosing these options instead of less expensive alternatives like saving ahead of time (Stegman and Faris 2003; Desmond and Sprenger 2007; Zinman 2009). These psychological and behavioral barriers contribute to the low rate of contingency savings.

### **Using Tax Time to Encourage Saving Decisions and Actions**

Tax time may be an ideal period for helping households overcome the psychological, behavioral, and institutional barriers that prevent them from accumulating savings. Several principal advantages commend the use of tax time in building short-term contingency savings. These include the availability of lump sum payments, the opportunity to easily implement behavioral techniques at key financial decision points, the options to directly deposit and to split the tax refund, and the promise of scalability.

#### **Lump-sum payments and mental accounting**

More than 75% of filers receive a tax refund. Because of excessive withholding, tax credits, and deductions, the Treasury owes many households money and pays that debt in a sizable lump sum. This suggests that households have already done what is often considered the hardest part of saving: deferring consumption and accumulating funds. The Internal Revenue Service (IRS; 2012) estimates that the average household received a \$2,883 refund in tax year 2011. Because households receive the tax refund as a lump-sum payment, encouragement to save for contingencies may be particularly effective at tax time.

Richard Thaler and H. M. Shefrin's (1981) behavioral life-cycle theory suggests that people view lump-sum payments differently than payroll income. Saving a lump sum may be easier than saving income because the money is not considered part of the flow of funds used for current consumption. Because the tax refund tends to be relatively large and comes only once a year, many view it as a windfall. This allows them to use it for things they could not normally afford, including setting some of it aside in savings (Romich and Weisner 2000; Schreiner et al. 2001; Mammen and Lawrence 2006).

Saving a lump sum, however, can also be challenging. Filers may use mental accounting (Thaler 1985) to "prespend" their anticipated refund. In anticipation of it, they may incur debt, delay necessary expenditures, or plan for spending as the tax season approaches (Bronchetti et al. 2011; Barr 2012; Mendenhall et al. 2012). Other research confirms that there is a general desire to save the tax refund; 60% of all filers express an intention to save at least part of their refund, as do 55% of filers with adjusted gross incomes (AGIs) below \$35,000. The average respondent plans to save about 40% of his or her refund (Grinstein-Weiss et al. 2012).

Despite the opportunities presented by lump-sum tax refunds, an intervention must channel the refund into a savings account or other short-term liquid savings product in order to succeed. The intervention must also influence the mental accounting that some filers employ to plan for and manage lump-sum refunds.

#### Opportunity for direct deposit and split tax refunds

Tax time is also an opportune period because a tax filer can deposit the refund directly into an emergency savings vehicle. Direct deposit is a crucial element in such encouragement because many people intend to transfer some of their refund to savings, but few act on this desire and

move the money. Reducing the hassle and steps necessary to execute the savings decision is fundamental to creating effective, scalable savings programs.

Recent innovations in the field provide tax filers the option to save only part of their refund. Since 2007, the IRS has facilitated this by allowing taxpayers to split their refund among up to three existing accounts. To do so, filers complete IRS form 8888, and the Treasury deposits the specified portion of the refund directly into each account. In 2011, more than 842,000 taxpayers used this mechanism to split more than \$3.4 billion in refunds (Treasury Inspector General for Tax Administration 2012). This option enables filers to build dedicated savings in a vehicle of the tax filer's choosing (e.g., a typical savings account or a prepaid card account). The same IRS form also enables refund recipients to use part or all of their refund to buy Series-I US savings bonds. Savings bonds are a safe, interest-bearing product available to everyone—even to those who lack a connection to the mainstream banking system.

#### [Using behavioral techniques to convert the tax refund to contingency savings](#)

Tax filing software presents an opportunity to use behavioral techniques to help individuals overcome limited attention, lack of self-control, and biases toward present orientation. Countless behavioral experiments show that small changes in choice architecture (i.e., the way a person is offered a choice) can have dramatic effects on behavior (Thaler and Benartzi 2004; Ashraf, Karlan, and Yin 2006; Thaler and Sunstein 2008; Choi et al. 2012). Notably, altering the default presentation of options and introducing context-specific motivational language can nudge consumers toward desired behavioral outcomes.

Early research from the R2S initiative identifies motivational messages that significantly increase respondents' hypothetical allocation to savings. For instance, the initiative shows low-income respondents a message encouraging them to form a picture of their life after retirement;

compared with counterparts in the control group, treatment-group members shown the message indicate that they would allocate 13% more of their refund to savings (Grinstein-Weiss et al. 2012). Likewise, a subsequent randomized controlled trial using TurboTax software finds that treatment-group members shown motivational prompts and default savings amounts are significantly more likely than those in the control group to split a portion of their refund into a savings account (Grinstein-Weiss et al. 2012). Participants in the treatment-group also allocate significantly more money to savings accounts. However, the effects of the intervention are heavily concentrated on the small proportion of users who split their refund.

Some evidence suggests that a precommitment to saving the tax refund or future income is effective in increasing the likelihood of saving and the amount of money saved (Thaler and Benartzi 2004; Jones and Mahajan 2011). For example, Jones and Mahajan (2012) indicate that it can be beneficial to offer tax filers a modest incentive to make a nonbinding precommitment to save a portion of the refund; they find that filers offered such an incentive save up to 50% more than those offered the incentive at the time of filing taxes.

### [Promise of scalability](#)

Each year, about 143 million US households file income tax returns (IRS 2012), and the IRS disbursed about \$338 billion in refunds to taxpayers in the 2011 tax year (IRS 2012). Tax filing is a nearly universal experience, and tax day is a part of the American experience. The filing process is thus an exciting site for an intervention to address the widespread shortage of contingency saving in households across the income distribution—particularly low-income households. During the 2011 tax year, the Earned Income Tax Credit provided 26.5 million low-income households with nearly \$60.7 billion in refunds.

Building a contingency savings intervention into an existing, widely used delivery channel offers a clearly advantageous pathway to scale. However, the task must control costs, ensure consistency in delivery, and provide a means to serve large numbers of users. It poses several daunting challenges. Face-to-face intervention with filers would be costly and time consuming; it would be difficult to bring such an effort to scale. Using software to deliver an intervention fundamentally changes the intervention's cost structure and its execution. Design (programming) and delivery drive costs of the intervention and so are realized before implementation. Once the software is programmed, the unit cost to deliver the intervention to each additional user is effectively \$0. If the intervention is successful and replicated, ongoing costs will diminish year over year. The pathway also scales to the number of users who enter it. Intuit's systems have the capacity to serve hundreds of thousands of simultaneous users.

In addition to the low delivery costs, the software platform offers the advantage of uniformity and fidelity in delivery. In tax-time savings programs delivered face to face, researchers observe that substantial program success depends on where, when, and by whom the intervention is delivered (Duflo et al. 2006; Tufano 2010). In the TurboTax platform, the delivery of the intervention is consistent across the tax season, across the country, and around the clock. It shows each participant precisely the intended message at precisely the intended time. This allows for a clean evaluation of program elements and for easy expansion of successful elements.

### **R2S: Putting Ideas to Action**

The R2S intervention is designed to leverage the tax-time opportunity to increase levels of contingency savings and financial security. In this section, we describe the goals and target

population of the intervention, detail the intervention and how it is delivered, and share our plan for evaluating it.

### **Goals of the Intervention**

The overall goal of the R2S initiative is to transform the tax season into saving season for all Americans. In the short run, the 2013 intervention aims to help LMI households choose to convert part of their tax refund into short-term contingency savings and to become more financially secure. The R2S team also hopes to demonstrate both the potential programmatic benefit of building contingency-savings programs into existing infrastructure and the promise of public-private partnerships to promote economic well-being. Finally, the intervention rigorously tests theoretical propositions from behavioral economics and seeks to generate evidence from real economic decisions. Insights from these efforts will inform the design and implementation of future iterations of R2S and other behaviorally informed programs.

### **Target Population**

Although a daunting proportion of American households have too little emergency savings, the 2013 R2S intervention focuses on LMI households deemed to be at the greatest economic risk. As mentioned, the intervention is integrated into Intuit's TurboTax Freedom Edition, which is available free to eligible filers.<sup>2</sup> Taxpayers filing 2012 returns were eligible for the Freedom Edition if, during the 2012 tax year, they qualified for the Earned Income Tax Credit, had an AGI of \$31,000 or less, or were on active military duty and had an AGI of \$57,000 or less.

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2. The TurboTax Freedom Edition product is provided by Intuit as part of its participation in the Free File Alliance, "a nonprofit coalition of industry-leading tax software companies partnered with the IRS to help millions of Americans prepare and e-file their federal tax returns for free" (Free File Alliance 2013). The Free File Alliance estimates that 100 million taxpayers are eligible to use Free File products to complete their tax returns.

The mode of delivery may constrain the intervention's ability to reach the full target population. To see the intervention, a person must have a computer and Internet access. Because the Freedom Edition platform can only be accessed online (i.e., one cannot download the software), filers must also have sufficient familiarity with and trust in that platform to prepare their taxes using a web interface. Although this may limit the intervention's ability to reach target population members who have low levels of computer literacy or comfort preparing their own taxes, some community tax-preparation sites use the TurboTax Freedom Edition, and consumers can get assistance from volunteers at such sites.

### **Mechanisms**

The 2013 R2S intervention is seamlessly integrated into the tax preparation and filing experience for users of TurboTax Freedom Edition. Thus, it may be useful to explain the intervention's design and operations.

#### **The TurboTax platform**

Of the approximately 45 million households that file an income-tax return using software each year, about 22 million households do so via Intuit's TurboTax software. The intervention will be delivered to filers who use the Freedom Edition product and are owed a federal income tax refund. Participants access the TurboTax Freedom Edition from the IRS web site, the TurboTax Freedom Edition web site, or a local community-based tax preparation center.

*[Figure 1. Screenshot of TurboTax Freedom Edition Web site about here]*

The software guides users who meet the program criteria (eligible for the Earned Income Tax Credit, active military duty with an AGI of \$57,000 or less, anyone with an AGI of \$31,000 or less) through the preparation of their tax return. The Freedom Edition includes a series of modules on income, credits, deductions, and other tax-relevant aspects of their social and

financial lives. Taking the form of a guided interview, the software socializes users to receive tips and suggestions.

Throughout the preparation process, the screen displays a running estimate of the user's refund. When the filer has entered all information and completed the preparation process, he or she must decide whether to receive the refund by paper check or by direct deposit.<sup>3</sup> A person who chooses direct deposit receives the refund faster than one who chooses the paper check, and about 80% of filers choose direct deposit. The proportion choosing direct deposit may be lower in the target population, which is less likely than a typical filer to be banked and to trust financial institutions.

*[Figure 2. TurboTax Freedom Edition "Refund Receipt" Screenshot about here]*

The 2013 intervention provides a saving option for both paper check and direct-deposit users. The software takes those who choose the paper check directly to the first active step of the intervention. It prompts those who choose direct deposit to enter information about their primary bank account (as shown in Figure 3) and then proceeds to the intervention.

*[Figure 3. TurboTax Freedom Edition Primary Account Information Screenshot about here]*

After choosing how to receive the refund, the software moves the tax filer to the first active-intervention screen. The intervention aims to help people save some of the refund windfall in a dedicated contingency-savings vehicle of their choice. It does so using three behavioral mechanisms.

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3. Tax filers who owe additional taxes are exempted from the intervention and routed to a set of screens to pay their outstanding debt to the US Treasury.

## The behavioral mechanisms

In 2013, the R2S intervention tested three types of behavioral mechanisms: an automatic savings opportunity, motivational prompts, and default savings amounts. Tax filers randomly assigned to the treatment condition are given an explicit choice to save their refund. For example, those opting for a paper check refund are shown their refund allocated automatically between the paper check and a Series-I US savings bond (Figure 4).

*[Figure 4. Paper Check Intervention Experience about here]*

Tax filers opting for direct deposit are shown a similar automatic savings experience but can choose between saving with savings bonds and depositing the funds in an already existing account (Figure 5).<sup>4</sup> In both situations, the user can choose not to save by clicking the “I don’t need to save” button.

*[Figure 5. Direct Deposit Intervention Experience about here]*

Each person assigned to the treatment condition is also shown one of three motivating prompts designed to increase savings desire. Figure 6 shows the presentation of the prompts.

*[Figure 6. Treatment Group Savings Prompts about here]*

In addition to the prompts, the 2013 R2S intervention varies the savings recommendation, changing the amount of the refund to be saved. This feature is designed to anchor participants to

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4. Participants can use any account that has a conforming routing and account number and that is held in the name of the tax filer or the filer’s spouse. As we note below, some participants have only one account, and the ability to use any account poses some challenges for measurement of saving behavior.

a savings target. As Figures 4 and 5 show, the intervention suggests that participants in the treatment condition save 25%, 50%, or 75% of their refund.

### **Future Testing**

The TurboTax platform affords the opportunity to test additional ideas for contingency-savings interventions, and several concepts are being developed for testing. Researchers in the field and tax-industry experts hypothesize that personalization of motivational savings prompts will increase the salience of such messages for tax filers and thus increase their effectiveness. One could personalize prompts with information provided by the tax filer. For example, a prompt for those who claim the home-mortgage interest deduction or deduct vehicle-registration fees could use the idea of a social proof: “The average cost of home repair (or vehicle repair) in your zip code is \$(fill-in amount). We can help you stay prepared for unexpected emergencies. We suggest you save 25% of your tax refund today.”

Future iterations of the intervention also could test the promising idea of using precommitment devices in conjunction with tax filing software. Precommitment mechanisms can help tax filers plan ahead, suggesting that they put tax refunds toward a contingency savings fund. For example, in October or November, tax software users could receive an e-mail or message that asks them to make a nonbinding commitment to create a rainy day fund with their tax refund. The message could attempt to make the commitment psychologically binding by encouraging participants to voice it publically via social media outlets. Reminders of the commitment could be sent periodically via e-mail or text messages. During the tax filing process, the precommitted portion of the participant’s refund could be automatically allocated to a savings vehicle.

Lastly, we hope to test future innovations that will address barriers other than the psychological and behavioral ones mentioned above. Among these are numerous institutional

barriers faced by low-income households. For example, barriers include lack of access to such institutional savings mechanisms as the ability to open an account easily; automatic savings features (e.g., direct deposit) that facilitate saving; and savings incentives from institutions (e.g., matched retirement contributions from employers). Future innovations might make it easy to open an account at tax time and provide more automatic ways to save. Both ideas are promising strategies to mitigate these institutional barriers.

## Evaluation

In the experiment, users are randomly assigned to one of seven groups: six treatment and one control (Table 1). The treatment assignment, tax return information, and individual choices concerning refunds are captured as administrative data. We will analyze these data to evaluate the impact of the intervention.

*[Table 1. Experimental Groups about here]*

The evaluation will examine four outcomes to determine the economic and statistical impact of assignment to a treatment group relative to that of assignment to the control condition. The four outcomes include the proportion of group members (in each group) who split their refund, the amount of the refund allocated to savings, the proportion of the refund allocated to savings, and the proportion of members (in each group) who allocate any of their refund to savings. To determine whether different populations respond differently to the intervention, the evaluation will also assess treatment assignment's interactions with tax-filer characteristics in the administrative tax data. Filing status, income, refund amount, timing of filing, and number of dependents are among the several assessed factors.

To identify constraints that may affect savings choices and to capture the impact of tax-time choices in the economic life of a household, the R2S team will also field the Household

Financial Survey (HFS) to a subsample of the intervention population (approximately 12,000 members). The HFS is a longitudinal, Internet-based instrument delivered immediately after tax filing and again 6 months later. In that baseline version of the HFS, respondents are asked about their household's financial situation. The survey inquires about assets, debts, experience of material hardship, saving behaviors, and attitudes toward saving. It also collects data on plans for the tax refund. The follow-up version of the HFS collects similar information on the household and asks about how the respondent used or plans to use the refund.

### **Limitations**

The intervention's design and evaluation may pose several potential challenges to implementation. First, a portion of tax filers may not have a bank account to which they can send a direct deposit or may choose not to use their account at tax time. In 2012, during the experiment time period 28% of tax filers chose to receive their refund as a paper check. The intervention does, however, offer tax filers the option to purchase a Series-I savings bond.

Second, a large proportion of LMI tax filers may have only one bank account. Data suggest that fewer than half of low-income households have savings accounts, and 50% of respondents to the 2012 R2S intention survey express interest in using a checking account to save their refunds. The mechanism to generate savings in the experiment requires the use of more than one product and encourages people to separate savings from money used for ordinary expenses. A household with only one account could only split its refund using a savings bond. The illiquidity of savings bonds and uncertainty about their terms or use may limit their attractiveness to households in the sample. The data from our intervention do not capture tax-time saving in checking accounts. We hope to observe this behavior in the HFS and will use that data to develop innovative options. Additional research is needed to elucidate the financial

services needs and preferences of underbanked and unbanked customers at tax time. Future research might also usefully consider the regulatory framework needed to facilitate the opening of new accounts at tax time.

Third, fatigue can pose significant challenges in implementing an intervention among people who are filling out their tax return. Intuit's usability tests on the 2012 intervention reveal that some filers skip over the motivational prompt designed to increase saving intention. These tests use sophisticated eye-tracking software, and results show that some test participants quickly scan each page looking for the "continue" button and do not read the text of the offer. The 2013 intervention will test a more automated version of the refund-splitting feature, but a true opt-out design is not feasible in the context of tax preparation. Those who have and choose to use a savings account must enter their account information. That may pose a barrier for some who want to save but do not have the information handy. If they do not want to split their refund, filers must click an "I don't need to save" button in order to opt out and continue to the next screen.

### **Conclusion**

Tax filing is a nearly universal, permanent, and reoccurring event in the lives of US households. It is also a major financial event for most: 75% of households receive a sizable refund. From a behavioral economics viewpoint, tax time offers the ability to intervene at a key financial decision point and therefore can be a golden opportunity to help households overcome barriers that limit the accumulation of contingency savings.

The R2S initiative aims to design and test a cost-effective, high-fidelity, scalable intervention that applies behavioral economics techniques to the process of tax filing and helps LMI tax filers transform the tax refund into savings. With approximately one million tax filers

participating in 2013, the R2S intervention is the largest savings experiment ever undertaken in the United States. Building contingency funds that households set aside—funds that are outside the normal transactional flows—will help households weather financial shocks and invest in transformative opportunities. The innovative nature of the R2S partnership, the initiative’s reach, and its capacity to deliver an intervention deeply informed by a large body of theory and research make it unique and promising.

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## Figures

Figure 1. Screenshot of TurboTax Freedom Edition Web Site

The screenshot shows the TurboTax Freedom Edition website in a Firefox browser window. The page features a blue header with the TurboTax logo and the text "Intuit Tax Freedom Project". Below the header, there are navigation links for "Support" and "About Us".

The main content area is titled "TurboTax Freedom Edition: Prepare and eFile your federal taxes for FREE". It lists three bullet points:

- 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

A "I qualify! Start now." link is provided below the list.

Below this, a section titled "You qualify for FREE FEDERAL filing if any or all of the following apply:" contains three eligibility boxes:

- You earned... \$31,000 or less** (Your Adjusted Gross Income (AGI)). A "Learn more" link is below.
- You were... Active Duty Military** (in 2011 with an AGI of \$57,000 or less). A "Learn more" link is below.
- You qualify for the... Earned Income Credit (EIC)**. A calculator icon is shown, and text says "Find out if you qualify - it could be worth up to \$5,751 to you!". A "Learn more" link is below.

"OR" indicators are placed between the boxes. A large orange button with white text "I qualify! Start Now" is centered below these boxes.

At the bottom, a blue box says "You may also qualify for Free State filing...". Below that, a white box with a blue border says "If you qualify for a Free Federal filing, you may also qualify for FREE STATE filing in the following states:".

On the right side of the page, there is a "Sign In" button. Below it, a section titled "Fastest Refund Possible" features the "irs e-file" logo and text: "Free e-filing gets your federal refund in as fast as 7 days with direct deposit!". Links for "More about e-filing" and "Check e-file status" are provided. A note states: "\*IRS typically estimates 7-14 days for efile with direct deposit." Below this is a calendar icon for "APRIL 17" with the text "Time's almost up! (Or not.)" and "The tax deadline is April 17th. Need more time to get your tax forms together?". Further down, it says "TurboTax Easy Extension makes filing a tax extension easy." and "File a free tax extension now". At the bottom right, it says "TurboTax Freedom Edition Supports Most Forms" and "TurboTax Freedom Edition".

Figure 2. Screenshot of Refund Receipt Notice in TurboTax Freedom Edition

**TurboTax**  
Freedom Edition

[Save & Sign Out](#)

Home Personal Info Federal Taxes State Taxes Wrap-Up **Print & File**

[File a Return](#) [Print/Save for Your Records](#) [Check E-File Status](#)

Search Topics or Forms Topic List Help

**Federal Refund \$3,066**

**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

Selection **Federal** State Payment Review Filed

## How Do You Want Your Federal Refund?

You have a federal refund of **\$3,066**.

**Direct Deposit** (Recommended for a faster refund)

- See the deposit in your account 7 - 14 days from the date the IRS accepts your return
- To my bank account [What if I don't have a bank account?](#)

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- Mail me a check
- Get your refund in 3 - 4 weeks from the date the IRS accepts your return

Figure 3. Screenshot of Primary Account Information form in TurboTax Freedom Edition

**TurboTax**  
Freedom Edition

[Create User ID](#) | [Exit](#)

Home Personal Info Federal Taxes State Taxes Wrap Up **Print & File**

**File a Return** | [Print/Save for Your Records](#) | [Check E-File Status](#)

[Search Topics or Forms](#) | [Topic List](#) | [Help](#)

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**Federal Refund**  
**\$2,717**

**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

Selection **Federal** State Payment Review Filed

### How Do You Want Your Federal Refund?

You have a federal refund of \$2,717.

**Direct Deposit** (Recommended for a faster refund)  
- See the deposit in your account 8 - 14 days from the date the IRS accepts your return.

To my bank account [What if I don't have a bank account?](#)

Mail me a check  
-Get your refund in 3 - 4 weeks from the date the IRS accepts your return

**Enter Direct Deposit Information**

Johnathan Doe  
320 Main St  
Anytown, CA 12345

ACH/R/T 28237356

ACH Routing / Transit #

DO NOT INCLUDE Check Number

0001234567890

Routing #  
Between the @ symbols

Account #  
Include all zeros

Type of Account  Checking  Savings

Name of Bank

[Routing Number](#)  (From your check. Don't use your deposit slip. Use the ACH number if your check has one.)

Account Number

I would like to split my refund into more than one account OR I would like to purchase U.S. Series I Bonds for myself, my family, or someone else [Learn More](#)

Figure 4. Paper Check Intervention Experience

**TurboTax**  
Freedom Edition

[Create User ID](#) | [Exit](#)

[Home](#) | [Personal Info](#) | [Federal Taxes](#) | [State Taxes](#) | [Review](#) | [File](#)

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

Search Topics or Forms | Topic List | Help

**Why not save a little money?**  
You can split your federal refund between a check and a U.S. Series 1 Savings Bond.

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

**Amount to put on a U.S. Series 1 Savings Bond:**   
(Must be in increments of \$50) [Recalculate](#)

**Amount to get on a check:** \$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:

Savings bond amount: \$350

[Go Back](#) | [I don't need to save](#) | [Continue](#)

[License Agreement](#) | [Privacy](#) | [Security](#) | [Support](#)  
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Figure 5. Direct Deposit Intervention Experience

**TURBO TAX Freedom Edition** Create User ID | Exit

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

**Federal Refund \$1,300** Search Topics or Forms Topic List Help

**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:** \$  **Recalculate**

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**

Johnathan Doe  
1234 Main St  
Anytown, CA 12345

**Your Bank Name:**  **ACH Routing / Transit #:**  **Account #:**  **DO NOT INCLUDE Check Number**

**Routing #**  **Account #**

Type of Account:  Checking  Savings

Name of Bank:

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

Account Number:

**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

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## Figure 6. Treatment Group Savings Prompts

### **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.



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

Start building a bright future for them.



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

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



Table 1. Experimental Groups

<b>Group</b>	<b>Prompt</b>	<b>% Default Split to Saving</b>
Control	No default split, no prompt	none
Treatment A	Split baseline, no prompt	50
Treatment B	Split baseline, no prompt	75
Treatment C	Split baseline, emergency	50
Treatment D	Split baseline, emergency	75
Treatment E	Split baseline, future	75
Treatment F	Split baseline, family	75