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Emails Prompt Employees to Save More for Retirement

DOL Behavioral Interventions Final Project Brief

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Study background

The Department of Labor (DOL) Behavioral Interventions project was launched to explore the potential of using behavioral insights to improve the performance and outcomes of DOL programs. It is sponsored by the DOL Chief Evaluation Office and draws on insights from behavioral economics, psychology, and related fields.

Preparing for retirement is important. For many workers in the United States, a comfortable retirement may depend on the savings decisions they make now. Failing to save today can have very real consequences as people age, reducing the comforts they get to enjoy during retirement and their ability to cope with health and financial shocks.

Following broader Federal policy, the U.S. Department of Labor (DOL) has sought effective strategies for encouraging its employees to increase their retirement savings. DOL employees receive an employer match of up to 5 percent of their salary for all contributions to the Thrift Savings Plan (TSP)—a program similar to the private sector's 401(k) plans. In 2015, more than one-quarter of eligible DOL employees were contributing less than 5 percent of their salary to the TSP. Although there were many good reasons for why people might not participate in the TSP, a host of factors that have been identified by behavioral science might play an important role.

In 2014, DOL's Chief Evaluation Office contracted with Mathematica Policy Research and ideas42 to examine whether insights from behavioral science can be used to improve outcomes in DOL programs. In this study, we partnered with the DOL Human Resources Division (DOL-HR) and with the Employee Benefits Security Administration (EBSA) to explore whether low-cost, behaviorally informed emails would result in more DOL employees starting to save, or saving more, for retirement. We conducted two phases of testing, one in the fall of 2015 and one in the spring of 2016. Each one examined different behavioral messages and reminder strategies. Our study yielded several positive results. This brief describes the intervention context and design, discusses key findings, and identifies lessons learned from this study.

Key findings

Low-cost, behaviorally informed emails increased the number of DOL employees saving at least 5 percent of their salary by **7.5 percentage points.**

Emails raised the overall contribution rate by up to **0.4 percentage points** or approximately **$11,500** over an employee's lifetime.

Emails were **not effective in causing non-contributors to start contributing** a percentage of their salary to the TSP.

Intervention context

Federal law requires that DOL and other federal agencies match the first 5 percent of salary that an employee contributes to the TSP. DOL encourages employees to take full advantage of this offer by including information on the TSP in emails and in letters on benefits sent to employees. This outreach supplements broader efforts to promote retirement savings among all federal employees. These efforts include 2009 legislation that automatically enrolled new federal employees in the TSP, setting their contribution rate at three percent, as well as the TSP's provision of educational materials and information sessions offered in person and online.

Intervention design

Diagnosing behavioral factors.[1] We collaborated with EBSA and HR staff to diagnose potential factors that may cause employees to contribute less than 5 percent of their salaries to the TSP. (Exhibit 1 at the end of the brief summarizes possible behavioral factors.) Four central themes emerged:

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Study goal

Test whether behaviorally informed emails could prompt employees to increase contributions to retirement savings.

Inattention and misperception. Employees may not actively think about retirement planning or realize its benefits because they are focused on the present and on the immediate future and are not paying enough attention to their long-term needs and desires. They may be unaware of or forget that they are foregoing matching funds.

Present bias. Even if they focus on retirement, employees might not begin saving because they are (1) unduly sensitive to the immediate cost of giving up money now, (2) concerned about the time and effort involved in changing their savings elections, and (3) undervaluing the benefits of savings that accrue in the future.

Information overload and fear of a permanent decision. Employees may fail to make a choice because they are overwhelmed by the volume of information or by the complexity of the decisions to be made. They may incorrectly believe that their choice will be difficult to revisit or undo.

Hassle factors and procrastination. Employees may view the process of changing the contribution levels as a hassle and may therefore procrastinate.

Email design. In consultation with EBSA and HR staff, we developed emails that addressed these factors and tested them in two phases. The email developed for Phase 1 (Exhibit 2 at the end of this brief) did the following:

Made retirement vivid and emphasized the concrete benefits of retirement savings. Studies suggest that helping individuals visualize themselves in the future makes them more likely to save. We used a graphic that contrasts a retirement with many consumption options against one that has fewer options. The email also included a link to the TSP's Take Five for Your Future educational resources, which explain the benefits of beginning to save early.

Included both positive and negative framing by highlighting the "free money" that employees "miss out on" if they contribute less than 5 percent to the TSP. This message draws on behavioral research that suggests: (1) that people are more strongly motivated to avoid losses (loss aversion) than to achieve equal-sized gains and (2) that people tend to consume as much of a free good as is socially acceptable.

Encouraged employees to "act now" by describing how to change their contribution level in 5 simple steps. An email attachment used images of the DOL payroll website to illustrate these steps (Exhibit 3 at the end of the brief). Studies show that we tend to focus on the present moment and delay completing tasks that seem unpleasant. Showing the ease of changing one's contribution can counter the tendency toward procrastination.

Reduced actual and perceived hassle by making it easy for federal employees to access the TSP, ask for help, and recover their passwords. Although steps such as logging in with a password may seem minor, research shows that even small tasks can be perceived as a large hassle, which discourages individuals from being proactive with respect to their savings.

In Phase 2, we retested the original email and introduced two additional strategies:

We included a variant of the original email that invoked social norms by informing employees that the majority of their co-workers were currently saving 5 percent or more for retirement. This message drew on research showing that social pressure can heavily influence savings-related behavior and that people tend to be more comfortable choosing options that everybody else is choosing. Since at least one study has shown that effects can be negative if the savings rate highlighted in such messages is lower than what people believed it to be, we chose to frame the norm in broad terms ("most DOL employees") to reduce the likelihood of the unintended effect.

[1] Sources for the research cited in this brief appear in the full report, which is available at www.dol.gov/asp/evaluation/BIStudy/.

Research question

Can simple emails informed by behavioral science increase (1) the number of federal employees participating in the TSP and (2) the number contributing enough to receive the full employer match?

We sent a reminder email to employees who failed to take action after the initial email. Studies suggest that reminders can make savings-related decisions more relevant in the minds of employees, thereby increasing short-term and possibly long-term savings rates. Research also shows that people like to have many options when making decisions and that they become more anxious when making seemingly big decisions. Accordingly, our reminders assured employees that decisions about their TSP contributions are not set in stone.

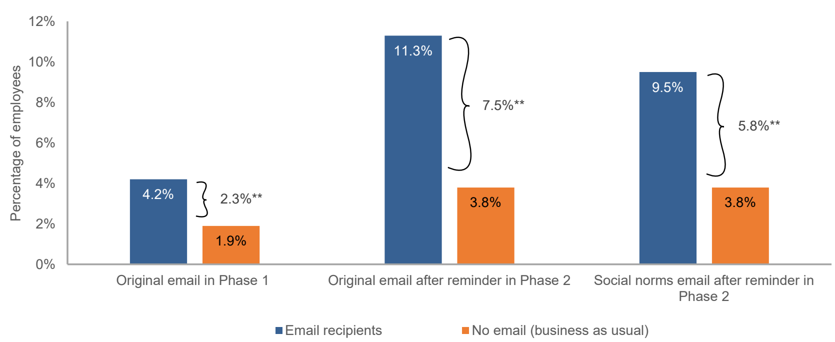
Study design

To test the effectiveness of our email messages, we used a randomized controlled trial in both phases of the study. In Phase 1, we used a lottery to assign 4,078 DOL employees who were saving less than 5 percent to one of two groups: a treatment group that received our targeted email in fall 2015 and a control group that did not. In Phase 2, we used a lottery to assign the 1,760 control group employees who remained in the sample from Phase 1 plus the 603 employees who joined the sample to one of three groups: a treatment group that got the original targeted email plus a reminder, a treatment group that got an email in which the original message was adapted to include a social norms message plus a reminder, or a control group that was not contacted at all. Using DOL-HR records on TSP contributions to compare how behavior differed across these various groups, we were able to determine the effectiveness of each strategy. DOL-HR planned to send the most effective email at the end of the study to any employees who were not in the intervention group so that they could benefit as well.

Findings

Both emails (the original one and the social norms variant) increased the number of DOL employees who received the full employer match. The original email improved this outcome by 2.3 percentage points when sent on its own in Phase 1 and by 7.5 percentage points when combined with a reminder and given more time to affect contribution levels in Phase 2 (Figure 1). The social norms variant, which also included a reminder email, improved this outcome by 5.8 percentage points in Phase 2.

Figure 1. Impact of the original email and the social norms variant on the percentage of employees who started contributing at least 5 percent to the TSP



Note: Significance levels: **p<0.01. Impact may not equal the difference shown between treatment and control due to rounding. Note that the effects of the original email in Phase 1 and the original email in Phase 2 should not be directly compared because the sample composition and contextual factors differ across the two phases.

The emails increased overall contribution rates in Phase 2. In Phase 2, the original email and the social norms variant significantly increased contribution rates by 0.4 percentage points and 0.2 percentage points, respectively. In Phase 1, we found positive but statistically insignificant results.

The emails did not prompt employees to contribute to the TSP if they were not already doing so. Across the two phases, treatment group members were 1.0 to 3.9 percentage points more likely to start contributing to the TSP than were control group members. However, none of these results was statistically significant.

Invoking social norms and sending reminders did not appear to make the original message more effective. Our exploratory analyses suggest that neither of the new strategies tested in Phase 2 was more effective than the original email.

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Timing may have mattered. Phase 2 impacts were substantially larger than Phase 1 impacts on all savings outcomes, indicating that the context of each phase likely influenced the emails' effectiveness. This evidence is not conclusive, since the Phase 1 and Phase 2 employee samples were not identical. The differences we observed in employee characteristics from one phase to the next, such as salary and tenure at the agency, may also have contributed to the differences in impacts.

Some employees were more responsive to the emails. The effects of our emails were strongest for those who were already contributing at least some amount to the TSP.

Implications and next steps

Our results suggest that targeted emails that draw on insights from behavioral science can be a compelling and low-cost strategy for promoting retirement security.

Emails informed by behavioral science generated considerable impacts relative to the cost. The increases in contributions that we saw are sizeable, especially considering that the large proportion of DOL employees who were already participating in the TSP and receiving the full employer match left little room for improvement. These impacts exceed those observed in trials that targeted TSP enrollment among military service members.[2]

Impacts on contribution rates could translate into meaningful savings over the long term. Knowing the average increase in overall contribution rates (0.4 percentage points) allows us to roughly estimate the potential value of savings resulting from the intervention. If the 764 individuals who received the intervention email maintained this level of savings until retirement, they could gain a meaningful amount of savings in 20 years—approximately $11,500 per person on average. This translates to an additional $8.8 million in savings for these email recipients.[3]

The interventions are broadly relevant and scalable. Our results are especially promising because of the low-touch, low-cost nature of the intervention. Many employers can already send mass emails, are probably accustomed to doing so, and can access a growing menu of affordable technology options for mass communication.

It may be useful to further investigate what made our emails effective for some but not others. It will be important to understand why employees who were not already contributing to the TSP remained unresponsive to these emails. It will be equally important to continue to look for effective strategies for engaging these employees. Because each email bundled many behavioral strategies together, we cannot disentangle from the bundle which elements worked or which were most important for whom. This issue may merit further exploration. Finally, there may be value in examining how the effectiveness of such emails changes as they are used more frequently.

[2] Social and Behavioral Sciences Team (SBST), 2015 Annual Report; SBST, 2016 Annual Report; SBST, "Service member TSP enrollment." Available at https://sbst.gov/. Accessed March 31, 2017.

[3] Our calculations of per-person savings apply the 0.4 percentage point increase in the overall contribution rate observed in Phase 2 of the trial to the median salary of $78,162 that we observed in the study treatment group that received the original email in Phase 2. We assumed 20 years of saving, since the median age of this sample is 45 years, and a six percent annual rate of return, yielding an estimate of $11,501 per person. (The direct calculation is $\sum_{i=1}^{20}(0.004 \times \$78{,}162) \times (1.06)^{(i-1)} = \$11{,}501$. To calculate total savings, we multiplied this estimate of per-person savings with 764 (the number of employees contributing less than 5 percent of their salary who received the original email in Phase 2 of the trial in 2016).

Learn more

In addition to the effort described in this brief, the project team has developed interventions and executed trials in partnership with the Occupational Safety and Health Administration to boost workplace safety and with the Employment Training Administration to help unemployed workers with their job search efforts. You can access reports, briefs, presentations, and infographics on these trials, as well as additional tools for applying behavioral insights by visiting www.dol.gov/asp/evaluation/BIStudy/. This brief is an updated version of an interim brief published in April 2016.

Exhibit 1. Behavioral bottlenecks and email design implications

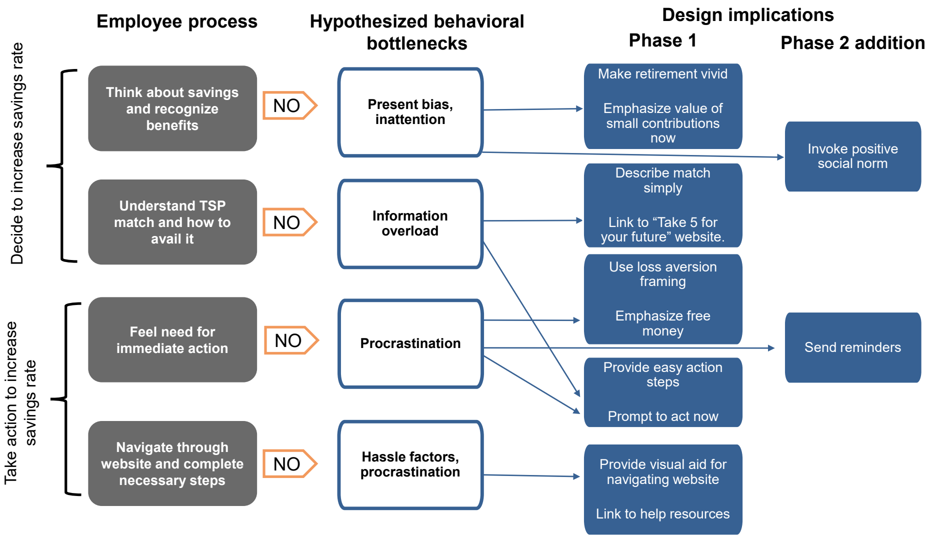


Exhibit 2. Study email sent to randomly selected employees in Phase 1

[Subject line: You are missing out on free money every pay period-here's how to get it]

Uses a personal and empathetic tone

How will you spend your retirement?

Emphasizes concrete benefits of retirement savings using consumption framing

A simple choice now can give you more choices to enjoy in retirement. But if you aren't contributing at least 5% to the Thrift Savings Plan (TSP), you are missing out on free money every pay period! Each time you contribute money to your TSP retirement account, DOL will match your contributions up to 5% of your salary. Getting the full match today may open up more choices for you to enjoy in retirement. The sooner you start, the more you can make your money work for you.

You can easily change your contribution right now to make sure you're getting the money you've earned.

Illustrates ease of changing contribution

How to quickly change your contribution now

1. Log into your Employee Personal Page and click "TSP" on the left hand side. Forgot your user ID or password? Click here.
2. Click "self-service" in the upper right corner.
3. Click "change," then enter the percent you want to contribute (for example, 5%) and the pay period you would like to start your new contribution amount. ****Don't worry, this decision isn't final. You can change your contribution at ANY time.****
4. Click "continue," then "yes," and then "submit" to finish.
5. Sit back and watch your money grow!

Reduces real and perceived hassles by providing links and guidance

Remember, setting aside a little money today can make a big difference in the future. Start now by trying at least 5% this pay period.

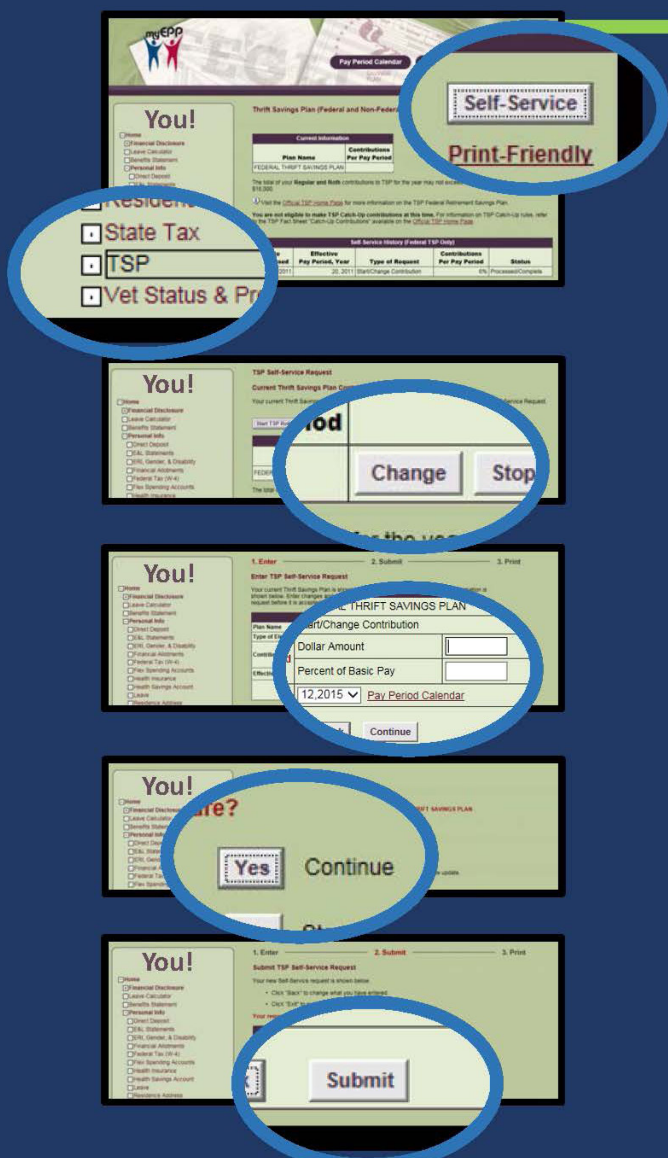
Need more help navigating the Employee Personal Page? Use the attached guide that shows you how to change your contribution level. You can also contact your servicing human resources office if you have any further questions.

Prompts to act now

Exhibit 3. Attachment to study email

Just a few clicks can give you more choices to enjoy in retirement.

Complete these **5 simple steps** now to get your full match from DOL and avoid missing out on free money. Don't worry, this decision isn't final. You can change your contribution at ANY time.



1 Log in to your Employee Personal Page, click "TSP," then "self-service" to get started.

2 Click "change" to adjust your contribution.

3 Enter the amount or percent you want to contribute, when you want it to start, and click continue.

4 You're almost done. Check over your contribution then click "yes."

5 Click "submit" and watch your money grow!