

Executive Summary

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“A growing body of evidence demonstrates that behavioral science insights—research findings from fields such as behavioral economics and psychology about how people make decisions and act on them—can be used to design government policies to better serve the American people.”

— President Barack Obama,
 Executive Order #13707

The Federal Government administers a wide array of programs on behalf of the American people: financial aid to assist with college attendance, social insurance programs and tax incentives to promote retirement security, health insurance programs to ensure access to healthcare and financial protection for families, disclosure requirements to help people obtain safer mortgages, and others.

But Americans are best served by these programs if the programs are easy to participate in and present options and information clearly. When programs are designed without these considerations in mind, Americans can incur costs that go beyond lost time and frustration. Research from behavioral science demonstrates that seemingly small barriers to engagement—such as hard-to-understand information, burdensome applications, or poorly presented choices—can prevent programs from working effectively for the very people they are intended to serve.¹

For example, one behavioral science study found that a complex application process for financial aid was more than just a hassle: it discouraged applications for aid, and actually led some students to delay or forgo going to college altogether.² Fortunately, behavioral science not only identifies aspects of programs that can act as barriers to engagement, but also provides policymakers with insight into how those barriers can be removed. That same study showed that streamlining the process of applying for financial aid—by providing families with application assistance and enabling families to automatically fill parts of the application form using information from their tax return—increased the rates of both aid applications and college enrollment.

When *behavioral insights*—research findings from behavioral economics and psychology about how people make decisions and act on them—are brought into policy, the returns are significant. Because the Federal Government leveraged insights from the financial aid study and simplified the process of applying for Federal student aid, college is now more readily accessible to millions of American families.³ Similarly, the Pension Protection Act of 2006, which codified the practice of automatically enrolling workers into retirement savings plans, is based on behavioral economics research showing that switching from an opt-in to an opt-out enrollment system dramatically increases participation rates.⁴ Since the implementation of this policy, automatic enrollment and automatic escalation have led to billions of dollars in additional savings by Americans.⁵

On September 15th, 2015, President Obama signed an Executive Order directing Federal agencies to identify programs in which applying behavioral science insights can yield substantial improvements; develop strategies for applying behavioral science insights to programs, and, where possible, rigorously test and evaluate the impact of these insights; recruit behavioral science experts to join the Federal Government; and strengthen agency relationships with the research community. In accordance with this Executive Order, the Social and Behavioral Sciences Team (SBST), organized under the National

¹Daniel Kahneman, “Maps of Bounded Rationality: Psychology for Behavioral Economics,” *American Economic Review* 93 (2003): 1449–1475. Richard H. Thaler and Cass R. Sunstein, *Nudge* (Yale, 2008).

²Eric P. Bettinger, Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu, “The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment,” *Quarterly Journal of Economics* 127 (2012): 1205–1242.

³U.S. Department of Education, “Fiscal Year 2016 Budget Summary and Background Information,” (2015), p. 40.

⁴Brigitte C. Madrian and Dennis F. Shea, “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior,” *Quarterly Journal of Economics* 116 (2001): 1149–1187. Pension Protection Act of 2006, Public Law 109-280, U.S. Statutes at Large 120 (2006): 780–1172.

⁵Shlomo Benartzi and Richard H. Thaler, “Behavioral Economics and the Retirement Savings Crisis,” *Science* 339 (2013): 1152–1153.

Science and Technology Council (NSTC), ensures that our best understanding of behavior—how people engage with, participate in, and respond to policies and programs—is integrated into the policymaking process. SBST is a cross-agency group of experts in applied behavioral science that translates findings and methods from the social and behavioral sciences into improvements in Federal programs in order to help agencies achieve their missions and objectives.

As detailed in this report, SBST efforts are already paying dividends for Americans. Due to SBST projects, more Servicemembers are saving for retirement, more students are going to college and better managing their student loans, more Veterans are taking advantage of education and career counseling benefits, more small farms are gaining access to credit, and more families are securing health insurance coverage. And improvements in government program integrity and efficiency are saving taxpayer dollars.

Results from SBST's First Year

Over its first year, SBST focused on executing proof-of-concept projects where behavioral insights could be embedded directly into programs at a low cost and lead to immediate, quantifiable improvements in program outcomes. To generate reliable evidence about the effectiveness of integrating behavioral insights into programs, SBST designed these projects, in nearly all cases, as randomized trials. This report presents the results of all completed SBST projects, including projects that did not yield statistically significant improvements.

Because SBST projects are designed to address only the behavioral barriers that affect how people engage with programs, project effects can be modest. Yet, because behavioral changes to program administration often require little or no additional cost, returns on investment can be large even when project effects are small. It is no more expensive to send an effective version of an email than an ineffective one.

In building an initial portfolio of work, SBST focused on projects in two areas where behavioral science had a strong role to play and impacts could be demonstrated relatively rapidly: (1) streamlining access to programs and (2) improving government efficiency.

Streamlining Access to Programs

Working closely with agencies across the Federal Government, SBST used behavioral insights to expand program reach and promote retirement security, increase college access, connect workers and small businesses with economic opportunities, and improve health outcomes.

Promoting Retirement Security

- To promote participation in the Thrift Savings Plan (TSP), a workplace savings plan for Federal employees, SBST and the Department of Defense (DOD) launched an email campaign that sent approximately 720,000 unenrolled Servicemembers one of nine email variants, designed using behavioral insights, notifying recipients of the opportunity to participate in TSP. Compared to no message, the **most effective message nearly doubled the rate at which Servicemembers signed up** for TSP. Emails informed by behavioral insights led to roughly **4,930 new enrollments and \$1.3 million in savings in just the first month** after the emails were sent. DOD is now scaling up this intervention by sending periodic emails informed by behavioral insights to Servicemembers about the benefits of TSP.
- To further promote saving, SBST and DOD prompted Servicemembers to make a “Yes” or “No” choice about whether or not to contribute to TSP during an orientation briefing upon their arrival at a new military base. **More Servicemembers enrolled in TSP during the prompted choice pilot: 8.7 percent of non-enrolled Servicemembers, compared to 2.9 percent on average at three comparison bases, and 4.3 percent during comparison time periods at the pilot base.** Based on the success of this pilot, DOD is committing to applying insights from this pilot across bases and installations with higher troop concentrations.
- To assist nearly 140,000 Servicemembers who were required to re-enroll in their Roth TSP in order to continue making contributions, SBST and DOD redesigned an email that alerted Servicemembers of the requirement to re-enroll. The redesigned email **led 22 percent more Servicemembers to re-enroll in TSP within a week**—3,770 more re-enrollments than among those sent a standard message. Based on this result, DOD immediately scaled up the successful messaging in subsequent outreach reminding Servicemembers to re-enroll in TSP.

Improving College Access and Affordability

- To help students enroll in college, SBST and the Department of Education's (ED) office of Federal Student Aid (FSA) provided technical expertise to researchers and the nonprofit uAspire on messages notifying college-accepted, high school graduates of required pre-matriculation tasks for their respective colleges. A series of eight personalized text messages to low-income students reminding them to complete these tasks **led to a 5.7 percentage point increase in college enrollment**, from 66.4 to 72.1 percent.
- To help Federal student loan borrowers stay on top of their payments, SBST and FSA sent a reminder email to over 100,000 borrowers who had missed their first payments. The reminder email **led to a 29.6 percent increase in the fraction of borrowers making a payment** in the first week after it was sent, from 2.7 to 3.5 percent.
- To increase awareness of income-driven repayment (IDR) plans among student loan borrowers, SBST and FSA sent an informational email about IDR plans to over 800,000 borrowers who had fallen behind on their payments. The low-cost, timely message led to a **fourfold increase in applications for income-driven repayment plans**, with 4,327 applications for IDR made within twenty days of the email being sent.

Advancing Economic Opportunity

- To increase Veterans' uptake of education and career counseling benefits, SBST and the Department of Veterans Affairs (VA) sent notices informing Veterans of their benefits and the steps needed to apply. Relative to simply notifying them of their eligibility, **highlighting to Veterans that they had earned the benefits led nearly 9 percent more Veterans to access the application for those benefits**. This increase represents only 146 additional Veterans clicking through to the application form, however, suggesting that barriers to accessing this program lie elsewhere.
- To improve economic outcomes for small-scale and specialized farmers, SBST and the United States Department of Agriculture (USDA) collaborated on a campaign to increase knowledge and utilization of loan options. **Farms that were sent a personalized letter with a customized set of action steps for applying for a Microloan were 22 percent more likely to obtain a loan**, representing an increase from 0.09 to 0.11 percent.

Helping Families Get Coverage and Stay Healthy

- To assist individuals and families with obtaining health insurance, SBST and the Department of Health and Human Services (HHS) sent one of eight behaviorally designed letter variants to each of more than 700,000 individuals who had already begun the enrollment process, but had not yet completed an application. **Those sent the most effective version of the letter were 13.2 percent more likely to enroll in health insurance** than those sent no letter, with enrollment rates of 4.56 and 4.03 percent, respectively.

Improving Government Efficiency

Many measures of government efficiency depend on the decisions and actions of individuals such as program officials, beneficiaries, and contractors. SBST applied behavioral insights to improve program integrity, save money on operational expenses, and identify programs the Government could run more efficiently.

Promoting Program Integrity and Compliance

- To improve the accuracy of sales figures self-reported by vendors selling goods and services to the Government, SBST and the General Services Administration (GSA) redesigned an online data-entry form to include a signature box at the top of the page in which the user had to confirm the accuracy of self-reported sales. Because vendors pay to the Government a small fee based on those sales reports, introducing this box led to **an additional \$1.59 million in fees collected within a single quarter**. Based on this result, GSA is making permanent changes to the form to incorporate a signature box.
- To increase debt recovery from individuals with outstanding non-tax debt, SBST worked with the Department of the Treasury's Debt Management Service (DMS) to redesign a collection letter. **No difference in payment rates** was observed, but changes such as shortening the web address for making an online payment **led 45 percent more individuals to pay online**, representing an increase from 1.5 to 2.2 percent. DMS has now permanently shortened the web link in the collection letter.
- To reduce inappropriate prescribing of controlled substances, SBST and HHS's Centers for Medicare and Medicaid Services (CMS) sent providers with unusually high billing patterns a letter comparing their prescribing rates with the prescribing rates of their peers, as well as educational information about proper prescribing practices. **No measurable impact was seen on prescription rates**.

Ensuring Cost-Effective Program Operations

- To determine if letters could encourage security holders to transfer accounts to an online platform, SBST collaborated with the Department of the Treasury's Bureau of the Fiscal Service to design outreach to account holders. Letters that included a personal appointment time with a call center led to **23 percent higher call-in rates** than standard letters, representing an increase from 10.6 to 13.0 percent. Account conversion rates remained low for both groups, however. Based in part on this result there are no further mailings planned.
- To increase response rates to a workplace survey that determines Federal office space management strategies, SBST and the GSA worked together to incorporate behavioral insights into the timing and messaging of emails announcing the survey. Among other findings, **email click rates were highest at lunchtime**, with 15.3 percent of emails sent at 11:55 a.m. resulting in recipients clicking through to the survey, compared with 13.3 percent at 8:55 a.m.
- To encourage double-sided printing, SBST and the USDA's Economic Research Service (ERS) created a dialog box that asked employees to change their default printer setting to double-sided after employees had initiated a single-sided print job. This **prompt increased the likelihood of double-sided printing by 5.8 percentage points**, from a baseline of 46 percent. Based on this finding, ERS plans to change the default setting of all printers to double-sided.

SBST's initial portfolio of work has led to real improvements in outcomes that matter for Americans and demonstrated that Federal agencies can successfully integrate behavioral insights into their programs. The results of SBST projects completed to date represent a foundation on which the Federal Government, can, moving forward, base decisions about both program administration and policy design. Based on results from SBST pilots, agencies have already made lasting reforms to program administration in order to better serve the American people.

*For more information on the work of SBST, please visit
<https://sbst.gov>*

