

The Role of Behavioral Economics in Evidence-Based Policymaking

By
WILLIAM J. CONGDON
and
MAYA SHANKAR

Behavioral economics has come to play an important role in evidence-based policymaking. In September 2015, President Obama signed an executive order directing federal agencies to incorporate insights from behavioral science into federal policies and programs. The order also charged the White House Social and Behavioral Sciences Team (SBST) with supporting this directive. In this article, we briefly trace the history of behavioral economics in public policy. We then turn to a discussion of what the SBST was, how it was built, and the lessons we draw from its experience and achievements. We conclude with a discussion of prospects for the future, arguing that even as SBST is currently lying fallow, behavioral economics continues to gain currency and show promise as an essential element of evidence-based policy.

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Behavioral economics is no longer the novelty it once was. The academic foundations of the field stretch back several decades, popular books on the topic top bestseller lists, and feature articles grace magazine covers. But the practice of translating its findings and lessons into policy design remains in its relative infancy. Thus, President Obama's 2015 executive order

William J. Congdon is currently the chief economist at the nonprofit organization ideas42. He previously served as the senior economist for labor and behavioral economics on the Council of Economic Advisers (CEA). Prior to CEA, he served as a fellow and founding member of the Social and Behavioral Sciences Team, and he previously worked as a research director in the Brookings Institution's Economic Studies program.

Maya Shankar is currently Google's head of Behavioral Science. Prior to that she was a senior advisor in the White House Office of Science and Technology Policy and founder and chair of the Obama administration's Social and Behavioral Sciences Team.

Correspondence: wjcongdon@gmail.com

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that encouraged federal agencies to adopt behavioral science approaches and formally established the Social and Behavioral Sciences Team (SBST) was an important milestone for the field.¹

In this article, we discuss how the field got to that moment, and where it might go from there. We begin with a brief background on behavioral economics and policy. We then turn to a discussion of what SBST was, how it was built, and what lessons we draw from its experience. We conclude by discussing prospects for the future of behavioral economics in policymaking.

Behavioral Economics and Public Policy

Behavioral economics relaxes the traditional economic assumption that individual choices are a product of perfectly rational calculation, allowing, for example, that people can be inattentive, or impatient in the decisions and choices that they make. The psychological underpinnings of the field trace back to research conducted by psychologists Amos Tversky and Daniel Kahneman beginning in the 1970s, for which Kahneman was awarded the Nobel Prize in Economic Sciences in 2002.²

The economic underpinnings of the field derive from the recognition that psychological factors can inform how we understand economic outcomes—for example, how markets work, or fail. Beginning in earnest with Richard Thaler's work in the 1980s, for which he was awarded the Nobel Prize in 2017, economics started to seriously grapple with such implications.³ Early work explored such topics as how behavioral factors can explain movements in financial markets, or how people save (or fail to save) for retirement.

Over time, implications of behavioral economics for policymaking emerged. In 2001, for example, an influential study by Brigitte Madrian and Dennis Shea showed that automatic enrollment in retirement savings plans dramatically increased participation rates. In 2004, Thaler and Shlomo Benartzi showed that automatically escalating contributions to those plans led people to save at higher rates. Based on this research, the Pension Protection Act of 2006 encouraged automatic enrollment and escalation.⁴ The expansion of these practices since then has led to billions of dollars in additional retirement savings by American workers (Benartzi and Thaler 2013).

Building on this work, research on behavioral economic policy analysis began to flourish. A behavioral perspective was applied to challenges not just in retirement policy, but also in health insurance, tax policy, labor markets and education, and beyond.⁵ In 2008, Thaler and Cass Sunstein published the influential book *Nudge*, which brought many of behavioral economics' concepts to a policymaking audience for the first time.

The Obama administration took shape against this intellectual backdrop. To the extent that personnel is policy, the Obama White House was a behavioral one from the start. A contemporaneous *New Yorker* article gives a sense of this (Lizza 2009):

[Director of the Office of Management and Budget Peter] Orszag has turned the O.M.B. into something of a behavioral-economics think tank. ... Cass Sunstein, the

University of Chicago legal scholar, who is the co-author, with Richard Thaler, of “Nudge,” ... and Jeffrey Liebman, a behavioral economist from Harvard, both work for Orszag. Last month, Liebman brought three leading behaviorists to the White House to advise Obama’s health-care policy team.

A number of early Obama administration efforts were directly guided by behavioral research. For example, part of the economic stimulus enacted by the American Recovery and Reinvestment Act was delivered as a payroll tax cut rather than a rebate check based, in part, on the behavioral economic hypothesis that consumers were more likely to spend this form of tax cut, and so more effectively stimulate the economy.

Efforts to simplify the Free Application for Federal Student Aid (FAFSA) were likewise inspired by behavioral research, which showed that the application’s complexity was leading some low-income students to delay or forgo attending college altogether (Bettinger et al. 2012).⁶ Supported by research showing the power of setting the default option in deliberate ways, more expansive efforts were taken to automatically qualify students eligible for free or reduced-price school meals using existing administrative data.⁷

And the Department of Health and Human Services launched the BIAS (Behavioral Interventions to Advance Self-Sufficiency) project in 2010, one of the first explicitly behavioral research programs led by a federal agency (Richburg-Hayes, Anzelone, and Dechausay 2017).

Behavioral Economics in the White House

The idea of a dedicated team of behavioral scientists supporting policymaking out of the White House predates even early Obama administration efforts. In fact, the first—if slightly tongue-in-cheek—mention goes back to 2004, when Richard Thaler organized a session at the Annual Meeting of the American Economic Association titled, “Memos to the Council of Behavioral-Economics Advisors.”⁸ The notion of such a group has been floated periodically ever since (Schwartz 2012; Sunstein 2016).

During the Obama transition, in 2008, the idea of bringing behavioral economists into the White House was more seriously considered. The *New York Times* noted that

some economists are now talking about whether Mr. Obama should add a new kind of adviser to his team, one specifically charged with translating the lessons of the behavioral revolution into real-world policies. (Leonhardt 2008)

Arguments were made for including either an adviser or group within the Office of Management and Budget (OMB), or, alternatively, for setting up an outside advisory council. Nothing came of these proposals immediately. But early leaders in bringing behavioral approaches to policy—in particular, Cass Sunstein in his pioneering role applying behavioral science to regulatory affairs at the Office of

Information and Regulatory Affairs (OIRA)—laid the groundwork for the eventual creation of SBST (Sunstein 2014).

Building the Social and Behavioral Sciences Team

The idea of a behavioral economics group was rekindled early in Obama's second term, with the creation of what would become SBST. Somewhat unusual for a White House initiative, we first demonstrated the value of such a team through proof-of-concept projects before formally establishing the group itself. The effort began when one of us (Shankar) joined the Office of Science and Technology Policy (OSTP) in 2013 as a senior advisor for the Social and Behavioral Sciences.⁹ The role involved building a coalition within the federal government to support coordinated behavioral policy applications, and initiating work through offices at other agencies, using existing authorities.¹⁰

Shortly thereafter, a team was recruited to support these efforts (the other of us, Congdon, was part of this group). This early version of SBST, brought together in 2014, comprised a half-dozen economists, psychologists, and policy experts on loan from universities, nonprofits, and other federal agencies.

The first SBST annual report, released in September 2015, documented initial results (SBST 2015), detailing the impact of more than a dozen collaborations with agencies across government.

Early efforts focused on two areas where strong evidence supported the proposed interventions, and where the potential benefits to government and society were demonstrable: streamlining access to programs and improving government efficiency. In an example of the former, a project with the Department of Defense (DOD) to promote participation in a retirement savings plan led to about five thousand new enrollments and an additional \$1.3 million in savings in just the first month (SBST 2015, 30). In an example of the latter, a project with the General Services Administration (GSA) to promote contractor reporting compliance increased the collection of fees owed to the government by \$1.6 million in its initial quarter (SBST 2015, 39).

Based on these early, promising results, in 2015 the SBST was chartered as a subcommittee of the National Science and Technology Council (NSTC), then asked to coordinate the government-wide policy directive issued under Executive Order 13707.¹¹

How this early demonstration of results led to the more formal establishment of SBST makes for an interesting testament to the power of evidence-based policymaking. Three aspects of the work contributed to the buy-in and support that it achieved.

First, SBST was a deliberate and judicious consumer of evidence. We chose policy applications, such as retirement savings, where there was a strong empirical basis to believe that behavioral applications could improve welfare. The interventions were also based closely on the underlying research. For example, the retirement savings intervention was based on research on encouraging savings (Beshears et al. 2013); the contractor reporting intervention was directly guided by analogous lab research (Shu et al. 2012).

Second, many of SBST's efforts also generated rigorous evidence. Most of our interventions (including both examples above) were implemented as randomized controlled trials. The ability to precisely measure and credibly identify effects made the work's impact clear and compelling to policy-makers, researchers, and the public.

Third, SBST emphasized transparency and clarity of reporting. We reported the results of all our completed work, regardless of effectiveness. We also reported empirical results with sufficient technical detail that experts could judge their credibility on the merits. This level of reporting also served as inoculation against some of the more common criticisms of behaviorally informed policymaking—objections to the abstract idea of government using behavioral science were substantially defused by showing that the tools and methods we used were in service of, for example, helping Americans go to college and save for retirement.

The Obama administration behavioral insights agenda

On September 15, 2015, President Obama issued Executive Order 13707, "Using Behavioral Science Insights to Better Serve the American People." The order formally recognized the potential of behavioral insights to guide policy:

By improving the effectiveness and efficiency of Government, behavioral science insights can support a range of national priorities, including helping workers to find better jobs; enabling Americans to lead longer, healthier lives; improving access to educational opportunities and support for success in school; and accelerating the transition to a low-carbon economy.

The order articulated a behavioral insights policy agenda for the federal government. It directed executive branch departments and agencies to employ behavioral insights, and encouraged them to:

- identify policies where behavioral science was likely to yield substantial improvements in public welfare;
- develop strategies for applying those insights and, where possible, rigorously evaluate their impact;
- recruit behavioral science experts into their agencies; and
- strengthen agency relationships with the research community.

In addition, the order gave SBST responsibility for coordinating this agenda, giving agencies advice and policy guidance, and issuing an annual report. SBST was also asked to issue a guidance document to agencies that expanded on the framework, outlined in the order, for identifying where behavioral science was likely to improve policy outcomes.

At its height, near the end of the Obama administration, SBST's membership reached about fifty policy-makers, program officials, and behavioral scientists across the federal government. Chaired by OSTP, it included representatives from most executive branch departments, such as Treasury and Health and Human Services, as well as independent agencies, such as the Social Security

Administration, and other offices within the Executive Office of the President, such as the National Economic Council (NEC).

A central group of about fifteen members, based out of GSA, provided core support to SBST members and efforts at other agencies. It included both a small career staff and a larger contingent of economists, psychologists, and other experts serving on one- or two-year rotations from universities and nonprofits.¹² This arrangement allowed SBST to recruit some of the nation's leading experts in behavioral science to work directly in and with government; at various points, SBST included researchers from such institutions as Cornell, Johns Hopkins, Georgetown, and the University of Chicago.

SBST's somewhat unusual structure offered several advantages: the White House provided leadership and direction via OSTP, the participation of policy councils such as NEC connected SBST's efforts with policy development processes, program and policy officials from departments and agencies were able to bring specialized knowledge of program details and opportunities for applications, and the central group of academics brought expertise in behavioral science as well as connections to the academic community.

Fulfilling the Promise of Behaviorally Informed Policy

In SBST's second year, we aimed to build on early successes by turning our attention to work with potential to more significantly improve the lives of more Americans. The second SBST annual report—the last of the Obama administration, issued in September 2016—describes the initiative's progress along those lines (SBST 2016).¹³ The report took a broader perspective, including not only empirical results from completed projects but also reporting on policy development collaborations and important work in progress. Simultaneously, SBST issued the implementation guidance called for by the executive order.¹⁴

SBST's projects that promoted retirement security with the DOD illustrate its evolution. Building on a successful email campaign, subsequent efforts worked to modify the enrollment process itself. DOD and SBST ran pilots at selected bases of an active choice intervention, which required a yes or no decision about whether to enroll in the savings plan. The intervention substantially increased enrollment, providing a template for sustainable enrollment gains that could be scaled across the military (SBST 2016, 5). SBST also helped DOD with the design and implementation of automatic enrollment of service members into the plan, as authorized by the 2016 National Defense Authorization Act.¹⁵

In aiming to use behavioral economics for the greatest possible benefit to social welfare, SBST's approach evolved to reflect some key lessons.

Start from the policy problem, not the behavioral tools

Behavioral economics has the greatest effect on policy when it is applied to the right problems (Furman 2017). Demonstrations of behavioral policy applications

too often start by drawing on a particular behavioral tool (e.g., social norms), or by opportunistically identifying channels through which they might be deployed (e.g., emails or letters). These more opportunistic policy applications are often valuable in themselves, but they will only incidentally help solve the nation's most important policy challenges (Congdon and Shankar 2015).

The second SBST report reflected our turn toward important policy challenges: advancing economic opportunity, supporting criminal justice reform, helping families get health insurance coverage, and so on. With bigger challenges came longer timelines. In its second year, SBST was orienting itself to these challenges, but making meaningful progress would obviously take many years.

Identify policy challenges with an important behavioral component

Not every policy challenge is a product of human behavior or can be remedied by changing behavior. How can we identify those that do have an important behavioral dimension? The implementation guidance issued by SBST reflected how SBST approached this question, and was also intended to help agencies (and others) to make this identification. The framework was of course not intended to be exhaustive, but we found it to be useful for policy-makers and program officials.

The framework identifies four common elements of policy design with important behavioral dimensions: (1) determining access to programs, (2) presenting information to the public, (3) structuring choices within programs, and (4) designing incentives. For example, a now robust finding from behavioral economics is that when setting eligibility standards and processes that determine access to programs, relying on standard economic approaches alone can lead policy-makers to miscalibrate program requirements, making them overly burdensome (Bertrand, Mullainathan, and Shafir 2006; Kleven and Kopczuk 2011).

Behavioral insights can inform structural changes to policy design

Much of the work in behavioral policy applications, including much of SBST's early work, takes the form of choice-preserving changes that would not be expected to matter (or matter much) if individuals were perfectly rational. Consider an example from SBST's work to help Unemployment Insurance (UI) more effectively promote timely return to work: drawing on research about how identity salience—how people think about their personal identity when they are making a decision—affects decision-making, SBST worked with the state of Utah to update some official UI communications so that they address recipients as “job seekers” rather than “claimants” (Akerlof and Kranton 2000; LeBoeuf, Shafir, and Bayuk 2010).

But behavioral economics research also has more structural implications for the design of policies such as UI. For example, UI benefits may not reflect the impatience, optimism, or reference dependence (the tendency of individuals to

evaluate alternatives relative to a reference point) that job seekers appear to exhibit (DellaVigna and Paserman 2005; Spinnewijn 2015). To address these factors, the policy might be modified to pay weekly benefits not as a constant amount over a given spell, but so that they fall over time (DellaVigna et al. 2016; Shavell and Weiss 1979). In its final year, SBST was working with the Department of Labor (DOL), the state of Oregon, and academic researchers to develop a pilot test of this policy innovation.

Draw the right conclusion from the effectiveness (or ineffectiveness) of nudges

Nudge interventions are often mechanism experiments as much as they are demonstration projects (Ludwig, Kling, and Mullainathan 2011). That is, they often tell us something about why policies are or are not working, in addition to telling us whether the nudge works. When a nudge is effective, the best next step is sometimes to apply the nudge at scale. But just as often it is important to ask instead, What does the fact that the nudge worked tell us about the underlying policy?

Perhaps the clearest example comes from the effort to streamline the FAFSA: research found that assisting families with the form at tax time increased college-going for low-income students (Bettinger et al. 2012). The implication for federal financial aid policy, however, was not that this intervention should be applied at scale. Rather, it was that the screening mechanism embodied by the form was miscalibrated—it conditioned aid on a too-restrictive set of criteria and was overly burdensome as a result. The policy response has therefore been to streamline the application (U.S. Department of Education 2016).

Keep the economics in behavioral economics (at least for economic policy)

Finally, for many policy applications, the full power of behavioral insights comes from incorporating psychological insights about behavior that economics lacks into economic models of social welfare that psychology lacks. Consider, for instance, cases where nudges may have spillover effects. We can nudge people to sign up for health insurance plans through Affordable Care Act exchanges, as SBST did, but even if doing so leaves those individuals better off, what is the overall effect of the nudge on adverse selection and the program's ability to pool risk? Economic models and methods are required (Handel 2013).

Perhaps more importantly, for a large class of government policies the underlying problem they seek to fix is a perceived market failure. When drawing on behavioral insights to improve this type of policy, we will often need economics to understand what it means to make the policy work better. What does it mean to design the incentives in UI to be more effective or efficient? The answer requires reference to economic models of how UI trades off consumption smoothing against moral hazard (Baily 1978; Chetty 2008).

The Future of Behavioral Economics and Policy

At this writing, visitors to the SBST website, sbst.gov, are greeted by a boldface banner stating: “This is historical material ‘frozen in time’ on January 20, 2017. This website will no longer be updated.” “Frozen in time” is also an appropriate metaphor for SBST itself. So far as we know, the current administration has made no effort to take up SBST, no one is acting as chair of SBST, and the White House is not supporting the agenda articulated in the executive order.¹⁶

We have reasons to be optimistic that behavioral economics will continue to be used for policy. But something has indeed been lost—not just SBST itself, but also in terms of the embrace of behaviorally informed, evidence-based policy measures more broadly. Take state auto-IRA policies as an example: These plans were encouraged by an Obama-era DOL rule; the Trump administration signed a repeal of that rule, and the future of such programs is now in doubt.¹⁷

That said, even if the present represents a setback, behavioral economic policymaking still has much momentum behind it. Within the federal government, even if much is gone, much remains in place. Executive Order 13707 is still (at the time of writing) in effect, and though the SBST itself is hollowed out, the policy directive to departments and agencies stands. Moreover, many program and policy staff who adopted behavioral economic approaches remain at their agencies, and continue to use those methods. Members of the central team at GSA remain in place. And the network that SBST cultivated across agencies remains connected as a community of practice.

Moreover, outside of the specific context of the federal government, advances in behavioral economics and policy continue apace. Academic research continues to make important contributions to our knowledge of how behavioral factors matter for policy. Researchers and universities, think tanks, nonprofits, and other practitioners continue to develop and test behavioral applications. And other levels of government are also adopting these approaches. Massachusetts, for example, is debating a version of the executive order as state legislation.¹⁸

Fundamentally, behavioral economic policy remains relevant and important because the policy challenges that we face as a nation remain, and research continues both to tell us about the nature of those challenges and to illuminate potential solutions.

The continued relevance of behavioral economics for policy is, in no small part, a result of the deep underlying relationship between behavioral economic policy and evidence-based policy. Behavioral economics is, at its core, about taking an empirical approach to human behavior when conducting economic analysis and making economic policy. As Richard Thaler has put it (2016),

Behavioral economics is simply one part of the growing importance of empirical work in economics. There is nothing unique about incorporating psychological factors such as framing, self-control, and fairness into economics analyses. If such factors help us understand the world better and improve predictions about behavior, then why wouldn't we use them just like we would use any other new source of data?

Put another way, if policy is to be based on evidence, as analysts and policy-makers along the political spectrum claim they wish it to be, and if important policy outcomes depend on behavior, as many clearly do, then policy must continue to be behaviorally informed.

Notes

1. Executive Order 13707 of September 15, 2015, "Using Behavioral Science Insights to Better Serve the American People," *Code of Federal Regulations*, Title 3, 56365–67.

2. See, for an early example, Kahneman and Tversky (1979); Kahneman (2011) reviews much of this research.

3. See, for an early example, Russell and Thaler (1985); Thaler (2015) reviews the development of the field.

4. Pension Protection Act of 2006, Public Law 109-280, U.S. Statutes at Large 120 (2006): 780–1172.

5. For recent examples, see Chetty (2015); Madrian (2014); Shafir (2012); and Congdon, Kling, and Mullainathan (2011).

6. For a description of some of the FAFSA simplification efforts undertaken, see U.S. Department of Education (2016).

7. Direct certification has long been an option in the National School Lunch Program (NSLP), but much more aggressive standards were set under the Healthy, Hunger-Free Kids Act of 2010; see U.S. Department of Agriculture (2013) for a discussion of these efforts.

8. Papers presented included Bertrand, Mullainathan, and Shafir (2004); and Cronqvist and Thaler (2004).

9. See an early reference to this effort in Thaler (2013).

10. Not, initially, without controversy; see, for example, Lott (2013).

11. The organization of SBST as an NSTC body was formalized in March 2015; see https://www.whitehouse.gov/sites/whitehouse.gov/files/ostp/SBST_Charter.pdf.

12. This central team was staffed following the model of the Council of Economic Advisers, which brings in academic economists for similar terms.

13. Note the technical abstracts were released separately, here: <https://sbst.gov/download/2016%20Abstracts.pdf>.

14. Available at <https://sbst.gov/download/Executive%20Order%2013707%20Implementation%20Guidance.pdf>.

15. See National Defense Authorization Act for Fiscal Year 2016, Public Law 114-92, U.S. Statutes at Large 129 (2015): 726–1309.

16. The original NSTC charter for SBST expired May 31, 2017; and as far as we are aware, it has not been renewed.

17. State plans are based in part on the proposal for an "auto-IRA" at the federal level, which was included in Obama administration budget proposals but never enacted; for more, see Iwry and John (2009).

18. See <https://malegislature.gov/Bills/190/S1690.Html>.

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