Buying Evidence? Policy Research as a Presidential Commodity

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Abstract

The U.S. federal government routinely commissions policy research from the private sector and this research, in turn, often forms an evidence base for future policy decisions. Given its potential to influence the policymaking process, I argue that the procurement power over research production is a previously unappreciated tool in the president's policy arsenal. Focusing on federally-funded policy research and using an original dataset of federal procurement from 2000-2019, I explore how government-funded research can enhance a president's prospects for accomplishing political goals. The analysis shows that agencies that are prioritized by the president award larger research contracts. Further, new presidential administrations are more likely to discontinue research initiated by their predecessors. The implication is that policy research commissioned by the federal government is a commodity for the executive, harnessed in service of political agendas.

Short Title: Policy Research as a Presidential Commodity

Keywords: presidency, research, evidence-based policymaking, procurement, policy agendas

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Research supported by the U.S. federal government has a special status. While research studies funded by private industry are often viewed as biased or otherwise tainted, research sponsorship by the federal government conveys legitimacy, quality, and, importantly, a sense of impartiality. The status afforded to government-backed research makes it attractive to researchers, who leverage the government's imprimatur to achieve higher survey response rates and gain special access to vulnerable populations and administrative records. Further, as the largest single sponsor of private sector research in the world, the magnitude of the U.S. federal research enterprise is unparalleled. These features make government research a potentially valuable commodity for political leaders.

Policy research—that is, research that focuses on specific policy issues or questions is particularly useful in policy discussions because it can form an evidence base that establishes the scope or scale of a problem or contextualizes an alternative course of action.¹ When a government agency sponsors policy research, it gets to set terms, dictating the who, what, when, where, and how of a research study. And because oversight of this type of research production is housed in the executive branch, the president has the opportunity to deploy policy research in service of his or her broader agenda. Having this type of evidence base also shores up political arguments, because it changes the dimensions on which opponents must engage from preference and ideology to facts and argumentation. ¹I distinguish policy research from other types of government-funded research, such as research and development (R&D) spending or research grants. R&D spending is concerned primarily with applied research and its market potential, such as the development of weapons systems or exploratory medical research. And research grants sponsored by the federal government can concentrate on any subject and need not focus on areas that are relevant to contemporary policy conversations. Although all three types of research are substantively important, the federal government spends less on policy research. For example, in fiscal year 2019 the federal government spent \$2.4 billion procuring policy research studies, while the National Science Foundation spent \$6.5 billion funding research (NSF, 2019, 3)—mostly through grants and the federal government spent \$140 billion in R&D research support (CRS, 2020, 2). However, caution is warranted in making comparisons with these other categories as they do not offer the same policy or political returns.

At a minimum, it raises the costs for the president's adversaries by forcing them to procure their own evidence.

How and when do presidents, who oversee the production of policy research, use it to advance their priorities? In this paper, I explore the role of policy research as a commodity in presidential policymaking. I argue that there are numerous returns for a president who meaningfully engages with this type of research. I begin by drawing out two case illustrations that show how the Obama administration procured policy research to its strategic advantage. Then, using a new dataset of research studies purchased by federal agencies from fiscal year (FY) 2001 to FY 2019, I examine policy research procured by federal agencies across three presidential administrations.² To preview, I find that agencies devote more funds to research studies on issues that the president has explicitly made a priority, and that these results hold when considering new contracts, where the terms are first being negotiated with the vendor. My argument about presidentiallydirected policy research outperforms alternate explanations that argue that research funds are allocated to reward the president's key constituencies, that they are primarily directed by Congress, or that they are apolitically apportioned. Additionally, I show that policy research contracts are disproportionately more likely to be defunded when they were initiated by a prior presidential administration.

These findings contribute to our understanding of presidential policymaking in at least three ways. First, they build on existing studies that demonstrate how presidents exercise power in a constrained separation of powers context. However, in a departure from work that suggests that electoral politics is the primary driver of executive spending decisions (e.g., Berry, Burden and Howell, 2010; Dynes and Huber, 2015; Hudak, 2014; Kriner and Reeves, 2015), the argument here focuses on presidential attempts to pursue policy

²Because the data cover fiscal years, the tail end of the Clinton administration (October 1, 2000 to January 19, 2001) is included. However, I focus the discussion on the latter three administrations since this constitutes only a small segment of the Clinton years.

priorities through spending. Second, by uncovering political patterns associated with contracts for federal research, the argument shows a specific way in which the research enterprise is "politicized," albeit one that departs considerably from earlier arguments about the politicization of science (e.g., Jasanoff, 1990; McGarity and Wagner, 2008). Finally, although government contracting is typically assumed to be a neutral, rule-bound arena, the results presented here contribute to a growing understanding of the politicization of constrained, procedure-laden areas of executive policymaking (e.g., Dahlström, Fazekas and Lewis, 2021; Potter, 2019).

The Presidential Power of the Purse

The American president is tasked with an enormous responsibility, fulfilling simultaneous roles as moral leader, party leader, and policy leader. Although Article II enumerates the president's formal powers, in practice the informal powers of the presidency have become an increasingly important source of presidential power (Cohen, 1982; Lowi, 1986; Neustadt, 1991; Schlesinger, 1974). In cataloging how the executive amassed these informal powers, scholars have taken an expansive view of the president's policymaking arsenal, including strategies such as: working with Congress to pass legislation (Cohen, 2012), strategically deploying war powers (Howell and Pevehouse, 2007), and calling on the unilateral toolkit (Lowande and Rogowski, 2021).

The president's spending power is a key mechanism by which modern presidents exert influence. Each year, the president oversees the allocation of trillions of dollars, much of which is allocated through grants and contracts. A burgeoning literature examines how presidents manipulate the distribution of discretionary funds in order to reward key constituencies (Berry and Gersen, 2017; Berry, Burden and Howell, 2010; Gordon, 2011; Hudak, 2014; Kriner and Reeves, 2015; Napolio, 2023), be they congressional copartisans, congressional powerbrokers, or key electoral constituencies. For example, Dahlström, Fazekas and Lewis (2021) examine how presidential oversight of the massive federal procurement enterprise results in favorable procurement contracts being awarded by more politicized agencies (over which the president has greater control) and in battleground states (which are politically advantageous to the president).

Presidents have policy goals beyond political back-patting, however, and the politics of presidential spending is not limited to distributive issues. The procurement apparatus can be deployed in service of broader policy agendas. How this works in practice, however, is not well understood by scholars.³ Nonetheless, spending and presidential agenda-setting have natural synergies. Research on presidential agenda-setting typically focuses on the ability of the president to command public attention and bring the force of public opinion to bear on select issues (Canes-Wrone, 2006). Yet with limited public attentiveness, presidents must be judicious in using media to ask for the public's attention (Baum and Kernell, 1999). However, prior research suggests that federal spending that is done in visible ways has the potential draw the attention of select audiences to an issue and influence opinion (e.g., Miller, 2016). In the next section, I consider how spending directed toward policy research in particular can be consonant with agenda-setting, in addition to other presidential goals.

Policy Research as a Political Commodity

Despite the many tools at their disposal, presidents struggle to accomplish their policy goals. This struggle means that the ability to generate policy research is attractive. Key to the appeal of this type of action is that when the executive branch commissions policy research, it sets terms: selecting the research question and determining who will

³One notable exception is Gitterman (2012), who argues that presidents leverage their procurement power and the oversight it gives them over government contractors—as a back-door way to move the needle on bigger public policy issues. He argues that presidents write executive orders targeting federal contractors to make policy gains in the labor and social policy arenas.

answer it, as well as how and when it will be completed. The ability to steer the production of policy research in this way is not trivial, as it increases the odds that the resulting research product will align with the executive's preferred policy position. The power to procure policy research—research that is likely to be consistent with the president's policy position—thus opens the door to (at least) five strategic uses by the president.

First and foremost, policy research can serve as a tool of persuasion, demonstrating to external audiences—be they in Congress, the courts, or among a relevant set of interests—the relative merits of the president's preferred course of action. Persuasion remains an indispensable tool of the presidency, helping presidents augment their formal powers (Neustadt, 1990[1960]). Consider, for instance, a legislative program that the president wants Congress to adopt. She will be much more successful in getting the program adopted if key congressional actors agree that the program is a good idea; a strategic president is therefore one who can sell the merits of her policy proposal, both to other elites and to the public. This insight translates to other domains beyond legislation, as presidents regularly confront implementation problems even within their "home turf" of the executive branch (Rudalevige, 2021).

When audiences are primed that a position is backed by research or evidence, they are more likely to support it (e.g., Bergner, Desmarais and Hird, 2019; Tappin, Berinsky and Rand, 2021). Further, recent research suggests that when elites are confronted with evidence in support of a policy argument, they are more likely to adjust their beliefs and preferences to align with that position—irrespective of the valence of the source (Lee, 2021). This suggests that, for example, new programs can be defended against congressional critics and in the public arena based on studies that demonstrate the effectiveness of the idea or that show the extent of need in a policy area.

Second, even if evidence does not conclusively show that a program is effective or that a problem is as bad as it seems, it can be still be valuable for a president to have in hand as it may enhance the target audience's perception of the legitimacy, viability, or potential durability of a policy action.⁴ For instance, much of the *Chevron* judicial doctrine regarding court deference to policymaking by executive agencies relies on the agency's actions not being "arbitrary and capricious"—a standard which is often interpreted based on whether there is sufficient research in the agency's record. Having a solid research base for a policy action can thus legitimate the administration's position and potentially forestall this legal determination.

Third, once the president injects evidence into a policy debate, it raises costs for her opponents. Opponents will be hard pressed to use moral or preference-based arguments to counter an evidence-based case; instead they will be pressured to procure their own research. This can neutralize opposition or buy the president valuable time.

Fourth, having evidence available opens up the possibility for expert (and potentially public) discussion on a particular issue. Even if evidence is not ultimately used in a policy debate, a president that commissions policy research in a particular area will nonetheless have engaged a research community around a specific topic. For instance, many longitudinal studies that executive agencies sponsor take years to complete, meaning that the administration that initiates the research endeavor may not be the beneficiary of the results of the same study. However, having that study land in the lap of a future administration may continue the conversation about the policy topic among experts in the field.

Finally, evidence can also be used in "tactically" to deflect criticism, rather than support policymaking (Weiss, 1979). In this sense, an agency can initiate policy research with the explicit purpose of buying time or staving off criticism. Thus, rather than

⁴Indeed, a broad-based movement advocates for evidence-based policymaking as a way to legitimate policy choices. The Government Accountability Office, the Organisation for Economic Cooperation and Development, and the United Nations, and even the academy (e.g., Bowers and Testa, 2019) promote evidence-based policymaking as crucial to good governance.

taking action in a specific area, an administration can conduct additional research into the issue. In this way, vested interests can be placated (or their concerns deferred) by the commissioning of new research to investigate an issue of pressing need.

These strategic uses each confer different benefits to the executive and highlight the flexible and contingent nature of policy research. There is no singular audience for policy research; instead the audience varies depending on the context. Congress is sometimes the intended audience; for example, if the president and congressional outpartisans are at loggerheads over an issue, the president can procure policy research to raise costs for those members who then have to obtain their own research to level the playing field. At other times, the audience is congressional co-partisans, particularly when policy research is used as a persuasion tool. Additionally, the theoretical object of interest varies across the usage types. In the first three uses, the resulting research product is the focus. In the latter two strategic uses, the focal points shifts. For instance, when research is used to engage a broader community of experts and interested parties in a discussion (strategic use #4), the process itself and (perhaps also) the research product are the objects of interest. And when policy research is procured to deflect criticism (strategic use #5), the fact that research is being undertaken (i.e., the procurement action) is the focus, not necessarily the findings of the ultimate research product(s).

Together, the benefits of policy research and the attendant flexibility mean that the president's engagement with the policy research enterprise can be politically advantageous. In this sense, evidence can be understood to be a *political commodity*; that is, it is a valuable good that is produced and traded within the political marketplace for one's political gain. As Weiss (1979) describes it, research can sometimes become "ammunition for the side that finds its conclusions congenial and supportive."

While leveraging the federal policy research enterprise offers these strategic benefits to the president, substantive direction from the president is not the only source of potential influence over government research; there are other potential explanations for how policy research is determined. As highlighted previously, presidents might also view procured research as an opportunity to award "pork" to key allies (e.g., Kriner and Reeves, 2015). Alternatively, Congress might direct the research efforts of the executive branch, instructing agencies to do research in areas of substantive interest to key members and committees. Another possibility is that research priorities might also be entirely divorced from the political process. For example, Weiss (1979) outlines an "enlightenment model" of research production, wherein broader shared societal perspectives and norms inform which research is undertaken. This nonpartisan outlook suggests that the most pressing research needs are (somehow) identified and pursued, irrespective of which party is in power.

To disentangle presidential influence from other sources of influence, I focus on two empirical implications that follow from the argument that presidents avail themselves of policy research for strategic ends.

First, policy research priorities should be prioritized according to the current president's policy agenda, since this is where evidence will be most useful to the president. Presidents assume office with policy priorities that they want to accomplish, laying out their policy agendas in a variety of public forums, including budget submissions to Congress, Rose Garden ceremonies, and State of the Union addresses (Cohen, 1995). When the president presents an issue as a public priority, her next challenge is to effectuate action on the issue—by getting Congress to take up legislative action, persuading other actors to accept a unilateral action as valid (Reeves and Rogowski, 2016), swaying public opinion on the issue (Cohen, 1995), or convincing bureaucrats to implement the president's proposal (Neustadt, 1990[1960]; Rudalevige, 2021). Following the political commodity logic, when a president has made an issue a priority, she will pursue the generation of policy research in that area. Second, when a new president assumes office, she should be less willing to continue the policy research initiated by her predecessor, as this work presumably was oriented toward accomplishing the predecessor's agenda.⁵ Instead, she should actively seek to discontinue this research since its production will not redound to her political benefit. This implication contrasts with a more nonpartisan "enlightenment" model, however, where research initiated by a predecessor should be continued, as researchers continue to work to solve the underlying policy problem.

Presidential Research in Practice

Before moving into empirical evaluations of these expectations, I consider what presidential engagement with policy research looks like in practice. Two case illustrations both from the same presidential administration—show how policy research can be used as part of a broader presidential strategy. The Obama administration's choice to initiate a study on the effects of changes to the school lunch program raised costs for potential opponents, but primarily served to keep school lunches on the long-term policy agenda. In contrast, Obama's decision to introduce policy research into the debate over whether transgender people could serve openly in the military legitimated his policy decision, and also raised costs for opponents of the policy.

Research as an Agenda-Setting Tool

Improving public health was a major policy priority of President Barack Obama. This priority manifested in First Lady Michelle Obama's high-profile campaign to combat the childhood obesity epidemic, a campaign which included improving the healthiness of school lunches.

Following the passage of the Healthy, Hunger-Free Kids Act in 2010 (HHFKA), the ⁵This is, of course, conditional on the preceding administration being of a different political party. For the period under study, this condition is met empirically. U.S. Department of Agriculture issued regulations that considerably revised school lunch nutrition standards. USDA's regulations were ambitious: "Within a few years, schools would need to switch all of their breads and pastas to whole-grain varieties. Within a decade, the average salt content of a high-school lunch would have to be cut by roughly half... lunches would have to offer twice as many fruits and vegetables, and students would be required to take at least half of them" (Confessore, 2014). The White House was closely involved with the regulations, so much so that the agency's press release indicated that the rules were being unveiled by "First Lady Michelle Obama and Agriculture Secretary Tom Vilsack" (USDA, 2012).

The new school lunch regulations were contentious and became closely tied to partisan support for the first lady (Kam, 2020). Amid this controversy, the Obama administration funded a rigorous policy evaluation of the effects of the changes to the school meals program; the School Nutrition and Meal Cost Study (SNMCS) was a comprehensive program evaluation conducted by Mathematica. Importantly, Congress had not required the evaluation in the HHFKA, but the effort was well suited to the administration's broader push for evidence-based policymaking (Haskins and Margolis, 2014). When the study was released in 2019—well into the administration of President Donald Trump—it revealed dramatic nutritional gains from the lunch improvements (Reiley, 2019).

The study's good news came at a highly inconvenient time for the Trump administration, as it was in the middle of rolling back many of the Obama-era school lunch reforms. While the administration downplayed the study, interest groups in the food and education sectors wrote numerous stories about it and academics cited the resulting publications. One blog touted that this was "groundbreaking" and the "best school lunch news you never heard" (Reinhardt, 2019) and the *Washington Post* accused the Trump administration of downplaying science (Reiley, 2019). The net result of the study, then, was to keep the school lunch issue on the agenda for the interested public, providing support for enhanced nutrition standards in school lunches. It also provided fodder for potential legal challenges to the retrenchment of those standards by a successor administration.

Research as a Legitimation Tool

Obama assumed office at a time when activists were pushing for civil rights for transgender people. Although initially hesitant, Obama became receptive to this approach and grew to be perceived as an ally of the movement (Bromwich, 2017). He was the "first president to use the word 'transgender' in a speech, the first to issue an order to bar discrimination against transgender federal workers and employees of federal contractors, the first to appoint transgender officials to government positions, the first to invite transgender children to take part in the White House Easter Egg Roll, and the first to sign hate crime legislation that included the transgender community" (Mezey, 2020, 3). Nearing the end of his second term, the issue of transgender people serving in the military was a sticking point. While earlier in 2011 President Obama had repealed the military's long-standing "Don't Ask, Don't Tell" policy for gay men, lesbians, and bisexuals serving in the armed forces, the policy for service by transgender people remained a de facto ban (Mezey, 2020).

At the time, public opinion on allowing transgender people to openly serve was largely favorable, with 64% of Americans and even higher proportions of Democrats supportive (Jones et al., 2019). However, dissent within the military ranks was acute; a 2016 poll showed that 57% of active-duty military personnel held negative views toward the decision to allow transgender troops to serve openly (Shane, 2017). As one *Politico* article described it, Obama faced "some risks... if he is seen as pushing the military beyond its comfort level with transgender troops" (Wheaton, 2015).

Despite extant research suggesting that eliminating the transgender ban would "advance a number of military interests" (Palm Center, 2014, 3), in 2015 Obama's Department of Defense commissioned its own study examining the impact of allowing transgender people to openly serve in the military. When the study was released in May of 2016, the RAND Corporation reported that making this policy change would "cost little and have no significant impact on unit readiness" (Bromwich, 2017). The next month, explicitly citing that report, the Obama administration announced that the Pentagon's ban would be lifted and that transgender people could openly serve in the military.⁶

The Obama administration's procurement of the RAND Corporation study illustrates how research can be a legitimation tool. In this instance, the research did not appear to change or influence the administration's thinking on the service of transgender people in the military; that decision was (ostensibly) already made. Indeed, it accorded with a number of other decisions the president had already made with respect to the rights of transgender people. The report served as both a justification and a public relations tool; it showed that the administration was taking skeptics' concerns seriously. The choice of the RAND Corporation as the research vendor may have been strategic as well, as it is widely respected in the defense community and, by some estimates, leans slightly left-of-center (Groseclose and Milyo, 2005; Lerner, 2018). Finally, since much of the opposition stemmed from the military itself, having credible evidence that the policy posed no threat may have neutralized opposition from this population.

Research Design

To more systematically evaluate how policy research is managed in the executive branch, I study the spending associated with government contracts for policy research studies. There are clear advantages to using government contracts as a way to evaluate federal research patterns. First, procurement is closely tracked and monitored, meaning

⁶In 2017, the Trump administration delayed the ban's removal and subsequently in 2018 reinstated the transgender service ban, essentially nullifying the Obama-era actions. While this reversal is outside the scope of this case, it is worth noting that in dismissing Obama's policy, Trump Secretary of Defense Jim Mattis explicitly attacked the research underlying it, criticizing the RAND report for glossing over too many issues and minimizing the complexity of the issue (Mezey, 2020, 158).

that is possible to trace where research funds are allocated. Second, from the executive's perspective, contracting for research is desirable because it supplements existing expertise and capacity within the executive branch. Perhaps most significantly, the executive can set terms for procured policy research (e.g., establish the research question and methods) and also select who will conduct the research. Finally, outside vendors may enhance the credibility and esteem of a research endeavor.

There are, however, limitations to this approach. First, contracts for policy research represent only one facet of the executive branch's research production capability. Federal agencies can also award research grants to external vendors or career civil servants can conduct the research in-house. While these other avenues for policy research are important, data limitations and differences in the strategic environments in which these actions take place prevent equivalent analyses. For instance, one data obstacle is that creating an inventory of in-house agency reports is impractical. While many agency's research reports are published online on the agency's website, an unknown quantity of reports are hidden from public view, either because they are classified or because political considerations prevented them from ever being publicly released in the first place.⁷ And, while grants do not suffer from the inventory problem, they represent a different strategic environment and, therefore, introduce different theoretical issues. Grants are often awarded with minimal stipulations; this leaves the grantee considerable leeway to pursue research questions related to their own interests or to explore issues that might not be relevant to the policy question at hand (i.e., they introduce the possibility of creep).

⁷It is within the president's power to suppress agency-generated policy reports. For example, the Trump administration prevented the results of a study on the economic benefits of refugees from being publicly released, since the results conflicted with the administration's refugee policies (Davis and Sengupta, 2017). While contracted policy reports can also be suppressed, by focusing on the procurement transaction (rather than the resulting research product), I avoid this problem. With procurement-based policy research we can observe the executive's *intent* to obtain research in a particular area (i.e., the procurement action), irrespective of whether the resulting research output is eventually released to the public.

Second, these are observational data, which makes it difficult to cleanly estimate the effect of presidential prioritization on policy research contracts given potential concerns about endogeneity and omitted confounders. To address this issue, I present a variety of approaches to analyzing the data, as well as robustness checks. While these analyses are not strongly identified (and thus remain in the realm of correlational patterns), the results are nonetheless consistent with a causal relationship between presidential strategy and contract awards for policy research.

Contracting Data

Data on contracts for government research draw from the Federal Procurement Data System-Next Generation (FPDS-NG), a dataset which chronicles all contract awards made by federal agencies from FY 2001-FY 2019.⁸ These data include millions of contracts, including spending commitments for all manner of services and products ranging from janitorial work to rocket parts. To narrow these data, I consider the substantive area of each contract, ultimately focusing in on contracts where the agency has solicited a research study from the private sector. Specifically, I focus on contracts that are designated as "Special Studies and Analysis" in the "Product and Service Code" for each contract.⁹

The federal government purchases many types of research studies and the FPDS-NG contains a wide range of analytic approaches, including feasibility studies, surveys, environmental studies, and extended evaluation studies. For instance, in 2013 the Department of Education funded a \$3 million longitudinal study on high school students

⁸The "agencies" I refer to throughout this manuscript are mostly lower-level subunits of larger departments (e.g., the Food and Drug Administration in the Department of Health and Human Services). However, in some cases like the Department of State, the FPDS-NG does not disaggregate to lower units of analysis. See Table B-1 in the Appendix for a complete list of agencies included in the analysis.

⁹Contracts for "Special Studies and Analysis" are different from contracts for "Research and Development," which focus on applied research and market applications. See Section A of the Appendix for more detail about the data collection and cleaning processes.

and the Department of Health and Human Services funded a \$685,000 survey to monitor influenza vaccination coverage among health care personnel and pregnant women.¹⁰ Contracting officers assign each study one of 45 study type codes; Figure 1 shows total research spending associated with each study type over the years analyzed. The largest share of federal research funds are coded as "Other," suggesting that agencies often do not give details about what their research covers. After this, defense studies received the second largest share of federal research funds, followed by studies for medical and health issues, environmental assessments, scientific data, and energy studies. Of course, the studies in each category were funded by multiple agencies, so this illustration sets the stage for the agency-level empirical analyses that follow.

To be sure, the awards associated with these research studies are not exorbitant sums, at least by the scale of total federal spending. The average inflation-adjusted award is about \$22,000.¹¹ However, this figure reflects individual awards and a single contract might have many awards, dispersed over time. Indeed, when studying aggregate contract values, the tail is long, with some contracts having many awards and vendors ultimately receiving many millions of research dollars.

¹⁰An important question is whether the research studies in the procurement data are truly policy relevant. On a basic level, all research procured in this manner is policy-relevant. The collection of soil samples, for example, can be highly policy relevant in terms of helping an agency evaluate pollutants and set reduction targets. However, this instance of policy research may not be particularly *politically salient* in the way that the above examples or the school lunch and transgender research cases highlight. So the policy relevance of individual studies is likely to vary considerably.

¹¹Figure B-1 shows the award breakdown across the three administrations in this study. Notably, the patterns of spending are highly consistent across administrations.

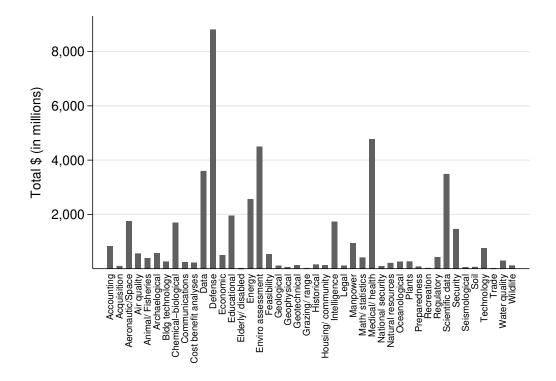


Figure 1: Types of Research Studies Funded by Federal Agencies

Note: Figure shows the total amount spent (in millions of 2005 dollars) on each type of research study for the period under study (FY 2001- FY2019). Research study type is determined by the Product or Service Code associated with each individual contract. "Other studies," the largest category of funding, are excluded from this figure since they do not provide substantive insight about the research being produced.

Directing Research Contract Awards

How does presidential prioritization influence where new policy research money is allocated? To answer this I analyze the relationship between presidential prioritization and the monetary value of each individual research award in the FPDS-NG data.¹² I initially focus on all contract awards that direct government research worth more than \$1,000 in funds to a contractor, and then turn to analyzing a subset of the data.¹³ I

¹²Focusing on the size of research awards is reasonable since prior work suggests that the size of awards, and not the number, is more sensitive to political influence (e.g., Gordon, 2011).

¹³Because each contract-related action constitutes an entry in the FPDS-NG database (e.g., contractors change of address), I focus on entries where at least \$1,000 was awarded from the government to a contractor in

then consider newly initiated contracts. Unlike awards initiated under existing contract umbrellas that have already-defined terms (e.g., the vendor has been selected, research question and scope of work have been determined) and may be difficult to amend, new contracts offer an opportunity to negotiate terms and steer research in a new direction. Put simply, because new contracts are more malleable, the opportunities for presidential influence are expected to be enhanced.

In the analyses that follow, the dependent variable is the logged dollar amount of each individual research award.¹⁴ To assess whether a policy issue is a presidential priority, I rely on annual State of the Union (SOTU) addresses. During the SOTU, the president lays out her policy agenda for the upcoming year (Cohen, 1995), making it a standardized way of accounting for which issues the president is prioritizing and which she is not. To link agencies to the SOTU, I begin by matching an agency's primary policy focus with one of the 220 subtopic areas defined by the Policy Agenda Project (Jones, 2019). For many agencies this is a straightforward exercise, as the agency name is included in the description in the Policy Agendas codebook for that subtopic.¹⁵ For other agencies, this exercise requires author discretion, but usually only minimally so: for instance, the Bureau of Engraving and Printing is coded as "currency, commemorative coins, medals, U.S. Mint" (subtopic 2006) and the Agency for Healthcare Research and Quality is coded as "health research and development" (subtopic 398). For each agency/ subtopic-year, I then

order to home in on transactions where a meaningful exchange occurred.

¹⁴Taking the natural log is appropriate given the skew shown in Figure B-1.

¹⁵For example, subtopic code 1800 (Foreign Trade: General) mentions the Federal Trade Commission directly, subtopic code 1203 (Law, Crime, and Family Issues: Illegal Drug Production, Trafficking, and Control) mentions the Drug Enforcement Administration, and subtopic 1003 (Transportation: Air Transportation and Safety) mentions both the Transportation Security Administration and the Federal Aviation Administration. See Table B-1 for a full list of agencies and their corresponding subtopics. An important limitation of matching agencies to subtopics is that it is not possible to disentangle presidential attention to an *agency* from presidential attention to an *issue*. However, given the granularity of the subtopic coding, the match between subtopic issues and agency foci is close.

code whether that subtopic was mentioned at all by the president in that year's SOTU.¹⁶ The resulting variable *Presidential Agenda* is coded as "1" if the president mentioned an agency's subtopic area in the year that a policy research contract was awarded, and "0" otherwise.¹⁷

In some models I also include controls that address important sources of withinagency variation. First, I consider that agencies may have different capacities to produce research internally, and that this feature may influence how an agency engages the private sector to conduct research. To evaluate this internal capacity, I collect data on the occupations of white-collar employees in an agency (e.g., veterinarian, lawyer, accountant). *In-house Capacity* is the proportion of an agency's employees each year who hold researchrelated positions (i.e., the type of positions most likely to be engaged in producing a research report)¹⁸ over the total number of white-collar employees in the agency. Second, since pressures on the agency's budget may affect the size of awards the agency is able to make, I include a measure of the agency's fiscal status. *Budgetary Change* is the percentage

¹⁶The number of unique subtopics mentioned in any SOTU ranges from a low of 32 subtopics in 2002 and 2005 to 74 in 2000.

¹⁷Figure B-2 illustrates the relationship between total policy research spending and a president's agenda.

¹⁸All personnel-based measures are calculated at the bureau-year level and draw from Freedom of Information Act requests submitted to the Office of Personnel Management (OPM). The OPM data do not include the Department of Defense. To identify research-related positions, I examine the occupation codes that OPM assigns to every federal employee. There are 460 discrete occupational codes, each with a narrow vocational focus; for example, code "0625" is an autopsy assistant, and code "0987" is a tax law specialist. To generate a measure of an agency's in-house capacity to conduct research, I count the number of employees in each agency in each year with the following research-related professional occupations: social science (0101); economist (0110); workforce research and analysis (0140); history (0170); general anthropology (0190); archeology (0193); librarian (1410); archivist (1420); general mathematics and statistics (1520); actuarial science (1510); operations research (1515); mathematics (1520); mathematical statistics (1529); statistics (1530); computer science (1550); and education research (1730). I also include the following two administrative occupations in the count: writing and editing (1082) and technical writing and editing (1083).

change in an agency's discretionary budget authority over the prior year. Because budgetary data is kept at the department level, this is necessary measured at the department level. Next, the presence of contracting professionals may mitigate the political effects of contracting; accordingly, the variable *Contracting Officers per capita* is a measure of the number of contracting officers per capita in the agency. Finally, I include fixed effects for the type of study being conducted (e.g., regulatory analysis, environmental study, education study). Descriptive statistics for all variables are shown in Table B-2.

I rely on OLS models with fixed effects at the agency and presidential administration level.¹⁹ This modeling approach allows me to hold constant time-invariant agency-specific factors, as well as administration-specific factors that may affect agencies cross-sectionally. In essence, such a design compares the effect of having a new administration in place *within the same agency*. All models include standard errors clustered at the agency level. The results are presented in Table 1; the first column (Model 1) shows a parsimonious model of all contracts and the second column (Model 2) shows the results with agency controls. Models 3 and 4 replicate that setup for the subset of new contracts, which may be more susceptible to political influence.

Overall, the estimates consistently demonstrate that agencies that are prioritized by the president award larger research contracts. For the set of all contracts (Models 1 and 2), after accounting for the logged dependent variable, the effect of having a presidential mention in the SOTU is an approximately 9-10% increase in the size of a research award. For new contracts (Models 3 and 4), this effect is roughly the same size. Together these results support the interpretation that research awards move in conjunction with the

¹⁹Different presidents have different approaches to managing the bureaucracy; these differences can include choices about staffing, communication, and oversight, among many other features. These differences are meaningful for agencies and have the potential to affect the research process studied here. Because these managerial differences are not necessarily observable, administration fixed effects are an appropriate way to address this variation.

president's agenda.

	(1)	(2)	(3)	(4)
	All	All	New	New
	Contracts	Contracts	Contracts	Contracts
Providential Agenda	0.100**	0.096*	0.107**	0.094*
Presidential Agenda				
	(0.038)	(0.041)	(0.041)	(0.044)
In-house Capacity		-0.384		-0.311
		(0.675)		(0.651)
Budgetary Change		-0.019*		-0.007
		(0.009)		(0.009)
Contracting Officers per 100		0.012		0.006
с I		(0.017)		(0.024)
Observations	146,227	146,227	101,123	101,123
Number of Agencies	161	161	155	155
Study Type FE	NO	YES	NO	YES
Agency FE	YES	YES	YES	YES
Administration FE	YES	YES	YES	YES

Table 1: Presidential Prioritization and Size of Research Contract Awards, FY01-FY18

Note: Table entries are two-way fixed effects OLS coefficients. The dependent variable is the logged dollar amount associated with each research contract. Robust standard errors clustered at the agency level are in parentheses. Two-tailed tests: *** p<0.001, ** p<0.01, * p<0.05. FE = fixed effect.

These findings are robust to a variety of different specifications. I begin by including the Department of Defense (DoD) (which is an outlier in terms of the large number and size of its awards) and a handful of other small agencies for which the relevant covariate data are unavailable; the results are shown in Table C-1. Next, I include administration-specific time trends to capture the fact that presidential prioritization may vary for reasons that are orthogonal to those posed here; see Table C-2. In Table C-3, I reanalyze the models excluding administration fixed effects and supplanting administration fixed effects with year fixed effects. I then consider an alternate coding of the key independent variable, *Presidential Agenda*. In this reconfiguration, I code whether the number of an agency's

subtopic mentions was above the average number of mentions for every possible subtopic in that year's State of the Unions. Subtopic areas that were above average for that year were coded as a "1" and those that were at or below that year's average number of subtopic mentions were coded as "0." The results of this analysis are shown in Table C-4. I also include a control variable to account for the presence of divided government in Table C-5, since shifting party control may shift the way research is conducted. Finally, to ensure that awards for one agency or department are not driving the results, I conduct a leave-oneout analysis, iteratively excluding each department in the dataset. This analysis, which is shown in Figure C-1, shows that research awards from no one department drive the results reported here. Although the results vary somewhat across all of these analyses, they suggest a consistently positive and robust relationship between the president's agenda and the size of research awards.

Considering Alternate Explanations

In addition to presidential direction of policy research funds, scholars have identified other mechanisms that might plausibly explain the allocation of federal dollars for policy reseach. Here, I consider the explanatory power of two of the most prominent: presidential particularism and congressional priorities.

With respect to presidential particularism, a lengthy literature suggests that presidents target "pork" to electorally-valuable constituencies (e.g., Berry, Burden and Howell, 2010; Christenson, Kriner and Reeves, 2017; Gordon, 2011; Hudak, 2014; Kriner and Reeves, 2015; Lowande, Jenkins and Clarke, 2018; Rogowski, 2016). In these studies, pork is broadly construed to include grant monies, disaster declarations, favorable tariffs, and even post office locations. The general finding is that presidents seek to reward core constituents (i.e., those who have historically supported them), as well as those living in swing states that are likely to be electorally valuable to the president or her party in the next election. These findings are magnified in presidential election years (Hudak, 2014; Kriner and Reeves, 2015).

Applying the particularism logic to federal research funds is straightforward: presidents should be expected to award research monies to places that are electorally valuable.²⁰ To evaluate whether presidential particularism also explains research production allocation decisions, I reestimate the models from Table 1, following Kriner and Reeves's (2015) approach and coding each contract for whether it went to a core state or a swing state.²¹ I then interact each of these measures with an indicator of whether the contract was awarded in a presidential election year, as these authors find that the effects of politically valuable constituencies are exacerbated in election years.²²

The results are shown in Figure 2; full model results are shown in Appendix Table C-6.²³ While the presidential agenda variable remains statistically significant across both

²⁰Indeed, Kriner and Reeves (2015) offer an example of personal presidential intervention into research spending for political gain. They describe how President Lyndon Johnson targeted Rep. Charlie Halleck's (R-IN) district with research funds in order to persuade the congressman to support the Civil Rights Act of 1964. They explain, "Johnson reached out to [NASA administrator James Webb] to inquire what the agency could do for Halleck and his constituents. Three days later, Webb met with Halleck and discussed a number of research grants that could be awarded to Purdue University, which sat in Halleck's second congressional district of Indiana" (156).

²¹A state is coded as a "swing state" if the losing candidate averaged 45% or more of the two-party vote over the past three presidential election cycles. A state is coded as a "core state" if the president's party averaged 55% or more of the two-party vote in that state in the preceding three elections.

²²Under this pork framework, the important moment is not whether the bridge is built successfully or a disaster is adequately remediated, but rather when the executive announces that a bridge will be built in a certain district or that a disaster will be granted emergency relief. In short, constituents reward executives for the decisions they make, and not for whether those decisions are adequately implemented. This makes the election year particularly important in interpreting the effects of this mechanism.

²³Dynes and Huber (2015) suggest an alternate model of presidential allocation of dollars, wherein presidents take voter preferences more directly into account, and find that presidents reward same party constituents at disproportionate rates. In Table C-7, I approximate their approach, but find no support for the explanation that presidents compensate like-minded voters by increasing the flow of research dollars.

slices of the data (i.e., all awards and new awards), the particularism results do not tell a consistent story. The models show research award sizes are *smaller* in core states than in comparison states, contrary to the expectation that they should be larger. Election years do not influence research award size in core states. And in swing states awards are larger, consistent with theoretical expectations, but not as expected during election years per se. Overall, these results suggest that a pork barrel explanation does not operate the same way with research policy spending as it does with other areas of government largesse. Further, accounting for particularistic concerns does not detract from the broader finding about presidential prioritization.

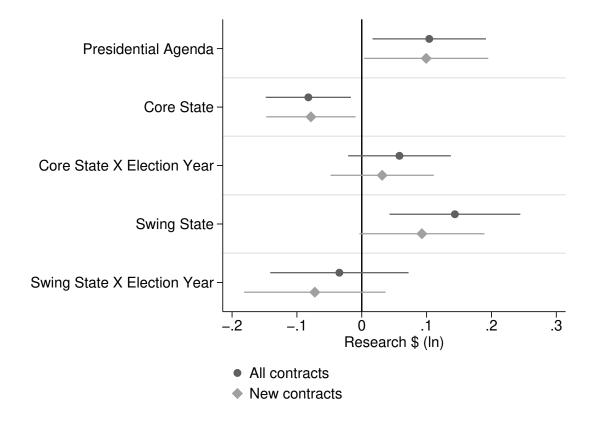


Figure 2: Presidential Particularism and Research Awards

Notes: Figure shows OLS coefficients from models with fixed effects for the agency and the presidential administration; see Table C-6 for full model results. The dependent variable is the logged dollars associated with the research award.

A second potential explanation for policy research spending priorities is that they are directed by Congress, rather than the president. When passing legislation, Congress sometimes includes provisions explicitly requiring agencies to conduct research. Requests for research need not come in the form of legislation either; individual members can also spur research by other means like sending letters to agencies requesting research (Lowande and Potter, 2021).

To evaluate congressional demand as a potential force for research production, I reestimate the earlier findings, including two new measures of congressional demand. First, *Hearings* is the number of hearings held in the policy area of a research contract in the year in which the contract was awarded; since this variable has a highly skewed distribution, I add one and take its natural log.²⁴ Second, *Laws* is the logged number of bills passed in the contract's subtopic area in the prior year. If congressional pressure for research is a key driver of research awards, then we should expect an increase in congressional hearings or law passage to be positively associated with policy research production.

The results are shown in Figure 3 and Appendix Table C-8. The findings are not consistent with a congressional demand explanation. Unexpectedly, hearings appear to be associated with a reduction in research spending, although this effect is not statistically significant. The coefficients for the remaining measure—laws passed in the agency's policy area in the last 12 months—are also negatively signed, although not statistically distinguishable from zero. These broader negative (and largely null) results persist when examining the results for *Hearings* and *Laws* in a six-month window, rather than a one-year window. Overall, these findings suggest that, if anything, congressional pressure impedes policy research by the executive branch, rather than driving it, although in these

²⁴Hearings data are coded according to the Policy Agendas Project subtopic codes mentioned earlier and draw from the Policy Agendas Project (Jones, 2019). Laws data are from the Congressional Bills Project (Adler and Wilkerson, 2019).

specifications the effect is not statistically meaningful.

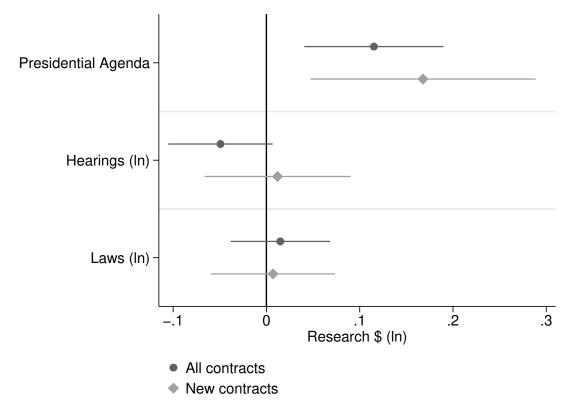


Figure 3: Congressional Demand and Research Awards

Notes: Figure shows OLS coefficients from models with fixed effects for the agency and the presidential administration; see Table C-8 for full model results. The dependent variable is the logged dollars associated with the research award.

Stepping back, it appears that both presidential particularism and congressional demand have relatively limited explanatory power when it comes to federal funding for policy research. However, controlling for both explanations does not wash out the effect of presidential prioritization.

Evaluating Research Continuity

To evaluate the role of presidential politics on research continuity, I examine research contracts that were defunded. If research fulfills strategic ends for presidents, then, in addition to directing where research monies are spent, a new president should not want to continue sponsoring research initiated by her predecessor (particularly one of a different party), since those studies presumably undergird different policy priorities. Moreover, a finding that research discontinuation is associated with changes in the political environment is incompatible with the enlightenment model. If government research is spurred by agreement of what constitutes underlying societal problems, those problems are likely to persist—and be worthy of research—irrespective of a change in administration.

Deobligation is a common way that agencies partially reverse course on an existing contract. Deobligation is the recuperation of funds to the government of monies that were previously obligated to a contractor; recent research suggests that in the context of grant monies, the executive uses fund retraction as a way to control agencies (Krause and Zarit, 2020). Approximately 23% of research contracts have some funds deobligated, typically at the time of the contract's completion. Looking across the lifecycle of each contract, I assess whether any funds were deobligated at the termination point of that contract (*Deobligation*) and, then, the proportion of funds that were taken back (*Deobligated Funds*). Creating these measures involves aggregating all of the individual award amounts associated with a contract (as determined by its unique contract identification number) over its lifecycle.²⁵

With these two measures in hand, I next generate the key independent variable: *New Administration*. This variable takes on a value of zero if the contract was completed under the same presidential administration that initiated the research and a value of one if the contract was completed under a new presidential administration.

²⁵To clarify, while the prior analysis was conducted at the award level, this analysis is conducted at the contract level, a higher level of aggregation that can include many awards.

	(1)	(2)	(3)	(4)
	Deobligation	Deobligation	Deobligated	Deobligated
			Funds	Funds
New Administration	0.411***	0.386***	0.060***	0.065***
	(0.018)	(0.019)	(0.008)	(0.008)
Award Total (ln)	· · · ·	0.030***	× ,	-0.004***
		(0.004)		(0.001)
In-house Capacity		-0.857		-0.184
1		(0.486)		(0.105)
Budgetary Change		-0.012***		-0.003***
		(0.002)		(0.001)
Contracting Officers per 100		-0.015		-0.002
		(0.010)		(0.003)
Observations	75,972	75,972	75,523	75,523
Number of Agencies	153	153	153	153
Study Type FE	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES
Administration FE	YES	YES	YES	YES

Table 2: Discontinuation of Research Contracts, FY01-FY19

Note: For Models 1–2, the dependent variable is a binary indicator of whether any funds were deobligated at the contract completion stage; table entries are coefficients from linear probability models. For Models 3–4, the dependent variable is the proportion of funds deobligated at the contract completion stage; table entries are coefficients from OLS models. Robust standard errors clustered at the agency level are in parentheses. Two-tailed tests: *** p<0.001, ** p<0.01, * p<0.05. FE = fixed effect.

I follow similar model specifications to Table 1, adding a new variable in the second column to control for the total size of the contract award (*Award Total (ln)*), since larger award may be more likely to be defunded. The results are shown in Table 2. As before, all models include fixed effects for the agency and the presidential administration, as well as robust standard errors clustered at the agency level. Considering *Deobligation* (Models 1 and 2), if a new administration is in place at the time a research contract ends, that contract has about a 39% (full model) to 41% (parsimonious model) greater probability of having some funds deobligated.²⁶

²⁶The results for *Deobligation* are substantively similar under a logistic modeling approach; see Appendix

Models 3 and 4 examine *Deobligated Funds*; table entries are OLS coefficients.²⁷ These models show that, not only were new administrations more likely to deobligate funds from research contracts, but that about 6-7% more of a research contract's total award amount is deobligated under a new presidential administration than if the same administration that started the contract saw it through to completion.

On balance, these analyses suggest that new presidential administrations are much more likely to discontinue research initiated by their predecessors and that the use of research to advance presidential agendas may come at the expense of the continuity of the federal research enterprise.

Conclusion

Evidence is currency in modern politics—and as I have argued in this paper sometimes those in power can buy the evidence they need. The findings in this paper suggest that there is a substantive and meaningful association between the prioritization of a policy area and spending devoted to policy research. When a president prioritizes an issue in these ways, the size of policy research awards is considerably larger. This pattern of politicized spending is not explained by presidential particularism or congressional pressure. Additionally, the findings show that research initiated by a prior presidential administration is much more likely to be discontinued under a new administration.

This line of inquiry has at least two broad implications. First, in recent decades the executive branch has amassed considerable powers compared to the legislative (Cohen, 1982; Lowi, 1986). Meanwhile Congress's capacity to produce research has declined

Table C-9. Linear probability models are presented here for ease of interpretation.

²⁷As shown in Table C-9, the results are substantively similar using a fractional logit approach (Papke and Wooldridge, 1996), which accounts for the proportional nature of the *Deobligated Funds* variable. The results are also robust to the controlling for divided government (Table C-5), for pooling across agencies (Table C-10), and for the inclusion of year fixed effects (Table C-10).

starkly, both in terms of individual members' staffs and in the size and capability of congressional research arms (Brookings Institution, 2019). Viewing evidence production and procurement from the perspective of presidential power further highlights this yawning power disparity and suggests that the gulf between the Article I and Article II branches may be even greater than scholars currently conceive. Second, prior research has focused extensively on the partisan and geographic benefits associated with the distribution of federal spending (e.g., Berry, Burden and Howell, 2010; Hudak, 2014; Kriner and Reeves, 2015; Rogowski, 2016). This paper highlights a way that presidents, in their role as chief executive, can work to allocate funds in a way that is focused on policy priorities, rather than electoral ones.

Important outstanding questions remain in terms of understanding the politics of policy research. For example, the intended audiences for presidential evidence could be further explored. One suggestion arising from the case of transgender people serving in the military is that evidence is aimed at persuading copartisans, rather than outpartisans. In a time of extreme partisan polarization, convincing outpartisans on the basis of argumentation and evidence alone is a tall order. Indeed, most people filter information through a partisan perceptual screen (Campbell et al., 1960). Yet, there is often significant disagreement within the parties, meaning that evidence can be useful in convincing copartisans to play for the team. Future work should explore the role that evidence-based argumentation plays in persuading both copartisans and outpartisans.

Additionally, the time frame for this analysis is contemporary, raising questions about whether the patterns I identify would obtain if a larger snapshot of historical data were available. Some evidence suggests they would not. As numerous scholars have documented, current levels of political polarization are high by historical standards. This makes political conversations more adversarial and can make issues that were once consensual conflict-oriented. Against this backdrop, the value of science—and policy research—has increased. The confluence of this polarization with an explosion in the supply of researchers²⁸ and the evidence-based policymaking movement means that political actors have the motive and the means to deploy policy research as part of a broader political strategy toolkit. However, this is speculative and contextualizing this kind of research in the greater arc of American politics would be valuable.

In American politics, the phrase "elections have consequences" is often understood to mean which party has control of Congress and which issues will receive political attention (and which will be ignored). Yet, the findings presented here suggest that electoral consequences reach much farther, affecting the federal policy research enterprise and the types of policy research that get funded (and defunded). This has dueling consequences: on the one hand, it suggests that policy research is responsive to the demands of public opinion, as duly elected presidents direct research to areas of concern for the citizens who elected them. On the other, in the context of heightened partisan polarization and robust two party competition, it suggests a surprising lack of continuity to government-funded policy research. Indeed, this effect might even be considered just one piece of the role of presidential influence in policy research, as presidents have other avenues to impact the research pipeline beyond those studied here, including appointing researchers whose views comport with their own to scientific posts within agencies, nominating such individuals for positions on key agency advisory committees (Jasanoff, 1990; McGarity and Wagner, 2008), and promoting or suppressing research reports that are produced in-house. As demand for evidence in policymaking grows, presidents will face continued pressure to commodify the policy research pipeline.

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²⁸Across the hard sciences, social sciences, and the humanities, the number of doctorates awarded annually has steadily increased over the last 60 years (NSF, 2020).

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