# Political Science as a Dependent Variable: The National Science Foundation and the Shaping of a Discipline

*Tamir Moustafa*

From 1965 to 2020, the National Science Foundation constituted the single largest funding source for political science research. As such, the NSF played a central role in defining the cutting-edge of our discipline. This study draws on historical records of the American Political Science Association to examine the political and administrative contexts that shaped the funding priorities of the NSF Political Science Program. Additionally, the study presents a new dataset and analysis of the nearly three thousand projects funded over the 55-year life of the program. The dataset shows that NSF funding was principally channeled toward quantitative research, whereas qualitative methods received little support, and work advancing normative, critical, or interpretive approaches received virtually no support. The archival record and awards-level data make visible the material forces that shaped knowledge production, and they underline the NSF's instrumental role in consolidating behavioralism and marginalizing non-positivist approaches. The study sheds new light on the history of the discipline and helps to contextualize some of the distinctive features of American political science.

In a provocative speech at the 1991 American Political Science Association Meeting, APSA President Theodore Lowi reflected on the profound transformation of political science across the twentieth century. Retrospective appraisals are the standard fare of the APSA presidential address, but Lowi's observations were unique. He noted that disciplinary changes had unfolded in parallel with American state-building processes, and he argued that consonance between political science and the state was more than coincidental. Lowi maintained that American state-building had shaped the discipline to such an extent that he declared American political science "a product of the state" (1992, 1). In an impassioned plea, Lowi challenged political scientists to reflect on their craft and to further examine political science as a dependent variable.

This study answers Lowi's call to consider how the American state shaped our discipline. While Lowi sketched general observations from his decades in the profession and his own research on American political development, the present study examines one specific agency through which the American state shaped knowledge production: the National Science Foundation (NSF). From the 1960s through its closure in 2020, the NSF Political Science Program distributed $427,849,000 in research support, a sum that is equivalent to $771,000,000 in 2021-dollar terms, or an average of over $14 million each year.[1] What is more, political science was further supported across a range of other NSF programs and divisions. Funding for research infrastructure, substantive projects, workshops, summer institutes, diversity-enhancing programming, and other initiatives established the NSF as the preeminent sponsor of political science research in the United States. Yet our understanding of NSF funding allocations is rather general and impressionistic.[2] Surprisingly, there have been no systematic studies grounded in awards-level data. As a result, our knowledge of how the NSF contributed to the trajectory of the discipline is anecdotal and incomplete.

What types of research did the NSF Political Science Program support? How did NSF funding change over time and across subfields? And more fundamentally, what forces shaped NSF priorities? The first half of this study draws on an original dataset I constructed to facilitate a retrospective analysis of the full body of 2,962 awards

*Data replication sets are available in Harvard Dataverse at: https://doi.org/10.7910/DVN/MDIHJI

***Tamir Moustafa*** *is Professor of International Studies and Stephen Jarislowsky Chair at Simon Fraser University in Vancouver, Canada (tmoustafa@sfu.ca). His research interests include comparative judicial politics, law and society, religion and politics, authoritarianism, politics of the Middle East, and the politics of knowledge production.*

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funded through the NSF Political Science Program. The NSF Political Science Awards Dataset provides a precise measure for what has been, until now, generally assumed in the discipline: NSF funding leaned heavily toward research that utilized quantitative methods and, more generally, research that was firmly positivist in orientation.[3] What is less commonly acknowledged, and what this study also reveals, are the areas where NSF funding did not flow. Research utilizing qualitative methods received little support, while work embracing normative, critical, or interpretive approaches and the entire subfield of political philosophy received virtually no support.[4] This new dataset provides insight into the instrumental role of the NSF, not only in defining the discipline's leading edge, but also in consolidating the aims of the behavioral movement and marginalizing non-positivist approaches.[5]

Having established an awards-level view of NSF funding patterns, the second half of the study probes *why* NSF support skewed so strongly toward projects that employed quantitative methods. I draw on the work of historians of science and primary source material from the American Political Science Association records housed at George Washington University to shed light on the origins and early history of the NSF Political Science Program. APSA's historical records, reports from NSF administrators, and other primary source documents all indicate that NSF funding priorities were profoundly shaped by the political context of congressional appropriations, coupled with the epistemological expectations and administrative pressures of an NSF leadership dominated by the natural sciences. The analysis sheds light on an important juncture in the history of the discipline and lays bare the forces that shaped knowledge production through the discipline's most robust source of research support. The study helps make sense of some distinctive features of American political science, even as it influences political science scholarship globally.

## Political Science at the NSF

### *Data, Method, and Findings*

The first contribution of this study is that it provides, for the first time, an overview of NSF Political Science Program support grounded in awards-level data. This is achieved through a novel dataset that includes the entire body of Political Science Program awards from 1965 through 2020. The NSF Political Science Awards Dataset was built with data from the NSF Award Search web API system in conjunction with official NSF print publications (Moustafa 2024).

After the full universe of awards was constructed, each was hand-coded for Award Type, Subfield, and Research Method(s) employed. Six categories were established for Award Type: substantive research, research infrastructure, conferences and summer institutes, diversity programming, dissertation improvement awards, and fellowships. Five categories were established for the disciplinary subfield: American, comparative, international relations, political philosophy, and research methodology. Finally, four principal categories were established for the methodological approach of the research: quantitative methods, including the collection, coding, or statistical treatment of large-N datasets; qualitative methods relying on techniques that include ethnography, historical/archival work, process tracing, or context-rich small-N studies; experimental methods, whether conducted in a laboratory or a field setting; and formal theory, including game theory, social choice theory, and other approaches that utilize deductive reasoning to construct theoretic models of politics. Provision was also made for mixed-methods projects.[6]

At the most general level of Award Type, the dataset reveals that most NSF support was directed to substantive research projects (87.7%), followed by research infrastructure (4.5%), conferences and institutes (3.7%), dissertation improvement (1.6%), diversity-enhancing programming (1.5%), and fellowships (1.0%). As previously indicated, other NSF programs and divisions supplemented Political Science Program support, particularly in the areas outside of substantive research projects. Nonetheless, each category of support within the Political Science Program provides useful insights into NSF Program priorities. The remainder of this section examines the distributions within each award type, with particular attention to research methodology. These data are contextualized with emblematic projects funded by the NSF Political Science Program.

### *Substantive Research*

In the category of substantive research, $483,374,000 (74.9%) was provided for quantitative analysis, $29,474,000 (4.6%) for formal theory, $17,179,000 (2.7%) for qualitative research, and $12,772,000 (2.0%) for experimental research.[7] A further $102,653,000 (15.8%) supported projects that utilized more than one research method. If one reapportions the dollar value of these mixed-methods projects equally to the different methods employed, the relative shares for NSF support rise to 81.6% for quantitative, 7.7% for formal theory, 5.4% for experimental, and 5.3% for qualitative.[8] In other words, the approaches most favored by the NSF—quantitative, experimental, and formal theory—accounted for 94.7% of funding for substantive research.

The Dataset provides further insight into NSF support for the four traditional subfields. Within the American subfield, 84.3% of funding flowed to quantitative-only research versus just 1.2% for qualitative-only (table 1). This 70:1 ratio was the highest among the subfields. NSF-sponsored projects ranged from longitudinal data-gathering enterprises, such as the massive American National Election Studies (ANES), to hundreds of studies on Congress, public opinion, and voting behavior. Across




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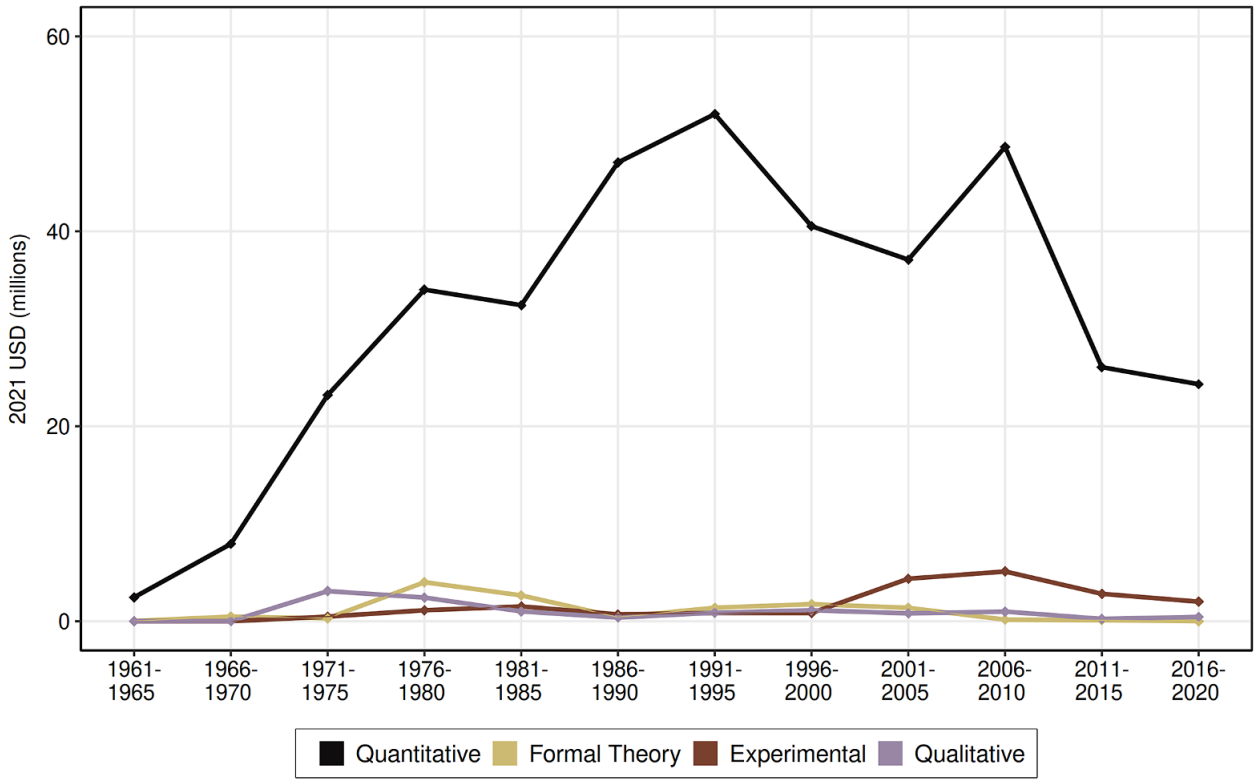
**Table 1**
**Share of NSF Program Dollars for Substantive Research by Method and Subfield**

| Method/Subfield | American | Comparative | IR | All |
|---|---|---|---|---|
| Quantitative only | 84.3% | 62.4% | 60.8% | 74.9% |
| Quantitative and experimental | 5.5% | 5.5% | 1.6% | 5.0% |
| Formal theory only | 1.6% | 4.7% | 13.7% | 4.6% |
| Quantitative and qualitative | 2.9% | 9.6% | 5.8% | 4.4% |
| Quantitative and formal theory | 2.1% | 6.5% | 10.0% | 4.1% |
| Qualitative only | 1.2% | 7.5% | 2.7% | 2.7% |
| Experimental only | 1.6% | 1.4% | 2.1% | 2.0% |
| Other | .8% | 2.4% | 3.3% | 2.3% |

its 55-year history, the Program funded 21 qualitative-only awards in the American subfield, totaling $5,008,000. These figures pale in comparison to the 830 in total for American politics, the majority of which used a quantitative-only methodology. If we widen the scope to projects that employed both quantitative and qualitative methods, an additional 54 awards totaling $12,036,000 come into view—a still small fraction of the overall allocation for American politics.

The dataset also reveals declining support for qualitative research in American politics (figure 1). The five-year period with the highest support for qualitative-only projects came in 1971–1975, when six projects were funded for $2,491,000. This sum was barely exceeded over the next 45 years, with only 14 more qualitative projects funded for a total of $2,517,000. The decline in qualitative research is widely recognized and occasionally lamented in the study of American politics (e.g., Pierson 2007). The reasons cited typically include the exponential growth and accessibility of quantitative data, new technologies that facilitated data analysis, and changing disciplinary norms and incentives. However, the role of the NSF in directly

**Figure 1**
**Program Dollars by Research Method, American Politics Subfield, 1961–2020**







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stimulating each of these transformations has yet to be fully recognized. The Political Science Awards Dataset underscores the magnitude of this quantitative push.

In contrast to declining support for qualitative research, there was an increase in funding for experimental methods in the study of American politics. Much of this support was directed to survey experiments where controlled treatments are embedded in traditional survey instruments. In particular, the NSF invested heavily in TESS (Time-sharing Experiments for the Social Sciences), which supported Americanists conducting survey-based experiments via computer-assisted telephone interviewing and the Internet. Between 2001 and 2020, five awards totaling more than $15,000,000 supported 442 TESS projects fielded by 647 principal investigators.[9] TESS is an important example of how a single NSF-supported project served as a vehicle for hundreds of smaller research projects, most of which yielded multiple peer-reviewed articles.[10]

Comparative politics received a smaller but still significant share of NSF research support. Compared with American politics, there were fewer massive data collection endeavors, at least at the outset. There was also a higher proportion of qualitative only (7.5%) and quantitative-qualitative research (9.6%). The ratio of quantitative-only to qualitative-only studies was 8:1, a vast difference from the 70:1 ratio in American politics. Context-rich single-country studies received some funding, including the occasional project that employed ethnographic methods. For example, an award in 1974 supported research leading to James Scott's *Moral Economy of the Peasant.*[11] Another in 1978 funded the research for Scott's *Weapons of the Weak.*[12] However, NSF support for qualitative research in the comparative subfield dropped in the 1980s (figure 2), mirroring the decline in support for qualitative research in American politics. From the 1980s, large-N data-gathering exercises commanded a larger share of support among comparative politics projects. Major projects included the Comparative Study of Electoral Systems (CSES)[13] and Inglehart's World Values Surveys.[14]

The volume of funding for the international relations subfield was modest relative to the American and comparative subfields (figure 3). Nonetheless, the Political Science Program gave a tremendous boost to IR research. Quantitative IR was in its infancy in 1962 when the NSF made its first award to the Dimensionality of Nations project. This was an effort by Harold Guetzkow, Rudolph Rummel, and colleagues to systematically measure the attributes of states, including their interactions over time.[15] Their project was

**Figure 2**
**Program Dollars by Research Method, Comparative Politics Subfield, 1961–2020**

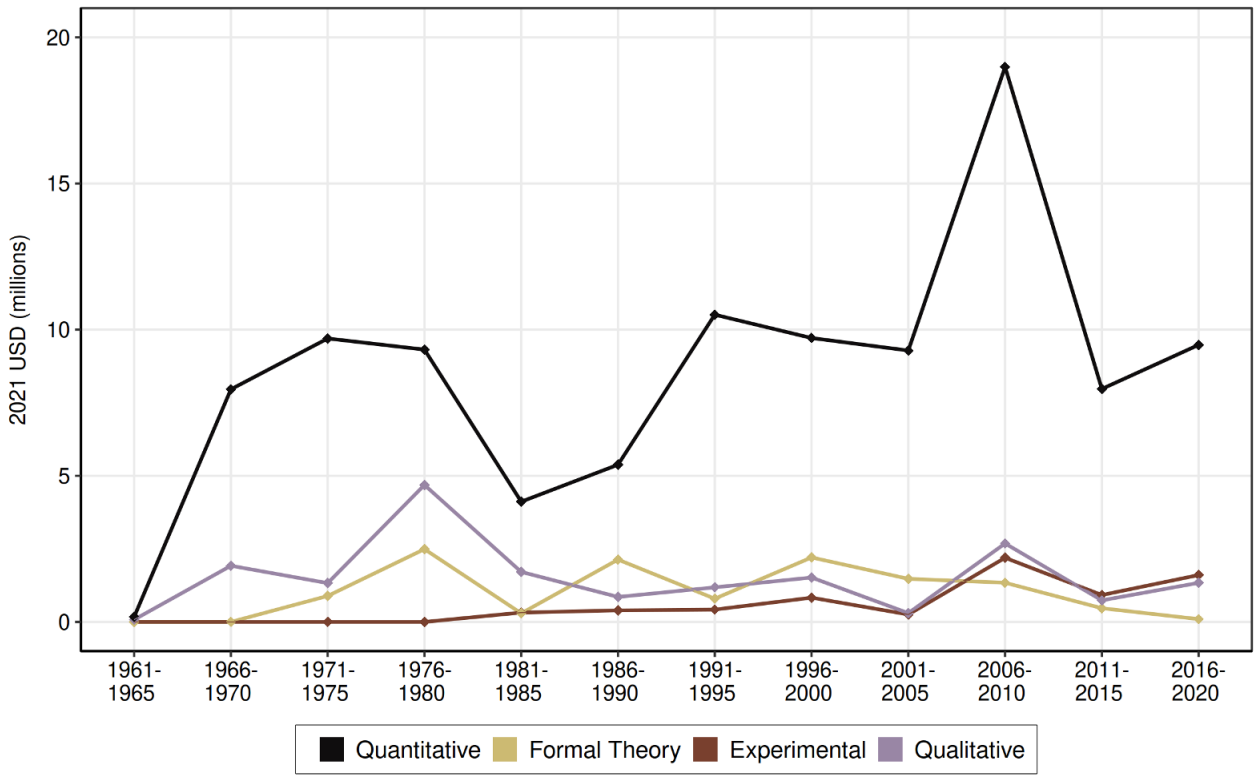





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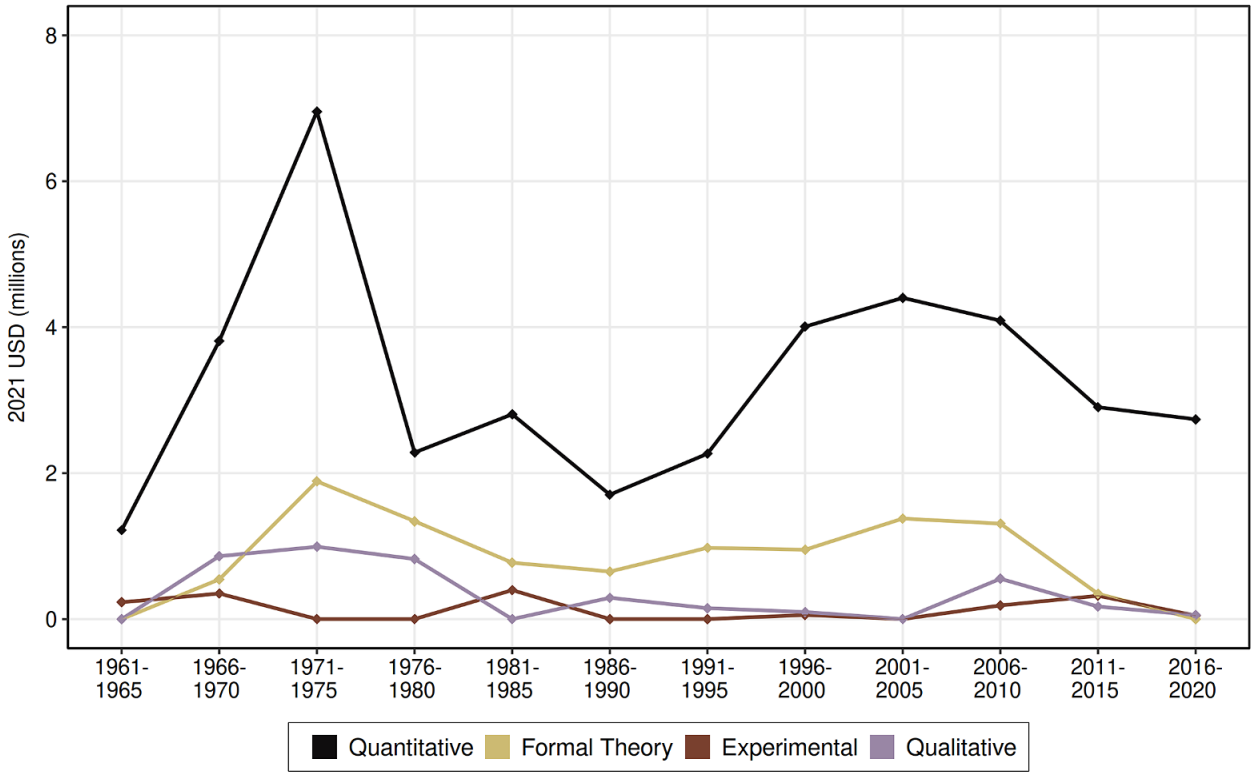
**Figure 3**
**Program Dollars by Research Method, International Relations Subfield, 1961–2020**




soon eclipsed by David Singer's Correlates of War, which received multiple NSF grants beginning in 1968.[16] Morton Kaplan's 1969 award for "Computer and Mathematical Explorations of International Relations Theory" had a less enduring impact, but the title exemplifies the type of research that was most frequently supported.[17] Quantitative-only studies received the highest share of research dollars (60.8%), followed by projects that combined quantitative analysis and formal theory (13.7%) and research that engaged only in formal theory (10%). Qualitative-only funding registered at 2.7%.

These allocations are especially striking when compared to the research practices of IR scholars. The Teaching, Research, and International Policy (TRIP) project provides important insights into IR research practices through six successive surveys of IR scholars since 2004. In the 2017 faculty survey, 56% of U.S.-based IR scholars reported their primary methodological approach as "qualitative analysis" versus 26% who reported "quantitative analysis" (Maliniak et al. 2017). For research epistemology, 33% of respondents characterized their work as either "non-positivist" or "post-positivist," while 67% characterized their work as "positivist." These practices stand in stark contrast with NSF funding for IR projects, which supported quantitative, formal theory, and experimental research over qualitative research by a ratio of 13:1 and funded positivist epistemological approaches in IR exclusively. Notably, among the 273 substantive research awards in IR, none of the abstracts refer to "constructivism"—even in recognition of rival epistemological approaches. These allocations raise questions about the role of the NSF Political Science Program in deepening the methodological and epistemological rifts that define International Relations scholarship (Li 2018).

Political philosophy came last among the four traditional subfields. Over the 55 years of the NSF Political Science Program, only two awards were made to political philosophy projects. These supported Bruce Ackerman's *Social Justice in the Liberal State* and John Gunnell's *Imagining the American Polity*.[18] These two exceptions underline the near-complete exclusion of political philosophy from NSF funding. One may argue that political philosophy is distant from the mandate of the NSF Political Science Program. However, as elaborated in the second half of this study, this distinction is itself a political construction. It is a form of boundary work that is not operative in similar government-sponsored funding agencies abroad.

Stepping back, one notes a skewed distribution across subfields (figure 4). American politics received the lion's




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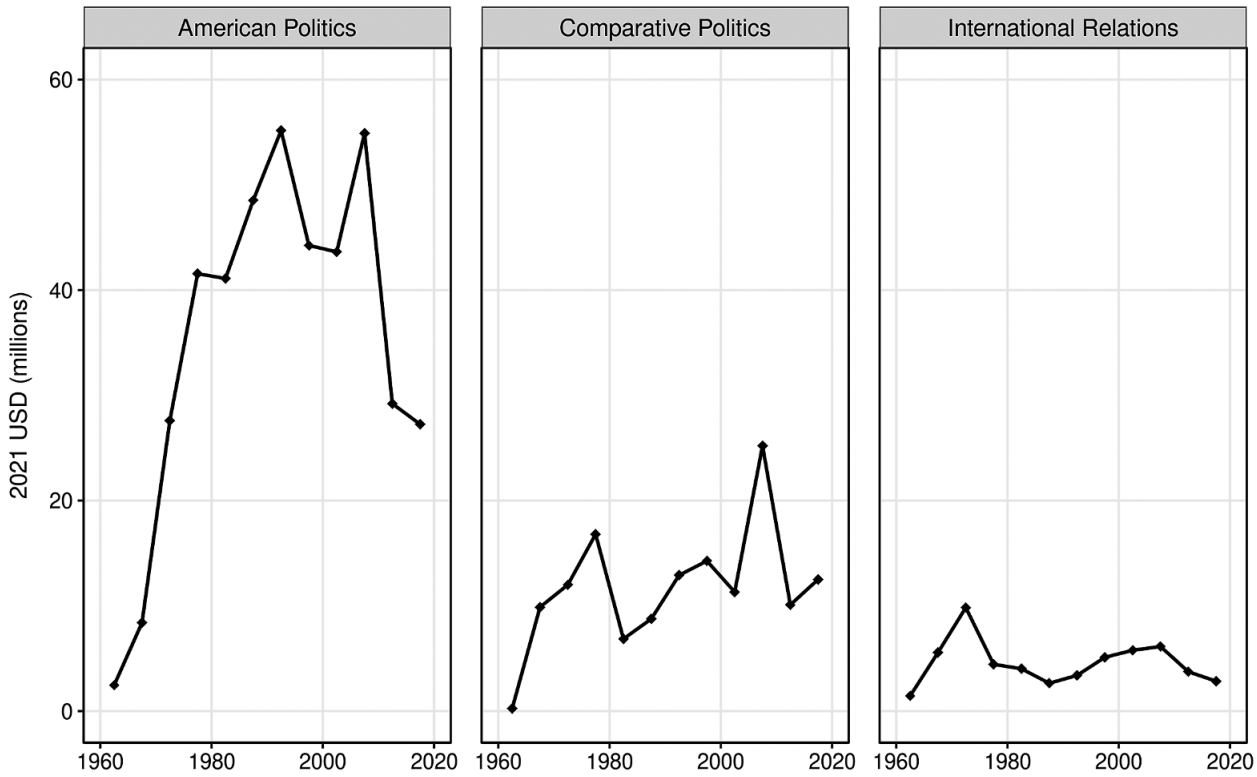
**Figure 4**
**Program Dollar Totals for American, Comparative, and IR Subfields**




share of support (68.3%), followed by comparative politics (22.8%) and international relations (8.9%). At 0.02%, political philosophy appears as a rounding error. These resources bolstered the dominance of quantitative methods in the American subfield and propelled a similar trend in the comparative and IR subfields.

### *Research Infrastructure*

The NSF Political Science Program also invested heavily in research infrastructure. This category comprised 4.5% of the total program budget and includes items such as research equipment, support for data archiving, and the development of research tools and software. As with substantive projects, spending on infrastructure was primarily directed to quantitative research.

The most notable early investment supported the Inter-university Consortium for Political and Social Research (ICPSR)[19] at the University of Michigan.[20] The ICPSR was founded in 1962 to facilitate quantitative research among its twenty-two founding member institutions and would eventually grow to over 750 institutions globally. The first NSF grant to ICPSR supported its new quantitative data repository.[21] This 1963 award for $95,000 ($865,000 in 2021 dollars) was followed two years later by another for $260,400 ($2,240,000 in 2021 dollars) to accelerate data acquisition and acquire computer software to process data more efficiently.[22] The ICPSR grew swiftly, with periodic infusions of capital from various NSF programs. Data was gathered and stored from federal, state, and local elections; census data was archived; national and international opinion survey data were cleaned, organized, and integrated; congressional roll call voting records were systematized, and so on. The ICPSR enabled efficient data storage, data sharing, and statistical analysis across a growing universe of conceivable variables. With the high cost of computer equipment in the mid-twentieth century, the ICPSR played a critical role in making quantitative data analysis accessible to more political scientists. And the ICPSR capacity grew exponentially over the years as various data collection projects—many of them NSF-funded—found a home in the ICPSR's centralized repository.[23]

Beyond the ICPSR, the NSF supported dozens of other research tools ranging from machine coding technologies for increasing data acquisition speed to specialized software designed to advance extensive-form game theory and agent-based modeling.[24] One of the most popular

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statistical software packages, SPSS (Statistical Package for the Social Sciences), grew from an NSF political science project directed by Sidney Verba. "Cross-National Studies in Political Participation and Social Change" was an ambitious study that involved survey data gathered from seven countries.[25] Verba's graduate student at Stanford, Norman Nie, and computer scientists Dale H. Bent and C. Hadial Hull, developed SPSS to organize and examine the data via mainframe computers. The award is a quintessential example of a substantive research project that produced a powerful research tool with a far-reaching impact across the social sciences. SPSS quickly became an indispensable tool for political scientists working with quantitative data. The reach of SPSS grew further with the proliferation of personal desktop computing.

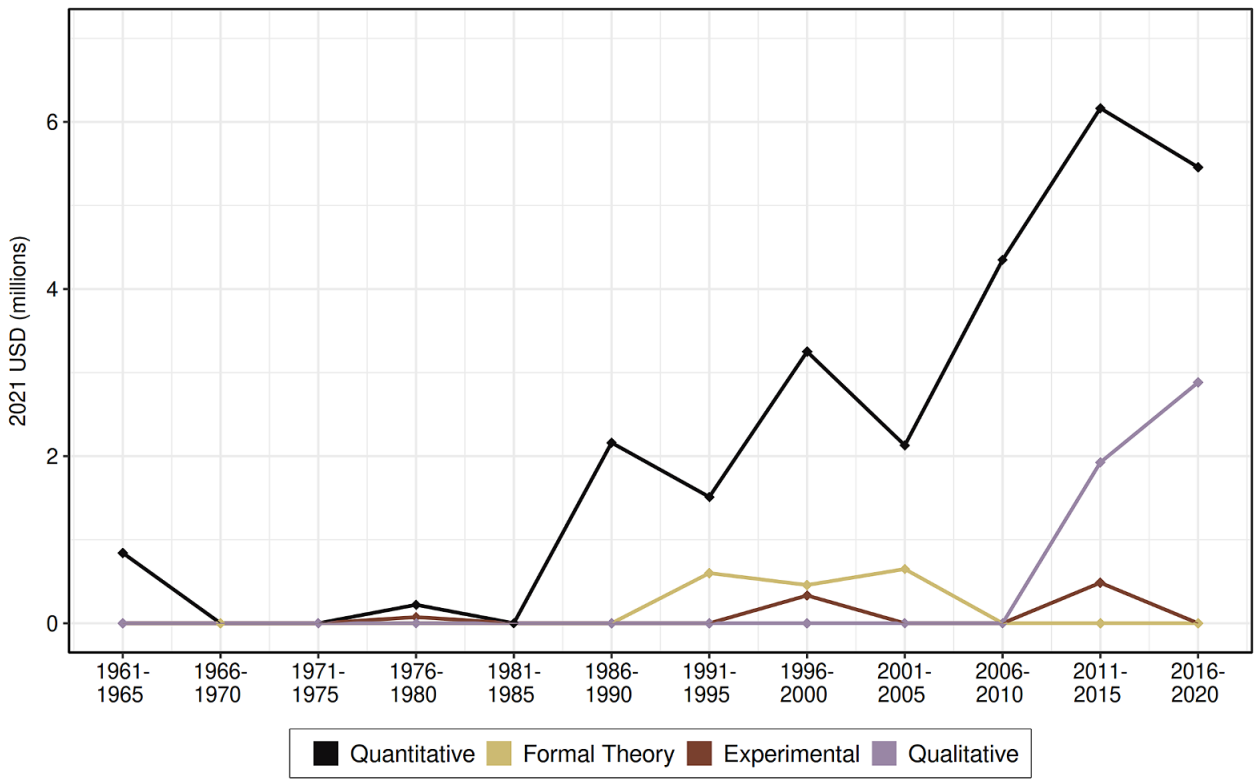
Other NSF awards opened new research pathways that were subfield specific. For example, Americanists benefitted from software designed to automatically collect and disseminate data on city council and mayoral elections.[26] Other software was developed to analyze congressional redistricting.[27] And many grants were dedicated to cleaning and archiving federal and state roll call data.[28] As previously noted, TESS (Time-sharing Experiments for the Social Sciences) facilitated survey-based experiments via computer-assisted telephone interviewing and the Internet. Without the research infrastructure provided by the TESS common platform, far fewer survey experiments would have been conducted, and at a far greater cost.[29]

Comparativists also benefitted from significant investments geared toward cleaning, organizing, and storing already existing quantitative data, including comparative measures of socioeconomic development, comparative public opinion, data on foreign elections, and the like. For example, major funding for the Luxembourg Income Study made data from dozens of countries readily accessible to researchers.[30] Another project funded the acquisition and recoding of Eurobarometer data into a cross-national standardized form.[31] A similar project built a repository for roll call data from legislatures worldwide.[32]

IR scholars similarly benefitted from EUGene, a Windows-based software program that enabled the customization of datasets from a growing universe of data sources. EUGene grew from a substantive research project, "Comparative Theory Testing and Interstate Wars, 1916–1984."[33] The software proved useful for IR scholars to create, merge, and manage datasets in preparation for statistical analysis. In recognition of EUGene's utility as a research tool, the NSF supported its further development through a series of awards.[34]

Figure 5 illustrates the increasing investments in quantitative research infrastructure via the Political Science Program. It is important to note that this is a limited view

**Figure 5**
**Program Dollars for Research Infrastructure by Research Method, 1961–2020**







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of NSF investments because a great deal of infrastructure support came from programs and budgets other than the Political Science Program. These included the Program on Methodology, Measurement, and Statistics; the NSF "Special Projects" budget; and funding through other social science programs and divisions. Moreover, as already noted, many awards entailed infrastructure development as a secondary objective, or they produced research tools as an unanticipated by-product of their primary research undertaking.

No similar investments were made for qualitative research infrastructure for the first five decades of the NSF Political Science Program. The first award devoted to qualitative infrastructure was for the Qualitative Data Repository at Syracuse University in 2011, followed by additional support in 2014, 2016, and 2019, totaling nearly $5,000,000.[35] Modeled on the ICPSR's quantitative repository, the qualitative repository is meant to facilitate data sharing and research transparency. However, given the nature of qualitative research (documents versus datasets; ethnographies versus econometrics; confidential interviews versus confidence intervals), it is doubtful that the Qualitative Data Repository will catalyze qualitative research in the same way that the ICPSR fueled the explosion of quantitative work.

Moreover, there is considerable concern among many scholars working in the qualitative tradition that Data Access and Research Transparency (DA-RT) principles may act as *barriers* to the publication of qualitative research due to the various challenges of conforming to the conventions developed by and for quantitative researchers (Monroe 2018; Jacobs and Büthe 2021).[36] Although there is broad recognition in principle that quantitative and qualitative research require different frameworks for data storage and research transparency, applying standards is more ambiguous and less certain in practice. Journal editors and manuscript reviewers may not always be familiar with the "best practices" of various qualitative methods, and especially interpretive approaches. For those who find DA-RT problematic on these grounds, investments in qualitative data repositories are viewed as a potential threat to their work rather than a catalyst. Recent NSF support for qualitative research infrastructure should be understood with this significant caveat.

### *Institutes and Conferences*

Another award type covered by the database concerns NSF allocations for conferences, workshops, and summer institutes. This category comprised 3.7% of the program budget. The most significant expenditures in this category supported training in quantitative research methods. The ICPSR's Summer Program in Quantitative Methods of Social Science Research, first launched in 1963, provided the prototype. The first summer brought 41 graduate students and 21 (mostly junior) faculty from across the country (ICPSR 1964). According to the ICPSR proposal to the NSF, "the seminars have the potential for a strategic contribution to the revolutionary changes now taking place in political analysis and research." The pitch did not oversell the ICPSR's potential. By the early 1970s, the program enrolled 300 participants annually. By the early 1980s, enrollment expanded further to nearly 800 each summer. Training in quantitative methods proved especially crucial in the first decade of the Summer Program when access to computer technologies was limited and training in quantitative methods was unavailable beyond a small group of graduate programs. In this context, the ICPSR provided a vital opportunity for young political scientists to learn the tools of the trade. Even after quantitative training became a regular part of most graduate programs, the ICPSR Summer Institute remained an important avenue for younger scholars to access training in increasingly advanced quantitative methods. Less formally but perhaps equally important, the Institute helped graduate students build research networks that would endure throughout their careers.

The ICPSR provided a model for similar institutes and conferences focusing on methodology. The Society for Political Methodology received NSF support to field its annual conference almost continuously from 1986.[37] Despite its rather general title, which suggests a big-tent approach to research methods, the Society for Political Methodology focused squarely on quantitative methods. Another summer institute modeled on the ICPSR is the Empirical Implications of Theoretical Models (EITM) Summer Training Institute, which bridges formal theory and empirical analysis. The venture was conceived and planned under the auspices of an NSF workshop (NSF 2002) and received robust NSF support from its inception.[38] The NSF eventually sponsored a similar initiative to bolster training in qualitative methods. This started with a small exploratory award to Colin Elman in 2003 to support an Institute in Qualitative Research Methods.[39] Four additional awards totaling $630,000 supported the effort under its new title, the Institute for Qualitative and Multi-Method Research (IQMR).[40]

Beyond these regular summer institutes, there were stand-alone conferences and workshops. Surprisingly, many were focused on methodology rather than substantive political topics. Even when conferences focused squarely on substantive issues, quantitative methods or formal theory were often specified as the guiding methods of the workshop. The top-line finding in this category is striking. Among awards with an identifiable methodological




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approach, 91.6% of research dollars were allocated to quantitative methods or formal theory. Support for qualitative methods comprised just 6.2% of the total. Epistemological diversity was narrower still. A solo conference in 2009 that focused exclusively on interpretive methods was a clear outlier.[41]

Figure 6 illustrates the allocations for institutes and conferences guided by a distinct methodological approach. Quantitative-only approaches dominated for the first several decades. Qualitative approaches received no funding until a workshop in 1997 on the history of social and behavioral sciences, and then nothing until the first exploratory grant for the IQMR in 2002.[42] Qualitative methods subsequently show a steady, if modest, increase in funding beginning in the new millennium. Finally, EITM initiatives are presented as a separate line to impress on the reader the scale of the NSF investment in the endeavor, primarily through the EITM Summer Institute.

Even modest awards for conferences sometimes yielded significant results. For example, the NSF funded the first two meetings of what would become known as the Public Choice Society, and the NSF provided the start-up costs for its journal, *Public Choice*.[43] By 1979, William Riker credited the Public Choice Society and NSF support with "giving coherence to the [rational choice] movement."[44] And within a decade of Riker's remarks, rational choice moved from the margins to a central feature of political science scholarship, discourse, and debate.

### *Dissertation Improvement Awards*

Dissertation Improvement Awards comprised 1.6% of the program budget. In this category, the largest share of support was directed to projects that combined quantitative and qualitative methods (34.4%), followed by quantitative-only (25.9%), quantitative and experimental (15.6%), experimental-only (10.3%), qualitative-only (7.9%), and quantitative paired with formal theory (3.5%). This distribution differed from the faculty awards, and the divergence grew stronger over time.

Figure 7 illustrates the swift increase in support for dissertation research combining quantitative and qualitative approaches, particularly from 2000 onwards when it exceeded the allocation for quantitative-only projects. There was also a pronounced increase in support for research that employed quantitative and experimental methods, much of it large-N survey experiments. Experimental-only research also increased. And, although

**Figure 6**
**Program Dollars for Institutes and Conferences by Research Method, 1961–2020**

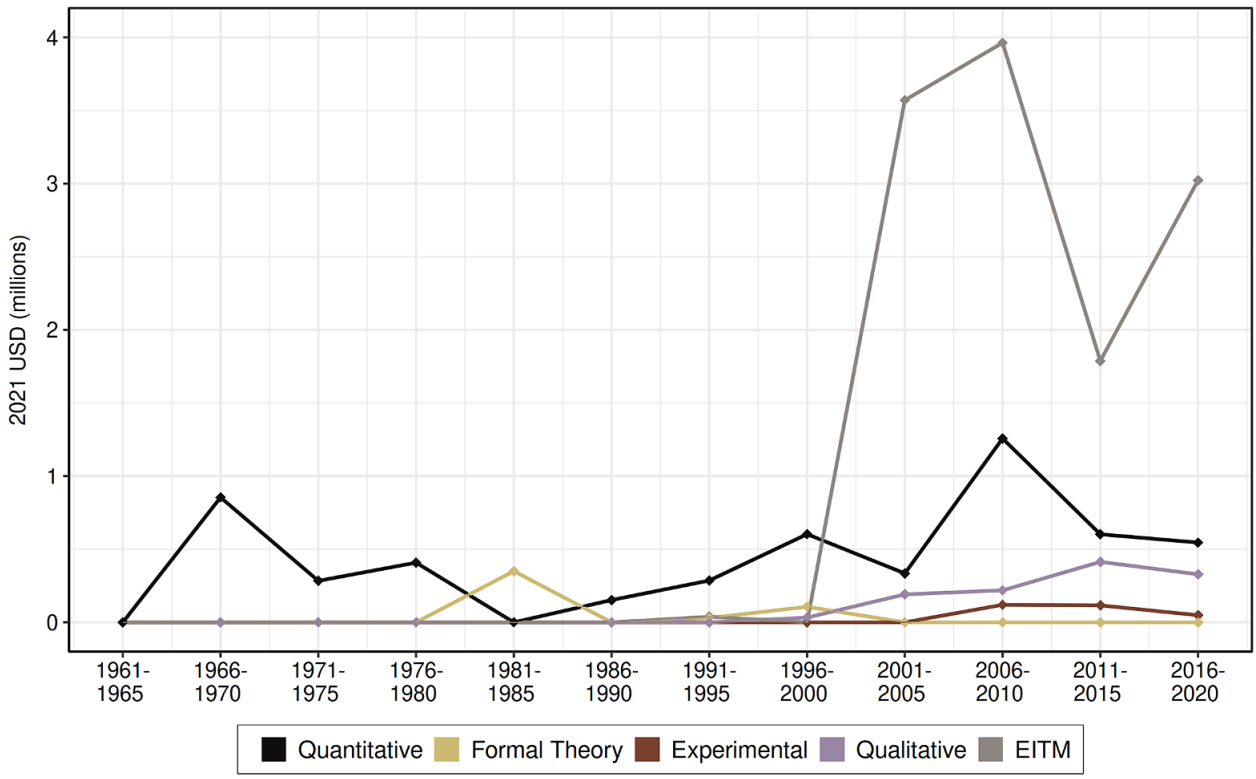





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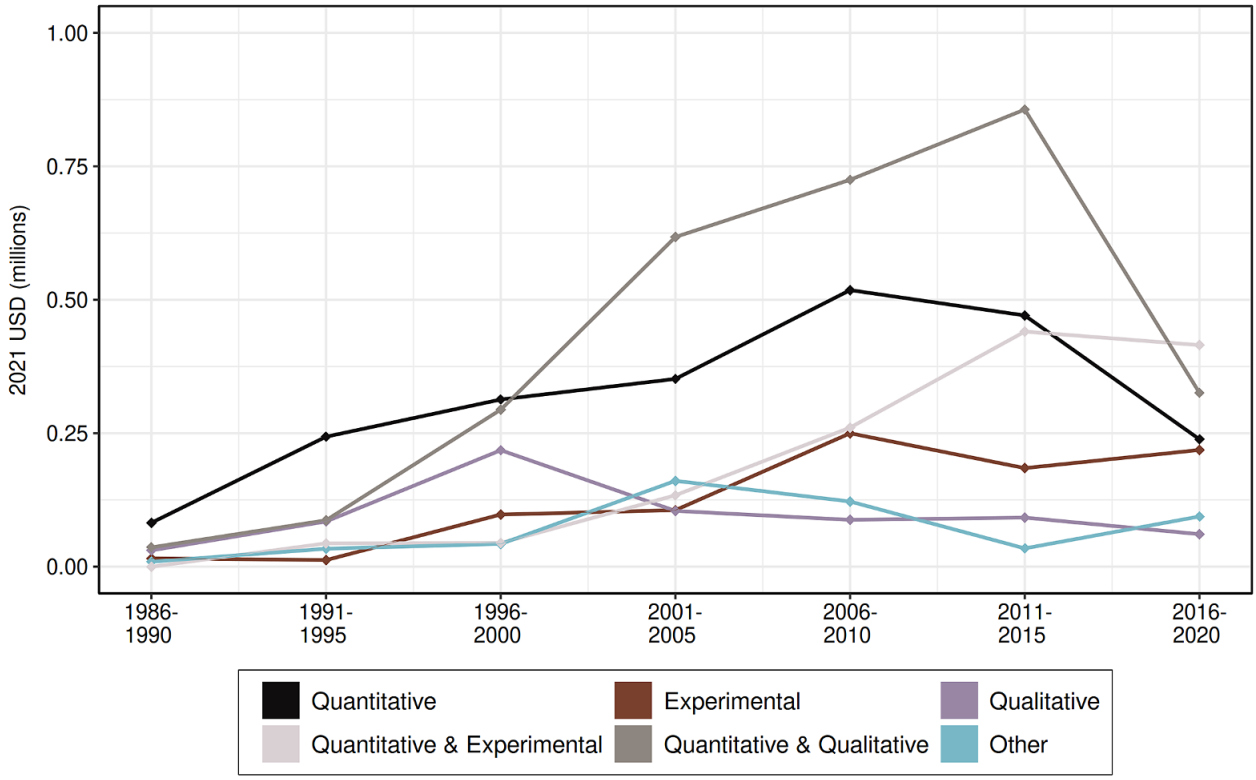
**Figure 7**
**Program Dollars for Dissertation Improvement, 1986–2020**




not visible in figure 7, dissertation research embraced three or more distinct methodological approaches with greater frequency than the awards for faculty. These trends are likely the result of robust multi-methods training through the Institute for Qualitative and Multi-Method Research (IQMR) and the organized APSA Section on Qualitative and Multi-Method Research.

Subfield-specific variation is also apparent (table 2). Dissertation awards in the American subfield were inclined to quantitative-only research (35.9%). This was nowhere close to the 84.3% quantitative-only emphasis of faculty awards but more pronounced than the dissertation awards for comparative or IR. Dissertation awards in the American subfield also had a stronger tilt toward experimental research (13.7%) and projects that combined quantitative and experimental approaches, including large-N survey experiments (24%). Among comparative and IR projects, there was a remarkable embrace of research combining qualitative and quantitative methods, reaching 46.7% in comparative and 30.3% in international relations. Finally, for reasons that are unclear, nearly two-thirds (61.5%) of dissertation support dollars were directed to the comparative subfield, and about one-third (32%) was directed to American politics. This pattern is the opposite of faculty awards, which went overwhelmingly to the American subfield.

**Table 2**
**Share of NSF Program Dollars for Dissertation Improvement Awards by Method and Subfield**

| Method/Subfield | American | Comparative | IR | All |
|---|---|---|---|---|
| Quantitative and qualitative | 15.2% | 46.7% | 30.3% | 34.4% |
| Quantitative only | 35.9% | 21.0% | 29.1% | 25.9% |
| Quantitative and experimental | 24.0% | 11.9% | 11.2% | 15.6% |
| Experimental only | 13.7% | 7.0% | 0.0% | 10.3% |
| Qualitative only | 4.6% | 9.4% | 14.3% | 7.9% |
| Other | 6.6% | 4.0% | 15.1% | 5.9% |




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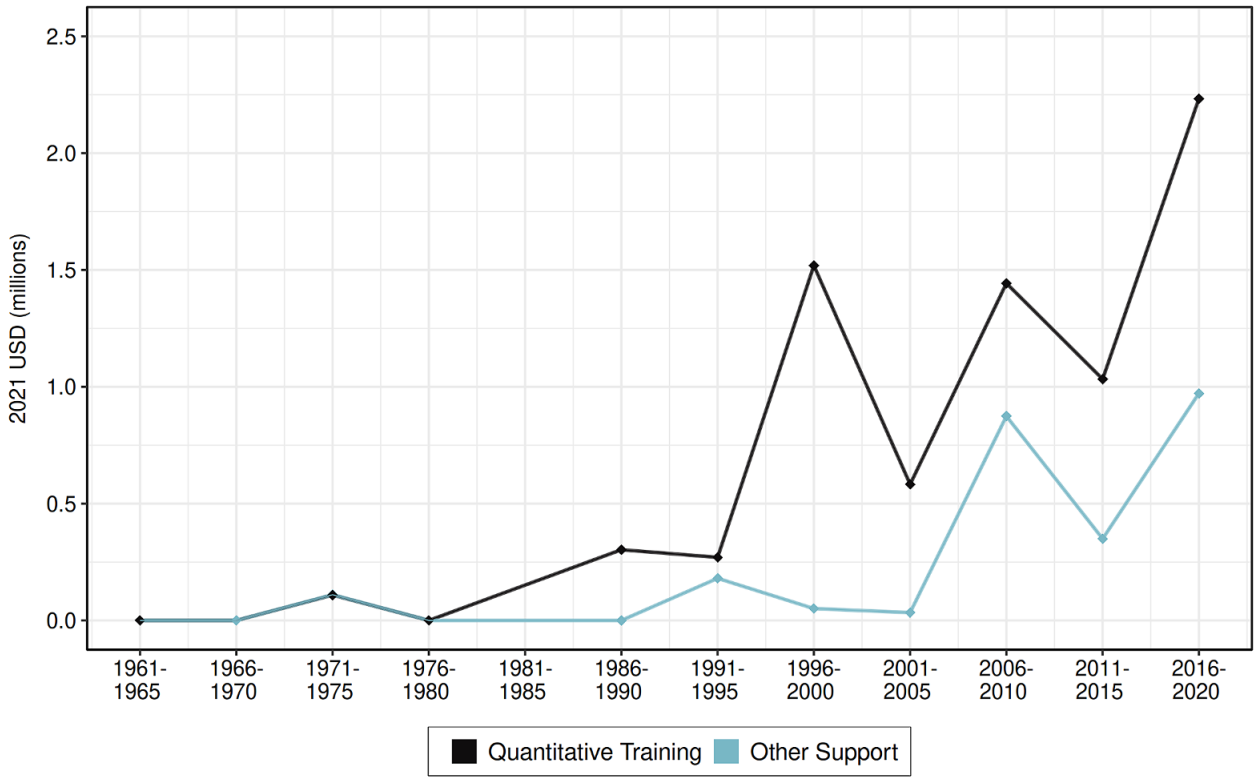
**Figure 8**
**Program dollars for Diversity Programming, 1961–2020**




### *Diversity Programming*

Diversity Programming Awards comprised a mere 1% of the Political Science Program budget. Examples include support for the Ralph Bunche Summer Institute[45] and Professional Opportunities for Women in Research and Education (POWRE).[46] One might assume that research methodology did not constitute a salient aspect of the activities undertaken in this category. Yet among the diversity-enhancing projects that received NSF support, 77.4% had a significant methodological component and 85% of those projects focused on training in quantitative methods.

Figure 8 compares spending on quantitative methods training as a diversity-enhancing activity with spending on other diversity-enhancing activities without a methodological component. Examples of activities without a methodological focus include efforts to track and document the status of underrepresented groups in the profession, professional mentoring programs, and projects designed to elevate the visibility of women and faculty of color, such as the "Women Also Know Stuff" Project.[47] Although both forms of support generally increased over time, at no point did the "other support" category exceed allocations for training in quantitative methods. The Diversity Programming category is surprisingly insightful because one might not expect methods training to make a strong appearance. Yet it does, which underlines the overall influence of the NSF in defining and advancing a particular vision of research excellence. There appears to be a conflation between the goal of advancing diversity in the discipline and the presumed need to "tech-up" women and faculty of color in select research methods.

Figure 9 illustrates the total distribution of research support across all five award types for the full life of the NSF Political Science Program.[48] When considering this figure, it is worth recalling that most support for qualitative research came at the end of the 55-year program. Were it not for the support of initiatives such as the IQMR Summer Institute, the relative share devoted to qualitative research would have been skewed further. Likewise, qualitative methods hardly registered in the category of research infrastructure until NSF support was provided for the Qualitative Data Repository in 2011.

## The Politics of Knowledge Production

Having established an awards-level view of NSF funding, the second half of this study probes *why* NSF support skewed so strongly toward projects that employed quantitative methods. Here, I draw on APSA records, insider accounts from the NSF, and the work of historians of science to shed light on NSF funding for political science. These sources reveal that NSF priorities were profoundly shaped by political context and the epistemological expectations of an NSF administration dominated by the natural sciences. Although these sources are essential for understanding the history of knowledge production in




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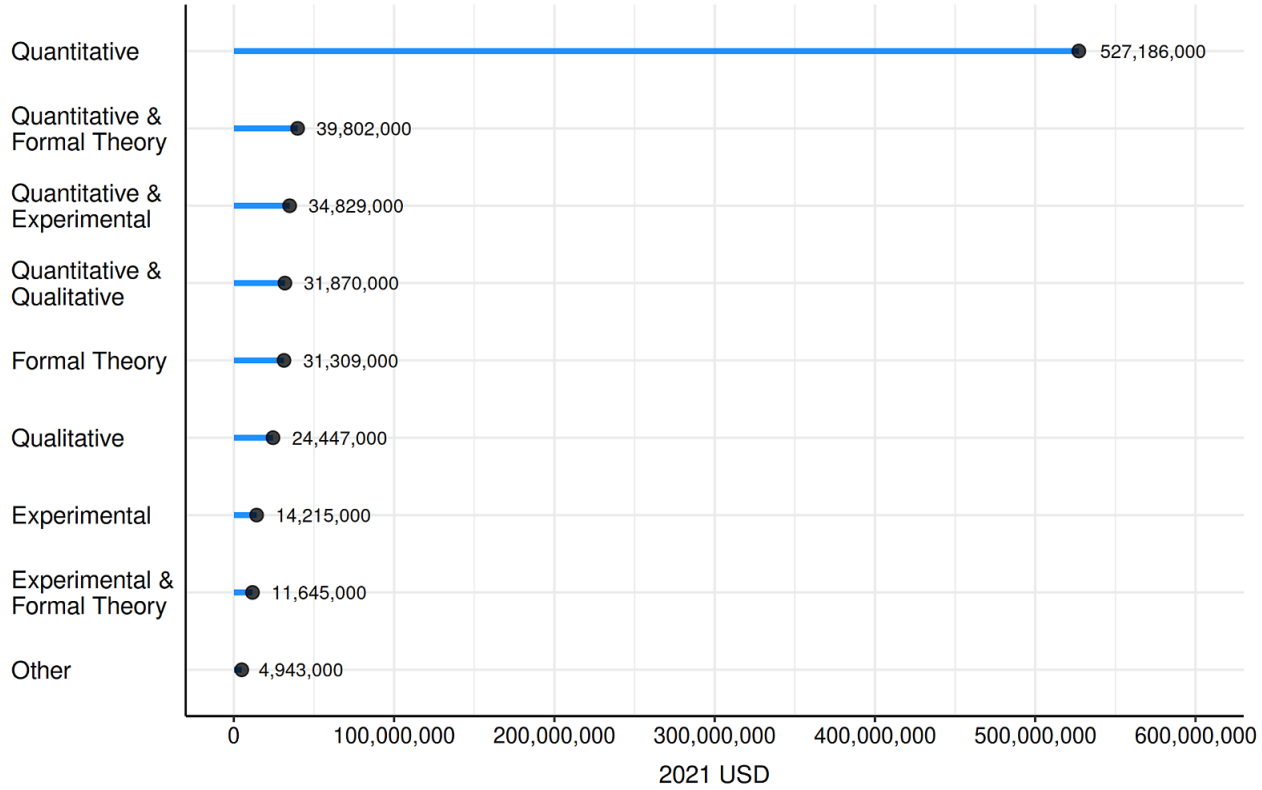
**Figure 9**
**Total Program Dollars by Research Method for All Award Types, 1961–2020**




our discipline, they are virtually unknown among political scientists.

Larsen (1992) and Solovey (2020) provide the most comprehensive and detailed accounts of the early politics of the National Science Foundation vis-à-vis the social sciences. They show that even before its establishment in 1950, proposals to include the social sciences in the NSF were met with resistance. Natural scientists of the mid-twentieth century were skeptical that social phenomena could be studied in a scientific manner, with the natural sciences providing the benchmark for "real" science. Opposition from conservative members of Congress also raised concerns that the natural sciences would be caught in the crossfire of polarized congressional debate.

Otto Larsen, a sociologist who served as Director of the Division of Social and Economic Research at the NSF from 1980–1982 and Senior Associate for Social and Behavioral Science from 1983–1986, wrote the first book-length study of NSF funding for the social sciences. Larsen provides rich accounts from multiple sources to establish that worry over the broader NSF budget was paramount among members of the National Science Board (NSB). Harvey Brooks, a physicist on the NSB from 1962–1974, explained that "many of the physical scientists who were most influential in shaping the NSF … feared that an active social science research program would produce a political backlash in Congress that would hurt the natural sciences as well" (Larsen 1992, 13). Another NSB member commented that "we have to face up to the fact that the social sciences … are a source of trouble beyond anything released by Pandora" (43).

Historian of science Mark Solovey marshals further documentary evidence to show that, in addressing these doubts, advocates for the social sciences emphasized aspects of social science research that most closely resembled the natural sciences. Specifically, advocates for the social sciences highlighted social science research that embraced positivist epistemological assumptions of value-neutrality, hypothesis testing through the measurement of (quantitative) empirical data, and the importance of replication, verification, and generalizability. This "unity of the sciences" positioning facilitated the inclusion of the social sciences in the NSF. However, doubts and concerns persisted among those natural scientists who came to control the new National Science Board.[49] The NSF's own historical accounts (England 1983; Mazuzan 1994) confirm that the National Science Board worked to slow the development of social science programming to

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mitigate the possibility of threats to NSF funding. As a result, the social sciences came to occupy a modest and dependent position within the NSF.[50]

Solovey shows that this weak structural position was "deeply consequential for the evolution of NSF policies, programs, and practices" (2020, 294), a finding that aligns with the numerous accounts of NSF insiders from the period. Henry Riecken, the first head of the Division of Social Sciences, provides firsthand explanations of how he and his predecessor incrementally expanded the scope of social science programming by strategically stressing "the 'hard science' aspects of the social disciplines" (1986, 215; 1983). At an operational level, this meant directing initial funding to non-controversial areas, such as econometrics and experimental social psychology. Riecken explains, "at first the social science program at NSF grew slowly, expanding its scope almost on a grant-by-grant basis and continuing to shun 'controversy.' The emphasis remained positivistic, the preference was for supporting quantitative, data-based research" (1986, 217). Solovey shows that this approach cemented "a *scientistic* framework for understanding, evaluating, and supporting the social sciences" (2020, 6).[51] This approach was apparent in the NSF Political Science Program.

### *Findings from the APSA Records Collection*

APSA's administrative records contain extensive documentation of the Association's efforts to secure an NSF Political Science Program. NSF support was a major preoccupation of the APSA Executive and APSA Council through the 1950s and early 1960s. Still, the program was founded only in 1965—years after other social science disciplines had secured support—due to reservations among the NSF leadership that political science posed unique liabilities to the overall NSF budget. The Association's records make clear that APSA eventually prevailed through a Faustian bargain, wherein NSF funding was secured at the price of stringent controls over which types of research would be funded and which would not.[52]

APSA pursued two parallel strategies to overcome the reticence to political science research at the NSF: 1) to impress upon the NSF leadership that the discipline was part of a unified scientific enterprise, sharing the same commitments to objective and verifiable research, and 2) to apply political pressure on the NSF by way of Congress. In pursuit of the first strategy, the Executive Director of APSA, Evron Kirkpatrick, urged leading political scientists at dozens of universities to write the NSF about the state of the discipline.[53] The APSA records contain letters from leaders in the field, including Robert Dahl, Robert Lane, Morton Kaplan, Warren Miller, Lucian Pye, and others.[54] Joseph LaPalombara's letter sums up the general tone conveyed in all the letters:

> I think you are probably aware that, for the last seven years, we have been moving as a group in the direction of more systematic theory building in research activities. As a matter of fact, there are a number of my colleagues who have much more sophistication in the field of mathematics and statistics, or in the business of research 'objectivity, verifiability and generality' than do many of the people around the country who are acquainted with such [NSF funded] areas as geography demography, sociology, and so on.[55]

Each letter emphasized the cutting-edge research being conducted in their departments and nationwide. Stress was placed on the aspects of research they believed would be most compelling to the natural scientists who dominated the Foundation: quantitative data collection, statistical analysis, the importance of objectivity and replication, and the like.

Simultaneously, Kirkpatrick mounted a robust campaign to pressure the NSF by way of Congress. Kirkpatrick met or corresponded with over one hundred senators and representatives, many repeatedly over the years. Other meetings took place between the APSA leadership, NSF officials, and members of Congress. From our perspective six decades later, one might assume that the APSA had few levers to pull in Washington. That was not the case. The APSA and its membership had direct connections and sometimes strong personal relations with members of Congress. The APSA records show that these relations afforded Kirkpatrick considerable resources for leveraging political pressure on the NSF.

A letter from Kirkpatrick to Robert Dahl in October 1963 suggested that Dahl use his connections with Emilio Daddario, the chair of the subcommittee that oversaw the NSF.[56] Similarly, Wayne Merrick of Allegheny College informed Kirkpatrick that he was the Chairman of James D. Weaver's Legislative Advisory Committee for the 24th Congressional District. "He is, of course, a member of Representative Daddario's Subcommittee on Science Research and Development," wrote Merrick.[57]

The APSA records also contain correspondence between Kirkpatrick and Stephen Horn, the Legislative Assistant to Senator Thomas Kuchel, concerning pressure that should be placed on NSF Director Leland Haworth.[58] As it happens, Stephen Horn was an early participant in APSA's Congressional Fellows Program. Kirkpatrick writes, "You suggested that I send you a draft of a letter for the Senator to send to Haworth; it is attached. Now is an excellent time to send it. The Foundation is beginning to feel a little pressure and is considering reviewing its policy. A little nudge right now would be extremely valuable." Two days later, a strongly worded letter from Senator Thomas Kuchel was dispatched to Leland Haworth, nearly identical to the proposed draft that Kirkpatrick had provided.[59]

Kirkpatrick was not shy about letting the NSF know he was actively lobbying the congress members overseeing the NSF. In a letter to Social Sciences Director Riecken, Kirkpatrick explains: "I have now had letters from or talked with quite a number of members of the House and Senate. To date, those I have talked with have expressed the view that the NSF policy should be changed …. It seems to me quite




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clear that the situation can easily be remedied …. I hope very much that these changes will be made."[60] The letter is copied to each member of the Subcommittee on Science, Research, and Development, the body to which the NSF must answer.

Kirkpatrick's lobbying through United States Senator Hubert Humphrey, which is touched on by Solovey (2020), is seen from another angle in the APSA records. Kirkpatrick was Humphrey's professor at the University of Minnesota. Upon Humphrey's graduation, Kirkpatrick encouraged Charles Hyneman to provide Humphrey with a graduate fellowship at Louisiana State University, where Hyneman served as department chair. Two decades later, Kirkpatrick (APSA Executive Director) and Hyneman (APSA President) lobbied Haworth (NSF Director) via their former student, Humphrey, now a United States Senator.

The pressure through Congress was relentless, and the results were clear. In a remarkably candid four-page, single-spaced letter to Humphrey, Haworth acknowledged that the NSF had withheld funding from political science due to political considerations.

> There is one ground on which the Foundation has been cautious—perhaps overly cautious. It has been extremely anxious that its programs not become involved in controversies over public policy, especially in the sense of seeming to imply advocacy or opposition to any particular point of view …. As nearly as I can ascertain, it was largely this caution that led the Foundation in the past to omit political science from the subjects covered in its fellowship program.[61]

Kirkpatrick's persistence paid off. In March 1964, Kirkpatrick received a draft policy statement that included political science as a named discipline at the NSF. This was a breakthrough, but it was not an unqualified success. The NSF committed to funding only research that met its strict criteria.

> In designating eligible areas for support the Division of Social Sciences is guided by the over-all mission of the Foundation to support basic scientific research. As interpreted in the social science programs, this is a directive to support research on problems that can be studied by objective methods; that will yield independently verifiable results; and that will produce results with general implications rather than findings relevant principally to a particular time, place, or event. The aim of these programs is to support research aimed at the scientific understanding of social and behavioral processes and phenomena, but not studies designed to evaluate social policies or to advocate or oppose particular solutions of social problems.

The draft continued, "the investigator is free to choose any methods of investigation, including quantitative, experimental, and other techniques, as long as they are scientific and appropriate to the projected study."[62]

With this draft statement, Haworth resolved the conundrum of responding to the political pressures bearing down on the NSF while safeguarding the Foundation from controversial research. The express purpose of the policy is stated clearly in an internal memorandum wherein Riecken explained to Haworth that "the danger of a negative Congressional reaction is minimized by holding to a stringent definition of eligibility in terms of basic nature and scientific (rather than policy) orientation."[63] Haworth articulated the same view in his letter to Senator Humphrey: "Fortunately, [avoiding controversy] is reasonably well assured by virtue of the criteria that limit our support to basic research."[64] The "basic and scientific" criteria provided a rubric for supporting some (politically benign) research projects while sidelining others that might generate difficulties for the Foundation. Proposals would not be solicited and vetted with an openness to the diverse modes of inquiry practiced across the discipline. Instead, positivist epistemology – already ascendant in political science in the behavioral movement – would be used to sideline political risks to the NSF.

This preemptive damage control fortified a binary understanding of "rigor" associated with specific research methods and epistemological commitments. The final policy is explicit about the methods that constitute scientific investigation: "this is a directive to support research on problems that can be studied by methods that will yield independently verifiable results … including quantitative, experimental, and other techniques, as long as they are scientific." Epistemological assumptions of objectivity and replicability are considered essential features of scientific research, and the methods associated with the natural sciences are fully conflated with rigor itself.

As might be expected, the NSF draft policy elicited a range of reactions, from celebratory to critical. The critical comments, preserved in the APSA records, anticipated the impact the NSF policy would have on different modes of political science research. Former APSA President James Pollock commented, "I don't see why it's necessary to so flatly exclude large areas of our discipline."[65] Another former APSA President, Charles Hyneman, lamented that "tests for determining the scientific character of studies" would exclude much of political science.[66] A. LeRoy Bennett suggested that "while the NSF statement is about all that we can expect from an organization heavily influenced by natural science methodology, it circumscribes severely the types of research in the social sciences for which support is readily available and it may result in a narrowing of such fields as Political Science."[67] Yaroslav Bilinsky commented that NSF resources would likely flow to certain projects, such as studies of electoral systems and public opinion, "but this is not all there is to Political Science. On the discipline as a whole, it might have an unbalancing effect."[68] Kirkpatrick transmitted the full range of reactions to the NSF.[69] However, no records were found in the APSA archive suggesting that any effort was made to push for broader eligibility criteria. The records concerning the lobbying activities of APSA go cold from the moment the NSF agrees to establish a program for political science.




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### *The NSF Political Science Program*

The years-long campaign ended in victory for the APSA. It had secured a seat at the NSF table. But it was a partial victory at best. From its inception, the Political Science Program was explicitly designed to bolster positivism, elevate nomothetic over idiographic modes of knowledge production, and sideline critical and normative work. These orientations were continuously reinforced by administrative structures and processes within the NSF dominated by the natural sciences. This is not to say that NSF funding priorities were an exclusively top-down imposition on the discipline. The political scientists who staffed the review panels and vetted proposals generally embraced the NSF's vision for the discipline. It is significant that among NSF Political Science Program directors and advisory panel members, none represented political philosophy, none were known for critical, normative, or interpretive research, and precious few worked primarily with qualitative methods. What is more, review panelists without extensive quantitative or formal theory backgrounds became outliers within a decade.

The taboo around "controversial" research and the administrative realities of an NSF leadership dominated by the natural sciences provided an ongoing rationale for program directors to allocate a greater share of resources to projects with an increasingly narrow set of methodological tools. In an open letter in the pages of *PS*, Political Science Program Director David Calhoun Leege (1976, 12) recounted the politically charged circumstances that surrounded the establishment of the Political Science Program and the long shadow that it had cast on the fledgling program:

> Features about the origins of the Program which Foundation officials found distasteful still linger in their memories and are passed on in institutional memory. Within the Foundation the view seems to have been held that the sensitive subject matter of political science spelled trouble and that not very many political scientists were scientists. In gaining clarification of the discipline's status, considerable pressure was put on the Foundation by Capitol Hill sources. Resentment developed. In the minds of some, it was not scientific merit but political pressure that forced creation of the Program.

Leege stressed that these existential threats were ongoing. His sober appraisal did not shy away from underlining the worst-case scenario: "the feeling lingers that, under severe congressional pressure, the Foundation would abolish social science programs to salvage support for physical and biological sciences and engineering" (13). The blunt message that Leege impressed on his readers was that if the Political Science Program was to survive, let alone grow, its applicant pool should start looking and sounding more like the programs in economics, psychology, and the natural sciences.

According to Leege, a transformation in the political science applicant pool was urgently needed to establish the scientific basis of the discipline vis-à-vis NSF administrators. He reported that "Foundation officials have argued … over 50% of the [political science] proposals cannot be considered competitive under any scientific merit argument" (11). Leege recognized that "such assessments are by their nature judgmental and depend in part on the breadth of understanding possessed by planning officials who have come from other disciplinary backgrounds" (11). Yet Leege agreed with these negative assessments and provided copious examples of his own. He then detailed the efforts that he and previous NSF political science program directors were undertaking to shape the applicant pool: "The present and immediate past program directors have considerably reduced the number of formal proposals received by the Program by sending clear signals on inquiries and proposals" (11). Leege reported that these signals were fortified by "tough" selection panels and "tough" program directors seeking "better statistical and mathematical techniques … greater rigor in theoretical formulation and greater awareness of measurement problems" (14). According to Leege, these efforts had paid off: "Fortunately, these shortcomings now characterize a much smaller proportion of our proposals. The picture of the discipline the Foundation should form from proposals in the last few years should be very different from the one it had in the mid-to late-1960's."

Leege stated that his approach was "not intended to restrict the types of proposals which will compete well." The program "is seeking strong proposals in any substantive and/or methodological area." But the force of the entire report suggests otherwise. For example, priority areas outlined for the program emphasized "mathematical models," "n-person games," "psycho-physical measurement," "large data archives," "interactive computing with large memory," and "new modes of modelling the polity and of measuring behavior." No similar research agendas were specified that would entail ethnography, historical/archival work, small-N comparative studies, context-rich case studies, or other qualitative methods. No possibilities were mentioned for funding normative, critical, or interpretivist work. Instead, this open letter in the pages of *PS* served as another avenue to deliver "clear signals" about what the NSF Political Science Program was prepared to fund. As Leege candidly explained, the efforts to shape the applicant pool were achieving the intended effect. Indeed, the data presented in the first section of this article illustrates the share of the Program budget allocated to qualitative research continued to decline in subsequent years.

An APSA Committee on Research Support recognized this shift and sounded an early alarm that the NSF was serving a particular constituency of political scientists:




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> [T]here is something of a self-fulfilling prophecy at work within the research community of political scientists. Believing that only very quantitative or highly mathematical proposals have a chance of winning support, those doing research in such areas as American national government and public administration whose focus is primarily institutional or historical, tend not to write proposals for the NSF. Since the NSF can hardly fund non-existing proposals, the image of a strong quantitative-mathematical focus persists (Zinnes et al. 1978).

The APSA Committee on Research Support had identified an important feature of the problem: the dwindling number of proposals for non-quantitative projects. But by placing the onus on political scientists who were not applying, the Committee misdiagnosed the root problem. The suggestion that "the NSF can hardly fund non-existing proposals" sidestepped the methodological biases evident in NSF policies, practices, and statements. Political scientists employing qualitative methods had read the "clear signals" as they were intended, and they looked elsewhere for research support.[70] A similar APSA committee report issued over two decades later was more forthcoming about methodological bias at the NSF. "We would hope that the relevant offices at NSF would resist advice, wherever it comes from, to equate science in political science with mathematical or statistical sophistication" (Davenport et al. 2000).

## Discussion and Conclusions

In the first issue of the *American Political Science Review* under its current leadership team (2020–2024), the incoming editors voiced concern that political science is not sufficiently engaged with the full range of tools and approaches that are needed to understand the politics of our time. "We worry that all too often our discipline operates with an overly narrow view of what counts as political science" (Notes from the Editors 2020, v). The editors acknowledged that overreliance on a select set of research methods has narrowed the questions political scientists ask, the research agendas pursued, and the insights learned. "As political scientists, we like to tell ourselves that our data and methods are cutting-edge. But all too often, we let our data and methods dictate the questions that we ask. We let our tools tell us what we can and cannot study, when we would be better served by acknowledging the ways our toolkit is incomplete and seeking to expand it." This was not the first such acknowledgment from leadership in the discipline. APSA Task Force reports have examined the effects of narrowing methodological toolkits (e.g., APSA 2005; APSA 2011). These concerns have also come from below, most visibly from the Caucus for a New Political Science in the 1960s (Barrow 2008) and the Perestroika Movement four decades later (Monroe 2005). Recent studies have gone so far as to characterize the imbalance in graduate methods training as "a disciplinary crisis" (Emmons and Moravcsik 2020, 258).

One of the clear costs of a methodological and epistemological monoculture is the neglect and marginalization of research on a range of important substantive political issues. Paul Pierson (2007) shows that within the American subfield (2000–2005), approximately 85% of publications in the top journals employ statistical methods alone, and 60% of these focus on only four areas: public opinion, voting behavior, campaigns and elections, and Congress. This compares with 6% of publications in the top journals that are based on qualitative methods alone, wherein 80% of those articles focus on issues *other than* public opinion, voting behavior, campaigns and elections, and Congress. This wider range of subject matter includes issues of public policy, public administration, race and gender, urban politics, federalism, social movements, law and courts, and the like. In other words, Pierson found that the range of substantive issues examined with qualitative methods tended to be far more diverse, yet those qualitative treatments were crowded out of the leading journals.[71]

Did the NSF Political Science Program contribute to this narrowing of the discipline? We know that the NSF worked to define the discipline's cutting edge, that it funded quantitative and positivist-oriented scholarship to the virtual exclusion of other approaches, and that it enjoyed a cumulative budget of nearly three-quarters of a billion dollars. To be clear, this study does not attempt to measure the effect of NSF funding on American political science generally or to weigh this influence against myriad other factors that shaped the trajectory of the discipline.[72] A measure of disciplinary change would be difficult to operationalize. And more to the point, such a measure would not adequately capture the manifold ways that NSF investments stimulated new pathways for research. A more extensive qualitative treatment is necessary to do justice to the rich and complex story of how the NSF shaped the discipline, not only in terms of research method and substantive focus but also in terms of the identity and practices of American Political Science.[73] Nonetheless, a study by Canon, Gabel, and Patton (2002) provides some indication of the NSF's influence on scholarly output. They examined the relationship between research support and publication in eight leading political science journals for the five-year period 1991–1995 ($N$=1,394). They found that 81.1% of articles in the top eight outlets were grounded in quantitative methods, formal theory, or rational choice. Among the subset of articles supported by the NSF, 96.2% were grounded in quantitative methods, formal theory, or rational choice. These figures suggest that NSF worked to consolidate this methodological dominance in the top-tier journals of the discipline.[74]

This study has made two principal contributions. First, the Political Science Awards Dataset established an awards-level view of NSF-funded projects over time. Before this dataset, our knowledge of the NSF's funding record was anecdotal, impressionistic, and incomplete.




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The dataset revealed that the Political Science Program allocated 94.7% of its substantive project dollars to quantitative methods, formal theory, and experimental research, whereas 5.3% was allocated to research utilizing qualitative methods. A similar preference is apparent across all five funding categories examined: substantive research, research infrastructure, workshops, conferences and institutes, and diversity programming.

The second contribution of this study was the discovery of new evidence addressing the puzzle of why the NSF Political Science Program support was so strongly skewed in the first place. Findings from the APSA records align with research by historians of science and firsthand accounts of NSF insiders (e.g., England 1983; Larsen 1992; Mazuzan 1994; Riecken 1983, 1986; Solovey 2020). The correspondence illuminates the strategy and intensity of APSA's campaign to leverage pressure on the NSF. The documents also underscore the political considerations that animated the Foundation's reluctance to sponsor political science research. Furthermore, they show that the NSF resolved this conundrum by authorizing and supporting only a narrow subset of political science research. Finally, the APSA archive recovers the differences of opinion among political scientists of the era regarding this Faustian bargain.

While the APSA succeeded in its effort to secure a full-fledged political science program at the NSF, it did not secure equal opportunity for all political science research. Instead, the APSA accepted the strict limitations imposed by the NSF on eligibility for funding. NSF-supported research was to be divorced from policy; projects were to embrace positivist values of replication, verification, and generalizability, typically through quantitative methods; and sponsored research was to avoid critical or normative approaches. Prominent individuals in the discipline objected to these criteria, but APSA ultimately accepted these conditions as the price of securing access to NSF largesse. The fears of APSA presidents Pollock, Hyneman, and others that the NSF criteria would exclude much of the discipline proved prescient, as borne out in the data presented in the first part of this study. This critical juncture in the history of American political science is preserved in the APSA records through hundreds of pages of letters and memos. Together with the program's funding data, these documents shed light on the NSF policies and practices that shaped new knowledge production in American political science for decades.

This role in shaping the trajectory of American political science is by no means unique to our discipline. In a review of NSF funding through the History and Philosophy of Science Program, Vaesen and Katzav (2019) find that NSF awards were instrumental in building the dominance of logical empiricists who espoused value-free philosophy of science while marginalizing rival approaches that engaged with social, political, and moral concerns. Indeed, Larsen (1992) and Solovey (2020) show that similar dynamics were at work across a range of NSF social science programs.

What these NSF programs share in common is usefully contrasted with the practices of similar research funding agencies abroad. Government agencies outside the United States do not universally share the methodological biases illustrated in the first part of this study. The Canadian Social Sciences and Humanities Research Council (SSHRC) exemplifies a more inclusive approach. When I applied the same coding scheme to a three-year sample of awards from the SSHRC Political Science Committee (2018 to 2020), the exercise found that 56% of SSHRC awards supported qualitative research, 24% was allocated to quantitative research, 14% to mixed quantitative-qualitative methods, and 6% supported experimental methods. Continuing with this comparison, a critical or normative dimension was identified in 16% of SSHRC-funded projects. Finally, 8% of SSHRC-funded projects were in the political philosophy subfield. Although this is a modest share of the total projects funded, it approximates the rough proportion of political theorists in Canadian political science departments. What is more, political theorists serve on SSHRC selection panels. In sum, Canada's SSHRC offers a "big tent" funding model that broadly represents the methods, questions, and research agendas with which political scientists in Canada are engaged.

An important question for political scientists to grapple with is the counterfactual: If NSF funding had been allocated without the strict requirement of value-neutrality; without prejudice to research embracing critical or interpretive approaches; without a virtual exclusion of political philosophy; without an overwhelming emphasis on quantitative methods; and without an insistence on replication, verification, and generalizability, what might NSF Political Science Program support have looked like? And what effect would an inclusive funding model have had on the trajectory and shape of the discipline? Presumably, most of the same research would have been funded under more inclusive selection criteria, but it would have been supported alongside a more eclectic range of political science research, contributing to a more varied and diverse research landscape.

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## Notes

1 In 2020, the Political Science Program was closed and replaced by the "Security and Preparedness Program"




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and the "Accountable Institutions and Behavior Program" (Moustafa 2022).

2 For example, Lowi characterized NSF support for political science research as "hothouse cultivation" for behavioralism (Lowi 2005, 48; Waismel-Manor and Lowi 2011, 74). To the best of my knowledge, Lowi made these assertions only in passing.

3 Positivism is used here, as well as in the primary source documents and secondary literature on the NSF, to denote research that is hypothesis-driven, value-neutral, and concerned with replication, verification, and generalizability. This encompasses both empirical research and formal theory, also known as "positive political theory."

4 "Qualitative methods" is operationalized in this study to encompass both positivist-qualitative and interpretive approaches because the meanings ascribed to "qualitative methods" changed over the period under study (Yanow 2003, 10-11) and many scholars are not fully explicit or aware of the epistemological assumptions embedded in their work (Yanow and Schwartz-Shea 2006, xiii). References to "qualitative methods" are therefore inclusive of positivist and interpretive approaches, whereas specific references to "interpretive methods" pertain to research that is consciously grounded in interpretive epistemological commitments.

5 I use the term "consolidate" because a center of gravity had already taken shape when the NSF Political Science Program began operations. Dahl (1961) and Gunnell (2007), among others, show that the behavioral movement grew out of disciplinary trends already afoot in the interwar period. Hauptmann (2012; 2022) further examines the role of the Carnegie Corporation, the Ford Foundation, and the Social Science Research Council in fostering the behavioral movement through targeted grants to leading research universities in the immediate post-war period. The term "behavioral approach" was later critiqued for its lack of precision (Dahl 1961), but I follow Adcock's view that "the vision of behavioralism as a transformative movement was first crafted not to capture an already accomplished intellectual shift, but as a rallying cry to promote change" (2007, 180). As such, this study is concerned with the NSF's role in consolidating the positivist epistemology advocated by the behavioral movement even after its champions announced the arrival of a "post-behavioral era" (Easton 1969).

6 Awards with missing or ambiguous data were excluded from the analysis.

7 All dollar figures are presented in 2021 inflation-adjusted terms.

8 The same procedure of reapportioning the values of the mixed-methods projects was used to calculate the total dollar support for each method in figures 1, 2, 3, and 5.

9 NSF 0094964; 0406251; 0818839; 0819271; 1227179; 1628057. Although TESS was initiated by political scientists Arthur Lupia and Diana Mutz, not all Principal Investigators for TESS-sponsored projects were political scientists. Nonetheless, TESS provided a significant resource for political scientists conducting survey experiments.

10 Other datasets funded through the NSF provided the basis for many more quantitative studies. For example, the "Panel Study of Income Dynamics" project, a longitudinal household survey of American families that began in 1968, provided the basis for over 7,300 peer-reviewed publications according to the University of Michigan's Survey Research Centre. Retrieved August 12, 2023 (https://psidonline.isr.umich.edu).

11 NSF S039941.

12 James Scott attributed NSF funding for his ethnographic project "Theory of Rural Class Relations in Asia" (NSF S039941) to game theoretic elements in the proposal, combined with the exigencies of Cold War politics and concern for peasant revolutionary movements (personal correspondence with the author, June 24, 2022). Other qualitative projects similarly fit into what might be considered a national security paradigm. These include John McAlister's "Case Study of the Process of Revolution" (NSF GS1902), which focused on Vietnam; Roy Laird's "Comparative Study of Agricultural Systems" (NSF GS1055), which led to *Soviet Communism and Agrarian Revolution*; and Jerome Gilison's "Political Socialization of Soviet Youth" (NSF S035131).

13 NSF 1420973; 1154697; 0817701; 0451598; 0112029.

14 NSF 0140566; 9122433.

15 NSF GS536; GS1230; S035767.

16 NSF GS1823; S028476; S002676; 7812301; 9213364.

17 NSF S2273.

18 NSF S038082; 0004917.

19 The original title was the InterUniversity Consortium for Political Research (ICPR). "Social" was added to the title in 1975. I use the acronym ICPSR from its founding in 1962 for consistency and name recognition.

20 The ICPSR grew out of the Survey Research Center at the University of Michigan, which was established in 1946. The Survey Research Center was supported by major grants from the Carnegie Corporation, the Rockefeller Foundation, and the Social Science Research Council. For more on the role of private foundations in the early development of the Survey Research Centre, see Hauptmann (2022).

21 NSF 6323167.




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22 NSF GS881. "Acquisitions and Processing Program for the InterUniversity Consortium Data Repository" was funded from a "Special Social Science Projects and Resources" budget. It was not included in the Political Science Program dataset, but it is an example of robust funding for quantitative political science research through various NSF funding mechanisms. The PI on the project was Warren Miller.
23 As of January 2022, the ICPSR data repository contained 82,923 unique datasets.
24 NSF 9410023; 9617854; 9308637; 0240852; 0218397.
25 NSF S003155.
26 NSF 0962175; 0961133.
27 NSF 1728902; 1725418.
28 NSF 8810228; 0617529.
29 Because TESS funded the execution of survey experiments designed under its guidance, TESS awards were coded as substantive research. Nonetheless, the principal innovation of TESS was its systematic approach to improving the quality and consistency of survey experiments and achieving economies of scale in the process.
30 NSF 0752751; 1225596; 1355671; 1756547.
31 NSF 8809098.
32 NSF 0617717.
33 NSF 9601151.
34 NSF 9975115; 9975291; 0213727; 049034; 1059758.
35 NSF 1061292; 1424191; 1628636; 1823950.
36 Researchers working in qualitative methods and interpretive epistemologies discussed and debated appropriate guidelines through the Qualitative Transparency Deliberations (https://www.qualtd.net). The discussions focused not only on issues of "transparency" but also the various ethical issues at stake. See Jacobs and Büthe (2021) for summaries and recommendation of the working groups.
37 NSF 8610364; 9012528; 9413155; 9905798; 0241874. Beginning in 2007, proposals submitted by the Society for Political Methodology shifted from general requests for support of its annual conference to a rubric of conference support for minorities and women. These later awards were coded under "diversity programming" (NSF 0720343; 1120976; 1324159; 1628102; 1628266; 1747589; 1922190; 1917997).
38 NSF 0215621; 0518188; 0618254; 0648205; 1023231; 1528445; 1756746; 2023405; 2033912.
39 NSF 0350963.
40 NSF 0452768; 0752589; 1124074; 1658204.
41 NSF 0911725.
42 NSF 9703894.
43 *Public Choice* was first known as *Papers in Non-Market Decision Making*. It preceded the NSF Political Science Program and was therefore funded through a different vehicle.
44 Interview by Kenneth Shepsle with William H. Riker, June 4, 1979. APSA/Pi Sigma Alpha: American Political Science Association Oral History Project (https://kentuckyoralhistory.org/ark:/16417/xt7rxw47sw7m).
45 NSF 9602514; 9619675; 9912152; 0196137; 0243565; 0552119; 0849302; 1156416; 1558560; 1849854.
46 NSF 9720475; 9805772; 9753119; 9870503; 0074815.
47 NSF 0647740; 0408413; 1836072.
48 Included in this calculation are the five awards made to political scientists through other programs before the Political Science Program was launched.
49 Fewer than 1% of the 154 persons who served on the NSB in its first four decades had clear credentials in the social sciences (Larsen 1992, 230).
50 The share of NSF funding for the social sciences averaged only 2.9% of the total NSF budget in its first four decades (Larsen 1992, 260).
51 I follow Solovey's (2020, 12) use of the term "scientism" to mean "the notion that the social sciences are part of a unified scientific enterprise, wherein the natural sciences are often considered more rigorous, more objective, and more advanced, and hence following their lead seems to be a valuable—and perhaps even essential—strategy for making progress in the social sciences."
52 Documents uncovered in the APSA records complement the discoveries of Larsen (1992) and Solovey (2020), who examined NSF policy vis-à-vis the social sciences generally by way of documents at the National Archives and Records Administration (NARA).
53 Evron Kirkpatrick to Gabriel Almond, June 26, 1959.
54 Unless otherwise noted, the correspondence cited in this section can be found in the American Political Science Association records, Special Collections Research Center, The George Washington University, Box 175 (Folder 1), and Box 198 (Folders 17-19).
55 Joseph LaPalombara to Henry Riecken, July 3, 1959.
56 Evron Kirkpatrick to Robert Dahl, October 15, 1963.
57 Wayne Merrick to Evron Kirkpatrick, November 21, 1963.
58 Evron Kirkpatrick to Stephen Horn, November 6, 1963.
59 Senator Thomas Kuchel to Leland Haworth, November 8, 1963.
60 Evron Kirkpatrick to Henry Riecken, November 5, 1963.
61 Leland Haworth to Hubert Humphrey, March 31, 1964.




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62 Henry Riecken to Evron Kirkpatrick, March 31, 1964; "Grants for Research in the Social Sciences DRAFT #3A" March 30, 1964.
63 Henry Riecken to Leland Haworth, September 19, 1963 (NARA, RG307, Series Haworth Director Files, Box 8, Folder Political Science 1963).
64 Leland Haworth to Hubert Humphrey, March 31, 1964.
65 James Pollock to Evron Kirkpatrick, April 9, 1964.
66 Charles Hyneman to Henry Riecken, May 29, 1964. Hyneman surveyed his colleagues across the Midwest and reported to Riecken "there is a feeling among political scientists that your tests [for basic research] may be too severe."
67 Memo of A. LeRoy Bennett in the letter from John Perkins to Evron Kirkpatrick, April 13, 1964.
68 Memo of Yaroslav Bilinsky in the letter from John Perkins to Evron Kirkpatrick, April 13, 1964.
69 Evron Kirkpatrick to Henry Riecken, April 15, 1964.
70 The National Endowment for the Humanities (NEH) is one such funding source. However, NEH support for political scientists from 1967 to 2020 totaled only 3.6% of substantive research support from the NSF Political Science Program over the same period.
71 Aside from inattention to important substantive issues, Pierson makes several other astute observations concerning "the costs of quantitative hegemony" for research in the subfield.
72 The "dependent variable" referred to in the title of this article is the universe of political science projects sponsored through the NSF Political Science Program.
73 This effort is underway in the form of a book manuscript.
74 Canon, Gabel, and Patton (2002) also found that 26.2% of all *APSR* articles were based on research that was supported by the NSF. Because their measure was based on formal acknowledgements in the articles themselves, the true figure of NSF support is likely higher.

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