

THE SOCIAL SCIENCES AT THE NSF:  
PAST, PRESENT, AND FUTURE

Mark Twain once wrote that history does not repeat itself, but it rhymes. One good reason for studying the past is to make ourselves more sensitive to these rhyming patterns.

—Robert M. Collins, historian, 2000<sup>1</sup>

The point is not to belabor the aphorism that “those who fail to study the past are condemned to repeat it,” but rather to recognize that both continuity and change in history need to be understood to deal effectively with the present.

—George Mazuan, former NSF historian, 1994<sup>2</sup>

So far, we have examined the NSF’s engagements with the social sciences from the mid-1940s to late 1980s, by focusing on four somewhat distinctive eras. The first one encompassed the agency’s legislative origins and the debate about whether the social sciences should be included, followed by the initial development of NSF social science policies, programs, and practices during the Alpert years. Next came an expansionary era, from the time of Sputnik through the heyday of 1960s’ reform liberalism. The third era saw mounting criticisms during the increasingly conservative 1970s and a loss of momentum and retreat. The fourth period spanned the two Reagan administrations and was marked by even deeper troubles.

This final chapter begins by taking stock of what we have learned, by reviewing some of the key findings. The second section shows how understanding what happened from the end of World War II through the end of the Reagan years provides a valuable foundation for interpreting subsequent developments and the continuing controversy about NSF social science, leading up to present day. In the third and last section, I offer an assessment of what the agency has done well, where it has fallen short, culminating with a call to reconsider the proposal to create a national social science foundation as a basis for moving forward in the future.

## TAKING STOCK

## THE POLITICS–PATRONAGE–SOCIAL SCIENCE NEXUS

At the broadest level of historical significance, we have seen that the NSF was a patron of crucial importance in the evolution of the politics–patronage–social science nexus in Cold War America. To appreciate this point, we have situated NSF social science in the context of major changes in private and public funding. World War II marked a crucial divide. Previously, the large private foundations had taken responsibility for promoting the development of academic social science on a broad front. But after the war and continuing into the Cold War era, the federal government assumed a much greater role. Furthermore, although the Ford, Rockefeller, and Carnegie foundations provided considerable support for a wide range of social science research, especially investigations related to practical concerns such as population growth or development in the Third World, over time the large foundations relinquished any responsibility for looking after the health of social science in a general sense. This was especially clear after the Ford Foundation decided in the late 1950s to close its behavioral sciences program. So, even though the social sciences received only a thin slice of the dramatically enlarged federal science budget during the Cold War years, support from federal agencies became increasingly important. Moreover, following the 1960s' debate over Project Camelot and protests against military-funded social research units on university campuses, the political and academic communities recognized the need to ensure substantial funding from civilian agencies.

Those developments opened up a critical space within the politics–patronage–social science nexus for NSF social science to grow in size and significance. The agency emerged as a major patron, especially for academically oriented scholarship carried out at the nation's research universities and social science research centers closely affiliated with the academic world. As this happened, the agency's commitment to basic science, its dedication to first-rate research, and its special role in looking after the overall health of the sciences made it increasingly important within the national social science funding system.

Yet none of this seemed likely in light of the agency's legislative origins and early development. In fact, during the postwar NSF debate, considerable opposition to the social sciences had left it unclear whether they would be included in the new agency at all. The 1950 charter also failed to men-

tion them directly. And when the agency decided in the early to mid-1950s to test the social science waters, it proceeded cautiously, starting with two programs in “convergent research” that were located in its natural science divisions and considered “experimental.”

#### SCIENTISM

If the future importance of NSF social science was not readily apparent, that formative period nevertheless had a great impact, because it established the agency as an intensive site for scientific boundary work and a vigorous advocate of a scientific strategy for promoting the social sciences. In retrospect, it almost seems as if fate had decreed that the NSF would have a special role. Right from the outset, the question of whether the social sciences should be included or not prompted interested parties in the scientific and political communities to worry about the matter of scientific credentials. Although questions about the scientific status of the social sciences along with related questions about their social relevance and their involvement with political affairs were certainly not new, these issues obtained heightened significance when a loose alliance of conservative skeptics in the natural science and political communities managed to place the social sciences on the margins. Under those conditions, leading scholars from the Social Science Research Council (SSRC) agreed that gaining a place in the NSF was a top priority and advocated inclusion based on a unity-of-science stance that recognized the social sciences as junior partners to the allegedly more advanced natural sciences. The course of that debate together with subsequent developments during the McCarthy era led to a common understanding that securing public funding would require concerted efforts to distinguish the social sciences from such things as socialism, social reform, and social philosophy and to convince powerful natural science leaders that they were maturing as legitimate sciences.

In that context, the NSF hired Harry Alpert for the sensitive task of studying and making recommendations regarding social science funding, which he did by crafting a carefully circumscribed framework that focused exclusively on promoting work at the hard-core end of the social research continuum. This viewpoint, which was readily accepted by NSF leaders as a basis for moving forward in a cautious manner, assumed a fundamental unity of the sciences, often accompanied by an understanding that the natural sciences were the gold standard.

Moreover, that framework remained in place long after the Alpert years. In fact, the agency's dedication to funding the hard-core, as defined by allegedly universal criteria and associated inside the agency with scientific rigor most commonly found in the natural sciences, became firmly entrenched over the long run. Remarkably, at no point did anyone inside the NSF ever mount a serious challenge. Recall how quickly Father Hesburgh's call for including representatives with a wide range of viewpoints on the agency's social science advisory panel was shut down in 1958, a time when the agency's scientific strategy was still rather new and thus perhaps could have been reformed before hardening and becoming part of the bedrock.

#### THE NSF

Beyond its rhetorical importance, the scientific strategy became deeply consequential in the evolution of NSF policies, programs, and practices. This took place through the elaboration of funding criteria, including the original trio of principles proposed by Alpert (i.e., objectivity, generalizability, and verifiability), which were then implemented in policies, programs, and practices through organizational units dedicated to the social sciences, the behavioral sciences, and more specialized programs corresponding to the major disciplines or another meaningful rubric, such as social indicators. Throughout this study, a number of cases have revealed how the agency's programs implemented the general commitment to the unity of the sciences, the underlying imperative to make the social sciences more rigorous, and the oft-repeated aim that these sciences would follow in the footsteps of the natural sciences. These cases include the development of convergent research programs during the early to mid-1950s; the process by which political science gained inclusion during the 1960s, as well as the agency's support, from the mid-1960s through the mid-1970s, for social science curriculum building through MACOS; the development, during the 1970s and continuing into the 1980s, of programs for social indicators and for big social science, including large quantitative databases, the National Election Studies, social survey research, and econometrics; and the conditions that gave economics a relatively privileged standing and stronger funding compared to the other well-established social science disciplines.

The scientific strategy also acquired importance because it was closely associated with the social sciences' second-class status. Abundant evidence for their lowly status includes the fact that from the early 1950s to late 1980s,

they received only about 2.9 percent of total NSF research support—about \$580 million out of nearly \$20 billion.<sup>3</sup> In terms of their organizational standing, the social sciences first got a toehold in the convergent research programs under the auspices of the agency's natural science divisions. A major advance came in the early 1960s with the creation of a separate social science division. But, then, as part of the mid-1970s' agency-wide reorganization, the social and behavioral sciences were split into separate units, and both were placed in a new directorate that was always led by a biologist and in which the biological sciences enjoyed higher status and greater funding. Meanwhile, natural scientists and, in the later years, engineers had a dominant presence in the top leadership positions. Of the nine men appointed NSF director by seven different presidents, only one could be considered a social scientist. Furthermore, this was Richard Atkinson, a mathematical psychologist whose scholarly interests concerned psychology at the level of the individual, rather than any type of social analysis, and whose intellectual outlook and professional trajectory made him comfortable in an environment where the natural sciences led the way. At most points, the social sciences also had only one or two representatives on the agency's twenty-four-member governing board.

During the postwar NSF debate, Vannevar Bush had suggested that a future "partnership" between the social sciences and the natural sciences could be used as a basis for inclusion. But neither he nor the agency's leaders from the 1950s to the 1980s ever tried to make this a partnership of equals.

To be sure, a belief that the social sciences were part of a unified scientific enterprise did not necessarily imply second-class status. Indeed, one could argue the opposite. And the reasons why the social sciences were subordinate to the natural sciences rested not only on the question of scientific identity but also on a widespread belief that compared to, say, political science or sociology, physics, chemistry, biology, and engineering had much greater practical importance. Still, at the natural science-oriented agency, doubts about whether the social sciences were really scientific gave rise to a seemingly unending struggle to demonstrate that at least some types of social research were really scientific. The scientific strategy thus reflected and contributed to the subordinate status of the social sciences. As Alpert's successor Henry Riecken put it, "essentially" the social sciences embraced "a strategy of protective coloration, of allying one's cause with stronger others, a strategy that has been used by countless minorities and other underdogs to secure a share of power and position."<sup>4</sup>

## THE FEDERAL SCIENCE ESTABLISHMENT

The story of NSF social science cannot be understood without seeing the agency as an important part of a much larger and dynamic federal science establishment. The social sciences' low status reflected the fact that in the immediate postwar years and throughout the Cold War era, they had much lower status and considerably less influence than the natural sciences, especially the physical sciences, in the rest of the federal science establishment (i.e., in the massive science programs in the Defense Department, in the prestigious and influential National Academy of Sciences, and in the top echelon of national science policy advisers, including the President's Science Advisory Committee). However, as the NSF grew in size and importance, it emerged as a crucial site for thinking about the nature of the social sciences, the path to progress, and the ways in which the federal science establishment could contribute to that progress. Here, the agency's scientific strategy came to exert a powerful influence in its own right.

As a civilian science agency dedicated to first-class research and as a major node within the federal government for scientific boundary work, the NSF exercised its influence as an unwavering and vigorous advocate of scientism through a range of channels. These included regular announcements about its social science programs and funding criteria, more detailed discussions in publications by program leaders, and coverage of the social sciences in annual reports. In annual appropriations hearings and other congressional hearings concerning the social sciences and government programs, NSF leaders explained and defended its social science policies and activities. The agency also commissioned studies from the NAS, which resulted in a series of published reports, including the 1976 Simon Report. When it came to promoting the social sciences as junior partners in a unified scientific enterprise and dismissing any significant alternatives to the scientific strategy, the NAS was a consistent and strong ally.

Within the federal science establishment, the NSF also became an important site for working out the social relevance of the social sciences. In its early days, the agency's basic science mission plus the pressure to keep its social science efforts far from social problem solving and public policy matters suggested that the best way of understanding the relevance of NSF-funded research involved its long-term payoffs: presumably, hard-core social research would yield advances in knowledge, some of which would have practical applications, while others would at least contribute to the general

process of enlightenment in society. The events of the 1960s, however, placed increasing pressure on the agency to pursue relevant research, culminating in the passage of the Daddario amendment. This new context stimulated extensive efforts to link social science to social action in a more deliberate fashion. With this aim in mind, the NSF created a new program called RANN—Research Applied to National Needs—that provided funds for scientific studies, often interdisciplinary, designed to address specific issues and serve identifiable user communities.

Yet, within a short time, a number of developments, including widespread criticism of social science–informed social programs associated with the 1960s’ Great Society, produced considerable disillusionment. RANN also inspired anxiety among defenders of the agency’s original and still dominant commitment to basic research. Moreover, the agency itself pulled back from the high hopes associated with applied social science and the social engineering viewpoint in particular. In the 1970s, NSF publications incorporated criticisms of such work put forth by a growing chorus of scholars, including Carol Weiss and others from an emerging field called the sociology of knowledge utilization. Subsequently, with the help of the 1976 Simon Report, which roundly criticized RANN, the agency reasserted its commitment to basic social science and disavowed any commitment to support social research directly concerned with social problem solving and social action.

As revealed by the difficulties associated with Proxmire’s Golden Fleece Awards and then by the new politics of science during the Reagan era, making the case that the NSF wasn’t wasting taxpayer money on esoteric research projects remained a pressing issue as well. Indeed, the problem of establishing relevance hardly subsided, as seen in the efforts by the NSF and its supporters to show that agency-funded social research had great importance for understanding and addressing urgent national priorities, such as economic revitalization. Furthermore, it wasn’t only economists who argued vociferously for their relevance in this way. So, too, did a broader range of scholars from the social and psychological sciences, including a number who were closely associated with the NSF. Equally significant, however, defenders of the NSF insisted that funding for basic research in particular had great value, because it provided scientific knowledge of a nonpartisan, value-neutral, and objective sort that could serve as the basis for effective public policy making, especially in light of supply-side economics or some

other policy-relevant doctrine whose validity had not yet been examined in a rigorously scientific manner. Shortly after the Reagan years, David Featherman, a sociologist and the SSRC president, contributed to the ongoing discussion by suggesting it would be useful to think about “mission-oriented basic research.”<sup>5</sup>

#### AMERICAN POLITICAL CULTURE AND PARTISAN POLITICS

The previous chapters have also highlighted the significance of the NSF as a frequent focal point for discussions in America political culture about the nature and meaning of the social sciences. We have paid special attention to congressional deliberations and controversy, which occurred with regularity as part of the annual budget-making cycle. Because of the NSF’s status as an Executive Branch agency, presidential administrations also weighed in at certain moments, and sometimes with major consequences, as seen, for instance, in the case of the early Reagan administration’s efforts to slash social science funding. Furthermore, whereas the intensity of political and academic discussions about other social science patrons waxed and waned considerably over time (i.e., the 1960s’ debate over military patronage reached a highpoint in the mid-to-late 1960s but diminished dramatically shortly thereafter), discussion of the NSF was more or less constant.

Furthermore, this part of the story was strongly marked by partisan differences, with the most consistent and strongest support for the social sciences and federal funding coming from liberal quarters, while conservatives were much more likely to raise doubts and propose cutbacks. This dynamic surfaced right at the beginning, in the postwar NSF debate, when the effort to include the social sciences was associated with the liberal policy agenda of President Truman and Senator Kilgore, while a series of conservative legislators raised sharp doubts about their scientific credentials and charged them with being political and ideological in character. The general pattern of partisan support and criticism reappeared once the agency was up and running. Thus, more favorable conditions prevailed during the liberal 1960s, which encouraged expansion and deepening of NSF social science, giving rise to important legislative initiatives from Representative Daddario and Senator Harris that aimed to strengthen federal funding, and resulted in passage of the Daddario amendment (although Harris’s proposal for a new social science agency failed). By contrast, during the increasingly conservative 1970s and 1980s, American political culture supported mounting



criticisms and efforts to slash social science funding, as seen in the stories of MACOS and the crisis of the early Reagan years.

#### THE SOCIAL SCIENCES

All of the developments discussed above contributed to the broader story of the social sciences in recent American history. They shaped the intertwined stories of social science patronage, the place of the social sciences in the federal science establishment, and their status in American political culture.

The NSF also encouraged the development of the social sciences along lines that meshed well with its scientific strategy. With the help of a multilayered evaluation process and heavy reliance on peer review of proposals submitted by the scholarly community, the agency sought to fund first-rate research that had a rigorous scientific basis according to NSF funding criteria. Successful applicants were thus rewarded with valuable funding and a stamp of high scientific status that such funding conferred.

At the level of individual programs and specific research projects, peer reviewers and NSF staff surely had some wiggle room for deciding how various scientific criteria should be applied. Nevertheless, I have found no evidence suggesting that established funding criteria were regularly ignored. Meanwhile, abundant evidence, gathered from many programs, specific lines of research, individual projects, and various initiatives considered throughout this study, shows that there was, in fact, a close concordance between the rhetoric of scientific rigor and agency practices that encouraged scholarship along certain lines but not others. Furthermore, we have encountered many cases where individuals with firsthand knowledge observed that the agency really did stick to its guns by supporting what Harry Alpert had initially identified as hard-core research.

The NSF also became an object of widespread concern and organized activity in the social science community. Going back to the agency's legislative origins, we found that leading social scientists working with the SSRC were at the forefront of developing the case for inclusion. Yet as the debate progressed, the weak condition of organized social science at the level of national science policy affairs also became painfully evident. Two decades later, during the mid-to-late 1960s, major representatives from the social science community had the chance to testify at congressional hearings for the legislative initiatives put forth by Representative Daddario and Senator Harris. But, even under the more favorable climate of those years, the social

sciences did not have a strong organized presence in the national science policy arena.

During the early 1980s, however, the crisis sparked by the Reagan administration's proposed cuts galvanized the social science community into action, resulting in the transformation and dramatic expansion of the Consortium of Social Science Associations.<sup>6</sup> COSSA first demonstrated its value by helping to defeat the legislative measure to scale back NSF social science funding put forth by Republican Representative Winn in the name of loyalty to the administration's plans. Thereafter, COSSA distinguished itself through lobbying, public relations, and educational efforts carried out on behalf of the social science community, especially at the levels of national politics and federal science policy. The consortium's importance also became unmistakable when, starting in 1984, Roberta Miller moved from her position as its executive director to become head of the NSF Social and Economic Sciences Division.

Last but not least, the NSF had considerable importance for the social sciences because the agency itself had become a public patron of major significance. The bare numbers are revealing. In 1989, the final year of the Reagan presidency, the overall NSF budget passed the \$2 billion mark for the first time. That year the agency received more than 37,000 proposals, and the number of awards it made exceeded 16,000.

#### CRITICISMS

The final point in this recap concerns the views presented by figures who took a deep interest in the social sciences and generally supported increased funding for them but found the agency's efforts to do so woefully inadequate. One main group of criticisms focused on the scientific strategy. As early as the postwar science debate, the sociologist Louis Wirth had warned that it would be a grave mistake to include the social sciences in a framework that presented them as immature versions of the natural sciences and would thus encourage the former to ape the later. Subsequently, those familiar with the agency's development, such as the political scientist James Robinson—who served in the 1960s on the first political science advisory committee—noted that it was not by accident but design that the agency ruled out various types of social research that in the view of many scholars had substantial value and deserved support. Such research included historical studies; investigations grounded in qualitative data and descrip-

tive analysis; research that engaged directly with normative questions about the individual, the social order, politics, and so on; and scholarship with an explicitly critical dimension. In addition, by the 1970s and 1980s partisan think tanks and policy institutes on the left and right presented alternatives to the viewpoint that said social inquiry should be objective, value neutral, and nonpartisan. Gaining steam in those same decades, research associated with “interpretive” social science and some perspectives inspired by Thomas Kuhn’s work presented important challenges to the scientific outlook.

Another set of criticisms focused on the agency’s institutional environment, where the social sciences were second-class citizens and depended on the good graces of natural science leaders for support and respect. As the sociologist Kingsley Davis observed at one point, natural scientists, including physical scientists, “inevitably have a ‘layman’s view’ of the social sciences.” Furthermore, physical scientists were often “quite unconsciously . . . patronizing toward their poor relations in the social sciences.”<sup>7</sup> Limited understanding among natural science leaders, including many directors and board members, was an ongoing problem and forced social scientists to engage in what Henry Riecken called an “endless need for justification.” These conditions also led to the suggestion, put forth in the mid-1980s by the sociologists Samuel Klausner and Victor Lidz, that increased federal funding for the social sciences since World War II had been a “mixed blessing,” as these sciences had suffered from “fiduciary over-lordship” by the natural sciences.

In short, the NSF deserves our attention because, in the many ways noted above, it became a central patron in the evolution of the politics–patronage–social science nexus from the postwar NSF debate through the end of the Reagan era. It’s now time to see how our understanding of that period provides a foundation for examining more recent developments, enabling us to appreciate how continuities and changes leading to the present day have ensured that the NSF has remained both important and controversial.

#### RHYMING PATTERNS

If Rip Van Winkle fell asleep in the late 1980s until the mid-2010s, what would he conclude about NSF social science during the intervening quarter century or so? Although a full examination of the post-Reagan era lies beyond the scope of this book, I suggest that Van Winkle would have little

reason to be surprised.<sup>8</sup> During his long snooze, two milestones marked notable changes in the organizational standing and representation of the social sciences at the agency. At the same time, both milestones had clear precedents. Moreover, in many other basic respects, little had changed.

The first milestone was the establishment of the NSF Directorate for Social, Behavioral, and Economic Sciences in 1992. After the mid-1970s' reorganization created the Directorate for Biological, Behavioral, and Social Sciences, grumblings about the subordinate position of the social sciences arose. But for the next decade and a half, such complaints had little effect. However, in March 1989, Herbert Simon proposed, during congressional testimony, that the time had come to give the social and behavioral sciences their own directorate. One year later, an NSF advisory committee observed that the agency continued to treat "these disciplines with 'benign neglect' based on a lack of knowledge."<sup>9</sup>

In June 1991, "Looking to the 21st Century," a draft report from the Biological, Behavioral, and Social Sciences Task Force, provided additional impetus for change:

Although the current leadership of the BBS directorate has worked very hard to include the SEPS [social, economic, and political sciences] in the reports and funding priorities for the directorate, funding remains at pre-1980 levels in most of these disciplines (even in actual dollar terms) and they are often not included in major Foundation programs and initiatives ... SEPS ... need representation at the highest levels of decision-making in the Foundation through an Assistant Director, [which would enable them to] participate in decisions on NSF resources allocation as equal partners with colleagues in the biological, geological, and physical sciences and engineering.<sup>10</sup>

Since 1980, overall NSF science funding, when measured in constant dollars, had increased by 27 percent. Meanwhile, funding for the psychological and social sciences had fallen 38 percent.<sup>11</sup>

The big news arrived in October 1991, when NSF director Walter E. Massey—a physicist who had taken up this position in March—announced the creation of a new Directorate for Social, Behavioral, and Economic Sciences (SBE). Soon thereafter, the University of Wisconsin sociologist Cora Marrett became the first SBE leader. Marrett had completed her PhD in sociology at the University of Wisconsin in 1968, before holding academic appointments at the University of North Carolina—Chapel Hill and West-

ern Michigan University, and then returning to Wisconsin in 1974 as a faculty member. Marrett's qualifications also included her experience as chair of the NSF Committee on Equal Opportunities in Science, Engineering, and Technology; her membership on the Board of Trustees at the Center for Advanced Study in the Behavioral Sciences; and her expertise in energy policy. In addition, Director Massey knew Marrett from a few previous occasions. Among other things, they had both been members of a presidential commission studying the partial nuclear reactor meltdown at Three Mile Island in 1979.<sup>12</sup> Marrett's tenure as SBE leader lasted four years, until 1996.

The other milestone occurred nearly two decades later, when Marrett became the first sociologist to lead the agency. After finishing her position as SBE leader in 1996, she had returned to academia, first as provost and professor of Afro-American studies at the University of Massachusetts–Amherst, and then back to the Midwest as the University of Wisconsin system's senior vice-president for academic affairs. In 2007, she returned to the NSF, this time as assistant director and leader of its Education and Human Resources Directorate. Three years later, she moved into the agency's top position as acting director for five months, from June to October 2010. When the agency had a new permanent director, Marrett stayed on as deputy director. A couple years later, she became acting director once again, this time for a year, from March 2013 to March 2014. After that, she left the agency for good, retired, and moved back to Wisconsin.

The fact that a sociologist rose to the position of acting director twice gave the social sciences some additional status and visibility at the agency, as did the presence of the SBE directorate. These developments also had precedents. Recall that from 1961 to 1975, the social sciences had their own division, on an organizational par (although certainly not a financial par) with the physical science and biological science divisions. And in the second half of the 1970s, the psychologist Richard Atkinson was NSF director. Remember also that during the Atkinson years, the social sciences had not fared well, which contributed to mounting discontent inside and outside the agency. So, placing a social or behavioral scientist at the helm of an agency still focused predominantly on the natural sciences did not necessarily translate into broader benefits. In addition, in the case of Marrett, I have not seen any evidence that suggests her expertise as a sociologist per se was a significant factor in her two appointments as acting director. Nor does it seem that during those two appointments she reshaped and/or strengthened



Figure 10.1

NSF acting director Cora Marrett, speaking at a COSSA meeting about the agency's social and behavioral sciences programs. November 12, 2013. Photo by Chris Flynn. Courtesy of COSSA.

the agency's social science activities in any notable respects. The fact that she never became permanent director is also telling.

Furthermore, if we take the period from 1990 to 2019 as a whole, it is clear that the social sciences remained marginal in NSF leadership positions. During these years, the directorship lay in the hands of a social scientist only during Marrett's two temporary terms, which together account for merely 1.5 of the total 30 years. The full list of directors shows that physics, engineering, and biology enjoyed much stronger representation: from nuclear chemistry and physics, Frederick M. Bernthal (acting director, September 1990–March 1991 and April 1993–October 1993); from physics, Walter E. Massey (March 1991–April 1993); from physics, Neal F. Lane (October 1993–August 1998); from microbiology, Rita R. Colwell (August 1998–February 2004); from engineering, Arden L. Bement Jr. (acting director, February 2004–November 2004, and permanent director, November 2004–May 2010); from sociology, Cora B. Marrett (June 2010–October 2010 and March 2013–March 2014);

from engineering, Subra Suresh (October 2010–March 2013); and from astrophysics, France A. Cordova (March 2014–).

As for the governing board, recent data confirm that the social and behavioral sciences have remained marginal here as well, while the physical and engineering sciences continued to enjoy a much stronger presence. As of April 2018, the board's chairman, Maria Zuber, was a geophysicist, while the vice-chairman, Diane Souvain, was a computer scientist. The twenty-four board members included ten from the mathematical and physical sciences broadly speaking (i.e., astronomy, physics, chemistry, atmospheric science, computer science), seven from the engineering sciences (i.e., chemical, electrical, and mechanical engineering), three from the biological sciences, and one with a specialty in mathematics education. The remaining three included a social psychologist, James Jackson; a social statistician from sociology, Robert Groves; and Emilio Moran, whose work in the human environmental sciences bridged the natural and social sciences. Thus, the NSB—as of April 2018—had nobody from economics, political science, or anthropology.<sup>13</sup>

In the past couple decades, questions about the nature of the social sciences, their relationship to the natural sciences, and their connections to the humanities have also remained contentious ones for the NSF. For good reasons, scholars continued to wonder about the agency's power to shape the directions of social science research, to elevate certain types of scholarship above others, and to use the power of the purse and its influential position within the federal science system to promote a particular vision of social science inquiry based on a presumed unity of the sciences.

One might suppose that after 1992, when the SBE directorate was created, social scientists would have finally had the freedom to be themselves. Perhaps with their own directorate, they would no longer need to worry much about what natural scientists thought of them or what other people who viewed the agency primarily in terms of its natural science activities thought. Writing shortly after the SBE's establishment, the psychologist David Johnson suggested that after residing for the past seventeen years “as tenants in someone else's house,” social scientists might be “free to hang our own pictures, paint the walls the colors of our choosing, and make this house our home.” However, realizing such aspirations would be hard, as Johnson also emphasized: “The house might be new, but it is located in an old, established neighborhood whose ways we would do well to recall and



reexamine in light of our aspirations for this new house. Changing some of the neighborhood's old ways may be essential for the realization of those aspirations."<sup>14</sup>

Persistent consternation over this matter surfaced in a controversy in the early 2000s about limited NSF support for qualitative social research. In 2003, following criticisms of the sociology program by advocates of qualitative inquiry, this program sponsored a conference with thirty-two scholarly participants, which culminated in a 2004 report called *Workshop on Scientific Foundation of Qualitative Research*. Subsequently, the NSF sponsored a second workshop about funding for qualitative inquiry across a broader range of the social sciences. This workshop had twenty-nine scholarly participants and resulted in a 2009 report called *Workshop on Interdisciplinary Standards for Systematic Qualitative Research*.<sup>15</sup>

In a critical commentary, the sociologist Howard Becker took this second report to task for embracing scientific rigor inappropriately. As he presented it, the report's message to scholars was basically this: "Quit whining and learn to do real science by stating theoretically derived, testable hypotheses, with methods of data gathering and analysis specified before entering the field. Then you'll get NSF grants like the real scientists do."<sup>16</sup>

More recently, an accomplished Ivy League sociologist told me that incorporation into the NSF was "one of the worst things" that had happened to his discipline since the middle of the twentieth century. When I asked him why he was so critical, his answer was straightforward: the agency had strongly encouraged sociologists to pursue a model of scientific investigation that he believed was rather narrow and, in fact, downright unhealthy.<sup>17</sup>

Meanwhile, the main challenges facing the social sciences in the federal science policy arena had changed little since the early Reagan years. In 2014, COSSA's executive director, Wendy Naus, characterized the predicament as a continuous struggle: "having to justify how or why federally funded social and behavioral science research is in our 'national interest,' fending off attacks on individual grants simply because their titles lure additional scrutiny, or beating back attempts to pit fields of research against one another, especially in times of scarce resources."<sup>18</sup>

Funding levels also remained paltry, at least compared to natural science funding. As of 2017, the budget for the NSF social science division was impressive in the sense that it "amounted to 55 percent of all such federal funding." That budget was also impressive in a different and unflattering



sense, however, as it amounted to “less than 4 percent of the agency’s total research budget.”<sup>19</sup>

The challenges mentioned by Naus still had a strongly partisan character as well, with the great bulk of disapproval expressed by conservative Republicans—the Democratic Senator William Proxmire’s highly publicized attacks on certain NSF grants back in the mid-to-late 1970s stands out as the main exception. In 1995, Republican Representative Robert Walker, at the time chairman of the House Science Committee, commended the NSF’s dedication to basic science and recommended growth in this area. But he excluded the social sciences. In fact, just three years after the creation of the SBE directorate, Walker proposed eliminating social science funding wholesale, which amounted to \$110 million at the time:

In large part, we think that’s an area where the National Science Foundation has largely wandered into [and] that was kind of a politically correct decision in recent years. And that is a place where the science budgets can be rescoped. We think that the concentration ought to be in those areas of the physical sciences.<sup>20</sup>

A decade later, Senate Republicans attacked again. Kay B. Hutchison from Texas introduced a bill—S. 2802, The American Innovation and Competitiveness Act—that would have ended NSF funding for social and behavioral sciences.<sup>21</sup>

In 2009, Oklahoma Republican Senator Tom A. Coburn returned to the cause, with an amendment to an appropriations bill that, as was noted in this book’s introduction, would have terminated NSF funding for political science. Coburn’s press secretary, Don Tatro, explained the rationale: “Federal research dollars should go to scientists who work on finding solutions for people with severe disabilities, or the next generation of biofuels, or engineering breakthroughs.” Coburn himself added that the federal government should not be spending taxpayer dollars on political science research, such as the NSF-funded National Election Studies, still being carried out under the auspices of the University of Michigan. Although he recognized that such work might involve “interesting theories about recent elections,” he added that “Americans who have an interest in electoral politics” already had good sources of information. They could “turn to CNN, Fox News, MSNBC, the print media, and a seemingly endless number of political commentators on the Internet.”<sup>22</sup>

Coburn also questioned NSF social science funding more broadly. During the previous decade, the agency had provided \$91.3 million. The full amount, suggested the Oklahoma Republican, would have been better spent on real sciences such as biology and chemistry.<sup>23</sup>

Of course, not all voices on the right took such a dismissive view. To note just one interesting example, in 2011, the best-selling author and *New York Times* journalist David Brooks, a moderate conservative whose writings often referred to social science studies, opposed a congressional bill that called for closing the SBE directorate. “This is exactly how budgets should not be balanced—by cutting cheap things that produce enormous future benefits,” wrote Brooks. Furthermore, he suggested that the current generation was living in “the middle of a golden age of behavioral research.” The nation would be wise to “design policies around that knowledge.” Eliminating the directorate for the purpose of cost saving would thus be a colossal mistake, “like cutting off navigation financing just as Christopher Columbus hit the shoreline of the New World.”<sup>24</sup>

Still, Brooks’s message had little if any impact in conservative circles. Republican proposals to curb social science funding in the name of prudent fiscal management persisted.

Nevertheless, within the contexts of the nation’s science funding system and the federal science establishment, a good case can be made that the NSF’s special importance vis-à-vis the social sciences has remained intact. As of 2007, the SBE directorate provided “61 percent of federal support for basic research in anthropology, social psychology, and the social sciences at U.S. academic institutions.” For a number of fields, “including archaeology, political science, linguistics, and non-medical aspects of anthropology, psychology, and sociology,” the directorate was “the predominant or exclusive source of federal basic research support.”<sup>25</sup> A decade later, in 2017, when the NSF provided 24 percent of all federal support for basic research in the sciences at the nation’s universities and colleges, the directorate provided 55 percent of all federal funding for such research in the social sciences.<sup>26</sup>

NSF support remained important in many specific areas of investigation as well. These include long-term, large-scale studies that continued to enjoy high regard. For example, the agency consistently supported the National Election Studies, which, according to the journalist Dylan Matthews, stood out as “the single best source of survey data on American voters’ opinions, going back as far as 1948.” The agency also provided ongoing funding for

the Panel Study on Income Dynamics, the “single best data source on economic mobility, among the most hotly contested topics of political debate at the time.”<sup>27</sup> The economics program retained its special significance as well, as “the only program in the federal government with a broad mandate to strengthen basic economic science.” As of November 2018, the agency provided more than half of all federal support for such work.<sup>28</sup>

Moreover, the agency has remained valuable as a balance wheel. As COSSA has put it, NSF funding for “basic scientific discovery, workforce training, and state-of-the-art facilities” is crucial in helping to keep “the U.S. ahead of its global competitors.” Its unique value reflects the fact that it continues to be “the only U.S. federal agency tasked with supporting scientific research across all fields of science.”<sup>29</sup>

Against this background, COSSA has continued to cultivate bipartisan support for the social sciences and NSF funding among a wide range of stakeholders. According to Wendy Naus, these include the NSF, the NAS, and other nodes in the federal science system; elected officials and staff in the Executive and Legislative Branches; the American Association for the Advancement of Science, the Association of Public and Land-Grant Universities, and other “national associations and societies representing broad fields of science, higher education associations, university presidents, [and] corporate heads.” “Advocating for social science” has thus become “a team sport.”<sup>30</sup>

The charge that social science research is esoteric and has little practical value has received regular attention. Following the 2016 national elections, COSSA prepared a report for the new Trump administration whose basic message was suggested in the title: *Social and Behavioral Science Research: Essential to Keeping America Competitive, Prosperous and Safe*. According to this report,

Federally-supported scientific research—including social and behavioral science research—provides an evidence base that the President and Executive Branch agencies can use to produce science-backed strategies for addressing issues of national importance, such as crime prevention, health care for the underserved, the safety of our troops, early childhood education, and improved efficiency of American businesses, to name a few.<sup>31</sup>

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Very recently, events closely associated with the nation’s newest Republican president have given traction to the notion that we are now living in a “post-truth” era. I believe that these peculiar conditions should prompt

us to think carefully about what the NSF has done well vis-à-vis the social sciences and where it has come up short. Here is a second area where the insights from previous chapters can be fruitfully extended.

#### ASSESSMENT AND PROPOSAL

“Do you know where the truth is?” This question, raised by Sheila Jasanoff, a professor of science and technology studies at Harvard’s Kennedy School of Government, is just as relevant today as it was when her article first appeared in the summer of 2017. As Jasanoff notes,

Hardly a day passes without some major accusation in the media that the nation’s highest office has become a source of unfounded stories, claims without evidence, even outright lies. As the charges . . . pile up, the White House counters that institutions long seen as standing above partisan wrangling can no longer be trusted. . . . Even scientific consensus can be dismissed as politics by other means.

In an age when the president’s spokeswoman Kellyanne Conway suggested the value of considering “alternative facts,” it’s clear that the claim that a certain type of human endeavor—science—has succeeded reasonably well in finding out the truth and judging various truth claims needs an urgent and robust defense.<sup>32</sup>

The challenge, Jasanoff explains, is to find a way of addressing this “retreat from reason,” in order to “restore confidence that ‘facts’ and ‘truth’ can be reclaimed in the public sphere.” This will not be easy, however, for “truth in the public domain is not simply out there, ready to be pulled into service like the magician’s rabbit from a hat.” What is needed is not a defense that simply asserts “science knows best” but a defense that focuses on convincing the public that “science itself has been subjected to norms of good government.”<sup>33</sup>

Not only are these reflections timely and compelling. In addition, I believe that Jasanoff’s analysis can help us to appreciate anew the NSF’s longstanding importance in promoting good governance of science and public trust in ways that have purposefully included the social sciences.

In the post–World War II and early Cold War years, American natural science and social science leaders, from the electrical engineer Vannevar Bush to the economist Wesley Mitchell, feared that dramatic expansion in federal funding would lead to the corruption of scientific inquiry. At the time, the infamous examples of Soviet genetics and Nazi racial science revealed just

how much damage could be done by the politicization of science. But the problems were not confined to that moment in time. Nor were they limited to foreign contexts. Of special relevance to the present study, American science has also faced repeated threats to its integrity due to the power of various patrons in the public and private sectors (i.e., the military, the CIA, the corporation, the partisan think tank, and the policy institute). Such threats challenged public confidence in science as a source of nonbiased and reliable expert knowledge about a broad array of essential matters: medicine, nutrition, national security, public safety, crime, immigration, racism, sexuality, gender roles, environmental degradation, climate change, and many others.

Over the course of nearly seven decades, the NSF has established an impressive (although certainly not perfect) record when it comes to managing threats to scientific integrity posed by federal funding. Right from the outset, the legislative proposals for the NSF and then the young agency itself focused on establishing institutional arrangements, practices, and norms to ensure that “good science” got funded. Among other things, this meant that the agency provided public funding within a framework that limited the influence of political, ideological, and social pressures on the course and conduct of scientific inquiry, leaving scientists themselves largely responsible for such matters. The agency also placed great emphasis on methodological rigor, often accompanied by quantification, which, as the historian of science Theodore Porter observes, has been “part of the drive to make a science of society that can hold its head up in the company of physics, chemistry, and engineering.”<sup>34</sup>

Many social scientists have been greatly appreciative of this point. This makes perfect sense because warding off the danger that patron interests might bend research in worrisome ways has been central to the ongoing project of establishing the scientific legitimacy and public value of the social sciences. Moreover, containing this danger became an ongoing challenge in the specific case of what the original 1950 NSF charter vaguely referred to as the “other sciences.” On a few occasions, conservative critics claimed to have found a disturbing left-wing bias in NSF-funded social research, as seen, for example, in the uproar over MACOS. Nevertheless, as the years passed, the agency’s system of peer review, its commitment to funding research of the highest quality, and its steadfast position that social science is part of a unified scientific enterprise largely succeeded in placing NSF-funded work above such criticism.

Indeed, it is striking that the long line of critics have, by and large, not claimed that NSF-funded social research is biased in a partisan direction. Over the decades, many Republicans along with many conservative scientists, scholars, and commentators have made this charge against the social sciences and various funding sources. Meanwhile, the worry that patrons associated with the national security state exert a nefarious conservative influence over social research has been particularly widespread among liberals and those with stronger leftist commitments. This can be seen, for example, in the controversy about the role of scholars and academic institutions in the War on Terror.<sup>35</sup> Still, critics of the NSF have more commonly suggested that NSF-sponsored social research does not warrant federal funding because it has little practical value and distracts the agency from focusing on more important work in the natural sciences.

In short, when it comes to addressing longstanding worries about the corruption of research due to the agendas of funding bodies, the NSF's approach has largely succeeded. A recent COSSA document puts it this way: "NSF, through its merit review process, allows the demands of scientific discovery to dictate how best to spend basic research dollars, leaving political and individual ideologies at the door." Moreover, "this process has been emulated the world over."<sup>36</sup> For these reasons, the agency's past and ongoing efforts to promote good science deserve public admiration and strong support within the national science policy arena. The view that the federal government and the NSF in particular have an important role to play in providing broad-based support for the social sciences, not just the natural sciences, has considerable merit. This is especially so for social research with a strong scholarly orientation that does not duplicate the work of mission-oriented agencies and that is distinct from the sort of ideologically driven work sponsored by private patrons with partisan agendas. Just as in the case of the physical sciences, life sciences, earth sciences, and medical sciences, providing healthy federal support for work that is not narrowly focused on practical payoffs or on matters of partisan conflict and ideological warfare has been, and still is, vital in maintaining a strong social science enterprise.

The present study has also made it clear, however, that NSF social science activities have had considerable limitations over the long term. Interestingly, some of these were hinted at by the psychologist and former NSF director Richard Atkinson in a 2006 essay, coauthored by William Blanpied,

a physicist, former NSF staff member, and historian of American science policy. Their essay presented the extensive involvement of social scientists in federal science policy making during the New Deal as a telling contrast to the very different situation that has prevailed since World War II. Atkinson and Blanpied wrote that although “the Bush report is justifiably regarded as the cornerstone of post-war U.S. science policy,” Bush “did not have a high regard for the social sciences.” Furthermore, “the bias against the social sciences on the part of the ‘hard’ sciences and engineering persisted for many years.” “Arguably,” the authors concluded, “the nation has continued to be ill served by its neglect of the social sciences.”<sup>37</sup>

Although Atkinson and Blanpied did not elaborate, the unhappy consequences of that neglect include, as we have seen, all of the following: relegating the social sciences to second-class status within the NSF, within the federal science establishment, and within the nation’s scientific enterprise most generally; giving preferential treatment to certain “hard-core” investigative approaches to social inquiry while minimizing support for other “softer” approaches that have their own particular value; reinforcing a hierarchy among the sciences that suggests scientific inquiry about nature is more valuable to national well-being and human welfare than scientific inquiry about human beings and society; and contributing to a science policy environment that has made it difficult to develop national policies and funding programs based on the plausible notion that at the levels of scientific ontology, scientific epistemology, scientific methodology, and social relevance, there are some crucial differences, at least in many cases, between research in the social sciences and research in the natural sciences.

I am not suggesting that the NSF should embrace an anything-goes approach. However, the early establishment and subsequent entrenchment of a scientific outlook, in principle and in practice, has been problematic because that made it very difficult to obtain support for various types of research, however important, simply because they did not seem to be “scientific” enough based on a narrow understanding of the term—even if the agency’s carefully delimited approach also helped to ward off charges of political or ideological bias. Ironically, the first NSF social science policy architect, Harry Alpert, understood that the broad field of inquiry known as social science had roots in humanistic scholarship, philosophical inquiry, and social criticism. Moreover, work along those lines deserved continued encouragement, respect, and nourishment.

Even though Alpert himself was unable to promote this broader understanding during his tenure at the NSF, he did propose—in a 1958 article aptly titled “The Knowledge We Need Most”—that the social sciences should be placed on an equal basis with the better-established natural sciences: “For the long run, steps must be initiated to develop among natural scientists and social scientists a sense of mutual respect and understanding and a community of interest.” Looking forward, Alpert wrote that “today’s invidious hierarchical distinctions among specialists of the various [social and natural science] disciplines must disappear.”<sup>38</sup>

But this did not happen in Alpert’s lifetime. Nor was there any noticeable decline in the power of those hierarchical distinctions at the NSF through the end of the Reagan era and beyond. Moreover, there is no good reason to believe that major reform in this direction is about to occur any time soon under current arrangements.

In light of this situation, it seems useful to think about possible alternatives. Across the ocean at the European Research Council, one finds three divisions, one for the physical sciences, another for the life sciences, and a third for the social sciences and humanities. The Canadian federal funding system has three major branches as well, although with a slightly different configuration: one for the natural sciences, another for the medical sciences, and a third for the social sciences and humanities—SSHRC, the Social Sciences and Humanities Research Council. It is important to recognize that other funding systems have different structures and offer different opportunities for working out the nature and meaning of the social sciences. Otherwise, it can easily seem like the established arrangement in the U.S. is the only feasible one. And it’s possible to develop alternative funding structures that place the social sciences in closer proximity to the humanities, rather than positioning the social sciences as a minor adjunct to the natural sciences and engineering.

With the above points in mind, I suggest that the idea of creating a national social science foundation deserves serious reconsideration. This possibility should interest a number of participants and stakeholders: the scientific community, including the federal science establishment; the social sciences especially, including the SSRC and COSSA; organizations and leaders in the humanities who can promote stronger ties with the social sciences; and of course politicians and staff in the White House and Congress who are responsible for making sure the federal science system is working well. To



revisit the idea for a new agency intelligently, however, we first need to understand that the character and fate of Senator Fred Harris's NSSF proposal in the late 1960s has been badly misunderstood. Historical commentaries over the past half-century have claimed that his proposal failed because it was redundant and thus basically did not offer anything beyond the changes in the successful proposal put forth by Senator Emilio Daddario. But, this is simply not the case, as we have seen.

Their two proposals differed in crucial respects, as those paying careful attention to the NSSF debate in the nation's political, scientific, and academic communities would have known at the time. In a 1967 *Science* article explaining the pro-NSSF case, Harris pointed out that the established NSF had failed the social sciences in many ways. Social scientists thus no longer needed "the cover of the natural-science umbrella."<sup>39</sup> Daddario proposed nothing like that, however. Thus, after the Daddario amendment became law, it made sense for someone well informed to point out, as the author Michael Reagan did in his 1969 book *Science and the Federal Patron*, that "the best argument" for a new social science agency was that, unlike at the existing NSF, "the full range of social science approaches and subdisciplines would be supported and given a chance to flower, without being held down by natural scientists' skewed pictures of what the social sciences are or can become."<sup>40</sup> What is more, the Daddario amendment never aimed to strengthen the independence, status, and influence of the social sciences within the federal science system to nearly the extent that Harris's mature NSSF proposal did.

Admittedly, in the present moment, it seems unlikely that a proposal for a separate social science agency could gain much traction. Under the current Trump administration, and with conservative Republicans still exercising considerable influence in Congress (even though the 2018 elections gave Democrats a majority in the House of Representatives), the political environment does not seem welcoming—and there are too many other more pressing items on the national agenda.

If history is a useful guide, it also seems unlikely that the NSF itself would support such a proposal. Remember that during the debate over Harris's proposal, the NSF used the occasion to strengthen its own efforts in this area while rejecting all of the more ambitious aspects of Harris's proposal as unworkable or unnecessary. Of course, that happened some time ago. Still, half a century later, any good argument for a new social science agency will

need to include criticism of the NSF. The chances that this well-established agency would support such a proposal thus seem slim. In addition, because of the NSF's special position within the federal science system, the agency's track record of engaging with the social sciences would probably receive strong support from other major nodes in this system, including the NAS.

Yet, however formidable such obstacles may appear, they should not be used as an excuse for resigned acceptance of the status quo. Any concerted effort to address the difficulties will depend heavily on Congress. As the biologist Anne Fausto-Sterling once observed, "The most commonplace influence our society exerts on scientific activity is the direct political authority by which Congress can determine what kinds of research and how much of it will be supported."<sup>41</sup>

Indeed, Congress has exercised great influence by establishing agencies with particular mandates and policies for promoting scientific activities in certain ways and not in others, by providing these agencies with budgetary appropriations to finance their activities, and by regularly reviewing their effectiveness. Of special relevance here, Congress debated and passed the legislation creating the NSF. And it has continued to support the agency's engagements with the social sciences, sometimes a bit more generously than at other times, but nearly always without challenging their marginal position and a raft of other related difficulties. Senator Harris's NSSF initiative stands out as the only serious exception.

Although this is not the place to provide more specific suggestions for crafting a new NSSF proposal, such an initiative would provide an excellent occasion for reassessing the position of the social sciences at the NSF and within the federal science establishment. This would include taking a deep look at the agency's special importance in shaping the social sciences and their influence within the broader society. Consideration of such a proposal should thus stimulate widespread discussion over a suite of fundamental questions: about the past, present, and future of the social sciences; about the changing landscape of public and private patronage for them; about their evolving relationships with the natural sciences and the humanities; about their contributions to the national interest and human welfare; and about their status and influence in American politics, science, and society.

Such a proposal and such a reassessment are long overdue. Efforts in this direction, informed by historical scholarship, should be encouraged.