

DEEP AND PERSISTENT DIFFICULTIES: COPING WITH THE
NEW POLITICS OF SCIENCE THROUGHOUT THE REAGAN ERA

[The Reagan administration exercised] great courage and wisdom ... in squashing the daylight out of NSF's social science programs.

—George A. Keyworth II, physicist and President Reagan's chief science advisor, 1984¹

We face a grave peril. We face the undoing of American social science.

—Otto Larsen, sociologist and NSF senior associate of the social and behavioral sciences, 1984²

According to a common view, the troubles facing the social sciences during the Reagan years were formidable at first, but they quickly dissipated. In his 1990 book on American science policy since World War II, Bruce L. R. Smith, from the Brookings Institution, stated without qualification that the “administration abandoned its opposition to the social sciences.”³ More recently, in a 2012 essay, historians of economics Tiago Mata and Tom Scheiding have claimed that in response to the administration's proposed cuts, social scientists “coalesced in a lobbying campaign that successfully reversed those plans.” Mata and Scheiding further argue that controversies over funding during the 1970s and early 1980s inspired the development of a “network of advocates” who managed to keep “the peering eye of the Congress at a distance” and thus “safeguarded the interests of the disciplines.”⁴

The basic idea here is that when social scientists and their supporters refuted the logic of the proposed cuts, organized effectively to defeat the Winn amendment, and strengthened their relations with politicians and natural scientists on a nonpartisan basis, the crisis of the early 1980s passed. However, here I offer a more complicated and less upbeat story. I agree that the social sciences managed to avoid the worst-case cuts in the early 1980s. I also agree that in subsequent years, they did not face such a severe threat

again. At the same time, we will see that at the NSF, the social sciences continued to face deep challenges as the Reagan years unfolded.

To begin with, the new politics of science—and the difficulties it posed—remained in place throughout the decade.⁵ After the journalist Paul Dickson's book on this topic appeared in 1984, subsequent studies confirmed that the core principles that he identified had staying power. In 1988, historian John A. Remington observed that the "reorientation" in national science policy promulgated by the Reagan administration saw science's value "almost exclusively" in relationship to a small number of specific issues, including "the national economy," "corporate competitiveness," and "military preparedness." Meanwhile, other ideas continued to be marginalized, included the notion that science should help the nation to address its "social and environmental problems in open and pluralistic ways" and the view that science was "a cultural institution with an integrity of its own." Similarly, in his aforementioned book, Bruce Smith observed that a "strong belief in basic research (at least in the so-called hard sciences), in more spending for defense R&D, and in steps to strengthen technology to improve the competitiveness of American industry were important parts of the administration's policy from the start."

Keeping in mind the power of conservative political culture and the new politics of science, this chapter examines what happened to NSF social science throughout the Reagan era—beyond the challenges posed by the 1981 budgetary threats and the short-term responses to them examined in the previous chapter. The first section considers three key issues that made the position of the social sciences perpetually problematic: federal funding trends and NSF funding trends in particular; the status, influence, and position of these sciences in the agency's organizational structure; and views expressed by prominent natural science leaders. The second section takes a closer look at the case of economics, which fared better than the other social sciences and for telling reasons during these years. The third and last section addresses a crucial question about the changing politics of knowledge and its impact at the NSF: should we conclude that there was a tight alignment between the agency's social science efforts and the conservative agenda of the Reagan administration, or should we conclude that the nature of this alignment was only partial and limited?

As we will see, the dark clouds never really dissipated during Reagan's presidency. Under these conditions, the relative success of economics had much

to do with the discipline's special relevance to the administration's economic and science policy agendas. Equally significant, however, the impact of conservative politics and ideology was limited, for the agency never became an advocate of social science inquiry with a conservative or partisan slant per se.

PERENNIAL WOES: MONEY, STATUS, RESPECT

Let's start by considering three components of the social sciences' predicament that have reappeared throughout this study. The first concerns financial challenges.

During the Reagan years, federal funding for research and development increased considerably. When measured in current dollars, the amounts rose spectacularly, from \$12.2 billion in 1981 to \$20.4 billion in 1989. When measured in constant 1982 dollars, the increase is considerably smaller but still impressive, from \$13.2 billion to \$15.9 billion.⁷

But the social and behavioral sciences did not participate in this upward trend. During Reagan's first term (1981–1985), federal support for basic and applied studies in the social sciences (not including work classified as the behavioral sciences) declined slightly in current dollars, from \$497.4 million to \$460 million, although the decline in constant 1982 dollars was much greater, from \$539.1 million to \$411.2 million. As a share of the total federal science budget, social science funding also dropped considerably, from 4.1 to 2.8 percent.⁸ The share of federal funding for the social and behavioral sciences (SBS) considered together was only marginally higher and fell in a similar fashion, from 4.5 to 3.1 percent. In terms of the federal budget for basic research only, the social and behavioral sciences' share fell from 4.9 to 3.6 percent.⁹

In 1984, F. Thomas Juster, an economist who directed the University of Michigan's Institute for Social Research, pointed out that the federal social science research budget seemed unhealthy. The level of funding was slightly less in current dollars than it had been in 1980, and it was "substantially less in real [constant dollar] terms." Juster thus found no reason to believe that the Republican administration's outlook had softened. He saw "no evidence" that it had "really backed off from the view that social science research is not very important."¹⁰

A mid-decade assessment prepared for Congress demonstrated, in addition, that when measured in constant dollars, social science funding had

declined considerably in the past twenty years. Not only was the level of federal support in the mid-1980s much lower than it had been in the late 1970s, but it was also lower than it had been back in the mid-1960s. In constant 1972 dollars, the figures were \$307.8 million for 1965, \$454.2 million for 1978, and \$295.5 million for 1986.¹¹

The case of the NSF reflected and contributed to this general pattern of decline. From 1980 to 1985, the agency's overall budget increased in current dollars from \$873 million to \$1,346 million. During these same years, SBS funding went from \$52.5 million in 1980 to \$52.1 million in 1985. But when measured in constant 1982 dollars, SBS funding fell drastically, from \$63.6 million in 1980 to \$46.6 million in 1985. Furthermore, the share of total NSF funding for these sciences fell drastically, from 6 to 3.9 percent.¹²

Under these conditions, William Mishler, from the political science program, remarked that a sharp and recent decline in applications to this program reflected a widespread belief that NSF meant Non-Sufficient Funds.¹³ Early in the decade, the social psychology program also experienced a "dramatic drop" in applications.¹⁴

Consider as well the new federal program for Presidential Young Investigator Awards, which each year gave 200 scholars up to \$100,000. In 1983, the NSF became responsible for administering this program. The following year, the new NSF director Erich Bloch, an engineer, explained that through this program, the agency sought to identify "the brightest young faculty, chosen solely for their research promise," with the goal of supporting and retaining them on the nation's university faculties.¹⁵ One might wonder: what place did the social and behavioral sciences have in this handsomely financed, high-profile effort to advance the careers of outstanding young scientists?

The simple answer is none. Social research had already been excluded from the Economic Recovery Tax Act of 1981. Based on that legislation, corporations were eligible for a 25 percent tax credit for expenditures on scientific research.¹⁶ Now, the social sciences were also excluded from the presidential young investigators program, reported the *Chronicle of Higher Education*.¹⁷ Moreover, Director Bloch seemed supportive of this arrangement: he explained that "the emphasis" was on "engineering and the physical sciences, where shortages" were considered the "greatest."¹⁸

During Reagan's second term in the White House, funding challenges persisted. A 1987 congressional report observed that the administration continued to propose cuts in social research programs dealing with social

policy and social services considered to be in conflict with conservative goals. Specific targets included numerous government agencies: the Health Care Financing Administration, Federal Trade Commission, Office of Research Statistics and International Policy in the Social Security Administration, Statistics Income Division of the IRS, Centers for Disease Control, National Institutes of Health, Office of Policy Development and Research in the Department of Housing and Urban Development, Employment and Training Administration in the Labor Department, Bureau of Industrial Economics, Civil Aeronautics Board, Interstate Commerce Commission, Immigration and Naturalization Service, Office of Planning and Evaluation in Health and Human Services, and the Justice Department.¹⁹ According to the economist Robert Haveman, the administration's cuts in social spending and its "antagonism to social science research in particular" had led to "large reductions in the budgets, staff, and morale in policy and evaluation research offices throughout government."²⁰

The following year, a National Academy of Sciences (NAS) report added that from 1972 to 1987, federal support for SBS research declined 25 percent in constant dollars. Meanwhile, federal support for other scientific areas increased 36 percent.²¹

Once again, we find a similar pattern at the NSF. After rising impressively during Reagan's first term, the agency's overall budget continued on a sharp upward trajectory. Measured in current dollars, it went from \$1,346 million in 1985 to \$1,827 million in 1989. Meanwhile, SBS funding rose from \$52.1 million to \$59.7 million. But this is not a story of steady recovery or even moderate improvement. Even after SBS funding reached its low point for the entire decade at \$32.6 million in 1982, these sciences experienced a couple budgetary dips in the following years, including one from \$52.1 million in 1985 to \$49.5 million in 1986.²² As part of a wider effort to comply with the 1986 Gramm-Rudman-Hollings balanced-budget law, the NSF sustained an overall budget cut from 1985 to 1986 as well. But that amount represented less than 1 percent of the overall budget, whereas the SBS budget fell 5 percent. Thus, from year to year these sciences could still not count on maintaining the previous year's funding level.²³ Furthermore, when measured in constant 1982 dollars, SBS funding only managed to remain nearly steady, going from \$46.6 million in 1985 to \$46.5 million in 1989.²⁴

Against this background, Ronald Overmann, a long-time director of the NSF history and philosophy of science program, noted that the challenges

involved in maintaining an adequate social science budget remained severe. The financial facts revealed that the “struggle” to increase that budget “beyond inflation” had become “increasingly difficult.” During the two Reagan administrations, the natural sciences once again enjoyed significant funding increases. Nevertheless, some of their leaders were fighting for what they apparently believed was “their ‘fair share’ of the pie,” at the expense of the social sciences.²⁵

Budgetary woes also stand out when considering the entire Reagan presidency. Measured in current dollars, federal funding for social science research rose from \$497.4 million in 1981 to \$561.2 million in 1989. But in constant 1982 dollars, the figures dropped from \$539.1 million to \$437 million, or almost 19 percent.²⁶ The percentage of total federal science funding allocated to the social sciences declined dramatically as well, from 4.1 to 2.7 percent.²⁷ As indicated in figure 8.1, the percentage of the total NSF research budget allocated to the social and behavioral sciences taken together also fell markedly. In 1980, they received 6 percent. But in 1981, during Reagan’s first year in the White House, their share fell to 4.6 percent. And by 1989, the end of his presidency, their share had sunk to 3.3 percent.²⁸

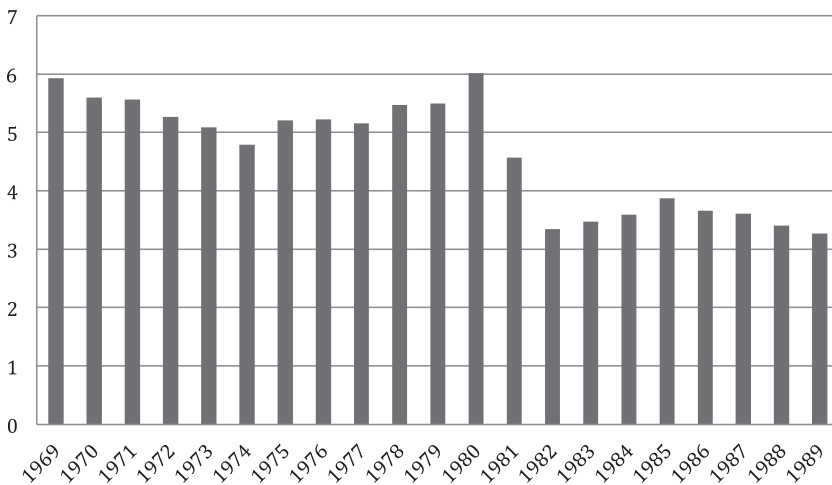


Figure 8.1
NSF social science research obligations as percentage of NSF total research obligations, 1969–1989. Data compiled from tables 5.2 and 6.1 of Otto N. Larsen, *Milestones and Millstones: Social Science at the National Science Foundation, 1945–1991* (New Brunswick, NJ: Transaction Publishers, 1992).

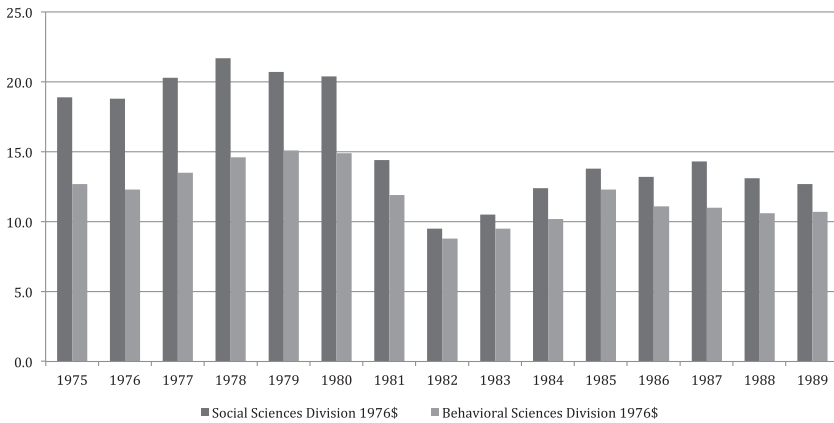


Figure 8.2

NSF research obligations for Social Sciences Division and Behavioral Sciences Division, 1975–1989 (1976 dollars, millions). Data compiled from tables 5.3 and 6.2 of Otto N. Larsen, *Milestones and Millstones: Social Science at the National Science Foundation, 1945–1991* (New Brunswick, NJ: Transaction Publishers, 1992). Current dollars converted to 1976 dollars using cpi calculator from <https://data.bls.gov/cgi-bin/cpicalc.pl>.

In addition, funding in constant dollars for both the social sciences and the behavioral sciences was lower in 1989 than it had been in 1981, and much lower than it had been in 1980, as can be seen in figure 8.2.

The downward funding spiral had ominous long-term implications, warned the previously mentioned 1988 NAS report. Although early in the century, large private foundations had played a key role in supporting the social sciences, government had assumed a much greater role since World War II. So much so that by the mid-1980s, total private support was merely 8 percent of the federal total. Recently, however, federal commitments themselves had declined considerably, with no replacement in sight. This, despite the fact that the social and behavioral sciences now accounted for 30 percent of all science and engineering doctorates in the U.S., and SBS scholars accounted for 22 percent of all full-time scientists and engineers. These facts made the shrinkage in federal support all the more worrisome.²⁹

In a worst-case scenario, dwindling funding threatened to compromise American leadership worldwide. According to the report, a strong federal support system had helped to place American efforts on the “forefront of virtually every behavioral and social sciences field since the 1960s.” But if recent

trends persisted, other countries would soon assume “leading roles.” Compared to the U.S., “Japan and, to a lesser extent, some European countries” were already spending “substantially larger proportions of their national resources” on these sciences.³⁰ To mitigate this danger, the report recommended robust increases, including additional government support of \$240 million per year, \$60 million of which would go to NSF SBS programs.³¹

By the decade’s end, however, additional support had failed to materialize, leading a large group of scholarly organizations to band together in a harsh letter of complaint. Among the signatories were the new umbrella organizations, COSSA and the Federation of Behavioral, Psychological and Cognitive Sciences, as well as the main disciplinary associations for anthropology, economics, and so on. Their letter blamed the NSF itself for having “made little or no attempt to address the important initiatives highlighted in the NAS report.” “Rather than making social and behavioral science a higher priority,” NSF plans would contribute “to the deepening void between the resources necessary and the resources provided to make critical advances.”³²

If funding challenges were one persistent problem, organizational status was another.

While struggling to recover from the funding crisis of the early 1980s, the social sciences acquired a new position at the NSF, created to help represent their interests inside the agency and within the broader science policy arena. In January 1983, the sociologist Otto Larsen became the NSF’s first “senior associate of the social and behavioral sciences.” In this position, he served as a special assistant to the Directorate of Biological Behavioral and Social Sciences’s (DBBSS) assistant director.³³

Larsen’s background provided him with appropriate qualifications. After serving in the Army Air Corps during World War II, he completed a doctorate in sociology at the University of Washington in 1955. During his graduate studies, he came under the influence of George Lundberg, the high priest of scientific sociology—previously Lundberg had been at Columbia University, where he served on Harry Alpert’s PhD committee. Larsen then became a professor at the University of Washington. A specialist in studies of the mass media, he developed an extensive publication record, including a number of books that he wrote, coauthored, or edited: *The Flow of Infor-*

mation (1958), *Violence and the Mass Media* (1968), *Social Policy and Sociology* (1975), and *The Uses of Controversy in Sociology* (1976).³⁴

Larsen also had significant advisory, leadership, and administrative experience. He had been a consultant to many federal bodies, including the National Institute of Mental Health and the Commission on Obscenity and Pornography under President Johnson. He served as the American Sociological Association's executive director in the early 1970s. He also became a member of the Social Science Research Council (SSRC) and chaired its governing board from 1978 to 1980. Of special relevance to his NSF work, in mid-1980 Larsen became the director of the DBBSS's social and economic sciences division, a position that he held for two years, until mid-1982 and thus during the dark days of the early Reagan years. Larsen then returned to the University of Washington for a short time, before taking up the new NSF position, which began in January 1983.

At another moment in time, the creation of this position may have signaled the social sciences' increasing importance. However, their standing within the agency had fallen considerably since the brighter days of the 1960s and early 1970s. Nobody understood these difficulties better than Larsen.

The heightened level of positive attention devoted to the social sciences during the Kennedy and Johnson presidencies together with the 1968 Daddario amendment had not really done much to solidify their position at the agency over the long term, Larsen wrote in 1985. Explicit mention in the revised NSF charter had not led to "even minimally appropriate levels of financial support." In addition, inside the agency, there remained widespread concern about the social sciences' "political troublemaking capacity," accompanied by the old fear that their presence might undermine political support for the NSF more broadly. Nor had these sciences managed to obtain adequate "institutionalized representation at the highest policy and managerial levels."³⁵

It is telling that the new position held by Larsen did not become permanent. In 1986, after three frustrating years, he would leave the agency, this time for good. The position disappeared with his departure.

Although the position was created to alleviate the problem of institutionalized representation, this problem remained serious where it counted most, namely, at the top of the NSF hierarchy. The psychologist Richard Atkinson had been director in the late 1970s. But during the Reagan

years, the top post was occupied by two engineers and one physicist. In addition, whereas the electrical engineer John Slaughter was a Democrat who expressed at least some discontent with the brutal funding cuts proposed during Reagan's first year in the White House, the next two directors were Republicans and strong advocates of the administration's science policy agenda, which included increased support for the natural sciences and engineering alongside funding cuts for the social sciences.

When Slaughter left the agency in 1982—to become chancellor at the University of Maryland—he was replaced by the physicist Edward Knapp. A specialist in particle physics and thermonuclear power, Knapp had worked at the Los Alamos Scientific Laboratory for many years (1958–1982). He then served briefly at the NSF as assistant director for the Mathematical and Physical Sciences Directorate, before becoming director in November 1982. Described by the science writer Wil Lepkowski as “a new, conservative, back-to-basics director,” Knapp was handpicked for the agency's top post by Reagan's chief science advisor George Keyworth. Keyworth chose Knapp because he wanted somebody who, as Lepkowski put it, would not pull any “liberally inspired surprises on a conservative White House.”³⁶ Knapp himself explained that under his leadership, the agency would emphasize the “areas of greatest potential promise to our future economic well-being and technological capabilities.”³⁷

When Knapp left the NSF in 1984, his replacement was Erich Bloch, another electrical engineer who embraced the administration's science policy agenda as well. An accomplished and “seasoned technocrat,” Bloch had worked in the private sector at IBM for some thirty years. Based on his involvement with innovative engineering projects, he was credited with revolutionizing the computer industry and received the 1985 National Medal of Technology and Innovation, presented by President Reagan.³⁸ Bloch's appointment was a glaring departure from the well-established tradition of recruiting NSF directors from academia and government. He had never pursued a PhD. Nor had he held a university position. But neither of these facts undermined the White House's enthusiasm. Bloch's “appointment was welcomed ... because of his accomplishments at IBM and his passion for a science policy that was in complete synch with the Administration,” noted Keyworth.³⁹

None of these three directors knew much about the social sciences before arriving at the agency. Nor were they ever a main priority—although

Slaughter did not want to see their funding decimated. Knapp, for one, admitted how little he knew: "I really don't understand them. ... But I'm learning. I'm a novice. I've never looked carefully into the social sciences to understand their successes, their failures, the criticisms."⁴⁰ Additional evidence comes from NSF annual reports, where each year, the director's statement presented highlights of agency-funded projects. The social and behavioral sciences received precious little coverage. Consider just one such statement from Bloch at the very end of the decade: "Who could fail to be impressed by achievements like the ones described in this [1989] report: ocean-bottom and celestial discoveries, work with super-conducting materials, advances in mathematics, robotics, supercomputers, and many others."⁴¹

The social sciences' low status was reinforced by spotty representation on the agency's twenty-four-member governing board. In most years, these sciences had but one representative: the anthropologist Ernestine Friedl from 1979 to 1984, the economist John H. Moore from 1982 to 1985, and another economist, Annelise G. Anderson, from 1984 to 1990.⁴²

The SBS programs remained subordinate within the agency's organizational structure as well. After the original social science division's closure in 1975, these programs were located in the DBBSS, which, as noted in previous chapters, focused predominantly on the biological sciences and was always led by a biologist. Starting in 1976, that person was Eloise Clark, a developmental biologist. When in 1984 she left to take a job at Bowling Green State University, President Reagan filled the position with David T. Kingsbury, a specialist in medical microbiology, biochemistry, virology, and genetics. Previously, Kingsbury had been a professor at the University of California's Berkeley and Irvine campuses, the scientific director of the Naval Biosciences Laboratory at Berkeley, a biotechnology expert for the Navy, and a visiting scientist at the National Institutes of Health (NIH) Laboratory for Central Nervous System Studies. Kingsbury held his NSF position for four years, until he was replaced by Mary F. Clutter. A cell biologist who had previously been a faculty researcher and lecturer at Yale University, Clutter became well known for her efforts to promote the participation and advancement of women in science.⁴³

As the new DBBSS leader, Kingsbury realized that attending to the social and behavioral sciences presented a special challenge. Here's how he explained that to a science policy group in the D.C. area:

Remember we've got a biochemist (or whatever I am) at one level, and an engineer [Bloch] at another. And juxtaposed, not between us, but peripheral to us, are chemists who are playing significant roles in policy; and ultimately, we talk to physicists. Somewhere in that milieu you've got to introduce some knowledge and challenge about behavioral science.

This was "not always easy," Kingsbury added.⁴⁴

Only at the lower levels did SBS scholars have important positions as division and program directors. For a very brief period of time in the early 1980s, the Social and Economic Sciences (SES) division was led by long-time staffer Bertha Rubinstein, whose experience in this area went all the way back to the Alpert years. SES leadership passed in succession to the sociologist Otto Larsen from mid-1980 to mid-1982, the economist James H. Blackman from mid-1982 to mid-1984, and then the historian and former COSSA executive director Roberta B. Miller from mid-1984 through the rest of the decade. As for the Behavioral and Neural Sciences (BNS) division, Richard T. Louttit, a specialist in physiological psychology, started as director in 1977 and remained there throughout the 1980s. Scholars from the relevant SBS areas of study also led disciplinary and interdisciplinary programs in the two divisions.

Although these individuals had vital managerial jobs, they had a tough time conveying the value of SBS work to agency leaders. During Bloch's tenure as director, that challenge proved especially difficult because of Bloch's preference for a strict chain of command when it came to channels of communication and advice. This meant that top NSF decision makers typically did not have discussions with social and behavioral scientists.⁴⁵

To better appreciate such difficulties, it is instructive to compare the social sciences' low status with the rising status of the engineering sciences. To begin with, for most of the decade, the NSF directorship was held by two engineers: Slaughter from 1980 to 1982 and Bloch starting in 1984. This represented an important alteration from the previous three decades, when the agency had been led by three physicists (Waterman, Haworth, and Stever), one biologist (McElroy), and one psychologist (Atkinson). In addition, after Atkinson established the groundwork for strengthening engineering's organizational standing with a separate engineering directorate, Slaughter secured its establishment. In Slaughter's view, up to that point, the agency had not given engineering adequate attention and resources.⁴⁶

Furthermore, in 1984, the agency—now under Bloch's leadership—created a program to support the development of Engineering Research

Centers on university campuses. Each center would focus on “a major interdisciplinary area of interest to both industrial and academic researchers.”⁴⁷ This program, in turn, became the model for another generously funded program for the development of Science and Technology Centers. In principle, this program included all scientific fields. But in practice, the social sciences participated only as minor players during the rest of the decade. In 1986, another new directorate for Computer and Information Science and Engineering gave additional visibility and resources to engineering.⁴⁸

Figure 8.3 reveals that from 1970 to 1988, NSF support for basic research in the social sciences rose in current dollars just slightly. Meanwhile, NSF funding for basic research in the engineering sciences rose about sixfold. NSF funding amounts for basic research in the life science, physical sciences, environmental science, and math and computer sciences all increased dramatically as well.

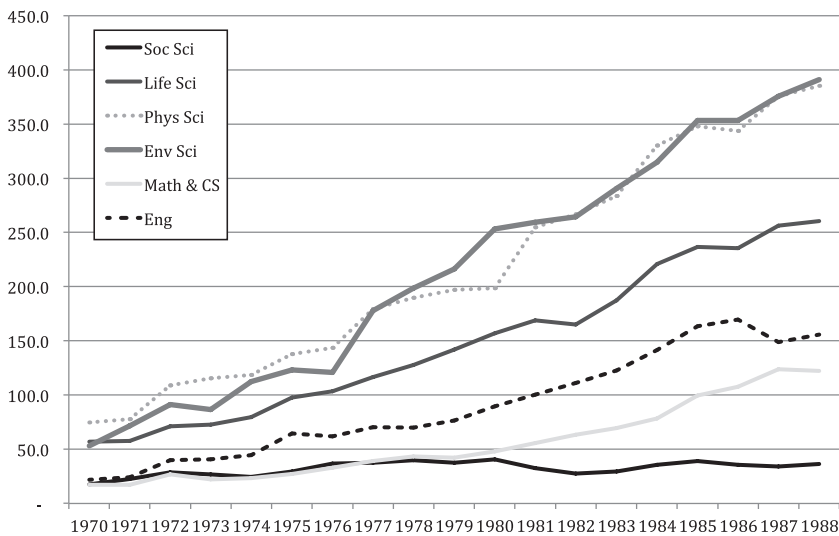


Figure 8.3
Federal obligations for basic research, by field of science. National Science Foundation, 1970–1988 (current dollars, millions). Data from table 2L, federal obligations for basic research, by detailed fields of science and engineering: National Science Foundation, fiscal years 1970–2003. In National Science Foundation, Division of Science Resources Statistics, *Federal Funds for Research and Development: Fiscal Years 1970–2003*, NSF 04-335, Project Officer Ronald L. Meeks (Arlington, VA, 2004). Amounts for life science computed by adding separate amounts for biological aspects of psychology; amounts for social sciences computed by adding separate amounts for social aspects of psychology.

While the engineering sciences flourished, the social sciences floundered. The latter's low status, as seen in meager representation among NSF top decision makers and in the subordinate position of the divisions and programs in this area, contributed to the problems. With this in mind, the 1988 NAS report mentioned above proposed that, along with a substantial increase in federal funding, the "place and role of the behavioral and social sciences" inside "relevant federal agencies," including the NSF, needed to be "critically reappraised." Only significant improvements at administrative levels could "ensure continuous high-level representation of the scientific needs and opportunities in these fields."⁴⁹

But, as was the case with federal social science funding and NSF funding in particular, no significant improvements in organizational standing, representation, and status had materialized as the Reagan era came to a close. To borrow a line from Yogi Berra, the ever-quotable New York Yankee baseball player and manager, it was *déjà vu* all over again.

Distinct from yet related to the problems discussed above, the social sciences also faced a revival of critical statements from powerful natural science and engineering figures. At the beginning of the Reagan years, social science leaders emphasized the need to develop better relations with their more highly esteemed and more powerful natural science colleagues. Yet, the sociologist and SSRC representative Richard Rockwell observed that "it really does not help us very much to presume that we are a part of the national science system unless physicists and biologists share that presumption."⁵⁰ Indeed, that presumption remained dubious in the minds of some leading figures.

Consider the stance of the physicist George Keyworth. When the Reagan administration created the White House Science Council in 1983, the president gave Keyworth responsibility for choosing its thirteen members. Keyworth's selection included twelve physical scientists, some with close ties to high-tech industry, but not a single social scientist.⁵¹ Furthermore, some of his comments suggest that this omission was not merely an oversight. In 1984, Keyworth expressed nothing but admiration for the administration's recent efforts to curtail NSF funding. As seen in this chapter's opening quote from him, he even asserted that Reagan's team had acted with "great courage and wisdom" by "squashing the daylights out of" NSF's social science programs, adding that "in terms of sheer quality," those programs "rated phenomenally low."



Figure 8.4

Chief science adviser George A. Keyworth II meets with President Reagan in the White House Oval Office, July 2, 1981. Courtesy of Ronald Reagan Presidential Library.

One could not reasonably dismiss Keyworth as an aberrant case either. The social scientist's role in the national science community remained, in Roberta Miller's words, "modest" and "tempered by the belief—held mainly by physical scientists ... that the social sciences were not quite legitimate as science." SSRC president Kenneth Prewitt and the sociologist David Sills agreed, noting that in the battles for acceptance and support, social scientists "generally suffered from the indifference and at times even the hostility of natural scientists."⁵²

Inside the NSF, tough conditions added salt to the wound. According to science reporter Constance Holden, social scientists were "not happy" with what they took to be "half-hearted attempts" by the agency to defend them. After working there for nearly five years in two different positions, Otto Larsen offered this dismal assessment in 1985:

Fundamentally, there has been no change in the way in which social science is understood by the dominant figures from physics, engineering, chemistry, and mathematics. ... It is not just that social sciences are deemed 'soft': rather, it is a genuine skepticism about whether they are sciences at all.⁵³

A few years later, Director Bloch repeated the idea, which still passed as official wisdom within the agency, that the social sciences were lagging and thus would benefit from closer relations with more mature sciences. On one occasion, in 1989, North Carolina Democratic Representative David Price, who had a Yale PhD in political science and had been a political science professor at Duke University, wrote to Bloch complaining about the “apparent low regard in which these disciplines are held at the NSF.” Bloch responded by asserting that he was “as much a champion of the behavioral and social sciences” as he was of any other scientific discipline.⁵⁴ However, we have seen that the social sciences were far from the center of his concern. Moreover, Bloch was not confident about their value. During an invited presentation at a COSSA meeting, Bloch reported that the social sciences still needed to “gain greater recognition as a legitimate scientific activity.” He did not suggest that they should be “modeled on physics or astronomy in any general sense.” Nevertheless, to help disprove the notion that “anything with ‘science’ in the title probably isn’t,” he urged social researchers to make greater use of “experimentation and quantitative methods.”⁵⁵ The notion that this broad field needed to become harder also came through in another passage from Bloch’s reply to Price where he stated that “real opportunities for scientific advances” lay at the “interfaces with other sciences and engineering.”⁵⁶

Bloch’s view about the post–World War II trajectory of American science policy added a historical perspective that reinforced the social sciences’ marginal importance. As the NSF director saw things, during the late 1950s and 1960s, the federal government had responded admirably to the shock of Sputnik by “accepting responsibility for the [nation’s] ‘science and engineering base,’ which also served the goal of ‘economic competitiveness.’” However, after 1968 and the Daddario amendment, “the momentum of Sputnik was spent.” Subsequently, national attention shifted to “social problems,” such as “housing, energy, crime.” With this emphasis on social “relevance,” federal policies shifted as well, to direct research “toward these efforts.” Unfortunately, there was “little concern for economic competitiveness.” As the science studies scholar Janet Abbate has explained, Bloch had “disdain for the goal of addressing social problems with applied research.” Moreover, in Bloch’s telling, the story of federal science policy took a happy turn during the early Reagan years through “an increased recognition of the need to support the science and engineering base.”⁵⁷

One should not overlook the fact that at certain moments, some figures from the natural science and engineering communities, such as NAS president Philip Handler, had rallied in support of their lower-status colleagues. Harvey Brooks, a Harvard physicist with extensive science policy experience, also said that the proposed budget cuts in 1981 were “foolhardy” and would all but destroy “a whole broad area of scholarship for the sake of a budgetary saving that is almost ‘lost in the noise.’”⁵⁸ According to Roberta Miller, one factor lying behind such support was the recognition that if ideological considerations threatened social science budgets, natural science budgets could become vulnerable as well.⁵⁹

However, social scientists, as we have seen, could not count on consistent and strong support from top federal science policy figures. Notwithstanding a few supportive statements from them, and regardless of the particular mix of motivations involved in each case, the problem of winning the respect of high-ranking individuals from the physical science and engineering communities, such as Keyworth and Bloch, reemerged with a vengeance during the 1980s.

In sum, substantial problems in the areas of funding, organizational status, and respect continued throughout the decade. The notion that the social sciences experienced serious challenges during the early years of the first Reagan administration but then managed to overcome them must be discarded.

It is also crucial to understand that the new politics of science and the White House did not reject social science *per se*. Remember that soon after Reagan had taken office, his administration established a “social science hour.” As the sociologist Martin Bulmer observed (and rightly so), given the administration’s framework for “viewing economic and social phenomena,” the critical question was not necessarily “social science or no social science?” but, instead, “what kind of social science?”⁶⁰

THE EXCEPTIONAL STATUS OF ECONOMICS

The last point raises an important question: which social sciences did best at the NSF during the Reagan era, and why? This section does not attempt to

provide a comprehensive answer. Rather, we will zoom in on economics, an interesting case because during those years, national economic problems and the efforts of economists to address those problems received so much attention in American political culture, in the national science policy arena, and inside the White House.⁶¹ In a number of respects, and due to a variety of factors discussed below, economic science also enjoyed a relatively favored position among the social sciences at the NSF.

To begin with, the favored standing of economics must be seen in the context of diminished NSF social science support during Reagan's two presidential terms, from 4.6 to 3.3 percent of the agency's total budget. After adjustments for inflation, none of the SES division's disciplinary-based programs enjoyed budgetary growth from 1981 to 1989. The budget for Economics rose in current dollars from \$9.4 million to \$12.9 million. But in constant 1982 dollars, it fell, albeit only minimally, from \$10.2 million to 10.0 million, or about 2 percent. The budget for Political Science increased in current dollars from \$2.9 million to \$3.8 million. Similar to the case of Economics, however, it decreased slightly in constant 1982 dollars, from \$3.1 million to \$3.0 million, or about 3 percent. More notable in its decline was Sociology's budget, which rose in current dollars from \$3 million to \$3.7 million but dropped in constant 1982 dollars from \$3.3 million to \$2.9 million, or about 12 percent.⁶²

While none of the programs experienced growth, the figures also show that Economics enjoyed a favored position. Indeed, at the level of funding, this is quite striking. Both at the beginning and end of the two Reagan terms, the budget for economics was roughly three times larger than the budgets for sociology and political science.

The proportion of total SES funding that went to each of the division's disciplinary and nondisciplinary programs also shows that Economics did strikingly well, receiving 39 percent of all such funds during the 1980s. Other disciplinary programs in this division received considerably less: Political Science, Sociology, Geography, and the History and Philosophy of Science received, respectively, 13, 12, 6, and 3 percent. Four nondisciplinary programs—Measurement Methods and Data Desources; Law and Social Science; Decision, Risk, and Management Science; and Regulation and Policy Analysis—received, respectively, 13, 6, 5, and 3 percent.⁶³ Note as well that these last two programs—Decision, Risk, and Management Science and Regulation and Policy Analysis—would have funded work in economics, although exactly how much is not clear.

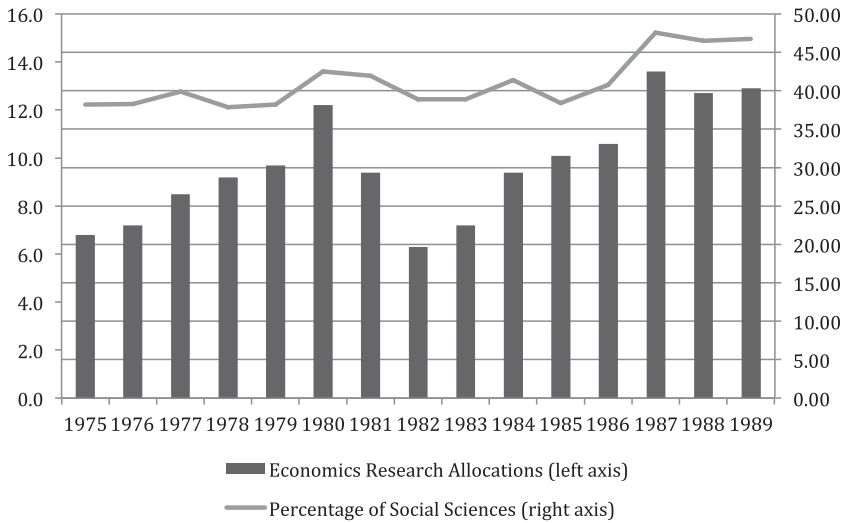


Figure 8.5
 NSF research allocations for Economics, 1975–1989: Total (Current Dollars, Millions) and Percentage of Social and Economic Sciences Division Research Allocations. Data compiled from tables 5.3 and 6.2 of Otto N. Larsen, *Milestones and Millstones: Social Science at the National Science Foundation, 1945–1991* (New Brunswick, NJ: Transaction Publishers, 1992).

Figures 8.5 and 8.6 make it easy to see how well the Economics Program did, and over the course of many years, even though it was just one of many such programs in the social sciences division.

We have already seen that the crisis of the early 1980s provided economic stars such as Zvi Griliches, Lawrence Klein, and Robert Lucas with opportunities to argue for the value of economic reasoning in science policy discussions and for the special importance of the NSF’s economics program. To understand why this program did so well compared to the other disciplinary programs, we also need to consider four more factors: (1) previous support for economics, (2) the relevance of the agency’s work to the “new economics,” (3) the development of a favorable environment for economics inside the NSF during the 1980s, and (4) the contributions of economics to big social science.

First, starting well before and leading all the way up to the Reagan years, economics had already acquired a privileged position in financial terms. During the 1960s, when the economics program was part of the original social

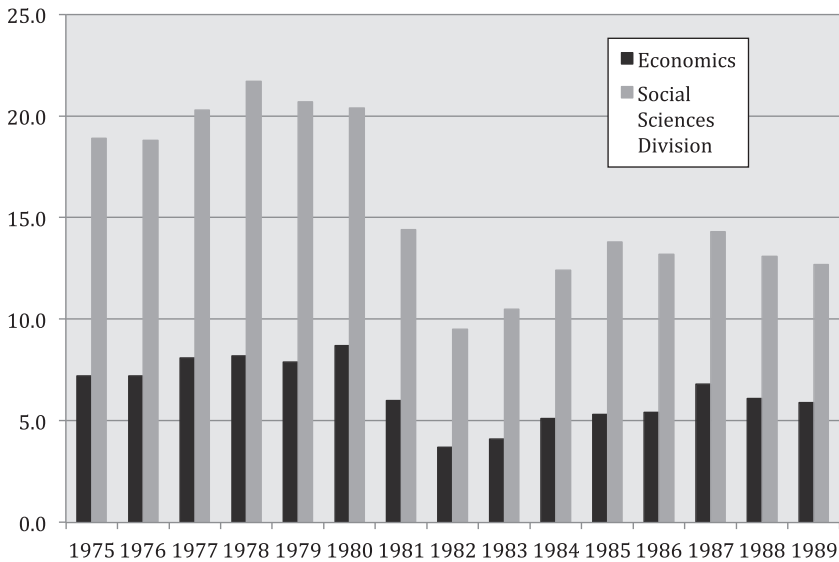


Figure 8.6

NSF research allocations for Economics and for the Social and Economic Sciences Division, 1975–1989 (1976 Dollars, Millions). Data compiled from tables 5.3 and 6.2 of Otto N. Larsen, *Milestones and Millstones: Social Science at the National Science Foundation, 1945–1991* (New Brunswick, NJ: Transaction Publishers, 1992). Current dollars converted to 1976 dollars using cpi calculator from <https://data.bls.gov/cgi-bin/cpicalc.pl>.

science division, economics received 24 percent of all social science funding. Midway through the 1970s, this program was moved into the newly reconfigured social sciences division—located in the DBBSS, which also had a division for behavioral and neural sciences. During the 1970s, Economics received 26 percent of all SBS funding.⁶⁴ Up through 1979, more than 650 different economists had been principal investigators on one or more NSF-sponsored projects.⁶⁵ In addition, economics, as chapter 6 noted, was added to the name of the social sciences division in 1979, making it the social and economic sciences division from that point forward.

The elevated position of economics rested on a widespread perception that the discipline had achieved an especially high degree of scientific maturity and rigor. This perception, in turn, supported and reflected the discipline's practical uptake in many vital areas (i.e., national security matters, including operations analysis, nuclear strategy, and defense budgeting, as well as domestic policy issues, such as capital accumulation, economic growth, and

poverty reduction). NSF social science leaders themselves regularly emphasized that economics had achieved a commendable level of mathematical sophistication and made extensive use of computers. In fact, the very first grant in economics, awarded through the sociophysical sciences program in 1957, went to the National Bureau of Economic Research to support a project that used computers to analyze economic statistics and business cycle data.⁶⁶ One decade later, the 1967 NSF annual report stated that the “increasing use of mathematics and computer-based technology” promised to strengthen theoretical findings in the social sciences, which, when translated for practical matters, would be valuable to policy makers. The report added that of all the social sciences, economics in particular, had found productive ways to use “a large battery of such [mathematical] techniques.”⁶⁷

The NSF, in turn, provided generous support for mathematical economics, as seen not only in its grants to hundreds of individual scholars but also in its support for particular projects that involved numerous scholars. For instance, the agency gave many grants to support Stanford’s annual summer program at the Institute for Mathematical Studies in the Social Sciences, with the economist Mordecai Kurz as principal investigator. This program brought together economists from around the world for two months of research and seminars. The NSF also gave multiple grants for work in econometrics carried out by a group at the Cowles Foundation, with Tjalling Koopmans and William Brainard as principal investigators. These are but two of many such examples.⁶⁸

Economics also did well because the NSF and its supporters could point to an impressive track record of funding high-quality proposals and star researchers. As we saw in chapter 5, the 1976 Simon Report argued that the agency had been successful in funding high-caliber basic social science and thus should be given additional resources. That argument obviously included economics but did not mention it specifically. However, elsewhere the Simon Report emphasized the agency’s support for outstanding economists. Between 1965 and 1985, all eleven winners of the highly coveted John Bates Clark Award had held NSF grants before receiving this award. During these same years, four of the eleven US-based winners of the Nobel Memorial Prize in Economic Sciences had previously received NSF grants.⁶⁹

Experienced, devoted, and well-connected leaders provided additional strength to the economics program. James H. Blackman, a specialist in Soviet economics and former professor at Duke University, headed this

program from 1967 to 1980. His successor, Daniel Newlon, had completed a PhD at the University of Virginia and worked as a professor at the State University of New York–Binghamton. In 1974, he began working at the NSF, first under Blackman as associate director and later, after Blackman left, as director, a position he held throughout the Reagan years and beyond. Newlon's expertise in energy economics and public finance cemented his scholarly reputation and facilitated his ties to government and business through numerous consulting positions, for the Navy's Allegheny Ballistics Laboratory, the Center for Naval Analysis, the Federal Energy Administration, the U.S. Army, and IBM. Newlon also cultivated good relations with the American Economic Association and COSSA.⁷⁰

Hence, economics already benefited from a strong base of support when the crisis of the early 1980s hit, which brings us to the second factor



Figure 8.7

Dan Newlon participates in a COSSA-sponsored congressional briefing on “Better Living through Economics,” March 15, 2010. Left to right: Nancy Lutz, NSF economics program officer; Alvin Roth, Harvard University; Lawrence Ausubel, University of Maryland; Brigitte Madrian, Harvard University; John L. Siegfried, Vanderbilt University; and Dan Newlon, former NSF economics program officer (1980–2009) and director for government relations of the American Economic Association. Courtesy of COSSA.

that gave it a privileged status among the otherwise beleaguered social sciences. Following the Reagan administration's proposed budget cuts, leading economists mounted a vigorous defense of NSF social science funding and for economics in particular. Moreover, the agency received widespread positive attention for its contributions to the changing landscape of academic economics and economic policymaking. To appreciate the NSF's importance here, a few words about the rise and fall of Keynesianism are necessary.

Back in the mid-1960s, Walter W. Heller, chairman of the Council of Economic Advisers under Presidents Kennedy and Johnson, asserted that remarkable advances in economic science had brought about the "completion of the Keynesian Revolution" and "put the political economist at the President's elbow." This statement was supported by the taken-for-granted belief among liberals as well as moderate conservatives that "the government must step in to provide the essential stability at high levels of employment and growth that the market mechanism, left alone, cannot deliver."⁷¹ However, proponents of the free market from the business and financial communities opposed Keynesianism and the liberal, managerial, engineering outlook associated with it.

Over the next decade, the latter viewpoint gained strength, aided by developments within the economics profession together with the failure of the Keynesian paradigm to account for the twin problems of rising unemployment and rising inflation—stagflation. As the intellectual historian Angus Burgin notes, the new wisdom presented "Keynesianism, rather than *laissez-faire* . . . [as] a relic of a rapidly receding economic world."⁷² Similarly, the historian of economics Roger Backhouse has observed that "an ideology favorable to management of the economy gave way to one in which state action was seen as raising more problems than it solved."⁷³

This critical shift in economic thinking reflected the impact of many factors. According to Backhouse, these include lessons learned from past mistakes about the difficulties and harms associated with too much governmental intervention; the development of rational choice ideology; strong advocacy of free-market thinking by conservative think tanks such as the American Enterprise Institute and the Heritage Foundation; contributions from universities, including some with exceptional influence (i.e., the University of Chicago), and from powerful international organizations, such as the World Bank; and funding for people, projects, and institutions provided

by private organizations, including the two conservative think tanks mentioned above as well as the Lynde and Harry Bradley Foundation and the John M. Olin Foundation.⁷⁴

Although Backhouse did not mention so, the NSF also played a significant role by sponsoring work that contributed to the shifting terrain in economic science and policy. During the 1970s, the agency supported studies on what economics program director James Blackman referred to as the “unemployment-inflation dilemma.”⁷⁵ The agency also awarded grants to economists who were leading the charge against Keynesian orthodoxy. This group included researchers associated with monetarist theory, such as MIT’s Robert Solow, Princeton’s Alan Blinder, Chicago’s Robert Lucas, and Carnegie-Mellon’s Allan Meltzer. As the 1975 NSF annual report explained, this body of work

questioned a basic economic principle, widely accepted since the work of Keynes, that the federal budget can influence the aggregate level of income and employment. In its simplest form the so-called “monetarist” thesis asserts that each dollar of additional Government spending, no matter how it is financed, simply “crowds out” the same amount of private spending.

The upshot was that “fiscal policy is powerless to alter the overall level of aggregate income.”⁷⁶

The agency financed research by Martin Feldstein on the deleterious effects of government programs as well. A Harvard economist and long-time president of the National Bureau of Economic Research (1978–2008), Feldstein’s specialties included macroeconomics, finance, and public pension systems. According to the 1977 NSF annual report, his work showed that the enormous size and explosive growth of the U.S. Social Security program had “major effects,” including a long-term and “substantial reduction” in savings. The implications seemed grave: such a reduction would result in slower capital accumulation, lower productivity, and less national income.⁷⁷ As Daniel Newlon explained, by “documenting the significance of the disincentives caused by the U.S. tax system,” NSF-supported projects by Feldstein and his collaborators made a major contribution to the study of public finance.⁷⁸

This body of NSF-funded research acquired greater importance because it lent support to the Reagan administration’s economic policy agenda, which had been heavily shaped by free-market scholars such as Martin Anderson and Milton Friedman. In 1981, soon after the administration announced its

plans for severe social science funding reductions, the NSF lost no time in identifying the policy relevance of its economics program. In June (and thus around the same time that leading social scientists and their supporters gathered in New York for a strategy meeting to confront the emerging crisis), an internal report emphasized that many NSF-funded economists, including Lucas, Meltzer, and Feldstein, had made crucial contributions to the “new economics.”⁷⁹

Discussion of such work extended well beyond the walls of the agency. Writing in the *Washington Post*, reporter Philip Hiltz noted that regarding the proposed NSF funding cuts, Feldstein himself criticized the administration for acting on a mistaken belief that NSF social science had a liberal bias: many researchers “critical of the Great Society programs” had, in fact, received NSF support for scientific investigations of pressing issues to conservatives, including Feldstein’s own work on the Social Security program’s “adverse impact on savings.”⁸⁰ Other economists hammered home the point for the benefit of Congress, with Feldstein’s Harvard colleague Zvi Griliches pointing out that the results of NSF-funded research had supported many “conservative ideas in economics,” including “the importance of rational expectations and the impotency of conventional macro-economic policy, the disincentive effects of various income-support programs, the magnitude of the regulatory burden, and the argument for deregulation.”⁸¹

In this context, economics program director Daniel Newlon saw a unique opportunity to rally its supporters. He had to be careful, for he had been told not to lobby against the administration’s proposed cuts. Nevertheless, Newlon worked effectively behind the scenes, with help from COSSA and the American Economic Association. He also enlisted support from individual economists, including Feldstein—who in 1981 received his eighth NSF grant, this one for \$121,000 to study the macroeconomic effects of fiscal programs.⁸² The following year, Feldstein became chairman of the Council of Economic Advisers and thus Reagan’s chief economic adviser.

Third, throughout the 1980s, economics benefited from a relatively favorable institutional environment inside the NSF. Even though its directors and board members generally had little knowledge of the social sciences and little interest in them, economics was a modest exception. As noted before, Director Slaughter emphasized in congressional testimony that the empirical basis for supply-side economic policy still needed to be assessed. Doing so required scientific research of the sort that the NSF was especially good at

supporting. In addition, the next two directors, Knapp and Bloch, were fully behind the Reagan administration's emphasis on federal science funding in areas that could contribute to economic revitalization and technological innovation, thus giving economic science itself a glow that the other social sciences lacked. Meanwhile, "individually and collectively," economists "developed close relationships with NSF officials, and engaged in lobbying campaigns in Congress and government to assert their membership to the Endless Frontier," as Mata and Scheiding have shown.⁸³

Economics also stood out as the only social science that enjoyed regular, albeit modest representation on the governing board. This included two scholars appointed by President Reagan. The first, Annelise Anderson, was married to the prominent libertarian economist and conservative policy adviser Martin Anderson. After completing her PhD in business administration at Columbia University in 1974, Anderson became a professor in the School of Business and Economics at California State University–Hayward (1975–1980). Similar to her husband, she established close ties to the Reagan White House. She served as a senior policy adviser for Reagan's 1980 presidential campaign and subsequently held a series of positions in the new administration working on various policy issues, including the deregulation of financial institutions.⁸⁴ John Moore was the second Reagan appointee. He did his PhD at the University of Virginia and later worked there as a faculty member (1966–1977). In addition, at Emory University and the University of Miami, Moore was an associate director for centers dedicated to law and economics, a rapidly growing field generously supported by the John M. Olin Foundation and other conservative organizations. Moore and Anderson also knew one another from the Hoover Institution, where Moore was an associate director and both were senior research fellows.⁸⁵

Furthermore, in 1985, Reagan appointed Moore as NSF deputy director. Moore, who replaced the physicist Donald Langenberg, thus became Director Bloch's main assistant. Remember, it was also in 1985 that DBBSS leader David Kingsbury mentioned that getting NSF leaders to focus on the social and behavioral sciences was difficult. But at least they had "some understanding" of economics, he added.⁸⁶

As the cases of Anderson and Moore already suggest, the development of good relations between the NSF and the conservative Hoover Institution gave economics yet another layer of support. According to an internal NSF report, as of 1986, Hoover had twenty-two resident senior scholars,

including four sociologists, six political scientists, and twelve economists. Fourteen of the twenty-two, including six of the twelve economists, had served as reviewers for NSF research proposals. The six economists were W. Glenn Campbell, Milton Friedman, Edward Lazear, Charles E. McClure Jr., Thomas G. Moore, and Thomas Sowell.⁸⁷

Equally significant, inside the NSF, the influence of economics extended beyond the Economics Program itself. Remember that the official reason for the administration's proposed cuts was that the social sciences had little relevance to the nation's economic troubles. In responding to this charge, the agency and its supporters argued that, in fact, the social sciences contributed in a myriad of ways to technological innovation and economic productivity. First presented in an NSF document called "Emerging Issues in Science and Technology, 1981," this argument became the basis for an extended article in the *American Psychologist* by a group of authors including three NSF officials: the sociologist Otto Larsen and two psychologists, Louis Tornatzky and Trudy Solomon.⁸⁸ According to this article, it had become "increasingly clear that human, social, and institutional factors" were "particularly important" in the "process of innovation." Social factors influenced everything from "the conduct and management of research" to "the dissemination and marketing of new technical products" as well as "the implementation of new manufacturing processes at the shop floor level." Sound understanding of these processes thus depended on social science research.⁸⁹

The authors even claimed that "virtually all" of the policy issues under debate regarding "national innovation and productivity" rested on "knowledge derived from social science research." Unfortunately, however, this fact was "seldom acknowledged."⁹⁰

Throughout the decade, social science contributions to economic growth and technological innovation became a recurring theme. To be sure, NSF leaders devoted much greater attention to the economic role of the natural and engineering sciences. Still, the notion that the social sciences would make significant contributions now received regular attention. Director Bloch, who according to one NSF official possessed the "conventional views of engineers" when it came to the social sciences, asserted that they could help the nation to address the present "economic challenge of unprecedented magnitude." He then singled out three areas of study that deserved special attention: "world market competition," "research competition," and "the complexity of technology."⁹¹

The fourth and last factor that gave economics favored status concerns its contributions to big social science. As explained in chapter 6, NSF support in this area had been growing since the mid-1960s. By the late 1970s, big social science, including large-scale econometric studies, enjoyed unusually strong support from the agency's natural science leaders. During the first Reagan administration, big social science stood out again, this time as one type of social science research that nearly everybody rallied to defend in the midst of the administration's budget-cutting efforts. The 1982 NSF annual report pointed out that the agency had become "responsible for creating, maintaining, and making accessible major collections of high-quality data, along with the development of increasingly powerful quantitative techniques to analyze those data."⁹² As noted in the previous chapter, such work convinced the agency's leaders that similar to the natural sciences, the social sciences needed long-term funding for large-scale projects, thus bringing them into the realm of big science at the NSF, albeit on a relatively smaller scale. Such work also fit well with the general strategy of promoting the social sciences as part of a unified enterprise led by the natural sciences.⁹³ The following year, William Mishler, from the political science program, reported that high regard for big social science had helped to ward off the harshest budget-cutting scenario in 1981. Moreover, such positive recognition had contributed to partial restoration of the agency's social science budget.⁹⁴

How economics benefited from participating in big social science can be seen in the NSF-funded Panel Study on Income Dynamics (PSID). In the early 1980s, the agency decentralized its support for big social science projects. Responsibility for supporting the PSID was thus transferred from the measurement methods and data resources program to the economics program.⁹⁵ In a 1983 memorandum to the board, Director Knapp explained the unique value of this particular project:

Every year from 1968 to the present, the PSID staff has collected, processed, and disseminated information about the behavior and economic status of a nationally representative sample of about 5,000 American households. The cumulative database created from fifteen years of PSID interviews provides the foundation for much of the empirical research on family dynamics.

Starting out as "an instrument for assessing the nature and extent of poverty in the U.S.," this study had become "the only survey of income, occupation, education, family composition, and other social and economic family

characteristics that combines a long (fifteen year) time period and a nationally representative sample of families and individuals.” The data collected and analyzed gave this massive study considerable policy relevance as well. Federal agencies regularly used its results.⁹⁶

The broader trajectory of funding for this economics project sheds further light on its status as big science at the NSF. Although the PSID began in the late 1960s, the NSF did not support it until 1979. And the agency’s contribution was modest at first, with the bulk of funding coming from other agencies, including the Department of Health and Human Services (DHHS). But in the early 1980s, Reagan administration cuts in federal social research programs brought an end to HHS funding. By this point, as one commentator noted, the project had already collected “fourteen years of longitudinal data on the same five thousand families and the split-off from those families.” If one wanted to create “that kind of longitudinal data base again,” you would “have to start from square one and it would have taken fourteen more years.”⁹⁷ With budget chopping endangering the project’s continuity, private patrons, including the Sloan, Ford, and Rockefeller foundations, stepped in by providing a total of \$725,000 in 1982 and \$450,000 in 1983. However, they provided only temporary relief, based on an understanding that after the NSF had completed an extensive evaluation, private funding would end.⁹⁸

Toward the end of 1983, advice from some twenty-five external reviewers and from the NSF Economics Advisory Panel suggested that this project had become too big to fail. In the panel’s assessment:

The data being collected by the PSID is unique, virtually irreplaceable, and essential for empirical research in important subfields of economics. Ending the PSID now just when the cumulative body of information from past interviews is starting to capture full lifecycle decision making would represent a major setback for empirical research in economics.

Hence, PSID funding for three more years deserved “highest priority.”⁹⁹

Following that advice, the agency assumed the great bulk of the funding burden. In the preceding five-year period, from 1979 to 1983, it had provided a total of \$1.618 million.¹⁰⁰ For the next three years, from 1984 to 1986, it awarded a large \$4.4 million grant, under the direction of James Morgan and Greg Duncan at the University of Michigan. Of that amount, the NSF portion was \$3.1 million, with the rest provided by interagency

transfers from the NIH and the DHHS.¹⁰¹ In 1986, the NSF awarded an even bigger grant, this time for \$10 million spread over a five-year period. The NSF's contribution was now \$7.5 million, with the rest again coming from interagency transfers.¹⁰²

During the 1980s, the NSF supported at least two other big social science projects in economics as well. These were the U.S. Manufacturing Establishment Data Base at Yale's Department of Economics and the Computer Research Center for Economic and Management Science at MIT.¹⁰³

In sum, despite the deep and persistent difficulties facing the social sciences during the Reagan years, economics, due to a number of factors considered above, stood out as an exception. The relatively privileged status of economics during the two Reagan terms should not be overstated, however. After all, the economics program's budget actually decreased, albeit by only about 2 percent. Still, the new politics of science, the Reagan administration's policy agenda, and conditions inside the NSF gave economics a comparatively privileged position. This analysis also reveals how the NSF fits into the larger story since the 1970s wherein, as Dorothy Ross has summarized it, "the political shifts that battered the other social sciences served to benefit economics," particularly that segment of the discipline associated with "conservative and libertarian politics."¹⁰⁴

At this point, one might suspect that the budgetary drama, policy pressures, and constrained opportunities of the Reagan years produced a deep alignment between NSF social science and the Republican administration's policy goals. Perhaps alterations at the level of policies, priorities, programs, and practices were so deep that they even produced a fundamental rupture. That would leave us with two somewhat distinctive periods in this study: one period, running from the Harry Alpert years through the end of Richard Atkinson's tenure as director, when the agency promoted the social (and behavioral) sciences in a nominally nonpartisan and nonideological fashion (even though critics did not always accept this characterization as accurate), and a second period, from the crisis of the early 1980s and continuing throughout Reagan's two presidential terms, when the agency sought to direct these sciences in ways supportive of the administration's policy agenda. But is this a fair assessment?

PARTIAL (BUT NOT THOROUGH) ALIGNMENT

To address this question, it will be helpful once again to focus on the case of economics. No doubt, this discipline enjoyed a relatively favored position compared to the others because common wisdom inside and outside the agency said that NSF support for economics was especially relevant to key policy issues associated with the new economics and the new politics of science. In addition, certain lines of NSF-funded research carried out by prominent scholars such as Harvard's Martin Feldstein received considerable attention at least in part because it was understood that this research supported the Reagan administration's agenda. However, taking a broader view reveals that the NSF's engagement with economics was not characterized by a conservative bent in a more general or profound sense. Thus, it is best to understand this storyline not as a case of a pervasive and deep alignment but as a limited and partial one. Three lines of evidence support this interpretation.

First, if there had been a deep and pervasive alignment, the agency would have been discouraged from supporting work that did not fit well with the administration's agenda. However, the agency did fund such work, at least in some cases. In fact, the PSID, one of the largest and most visible NSF-funded projects in economics during those years, challenged certain views about poverty that were prominent in conservative circles.

Remember that two decades before, poverty had been considered the nation's enemy. Inspired by the spirit of 1960s' reform liberalism, the Johnson administration had launched a war on poverty, supported by a raft of new federal policies, programs, and commitments. But in the 1980s, right-wing policy intellectuals and the Reagan administration itself portrayed the government-supported welfare system as the new enemy. According to them, welfare programs, whatever their designers' intentions may have been, did not really alleviate poverty. Rather, they actually made things worse, by spawning a massive, ineffective, and self-serving bureaucracy, by sapping individual initiative, and by encouraging unhealthy dependency, which, in turn, kept certain individuals and groups mired in a culture of poverty, thereby creating a relatively permanent underclass.¹⁰⁵

PSID results challenged some of these claims. According to a 1983 document prepared for the NSF governing board, the study had provided "evidence" that contradicted "theories" that assumed there were relatively

separate labor markets for the permanently poor and for the rest of the population. Specifically, the findings undermined the view that women and blacks were blocked from moving out of many low-paying and precarious jobs. Furthermore, related research found that poverty caused attitudes of dependency and lack of achievement, but these attitudes did not appear to cause poverty. In the broadest terms, PSID results raised sharp doubts about the claim that a large group of people were in danger of remaining poor because they were caught in a culture of poverty.¹⁰⁶ Four years later, Robert Haveman, an economist and one of the leading academic experts in this area, confirmed that many PSID findings had “challenged conventional wisdom” by revealing, among other things, that “poverty is largely a transitory problem and not a permanent state of affairs” and that “few workers are trapped in certain types of jobs.”¹⁰⁷

Furthermore, the NSF continued to provide PSID with substantial support. As we saw before, when major funding from private patrons ended in late 1983, the NSF director and governing board agreed to assume the lion’s share of the financial burden. Accordingly, NSF funding rose considerably: from \$1.6 million between 1979 and 1983 to \$3.1 million between 1984 and 1986, and then \$7.5 million for the next five years.

More generally, as far as NSF leaders were concerned, claims about economic matters put forth by the discipline or by the Reagan administration remained open to scrutiny and could thus be challenged by further research. We have already seen that in 1981, Director Slaughter made this point forcefully, by telling Congress that the agency had a key role to play in funding the basic research needed to assess the validity of the “new economics.” The story of the PSID reveals that throughout the 1980s, the notion that the agency should support economic research in a partisan manner, by promoting conservative ideas and policies, never took hold, despite the fact that the next two directors, Knapp and Bloch, were strongly supportive of the White House’s broad policy aims.

The second line of evidence concerns continuity in the criteria used to evaluate NSF grant applications. The notion that the agency funded research projects that first and foremost met its criteria for scientific excellence had remained in place ever since its founding. With the 1968 Daddario amendment, consideration about practical relevance became important in many cases as well. However, the agency never suggested that this should include relevance to one or another partisan agenda. To be sure, a good deal of

NSF-funded research in economics addressed issues that had direct bearing on policy issues at the heart of partisan struggles. But recognition of this fact does not undermine the key point that even within the highly charged partisan context of economic policymaking during the Reagan years, the agency never indicated that it would give preference to research projects because they supported the administration's views.

Hence, one should not infer that NSF support for Martin Feldstein, for example, meant that the agency had jettisoned its commitment to scientific merit. Nor did it mean that in light of his work's practical relevance, the agency was acting out of a special interest in research with an explicitly conservative orientation. Feldstein himself emphasized the NSF's distinctive role in providing support for "pure, nonpartisan studies."¹⁰⁸

Third, unflagging devotion to putatively nonpartisan and nonideological research was reinforced by the NSF's multilayered review process. As the economics program director, Daniel Newlon summarized this process as follows:

Researchers prepare and submit proposals to the National Science Foundation. My two colleagues and I select six or more specialist reviews for each proposal. Twice a year pending proposals, with any written reviews received, are evaluated by a panel of fourteen distinguished economists. The panel makes recommendations. The staff uses the information in the written reviews and from the panel discussion and recommendations to make its own decisions, subject to approval of the Division Director and the Grants and Contracts Office. Funds are then given to the winning projects.¹⁰⁹

Nowhere did the agency ever suggest that review of a particular proposal should include its likely contribution to partisan causes of any stripe.

This doesn't mean that individual reviewers or NSF personnel never allowed considerations of partisan relevance to influence their personal preferences for one research project or another. But there is no reason to believe that this sort of consideration significantly influenced the overall process of evaluation on a regular basis. By relying on assessments from many different reviewers and discussions involving a large panel of scholars, all of whom were instructed to give top priority to the scientific merits of individual proposals, the economics program continued to focus first and foremost on promoting work with strong scientific promise.

Newlon himself also looked to give proposals based on controversial ideas a fair hearing. Accordingly, for the peer-review process, he made a point of

selecting many young and midcareer scholars, based on the assumption that they would be more open to controversial ideas than senior scholars, who seemed more likely to be set in their thinking. In addition, when Newlon thought the peer-review process had been too harsh in judging a proposal that he considered sufficiently promising, he could request support for that proposal from a special fund.¹¹⁰ It would be helpful to have more information about how often Newlon used this special fund and what the circumstances of each case were, but he did not provide such specifics.

In any case, the three issues discussed above suggest that there remained a big difference between the NSF's engagement with economics, on one hand, and the support provided by partisan organizations, on the other. Although the NSF was responsive to the Reagan administration's priorities, including its economic concerns, the agency did not become the public equivalent of a conservative research or policy institute, such as the Heritage Foundation, the American Enterprise Institute, or the Hoover Institution. Nor did the NSF become the public equivalent of a conservative funding organization supportive of free-market economics, such as the J. M. Olin Foundation, the Smith Richardson Foundation, or the Bradley Foundation. In contrast to the more academically oriented NSF, with its commitments to the unity of the sciences and scientific objectivity, these private organizations sought to promote projects, people, and ideas with an explicitly conservative orientation.¹¹¹

Equally noteworthy, NSF funding did not become susceptible to partisan interference to the extent as some mission-oriented federal agencies. Consider, for example, what happened at the Department of Health and Human Services. In the early 1980s, budget cutting brought an end to DHHS funding for the PSID, though not at the NSF. Under strong conservative pressure, the DHHS declared that it would no longer support "studies of large scale social conditions or problems." Furthermore, a DHHS call for proposals to study the merits of public- and private-sector social service programs mentioned that the department would evaluate proposals according to the researcher's understanding of the administration's preference for private-sector programs. Specifically, the agency asked scholars to consider if "privately funded programs" operated "more efficiently" than "publicly funded programs" and if the former "are more productive according to commonly accepted measures of service performance."¹¹²

Not surprisingly, this call for proposals provoked a worry among social scientists that partisan pressure was corrupting the review process, such that

proposals most likely to produce results aligned with the administration's partisan goals would have an advantage. COSSA's Roberta Miller thus asked the agency to withdraw its call for proposals because it seemed "strongly political in tone": its phrasing suggested that "the political orientation of the proposal will influence the decision as to who receives the contract."¹¹³

But the DHHS rejected Miller's request. According to the department's assistant secretary, nothing unseemly was going on: "Obviously, the subjects we study are initiatives that the Administration is interested in."¹¹⁴

Of course, one might wonder if this position was—and is—a sound one for a mission-oriented agency. Should an agency such as the DHHS seek to support social science research whose orientation is shaped by partisan pressures coming from the White House—or the Congress? The main point above, however, concerns the contrast with the NSF, where, even in the case of economics, the agency's program and the review process for evaluating proposals continued to reflect a steadfast commitment to scientific excellence rather than partisan relevance.

CONCLUSION

Previous chapters examined an array of challenges to NSF social science during the 1970s, followed by an unprecedented budget-cutting threat and widespread sense of crisis in the wider social science community during the early Reagan years. This chapter has revealed that as the 1980s wore on, serious problems at the levels of funding, organizational position, high-level representation, and status persisted at the natural science-oriented NSF. During the decade, the social science share of funding dropped steeply, from 6 percent in 1980 to 3.3 percent in 1989. Although the notion of giving the social sciences a directorate of their own had received some high-level attention back in 1980, this notion never received serious consideration during the Reagan era, and social science programs at the NSF remained inside the DBBSS, where leadership always rested in the hands of biologists. Against this background, the case of the sociologist Otto Larsen is telling. From 1983 to 1986, he occupied a new position established to address difficulties associated with the lowly status of the social sciences, both at the NSF and in the national science policy arena more generally. But his time there proved to be frustrating. And when Larsen left the agency in 1986, the position itself was discontinued. Meanwhile, some (but not all) national

science leaders, including Reagan's chief science adviser George Keyworth and NSF director Erich Bloch, spoke about the social sciences in unflattering terms.

No doubt, none of these problems was entirely new. But during the 1980s, they were all exacerbated by the conservative counterrevolution's continuing depreciation of the social sciences, by the Reagan administration's science policy agenda (with its emphasis on national security, economic revitalization, the natural sciences, and the engineering sciences but not social reform or the social sciences), and by the NSF's responsiveness to that agenda, especially during the directorships of Knapp and Bloch, both Reagan appointees.

Yet, these years were not inhospitable to all of the social sciences, as the case of economics shows. Although the NSF economics program experienced a slight drop in funding from 1981 to 1989, the agency provided this program with a relatively supportive environment. Before Reagan came to power, economics already had a favored status compared to neighboring programs in Sociology and Political Science—due to widespread regard for its allegedly high level of scientific rigor and its quantitative sophistication; the relevance of economic science to pressing public policy concerns such as economic growth, inflation, and unemployment; a strong track record as seen in NSF support for many of the discipline's top prize winners; and effective leadership under James Blackman and Daniel Newlon. When conservative attacks on social science funding kicked into high gear, economists and others pointed out that the agency sponsored many lines of investigation that had undermined confidence in Keynesianism and contributed to the rise of the new economics. During Reagan's two presidential terms, economics also enjoyed a comparatively favorable institutional environment, as seen in the discipline's regular, albeit modest, representation among top decision makers and in the prominence of economic issues in social science work beyond the economics program itself. Finally, economics participated in and benefited from its involvement with big social science, as indicated in the case of large-scale economic modeling during the 1970s and the story of the PSID during the 1980s.

Equally important, we have seen that conservative pressures did not alter the fundamental commitment to scientific advance within the agency and within the economics program in particular. As a strategy for defending against conservative attacks, economists such as Martin Feldstein and Zvi Griliches as well as agency leaders drew attention to NSF-funded research

that supported the administration's views. Still, nobody ever suggested that the process of reviewing research proposals and making awards should favor conservative viewpoints *per se*. Instead, supporters of the economics program, both inside and outside the agency, valued the fact that the agency, both in policy and practice, maintained its longstanding commitment to first-rate scientific inquiry and scholarship at the hard-core end of the social research continuum. Thus, at a time when incentives for pursuing economic inquiry with a decidedly conservative bent had grown strong in the world of conservative think tanks and policy institutes, and while conservative pressures were reshaping the scope and directions of social research programs at mission-oriented agencies such as the DHHS, the NSF's insistence on funding science-driven research—in economics but also more generally in the social sciences—continued to give this agency enormous importance within the national science funding landscape.

Throughout the Reagan years, a commitment to the unity of the sciences, along with the notion that the social sciences were relatively immature compared to the natural sciences and thus the former would do well to take after the latter, remained firmly entrenched at the NSF. Yet, within American society and academia, that scientific viewpoint received considerable attention and criticism. In fact, whereas during the 1950s and early 1960s, serious challenges to scientism sometimes seemed like relics from a less-advanced or even prescientific epoch, such challenges had gained considerable power since the mid-1960s. What were the main thrusts of these challenges? And what if anything did critics of scientism say about the NSF?

