

LOSING GROUND: MOUNTING TROUBLES DURING
THE MORE CONSERVATIVE 1970S

The results of social research are often disappointing when measured against the immediate practical demands of current and recurring social problems.
—1975 NSF Annual Report¹

Mr. President: Will you please investigate this [MACOS]? In Texas we're scared.
—John D. Plummer, U.S. citizen, circa 1975²

In the coming years, “the behavioral sciences will be called upon ... to contribute to the solution of many complicated and pressing social problems.” So wrote the sociologist David Sills in a *New York Times* article published January 20, 1970. Sills was a former fellow at Stanford University’s Center for Advanced Study in the Behavioral Sciences. He and Columbia University sociologist Robert K. Merton had recently finished coediting the massive seventeen-volume *International Encyclopedia of the Social Sciences* (1968). In 1989, Sills would receive the American Sociological Association’s distinguished career award for the practice of sociology. Writing as a leading authority, Sills anticipated that the United States would need the social and behavioral sciences more than ever before. Fortunately, to do their work more effectively, they had recently acquired “new powerful tools,” including “the sample survey, mathematical models, and the high-speed computer.”³

Yet, despite Sills’s optimistic forecast, four developments made the political and intellectual climates increasingly problematic for the social sciences and their policy contributions. First, the trajectory of federal funding took a worrisome turn. After rising dramatically from the 1940s through the mid-1960s, the federal R&D budget hit a wall in the late 1960s and then fell. When adjusted for inflation, federal science spending during the mid-1970s was fully 20 percent below its highpoint in 1967.⁴ Whereas in the

post-Sputnik era, a rising tide had helped to lift all boats, budgetary woes now threatened to halt any further expansion in NSF social science.

Second, discussions in academic, intellectual, and policy circles registered a growing skepticism about the social sciences and their practical relevance. Building on charges advanced during the turbulent 1960s, left-leaning critics claimed that their scholarship and policy influence was tainted by a conservative bias supporting such evils as patriarchy, racism, militarism, and imperialism. Equally important were vocal critics on the right, backed by an increasingly powerful conservative movement, who charged the social sciences with supporting a different set of evils, from the erosion of American power and influence in international affairs to the spread of welfare dependency, the hobbling of capitalism, the decline of the traditional family, and the subversion of Christian culture and morality.⁵

Third, across the political spectrum, distrust in government and its experts deepened following an array of unnerving developments. These included continuing protests over the Vietnam War and the eventual withdrawal of American troops without honor and without victory; the Watergate scandal, capped by President Nixon's resignation; soaring oil prices and alarming gas shortages; the advent of "stagflation" (i.e., low economic growth coupled with rising inflation and high unemployment); the partial nuclear meltdown at Three Mile Island; and the overthrow of the American-supported shah in Iran by revolutionary religious forces, followed by the seemingly interminable Iranian hostage crisis. Against this background, the notion that social science research and advice could be of much help in addressing such problems lost considerable support in the scholarly and political communities.⁶

Fourth, the demands for political responsiveness and public accountability became more intense within the federal science system. Starting in the late 1960s, science policy became "much more a creature of the political process," as Daniel Kevles and other historians have pointed out. "Appointments to advisory and administrative posts" in science agencies now "took into account" a candidate's political views to a greater extent than before.⁷ At the NSF, this trend was reinforced by a passage in the 1968 Daddario amendment that required the positions of deputy director and assistant directors to be appointed by the president and confirmed by the Senate.⁸ Previously, the process of political approval only applied to the director and board members. In addition, the White House Office of Management and Budget acquired greater control over the development of budget requests

from the NSF and other executive branch agencies, before the submission of their requests to Congress,⁹

The NSF faced a new layer of congressional scrutiny as well. Ever since its founding, congressional appropriations committees had been responsible for approving its budget and reviewing its work. Due to another provision in the Daddario amendment, additional rounds of hearings before science committees in the House and Senate became obligatory. Thus these committees were responsible for reviewing and authorizing NSF annual appropriations requests before they went to the appropriations committees. By making the NSF more responsive to political pressures from the White House and Congress, these changes exposed the agency to partisan conflict more so than ever before. That, in turn, meant greater vulnerability for NSF social science, especially in the mid-to-late 1970s as the influence of conservative critics rose.

These four developments are crucial for understanding the trajectory and broader importance of NSF social science during the 1970s. Budgetary pressures, growing skepticism about the social sciences and their policy relevance, a conservative resurgence that brought mounting attacks on left-leaning influences, and heightened demands for political responsiveness along with greater vulnerability to partisan conflict all posed problems.

This chapter focuses on three episodes that generated extensive controversy about NSF-funded projects in ways that put the agency and its social science advocates on the defensive. The first section focuses on the rise and fall of Research Applied to National Needs (RANN), a program created in the early 1970s as a successor to IRRPOS. RANN's story enables us to explore mounting concerns about the place of applied social science at the agency and growing criticisms about the nature and uses of applied social research more generally. The second section centers on Democratic Senator William Proxmire's widely publicized claims that some NSF-funded social science projects had no practical value and thus did not deserve taxpayer support. The third section considers stinging and mainly conservative attacks on MACOS, the social science-based grade school curriculum whose origins we considered in the previous chapter.

If trends during the 1960s and early 1970s looked auspicious, these three episodes reveal how changes in American political culture, federal science policy, and intellectual life during the new decade informed serious challenges to the social sciences and the NSF's involvement with them. Moreover,

these challenges intersected in ways that made their overall impact powerful and damaging.¹⁰

PROBLEMS ON RANN'S MANAGED FRONTIER

Although the sociologist David Sills only commented on the social and behavioral sciences in his 1970 *New York Times* article, his remarks reflected a broader interest in the practical benefits of scientific research. As the historian of higher education Roger Geiger has observed about these years, "in research, findings applicable to immediate problems were demanded, while current rhetoric disparaged traditional scholarship in academic disciplines."¹¹ In step with this trend and seeking to capitalize on its new applied science mandate, the NSF had created IRRPOS. As a sign that social science would be of some importance, the 1970 NSF annual report used the case of economics to illustrate the potential for tremendous benefits: if "improvement in public and private policies resulting from research in economics" increased "the gross national product by only one-tenth of 1 percent," this would "add \$1 billion yearly to our nation's economy."¹²

The turn toward applied science and specifically applied social research also posed challenges for the agency, as we saw in chapter 4. A large gap between high expectations and modest, perhaps even meager, results could lead to disenchantment and negative repercussions. Greater support for applied research could also result in diminished enthusiasm and inadequate support for basic research. And the leveling off of the NSF budget could make it difficult to sustain the momentum needed to place its new applied research initiative on a stable footing.

Regardless of those anticipated difficulties, however, political pressures and financial incentives initially encouraged expansion in NSF applied research in the early 1970s. The Nixon White House, through its Office of Management and Budget (OMB) and its Office of Science and Technology, encouraged rapid growth, as did Congress. With Nixon's support, OMB leaders encouraged the NSF to become more active in guiding research to maximize its relevance to specific social and economic problems. This became evident through OMB dealings with the new NSF director William D. McElroy, who had replaced Haworth in 1969 and was the first biologist to lead the agency.¹³ After McElroy submitted a proposed budget for fiscal year (FY) 1971 that included \$10 million for IRRPOS, the OMB suggested

that if the agency made certain desirable changes, it would support a much higher overall budget request to Congress, as much as \$100 million more than McElroy had requested and with half—\$50 million—designated for applied research.¹⁴

The NSF responded favorably, as one would expect. The agency agreed to replace IRRPOS, which had been led by the physicist Joel Snow, with a more ambitious program called RANN and placed Alfred John Eggers Jr. in charge. An aerospace scientist-engineer with a Stanford PhD, Eggers specialized in supersonic flight research and human spaceflight, had more than two decades of high-level administrative experience at NASA, and had been a professor and administrator at MIT shortly before taking up his NSF post. One of many science-administrators who moved to the NSF in the midst of budgetary woes and layoffs at NASA due to Project Apollo's termination, Eggers was well equipped to reinforce RANN's engineering emphasis.¹⁵

The NSF also placed RANN in a new organizational unit called the Research Applications Directorate, which gave RANN greater visibility and independence than its predecessor. These changes underscored the NSF's expanding commitment to what McElroy called "problem-oriented research." With the general aim of stimulating the use of science and technology to solve national problems, the agency engaged in a number of activities: it set out to identify specific national problems, sponsored research to address such problems, and took measures to decrease the time lag between the conduct of research and the application of results.¹⁶

Moreover, with the new RANN program, the NSF departed from its traditional management practices of waiting for the scientific community to submit research proposals and expecting only minimal involvement of agency leaders in shaping those proposals. RANN program managers, by contrast, were instructed to be proactive. Accordingly, they helped to establish problem-oriented research priorities. They sought out promising lines of interdisciplinary research that might otherwise not receive adequate attention from disciplinary-oriented scholars. They engaged potential users in the formulation of research projects and in the assessment of results. They also required RANN projects to include specific plans for the dissemination and use of results.¹⁷

Within a short period of time, RANN became a major program. Although the agency did not get all it requested, the 1971 budget approved by Congress included \$54 million for RANN, a rather large sum for any new program. It

was also substantially larger than the initial figure of \$10 million requested for IRRPOS.¹⁸ As of 1971, RANN already accounted for about 10 percent of the total NSF budget. A few years later, that figure had risen to nearly 25 percent, an impressive amount in light of the agency's original and still-dominant basic science commitment.¹⁹

RANN supported projects involving a wide array of work in the physical, biological, environmental, and engineering sciences. RANN also became important for the social sciences, for many reasons. RANN provided encouragement and validation to social scientists, especially scholars working on research relevant to national problems. RANN reflected wider hopes that such research could make demonstrable contributions to human welfare. Last but not least, RANN provided social scientists with extensive funding. Between 1972 and 1975, NSF commitments to applied social research channeled through RANN increased from about \$7 million to \$20 million.²⁰ The latter figure represented 18 percent of RANN's annual budget.²¹

Initially, most of RANN's social science funding was channeled through its Social Systems and Human Resources Division (SSHRD). This division had three main areas of concern: municipal systems, operations, and services; social data and community structure; and social program evaluation methodology. RANN also had three other divisions, for environmental systems and resources, for advanced technology applications, and for exploratory research and problem assessment. Each of these three supported some social research as well.²²

In 1975, the SSHRD was closed as part of a broader reorganization undertaken so that RANN could "concentrate more directly on major problem areas." Henceforth, support for social research was concentrated in a new Advanced Productivity Research and Technology Division, which had a strong focus on economic matters and "improving the productivity of the public sector." Three programs within this division focused on more specific lines of interest: public-sector technology, public policy and economic productivity, and public policy and human resources. After the reorganization, RANN had four other divisions as well, for the environment, for exploratory research and technology assessment, for intergovernmental science and public technology, and for resources, which supported the development of "strategies and new technologies" to make "more effective use of renewable and nonrenewable resources in the national interest." Much as before, each of these four supported some social research. For exam-

ple, investigations about the social impact of natural hazards and disasters received funding under environmental research.²³

RANN's importance to the social sciences becomes more fully apparent when one considers its substantial financial contribution to the overall NSF social science effort. In 1975, RANN's \$20 million for applied social research was equivalent to nearly 75 percent of the social science division's budget of \$27 million. In addition, whereas up until 1968, the agency officially supported basic research exclusively, the percentage of total social science funding allocated to basic research fell dramatically during RANN's expansionary period, reaching a low of 63 percent in 1976.²⁴

According to a 1977 analysis from the House Subcommittee on Science, Research, and Technology, some applied social research projects sponsored by RANN were successful. These included a public opinion survey on the energy crisis, carried out by the National Opinion Research Center and designed to help public policy makers "develop more effective energy conservation and price control measures." Another project, carried out by the Hastings Institute of Society, Ethics, and Life Sciences, led to a useful book about "the ethical, social and legal issues in the field of applied behavioral technology," which "included proposed guidelines for psychosurgery being considered by presidential commissions looking at biomedical experimentation." A third study deemed successful involved an investigation of the "economics and social impact of alternative work schedules." According to the subcommittee, RANN's section on economic productivity "made several other notable awards."²⁵

Nevertheless, RANN social science also generated serious criticisms within the NSF. Some of these appeared as early as 1971, when an internal assessment from the social science advisory committee noted that the array of projects receiving support was too diverse. This criticism, in turn, fueled a more general worry that RANN was "so diffuse in the number of problems considered" that it seemed destined to "fall short of achieving significant results with respect to any one of the activities selected for support."²⁶ In addition, although RANN provided substantial funding for social research, the social science advisory committee noted that this area was "not really very heavily represented" within the program's overall structure. Nor did RANN's top leaders from aerospace engineering have much specific knowledge about the social sciences. Many applied social research projects were of uncertain quality as well. In light of these many problems, the advisory

committee suggested that RANN should at least make sure that its projects were of “high scientific quality.”²⁷ This was hardly a resounding endorsement. After all, the goal of promoting scientific excellence was assumed from the outset, regardless of the particular NSF program in question.

Furthermore, any successes like those mentioned above provided little comfort as a barrage of negative assessments from the nation’s political and scientific communities found RANN and NSF applied social science activities problematic. Critics in government included the powerful liberal Democratic senator from Massachusetts, Edward M. Kennedy. The “Lion of the Senate,” Kennedy advocated for an activist government that promoted social justice and economic opportunities for all. In the late 1960s, he joined Representative Daddario in marshaling legislative support for the successful amendment to the NSF’s charter. Now in the mid-1970s, Kennedy chaired the Senate appropriations committee responsible for determining its budget. Although the Massachusetts senator supported its applied research mission in general, he found RANN disappointing.

In October 1974, Kennedy expressed his concerns to NSF director Guy Stever, who two years earlier had replaced the biologist McElroy. A physicist with expertise in guided missiles and space flight, Stever had been chief scientist at the U.S. Air Force in the mid-1950s and then president of Carnegie Mellon University from 1965 to 1972. Following up with Stever about an appropriations committee report that said social science funding should remain at its current level for another year, Kennedy acknowledged that this recommendation could seem “potentially damaging.” But he also wrote that it was “certainly understandable.” Congress had continued its efforts to induce a reorientation and redirection in NSF social science toward national problems, but “to no avail,” claimed Kennedy, although he didn’t elaborate with specific examples.²⁸

Assessments of RANN from Congress and the nonpartisan Government Accountability Office provided additional criticisms. These included the following: some projects were unnecessary because they duplicated the work of other agencies, or at least other agencies already had sufficient responsibility for carrying out such work; some research was not important with respect to national needs; and the results of some studies could not be generalized, limiting their value.²⁹

Making matters worse, RANN’s efforts also received poor marks from influential social scientists who challenged the wisdom of trying to make the

NSF a significant player in applied research. As the sociologist Otto Larsen put it, political pressures that made RANN a major presence “startled traditionalists in the academic science community.”³⁰ This concern, already present during the legislative discussions about the Daddario amendment, received ample expression in the mid-1970s when the NSF commissioned a study on its social science programs from the National Academy of Sciences. This study, produced by a committee chaired by Herbert Simon and thus known as the Simon Report, conveyed “substantial reservations about the effectiveness” of NSF support for applied social and behavioral sciences (SBS) research. More specifically, the report found that the NSF directorate for research applications—the organizational unit responsible for RANN—did not include adequate participation by staff with SBS training. Echoing a worry expressed by the NSF social science advisory committee, the Simon Report also judged the agency’s applied research efforts to be second-rate, “highly variable in quality and, on the average, not impressive.” On top of that, it found that procedures for developing projects supported by RANN did not allow enough participation by the community of applied scientists. Consequently, pressures from RANN staff had resulted in research proposals tailored to the aims of “narrowly specified programs, planned from the top down,” while “genuinely unsolicited proposals” received too little attention.³¹

Looking forward, the Simon Report recommended that the NSF return control over the development of research proposals to the scientific community: “More participation of the performer communities is essential for judging the scientific quality of proposed projects.”³² This line of reasoning spoke to pervasive fears among scientists who believed that increased political control of federally funded research favored applied studies at the expense of basic research and led to excessive regulation and oversight. As an article in *Science* warned, the movement to direct science toward problem-related areas threatened to turn the endless frontier of science into a “meticulously planned and managed frontier.”³³

The final blow came in 1977 when, after a thrashing from many quarters, the NSF brought RANN to a close. During a period of general cutbacks in federal science support that began in the late 1960s, RANN had been handsomely funded, for a total of nearly half a billion dollars, \$468 million—equivalent to \$2,227 million in 2018 dollars.³⁴ But high expectations and financial support had given way to widespread criticism and abolishment.

It must be noted that RANN's demise did not put an end to the agency's efforts to promote applied science and relevant research. The very next year, the agency created a new applied science and research application program to support work in the areas of "problem analysis, integrated basic research, applied research, and intergovernmental science and public technology."³⁵ The agency also sought effective ways to promote translation of new ideas into applications with commercial potential, for example, through the new Industry–Cooperative Research Program.³⁶ In light of the continued political demand for applied research, other NSF research units devoted some funds as well. Thus, as was noted in a retrospective account three decades later, many initiatives supported by RANN lived on in other forms at the agency.³⁷

But for the social sciences in particular, RANN's collapse reflected a growing disenchantment with applied social research. We have already seen the pushback against NSF involvement with this research in the Simon Report and in a number of government assessments. In addition, the hopes associated with such research at RANN and elsewhere had rested heavily on a social engineering viewpoint, which assumed—naively, according to its many critics—that value-neutral, apolitical knowledge produced by rigorous basic, problem-oriented, or applied studies would enable policy makers to devise more effective solutions to various problems. By the mid-to-late 1970s, vigorous challenges to this viewpoint appeared in countless publications.³⁸

Criticism of social engineering also became a central theme in an emerging subfield of scholarly investigation known as the sociology of knowledge application. Arguably, the single most influential figure in this new field was the Columbia University–trained sociologist and Harvard professor of educational policy Carol H. Weiss. As Weiss pointed out, in earlier decades, the sociology of knowledge, associated with landmark contributions from the German sociologist Karl Mannheim and the American sociologist Robert Merton, had focused on how social conditions shaped intellectual activity and the production of knowledge. But the new field of study went farther by considering how social factors shaped the uses of knowledge, which required investigation of the "conditions under which knowledge is produced, diffused, and applied."³⁹

Contrary to the standard social engineering outlook, Weiss argued that the main benefits of social research typically did not come from direct application or straightforward incorporation of new knowledge. Instead, such benefits arose when ideas, information, and viewpoints shaped how people

thought, conversed, and acted. Although this sort of diffuse influence might be hard to trace, Weiss claimed it was valuable at a number of levels. In her 1977 edited book *Using Social Science in Public Policy Making*, she argued that social science could provide “a common language of discourse in our fragmented society”; that social science “terms, data, models, and orientations” could strengthen the “coherence” of discussions, debate, and policy formulation; and that by penetrating governmental units, social research could open up “new vistas.”⁴⁰ Social research, Weiss noted elsewhere, could also provide a foundation for informed social criticism. Here, in what she said was perhaps “its most valuable, and valued contribution,” social science offered “officials a conceptual language with which to rethink accustomed practice.”⁴¹ Still, none of those benefits conformed to the linear instrumentalist vision of social engineering.

Moreover, Weiss and other scholars identified a host of “congenital difficulties in the application of social science research to policy.” For one thing, government policy making favored a strong pragmatic orientation that emphasized “the resolution of aching controversies with minimal pain,” rather than “scientifically elegant solutions.” In addition, governmental units generally had “an enduring respect for order.” When proposals based on research findings threatened “to bring about rapid change,” the units involved tended to defend the status quo, with all of its known “ills.” It was widely understood as well that knowledge produced by social researchers had a “frail character.” Realizing that social science was “beset with fads of attention, with competing theoretical frameworks, and with contradictory empirical evidence,” governmental officials naturally hesitated to give such work much weight.⁴²

Thus, this new line of study about the uptake of social science brought worrisome news. Apparently, earlier enthusiasm about its practical value and especially its public policy-making uses was naïve.

Amid this barrage of scholarly criticisms concerning how social science was used, misused, or simply not used at all by policy makers, the NSF as well as the NAS jumped on board by blessing this chastened outlook just as RANN’s reputation was plummeting. As the opening quote from the 1975 NSF annual report put it, “the results of social research are often disappointing when measured against the immediate practical demands of current and recurring social problems.” A few years later, this deflationary observation received further elaboration in a six-volume study commissioned by

the Executive Branch's recently established Science and Technology Policy Office and carried out by the NAS. The study's main finding underscored "the limitations of social research as a tool for making social policy or operating social programs." Examination of these limitations revealed specific factors that hampered the "effective application of knowledge," including "doubts as to the quality or relevance of the results of research and other knowledge production activities," "the lack of clear policies on the dissemination and use of results," and "a weak sense of the appropriate audience for many results."⁴³

These efforts to rethink and reassess the complicated relationship between the social sciences and policy making had serious implications for their standing in American society. Confidence that social science guidance would make the policy-making process more rational and effective had sunk by the late 1970s. Scholarly literature and national science reports now argued that social science-informed programs and policies fell far short of their goals. Moreover, social science research itself helped to undermine "naïve and simplistic faiths upon which the legislative initiatives of the 1960s implicitly or explicitly rested," noted the Brookings Institution scholar Henry J. Aaron in his respected book *Politics and the Professors: The Great Society in Perspective* (1978).⁴⁴ Concurrently, "the belief that the experts in the research community are at least partially to blame" spread like wildfire. So did "rising dissatisfaction" with the social sciences more generally, as the 1978 NAS report mentioned above pointed out. By the decade's end, the social science community faced "increasing pressure" to demonstrate its "usefulness to policy makers, programs, officials, and legislators."⁴⁵

How far the mighty hopes for powerful applications in the social sciences had fallen since RANN's early days!

By the time of RANN's closure, any expectations about this being an exciting new chapter in NSF social science had been thoroughly dashed. To be sure, this worrisome development reflected the fact that the social sciences were caught up in larger institutional and policy challenges concerning NSF support for applied science regardless of the particular field of study. At the same time, however, specific criticisms of RANN-supported social research were part of a broader depreciation of the social sciences' practical value in the political and scholarly communities during the 1970s.

While the saga of RANN was unfolding, a second clamor compounded the difficulties for NSF social science. In this case, harsh scrutiny from the

Democratic Senator William Proxmire raised questions about the wisdom of spending tax dollars on research projects whose practical contributions and social utility he and other critics, including some conservative commentators, found hard to fathom.

WASTING TAXPAYERS' DOLLARS/WINNING GOLDEN FLEECE AWARDS

From time to time, doubts about the wisdom of funding social and psychological research have suffused American political culture. During the postwar NSF debate, Republican Representative Clarence Brown warned natural science leaders that they would not get a new agency if this meant making room for short-haired women and long-haired men studying sensitive topics such as marital relations. During the McCarthy era, the Reece Committee proposed that social science funded by large tax-exempt foundations had advanced a plethora of dangerous isms, including atheism, socialism, and moral relativism. In the early 1960s, skeptical legislators raised questions about irrelevant-sounding research, citing the case of a three-year NSF psychobiology grant for "Ethological Investigation of Bird Sounds."⁴⁶ As concerns about wasteful federal expenditures became increasingly widespread during the 1970s, legislators shined an unflattering spotlight once again on certain science projects supported by federal agencies. Nobody drew greater attention to this issue than Senator Proxmire.

First elected to Congress in a special election held in Wisconsin in 1957 to fill the position left vacant due to Senator McCarthy's death, Proxmire became well known for his boundless energy, expertise in public administration and economic affairs, and fiscal frugality. During his 1976 and 1982 Senate election campaigns, Proxmire refused to accept any campaign contributions and spent less than \$200 from his own pocket.⁴⁷ Still, he won both elections handily. In 1988, after serving five six-year terms in a row, he retired from politics. The author of many books, including two on excessive government spending, *Uncle Sam—The Last of the Bigtime Spenders* (1972) and *The Fleecing of America* (1980), Proxmire's charges of wasteful expenditures on social science projects would pose special problems at the NSF for many reasons.

To begin with, Proxmire chaired the Senate subcommittee with jurisdiction over NSF appropriations during the mid-to-late 1970s. At the time, Senator Kennedy—who had become sharply critical of RANN's

social science efforts—chaired the parent Senate appropriations committee. In addition, although the strongest political opposition to federal funding most often came from conservative figures, Proxmire was a maverick Democrat, as seen in his backing of consumer protection legislation, his criticisms of the Vietnam War, and his persistent and ultimately successful effort to get Senate approval for the Convention on the Prevention and Punishment of the Crime of Genocide.

Furthermore, Proxmire could not be considered anti-social science in a general sense. His education included advanced studies in economics and government at Harvard University, where he completed two master's degrees, one at the Business School in 1940 and the other at the Graduate School of Public Administration in 1948. He also served in the Army's intelligence branch during World War II. As a senator, he supported the implementation of the Programming-Planning-Budgeting-System (PPBS) throughout the federal government during the 1960s. First developed within the defense department under the leadership of Robert McNamara and his Whiz Kids from the RAND Corporation, the PPBS promised to place military budgeting on a rational basis by using a combination of systems theory and quantitative cost-benefit analysis. Proxmire declared that this new budgeting system represented the "most basic and logical planning tool which exists: it provides for the quantitative evaluation of the economic benefits and the economic costs of program alternatives, both now and in the future, in relation to analyses of similar programs." This position was consistent with Proxmire's well-known interest in exposing, as one journalist wrote, "costly boondoggles in the military budget."⁴⁸

With regard to the NSF, the drama began with an announcement that Proxmire had created a new award of an unflattering sort. In 1975, a *Chronicle of Higher Education* article observed that the Wisconsin senator was "on the prowl again," searching for ways to eliminate wasteful expenditures.⁴⁹ He had already singled out more than a couple dozen NSF projects for criticism, including some involving RANN that he said should be funded by other agencies.⁵⁰ While reviewing the NSF's budget for his appropriations subcommittee, Proxmire identified a number of "academic con games." "The American taxpayer," he quipped, "would get a better return on his money if he put it in White Russian bonds."⁵¹ Starting at mid-decade and continuing each month until his retirement in 1988, he drew public attention to "the biggest, most ridiculous or most ironic example of Government



Figure 5.1
 Senator William Proxmire talks with President Carter in the White House, January 18, 1978. Photo by White House Photographer, courtesy of Wisconsin Historical Society, WHS-30077.

spending or waste” by bestowing a Golden Fleece Award.⁵² In this context, the title brought to mind the verb *to fleece*, that is, to charge an unreasonably high price for something.

Although Proxmire did not focus exclusively or even mainly on the social sciences, he did find a number of research grants in this area problematic. One time he bestowed a Golden Fleece Award on a National Endowment for the Humanities grant of \$25,000 for a study about why people in Virginia behaved rudely on tennis courts.⁵³ Another time he singled out a \$260,000 NSF grant to the University of Wisconsin for a project on passionate love. Although Wisconsin was Proxmire’s home state, he showed no favoritism to its flagship university or its scholars, as he declared this grant to be “an outrageous waste of the taxpayers’ money.”⁵⁴ Another NSF grant to the University of Pennsylvania for \$199,000 to support a quantitative study of linguistic change and variation would “leave most Philadelphians speechless,” declared

Proxmire on another occasion. Such a study hardly seemed needed, he added, because many decades before, the great British author George Bernard Shaw had already examined the acquisition, change, and spread of speech patterns in a book that led to the smash Broadway musical *My Fair Lady*.⁵⁵

The dispute over whose judgment should matter—the scientist’s or the politician’s—came to a head in a case involving the University of Michigan cultural anthropologist Sherry Ortner. An up-and-coming scholar at the time, Ortner had studied with Clifford Geertz at the University of Chicago and published a recent book called *Sherpas through Their Rituals*. She went on to a stellar career marked by a 1980 Guggenheim fellowship, a 1992 MacArthur “genius” award, and the 2004 best-book prize in anthropology for another one of her monographs, *Life and Death on Mt. Everest: Sherpas and Himalayan Mountaineering*. What caught Proxmire’s eye was an NSF-funded project by Ortner called “Himalayan Mountaineering, Social Change, and the Evolution of Religion among the Sherpas of Nepal,” which involved household surveys, interviews with village people and mountaineers, library and archival study of Buddhist monasteries, and examination of religious rituals. In September 1979, Proxmire lavished unwelcome attention on her grant with a Golden Fleece Award.⁵⁶

Proxmire explained that he did not intend to criticize Ortner’s research per se, although he did not speak highly of it. Nor did he believe in censorship. But at a time of “rampaging inflation,” he asked whether the government should spend taxpayer money “to send researchers half way around the world to study what is at best an esoteric question.” Support for such research would, in his view, be more appropriate if it came from either a “religious order ... private foundation ... or university.”⁵⁷

In Ortner’s case and others like it, NSF leaders typically responded to Proxmire’s charges by defending the particular grants in question, but they refrained from challenging him more generally. This is not surprising because Proxmire chaired the Senate appropriations subcommittee responsible for NSF funding. According to one journalist, his unflattering awards and wry commentary, together with extensive press coverage, elicited from agency leaders no more than a “turn-the-other-cheek forbearance.”⁵⁸ But Ortner herself mounted a vigorous defense.

By questioning public support for her research, Proxmire betrayed a dangerous ignorance about the forces shaping international development and U.S. foreign policy, charged Ortner. Here, Ortner placed her research in the



Figure 5.2
Sherry Ortner in Nepal for her dissertation research, ca. 1967. Courtesy of Sherry Ortner.

context of mounting critiques of modernization theory and its uptake in efforts to promote American-friendly development around the world. Proxmire, she said, shared “an attitude prevalent among most economists ... most development planners, and even many anthropologists, to the effect that religion is a relatively trivial social force.” Due to such blinkered thinking, American leaders had been caught with their “collective pants down” in the recent and distressing case of Iran. After receiving “untold millions of dollars in [U.S.] aid for economic development,” Iran had erupted in a “religious revolution” that replaced the shah, a long-time American ally, with the radical Islamic leader Ayatollah Khomeini. In light of Proxmire’s “anti-intellectual” and “ethnocentric” views, the future academic star questioned whether he had the capacity to “participate intelligently in foreign policy decisions.”⁵⁹

Ortner also appealed to this larger context of cultural misunderstandings and foreign policy missteps to underscore the value of her NSF-funded research. Although the Sherpa society had experienced “extremely rapid modernization,” she noted that these people did not suffer from various

“social ‘pathologies’” associated with rapid social change, including alcoholism and juvenile delinquency. Understanding the surprising absence of such pathologies could have far-reaching implications for the conceptualization and implementation of modernization projects. Moreover, Ortner pointed out that whereas development experts often saw religion as an obstacle to modernization, her work showed that religion played a crucial role in maintaining “cultural stability” in Sherpa society. Hence, such research could help construct a better “developmental model.”⁶⁰

Proxmire’s proposal for direct political review of individual grants could lead to dangerously naive funding decisions as well, a point suggested by Ortner and further elaborated by Roy A. Rappaport, the chairman of Ortner’s home department at the University of Michigan. Regarding Proxmire’s proposal, Rappaport highlighted the desperate need for better knowledge about development in policy-making circles. In recent years, it had become increasingly clear that much of the nation’s support for so-called Third World regions had been wasted outright or else spent on projects that actually “worsened the lots of those whom they were presumably going to help.” Such “lamentable results” were at least partially due to “the planner’s ignorance of the cultures, societies and ecosystems.” Rappaport thus asked,

If billions of dollars are to be spent on foreign aid, is it not merely wasteful but downright criminal not to spend a few thousand dollars to support the research of those who would enlarge our understanding of societies in which our interventions have all too often been ignorant, wasteful, brutal, destructive, and stupid?⁶¹

Seen in this light, Proxmire’s cost-cutting crusade threatened to undermine the nation’s interests and global responsibilities in a complex and precarious world.

Proxmire’s stance also seemed to threaten scientific progress itself. The senator’s “crusade” could “intimidate researchers” and pressure agencies to cut their budgets “to a point where basic research” would not “survive,” Ortner noted.⁶² Rappaport concurred, saying that one would be tempted to “laugh off” the unflattering awards he bestowed except that such “media events” had a “chilling effect” on “serious—and relatively inexpensive—research” as well as on “those who fund it.”⁶³

Similar points appeared in news outlets around the country, with an article in the *Arkansas Gazette* suggesting that to comprehend and address the frightening damage caused by religious cults and their charismatic leaders,

the nation needed a “large-scale scientific effort” worthy of federal support. Unfortunately, however, such an effort would probably inspire “congressional grand-standing about ‘wasteful’ social science research.”⁶⁴

Despite such criticisms, Proxmire remained firm. Budging not even an inch, he called the replies by Ortner and Rappaport surprising because of their “harshness.” He deemed “elitist” their claim that the evaluation of research proposals should remain entrusted to scientific peer groups selected by executive agencies such as the NSF that themselves were run by scientific interests. Here, exclaimed the Wisconsin senator, was the all-too-familiar argument: “Leave it to the experts! Papa knows best!” The time had come for people to recognize that the academic community functioned as a “self-interest group,” fighting and lobbying for its share of the public pie, just as other interest groups did, aiming to obtain “money without strings, without criticism, and with no public questioning of its priorities.”⁶⁵

Criticism of wasteful funding gained additional support from conservative opinion makers, who would soon help to place Ronald Reagan in the White House. Donald Lambro, a journalist who wrote for the *Conservative Digest* and *Free Enterprise*, dedicated his 1980 book *Fat City: How Washington Wastes Your Taxes* to “the American Taxpayer.” For this study, Lambro had accepted research assistance from the Heritage Foundation, one of a growing number of conservative think tanks and policy institutes concerned about the relationship of social inquiry to public policy. Stoking worries in American political culture and especially in conservative quarters, Lambro characterized the federal government as a “bloated, extravagant, paternalistic, remote, cluttered, disorganized, inefficient, frivolous, duplicative, archaic wasteland.” He then identified the NSF as one of the hundred “most wasteful, inefficient and unnecessary federal agencies, programs and expenditures.”⁶⁶ Social science programs were among the specific areas he selected for closer examination—and budget cuts.

As had been common among rightwing politicians, intellectuals, and cultural commentators for decades, Lambro found studies on sexuality and gender roles particularly disturbing. Among them was one he dubbed the “pot-porno-penis project,” although in this case, the patron in question was not the NSF but the National Institute on Drug Abuse, which had awarded the study \$121,000. According to Lambro’s description of this study, volunteer male college students would smoke marijuana while watching pornographic movies. Researchers would then examine the effects of these

stimuli on sexual excitement, measured by a ring placed over the male sex organ. Thankfully, Lambro noted, Senator Proxmire had already helped to end federal funding for this study.⁶⁷ Yet this example was only the tip of the iceberg, as many other government-funded studies also deserved rebuke, including some with NSF funding.

In a chapter on “Love and Passion at the National Science Foundation,” Lambro called numerous research grants supported by the agency “laughably ludicrous” and claimed they deserved “almost zero priority.” These included a \$261,000 grant for a sociological study that aimed to determine if “equity theory” would help predict “human reactions in deeply intimate relations” and another grant of \$82,000 for the development of “quantitative measures of masculinity and femininity.”⁶⁸

NSF funding for other disciplines also caught Lambro’s eye. By the late 1970s, the agency was providing about \$3.5 million annually to political science. But the value of certain research studies seemed questionable. For example, one project that received \$80,000 involved the examination of decision-making processes in presidential candidates who sought nomination from their parties. Lambro asked why the government needed to spend money for such a study. He did not elaborate, though, perhaps presuming that no further comment was necessary. The agency also spent a much greater amount, roughly \$10 million, on research in economics, “one of the most inexact of the sciences,” according to Lambro. All in all, many federally funded social science studies seemed “about as scientific as the Wizard of Oz.”⁶⁹

From this vantage point, the time for stringent budget cuts was long overdue. In 1980—the year *Fat City* appeared—NSF funding for social research went mainly through its Directorate for Biological, Behavioral and Social Sciences (DBBSS), which was created in 1975 and will be discussed in the next chapter. The agency’s FY 1980 budget included \$172 million for the DBBSS. Of this amount, Lambro proposed that fully \$100 million or nearly 60 percent could be justifiably cut. Funding for “studies like those on lawyers, congressional campaigns, peasant Alpine villages, and the pitfalls of romantic entanglements” simply had to end.⁷⁰

These developments shined an unflattering light on social science supported by public funds and the NSF in particular. Neither Proxmire nor Lambro focused primarily on whether this or that project might contribute to the advance of scientific knowledge per se, although Lambro’s comment about the Wizard of Oz resurrected a longstanding concern about scientific

legitimacy. But the Democratic legislator and the conservative journalist both asked why the government should pay for studies whose practical relevance seemed minimal or whose content seemed problematic—and sometimes perverse. Furthermore, Lambro himself applauded the wisdom of “the Senate’s penny-pinching spending critic.”⁷¹ In the mid-to-late 1970s, their criticisms, together with the truckful of charges directed at RANN, fueled growing concern that NSF social science programs, whether for applied or basic studies, were “prone to unproductive ventures.”⁷²

CORRUPTING THE NATION’S YOUTH

As serious as the charge of wastefulness was, the problems hardly ended there. In the controversy over Ortner’s study, Proxmire had also raised the sticky issue of determining whether the NSF peer review system protected the narrow interests of scientists at the expense of the American taxpayers’ well-being and more pressing national priorities. Lambro’s discussion of the NSF-funded pot-porno-penis project provided additional bite, for it drew on a robust reservoir of conservative opinion that said a perverted form of liberalism ran rampant in the social sciences, which, in turn, compromised the country’s religious, moral, social, economic, and political foundations. In the mid-to-late 1970s, these two lines of criticism came together in a third controversy over MACOS, the NSF-funded social science-based grade school curriculum that had emerged amid landmark reforms in science education following Sputnik’s launch.

During the late 1960s and continuing into the 1970s, the NSF Division of Pre-Collegiate Education in Science provided MACOS with extensive funding. Along with RANN’s applied social research component, this educational project stood out as a major new development in NSF social science, complementing its more established efforts to support research projects, training fellowships, and institutional resources. The 1970 NSF annual report drew attention to MACOS’s special appeal. Situating this initiative in the context of cutting-edge, progressive trends in American education, the report reiterated the notion that the development of “suitable” curriculum materials in the social sciences still “lagged rather far behind” those for the natural sciences and mathematics. The problem deserved immediate national attention, as “large gaps” could be found from kindergarten to grade 12.⁷³

After reaffirming the importance of questions about human nature and society posed by Jerome Bruner, the report explained that MACOS treated them in two parts. The first part examined the “life cycles and behaviors of salmon, herring gulls, and baboons.” Here, students would encounter a number of basic topics, including the “significance of generational overlap and parental care, innate and learned behavior, group structure and communication, and their relevance to the varying life styles of animal species, including the human species.”⁷⁴

At first glance, the decision to focus heavily on nonhuman animal species might seem odd. Why not concentrate directly on human beings and human society? The answer was based on evolutionary thinking: if the evolution of our species, *Homo sapiens*, depends on the same sort of naturalistic processes that shape the development of all life forms, then one could presumably learn a lot by studying our similarities and differences with other species. For more than a century, this line of reasoning had been advanced by prominent biologists, most famously by Charles Darwin, but also by leading psychologists, among them the behaviorists John Watson and B. F. Skinner. The move to study human psychology and social behavior within an evolutionary framework also gained enormous academic and popular appeal with the rise of ethology, a field of scientific study that flourished in the post–World War II era. Nothing marked ethology’s prominence, with its call to study human behaviors alongside the behaviors of nonhuman species, more clearly than the 1973 Nobel Prize in Physiology or Medicine, awarded to three of the field’s European founders, Konrad Lorenz, Nikolaas Tinbergen, and Karl von Frisch.⁷⁵

MACOS’s second part focused directly on people, through the “intensive study of man in society—as culture-building, ethical creatures, toolmakers and dreamers.” Here, case studies would be central, including a unit on the Netsilik Eskimos of the Canadian Arctic.⁷⁶ (Although the term *Eskimo* is often considered derogatory today, it was used regularly in discussions about MACOS.)

This choice to focus on Netsilik culture might seem odd as well. Why not focus on materials more familiar to American schoolchildren? Given that MACOS aimed to teach children to think about themselves and society in a scientific manner, wouldn’t the scientific study of American culture and society seem especially valuable? In this case, the answer concerned the assumed benefits of examining a society that seemed comparatively simple.

Not only did the study of a complex society such as the U.S. promise to be more difficult, but MACOS's framework assumed that the features of human society of greatest importance are the features shared by different human societies around the world. In the words of the NSF report, the Netsilik society was "small and technologically simple, yet universal in the problems it faces."⁷⁷ The underlying reasoning, then, was that by examining the (allegedly) simple Netsilik society, students would learn to appreciate the fundamental importance of such things as culture building and tool making in any society they might encounter, including their own.

MACOS incorporated other strategies for teaching scientific reasoning and independent thinking as well. Based on the notion promoted by Bruner and other cognitive scientists that human learning and scientific learning had much in common because both depend on creativity and interpretation rather than passive acquisition and regurgitation, MACOS had no place for rote memorization. Rather, it encouraged students to become active learners. Thus, the course required students to explore new ideas and work through problems that involved investigation tailored to their young age. If all went well, they would learn how to discover things on their own, albeit with guidance from teachers who served as facilitators—not transmitters—in the process of discovery. Peter Dow, an expert in educational planning and social policy who was deeply involved with MACOS's development, underscored the importance of these pedagogical ideas: "For us, the goal of the course was to help teachers and children ... to question and explore their own preconceptions about what it means to be human in a spirit of inquiry that would permit a diversity of views and invite children to think for themselves."⁷⁸

Beyond educational theory and teaching strategy, MACOS produced course materials for classroom use. For this, the NSF turned to the Education Development Center (EDC)—as noted before, a nonprofit organization founded by MIT physicist Jerrold Zacharias and based in Cambridge, Massachusetts. The NSF had already used the EDC to develop educational projects with a multimedia character for the natural sciences, including its flagship high school physics curriculum. Similarly, for MACOS's development, the EDC produced "a variety of media, including films, filmstrips, records, posters, and booklets."⁷⁹

But after that job was complete, selling and distributing MACOS course materials proved challenging. Not even one of the fifty-eight commercial

publishers that considered the new curriculum would sign a contract.⁸⁰ According to the NSF, a trial phase in MACOS's development revealed that teachers and children themselves were "enthusiastic." However, "commercial book publishers and film distributors were unwilling to contract for publication." The main reason was economic. Course materials would be expensive to publish and thus costly for schools to purchase. Effective use of these materials would require additional funds to pay for teacher training programs. Furthermore, MACOS's "unconventional" subject matter might limit its appeal at the local level, where school curriculum and budgetary decisions were made across the nation.⁸¹ Thus, the financial risk was considerable.

Faced with the possibility that MACOS would never reach the classroom, the NSF decided to subsidize large-scale production of course materials through a contract awarded to Curriculum Development Associates (CDA).⁸² A private company located in the nation's capital, CDA received nearly \$5 million. Thanks to this subsidy, schools could afford the course materials sold by CDA.⁸³

By 1975, total NSF support for this project amounted to more than \$7.3 million, equivalent to about \$44 million in 2018 dollars. By that time, some 1,700 grade schools in forty-seven of the nation's fifty states had purchased course materials.⁸⁴ MACOS, one of fifty-three NSF precollege curriculum projects since Sputnik, was on a roll. This ambitious venture to bring the social sciences into American schools seemed destined for rousing success.

But in the mid-to-late 1970s, conservative figures took action to rescue impressionable young schoolchildren from liberalism, cultural relativism, atheistic science, and amoral social engineering. In this context, MACOS came under blistering attack from coast to coast. One of the earliest sites of local outrage was Phoenix, Arizona, where the bitter politics of educational reform catapulted the Republican politician John Conlan into the national spotlight—we will consider his specific criticisms of MACOS shortly.⁸⁵

By mid-decade, conservative organizations and think tanks in the nation's capital had set their sights on MACOS as well, with the Council for Basic Education and the Heritage Foundation forecasting considerable damage to young minds and harmful impacts on society. If Jerome Bruner, in his role as one of MACOS's main architects, could "effectively change an individual's understanding of the world he lives in, he can also change society as a whole," warned a 1975 report prepared for the Heritage Foundation by Susan Marshner. Sounding the alarm bells, Marshner further noted that a

teacher's guidebook for MACOS included quotations from the Harvard psychologist B. F. Skinner, whose view of "culture and environment is fundamentally deterministic, behavioristic, and relativistic." More generally, her report found it troubling that "in place of God," MACOS's creators were "erecting" the god of "Humanism."⁸⁶

To show how damage to young minds could occur, Marshner singled out a story in MACOS course materials that involved an elderly Eskimo lady named Kigtak, who is left on the ice by her son-in-law Arfek to die alone. For Marshner, this story raised important "moral questions." But she found that the "writers of the curriculum" had avoided them "as though they did not exist." Noting that moral questions involve making a choice between alternatives, she pointed out that either it is possible to determine the morally correct choice or it is not. The answer depends on whether there exist "moral absolutes which determine the choice." However, MACOS course materials taught that there are "no moral absolutes," thereby producing "values obfuscation." For corroboration, Marshner quoted the educational psychologist Rhoda Lorand's view that not only did MACOS force children "to be preoccupied with infanticide and senilicide," but it also encouraged them to be "accepting of these practices." In short, Marshner concluded that the new curriculum promoted the "truth of situation ethics and relativism."⁸⁷

The fact that the government backed MACOS raised further concerns. Federal sponsorship threatened the unfettered activity of the marketplace for educational materials, observed Marshner. To underscore this point, she acknowledged that even though MACOS's aims and content were deeply problematic, it would be wrong for anyone to question "the right of a private company, if it so desires," to put this type of course "on the market." In such a case, the marketplace would determine its value: it would either "sink or swim based on its intrinsic merits and the demand it generates." But in the present case, massive federal funding channeled through the NSF gave a curriculum packed with "material of questionable educational merit" an unfair advantage over "privately developed courses."⁸⁸

Around the time of Marshner's report for Heritage, conservative legislators joined the battle. First among them was the aforementioned John Conlan, a lawyer who served in the Arizona state legislature from 1965 to 1972 and represented his home state in the House of Representatives from 1972 to 1977. It should be noted that Conlan had an extensive education,

including degrees from Northwestern University and Harvard Law School, a year as a Fulbright Scholar in Germany, and further advanced studies at The Hague Academy of International Law. He had a brief academic career as well, teaching political science at the University of Maryland and Arizona State University. So, Conlan's disapproving comments on MACOS could not simply be dismissed as the unformed thoughts of a reactionary or anti-intellectual. In 1975, as a member of the House Science and Technology Committee, Conlan reviewed the NSF budget request, which included funds for MACOS.

Not one to mince words, the Arizona representative portrayed this project as part of a "dangerous plan for a federally backed takeover of American education." Similar to Marshner, Conlan explained that federal support for MACOS undermined the beneficial workings of the free market and hurt the legitimate financial interests of private, commercial textbook publishers. Furthermore, MACOS course materials, with their plentiful references to "adultery, cannibalism, killing female babies and old people, trial marriage and wife-swapping, violent murder and other abhorrent behavior," were offensive and damaging to children.⁸⁹

Such incendiary charges were gulped up by the mass media. Horror flicks: Is your ten-year-old watching "X-rated" films at school? This question appeared in a large headline for a *Washington Post* advertisement about a special NBC news report. The advertisement went on to describe MACOS as an NSF-funded program that involved "experimental classroom activities in fifth grades throughout the nation—including about 80 Washington area public schools." Some activities had "ten-year-olds" watching "films featuring such fare as the torture killing of a giraffe by tribesmen and a small child eating the raw eye of a deer."⁹⁰

Seeking to mitigate such harms, Conlan proposed an appropriations amendment to prevent the NSF from providing further funds for MACOS's development and implementation, unless the agency first obtained support from the relevant House and Senate committees. When this proposal came up for vote, the House narrowly rejected it, 215 to 196—with 182 Democrats and 33 Republicans opposed, 89 Democrats and 107 Republicans in favor.⁹¹ However, the House Science and Technology Committee then pressured the NSF to freeze funding until Congress could review the program. Soon, not one, not two, but three governmental reviews were under way: one by the Ad Hoc Science Curriculum Review Group under the auspices

of the House Science and Technology Committee, another by the Government Accountability Office, and a third by the NSF itself.

Just as bad for the NSF, this clamor inspired additional worries about its peer-review system. After voting down Conlan's proposed amendment, the House narrowly approved another one from Maryland Republican Representative Robert Bauman. After suggesting that the NSF had gone astray by venturing into the social sciences and education, Bauman said it should return to a narrower focus on funding basic research in the natural sciences. His proposal also aimed to give Congress greater political oversight of NSF grant making. Specifically, it would have required the NSF to provide Congress with a list of all of its grants—nearly 14,000 at the time—together with the justification for each one. And it would have given Congress veto power over individual awards.⁹²

Bauman's proposal thus threatened the longstanding commitment to scientific self-governance and the principle that judgments about the merit of scientific projects should be free from political meddling, a position articulated forcefully by Vannevar Bush in *Science—The Endless Frontier* and repeatedly reasserted over the years by the agency and its supporters. "The autonomy of science" was often "defended by the scientific community in ideological terms, but viewed by others as a form of scientific arrogance which asserts that the scientist's own frame of reference is the only one appropriate for evaluating the output of science," noted a 1973 essay by Harvey Brooks, a physicist and high-level government adviser.⁹³ So, by suggesting that NSF leaders, staff, and peer reviewers were not always the best judges of whether project proposals deserved federal support, Bauman had reawakened an issue of fundamental importance not only for the agency but also for the science community more generally.

When the House voted 212 to 199 in favor of the Bauman Amendment, NSF leaders were left "dumbfounded," reported an article in *Science*. The prospect of establishing congressional micromanagement of NSF grant making even went too far for Democratic Senators Edward Kennedy and William Proxmire.⁹⁴

Although the Bauman Amendment failed to receive approval from a joint House-Senate conference committee, critical inquiries regarding NSF policies and practices seemed endless. Reasoning that the social sciences posed the main trouble rather than the NSF as a whole, William V. Roth Jr., a Republican senator from Delaware and strong fiscal conservative, introduced

an alternative to Bauman's amendment that would have required OMB approval on all federal social science grants over \$25,000.⁹⁵ Although Roth's proposal also failed to get enough votes, Arizona's John Conlan and North Carolina's Jesse Helms, an uncompromising conservative Republican, put forth other proposals that would have required the NSF to provide national legislators and principal investigators with full peer-review reports of grant proposals, including the names of the reviewers.⁹⁶ According to standard practice at the time, the agency only made anonymous and redacted reviews available. Accordingly, when Conlan requested full peer-review reports for grant proposals concerning MACOS, the NSF refused. Outraged, Conlan argued that the proposed changes were needed to prod the agency to "operate in an environment of total openness," in contrast to its "completely arbitrary system that is closed and unaccountable to the scientific community and to the Congress." The agency, in his unflattering words, depended on "an 'Old Boy's System', where program managers rely on trusted friends in the academic community to review their proposals."⁹⁷ Following up on these concerns, the House Science and Technology Committee undertook an investigation of the peer-review system.

This episode had a wrenching impact on science education programs as well. Responding to the charges against MACOS, the NSF issued two policy statements designed to clarify its role and, hopefully, ward off further criticisms. One statement said that "prior to undertaking full-scale dissemination and assistance activities for NSF-developed materials," the agency would "undertake a careful review to ensure that the proposed subject matter fits within reasonable limits or norms with respect to educational value." This review would include "opportunities for input ... by representatives of the scientific, educational, child development, commercial publishing, and informed public communities." On a complementary note, the second statement said that the U.S. was "deeply committed to pluralism in education." Thus, the NSF would seek to "disseminate as many alternatives as are feasible and necessary, given the diversity of views and needs." The agency would also "ensure that federal funds do not directly or inadvertently lead to the development of a monolithic curriculum structure."⁹⁸ In short, the agency agreed that henceforth, it would not promote curriculum reforms that involved substantial departures from educational norms or were designed by elite scientists and science education experts.

Notwithstanding these new policy principles, the agency could not protect its social science–based curriculum project from damaging attacks. Between 1974 and 1975, sales of MACOS course materials fell precipitously, fully 70 percent.⁹⁹ And the NSF never resumed funding. By the decade's end, the accusations of moral relativism, mechanistic views of human nature and society, and federal control had succeeded. The generously funded NSF project of turning the social studies curriculum into a crucible for educating grade school children so they would think like social scientists had been derailed.¹⁰⁰

As if that were not enough punishment, the agency's science education programs took a brutal hit more generally. From the early 1970s to the early 1980s, NSF support for science education in all areas shrunk drastically, from 10 percent of its total budget in 1973 to 2 percent in 1983.¹⁰¹ Much as Susan Marshner's report had done in 1975, the Heritage Foundation continued to attack federal educational reform efforts and the NSF in particular, as seen in a 1981 document that claimed "during the past 15 years, there has been a concerted nationwide effort by professional educationists to turn elementary and secondary school classrooms into vehicles for liberal-left social and political change in the United States," and warned that public dollars had been used to support "situation ethics" and "secular humanism."¹⁰² NSF funding for educational activities would rise again a few years later, and the agency would create a new Directorate for Science and Engineering Education in 1985. But by that time, the goals had shifted significantly. Rather than concentrating on the cultivation of creative minds through an open-ended process of inquiry and scientific discovery, the agency now supported science education to strengthen economic competitiveness, national defense, and moral character.¹⁰³

In short, the barrage of attacks, legislative proposals, and congressional investigations of MACOS produced awful headaches at the NSF. Harvey Averch, who served as assistant director for RANN and then acting assistant director for science education, claimed that the controversy had produced "the worst political crisis in NSF history."¹⁰⁴ Perhaps this assertion is a bit hyperbolic. Nevertheless, the drawn-out effort to bring the social sciences into the movement to reform American science education and the central role played by the NSF in supporting that effort attracted extensive public scrutiny and voluminous criticism from right-wing opponents.

According to detractors, the construction, content, implementation, and effects of MACOS made it far from a value-neutral and nonideological project, as had been implied by its architects and promoters. While the NSF's Henry Riecken, Harvard's Jerome Bruner, and other figures highlighted the need to teach schoolchildren to think about human nature and society as the modern social and behavioral sciences did, Heritage Foundation author Susan Marshner and Republican Representative John Conlan depicted MACOS as part of a dangerous project to manipulate young minds that was spearheaded by liberal intellectuals, promulgated by the federal government, and designed to alter the nation's character. Thus, this NSF-funded effort to make these sciences relevant in American education had provoked critics who found such relevance pernicious.

As the attack on MACOS gathered force, the agency, its educational programs, and the social sciences found themselves in hot water. Not only did NSF funding for MACOS abruptly end, but the agency's educational programs more generally also suffered severe cutbacks. In addition, the clamor reinforced growing worries about the social relevance of the social sciences, about NSF social science in particular, and about the agency's peer-review system.

CONCLUSION

The events of the 1970s took a worrisome turn. During the previous decade, growing federal science budgets together with a groundswell of liberal interest had supported modest although still significant expansion in NSF social science, including a new mandate to promote applied social research. Although growth in federal science budgets ended by the late 1960s, the new decade began with high hopes and a couple of promising initiatives, including MACOS and RANN. But by the mid-to-late 1970s, mounting discontent in the political arena, national science policy circles, and the broader society placed NSF social science on the defensive.

Three episodes in particular raised trouble. In the case of applied social research, an initial wave of optimism and significant funding gave way to critical assessments and chastened expectations in the nation's political and scientific communities. As became clear through the Simon Report, disillusionment concerning the scientific quality and practical uses of RANN's

social research efforts spread, as did skepticism about the NSF's ability to promote applied social science more generally. An NSF-commissioned study together with scholarship in the sociology of knowledge by Carol Weiss and others further undermined enthusiasm for applied social research and social engineering (although Weiss also argued that social science had practical value by providing a common discourse and conceptual language that enhanced the coherence of public policy discussions).

Meanwhile, from a somewhat different angle, Senator Proxmire's Golden Fleece Awards focused critical scrutiny on the wisdom of spending hard-earned taxpayer dollars on particular research projects of questionable practical value. Not only did Proxmire bestow his unflattering award on a number of NSF-funded social science projects, such as anthropologist Sherry Ortner's study of the Sherpas, but his criticisms also added to simmering political discontent that inspired plans to tighten congressional oversight of NSF grants and its peer-review system.

More trouble came from damning conservative criticism—at the local, state, and national levels—that portrayed MACOS as part of a dangerous plan to mold the young. Buttressed by the journalist Donald Lambro's biting commentary about certain social science projects and NSF social science in general, discontent over MACOS contributed to conservative suspicions that a large segment of American social science, along with its advocates in federal agencies such as the NSF, promoted a host of bad things (i.e., moral relativism, secularism, and liberal social engineering).

Under those conditions, the NSF took some measures to rein in its troublesome programs. The agency shut down RANN. Although this did not end its mandate to support applied research, RANN's closure did mean that the major source of NSF funding for social research relevant to national needs was gone, with no comparable replacement in sight. The agency also terminated funding for MACOS, thus bringing an end to the ambitious effort, begun in the early 1960s, to reform American grade school education based on advances in the modern social and behavioral sciences.

Although the worrisome events discussed so far are crucial for understanding the conflicted evolution of NSF social science during this period, we have only examined half of the story. This is because when the 1970s began, the major organizational unit responsible for basic research programs for the disciplines and for some interdisciplinary fields of study was still

the social science division—RANN and MACOS were the responsibility of other organizational units. Thus, to really understand the course of NSF social science, we need to consider what happened to that division, why it was closed in 1975, and what happened to the social science programs after that. We also need to consider what difference it made when, in an unexpected twist, a psychologist rose to occupy the NSF director's office.