National Science Foundation Patronage of Social Science, 1970s and 1980s: Congressional Scrutiny, Advocacy Network, and the Prestige of Economics

Tiago Mata · Tom Scheiding

Published online: 9 November 2012

© Springer Science+Business Media Dordrecht 2012

Abstract Research in the social sciences received generous patronage in the late 1960s and early 1970s. Research was widely perceived as providing solutions to emerging social problems. That generosity came under increased contest in the late 1970s. Although these trends held true for all of the social sciences, this essay explores the various ways by which economists in particular reacted to and resisted the patronage cuts that were proposed in the first budgets of the Reagan administration. Economists' response was three fold: to engage in joint lobbying with other social scientists, to tap into their authority as a respected policy player, and to influence the types of research financed by the patron. With interviews of the former lobbyist for the social scientists, the former director of the Economics program for the National Science Foundation, and a review of the archival records of economists and their scholarly society, we discuss how economists have claimed entitlement to patronage in the closing decades of the twentieth century. We observe a dynamic and productive relationship between politicians and researchers mediated by the National Science Foundation, where civil servants, lobbyist and public minded scientists, and self-serving grantees trade roles.

Keywords Patronage · History of social science · Economics of science · Public representations of science

Department of History and Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 3RH, UK e-mail: tjfm2@cam.ac.uk

T. Scheiding

Chair, Business Administration Program, College of Business and Management, Cardinal Stritch University, 6801 N. Yates Rd., Milwaukee, WI 53217, USA



T. Mata (⊠)

National Social Science

"It has been basic United States policy that Government should foster the opening of new frontiers. It opened the seas to clipper ships and furnished land for pioneers. Although these frontiers have more or less disappeared, the frontier of science remains. It is in keeping with the American tradition - one which has made the United States great - that new frontiers shall be made accessible for development by all American citizens."

Vannevar Bush (1945)

Conceived at the close of World War II, Vannevar Bush's vision of government patronage in *Science - The Endless Frontier* has provided an enduring and powerful narrative for American science. Federally funded nuclear fission had ended the war, and Bush foresaw that extended support for science in peacetime would yield progress to "all American citizens." The National Science Foundation (NSF) was designed to embody Bush's vision. The NSF was to receive and direct government funds to research activities according to the demands of scholars, since "scientific progress on a broad front results from the free play of free intellects, working on subjects of their own choice" (Bush 1945). In a literal reading of the *Endless Frontier*, scientists' single duty was to honestly and diligently accumulate knowledge. The pragmatics of the social contract between science and the American state has been far more complex. Scientists are regularly required to assert the civic value of their efforts by associating themselves to discoveries, new products, medicines, and weapons.

No branch of the sciences has felt this requirement more acutely than the social sciences that cannot link themselves easily with innovation. The social sciences were excluded from the initial NSF purview for fear of undermining public support for the institution.³ In the interwar period social research was financed by universities and a number of philanthropies, notably the Rockefeller Memorial Fund. In the 1950s, research patronage for the social sciences was balanced between universities, the government, and the philanthropies, with the Ford Foundation taking a leadership role (Goodwin 1998; Fosdick 1989). Funding followed apace with the expansion of higher education and the growing importance of the liberal professions in American society and economy. At the NSF, the commitment to the social sciences grew from 1957 in the wake of Sputnik, it culminated in 1968 with the creation of a Division of Social Sciences. By 1970, federal funding of social

³ The literature documenting the inclusion of the social sciences within the NSF is extensive with the classic contribution being Larsen (1992), other works include Riecken (1986), Kleinman (1994) and Wells (1982). Vannevar Bush intently left the social sciences out of the constitution of the National Science Foundation, against the case made by Senator Harvey Kilgore of West Virginia, seeing that they fit in a much lower rank of the hierarchy of knowledge and were thus underserving (Cravens 2004).



¹ For a longer perspective on the regimes of science funding, see Mirowski and Sent (2007).

² The tacit nature of the social contract embodied by the NSF has seen much analysis coinciding in everything except the labels. So whereas Guston and Keniston (1994) indentify a tension between autonomy and accountability, Kleinman and Solovey (1995) name the twin problems of insulation and relevance.

	1939	1956	1964	1972	1980
Academy	153	294	533	659	690
Government	-	192	578	1,270	1,200
Foundations	38.3	134	213	169	94.3

Table 1 Source of funds for research in the social sciences

Figures are in millions of 2009 dollars. Source: Larsen (1992, 5)

research seemed established within the NSF, so much so that a proposal to create a National Social Science Foundation floundered as redundant (Gieryn 1999; Solovey 2012). Government support for the social sciences throughout the 1970s was also replacing the funding from the philanthropies that was by then decreasing, whereby at the close of the decade the government was the dominant patron to social science (see Table 1).

With this overview of the magnitude of patronage for the social sciences, in the decades immediately after WW II, one questions what control patrons held over the social scientists they funded and what influence, if any, social scientists had over patronage decisions. The bulk of the literature documenting patronage patterns has focused on how patrons are able to shape a discipline's agenda in methods and goals. One of the most studied and influential cases is that of the Air Force think tank, the RAND Corporation, that brought together mathematicians and social scientists to create decision theory anew (Abella 2008; Amadae 2003; Mirowski 2002). Taking a long and broad perspective on the subject, Hunter Crowther-Heyck has identified two overlapping systems of patronage at mid-century. The first, backed by the private foundations and the Social Science Research Council (SSRC), promoted research that was "behavioral-functional, problem-centered, and interdisciplinary." The second system, sponsored by federal agencies, the NSF but also the National Institutes of Mental Health and other agencies, promoted disciplinary research, and in Crowther-Heyck's argument, privileged "methodological individualism" over the "systems-based framework of the behavioralists" (Crowther-Heyck 2006). The so-called "fragmentation" of the sciences in the 1970s can seemingly be attributed to a change in the dominant patron. As many interdisciplinary ventures failed to meet the expectations of their sponsors, the foundations withdrew, and only the public system remained (Geiger 1988).⁵

Our claim in this essay is that the role played by scholars in shaping patronage has been underestimated. Neither has the literature addressed the most striking feature of post-1970 patronage landscape: the contested status of government funded social science. The NSF provided approximately 9% of federal funding for the social sciences with an increase of \$88.4 million in 1970 to \$146 million in 2001

⁵ Similar views were expressed by a former officer of the Ford Foundation and later President of Russell Sage, Marshall Robinson (1984).



⁴ It is unclear where to fit the defence establishment in Crowther-Heyck's scheme. Its support for the social sciences was inter-disciplinary but did not follow the behavioral, problem focused grid of the philanthropies. It was also more successful leading one to question what in the philanthropic and military science governance accounts for the different fortunes.

Discipline	1970	2001
Economics	23.2	27.6
Sociology	7.72	7.2
Anthropology	14.6	15.3
Political Science	11.3	7.7

Table 2 National Science Foundation funding of social sciences, in millions of 2009 dollars

Source: National Science Foundation, Division of Science Resources Statistics, Federal Funds for Research and Development: Fiscal Years 1970–2003; Federal Obligations for Research by Agency and Detailed Field of Science and Engineering, NSF 04-335, Project Officer, Ronald L. Meeks (Arlington, VA 2004)

(in 2009 dollars). The increase for social science research fell well behind growth in the general NSF budget. Social science spending represented 7.1% of total spending in 1970, but only 3.9% by 2001. Moreover, the funding for specific disciplines within the social sciences has been stagnant in inflation-adjusted terms for sociology and anthropology, had a minor increase in the case of economics, and a dramatic decrease in the case of political science (see Table 2).

Further to this, the presumed "disciplinary" bias of NSF is countered by the evidence. Patronage for the social sciences during the latter part of the twentieth century has been directed not to the traditional disciplines but rather for research in social science areas 'not elsewhere classified': linguistics, education, history and philosophy of science, law, and socioeconomic geography have increased from 35% of total social science funding in 1970 to 60% in 2001 (from \$31.6 million in 2009 dollars in 1970 to \$87.8 million in 2001).

This essay reports on how economists individually and collectively have developed close relationships with NSF officials, and engaged in lobbying campaigns in Congress and government to assert their membership to the *Endless Frontier*. Our claim is that far from being passive agents to their patrons, social scientists have forcefully shaped a system of public patronage that even if stagnant in its generosity, would accord them autonomy and entitlement.

The 1970s and 1980s debates between Congress, the government and the NSF over the value and appropriateness of research funding focused on the practical value of social research. We begin by showing how early in our period of study, NSF funding of social science was aligned with an emphasis on applied research with the agency setting out areas of action for social scientists. We argue that the failure of applied research, in the late 1970s, was seized upon by scholars as an argument for basic (pure) research, asserting their control over the content of research. In 1981, when Ronald Reagan's Office of Management and Budget (OMB) outlined budget cuts that were severe for the funding of social research, scholars coalesced in a lobbying campaign that successfully reversed those plans. By 1983, all the features of an advocacy network for social science research were in place. The American Economic Association (AEA) and other scholarly societies coordinated amongst themselves to present their case to Congress. Out of the efforts of the crisis years emerged a tightly knit group of lobbyists, prominent association officials, the disciplines' elites, and NSF program officers. Crucially, while NSF was



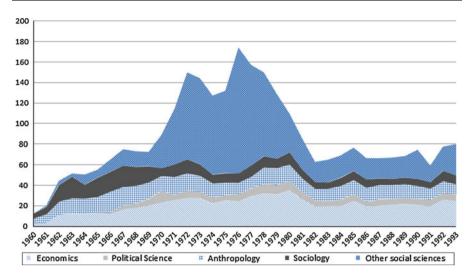


Fig. 1 Funding of social science at NSF, 1960–1993. In millions of 2009 dollars. Source: National Science Foundation, Division of Science Resources Statistics, Federal Funds for Research and Development: Fiscal Years 1970–2003; Federal Obligations for Research by Agency and Detailed Field of Science and Engineering, NSF 04-335, Project Officer, Ronald L. Meeks (Arlington, VA 2004)

asked to articulate the usefulness of social science research to the polity, it was barred from shaping its content.

Focus on Applied Social Sciences in the 1970s

Funding of social research increased in the 1960s at a higher rate than the total NSF budget. The social sciences thus captured a larger share of the total NSF budget, from 3% in 1960 to 6% in 1969. As we will show, although patronage from the government would continue to increase throughout the 1970s (see Fig. 1), such patronage privileged research that could be shown to have immediate applications. The trend is observable in many state agencies. Looking at the Bureau of Labor Statistics as an example, one witnessed a move away from the Bureau's partnerships with Universities and Institutes to sponsor studies in economic growth and productivity, an initiative started in the 1930s with Wassily Leontief of Harvard. The fresh influx of funds went instead to hire more personnel to enable the Bureau to monitor regional and local price statistics during the inflationary late 1960s and 1970s (Goldberg and Moye 1985).

The importance given to applications in the late 1960s was a change from previous funding decisions that were argued with reference to objectivity, verifiability, and generality. It was a response to a social crisis and to a crisis of trust in science. Writing in the troubled year of 1969, the historian and science journalist Daniel Greenberg argued that science had over-reached in its plentiful years of government support. It claimed "certainty when, at most, it could establish only probability", it "ascribe[d] itself clear-cut economic significance, when, ... in



fact ... [we] have anything but a dim understanding of the role that science plays in economic development" (Greenberg 1969: 61). Recently elected President Richard Nixon would have agreed with such statements. Troubled by disruptions at colleges and universities, Nixon expressed a preference that the NSF spend less on block grants to institutions and on fellowships and instead invest in state sanctioned and problem-oriented research. Just prior to Nixon's election, the Congress amended the NSF Act giving it authority to fund applied research. Such emphasis should not have worried social scientists, and certainly not the economists, there was a surfeit of problems calling for their targeted attention, notably sluggish economic growth, international monetary instability, and a refocused public anxiety over economic competitiveness (Larsen 1992: 94).

William McElroy, the NSF Director, was critical of the move to applied research, but he did not refuse the Office of Management and Budget's offer of \$100 million dollars of additional funds for 1972 conditional on the NSF focusing resources on national problems (McNinch 1984). In 1971, the NSF created the office Research Applied to National Needs (RANN). With research funded by RANN being incorporated into the NSF portfolio, the agency which for decades had devoted over 90% of its funds for basic research found itself in 1974 at an all-time low of 80%.

Scholars in the social sciences were able to capture additional funding by offering to resolve environmental destruction, unemployment, economic inequality, decline in worker productivity, and social unrest. RANN funded social science research primarily through its Division of Social Systems and Human Resources (later restructured into the Advanced Productivity Research and Technological Division). Other social science research within RANN was conducted in the divisions of Advanced Technology Applications and in Environmental Systems and Resources. Initially, applied social science went towards social indicators, data and community structure research, and the development of evaluation methodologies for welfare programs. This application of social science research was in line with RANN's mission of organizing research efforts around problems instead of disciplines and identified NSF as a patron supplying multi-disciplinary problemoriented insights to policy-makers.

For the social sciences, research classified as basic came to represent as little as 63% of NSF expenditures in 1976, as the share of RANN funding increased. Whereas in 1972 the social sciences through RANN received \$28.9 million in 2009 dollars (approximately 13% of RANN expenditures), by 1977 this had grown to \$87.2 million in 2009 dollars (approximately 48% of RANN expenditures) (see Table 3) (Larsen 1992: 98).

The social sciences increasing bounty, courtesy of RANN, was not a marker of appreciation. Rather, their status within the NSF was repeatedly questioned. In 1975, the social sciences were downgraded from their directorate status and combined into the newly-created Biological, Behavioral, and Social Science Directorate. The definition of social science itself changed with anthropology and

⁶ RANN would be reformed over the years such that in the waning years of the program, as a response to the changing demands of Congress and the President, the areas of research focus were altered and simplified to 'Resources,' 'Environment,' 'Productivity,' 'Exploratory Research and Technology Assessment,' and 'Intergovernmental Science and R&D Incentives' (McNinch 1984).



	Total RANN (in millions of 2009 dollars)	% of NSF obligations	RANN Dollars to Social Science (in millions of 2009 dollars)
1972	222	13	29.3
1973	273	15	44.1
1974	269	14	48
1975	484	24	47.3
1976	223	12	61.2
1977	181	9	86.7

Table 3 Funds for Research Applied to National Needs, and share for social sciences

Source: National Science Foundation, Division of Science Resources Statistics, Federal Funds for Research and Development: Fiscal Years 1970–2003; Federal Obligations for Research by Agency and Detailed Field of Science and Engineering, NSF 04-335, Project Officer, Ronald L. Meeks (Arlington, VA 2004). Note: On the 1975 RAAN budget \$185 million was directed to Energy research

psychology, two disciplines generously funded by the NSF, being classified separately as behavioral and cognitive sciences. And finally to make matters worse, RANN was dismantled.

The Simon Report and Claiming Entitlement

The closure of RANN in 1977 and the de-emphasis of applied research were partly motivated by a National Academy of Sciences report on the balance between basic and applied research. The report, written by a committee headed by the economist Herbert Simon, concluded that government funding directed towards applied research was "highly variable in quality and, on the average, not impressive." Although the report did not recommend an end to RANN, it called on the NSF to restructure the program such that social scientists were given more control over defining research problems (Simon et al. 1976). In March 1977, the House Science and Technology Committee issued a report strongly supporting RANN, and stating that "The nature of applied research is such that, if successful, the RANN program should surpass basic research in dollars expended." Recalling a maxim from the Endless Frontier that "applied research invariably drives out pure," the NSF's new Director Richard C. Atkinson was alarmed (McNinch 1984). For social scientists, the concern was that their allocation of funding would decrease if RANN were to be dismantled. Hence while the Simon report called for the NSF to reform its applied programs, it also envisioned a transfer of funds to basic research. At issue was social scientists' equal right membership to NSF, the report remarked that while 58% of natural and physical scientist applicants were receiving support, social scientists were victims of discrimination, funded in only 30% of their bids. Control over public research funds was, according to the Simon report, a social scientists' entitlement.

In the 1970s, in the midst of a faltering economy, economists found their NSF funding (basic and applied) rise from \$18.5 million in 1970 to \$24.3 million in 1979 in 2009 dollars. Economics throughout the 1970s was the best funded of the social



Table 4 Federal Funding of all sciences, in millions of 2009 dollars

Table 4 Tederal Funding of all selences, in minions of 2007 dollars										
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
All fields										
Total	22100	22000	22900	21800	22100	22000	23600	24800	26100	26400
Basic	8700	8800	9000	8700	8500	8500	8600	9500	10900	10500
Applied	13400	13500	13900	13100	13600	13500	15000	15300	16100	15900
Social Sciences										
Total	958	1310	1260	1170	1050	987	1210	1240	1330	1320
Basic	288	302	330	313	272	241	263	278	338	325
Applied	670	1008	930	857	778	746	947	962	992	995
Economics										
Total	351	313	337	344	422	413	426	415	443	456
Basic	110	102	97	85	90	72	80	85	91	82
Applied	241	211	240	259	332	341	346	330	352	374

Source: National Science Foundation, Division of Science Resources Statistics, Federal Funds for Research and Development: Fiscal Years 1970–2003; Federal Obligations for Research by Agency and Detailed Field of Science and Engineering, NSF 04-335, Project Officer, Ronald L. Meeks (Arlington, VA 2004)

sciences (approximately 25% of the budget for the individual disciplines within the social and behavioral sciences). Grants to economists focused on four areas of research, endeavors that would both satisfy the priorities of the scholarly community and be publicly uncontroversial: econometric forecasting, game theory, experimentation, and development of longitudinal data sets. The elite within the economics profession was confident that their research was of national importance and expressed frustration that patronage did not match their sense of self-importance. The closing years of the 1970s were occasion for economists, through the American Economic Association (AEA) to reflect on how to bolster the profession's public image and patronage. As seen in Table 4, government-funded applied research in economics (NSF and other agencies) was uneven, with significant increases and decreases from year to year. As for funds classified as basic research, the social sciences and economics found stagnant or only mild increases in funds. Economists were dissatisfied with the balance between applied and basic research.

In an unprecedented discussion about whether economists should lobby the government, the AEA's Ad Hoc Committee on Federal Funding of Economic Research reported in 1977 that the scholarly society should take steps to stimulate economic research and that such stimulus wouldn't be a violation of the scholarly society's prohibition of engagement in political partisanship.⁸ The committee

⁸ Members of the committee were Milton Friedman, Gary Fromm, Zvi Griliches, Robert Solow, and Stanley Lebergott (AEA 1977).



⁷ Despite economics receiving the bulk of NSF social science research funding in the 1970s, it bears mentioning that, at the time, the entire NSF social science budget represented only 5 to 6% of the total amount the NSF spent on research and development across all disciplines. Consequently, the amount devoted by the NSF to research in economics represented only slightly over 1% of the total NSF budget. *NSF Annual Reports*, various years.

subscribed to the conclusions of the Simon report believing that government patronage for basic research and data collection should be expanded. The Committee discouraged AEA advocacy for applied research, believing that patronage should arise out of the entrepreneurship of individual scholars partnered with government, civil society and business. It further concluded that because many members of the association were deeply involved in questions surrounding research funding, organization, utilization, and evaluation, that the AEA should not directly involve itself in lobbying for research. Its recommendation was that committees be appointed to advise federal agencies in data collection and form a standing committee

"... to serve as a line of communication with the Economics Program of the Social Science Division of the NSF. We believe that the basic research funded by the program is of unique importance to the overlapping interests of the AEA and the federal government in advancing the discipline of economics. At the same time, this type of research is most likely to be underfunded. We believe that such an AEA committee, by supplying members of the Association with information about this NSF Program, could assist them in their individual efforts to defend and improve that program" (AEA 1977).

The committee produced a report, in 1980,¹⁰ reviewing that the federal government provided half of the \$52 billion spent on research and development with only 11% of that amount devoted to basic research (AEA 1980). Despite this small share, the federal government was the dominant patron for basic research providing nearly 70% of such funding, a crucial lifeline for many graduate programs in the top departments. Making NSF funds even dearer, the federal appropriations for the universities were decreasing (inflation adjusted) in the 1970s (Slaughter 1997).

Reading across the Simon report and the resolutions and report of the AEA, one begins to appreciate the meanings social scientists attached to the label of basic research. Jane Calvert (2006) and Philip Mirowski (2011: 48–49) have argued that in the nineteenth century the term "pure" was replaced by "basic" to signify scientists' wishes to place science as a foundation of commercial activity and national prosperity. Basic science in post-1945 USA was always impure, and economists never expressed any impulse to remove their knowledge and expertise from the service of business, finance and the state. What distinguished basic from applied was governance. Social scientists wanted increasing entitlement to funds that they could manage unsupervised by the polity. And economists could report, as

¹⁰ The questions the committee asked itself were: Should the AEA be asking the federal government to spend more money on economic research? Should it help its members to obtain more research funding? Should it serve as a trade association or guild in expanding the market for its members' professional skills? Should it have a Washington office and should direct its officers and staff to represent the AEA at various stages of the research funding process?



⁹ If the AEA's calls for the expansion of basic research was to have any impact, a minority of the committee believed that specific areas of basic research should be identified but that such identification would be improper as the AEA both represented and administered research.

seen in Table 4, that federal funding of applied science was on the rise in all fields, while grants for basic research were stalling or falling in real terms.

At the close of the 1970s the economics profession, even though graced with increased support, was asking for more. In their estimation, not only would opening up a line of communication with NSF leaders and officers aid in securing patronage but would also guard against attempts to set the agenda of research. What economists did not anticipate in 1976–1977 was that they would be called to Congress to justify the public merit of their research and defend the funding they deemed insufficient.

Congressional Controversy in 1978–1980

The resistance by elected officials to fund the social sciences was a political asset in the 1970s. The most notorious cases of social science bashing were the "Golden Fleece awards" of Senator William Proxmire (Democrat—Wisconsin). These awards singled out behavioral and social science projects at the NSF as wasteful or worse, absurd. The 'Golden Fleece' awards were a well publicized critique of social science patronage, the Congressional Record registers similar criticism from Representatives John Ashbrook, Robert Bauman (Republican—Maryland), and John Conlan (Republican—Arizona) (Johnson 1992).

The floor debate in the House of Representatives on March 27, 1979, was illustrative of the prevailing mood. In a discussion of the NSF budget, John M. Ashbrook, a Republican from Ohio, objected to the authorization to fund the biological, behavioral and social sciences. He also presented amendments for cuts to the NSF budget in 1978 and 1980. Ashbrook mocked the subjects of research stating that:

During this last year the NSF used its authorization, which is our tax dollars, to find out the reason for cooperative breeding habits among the white-front bee-eaters, it also contributed its monitoring of taste preferences in sheep, and it polished off a study on "the masking of pure-tone thresholds by pure tones and narrowbands of noise and their relation to basilar papilla function in the parakeet." (...) The intellectual snobbism that is displayed in these examples is obvious.

And yet, Ashbrook's principal concern was not wastefulness and irrelevance, but the potential misuses of social science. He added that,

If the NSF funded small esoteric projects that kept scientists busy in their labs, I would still oppose the waste of funds, but I would find the projects laughable examples of Government extravagance. However, the NSF is also funding projects that could set the stage of social engineering and Government intervention. [then mentioning the example of a study on the social structure of the Legal Profession]¹²

¹² Congressional Record—House, March 27, 1979, p. 6316. Consequently the Division of Social Sciences was renamed to Division of Social and Economic Sciences.



¹¹ http://www.ucop.edu/pres/comments/gfleece.html; accessed 1st June 2010, see Shaffer (1977).

The episode testifies to a widely-held suspicion that social science was disruptive of traditional values, religion, family, capitalism, and a partner of statist political projects.

George E. Brown, head of the House Subcommittee on Science, Research and Technology, in response to the 1979 objections hosted a February 20, 1980 hearing on the funding of the social sciences. In attendance were the Director of NSF (Atkinson) and his deputy, Eloise Clark, assistant Director for Biological, Behavioral, and Social Sciences, together with the program directors for neurobiology, linguistics, anthropology, and economics. Other witnesses had no NSF affilliation, such as Herbert Simon, Judith Rodin (psychology), Reynolds Farley (sociology), Kenneth Prewitt (Social Science Research Council) and Frederick Mosteller (American Association for the Advancement of Science). This was a formidable and authoritative panel.

While defending all research in the social sciences was the primary objective of the hearing, economists found themselves with a convincing case of why patronage for their discipline was important. Clark mentioned that the 1979 Nobel laureates in Economics had received NSF grants, and so had all John Bates Clark medallists (the bi-annual award given to the best American economists under 40) before they received the accolade. She mentioned how funding of basic social science had yielded an accounting system for tracking GDP, cost-benefit analysis, and econometric modeling, even though the NSF could only claim credit for the development of the latter in its support for the preexisting SSRC-Brookings model. Clark also highlighted the work of Robert Lucas and his critique of econometric estimation. Lucas's contributions were a powerful critique of the econometric enterprise that Clark had just lauded, but his work was conveniently reinterpreted as insights on how to include expectations in macro-econometric modeling.

Simon, the principal writer of the NAS report that ushered the closure of RANN in 1976 and the Nobel laureate in economics for 1977, was critical of economics and spoke ill of the rational expectations model which only a few hours earlier had been given as example of the insights enabled by NSF backing. And yet, while he critiqued the economics profession, he argued that NSF was not party to such mistakes and that its role had been to fund tests on the dubious rational expectation propositions. ¹⁵ Clark's and Simon's testimonies did not match, neither in terms of

¹⁵ Dan Newlon, associate director of the economics program, offered "decision making in small groups" as the exemplar of NSF funding, a subject that he argued overlapped with economics, sociology, political science and geography. This was the emerging experimental economics that the NSF economics program would continue to nurture in later years. Its practical application was partnering with the Civil Aeronautics Board in testing the efficacy of different regulations to allocate space in airports.



¹³ At the 1979 floor debate, Brown had used economics as a firewall against the cuts, arguing that within the social science directorate "the largest percentage, well over 50 percent, goes to economic research. It goes to a study of the productivity of the American economy, for example: research on the question of why we are not doing better in this country to meet the competition of foreign countries; research on new types of economic indicators, which will allow us to measure our progress more effectively." *Congressional Record—House*, March 27, 1979, p. 6317. Economics of course never took 50% of the directorate's funds.

¹⁴ Biology was Clark's field of expertise and it took up most of her testimony, in 1980 and in other years.

the merits and interpretation of "rational expectations" nor in NSF's part in their development.

If Brown noted the contradictions he did not voice it. His expressed concern, shared by the NSF Director, was that social science was caught in a dilemma. Social scientists either "are engaged in basic research which obviously is not relevant to any practical thing, or they are engaged in some form of behavior modification which is anathema to the public." Simon countered that representation saying that social science developed tools to monitor the environment, racism, inequality, and to facilitate collective action, not to direct it. Research on information techniques and data collection and processing had long been a subject of NSF attention, and a convenient example to counter Congressional critics, even if it was a field thin in breakthroughs.

Brown's hearings ultimately achieved little. They were occasion for a show of solidarity between social and behavioral scientists and the NSF leadership. But the only advice they produced was borrowed from a contemporary report by the Government Accountability Office, which argued that much of the bad publicity of social science could be prevented with better titles in grant applications.

Away from Congressional chambers, M. Kent Wilson, head of the NSF's Office of Planning and Resource Management, was drawing plans to relocate applied research within the NSF and to address social sciences's contested fortune. On September 5, 1980, Donald Lagenberg, the new NSF Director, unveiled a proposal for organizational restructuring that included the creation of an engineering directorate, a social science directorate, and the distribution of applied research throughout the NSF. Only a week after, the SSRC hosted a summit where NSF officials, university administrators, and scholarly society representatives discussed the proposal. Shortly after, it was revealed that in the new structure anthropology and psychology would be separated from the other social science disciplines. The SSRC opposed the plan out of a belief that it would place the social sciences in a weakened position. In its estimation, a renewed applied research emphasis would favor those disciplines (anthropology and psychology) located outside of the directorate. On October 21, on the eve of the election of Ronald Reagan, Langenberg's reorganization task force concurred with the SSRC that a social science directorate without anthropology and psychology was not advisable.

While unable to design a more secure home for social science within the NSF, Langenberg addressed the multiple criticisms placed upon NSF managed applied research in a September 1980 memo. Officially, the OMB Directive A-11 required research to be classified as basic or applied and compelled the NSF to collect and record such data, but in reality very little attention and discussion was placed on categorizing research. Langenberg gave new force to the blurring of boundaries by arguing that what mattered was research's contribution to knowledge. He thus argued that all research was useful (hence applied) albeit over different time periods, and that research that maximized contributions to knowledge was always peer reviewed (hence basic). Langenberg was saying to social scientists that under his stewardship applied research would be realigned towards scholarly judgment. The NSF was on their side.



In 1979, President Jimmy Carter's budget requested a 22% increase in funding for the social sciences with total expenditures slated to be \$57 million in 1982 (the largest budget ever). The National Science Board, the OMB, and three of four committees of Congress approved the budget increase. The proposal, however, faltered in the House Appropriations Committee which limited the increase to only 5% (an amount that, when adjusted for inflation, represented a decline in real terms). As disappointing as this state of affairs might have been, no one predicted that with the election of Ronald Reagan to the White House, plans would be drawn for a dramatic decrease in research patronage for the social sciences.

The Budget Crisis of 1981 and the Origins of Lobbying

The principal protagonist in the budget crisis that struck the social sciences in 1981 was the precocious head of the OMB, David Stockman. Previously a Republican Congressman from Michigan, Stockman was a member of a group of journalists, politicians, and economists, coalesced around Congressman Jack Kemp, that argued for "supply side" economic policy. These individuals were members of and advisors to Reagan's Presidential transition team with Stockman installed in the post best suited to pursue the group's fiscal agenda. Contrary to traditional Republican wisdom of balancing the budget with low tax rates and cuts in spending, "supplyside economics" expected that substantial cuts in taxes would lead to a rapid economic expansion and negate the need for expenditure cuts.

To gain Congressional support for the Kemp-Ross tax cut, ceilings were to be imposed on spending for Medicare, the National Endowment for the Arts, the National Endowment for the Humanities, and Amtrak. However, no plan for the reform of other federal expenditures was deemed necessary. In his budget, Stockman rejected the forecasts of conventional economic models and mainstream economists, and predicted, following "supply side" convictions, that the economy would "take off" by mid-year. When the opposite happened and Stockman had to hold his ground on the tax cuts, he was forced to hastily identify items of savings. The President had deemed military expenditures and the welfare "safety net" out of bounds, but he extended no such protection to social science patronage. For Stockman, whereas research in the natural sciences could foster innovation and bolster American competitiveness, research in the social sciences offered no positive economic contribution and consequently was undeserving of public funds (Stockman 1986).

Throughout early 1981 it was rumored that the social sciences were going to experience a drastic cut. The anxiety was well justified. The OMB proposal was most dramatic with regard to the NSF, where it envisaged a 75% reduction in the rubric of social and behavioral research by 1982 (taking the Carter budgetary figures as baseline). What worried and angered social scientists of various disciplinary stripes was that Stockman was issuing specific guidance on eliminating social

¹⁶ To put the figures into perspective, the proposed budgetary cuts to the NSF social science program were comparable to the cuts made to the highway beautification program.



research patronage while he was issuing only general guidance on cutting other budget items.¹⁷ This argument, as we will show, was leveraged by social scientists as evidence of a campaign against them and to contradict the administration's claims that budget priorities were part of a reasoned framework to engineer an economic recovery. Faced with this grim prospect, social scientists had no choice but to organize in protest, and they redesigned existing professional structures to that aim.

The growth of the social science associations, and the complexity of political issues affecting its membership, had prompted the executive secretaries of the societies in the early 1970s to form a luncheon group called Consortium of Social Science Associations (COSSA). Its original design was to serve as a structure for informal cooperation. Until 1980, COSSA had a muted status with the members preferring to activate the organization only when problems presented themselves. Although overtures were made to having scholarly societies utilize the COSSA's infrastructure to achieve cost savings by sharing resources, such plans never came to fruition (unlike physics where various scholarly societies merged their operations under the American Institute of Physics). COSSA in 1981 was reinvented as a lobbying organization for the social sciences. ¹⁸

The prime mover to bring about a unified response by the disciplines was the same organization, the SSRC, which only a year previously was holding council over how best to organize an expanded social science research patronage environment. On June 4, 1981, in a "Symposium on Strategies for the Social Sciences," representatives from all of the social sciences, the NSF, the National Research Council, and major private research foundations met to "review the current crisis in basic research in the behavioral and social sciences brought by the sudden, sharp reduction in federal funding." The sixty individuals in attendance reached consensus on five points. First, they deemed that it was "ironic" that reduction in funding of the social sciences was based in a misunderstanding of these disciplines. Second, they believed that scholars should not be forced to define research priorities on the basis of research questions imposed from outsiders. Third, research priorities should be set by scientists themselves, and it should be the NSF together with scholars to define program allocation, not the OMB. Fourth, the "unity of science" should be valued and the government was blamed for creating a fallacious distinction between natural and social sciences. Finally, that social scientists should endorse the lobbying activities of COSSA. This meeting outlined the issues that were to animate COSSA in its first decade: the assertion of social scientists' control over research priorities through lobbying.

COSSA began its activities with a staff of two: Joan Buchanan and Roberta Balstad Miller. Neither Buchanan nor Miller had experience as lobbyists. Miller was

¹⁸ Psychology and neighboring disciplines (behavioral, psychological and cognitive sciences) did not join COSSA, to form in December 7, 1980, their own lobbying organization: Federation of Associations in Behavioral and Brain Sciences (FABBS).



When social scientists finally achieved authorization and then increased appropriations for the NSF, the OMB staff instructed the NSF leadership to distribute the increased funds to the natural sciences only. William Baumol Papers, Duke University Library, Rare Books and Manuscripts Collection, box C2, folder "NSF Amendments 1981".

a Ph.D. historian who had extensive knowledge of the social sciences and familiarity with the political process from her employment at the SSRC's Washington, DC office. Miller had two time-sensitive tasks. The first was to convince scholarly societies in the social sciences to underwrite COSSA's activities. The second was that the OMB's budget guidance was being enacted and funding agencies like the NSF would soon need to adjust their programs unless the proposed budgetary cuts were repealed. On this grand task, COSSA had help. The 1981 budget debates are a landmark in the history of Universities lobbying of government. In 1981, there were 27 schools registered with in-house lobbyists in Washington, DC, there were 73 by the end of the Reagan Administration, and 120 by 1993. ¹⁹

In the first instance, Miller made the case for COSSA's existence before the officers of the scholarly societies. With all but one of these offices located in Washington, DC, Miller's task was an easy one. The economists however were based at Vanderbilt University, in Tennessee, and Miller waited for their December, 1981, Executive Committee meeting to secure their backing. Despite all misgivings and long-held traditions against lobbying, the promotion of research was deemed too important and the AEA's Executive Committee voted to join COSSA and pay a \$35,000 membership fee. The AEA, for its part, declined to characterize COSSA's activities as lobbying but instead stated the purpose of the organization as to "...monitor the federal budget, and educate legislators and executive officials on the nature and significance of such research." (AEA 1982, 399) In contrast to the statement in the minutes of their meeting, economists were well aware of the character of the organization. Upon consultation with their legal counsel over whether the AEA's tax exempt status would be threatened by the payment for lobbying activities, the AEA decided that the benefits to 'educating lawmakers' far outweighed the risks.²⁰

With sufficient funding and support from the scholarly societies, COSSA focused on defeating the Winn Amendment of July 1981—that would have reduced the NSF budget by \$70 million. COSSA published a newsletter guiding social scientists on how to write to Congress. It also organized participation of social scientists in Congressional hearings (reviewed in the next section). ²¹ The success of the campaign can be observed in the "Dear colleague" letters sent by the Representatives of the

²¹ In William Baumol Papers, Duke University Library, accession 2001-0170, box 7, folder "NSF-National Science Foundation (Budget Material)," item "COSSA Legislative Report, February 26, 1982."



¹⁹ According to Balstad-Miller (interview, 2009), professional lobbyists were unavailable to work on behalf of social scientists feeling that their cause was a hopeless one. The same did not apply with universities who drew on deeper pockets and hired independent contractors and consultants of which the most important was Cassidy and Associates, representing over 40 institutions of higher education. Contrary to the ideals of unity and solidarity of the social scientists, the universities were competing amongst themselves to see more funds earmarked in Congress (Savage 1999).

²⁰ In the counsel's judgment the dues paid to COSSA did not fall under the "statutory definition of substantial." Letter from from Leo J. Raskind to C. Elton Hinshaw, December 10, 1981. Box 985 Accession 2001-0118, American Economic Association files. Duke University Library, Rubenstein Rare Books and Manuscript Collection.

House Committee on Science and Technology to fellow Representatives so as to sway votes in favor of a larger appropriation. On July 14, one such letter spoke of the NSF's practical importance, remarking that "the Foundation not only provides the Nation with much of the Federal basic research funding but is also concerned with technological innovation in small business and industry." A letter on the following day reported the budget numbers to stress how Social and Economic Science was being targeted. It remarked "I have neither read nor heard any justification for cuts of these magnitudes" except for the "unexplained and unsupported assertion that support of these sciences is considerably of relatively lesser importance to the economy than support of the natural sciences. I disagree with, and reject that assertion." A week later, a letter affirmed that NSF was good value for money, and "although the overall funding of the Foundation is small in comparison with many other agencies, the broad impact of these science and engineering research and education programs on our economic and strategic interests is very large."²² While in previous years Congress had been the threat, it had become social scientists' last defense against an uncharitable administration.

The actions of COSSA were successful, aided by the fact that Stockman and the OMB lost control of the budget process under a pile of rushed amendments. A polemical piece in *Atlantic* opened with Stockman's admission that: "None of us really understands what's going on with all these numbers" (Greider 1981). The economic outlook against the White House's expectations, worsened throughout the year of 1981, and an unanticipated fall in inflation further shrank the projected tax base. As negotiations and compromises multiplied, the OMB's global perspective was lost, setting the stage for one of the largest budget deficits in American history.

Reagan's Economics and the Prestige of Economics

The record we are reviewing shows that while social scientists through their scholarly societies and the NSF were claiming entitlement to federal patronage, their status within the polity, in Congress and in the White House was waning. The 1981 budget crisis shocked social scientists reviewing their expectations and in propelling them to action. The resulting anger and confusion was best expressed in the statements and efforts of economists in the 1981–1983 period.

The "supply-side" doctrine that guided the early years of the Reagan Administration has now been condemned as pseudo-science (Krugman 1995), but at the time of its emergence not all were ready to criticize it. The best known spokesperson of the approach was an editorial writer for the *Wall Street Journal*, Jude Wanniski, who before Reagan's election had published an influential book with the immodest title of *The Way the World Works*. In a populist vein, Wanniski derided the economics profession, but the hero of the book was an economist,

²² Letter by Fuqua (Chairman committee on science and technology) and Mitchell (Committee on Small Business), July 14, 1981; letter by DeNardis, July 15, 1981; Letter of Fuqua, Hollenbeck, Brown, Dunn, Walgren, and Pursell, July 24, 1981; all in Baumol papers, Box C2, folder "NSF Amendments 1981."



Arthur Laffer.²³ Wanniski's circle also included Robert Mundell, who would later receive a Nobel Prize for his work on international monetary economics. While liberal-minded economists opposed the group from its inception, the more conservative economists saw the supply-side story as naïve but not wrongheaded.

That Reagan had staffed his White House with unaccredited economists helps explain why economists were so swift in reacting to the 1981 budget crisis, abandoning a tradition of distance from Washington.²⁴ In its 1981 Spring meeting, the AEA executive committee had the budget crisis on its agenda.²⁵ President William J. Baumol reviewed the actions already taken and solicited advice on what was to be done next. As is the standard among economists, initiative had come first and foremost from the distinguished, the Nobel laureates, acting on an individual basis and without a collective mandate. A letter of March 6, 1981, signed by Kenneth Arrow, Lawrence Klein, Tjalling C. Koopmans, Simon Kuznets, Wassily Leontief, Paul A. Samuelson, Theodore W. Schultz, and Herbert A. Simon, stated that

[NSF funding] is all the more important because the National Science Foundation is the only disinterested source of funds for research. Research supported by private industry and by government agencies with specific missions are very important for practical purposes, but usually are too directly targeted to permit the genuine innovation that comes only with freedom to inquire and are not without some pressure to conform to preconceived outcomes.

The letter made the remarkable statement that "the foundation of all useful knowledge in economic understanding and policy, has been supported by NSF funding." ²⁶ It was signed only a week before Klein's and Arrow's testimonies to the Science, Research and Technology Subcommittee of the Committee on Science and Technology of the House of Representatives. Both testimonies praised economic knowledge as a source of growth and productivity. Klein stressed the benefits of his econometric work for the information industry and identified decreased funding for NSF through the 1970s as explanation for "some significant part of our productivity slowdown and general loss of competitiveness." Arrow, after going at great lengths to establish his credentials with a list of intellectual achievements and institutional honors, concluded that "in a time of troubles with inflation and productivity [among

²⁶ Leontief had by then become a discontent with the state of economics, but he joined in solidarity. In a letter to Baumol on the same day he explained that "As you know, I take a very dim view of present research in most fields of social science and, in particular, in economics, but for reasons of professional collegiality, I am prepared to have my name included among the signatures." Baumol papers, box C2, Folder "NSF Amendments."



²³ Wanniski's book was followed by an equally successful book by George Gilder in 1981, Wealth & Poverty.

²⁴ One of the founding controversies of the American Economic Association was the early proposal to have its offices at the Brookings Institution in Washington DC, but anxieties over partisan labeling led the Association to base itself at Northwestern and then at Vanderbilt University (Coats 1960).

²⁵ The news coming from those with Washington connections was that "Stockman and OMB plan to bring the budget down to zero, that is to eliminate the behavioral and social sciences program, including economics entirely in the fiscal 1982 budget." Letter from Robert Eisner to Baumol, March 20, 1981, Baumol papers, box C2, Folder "NSF Amendments."

others] depriving economics of the tools for further development of knowledge can only be described as a foolish and destructive economy."

The highlight of the economists' 1981 testimonies came from Zvi Griliches, an expert on the economics of research.²⁷ Griliches envisaged long term consequences to the proposed cuts, stating that the "research establishment breathes life into university training and graduate programs which, in turn, produce most of the high quality economists staffing government departments, congressional committees, and business corporations"—Klein had a similar metaphor, research was the "life blood." As to the manner by which the cuts were delivered, Griliches said that

...the motivation for such selective cuts [could only be due to] vindictiveness, ignorance and arrogance: Vindictiveness, because many of the more extreme new economic proposals have found little support among established scientists. Because they have not flocked to support them, they are perceived as being captives of liberal left-wing ideologues; Ignorance, because this is just not so. It is ironic and sad that whoever came up with these cuts does not even recognize that most of the recent "conservative" ideas in economics - 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 arguments for deregulation - all originated in, or were provided with quantitative backing by NSF supported studies. And arrogance, in the sense that those suggesting these cuts do not seem to want to know what good economic policy can or should be. They do not need more research, they know the answers.

Griliches' remarks were persuasive. His words on the usefulness of economic and social science research were copied in the press. In an editorial, "Slicing through 'Soft' Science," the *New York Times* came in defense of the social sciences, echoing that "Economic performance also benefits from understanding of how an economy works." *28 *Business Week** also reproduced Griliches' polemics with two other economists hammering the word: "vendetta." Economists were capitalizing on the administration's embarrassment with its overly optimistic forecasts that were now labeled "voodoo economics." The cuts in the NSF were framed as pay back for what Stockman called the economics profession's "cynical and destructive" views on the economy.

Before even signing on to COSSA at the end of 1981, Baumol instructed the Secretary of the AEA to send a letter to chairpersons of economics departments informing them of the proposed cuts and inviting them, and their colleagues, to write to the appropriate members of Congress. The AEA Executive Committee envisaged appointing two committees to explore ways of being heard in Congress and communicating the public benefits of basic research: a group to head an effort to present the case to Congress and a group to present the case to the business community and solicit its support. The strategy

²⁹ Business Week was seemingly prompted to look into the matter by Allan H. Meltzger, Letter by Allan H. Meltzer to Baumol, April 2, 1981, Baumol papers, box C2, Folder "NSF Amendments."



²⁷ Griliches had been a member of Herbert Simon's committee of 1975 to study the funding of the social sciences at NSF and had argued in favor of basic research.

²⁸ The New York Times, April 4 1981, p. 22.



CHART

BIOLOGICAL, BEHAVIORAL, AND SOCIAL SCIENCES (DOLLARS IN MILLIONS)

	ACTUAL FY 1980	FY 1981	% CHANGE FY 81/80	REVISED FY 1982	% CHANGE FY 82/81
PHYSIOLOGY, CELLULAR AND MOLECULAR BIOLOGY	\$ 72.1	\$ 77.7	7.8%	\$ 82.6	6.4%
ENVIRONMENTAL BIOLOGY	39.7	41.1	3.5	43.9	6.8
NEURAL SCIENCES	15.7	16.8	7.0	18.2	8.3
BEHAVIORAL SCIENCES	21.1	17.8	-15.6	11.0	-38.2
SOCIAL AND ECONOMIC SCIENCES	31.4	23.6	-24.8	10.1	-57.2
INFORMATION SCIENCES	5.6	6.1	8.9	6.2	1.6
TOTAL	\$185.6	\$183.1	-1.3%	\$172.0	-6.1%

Fig. 2 Calculating loss. NSF, unidentified source, in package to Chairpersons from AEA, 1981. Baumol Papers, Duke University Library

outlined in the letter was not to oppose the administration but to argue for autonomy, stating that Executive Committee is "more concerned about the decision-making process that allocated most of the burden of the cuts to the social sciences. Cuts in the total science budget may be warranted in the present situation, but the allocation of those cuts should be decided upon by NSF in consultation with the scientific community, not by the OMB." In its appeal for a letter writing campaign, the package included a copy of the Nobel laureates letter of early March and a single table extracted from NSF publications that conveyed the dark prospect of the cuts (see Fig. 2).

The letters to the department chairs were dispatched six days after the Spring Executive Committee meeting. There is no record that the two new committees were even nominated.

With COSSA emerging and coordinating the lobbying effort, the AEA had no need for its own liaison committee. In the early 1980s, economists were in regular attendance of hearings on the NSF budget. In May 1981, Baumol was heard by the House Committee on Appropriations in his capacity of President of the AEA. National pride and the Nobel Prize were his opening arguments, that of the eighteen awards since the inception of the Prize, nine had gone to Americans. He reported to have statements from the Nobel Prize winners showing how crucial NSF

³⁰ Eight of these were the signatories of the original protest letter, the ninth was Milton Friedman who wrote a different sort of letter. A Nobel laureate but also a magazine, book and TV celebrity, he wrote in *Newsweek* (May 1981) that the social sciences should not be discriminated against, but contrary to his colleagues he called for all sciences to get a cut, and Bush's model of patronage dismantled, "a step towards the abolition of NSF."



patronage had been for their success and by implication how funds were needed to maintain that leadership into a new generation. In nearly all testimonies in defense of NSF patronage that mentioned economics, the Nobel Prize and similar markers of prestige were paramount. NSF officers proudly noted how they nurtured the winners before their accolades, and the winners were willing to support such claims even when they were not exactly true.³¹ The reference to the prizes and honors of economists echoed the authority and attention these symbols held in mass culture (LeBaron 2006).³² To the symbolic markers, Baumol added mentions to policy contributions, such as design of deregulation of US airlines and railroads; environmental programs, and forecasting techniques. Baumol concluded with the Griliches' framing of a "vendetta" against the economists, and stated that NSF funding was required to bring analysis and information to bear on policy-making. At the same time, he asserted economists' authority in budgetary policy and condemned the cuts as mean-spirited and unreasoned.

Since 1981 social scientists have gone to Congress by the hand of COSSA, representing the collective interests of the sciences. Fitting the subjects of the public debate, the COSSA representatives in the early 1980s were either economists or scholars that could speak with conviction about the productive benefits of research in the social sciences. The list of witnesses included, in 1982 and 1983, Thomas Juster from the University of Michigan, and head of the Institute for Social Research; in 1983, Elinor Olstrom (a political scientist and first woman to win the Nobel in economics in 2009); in 1984, Henry Aaron, an economist at the Brookings Institution; and in 1985, the political economist Mancur Olson. Other witnesses included sociologists, and linguists, but prominently were the economists. These scholars' profile allowed them to speak of the economic benefits of social research, but they also defied simple disciplinary identification, suggesting unity and cooperation among the social sciences.

Unity of the social sciences could be achieved politically, in efforts to move Congress to maintain or increase NSF's appropriations, but to define a joint program for the social sciences proved impossible. In early 1981, the National Academy of

³³ The NSF was doing the same. Through its annual reports, it was showcasing as "Social and Economic Science" primarily grants given to economists, examples include "Determinants of Economic Growth" in 1980; "Linking Micro and Macro levels of analysis" in 1981; "Economic Change and Family Life" and "The Theory of Industry Structure" in 1982; "An economic approach to the family" and "School and Job Mismatch" in 1983; "Money, Credit and Economic Activity" in 1984.



³¹ As Baumol prepared the testimony he wrote to the Nobel economists, Paul A. Samuelson in a letter of May 1, 1981, stated that "Personally, my scientific research has benefited enormously from NSF and NIH grants. Without such grants, America would not have been the second nation to have a citizen awarded the Nobel Prize in economics." Samuelson is careful not to say explicitly that NSF funded his Nobel winning research, which it did not, the award referring to work that started in the 1940s. The suggestion, however, is implied. Samuelson received the second ever Nobel Prize for Economics in 1970. In fact, the USA was only the third country. The first Nobel was jointly for Ragnar Frisch, a Norwegian, and Jan Tinbergen, a Dutch. Baumol also received a letter from Koopmans, April 16, 1981, stating of that research of his cited by the Nobel Committee, was done at the Cowles Commission, funded by NSF from 1956-76. In Baumol papers, accession 2001-0170, box 7, folder "NSF-National Science Foundation (Budget Material)."

³² An NSF grant is also a marker of prestige. Nobel candidates were soon making their case with evidence that they had deserved NSF support, and officers making sure no prize-worthy economist was without an NSF grant.

Sciences (NAS) set up a special committee ostensibly to produce a "modern equivalent of *Science - The Endless Frontier*." In January 1983, as its report was readied for publication, there was a companion initiative by the NSF to encourage scholarly communities to establish research priorities and solicit patronage based on them. Juster's testimony in 1982, which was offered twice that year and which he slightly reedited for 1983, identified research futures. Areas that with NSF support promised important new insights were the study of savings behavior, productivity of the firm, organizational structure, individuals choice under uncertainty, family structure and development. Other testimonies also set out informally, without institutional sanction, research futures. But these were suggestive "examples" to exercise the imagination of elected officials, not priorities, and not a contract with Congress. The coordination between the scientists and the government was achieved not by listing an agreed set of responsibilities and rights, but through personal contacts and careers that overlapped lobbying, government and professional service.

An Advocacy Network

Economists' defense of NSF funding was surprisingly vigorous and it was coupled with feelings of disappointment towards the funding priorities of the philanthropies. Private foundations, with indifference or suspicion towards social science, were establishing programs of their own design, targeting problem areas such as energy or the environment, rather than allocating patronage according to the solicitations of scholars. Economists remained unconvinced that the appropriate response to constrained patronage was to manage the research process with the establishment and enforcement of collective research priorities. Consequently, they resisted

³⁶ Theodore W. Schultz who had received the Nobel Prize in Economics in 1979, had written forcefully against the biases of philanthropic patronage (Schultz 1979). In danger of being misinterpreted and potentially used as a supporter of the OMB, Schultz wrote to Stockman that "It is not my purpose to argue that there should be a reduction for example in the funds that are requested for the National Science Foundation. If this is done, it will indeed be exceedingly serious for economic research that is undertaken in universities where there is freedom of inquiry." Letter of Ted Schultz to David Stockman, March 2, 1981, Baumol papers, box C2, Folder "NSF Amendments."



³⁴ In Baumol papers, accession 2001-0170, box 7, folder "NSF-National Science Foundation (Budget Material)." Baumol was also involved with the "Committee on Government-University Relationships in Support of Science" of the National Academy of Sciences, National Academy of Engineering, and Institute of Medicine (aka the National Research Council) items from February 1982 on folder "National Academy of Sciences, Committee on Relationships between University and Government." Baumol writes a one page piece on productivity as member of the Subcommittee on Principles, the piece starts "This country now faces a productivity problem which constitutes an unprecedented threat to its competitive position in the international marketplace (...) The available statistics constitute a most disturbing parallel with those for Great Britain during the period of its decline."

³⁵ The first volume was titled *Behavioral and Social Science Research: A National Resource* and was published in 1982, the second volume was titled *Behavioral and Social Sciences: 50 Years of Discovery* and was published in 1983, and the third volume was *Behavioral and Social Sciences: Achievements and Opportunities* published in 1988.

COSSA's, NSF's and NAS's attempts to set any such commitments.³⁷ This isn't to say that economists were unconcerned with the types of research conducted. To the contrary, the AEA exerted greater vigilance and control over the NSF throughout the 1980s, convinced that the high cadres of the profession was the only constituency with the requisite knowledge to set the course of research.

The Economics program at the NSF throughout the 1980s was directed by Dan Newlon. A PhD economist trained at the University of Virginia, Newlon worked closely with both the AEA and COSSA to strengthen the economics program. In 1981, Newlon was under direct orders to refrain from lobbying against Stockman's proposed cuts. Newlon, however, was able to lobby indirectly through economists like Martin Feldstein who from 1982 to 1984 was chairman of Reagan's Council of Economic Advisers, and provided data to and consulted with COSSA. Feldstein was also, from 1978, President and CEO of the National Bureau of Economic Research, in a period where the organization rose to become the largest recipient of NSF funding with as much as one eighth of the Economics Program funds.

The status quo that took shape in the wake of the Reagan crisis pleased economists. If the NSF staff could convince Congress to secure funding, economists need not take the stage and risk be caught in partisan dispute or political pleading. Marc Nerlove, who had been assigned as the AEA liaison to the NSF, was selected by the Economics Program in 1983 to chair the Committee of Visitors (COV) – a team of scholars nominated by the NSF to periodically assess the program. Nervole's report noted that research patronage to economics was compromised by the NSF's failure to justify the importance of economists' activities. Nerlove and other economists wanted the NSF to be their advocate. He remarked:

...the Committee notes with concern continued problems in presenting the results of research funded by NSF to higher administrative levels within the Foundation, the National Science Board, other scientists, and the public generally....The Committee received information concerning the efforts of program staff to explain the results of research supported by the program and to make these results both interesting and intelligible to a wider audience, and to persuade investigators to do so. Although the staff has worked energetically and creatively at this task, the Committee believes that, even at present budgetary levels, enhanced priority and emphasis should be given to new avenues for the communication of the significance and excitement of the research supported by the National Science Foundation...(COV report 1981: 4).

The COV reports from the 1980s were also concerned with the types of research being financed. Although the budget for the Economics program had been reduced throughout the 1980s, economists seemed content provided that patronage was distributed according to their preferences. The most common complaint of the COVs over the 1980s was when grants were made for research that seemed to

³⁷ In 1985, the AEA representative to COSSA stated that "...the AEA has been relatively passive in its attitude concerning the role of the federal government in data collection and support of basic research" and suggested that the AEA do more to represent the interests of economists. The organizational inertia is, however, only part of the story since, as we have seen, prominent economists were eager to engage.



diverge from professional consensus. For example, the COV of 1986 admonished a richer NSF for extending too much funding for what they considered to be mere fads. It worried at "some tendency for the program to respond by going overboard on hot new topics" and scolded the program for attempting to exercise such leadership (COV report 1986: 8). In the next COV report, three years later, the Economics program had to be defended for following the instructions of economists. It stated that:

To be sure, some areas within economics are underrepresented in the program's portfolio, but these largely reflect the weight that the profession gives these fields. The Panel also strongly believes that it would be inappropriate for the Economics program to try to influence the profession by creating special programs to support research in special fields (COV report 1989: 10).

The less discretion by the program the better.

The 1970s and 1980s crisis of government patronage of social science enabled the development of a network of professionals that engaged in the soliciting of public funds and in their distribution to the disciplines. Dan Newlon is an example of this advocate career. The 1996 COV, at another moment of threat to the funding of the social sciences, lauded Newlon's stewardship that "the Economics program exemplifies a number of 'best practice' activities from which other NSF programs might profit. ... He has impeccable taste in research and intellectual quality. He also often identifies the promoting research of the new crop of assistant professors, nurtures them early on, and maintains contact throughout their careers" (COV report 1996: 9). The valued talent was one of aligning with the priorities of the professional elite.

The relationship between the AEA and the NSF only changed in 2009, when the AEA established a Committee on Government Relations with an AEA official who "...would not advocate for particular economic policies, but rather would attend to the professional interests of economists" and who would "coordinate" the flow of information between government officials and the Executive Committee of the AEA. After three decades of service at the NSF, the AEA hired Newlon for this lobbying post. The blurring of the distinction between the lobbyist and the public servant was also maintained by movements in the opposite direction. Roberta (Balstad) Miller, the original force behind COSSA, left that organization to become Director of the Social and Economic Sciences Division of the NSF in the mid-1980s, a lobbyist becoming a public servant.

The 1981 crisis of NSF funding and the Congressional controversies before and after, have worked to weave closer together the roles of the lobbyist and the public servant just as the NSF weaved together political constraints with the demands of the research community. With the nurture of the scholarly societies officialdom and the prominent members of the disciplines, public patronage has come to require a regular effort of publicity on behalf of the social sciences, whilst the task of selecting research subjects and methods is claimed by the discipline's elite. The emergence of this advocacy network sits well with the preferences of economists, in their reluctance to pursue publicity and public engagement while strengthening



connections with political deciders through their own public service as advisors and consultants.³⁸

"The most disinterested source of funds"

The Nobel economists' praise for NSF as the "most disinterested source of funds" denotes the social sciences' aspiration to membership to the *Endless Frontier*. Moved by grant applications, reviewed by peers, NSF program officers are charged with interpreting the interests of the disciplines. Throughout the period of study, social scientists' claimed entitlement to public funds shaped the outcomes of the controversies. It was the lynchpin of the RANN initiative in 1976–1977. It was at the core of the case economists and other social scientists took to Congress during the 1981 budget crisis.

Despite the active involvement and engagement of economists with the NSF officers, and their work in Congress, and their positions of influence in government, since 1980 patronage for research in economics increased less than 10% in real terms. The pattern is not unique to economics. Stagnation of NSF patronage can be observed for all the traditional social science disciplines. The 60% growth in real terms of the total social science budget for the NSF has instead been directed towards the catchall category of 'social sciences not elsewhere classified.' Interdisciplinary research has captured an ever-larger share of the NSF's social science budget. Whereas in 1981 social science research not elsewhere classified was \$26.9 million and represented 34% of the social science budget, by 1999 it had more than tripled to \$86.5 million and represented 63% of the social science budget.

The growing wealth of interdisciplinary programs to the detriment of discipline-specific programs has occasioned protest by social scientists. Keeping with our focus on economics, in 2004, the COV recommended that the Economics Program be granted a division status so that the federal budget might direct funds to the discipline. Despite evidence of emerging factional attitudes, throughout the 1980s and 1990s the relationships between the social sciences were without fail collegial and non-competitive. Yet the unity of social sciences has also remained limited to performances of public solidarity. Even the mild proposal of establishing research priorities to bolster the case for increased funding in Congress, which was one of COSSA's initial mandates, seemed too drastic a move. In part, this was a result of an easy victory in the 1981 crisis. Stockman's blunders and the ultimate dismissal of his plans seemed to reassert social sciences' public authority. The legacy of the controversies of the late 1970s and 1980s was the development of a network of

³⁹ The Economics Program responded to this recommendation by saying that the NSF and not the officers of the Economics Program were responsible for making such decisions. No action was taken by the NSF in reorganizing the Economics Program and the 2007 COV found it 'puzzling' that the NSF proposed no alternative to forming a separate economics division.



³⁸ Herbert Stein, a Reagan adviser and economist at many policy think tanks, wrote in the mid-eighties on the "Washington Economics Industry" on how economists had penetrated all branches of government and public debate (Stein 1986).

advocates for the social sciences. Their discourse and their action have kept the peering eye of the Congress at a distance and safeguarded the interests of the disciplines.

The emerging regime of patronage is characterized by stability and inertia. As we have shown, through the Committees of Visitors the elite members of the economics profession were invited to monitor the subjects of support. The result was that few changes have happened in the topics and institutions that receive funds. Looking at the NSF economics program, and ranking institutions by number of grants, the top 20 of 1981–1991 was virtually the same as that of 1969–1980 (Columbia University and Brown University were replaced by Iowa University, and California Institute of Technology). Looking at the five institutions with most NSF grants, between the two periods three of the five remained unchanged: National Bureau of Economic Research, University of Chicago, and University of Pennsylvania (MIT and UC-Berkeley were replaced by Northwestern University and Stanford University). Even though the number of institutions receiving grants increased between the two periods, from 96 and 113, the distribution is comparable, the top 10 getting over half of all grants. 40 The NSF's "disinterested funds" have become a cornerstone of a successful career in economics. Peer reviewed by the elite of the discipline, an award of an NSF grant is a marker of achievement and a route to professional advancement. The scarce or stagnant NSF funding is an important cultural resource in American economics.

A less acknowledged and measurable outcome of this regime is that it creates stasis in the standing of the social sciences in the American polity. Social scientists were unable to address the political and public challenge set by Congressional critics and Reagan officials, and the charges have continued to haunt them. The most recent controversy was initiated by Senator Tom Coburn, a Republican representing the State of Oklahoma. In a 2009 amendment, Coburn sought to prohibit the NSF from funding political science research. He argued that NSF's "political program siphons resources away from research that promises greater scientific discoveries with real world benefits" and that its subjects "have little, if anything, to do with science" (Glenn 2009). Coburn's amendment was voted down 62 to 36, but as we have shown his challenge is only the latest of a long lineage. The patronage regime created in the late 1970s and 1980s enables the disciplines to evade the difficult questions of their relevance and commitment to the public good. The social sciences have in the NSF budget a source of the funds that interest them, and them alone.

⁴¹ The amendment was not a pointed indictment on the discipline of political science, as it did not discriminate on the basis of research methods or the affiliation of the scholars. The Senator's objection was to social scientists' participation in public debate and high on his list was economist Paul Krugman.



⁴⁰ The source of this data was a query on Fastlane, the database NSF provides for online queries. Using the metric of grants awarded per institution and computing a standard measure of inequality, a ginicoefficient, we obtained a value of 0.64 for 1969-1980 and one of 0.85 for 1981-1991. The increase in inequality can be attributed to a rise in the number of grants awarded to the National Bureau of Economic Research that had 56 grants in the first period (about 8.5%) but in the later period had as many as 238 (17.2% of the total awarded).

Acknowledgments The authors thank Dan Newlon and Roberta Balstad Miller for their willingness to recount their experiences with the National Science Foundation and with regard to the formation and early years of the Consortium of Social Science Associations. We would like to thank Tiago Santos Pereira, Altug Alcintas, Stan Herren, Roger Backhouse, Craufurd Goodwin, Mark Solovey, Sarah Igo, Marc Rothenberg, and Philip Mirowski and two anonymous referees for their comments and suggestions. Earlier drafts of this essay were offered at the History of Economics Society Meetings of 2010, the Missouri Valley Economics Association of 2010, the History of Science Society of 2010, the Science and Democracy Meetings of 2010, and the American Economic Association meetings of 2011, participants at these meetings offered invaluable advice on how to further develop our argument.

References

- Abella, Alex. 2008. Soldiers of reason: The RAND Corporation and the rise of the American empire.

 Orlando: Harcourt.
- Amadae, S.M. 2003. Rationalizing capitalist democracy: The Cold War origins of rational choice liberalism. Chicago: University of Chicago Press.
- American Economic Association. 1977. Report of the Ad Hoc Committee on Federal Funding of Economic Research. *American Economic Review* 67(1): 469–470.
- American Economic Association. 1980. Report of Committee on Federal Funding of Economic Research. American Economic Review 70(2): 479–484.
- American Economic Association. 1982. Minutes of the annual meeting, December 29, 1981. *American Economic Review* 72(2): 399–400.
- Bush, Vannevar. 1945. Science, the endless frontier: A report to the President. Washington DC.: US Government Printing Office.
- Calvert, Jane. 2006. What's special about basic research? Science, Technology, and Human Values 31(2): 199–220.
- Coats, A.W. 1960. The first two decades of the American Economic Association. *American Economic Review* 50(4): 556–574.
- Cravens, Hamilton. 2004. The social sciences go to Washington: The politics of knowledge in the postmodern age. Rutgers, NJ: Rutgers University Press.
- Crowther-Heyck, Hunter. 2006. Patrons of Revolution: Ideals and Institutions in Postwar Behavioral Science. *Isis* 97(3): 420–446.
- Fosdick, Raymond. 1989. *The story of the Rockefeller foundation*. New Brunswick, NJ: Transactions Publishers.
- Geiger, Roger. 1988. American foundations and academic social science, 1945–1960. *Minerva* 26(3): 315–341.
- Gieryn, T.F. 1999. Cultural boundaries of science: Credibility on the line. Chicago: University Of Chicago Press.
- Glenn, David. 2009. Senator proposes an end to federal support for political science. Chronicle of Higher Education October 7. Accessed December 1, 2010, at: http://chronicle.com/article/Senator-Proposes-an-End-to/48746/.
- Goldberg, Joseph P., and William T. Moye. 1985. *The first hundred years of the Bureau of Labor Statistics*. Washington DC: Bureau of Labor Statistics.
- Goodwin, Craufurd. 1998. The patrons of economics in a time of transformation. In *From interwar pluralism to postwar neoclassicism*, eds. Mary S. Morgan, and Malcolm Rutherford, 53–81. Durham, NC: Duke University Press.
- Greenberg, Daniel S. 1969. The politics of American science. Harmondsworth: Penguin.
- Greider, William. 1981. The education of David Stockman. The Atlantic. December. Accessed December 1, 2010, at: http://www.theatlantic.com/magazine/archive/1981/12/the-education-of-david-stockman/5760/.
- Guston, David H., and Kenneth Keniston. 1994. Introduction. In *The fragile contract: university science and the federal government*. eds. Guston, David H. and Keniston, Kenneth, 1–41. Cambridge, Mass.: MIT Press.
- Johnson, David. 1992. Next to Nothingness and being at the National Science Foundation: Part III. Psychological Science 3(6): 323–327.



- Kleinman, Daniel. 1994. Layers of interests, layers of influence: Business and the genesis of the national science foundation. *Science, Technology, and Human Values* 19(3): 259–282.
- Kleinman, Daniel Lee, and Mark Solovey. 1995. Hot science/Cold War: The National Science Foundation after World War II. *Radical History Review* n.63:110–139.
- Krugman, Paul. 1995. Peddling prosperity. New York: Norton.
- Larsen, Otto. 1992. Milestones and millstones: Social science at the National Science Foundation, 1945–1991. New Brunswick, NJ: Transaction Publishers.
- Lebaron, F. 2006. "Nobel" economists as public intellectuals: The circulation of symbolic capital. International Journal of Contemporary Sociology 43(1): 88–101.
- McNinch, Jr., Syl. 1984. *The Rise and Fall of RANN*, eds. David E. Gould and Louise McIntire, July 31. Washington DC: NSF.
- Mirowski, Philip. 2002. *Machine dreams: Economics becomes a cyborg science*. Cambridge: Cambridge University Press.
- Mirowski, Philip. 2011. Science-mart: Privatizing American science. Cambridge: Harvard University Press.
- Mirowski, Philip, and Esther-Mirjam Sent. 2007. The commercialization of science, and the response of STS. In *Handbook of science and technology studies*, eds. Edward Hackett, et al., 635–689. Cambridge: MIT Press.
- Riecken, Henry. 1986. Under dogging: The Early Career of the Social Sciences in the NSF. In *The nationalization of the social sciences*, eds. Samuel Klausner, and Victor Lidz, 209–246. Philadelphia, PA: University of Pennsylvania Press.
- Robinson, Marshall. 1984. Private foundations and social science research. Society 21(4): 76-80.
- Savage, James D. 1999. Funding in science in America: Congress, universities, and the politics of the academic pork barrel. Cambridge: Cambridge University Press.
- Schultz, Theodore W. 1979. Distortions of economic research. Minerva 17(3): 460-468.
- Simon, H.A., et al. 1976. Social and behavioral science programs in the National Science Foundation. A report by the Committee on the Social Sciences in the National Science Foundation. Washington, DC.: National Academy of Sciences.
- Shaffer, Leigh S. 1977. The Golden Fleece: Anti-intellectualism and social science. *American Psychologist* 32(10): 814–823.
- Slaughter, Sheila A. 1997. Academic capitalism: Politics, policies and the entrepreneurial university. Baltimore: Johns Hopkins University Press.
- Solovey, Mark. 2012. Senator Fred Harris's National Social Science Foundation Proposal: Challenge to the Federal Science Establishment. *Isis* n. 103: 54–82.
- Stein, Herbert. 1986. The Washington economics industry. American Economic Review 76(2): 1-9.
- Stockman, David. 1986. The triumph of politics: How the Reagan revolution failed. New York: Harper & Row
- Wells, William. 1982. Politicians and social scientists. American Behavioral Scientist 26(2): 235–242.

