

Social Scientists' Contributions to Science Policy during the New Deal

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ABSTRACT

Among the more important innovations of the New Deal, was the idea that planning and policy research should be an essential aspect of governance. This led directly to the country's first official proposal for a national science policy, articulated in a November 1938 document forwarded to President Roosevelt entitled, *Relation of the Federal Government to Research*. The prime mover in developing this proposal was Charles E. Merriam, Professor of Political Science at the University of Chicago. He served as a member of a three-man advisory committee to the National Resources Committee chaired by Frederic A. Delano, a Chicago railroad executive and the president's maternal uncle. Although timid by 21st century standards, some of the features of the Delano committee report, such as the recommendation that the federal government should support research in universities and other non-profit institutions, were radical for the time. Within a year of receipt of the report, the president had become absorbed with the war in Europe. For that reason, among others, the recommendations of *Relation of the Federal Government to Research* were not implemented; they did, however, lay the foundation for later developments.

Franklin D. Roosevelt's New Deal expanded the U.S. government's scope of responsibilities by introducing two significant innovations. First, as is widely recognized, Roosevelt and his senior policy advisers assumed responsibilities for economic and social aspects of the nation that had never before been undertaken, and convinced the U.S. Congress that these were legitimate areas of government concern. Most, but not all, of these New Deal initiatives have come to be accepted today, even by the political descendents of those who bitterly opposed them in the 1930s. Second, and not so widely recognized, the New Deal introduced the idea of planning and policy research as an essential aspect not only for developing its economic and social innovations, but more broadly for the purpose of governance itself. The idea that planning was not only a legitimate but an essential function of government was introduced early in the New Deal by a group of social scientists, including Rexford Tugwell, Raymond Moley, and Adolph Berle, known collectively as the president's brain trust.

In 1938, during Roosevelt's second term, these two innovations converged to yield what is arguably the first attempt to formulate a national science policy or, perhaps more broadly, a national knowledge policy. Charles E. Merriam, who did *not* accept an official position in the Roosevelt administration, was the prime mover in preparing the report entitled, *Relation of the Federal Government to Research*; this report represents the first attempt to formulate a national science policy.¹

Charles Merriam

In 1903, Merriam became the first member of the University of Chicago's Political Science Department. Within a few years he had become a full professor and chair of the department. His principal methodological innovation was to give political science a less theoretical and more empirical grounding. In particular, he made use of the city of Chicago itself as a laboratory for field research. His *Non-Voting: Causes and Methods of Control*, co-authored with his colleague H.F. Gosnell and published in 1924, marked the public debut of what came to be known as the Chicago School. This study, utilizing a research staff of undergraduate as well as graduate students, studied the Chicago mayoralty campaign of 1923. It was the first major study in political science to use both random sampling and the statistics of attributes.²

Merriam was active in many aspects of life in Chicago outside of academia. He became an alderman and, in 1911, waged an unsuccessful campaign for mayor. His interest in public administration, as evidenced by his innovative use of Chicago as a laboratory, soon extended more broadly to administration at the state and federal level. Almost inevitably, he was led to study planning and policy research as an important tool of public-sector administrative management.

One of Merriam's close non-academic colleagues in Chicago during these years was Harold Ickes, who had been politically active during Theodore Roosevelt's progressive era, and managed Merriam's unsuccessful campaign for mayor. When Ickes became Secretary of the Interior in the Roosevelt administration, it was virtually a given that he would try to persuade Merriam to come to Washington, at least in an advisory capacity. Consequently, in July 1933, on the recommendation of Ickes, the president invited Merriam to become one of three members of a new, non-governmental advisory committee named the National Planning Board.³

Although the members of the board were convinced that planning was essential to effective governance, they were not clear about the extent of their mandate. For his part, the president and his principal advisors were consumed with a series of emergencies during the Great Depression and were unable to focus on links between planning and long-term measures meant to ensure future social and economic stability. Thus, despite the board's best efforts, Merriam and his colleagues became frustrated in their attempts to influence the direction of government policy. However, this situation changed during Roosevelt's second term.

National Resources Committee

The National Resources Board was created late in Roosevelt's first term. In 1935, the board was renamed the National Resources Committee, chaired by Ickes. Its membership included the Secretaries of Agriculture, Commerce, Labor, and War, as well as Harry Hopkins, the Public Works Administrator, and Frederic A. Delano, its only non-government member. Delano, the president's maternal uncle, was a Chicago railroad executive who, in 1913, had been named by President Woodrow Wilson as the first Vice

Chairman of the Federal Reserve Board. Delano served as vice-chairman of the National Resources Committee; he was also designated as chairman of a three-member advisory committee on which Merriam was a member.

Very early in the Roosevelt administration, a decision was made for the government to take responsibility for managing the nation's natural resources such as minerals, soils, and water. The management of natural resources was the first of many areas the government ventured into that it had largely avoided in the past. Technical committees were established by the Natural Resources Committee to study and recommend ways to manage the nation's natural resources. Soon thereafter, based on a proposal by Merriam, the committee made the then innovative suggestion that human resources were just that, an essential national resource. In 1935, the committee undertook studies on population problems and on the social consequences of invention. Then, in the spring of 1937, Delano made a proposal to the president for a study of federal aid to research and the place of research, including the social sciences, in the Federal Government. In a letter to Delano in July 1937, President Roosevelt approved the proposal and wrote as follows:

Research is one of the Nation's very greatest resources and the role of the Federal Government in supporting and stimulating it needs to be reexamined.

Research: A National Resource

To carry out the proposed study, the National Resources Committee invited the National Academy of Sciences, the Social Science Research Council, and the American Council on Education to each nominate five members to a science committee. Over the course of the next several years, the committee issued three volumes known collectively as *Research: A National Resource*. The first volume, issued in November 1938, was entitled *Relation of the Federal Government to Research*. The second and third volumes, *Industrial Research* and *Business Research*, were issued in December 1940 and June 1941, respectively.

Research: A National Resource argued that science should serve as an important tool for effective governance. Of course, the federal government had used science since the earliest days of the republic, as a means for carrying out its constitutional responsibilities. For example, Thomas Jefferson, who served concurrently as the nation's first secretary of state and its first patent examiner, consulted a committee of University of Pennsylvania faculty in carrying out his latter duties. As another example, science was essential to the executive branch's constitutional responsibility to maintain standards of weights and measures.

However, these were piecemeal efforts. *Relation of the Federal Government to Research* was the first official government report to view the entire system of science in the federal government, explicitly including the social sciences, as a critical tool for governance. Significantly, it was also the first official federal report to recognize the importance of establishing stronger links between the federal scientific enterprise and non-government

scientific research resources, including universities. As such, it qualifies as the first attempt to formulate a national science policy that would examine and make recommendations regarding the effectiveness of the government's own scientific bureaus, as well as options for linking the government's scientific activities with those of the nation's non-government institutions.

Principal Recommendations

The principal argument of *Relation of the Federal Government to Research*, as well as the two succeeding volumes, is that planning and policy research are essential to effective government, and that science can be used as a tool of planning and, therefore, of governance. The document is remarkable for its time, in part, because it was prepared under the auspices of a federal organization originally chartered to examine federal responsibility for tangible resources such as water, reclamation, and soil conservation projects. More significantly, it took the first steps toward recognizing the legitimacy, and and necessity, of federal support for research outside of government. Although from a 21st century perspective these steps may seem reasonable, they were considered radical at a time when government did not fund university research. Many university scientists and administrators of that period would have regarded government support for research as a threat to their independence that would lead to government control of their institutions.⁴

Principal recommendations 3 and 7 in *Relation of the Federal Government to Research* were as follows:

Recommendation 3: Research agencies of the Government should be authorized and encouraged to enter into contracts for the prosecution of research projects with the National Academy of Sciences, the National Research Council, the Social Science Research Council, the American Council on Education, the American Council of Learned Societies, and other recognized research agencies.

Recommendation 7: Research agencies of the Government should extend the practice of encouraging decentralized research in institutions not directly related to the Government and by individuals not in its employ.

Changing Priorities

By the time *Research: A National Resource* reached the president's desk, his priorities had shifted, from domestic programs dealing with the Great Depression to preparing for likely wars in Europe and the Pacific. As a result, the influence of the social sciences in government was eclipsed by those of the natural sciences. In June 1941, the president appointed Vannevar Bush as director of the newly-created Office of Scientific Research and Development (OSRD) within the Executive Office of the President. Bush, a former Dean of Engineering at MIT, was at that time director of the Carnegie Institution of Washington, as well as chairman of the National Advisory Committee on Aeronautics. He became, in effect, the first presidential science advisor, although the title did not exist at that time.⁵

Bush's system for organizing science and engineering for war was, of course, instrumental in achieving victory for the United States and its allies. In November 1944, when victory was seen as all but inevitable, Roosevelt addressed a letter to Bush asking him to respond to four questions about how the lessons of organizing science for war could be used in peacetime. The result was *Science: The Endless Frontier*, transmitted by Bush to President Harry S. Truman in July 1945.⁶

The Bush report is justifiably regarded as the cornerstone of post-war U.S. science policy. Its most significant and far reaching argument was that government had not only the right, but the responsibility to support research in non-profit institutions, particularly universities. To this end, Bush recommended that a new agency—the National Research Foundation, later called the National Science Foundation—should be established to fund university research and to award fellowships to assure that new generations of scientists and engineers would be adequately prepared and available in sufficient numbers. Although five years were required, the National Science Foundation was finally established by Act of Congress and signed into law by Truman on May 10, 1950.

Bush, however, did not have a high regard for the social sciences. In his letter of transmittal he stated that:⁷

It is clear from President Roosevelt's letter that in speaking of science he had in mind the natural sciences, including biology and medicine...Progress in other fields, such as the social sciences and the humanities, is likewise important; but the program for science presented in my report warrants immediate attention.

A deeper reason for Bush's antipathy towards the social science may have been that, as a political conservative, he was wary that the practitioners of the social sciences would try to use their research to support the purposes of social engineering.

In any event, the National Science Foundation Act of 1950 excluded the social sciences from the academic disciplines that the new agency was authorized to support. The disciplines named in the act included the mathematical, physical, biological, engineering and "other" sciences. It was only in 1960 that the act was amended to specifically include the social sciences.

Social Science and the Presidential Science Advisory System

The bias against the social sciences on the part of the "hard" sciences and engineering persisted for many years. Indeed, there is some evidence that it persists to this day. During the lifetime of the President's Science Advisory Committee (PSAC), from its creation by President Dwight D. Eisenhower in November 1957 to its abolition by President Richard M. Nixon in January 1973, only three social scientists served as members of the PSAC. During the Johnson administration, PSAC was to pay a price for this neglect. President Johnson expected PSAC to provide substantial advice about his proposed Great Society program. However, the physical scientists, mathematicians and

engineers who were members of PSAC were not equipped or inclined to provide it. As a consequence, Johnson lost interest in PSAC and turned for advice elsewhere.⁸

Arguably, the nation has continued to be ill served by its neglect of the social sciences. The argument Charles Merriam and his colleagues advanced in their 1938 report, *Relation of the Federal Government to Research*, was that science—including very explicitly the social science—is a necessary tool for effective governance deserves to be readdressed.

Notes

¹ National Resources Committee, Research: A National Resource, v. 1, “Relation of the Federal Government to Research,” Washington, DC: US General Printing Office, Nov. 1938.

² Barry. D. Karl, Charles E. Merriam and the Study of Politics, Chicago: University of Chicago Press, 1974, p. 148.

³ A. Hunter Dupree, Science in the Federal Government: a History of Policies and Activities to 1940, Cambridge, Mass.: The Belknap Press of Harvard University, 1957, p. 354.

⁴Richard C. Atkinson and William A. Blanpied, “Research Universities: Core of the U.S. science and technology system”. Technology in Society, 2008, 30 (No.1), 30-48.

⁵ Richard C. Atkinson and Patricia Pelfrey, “Science and the Entrepreneurial University”. Issues in Science and Technology, Summer 2010, 39-48.

⁶Vannevar Bush, Science: The Endless Frontier, Washington, DC: Government Printing Office, 1945. Reprinted in 1990 by the National Science Foundation.

⁷Bush, The Endless Frontier, p. 1.

⁸ William A. Blanpied, A History of Federal Science Policy from the New Deal to the Present, Houston, Tx: Rice University Press, 2010, p. 137-138.