The Government in Behavioral Science: Some Critical Notes

by Alfred de Grazia

The first general survey on the federal government's activity in social science research offers an unprecedented opportunity to comment on some important problems. For the first time are known the size and shape of a phenomenon involving thousands of different projects in every branch of social science, employing within and outside of government perhaps 60,000 people, and costing nearly $210 millions annually. The total has been growing at a rate several times faster than the rate ot growth of the total federal budget.

It is questionable whether this activity is appreciated for what it is. There is still no general acceptance of behavioral science as a tool of government. Not only some congressmen but even many executives are uncertain that such a thing as social science research exists in the agencies of their purview. The National Science Foundation and the U. S. Office of Education, just to take two examples of agencies of unusual sophistication about research, do not promptly report research grants to the public. This same research public, for that matter, is quite small. We need not belabor the point moreover that some critics of social science, inside as well as outside the government, still look upon social science as socialism, or at least one step short of socialism. However, it is doubtful that this fallacy any longer curtails greatly the use of social science research in government. . is part of a larger uncertainty nowadays. What is much more important is that the nature of social science as an applied and pure scientific activity is being misunderstood.

Pure and Applied Research

Many politicians, officials, and behavioral scientists are reluctant to credit social science for what it is: As pure science, it is facts and sets of fact, more or less probable, about how men behave; as applied science, it sets up a goal of a desired kind of human behavior, and scientifically applies what is known about man towards the achievement of the goal. In the very beginning of the appraisal of what the social sciences can do or might do for government must stand the realization that we should know what we *want* them to do. This determination of what they should do is the critical feature of applied science. No research in government may properly be undertaken, no more than any other activity of government, without it. Applied research must be in furtherance of some policy of the legislative branch of government, directly commanded or logically deduced. The permissible exceptions are in pure research that is value-free.

No distinction between pure and applied research ordinarily is explicated in government programs. If the social objectives of a project appear agreeable, as in human factors engineering for space flight or mental health tests, the project is one step advanced towards funding. If the goal is controversial, involving, for example, public opinion surveys, or social factors in birth control, the project may not be processed further.

Social science research thus is usually thought of in applied terms. And what scientists would regard as pure

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research is scarce; it will occur in areas that are poorly supervised, and also as such in a few areas of psychology and in rare cases in many fields (such as military history). The National Science Foundation of course occupies a special position for being authorized directly to support pure research.

Ideally we can conceive of the following system for c olling this situation: the government would provide funds for certain pure research and certain applied research. The pure research funds would go only to areas that are starved on the outside among other areas of research support in society. They would be determined by a combination of means and would be limited to a certain proportion of all sums available for pure research in society and in relation to sums provided for all sciences, natural and social. They would be given without conditions and in a way that would heighten the ultimate individual responsibilities of the productive scholar.

To continue the idealized situation: Applied research funds would go out only under contract, or alternatively might be spent within government agencies. The former method would be preferred wherever possible and justifications would be required by law for all instances in which research, including pure as well as applied, were to be done within the confines of governmental offices. All applied research would be specifically related to some legislative or quasi-legislative directive or legally justifiable objective. There is a double reason for insisting upon this: in the first place, applied research that does not begin with a specific stated objective is likely to be bad research; in the second place, unless the objective of the research is clearly stated, there is no way of telling whether the research is permissible within the framework of policy set up by Congress and deduced, via the channels of delegated powers, through the executive and legislat / controlled branches of the government.

Priorities and Balance

That we are presently far from this ideal is obvious. Yet the ideal provides some kind of a yardstick and tells us what we may hope for in the future. The existing situation reveals no system of priorities in research, although research priorities are the clearest indication that the nature of applied science is understood and that the values sought through research are known. Grants to universities occur only in certain fields, such as mental health, but not in others such as political science: thus it is quite possible for a department of political science in a major university to have a liberal amount of funds for research in the administration of mental health programs by local governments, but to have no funds at all for any other research in the dozen vital fields that make up the curriculum of political science. Similarly, in law schools ample funds can be obtained for research into juvenile delinquency, but the behavioral study of sanctions and penalties, a critical factor in all legislation and adjudication, is largely unattended to. Other examples could be adduced to show that government participation in social science research, at the university end, shows little understanding of the priorities of universities, and perhaps just as little understanding of the priorities of government.

The problem of priorities is really the problem usually called "balance." Balances, after all, must be relative to whatever is set up as the valued priority system. To take an example, it will be noticed that expenditures of the National Aeronautics and Space Administration (NASA) for social research are much higher than those of the United States Information Agency (USIA). The ratio is at least four to one, and may be much higher. Now it would require a grotesque distortion of perspective to set a value upon research on a problematic future state of mankind—sociology of space operations—far greater than that on research in support of foreign policy in a world of volatile foreign publics. One research project of NASA, on the feasibility of communicating with possible species in outer space, exceeds in cost the total research funds of the USIA allocated to all of the countries of Central and South America in Fiscal Year 1963. That it is easier for government officials to get money for research dealing with a conjectural non-human outer space man than with the very real men who with monotonous regularity destroy and burn American information offices around the world is perhaps irrational and wrong; but it is not strange. For in a space research budget of billions, several millions for social research is "nothing." In the small USIA budget, a few thousand dollars are examined with unloving care. This is not to prejudge the outer space species project but to suggest the nature of the priorities problem. It also carries a hint to the Budget Bureau and Congress. Functional, cross-agency budget scrutiny may pay large dividends.

It is well to point out that the problem of priority of research projects may well be unsolvable. After all, in the non-governmental sphere of life, the concentration of research effort also occurs in areas such as the stock market services and advertising. If it would appear somewhat ridiculous to upset the whole of society to assure a "proper" allocation of resources for research, which after all is part of the larger problem of the "proper" allocation of all social resources, then it would appear only slightly less foolish to expect the far-reaching functions of government to be well coordinated in this regard.

Furthermore, the amount of research is only a rough indicator, and sometimes a misleading one, of the amount of scientific attention given an area. In the preceding example, for instance, it is possible that without the particular outer space species research nothing would be done on that subject at all in NASA; on the other hand, the USIA is composed largely of personnel who so to speak carry their own research around in their own social science training. Also the problem of balance may be affected by the nature of the activity. Some functions of government are more suited than others to social research. We would expect more of the Labor Department's than of the Defense Department's budget to go for social science research. Even so, large, unexplainable discrepancies exist within and among agencies.

The Quantity of Research

It is customary among social scientists to claim that the federal government does not spend enough for social research. The practitioners of different social science fields often voice the conviction that their own fields are not sufficiently engaged by the government in the solution of problems of behavior and human relations. But the simple demand for more research funds is not to be allowed credit on its face. This rather natural excrescence of professional pride is in no sense different from the feeling held by a thousand other groups in society, that their needs are not sufficiently considered by the government. The fact that the learned professions are highly prestiged and highly placed merely lends an air of authority to their pleas for recognition.

Whenever someone bothers to ask educators, natural scientists, and officials, they also answer that "too little" is being spent. (Indeed one can demonstrate how "scientific" and predictive behavioral science is by declaring flatly that at the next congressional hearing on the subject, probably without exception, every witness asked will exclaim that the social sciences need much more financial support from the federal government.) But such broad assertions of need, though well-meaning and certain to bring nods of approval from social scientists everywhere, rarely carry on with elaborate arguments.

The fact is that the question of a proper total level is almost meaningless. Billions of dollars could be spent on social science research, as they are on research in the hardware sciences. Would this then be enough spending? Put aside for the moment questions of quality; assume it all to be of good quality. No "objective" consideration could say "Stop. That is enough." Rather, the promoters of such spending would have to feel their needs were satisfied; these sponsors would be the professional researchers, the congressmen, and the officials involved. Answer the question: "What makes them feel satisfied with the level of research?" and the larger question of the proper level of research is answered as well as it can be.

Distressing as such an explanation is, any other answer would introduce an illusory objectivity into a policy process that is non-objective in its nature. From an infinite and eternal standpoint, one can conceive of all the research that would solve all humanly solvable problems including determining what problems are not humanly solvable; but one would recoil from setting forth a budget containing the trillions of dollars that would be required. So again, in the here and now of the political process, a "right level of investment in social research" by the government is a matter of compromising the more urgently felt desires of behavioral scientists, congressmen, and officials.

And this level stands for not only one, but a host of different compromises. Whatever the sum total adds up to is a figure that lacks meaning for anything save as it contributes to the total deficit or surplus of the treasury. In this latter special sense, the level of social research spending is about one-seventy-fifth of the total research and development expenditures of the government. It would amount only to one-five-hundred-and-twenty-fifth of all federal government expenditures. By no stretch of the imagination then could social science research be considered to have top priority for saving the government money. Truly, a good accounting theory is concerned about pennies as well as dollars, but not to the extent of giving time to saving pennies that might be spent in saving dollars.

More important is the opposite question: Does the level indicate some factor at work on the gross amount of social research? There may be such; a low level of expenditures may be due to some general prejudice against research in human affairs. Also, the demands and expectations by the social scientists themselves and by the policy-making elite in general are probably low. If so, the only conclusion that might be applied to policy is that more attention should be paid the possibilities of getting "better" government and a "better" society by means of added increments of behavioral science research.

Areas for Greater Research Attention

This recommended increase in attention should occur among individual congressional committees and in the appropriate offices of the executive branch of government.

Among the areas where greater attention might bring about intensified and improved research are the following:

(1.) The study of scientific programs of the federal government, a scientific problem in itself, and one suited to the social sciences. At stake are not only vital national programs, but at least $15 billions of annual spending.

(2.) The study of means of decentralizing government and disengaging it from interference with voluntary personal and small group activities. This would have to be done without damaging any existing good quality of the activities, such as the larger social responsibility that may infuse them.

(3.) The study of the organization needed to improve the intelligence operations of, and effectuate the will of Congress, that is, the study of the top policy structure of the American system of government, including the federal structure, the President and the courts.

(4.) The study of means for achieving the "good" life in metropolitan centers, psychologically, socially, and physically.

(5.) The study of the total use of the whole life span of Americans, taking in the relations among education and lifelong learning, automation and occupations, and old-age.

(6.) The study of economic and social development in the United States and abroad, of what can and cannot be done within the framework of a set of guiding principles set forth by the constitutional authorities.

These six sets of studies may be said to warrant increased attention by those who set the terms of social research. Almost all of the actual research might be done by non-governmental parties. The federal government is heavily engaged within all of the areas mentioned. But the

research found within those areas often appears to be insufficient and sometimes misguided. It would seem that the existing programs in each of the areas contain functions of such doubtful benefit that a substitution of research for a part of the activity would bring large gains in the end. Thus, it could be assumed that adequate research, pure and applied, in all six areas, might profitably rea a spending level equal to that of all present social science research. Such funds should probably not be provided until the more doubtful areas of present spending are eliminated, affording the possibility of new spending authority in those areas.

In addition, the research programs should be drafted at the highest level. Congress, the President, and cabinet level officials should be involved in the determination of the scope and organization of the research programs. The funds used would still amount to a tiny fraction of all federal spending but the results might exceed many billions in value for the country as a whole.

A concluding comment may be made on the problem of the quantity of research. Some government functions are more research-prone than others, as stated above. Also some research is more built into operations than other types of research; that is, some jobs integrate research to the point where it is not called such or thought of as such, whereas other work is accompanied by research obviously organized as such. (Research, in relation to the operations of which it is part, can be classified as *submerged* research when it is indistinguishable from operations, *merged* when it is part of the office where it is employed in operations but is still distinguishable, and *emerged* when it is a distinct organization in its own right servicing various branches of an agency, or is contracted or granted out to non-agency organizations. The first type is r measured at all in the study; it is basically a matter of ruiting and training research-minded persons for government, and of seeing that their time at work is shaped to maximize study and rational decision-making. The second kind is partially included; the third type is almost entirely contained in the report.)

Quality Controls: Blind Fact, Caution, Bias

The materials of the study do not lend themselves to judgments of the quality of research performed within government, either on an absolute scale or relative to the standards of the outside scientific world. It is not difficult judgments of the quality of research performed within to espouse. Frequently, for example, the reputation of research done within the government is lower than the reputation of research done in the outside world of the university and independent research institute, though not below that of industrial research. But this statement must be treated as no more than an hypothesis, for a systematic study of attitudes and practices is not available.

It may be also ventured that far too much proportionately of a kind of blind fact-gathering is done by the Census Bureau, the Department of Health, Education, and Welfare, the National Science Foundation, and other government agencies.

It is regrettable, for example, that a great discussion of poverty should be presently occurring in the United States without ready statistics on the number of persons who possess that bundle of traits that would place them in the several categories of the more or less handicapped. When one examines the census and welfare agency volumes and realizes that the several necessary figures are nowhere to be found therein, he may well doubt the quality of federal research and the value received for money spent. There seems to be always an infinite supply of people ready to count noses, so that the expansion of research can be infinite in any direction where counting and adding are concerned, but there seem to be remarkably little effort and judgment exercised at the critical points of research design and policy control. One may ask, therefore, whether it would not be wise to close down large sections of the governmental research programs, and to use the money obtained therefrom to set up a congressional policy research institute (or executive policy research institute) whose missions would be to remain highly sensitive to government policy questions and to be prepared to design and assign research projects on important questions to the research agencies and the outside world.

There are other complaints that might be directed against government social research as a whole, and these problems too direct attention towards organizational difficulties. For instance it can be said that government research tends towards the cautious and conservative. Senator Fulbright, in his capacity as Chairman of the Foreign Relations Committee of the Senate, has recently delivered a speech in which he appeals for a fresh look at old problems. We must, he says, be ready in an ever-changing world to put aside old ideas in favor of new ones. Certainly the many millions of dollars spent in research by the State Department, the USIA, and the CIA should be directed in part at the exploration of alternatives in foreign affairs. In fact a major goal of policy research should be to make any "new" idea impossible. All avenues should be explored in advance. New policies, yes, but new ideas, no. If new ideas are discovered at the policy-making level, it may be claimed that research has been deficient.

In practice, however, new ideas at the research level are few. A major reason for this, strangely, is that government research is not political enough. It tries to hide itself in "objectivity." It tries to be "value-free" at all stages; instead of in the scientific stages of the research only. But as indicated above, all applied research is "political" and almost all government research is applied research. It may not be the most clever tactic to call all applied research "political"; the main point, however, is to get rid of useless, powerless, blindly empirical or mathematical research, by exposing it to the light of logic and using its resources instead to get more of what we need from applied science.

What Senator Fulbright may be seeing as conservativeness and lack of imagination may be a matter of bias too. It may be ventured, subject to empirical verification, that government researchers carry with them whatever political and social biases their professions hold on the

outside, but more so, and more the old-fashioned theories of their professions than the moving edge. Thus one might guess that the Department of Labor is financially heavily directed towards fussing with the cost of living index and devoting few resources to total environmental studies of the worker in the fast-automating society. Or that the Library of Congress Legislative Reference Service uses almost exclusively methods of policy research and data storage and retrieval that were the mode in political science and history fifty years ago. Or that the Department of State has improved not at all its basic research mechanisms but owes its measureable improvements in performance to the bettering of the scientific and intellectual training processes in the universities of America, little of which was paid for by the government. Or that the welfare research professionals in the Department of Health, Education, and Welfare hold rather firmly to the tenets of the 1930's and the New Deal on a wide variety of welfare problems. It even confirms this guess if one asks "How could one prove it?" for the answer would almost surely be, "By contracting out research on it"; the agencies could not be left to do such a study themselves.

Evaluating the quality of research is a most difficult intellectual and scientific task. Only in the broad senses just displayed can one criticize the research as a whole. On the level of the individual project or agency program, there exists at present no satisfactory instrument of appraisal.

The agency officers set the goals and the research officers supervise the performance; the General Accounting Office audits the spending and at least one Congressional subcommittee may question the intent and results of the research. A number of agencies ask outside scientists for opinions of research proposals prior to contracting or granting funds; often the apparatus of screening and appraisal is extensive.

How effective this machinery may be is an open question. There is no sure way of knowing except through a thorough-going examination by an outside group of scientists of the methods of research design, organization, performance, and utilization in every agency. This group perhaps could be a permanent investigating body connected to Congress via a committee, or the Library of Congress Reference Service, or the General Accounting Office.

Performance: In-House, Contracts, Grants, Incentives

that the most important problems that are met within government social science research it is becoming clear are problems of organization: Who should determine the research and who should perform it? The total amount of money spent is not vital; it is never adequate but rarely inadequate either. Nor are the personnel engaged in social research inside the government or supported by the government inferior to scientists working outside. If the achievements of research scholars who are not connected with the government are greater, this may indicate that the very top level social and behavioral scientists find the combination of freedom and pay on the outside preferable to governmental conditions of work; yet government probably does not need nor could it use such men, save in the small policy research institute suggested above.

Performance of Federal Research Spending

Total Federal Research Spending in Social and Behavioral Science (est.)	100%	($210 millions)
I. In-House (est.)	70%	($147 millions)
II. Contracts & Grants (est.)	30%	($ 63 millions)
II. Contracts and Grants	100%	
IIa. State and local Governments	5%	(± 3%)
IIb. Other federal Agencies	5%	(± 3%)
IIc. Business companies	10%	(± 5%)
IId. Educational institutions	60%	(±10%)
IIe. Other non-profit groups	20%	(± 5%)

The subjects of government research are not necessarily less sublime than those of non-governmental work. War and peace are as much a subject of governmental concern as the concern of all others. So are all the welfare issues. Mental health is an urgent topic of research. What is left for the outside world to possess exclusively—history (but what of Indian and primitive history, military and diplomatic history?); research in aesthetics (but what of research in leisure, town planning, outdoor recreation, rural home-making?); research in money-making (perhaps not in the sense of stock-market tipsheet research but in many a kindred type of research such as how to detect frauds in tip-sheets). The range of government-supported research is great indeed.

One important problem of performance, however, embraces important aspects of all of these issues. That is: Who does the government's research? In sum, the federal government does its research *in-house;* it does it by *contract,* with another federal agency, with an outside government, with a university, with a non-profit group, or with a regular commercial company; it furthermore does research by *granting* funds. The table above presents a rough estimate of the proportion of research funds that goes into each arrangement. (Grants are included with contracts because of the confusion of the two concepts in practice).

It will be noted that by far the larger part of government funds goes to in-house research, in support of government operations or to provide service to the larger community. The State Department work would exemplify the first, the work of the Census Bureau the second. The first type of research is largely lost to sight so far as the advancement of the behavioral sciences is concerned, despite an enlightened policy of sharing information on the part of the State Department. At the same time, it may be asked whether there is some basic reason why the census itself rests with the government as preliminary to asking whether the assumption of many by-product types of research by the Census is warranted. Would many of the census operations be more cheaply and imaginatively performed in the hands of a mixed type of authority—a consortium, for example, of governments, universities and business concerns? If the question can even be entertained with respect to the Census, would it not better be asked then of a number of other agencies in the govern-

ment doing research for the outside community. Why cannot such research be given over to the universities and research companies?

No doubt some kinds of research have to be tied in closely to operations, because of a need for fast timing, because of security reasons, and because often certain insights of researchers should be transferred immediately in operational procedures or else be lost. But most of this research is already operationalized; it is in the category of submerged, and in some cases merged, research, as noted above. Actually most research presently done by the government itself could be done by contract with parties outside the government. An objection may be made that much research, as for instance the Census, must remain with the government, because the researchers have to be armed with powers to compel answers. Those compulsive powers are an evil in themselves, however; it would be better to devise research methods, such as most sample surveys, that do not coerce respondents, or to require special proof of public necessity from any agency seeking to compel responses. It is also possible to delegate to non-governmental agencies research involving a power to compel responses, because any coercion finally employed is invariably assigned to specialized police and court officials anyhow. So to repeat, most research about government and for government can be done on the outside.

If the first principle recommended here is that a maximum of the government's research be done outside of government, a second principle would be that the distinction between contract and grant should be maintained and tightened. Research done outside the government is for the most part of the contracted kind, even though it may appear to be of the species of grant. Research agreements vary in detail and in the degree to which they restrict the performers of work. They vary within and among agencies. Some are fairly liberal while others may be very tight. Often contracts are used where grants might have been a preferable form, and at other times what should be grants are converted into tightly restricted projects. Some contractors provide an atmosphere closely resembling a university, such as RAND Corporation, others more closely resembling a government office, such as the Special Operations Research Office of American University.

A grant should refer only to funds for scientific research in a very general area provided to outside parties whose accountability is minimal. A grant should be in fullest accord with the policies and practices of a pluralist society, arrogating to government solely the determination of general areas of concern and policing honesty by external post-audit and performance by expert review.

A third principle to be suggested is that both contracts and grants be opened up to both "profit" corporations and "non-profit" corporations alike. Useless and pointless discriminations often occur in the contracting and granting process in government because various government agencies pursue, either under law or by rule or by preference, a policy of favoring "non-profit" organizations. Yet there is no indication that "profit" organizations are unsuited to undertaking efficient and imaginative research.

It would also be advisable to inject some caution into the heavy play of government funds for research purposes; particularly in casting relatively huge sums into some fields, to the utter consternation of small groups already occupying as well as they could the same field. The question needs study: Under what conditions should government funds be permitted to unbalance an existing resource system, whether it is a non-profit one, a free-market one, or a combined system. It must be remembered that the National Institute of Mental Health, for example, with its $50 millions annually, swings the weight of an institution with $1 billion of endowment, greater than that even of Harvard University.

A tight definition of contracting, and placing upon contracting the maximum emphasis in *emerged* research should minimize the disadvantage of government intervention in the research field. At the same time, it need not be believed that the research problem in society will take care of itself without the government, even in the unlikely event that the above principles are adopted. The government will not only have to continue to spend for research but it will probably have to devote a considerable proportion of government expenditures to that end. For these activities, the grant form is recommended, but the employment of government agencies for this purpose should be strictly limited. There seems to be little reason why the government should collect larger amount of taxes in order to take over more of the functions of foundations and universities, particularly when the instrumentalities created for this redistributive process simply turn around and give to the universities.

The record of the National Science Foundation as a whole is perhaps good; there is not enough evidence to pass a judgment; yet its methods of giving grants are routine in the academic and foundation worlds. It has centralized certain interests without need to do so. It has formed a myriad of committees to pass upon grants of a hundred different kinds. It has searched for and found neglected corners of science, but with no more daring than the average of foundations or universities. Could it be that the net effect of the National Science Foundation has been to contribute another labyrinth to the bureaucratization of science; to increase by an unknown amount (perhaps small but perhaps large) the proportion of national resources available for scientific research in some fields; to centralize controls within a number of sciences by forcing more compliance with national associations linked with the NSF and other groups and powerful universities in the so-called Scientific Establishment? If all the answers are "yes," only a dubious increase in resources taken from the economy for science would be regarded generally as a gain by most scientists. Then such organizations and schemes as the National Science Foundation, an enlarged Smithsonian Institution, and other proposed institutes, foundations, and programs would have to be viewed principally as devices to insure that scientists and their leaders get a "fairer share" of the financial benefits dispensed by the government.

If so, a greater benefit would result from simple financial benefits to science accruing through tax laws and other self-administering legislative provisions. Eliminating the taxing and spending process gives a large increment of efficiency to any government policy. Examples of such devices can be mentioned. One would be the extension of tax deductibility, and even permitting extra deductibility, for scientific research purposes. This privilege would be open to business firms and individuals. Another device would be to pay upon performance (as in the famous GI Bill) a bonus or a "refund" to schools, businesses, and government agencies for the training of research personnel. To heighten pluralism in research ideas and opportunities, it would be well to consider granting the State governments scientific research funds perhaps in proportion to population. It is also worthwhile to consider permitting individual scientists to carry forward and backward into other income such deductions as they might accumulate for time spent in research without earnings or with reduced earnings.

Conclusions

Thus even a preliminary inventory of federal government activity in behavioral science research can excite numerous questions. It is to be hoped that a more than routine type of survey will be planned for the future; one that takes in the time-and-motion dynamics of the psychology and productiveness of governmental research, as well as the superficial facts of its existence. Upon the foundations of such a study more informed decisions may be made by the political authorities.

The annual expenditures of the federal government for research in social and behavioral science are approaching $210 million and rising at a rapid rate. This figure represents mostly *emerged* research, to a lesser extent *merged* research, and almost nothing of *submerged* research that is blended completely into operations.

The total sum spent on social science research cannot be satisfactorily shown to be too high or too low. It is possible to have a contracting and in-house research operation in the government that spends billions of dollars annually instead of millions, and yet have a public leadership that is uninformed. It is also possible to organize the dispensation of billions, instead of millions of dollars, in grants, with again no improvement in the quantity or quality of output of social and behavioral science in the country, but only more people and more organizations.

The general reputation of social science research is not high and little is demanded or expected of it. Government research is typically organized at lower hierarchical levels. Some mode of reviewing the quality of federal research objectively from the outside seems needed.

However, increased attention and probably increased spending is indicated in certain major areas—the study of national policy-making, the functions of science, decentralization, urban life, the American life span, and economic development.

Almost no consideration has been given to priorities of research by the federal government. Heavy spending occurs in the mental health field, human factors engineering, census tabulations in demography and welfare programs, and foreign area information.

Congress and cabinet have a most important task before them in setting social research goals for the nation. They should be encouraged in this work by the scientists themselves.

The organization of research spending and research itself is *in-house,* by *contract,* and by *grant.* Reducing in-house research to the minimum would probably be generally beneficial to the social sciences. Limiting contract research to applied social science research is recommended. Grants for research would then be extended under minimal conditions; they would be aimed at general purposes and their expenditure would have to pass only general tests of relevance.

If government research were scrutinized and reformed, if substantive governmental programs of uncertain quality were cut back, and if a maximum of research funds were spent in true grant form or contracted out under appropriate directives, government participation in research would probably be of greater social value. The sums allocated to it might ultimately reach a level of one-tenth of all government research and development expenditures. But before this point is arrived at, a prior period of preparation, perhaps lasting another generation, might be desirable, during which time the government and behavioral scientists should "learn to live with one another." This means essentially the raising of the level of understanding of pure and applied social science in the high schools and colleges of the country, in the Congress, the offices of officials, the studies of scholars, and in the forums of the press and public. The chief problem of social science research and government is not *whether* to use such research but *how* to use it. The first question leads usually into conflict, the second into collaboration.