SOCIAL SCIENCE AND PUBLIC POLICY

IN THE UNITED STATES

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gator. It represents solely the views of the
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PREFACE

The title of this study is not random since it is comprised
of three concepts. First, social sciences which is herein treated
as an independent variable; second, public policy which is herein
treated as a dependent variable; and third, national systems - in
this case the United States - which shall be treated as an inter-
vening variable. This somewhat formalistic distinction is a strong
traditional tendency in the "policy science" literature to speak
in terms of the nation with a sort of exclusivity which ultimately
leads to slender or no possibility of a general theory of policy
making. However important the nation is, either in stimulating or
frustrating social science utilization within a policy context, it
would be dangerous to reduce this topic to the American national
experience; for then we should be inviting an additional 150 other
experiences equally bereft of a theoretical framework.

The plain and unvarnished truth is that the subject at hand
has as much to do, if not more, with economic systems than with
national systems. Hence, what makes the United States an especial-
ly intriguing case, is not the size of our nation, or even its pecu-
liar history, but rather the conditions of doing social science in
a policy context under a capitalist system of either a late indus-
trial or post-industrial variety. Rather than leave to the imagina-
tion what this means, what we say quite simply, admittedly in _ex_
cathedra fashion, is an economic system largely determined by a

bureaucratic sector responsive to, but not always responsible to, older social classes. Beyond that, in the contemporary United States, we are dealing with a mass society without a mass base; a society in which numbers count for much at the level of consumer power and purchasing power, but count for little at the level of political power: at least beyond the voting process.

In such a context, the role of social science links up with the policy effort, first to satisfy the bureaucratic needs of managing a post-industrial economy - and that means managing the competing needs of an entrenched bourgeoisie as well as a powerful industrial working class; and beyond that, perhaps equally powerful intermediate classes of a nondescript, and even non-Marxian variety: everything from secretaries to schoolteachers. Social science also relates to the second part of our paradigm concerning post-industrial capitalism - namely satisfying the needs of people who themselves are largely without voice even though they sometimes may be with vote. In that peculiar sense, the role of social science involves advocacy as well as analysis; that is, giving voice or representation to that difficult to grasp phenomenon called "the people" and also giving expression to an even more ubiquitous concept called the "general interest" over and against special interests represented by the class and race system within American society.

Thus, rather than emphasize the nationality of problems herein dealt with, we shall point to the universality of problems faced by social science in relating to public policy. By such an emphasis we shall hopefully provide meaning to those outside the United States moving towards the wider implementation of research techniques and design into the policy sector.

Briefly, our study emphasizes problems of openness, publicity, legitimation, reward, the work ambiance, funding, information dissemination and implementation: all of which are faced by social science in common. Likewise, a heavy emphasis is placed upon problems of the policy sector; issues connected with secrecy, partisanship, implementation, planning, costs and benefits of research arising from any piece of social research. In so doing we hope that this report presents a series of propositions about the interpenetration of social science and public policy which are generalizable, and hence worthwhile, across national space, if not necessarily beyond our own historical time.

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Irving Louis Horowitz
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June 10, 1974
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I. SOCIAL SCIENCE AND PUBLIC POLICY IN THE UNITED STATES:
AN INTRODUCTION

Any examination of how the social sciences impart policy guide-
lines in the United States and the ways in which the policy-making
apparatus supports and underwrites social science activity is a
thoroughly ubiquitous exercise. The magnitude of the undertaking
invites skepticism at the least and scorn at the most. Cries and
whispers will be evoked concerning the autonomy of the social scien-
ces, followed by declarations that policy has no more dependency on
social science research than do apples upon oranges. Beyond that
is the lurking suspicion that American social science may employ a
different rhetoric but scarcely exhibits a noticeable or notable
superiority to social sciences elsewhere in the world. Given these
and other herculean objections to this sort of study, it is perhaps
necessary to set forth plainly and frankly the scope and limits of
this ambitious, yet exploratory, effort.

Alternating between case-study materials and empirically groun-
ded theory, this extended monograph attempts to set forth the intrigu-
ing relationships between the community of social scientists and the
still larger cluster of policy-makers in the United States. This is
a large-scale task. And it cannot be emphasized too strongly that
this contribution is only intended to set forth those main points in
this interrelationship which may have a particular bearing on future
developments within the policy complex outside of the United States.

The work emphasizes throughout the institutional setting of poli-
cy research rather than the headier realm of ideology. This is neces-
sary by virtue of the simple fact that in the great majority of cases,
policy research is sponsored research. What is involved is an ex-
change system of buyers and sellers of presumably scarce or difficult

to generate information. To begin elsewhere, with a general system

of ideas for example, would exaggerate the role of an intelligentsia,

and therefore only becloud and falsify the actual context in which

policy-oriented research takes place in the United States.

The study examines measures taken by various parts of the United

States government to bring about a closer cohesion between those who

govern and those who would exploit social science toward that end.

At this level, specific case studies are employed to achieve a clearer

perspective of the relationship between government policy needs and

social science delivery capabilities. Social Science and Public Policy

in the United States seeks to deal systematically with the strains and

tensions inherent in any relationship between those charged with poli-

tical success through policy achievements and those whose self-appoin-

ted task is the search for truth and meaning. If there is an inter-

action between social science and public policy there must also be a

training ground for this nexus of interconnections. We address the

educational framework which now exists and which permits such a fusion

of applied effort.

So much emphasis has been placed on the role of the federal govern-

ment as patron and donor in social policy research that there has been

a short-sighted tendency to ignore how social scientists participate

in community, local, city and state policy-making. Indeed, a consider-

able amount of successful if unheralded work goes on at these sub-

national levels. One finds here a high degree of isomorphism between

social science and policy implementation. As a result, our work con-

siders in detail how each social science discipline, through its own

inner history, responds to the policy-making demands of the present.

The level of sophistication and stage of professionalization heavily

influence the exact impact a particular social science has upon policy

making. Our analysis is selctive, that is, based on case study
material, attempting to show how each social science discipline pro-
vides unique mechanisms to deal with particular policy issues.

Large-scale policies, involving explicit social science parti-
cipation, are examined in case studies of social science involvement
in foreign affairs and domestic affairs. This separation is made
imperative by the widely held (and largely accurate) assumption that
the failure rate in overseas research, like the success rate in do-
mestic research, hinges on a prior existence within the body politic
of either a consensus or a dissensus. Social science involvement in
the policy process must therefore focus sharply on public opinion,
on the minds and hearts of the citizenry.

A final theme that characterizes our work throughout is the examination of
interactional frameworks and paradigms governing the relationship
between social scientists and administrators and perpetrators of
public policy. We focus on the sorts of problems which social science
researchers throughout the world can expect to encounter when they in-
volve themselves with the policy process. Beyond that, we present a
number of modest recommendations which should enable researchers to
avoid the pitfalls encountered in the United States. We do not, how-
ever, suggest that social scientists should discard the effort to use
scientific knowledge to solve practical human problems.

Lest the reader of this report think our attempt all-encompassing,
we should point out what is excluded from this purview. First, we
have not considered work in social science of a purely historical or
theoretical character that may have informed the decisions of certain
policy-makers; i.e., the influence of Metternich on the thought of
Kissinger. Second, work of a primarily critical character is omitted;
i.e., studies concerned with demonstrating how things do not work or

how events cannot be controlled. Third, we have overlooked work that is oracular, which, despite its future orientation, necessarily fails to stipulate the costs as well as the benefits of reaching stated goals. The difference between policy-planning and futurology is sometimes difficult to establish, but the sense of a present time-and-space framework is clearly important to such a distinction. Stated affirmatively, policy-oriented social science research assumes a meliorative capability in respect to the costs and benefits involved in any decision-making process, and a definitely temporal and spatial framework within which to operate. It might well be that these assumptions are mere presumptions, that, in point of fact, social science dedicated to policy processes is foredoomed by larger cosmic or metaphysical or historical tendencies that are simply not subject to the constraint and will of human intervention. Yet, this very restriction becomes the outer limits of social science involvement in the process of policy formation.

One might imagine that by rigorously limiting the parameters and purposes of policy-related social science research, most theoretical problems could be put aside if not entirely resolved. This, however, is not the case, for within the interconnection of social science and public policy arises the sort of larger ethical and valuational issues that simply will not dissolve. Simply put, does social science involvement in the policy process imply a set of moral imperatives quite beyond the research itself, or is social science simply a more precise tool for setting forth the most efficacious policy recommendations for the least possible costs, fiscal and political?

The degree to which "policy-making" as a separate function has permeated current social research on major public issues is suggested in the following statement from an introduction to a study of the ef-

fects of day care on labor-force participation. "The paper con-
cludes that the provision of free and adequate day care services
to low-income mothers will lead to an increase in labor force par-
ticipation; in fact, a ten percentage point increase (from 32 to 42
percent) in participation is estimated. The paper also notes the
possibility that the provision of subsidized day care may result in
an increase in the number of hours worked by employed mothers but
that it may not be cost-effective and may lead to an increase in un-
employment rates. These findings are not used to make policy deci-
sions. It is left to the policy-maker to determine if the impact is
sufficient to justify the costs associated with the support of sub-
sidized day care" (Ditmore and Prosser, 1973).

One can detect in the preceding formulation the resurfacing in
modern guise of the old fact-value dualism, with the assumption that
somehow information provided and decisions taken are discrete enti-
ties. I do not think that it is an exaggeration to say that a con-
siderable amount of current thinking in the United States is predi-
cated on this central assumption. Laswell's idea of a "science of
policy-making" has largely given way to a de facto operational view
that the social scientist is primarily concerned with facts while the
policy-makers are concerned with implementation.

While a considerable amount of analysis is based on the assump-
tion that the research performed is utterly distinct from the appli-
cations devised, a growing body of social science opinion operates on
an entirely different set of premises: what might be referred to as
the monist in contrast to the dualist framework. For example, in a
section entitled "policy implications" of a recently concluded piece
of research on mobility among blue-collar workers, the author states,
"One of the purposes of this study is to help provide direction for

Federal upgrading programs in general and for the Training Incentive
Payments Program (TIPP) in particular...the National Manpower Advisory
Committee listed five principal justifications for Federal interven-
tion in the area of upgrading. Two of these justifications are of
direct concern to this study: (1) To broaden access of minority groups
to better jobs. In the absence of Federal assistance they might not
have an equal chance to be promoted. (2) Federal support would make
possible experimental and developmental efforts aimed at helping re-
design their upgrading structures with an aim of increasing the oppor-
tunities for upgrading" (Steinberg, 1973: 116-17).

In short, this analysis of upward mobility among blue-collar
workers focuses on racial and sexual variables precisely because of
the author's predisposition to make the research policy relevant.
The question remains whether such intentions as exist in the monistic
framework actually lead to different policy implications than those
enunciated by the dualists (who simply assume a disjunction) and
scarcely worry about it). But whatever the answer to that question
might be, it is of no small interest that the interrelationship of
social science and policy-making involves and invokes fundamental
considerations of the connection of theory and practice that are at
least as old as Aristotle and Marx, and are by no means confined to
the special aspect of life in the United States.

It is important to state flatly that although we have carefully
circumscribed the nature of policy analysis, we have left the matter
of causal priority wide open. Whether the circuit starts with a socio-
political "need to know" leading to a social-scientific attempt to in-
tellectually satisfy such practical requisites or whether the circuit
really commences with a social-scientific problematic situation that
stimulates a practical policy response is not going to be resolved by

this study.   This does not mean that the causal priority of social
science or public policy is little more than a question of which
came first, the chicken or the egg.   The senior author of this study
has done considerable writing on just this theme (Horowitz, 1972:414-
430).   However, in terms of the limits of this study, any effort at
settling such larger metaphysical issues would represent a digression
from our main aims.   Hence, the question of whether we live in a
"policy science" climate or a "Mandarin" climate will be set aside
in favor of the less ambitious but presumably more realizable goal
of setting forth the contents and contours of how social science is
connected to policy-making in the United States.

II: PERSONNEL AND FUNDING FOR SOCIAL SCIENCE INPUTS INTO POLICY MAKING

The relationship between social science and public policy in the
United States largely involves an exchange of monies for information.
Therefore, it is entirely appropriate, if not especially exciting,
to begin with the best available raw data on the numbers of social
scientists involved in the policy process, the amounts of money involved,
and the breakdown of personnel, first by social science discipline and
then by government and sub-government agencies. In this way, the ac-
tual magnitude of social science involvement in the policy process can
be properly framed. And if we cannot possibly achieve a comprehensive
review of social science policy akin to what has already been achieved
in the physical sciences (OECD, 1968) by starting with the foregoing
data we can better appreciate the limits as well as the scope of this
effort.

The rate of growth in federal support for human resources has
approximately doubled every three years for the last twelve years.
This rate of growth is even more striking in recent years, if one takes
into account a general tapering off in expenditures by the federal
government for most other research and development (R & D). Some idea
of the dramatic increase in both the priorities and rate of growth of
human resource expenditures is provided by Table 1. Human resource ex-
penditures are government-wide programs in six functional areas: edu-
cation, manpower, health, income security, civil rights and crime re-
duction. One should note in particular that outlays for human resour-
ces have increased without much relationship to the political party
in power or even to the relative calm or volatility of economic perform-
ance as a whole.

Table: 1   Per cent of Budget Representing Outlays
            For Human Resources[a]

Year	Outlays for Human Resources
1955	21%
1958	26
1961	30
1964	29
1967	32
1970	37
1973	45

Source: [a]Adapted from Executive Office
of the President, 1972.

Table 2 breaks out the growth of human resource spending into
categories by programs for the 1970's. This expansion ranges from
approximately 33 percent in education and manpower, to slightly less
than 25 percent in veterans benefits and services programs. These
growth rates for human services have a special meaning for social
science. Above all, the shift in federal priorities from defense
and space activities to human resources means simply that more re-
search and development funds are available to social scientists than
at any time in the past. As a result, more social scientific posi-
tions are available in applied programs, and this signifies a shift
from an academic to a policy-oriented work life for social scientists.
All of this adds up to growth in the size and power of social science
professions, leading to a still greater impact by the social scien-
tific community on policy construction, implementation and evaluation.

Table: 2   Outlays for Human Resources by Type of Program[bc]
            (in Millions of Dollars)

Year	Education and Manpower	Health	Income Security	Veterans Benefits and Services	Total
1971	8,654	14,463	55,712	9,776	88,606
1972	10,140	17,024	65,225	11,127	103,516
1973	11,281	18,117	69,658	11,745	110,801

Source: Adapted from Executive Office of the President, 1972:119.

While research and development funds are shrinking for military
weapons and the space program, R & D funds for social agencies have in-

creased 33 percent since 1967 and have doubled since 1965. R&D

funds for agencies which employ both the social and physical sciences,

such as the Departments of Transportation, Agriculture, Commerce and

Interior have also increased. Their over-all growth rate has been ap-

proximately 20 percent between 1965 and 1971 (see Table 3).

Table: 3   FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT, VARIOUS FISCAL YEARS, 1965-71[a]
(Millions of Dollars)

Department or Agency	1965	1967	1969	19??
Grand Total[b]	15.709	16.723	16.164	?.?10
Total, excluding National Aeronautics and Space Administration[b]	10.208	11.711	12.119	12.45?
Major Agencies:				
Department of Defense	6.728	7.509	7.869	?.?62
National Aeronautics and Space Administration	5.093	5.012	4.045	?.?34
National Institutes of Health/National Institute of Mental Health	587	842	896	???
Atomic Energy Commission (weapons)	527	499	552	???
National Science Foundation	195	314	321	?5?
Subtotal	13.130	14.476	13.663	??.???
Other, primarily social, agencies:				
Department of Health, Education and Welfare (excluding NIH/NIMH)	374	423	418	6?8
Department of Housing and Urban Development	...	11	18	52
Office of Economic Opportunity	4	47	35	30
Veterans Administration	43	48	53	6?
Department of the Interior (water pollution control)	33	83	112	13?
Department of Justice	...	3	6	29
Subtotal[c]	454	615	642	907
Other, primarily industrial, agencies:				
Atomic Energy Commission (excluding weapons)	994	980	1.155	1.076
Department of Transportation	99	106	129	226
Department of Agriculture	218	269	278	33?
Department of Commerce	74	79	74	99
Department of the Interior (excluding water pollution control)	32	20	129	137
Subtotal	1.469	1.960	1.765	1.6??
Addendum:				
Basic research (included in agency totals)	1.547	1.875	2.134	2.324

Source: Tabulations by John M. Deutch, Massachusetts Institute of Technology, on the basis of data from the Special Analyses: Budget of the United States, Fiscal Year 1971, and from publications of the National Science Foundation.
[a]Includes obligations for research and development facilities.
[b]Includes relatively minor research and development obligations of smaller agencies not listed below.
[c]Since data on the research and development obligations of the Departments of the Interior and Justice are not available in all years, some small part of each annual change shown by these subtotals reflects changes in statistical coverage rather than changes in obligations.

Table 4 consists of two parts. The upper portion demonstrates

the rapid increase in the number of social scientists receiving federal

support. The most striking increase is in sociology, which has seen

its support base more than double in the four years between 1966 and

1970. Growth has been slower in economics, which has been an area of

high past utilization; but growth has been considerably more rapid in

psychology, another area of high past utilization. The number of so-

cial scientists receiving federal support has increased by one-third
over the past four years for which data exists. This increase is
even more dramatic when the "pipeline" effect of manpower production
is considered (Berelson, 1960). It takes an average of six years of
graduate work to produce a social scientist once his undergraduate
training is complete. Each year, only a limited cohort of social
scientific trainees can be injected into the training system; and it
takes six years before the cohort will emerge at the other end of
the training cycle. But quite beyond this time fact is the absorp-
tion of social science personnel as a professional work category apart
from college and university teaching.

Table: 4   PERCENT OF SOCIAL SCIENTISTS RECEIVING FEDERAL SUPPORT IN VARIOUS
               TYPES OF EMPLOYMENT, BY FIELD, 1966, 1968, AND 1970

Type of Employment	Economics 1966: N=13,150 1968: N=11,510 1970: N=13,386			Sociology 1966: N=5,640 1968: N=6,638 1970: N=7,658			Anthropology 1966: N= 919 1968: N=1,217 1970: N=1,325			Political Science[2] 1968: N=5,176 1970: N=6,493			Psychology 1966: N=19,027 1968: N=23,077 1970: N=26,271			All Five Fields[3] 1966: N=36,736 1968: N=42,442 1970: N=48,640		
	1966	1968	1970	1966	1968	1970	1966	1968	1970	1966	1968	1970	1966	1968	1970	1966	1968	1970
									PERCENT RECEIVING SUPPORT									
Education	30	31	27	35	33	28	38	37	31	21	16		43	43	36	38	38	32
Federal and Military	100	100	100	100	100	100	100	100	100	100	100		100	100	100	100	100	100
Nonprofit	42	47	43	47	57	46	42	40	46	42	45		45	46	48	45	47	47
Industry and Business	10	17	16	22*	32	31	50*	64*	73	40	41		31	33	29	16	25	23
All Other	15	22	23	28	19	20	30*	34*	19	10	19		24	27	23	22	25	23
All Types	30	38	35	37	35	30	40	39	31	29	23		43	43	38	37	40	36

[1] Increase from 1966 to 1968 partially due to change in NSF Scientific Register listing criteria for this field.

[2] No 1966 data available from Scientific Register.

[3] Excludes Political Science.

*Based on fewer than 25 cases.

Source: National Science Foundation, American Science Manpower 1968: A Report of the National Register of Scientific and Technical Personnel (Washington, D.C.: U.S. Government Printing Office, 1969), pp. 178-180 (NSF 69-38), American Science Manpower 1966: A Report of the National Register of Scientific and Technical Personnel (Washington, D.C.: U.S. Government Printing Office, 1967), pp. 154-158 (NSF 68-7) and American Science Manpower, 1970: A Report of the National Register of Scientific and Technical Personnel (Washington, D.C.: U.S. Government Printing Office, 1971), pp. 162-167 (NSF 71-45).

The data in Table **4** show the high percentage of social scientists supported by the federal government in education and especially non-profit institutions. This material also reveals that significant percentages of social scientists are also supported in sectors such as industry, business and local sub-national units of government. As the bottom line demonstrates, an average of one-third of all social scientists receives some sort of fiscal support from the federal government. And this would have to be reckoned a modest estimate, since the data is concerned only with direct fiscal aid.

The number of social scientists employed by independent non-profit institutions is also sharply higher than in the past (Biderman and Sharp, 1971:28). These institutions are an important vehicle for the introduction of new policy initiatives within American society. Non-profit organizations can experiment in areas in which the federal government cannot trespass. These areas of experimentation allow inquiries into processes which may then lead to entirely new policy initiatives. The experiments by the Ford Foundation with "gray areas" opened the path for the government's "War on Poverty"; or, at the very least, they occurred simultaneously. Since 1967 the number of scientists and engineers have declined in all fields except social science which has grown markedly in contrast to the general trend of non-profit institutions. Americans are confronted with a faith in social science solutions at a time when conventional forms of diplomacy and policy seem less efficacious.

The following data examine federal, human and social resources programs in order to determine the gross shape of the government's commitment to policy construction, administration and evaluation. Since there are no specific categories for policy-oriented work utilized on a government-wide basis, each major program must examine

policy work within each social program. Thus, comparability can be
established only by comparison of isomorphic rather than genotypic
areas.

The yearly growth of civil rights outlays by the federal govern-
ment is shown in Table 5. The most robust area of growth has been
for equal opportunity education. Like most areas of civil rights en-
forcement this constitutes programmatic support rather than specific
research and administrative support. The program direction, research
and information dissemination category (which represents the policy
portion) is quite small in relation to the larger "transfer of funds"
programs. When program direction is compared to other means of pro-
blem avoidance, such as conciliation and prevention of disputes, the
funding provided is approximately equal. The distinction may be viewed
as that between juridical and social scientific emphases of conflict
resolution within the larger program of civil rights. Program direc-
tion is equal to 40 percent of the funds committed to enforcement and
investigation of civil rights complaints.

Table:5   Federal Rights Outlay for Enforcement (in millions of dollars)

	1971	1972	1973
Federal service equal employment opportunities	27.80	30.80	32.30
Military service equal opportunities	5.95	20.30	28.25
Private sector equal employment oppor.	34.43	49.89	66.29
Equal educational opportunity	70.30	122.90	400.00
Fair housing	7.55	9.07	10.88
Enforcement and investigation	34.15	46.48	50.07
**Program direction, research and ** information dissemination	4.96	5.88	7.01
Indian programs	0.40	0.70	0.80
Civil rights conciliation and prevention of disputes	4.20	5.60	6.50
Total	189.74	291.62	602.10

** =area of social policy   (Source: Special Analysis of the Budget,
    input funding   1973: 210)

Although funds provided for the policy sector are small when compared
to overall federal civil rights spending, such policy=oriented pro-
grams represent a significant percentage of the actual administrative
conduct of civil rights enforcement.

Table 6 documents the significance of research and direction
spending in comparison to the larger federal manpower program. Research
and direction constitute 4 percent of the entire manpower program in
1973, and is growing at a faster rate than the overall program. Half
of the research and direction budget is devoted to program direction.
Program direction implies administrative guidance and social science
related information gathering. Two major constituents of the program
direction category are the Committee on Civil Rights (which is an in-
dependent fact=finding agency) and the Women's Bureau of the Depart-
ment of Labor (which deals with issues relating to the utilization of
womenpower and the economic, social, legal and civil status of women.)

Table: 6 Federal funds for manpower programs (including the Department
          of Labor, Veterans Administration, ACTION, Equal Opportunity
          Commission)

Federal Manpower Outlays for Program Research and Direction
(in millions of dollars)

Program			
Fiscal year	1971	1972	1973
Research and development	24	30	29
Evaluation	3	3	3
Program direction	84	98	106
Labor market information	30	34	38
Planning and technical assistance	14	23	26
Program Total	155	188	202
All manpower outlays	3,145	4,310	5,141

(Source: Special Analysis of the 1973 Budget,
         Office of Management and Budget, 1973: 145,152)

Table 7 reveals that nearly 6 percent of federal outlays for
crime are devoted to planning and research with policy implications.
Once again the planning and research segment of the program is grow-
ing faster than the general program.

Table: 7   Federal Outlays for the Reduction of Crime (in millions of dollars)

Program Fiscal Year	1971	1972	1973
Crime-related statistics	7.5	13	25
Research on criminal behavior and sociology of crime	23.0	33	45
Planning and coordination of crime-reduction programs	29.0	37	63
Total	59.5	83	133
All crime-reduction outlays	1,353	1,974	2,321

(Source: Special Analysis of the 1973 Budget, Office of Management and Budget, 1973:227

The largest segment of the federal human resources programs are related to elementary and secondary education.   Twelve percent of the program is devoted to research and innovation with policy implications. Again, the specific segment incorporating policy studies is growing faster than the program of which it is a part (see Table 8).

Table: 8   Federal Outlays for Elementary and Secondary Education

Federal Outlays for Research and Innovation in Elementary and Secondary Schools (in millions of dollars)

Program Fiscal year	1971	1972	1973
Research & Development (R&D)			
Health, Education & Welfare (HEW)			
National Institute of Education		2	50
Office of Education R&D	85	92	54
Subtotal R&D	85	94	104
Innovation and Demonstration:			
HEW:			
Office of Education:			
Educational renewal	109	125	135
Follow through	48	69	60
Teacher Corps.	34	41	41
Career education model development and training	5	6	10
National priority programs	3	20	37
Statistics and evaluation	5	15	21
Supplementary services	112	132	142
Education for the handicapped	54	60	65
Other, Office of Education	29	43	52
National Science Foundation and other	41	40	45
Subtotal, innovation & demonstration	440	551	608
Total, research and innovation	525	643	712
Total Federal outlays for elementary and secondary education	5,059	5,762	6,345

(Source: Special Analysis of the Budget, Office of Management and Budget, 1973:121,126)

The extraordinary growth in the policy sectors of the health-care delivery system of the United States is documented in Table 9. For example, research, planning and coordination of drug-abuse programs has expanded 350 percent within two years. The size of the improvement program of health care (through research, training, planning) is miniscule in proportion to the federal health outlay (making up less than 1 percent of the total program), but in terms of actual dollars available to social scientists/ it is highly significant. This segment of the health-care program devotes over $800 million to planning, sociotechnics, education and coordination.

Table: 9   Health-Care Program Outlays of the Federal Government

Federal Outlays for Improving the Organization and Delivery of
         Health Care Services/ (in millions of dollars)

Program Fiscal year	1971	1972	1973
Planning	72	82	98
Technology	39	42	49
Manpower utilization	36	41	46
Health-care systems improvement	183	221	242
Total	331	386	435
Drug Abuse			
Treatment and rehabilitation	78.8	189.6	230.2
Education and training	36.8	64.4	64.4
Research, planning and coordination	16.6	56.1	70.6
Total	132.2	310.1	365.2
Grand Total, all federal health outlays (in billions of dollars)	20.2	23.8	25.5

    (Source: Special Analysis of the 1973 Budget
               Office of Management and Budget, 1973:163,173)

Table 10 documents that the Department of Defense spends approximately one-half billion dollars for social scientific research and studies annually. Of this sum, 14 percent is aimed at policy-planning. These policy-planning studies examine the options available to the American military forces, and thus determine the international security situation (ct. Tax, 1967).

Table: 10   Department of Defense

Behavioral and social science outlays for research and studies (1970)

Programs	Cost (in millions of $)
Policy planning studies[1]	6.4
Human performance	6.3
Manpower selection and training	25.3
Human factor engineering	3.7
Foreign military security environments	6.9
Total	48.6

[1]includes strategic planning in response to changing patterns of
political power and analysis; contingency planning; force struc-
ture; research and development requirements.

(Source: Foreign Area Research Horizons, September, 1969:2)

Table 11 breaks down the policy planning studies funds available

to the Office of the Director of Defense Research and Engineering.

The Defense Research and Engineering is the "lead-in" office which

explores future developments and capabilities for the Office of the

Secretary of Defense. The role of the RAND Corporation, which absorbs

fully one-third of the funds available for policy planning is paramount.

Table: 11 Policy Planning Studies of the Office of the
           Director, Defense Research and Engineering.

Policy-planning funds ($ in thousands)

Area	1972	Fiscal year 1973	Request 1974
International Security Affairs	900	900	900
RAND Corporation	200	500	500
Total	1100	1400	1400

(Source: Budget request, Department of Defense; Senate Armed Services
Committee, Fiscal 1974).

Social science expenditures for a particular discipline tends to

be concentrated in specific departments. For example; economics is

in the Bureau of Labor Statistics, political science is in the Defense

Department, history is in the Department of Agriculture, sociology and

anthropology is in the Department of Health, Education and Welfare.

In addition to the clustering effect the reader should notice that although the social sciences are smallest of all the sciences in terms of federal funds, they are the fastest growing now representing a significant proportion of federal outlays for research (see Appendix 1). Considering how recent this swing is to the utilization of the social sciences, even the fiscal aggregates represent an impressive amount. Beyond that, since a considerable amount of federal spending for social science is "buried" within other auditing categories, such as "environmental sciences" and "psychology" considered as a separate category, the actual expenditures in this area are quite large scale (see Appendix 2).

A significant amount of funds for the social sciences are provided to individual social science departments by the larger universities of which they are a part. These funds, which were expanded by approximately 25 percent between 1968 and 1970 provide a source of policy research that retains an academic footing. The chief sources of these university funds among public institutions are state governments, followed by student tuition and fees. Among private institutions the chief source of non-federal funds are, in order, student tuition and fees, endowment earnings, foundations and individual gifts. Endowments earnings, foundations and individual gifts are also part of the incoming funds of public institutions applied to social science departments. Voluntary health agencies, industry and endowment principal are among other sources of income available to universities and colleges.

Table 13 demonstrates the significant financial commitment to the social sciences by non-governmental agencies. This commitment is especially marked in contrast to the federal funds devoted to social science academic departments. This private participation, furthermore,

is growing. Sociology, for instance, registered a 6-percent increase
in funds from universities and colleges from fiscal year 1969 to 1970,
and economics and psychology grew 16 percent and 12 percent respec-
tively over the same time span. This rate of growth for economics and
psychology is greater than any other science, including life sciences,
physical science and engineering.

Table: 13   Expenditure for research and education in selected
            social science field, average expenditure per department [1,2]

Department	Avg. non-federal source	Avg. federal source
Sociology	377	150
Economics	476	95
Psychology	483	306

* Figures rounded

[1] Source NSF table C-1

[2] all figures in $ thousand

The rapid expansion of the non-profit sector, specifically foun-
dations, in the post-war era has multiplied the sources of public po-
licy supports. As Table 14 indicates, nearly one-half of all founda-
tions were established in 1950-59 and nearly one-fourth between 1960-
69. The area of research which is directed toward something other than
the promotion of particular industries or toward supplementing the
American defense posture has been greatly enlarged. Large sums are
being directed toward international studies, community services, program
studies and civic uses, all with considerable social science policy im-
plications. Even so, the federal government alone spends 150 times
more than all private foundations, and the larger differences of impact
between an independent private foundation and an elected government is
beyond quantification. This strengthens the possibility that the federal
government may, in the future, circumvent political obstacles to engage
in similar research activities. The increased range of policy research

over time legitimates its value and enhances the possibilities for wider public acceptance. Indirectly, foundations serve to liberalize public policy. This effect is complex, however, and needs explanation, especially since such liberalization is one of the main reasons foundations are criticized by political groups.

The liberalizing effect of foundations upon public policy is the outcome of two factors: first, the concern by the major foundations not to witness the American system eroded through internal strife; and second, government reliance, especially on the part of executive agencies, upon the foundations to provide an umbrella for innovative programs, both domestically and overseas, that clearly are beyond the purview of the government as such.

Table 14: Period of Establishment of 5,436 Foundations by Decades After 1900, by Latest Asset Classes

Period	Total foundations	Percent	$10 million or more Number	%	$1 million under $10 million Number	%	Less than $1 million Number	%
Total	5,436	100	331	100	1,830	100	3,275	100
Before 1900	18	.	1	.	14	1	3	.
1900-1909	16	.	6	2	9	.	1	.
1910-1919	75	1	22	7	36	2	17	1
1920-1929	157	3	32	10	88	5	37	1
1930-1939	259	5	64	19	118	6	77	2
1940-1949	1,134	21	97	29	463	25	574	18
1950-1959	2,546	47	79	24	799	44	1,668	51
1960-1969[b]	1,231	23	30	9	303	17	898	27

*Less than 0.5 percent. [b]Record incomplete for recent years.
Note: Information on year of organization was unavailable for 18 Directory foundations.
Source: Foundation Directory, Fourth edition

Of the 25,000 foundations currently in existence, the twelve largest, or a small fraction, control some 7.5 billion in assets, or roughly 30 percent of the resources of all the foundations put together (cf. Table 15). How these top twelve foundations were created, how they spend their money, what criteria they use in spending it and their performance record, especially for the social sciences which share

disproportionately in the top twelve, are all issues of great impor-

tance (Nielsen, 1972). For our restricted purpose we simply want to

indicate the magnitude of support given to the social and behavioral

sciences (see Table 15). The top twelve foundations have displayed

the greatest concern with problems of race, crime, international af-

fairs—in short, areas which most invite social science participation.

So in the Foundation-supported researches, social science has been

riding a crest of policy interest in sensitive areas and deriving the

benefits of such large-scale support.

Table 15:   Assets of the Twelve Largest Foundations in
            1969 Compared with Their Assets in 1965
                  (Dollar figures in millions)

Foundation	1969		1965	
	Rank	Assets	Rank	Assets
Ford Foundation	1	$2,902	1	$3,050
Lilly Endowment	2	778	7	320
Rockefeller Foundation	3	757	2	854
Duke Endowment	4	519	3	692
Kresge Foundation	5	433	*	173
Kellogg (W.K.) Foundation	6	393	4	492
Mott (Charles Stewart) Fdn.	7	371	5	424
Pew Memorial Trust	8	367	10	273
Sloan (Alfred P.) Fdn.	9	303	8	309
Carnegie Corp. of New York	10	283	9	289
Hartford (John A.) Fdn.	11	277	6	342
Mellon (Andrew W.) Fdn.	12	234	*	245
Totals	12	$7,608	12	$7,463

*Not in the first twelve in Edition 3.
Source: Foundation Directory, fourth edition

The combined 1970 and 1971 major field expenditures by dollar

and percentages of the foundation sector reveal that education and

welfare account for over one-half of all expenditures with a total

funding of nearly $1 billion for both years. A breakdown of these

totals on an annual basis shows that education and welfare both re-

ceived significant dollar boosts in outlays, whereas the total per-

centage of outlays dropped in favor of areas such as humanities and
international activities.

Social science research is included under different categories.
As Table 16 shows, $77 million, or 38 percent of the field of science
and technology, goes for social science research. Social science is
frequently a major component in the establishment, conduct and evalua-
tion of science and technology programs in general (Orlans, 1972).
Not only are the social scientific portions often disguised (not as
a result of any sort of conspiracy, but simply as a function of the
novelty of using social science personnel) but they are also closely
tied to military and defense activities. Appendix 3, for example,
indicates the significant military overtones which are contained in
the federal research support to private or non-university research in-
struments. Because the data are broken out in a way that makes getting
at the social science portion difficult, it is hard to determine with
any exactitude just what is or is not the social scientific component
in national policy research.

Table: 16   Foundation Support for the Physical, Biological and
               Social Sciences in 1970-71

Category	Amount (thousands)	Percent
General Science	$3,920	2
Physical Sciences		
General	891	
Astronomy & Space	1,059	
Chemistry	7,697	
Earth Sciences & Oceanography	3,123	
Mathematics	540	
Physics	931	
	$14,241	7
Life Sciences		
General	88	
Environmental Studies	14,898	
Agriculture	7,013	
Biology	12,735	
Medical Research	66,094	
	$100,828	50

Table 16 continued:

Category	Amount (thousands)	Percent
Social Sciences		
General	1,642	
Anthropology & Archaeology	1,114	
Business & Labor	19,337	
Economics	3,329	
Political Science	15,935	
Law	17,045	
Psychology	3,598	
Sociology	15,929	
	$77,929	38
Technology	$ 6,694	3
Total:	$203,612	100

Source: Foundation Directory, fourth edition.

The federal government can promote liberal policies with minimum obstacles by virtue of either a prior acceptance they may have gained under foundation sponsorship, or as a result of joint funding. As one foundation spokesman put it to some skeptics who questioned the value of government-foundation cooperation: "foundations can be valuable to society by probing and supporting risky or highly experimental projects in fields in which a government impact sooner or later will be necessary" (Magat, 1969:6).

McGeorge Bundy, President of The Ford Foundation, notes that Foundation efforts in many fields preceded those of the government. "The reasons for the time lag between foundation and government action are not identical in all cases, but there are some similarities: a tendency on the part of government to be wary of fields that may initially be 'controversial' (population and public broadcasting); delay in the development of an interested and lively public constituency (public broadcasting and the arts); the intense competition for federal funds, and the difficulty, even when need is recognized and public interest has grown, in defining just what the specific role of government should be" (Bundy, 1974:V-XLL).

In most of the fields cited, Mr. Bundy writes, needs are so great that they cannot be met without larger action by others (most important-ly the federal government) than private foundations can take. He con-tinues: In most of these fields the federal government is a larger ac-tor than the largest foundation in the field, and in all of them it is now clear that in quantitative terms the role of public authorities generally continues to grow at a faster rate than that of foundation authorities. Despite shared action in various fields, the private foundation and the government are essentially autonomous. "We never suppose that we must take whatever role the government proposes, and the various parts of government can and do exercise their own judgment on causes or programs that interest us. When we match public money... it is because we believe the particular cause is good. Certainly there are cases where we help to supply a missing element that in a differ-ent world the government would itself provide... . But the prepon-derant nature of the relation between a foundation's effort and the government's effort, when they are both large-scale grant-makers in the same field, is one of mutual reinforcement and a fitting division of labor" (Bundy, 1974).

In addition to promoting government policy aims, foundations con-duct research on problems which remain outside the scope of direct ac-tion by a private foundation, such as arms control. In such circum-stances, research and analysis themselves become legitimated methods of action. "Government, like any other very large institution, is only imperfectly attentive to the need for self-examination, and it would be dangerous if an unavoidable monopoly of authority were com-bined with an avoidable monopoly of research and analysis. The govern-ment and the public stand to gain from the existence of independent studies by independent analysts" (Bundy, 1974).

A more active form of research consists of experimental programs related to possible reform in public policy. Foundations support both analysis and experimental action in its approach to housing, community development, drug abuse, and the improvement of police effectiveness.

This assortment of data adds up to a steadily increasing set of federal expenditures for human resources, public welfare, environmental improvement, education and other economic and social purposes. This takes place against a backdrop of declining federal expenditures for other areas. National security and directly military outlays are being reduced to absorb these new social services (cf. Weidenbaum, 1971:88-89). In order to properly service this changeover, manpower resource allocations have shifted from the physical and engineering sciences to the social and behavioral sciences. Thus, we are no longer dealing with the sort of marginal expenditures for social sciences customary in the past, but a new priority that raises profound qualitative considerations by the very fact of the magnitude of expenditures and outlays for the "soft" sciences by federal agencies, private foundations and a host of other American economic and social institutions.

III. TRENDS IN THE POLICY IMPLEMENTATION OF SOCIAL SCIENCE RESEARCH

Without the steadily increasing support from the federal agencies documented in section II, the relationship between social science and public policy in the United States would have died stillborn. Thus, we must turn our attention to the qualitative side of this picture: to specific legislative, executive and judicial efforts to incorporate social science research in governmental practices and procedures; and beyond that, to show how, even in such activities as lobbying by private enterprise, the role of the social sciences in setting forth public policy has been enhanced if not entirely secured in recent years.

The infusion of social science in public policy owes far less to any specific discoveries of the behavioral sciences than to the general success of science as such in American life. Nearly 90 percent of the scientists and engineers the world has ever known are still alive, and half of them live in the United States. Many of the presumably good things in American material life have been attributed to science; that the word itself has acquired a mystique that has rubbed off on all those who wear its mantle. Thus the degree of "softness" of any particular social science counts for less than the absorption into the American ideology of the idea that one can study sociological, political and economic activities in a scientific manner. Thus, the spin off of a portion of the American gross national product for social scientific as well as physical scientific activities is largely the result of a faith in science as a whole. Determining whether such a spin off is warranted on empirical grounds, i.e., in terms of the actual discoveries of the social sciences is not the purpose of this study. But to ignore the milieu of a science-oriented culture would be to leave unexplained the unique role of the United States in the

transformation of the social sciences from a small, ancillary acti-
vity performed behind university walls, to a large-scale, central ser-
vice performed in the full view of the body politic.

Congress and the Full Opportunity and Social Accounting Act

In hearings before the Government Operations Committee, Senator
Walter Mondale (1968:322-33) described the four objectives of the
Full Opportunity and Social Accounting Act (Senate 5: Title I):
(1) declaration of "full social opportunity for all Americans as a
national goal." (2) formation of the Council of Social Advisors.
"This advisory council to the President would draw from disciplines
of social science in analyzing and evaluating progress in social re-
form". (3) issuance of an annual social report "which would enable
the President to dig deeply into aspects of American life that are
presently only touched upon" (by the executive branch). (4) creation
of the Joint Congressional Committee on the Social Report "like the
present Joint Committee on the Economic Report."

Following a series of major hearings, legislation for this bill
was introduced in 1967. The Subcommittee on Government Operations
Committee held an informal seminar in June, 1967 on the objectives
of the legislation and the concept of social accounting, followed by
four days of formal hearings in July, 1967. A revised Full Opportunity
Act was reintroduced to the 91st Congress by Mondale. In December, 1969,
Senator Jacob Javits, along with Senator Mondale, introduced an amend-
ment to establish an Office of Goals and Priorities Analysis as an arm
of the Congress. This office would submit an annual report to Congress
setting forth goals and priorities in the general context of needs,
costs, available resources and program effectiveness. With some amend-
ments the subcommittee established the Office as Title II of the Full
Opportunity and Social Accounting Act in April, 1970. The bill was

passed by the Senate in September, 1970; however, the House of
Representatives took no action on this measure. In January, 1971 Mondale
and Javits introduced the identical bill in the 92nd Congress. Testimony
was heard from five witnesses on July 13, 1971 by the Subcommittee on
Evaluation and Planning of Social Programs, which reported favorably on
the bill, without amendment, in December, 1971.

The informal seminar of the 90th Congress focused primarily on
the idea of a national social accounting system, emphasizing the valuable
contribution such a concept could make to governmental decision-making.
Although there are many difficulties inherent in trying to work with
"soft" social data, seminar participants agreed that new mechanisms to
deal with social needs and social programs were sorely needed.

At the hearings which followed the seminar, virtually all of the
witnesses testified on the paucity of information available to public
policy-makers in fields such as education, welfare, job training, health
care and antipoverty programs. Bertram Gross pointed out: "Executive
officials and Members of Congress alike are misled today by inadequate
interpretation of bad information, based on obsolete concepts and in-
adequate research and collected by underfed and overlobbied statistical
agencies."

Many witnesses reiterated the complexity of putting social health
into some system of indicators while pushing for immediate implemen-
tation of the program; for example, Howard Freeman, a member of the
HEW Panel on Social Indicators, also recommended that concurrent re-
search be undertaken to constantly improve the system of social ac-
counts. Concerning the roles of the various levels of government,
private concerns and institutions in the process of social accounting,
the consensus of both the hearings and the seminar seemed to be that a
strong Federal effort and a national focus were essential with coopera-

tion and coordination among all the bodies concerned. Philip Hauser
also pointed out that the creation of a Council of Social Advisors
and a Presidential social report would be an effective way to attract
public attention and concern to needs and goals in the social areas.

An important question raised in further hearings of the Senate
Committee was whether the social sciences were ready to provide the
kind of social indicators and cost-benefit analyses which are implied
by this legislation. In response to this, Otis Dudley Duncan said
that the concept and feasibility of a social report had been demon-
strated as long ago as 1933 with the pioneering study "Recent Social
Trends". That study has been reinforced in recent years by the pub-
lication of such volumes as Social Indicators (1966), Indicators of
Social Change (1968), Social Intelligence for America's Future (1969),
and the HEW report Toward a Social Report (1969).

While some witnesses questioned the advisability of another White
House advisory unit, the general opinion was that a Council of Social
Advisors would greatly strengthen the President in identifying needs,
establishing priorities and evaluating programs. A Council advising
the White House would also help to rectify the general lack of total,
comprehensive, long-range social policy. Furthermore, it was felt, only
a White House office could lend the necessary visibility and prestige
to the effort to take social account of the nation's condition and pro-
gress.

Senator Charles Percy testified that the Office of Goals and Priorities
Analysis would fill the large gap felt by Congress in the areas of
independent counsel and perspective on national program and policy
design. He also noted that the executive already surpasses Congress
in that it has the services of a computer-based program management and
evaluation and information system. It was agreed that the tools pro-

vided for in the Full Opportunity Act would not only restore some balance between the executive and legislative branches, but would also improve the quality of work in the executive branch.

In the hearings held in the 92nd Congress, Raymond Bauer, in discussing the arrangements for the new Office, stressed that we would have to allow a new Council of Social Advisors ten or fifteen years to reach maturity. Sol M. Linowitz, chairman of the National Urban Coalition, pointed out that the Office created by The Full Opportunity Act would provide Congressmen with the means to analyze the budget as a whole for the first time, thus filling an "information vacuum".

Concerning the responsibilities of a Council of Social Advisors, Nicholas J. Demerath III, who was then executive officer of the American Sociological Association, told the subcommittee that: "we are now well along with the methodological revolution which is producing far greater rigor in handling more complex phenomena... . In the case of sociology, this has involved the development of methodological techniques largely borrowed from econometrics, as a matter of fact, which have ushered in a shift from static to dynamic and from descriptive to causal analysis."

The committee estimated the costs that would be incurred in carrying out this bill for fiscal years 1973, 1974, and 1975 would be: Title I -- $1,500,000 for each of the three years; Title II -- $3,000,000 for each of the three years. Both the congressional leaders and the social scientists took for granted that such new forms of research would generate not only fresh data, but new answers to old problems. Few questioned such efficacy, and fewer still introduced any discordant notions that such capabilities could possibly be misapplied and might continue to service special interests instead of the general interest precisely as a consequence of this new form of information retrieval.

The professional societies of the social sciences, often located
in Washington, D.C., had done their jobs very well.

National Foundation for the Social Sciences

The proposal to establish a National Foundation for the Social
Sciences was developed and examined in a series of hearings held in
1966 and 1967 by the Subcommittee on Government Research of the
Senate Committee on Government Operations. Senator Fred Harris,
Chairman of the Subcommittee, became the sponsor of the bill to es-
tablish the Foundation. He stated that a separate foundation for
social science would "give the recognition, status, visibility and
prestige the social sciences need." In addition, Harris also poin-
ted out that the National Science Foundation would, of necessity,
continue to be dominated by physical scientists, and that there were
too many risks in depending on mission-oriented agencies for new sup-
port for innovative programming.

The stated purpose of the Harris bill was the establishment of
a National Foundation for the Social Sciences, separate from the
operating agencies and departments of the Federal Government (such
as the National Science Foundation and the Department of Defense),
to encourage and support research in the social and behavioral sciences.
In addition, the Foundation would serve as a contracting agency for
the other departments and agencies to secure unclassified, scholarly
research in the social and behavioral sciences.

A number of government witnesses testified, in response to the pro-
posed bill, but no general consensual position from the administration
emerged. The Director of the National Science Foundation opposed the
creation of a separate foundation and outlined the basis for an expan-
ded social science program for the National Science Foundation: re-
presentatives from the Department of Defense and the Office of Economic

Opportunity stated they thought it would be unwise to set up a separate foundation. The Secretary of Labor could not give a definite opinion on the proposal, but did emphasize the need to strengthen social science research in their own departments; and others, like the representative of the Department of State and the Peace Corps, agreed that a new foundation would give the social sciences a substantial boost in the federal government.

The testimony of social scientists also varied greatly. Kingsley Davis, an eminent demographer from the University of California at Berkeley (and the first social scientist to be elected to the National Academy of Sciences) strongly supported the Harris bill. Warren Miller, director of the Inter-University Consortium for Political Research at the University of Michigan, also strongly supported the bill. He argued that only a federal foundation run by social scientists could be expected to fight for the support needed to use the newest developments in the social sciences.

The most direct opposition to a National Foundation for the Social Sciences came from Herbert Simon, a political scientist and psychologist from Carnegie-Mellon University (also a member of the National Academy of Sciences). Simon asserted his belief that there was a scientific and practical necessity for maintaining a single scientific organization, the National Science Foundation. He felt that social scientists should seek more recognition from the principal science policy-making agencies, the President's Science Advisory Committee and the Office of Science and Technology, rather than multiply organizational layers. Simon's view has largely prevailed in social science circles.

Harris proceeded to report his bill out of the Subcommittee with a favorable recommendation, in the middle of 1968. However, no companion bill had come up for hearings in the House of Representatives. Instead, the House Committee on Science and Astronautics proposed a bill to amend the National Science Foundation which would give the NSF official authority to support the social sciences. With the restrictions on spending imposed by the priorities of the Vietnam War, there seemed to be little prospect of immediate political success or immediately available funds even if the bill were to be passed. Senator Harris reintroduced the bill in 1969, with thirty-two senators co-sponsoring the legislation (there were nineteen original co-sponsors) but again the bill was not enacted. (Lyons, 1969:289;295).

Despite the legislative failure of the National Foundation for the Social Sciences, the Harris bill had far-reaching effects on the development of a focused policy for social science on the federal level. The idea of a foundation devoted exclusively to the social sciences became an important element in the general reassessment of the role of the social sciences in the federal government, which was undertaken by three different social science policy study groups in late 1968. These groups were: (1) The Advisory Committee on Government Programs in the Behavioral Sciences, set up by the National Academy of Sciences-National Research Council. (2) A joint project sponsored by the National Academy of Sciences and the Social Science Research Council to survey the state of the art and the future needs of the social sciences. (3) The National Science Foundation-sponsored Special Commission on the Social Sciences, set up to explore ways to strengthen the social sciences and make them more responsive to the needs of society.

Congress is employing the services of social scientists in another aspect of policy-making: technology assessment. The recently established Office of Technology Assessment, although emphasizing physical science, is recognizing the potential of social scientific contributions to its concerns. For example, social scientists will be employed on the following proposed analyses: (1) economists and public policy analysts will examine using tax structures as instruments for upgrading the quality of the environment; (2) public policy analysts, sociologists and public opinion specialists will investigate social and attitudinal obstacles to food irradiation and the causes of these obstacles; (3) consumer analysts will study waste-paper recycling; (4) urban planners will look at possible employment of geothermal energy; (5) experimental psychologists, energy economists and political scientists will analyze the breeder reactor; (6) experimental and social psychologists will study automotive air bags; (7) specialists in the areas of public safety, national security, economics and international affairs will be involved in the study of nuclear materials safeguards; (8) sociologists, economists, health care administrators, population statisticians and demographers will examine genetic engineering (Office of Technology Assessment, 1973:69-100).

Such legislative pressures did move the older National Science Foundation toward a more empathetic view of the social sciences, reflected, not simply in increased expenditures, but also in a special section led led by a series of prominent social scientists, whose task was to broaden the mission of the National Science Foundation. The absence of legislative follow-through on the specific measures is due to many factors: grass roots indifference as reflected in the generally negative attitude of members of the House of Representatives; opportunistic rather than principled reasons for supporting social science

and social indicators legislation, i.e., the potential for higher
support to poorer states without regard to the actual present strengths
and concentrations of social science personnel; and finally, an indeci-
sive response from professional social scientists themselves (cf. Westin
and Baker, 1972:341-405). While most testimony reflected strong sup-
port, there was a noticeable absence of likeminded enthusiasm in home
universities, foundations and private research establishments. None-
theless, legislative relief or not, budgetary allocations for social
scientists went soaring, and thus relieved any great pressure for new
congressional measures. What could not be accomplished through the
act of congress could clearly be achieved through the Bureau of the
Budget.

Social Indicators and National Goals

In September, 1929, Herbert Hoover announced the formation of a
Research Committee on Social Trends. The mission of the Committee
was "to examine and to report upon recent social trends in the Uni-
ted States with a view to providing such a review as might supply
a basis for the formulation of large national policies looking to the
next phase in the nation's development" (President's Research Committee
on Social Trends, 1933:xi). "The various inquiries which have been
conducted by the Committee are subordinated to the main purpose of
getting a central view of the American problem as revealed by social
trends." (Ibid:xiii). The report released by the Committee advocated
the application of knowledge to social action. The introduction of
the report explained: "The Committee's procedure, then, has been to
look at recent social trends in the United States as interrelated,
to scrutinize the functioning of the social organization as a joint
activity. It is the express purpose of this review of findings to
unite such problems as those of economics, government, religion, edu-

cation, in a comprehensive study of social movements and tendencies,
to direct attention to the importance of balance among the factors of
change" (Ibid:xiii).

The Committee was financed by the Rockefeller Foundation and ad-
ministered through the Social Science Research Council (SSRC). Wesley
Mitchell, famed economist and friend of Hoover, and Charles Merriam,
political scientist and a founder of the Social Science Research Coun-
cil, played a profound role in the establishment and functioning of
the Committee (cf. Karl, 1963:37-81). The Report and Committee were
private operations rather than governmental. Of the thirty authors
of the report, only one was a member of the federal government. Fully
twenty had university affiliations, while the remaining nine were from
various foundations.

Following the precedent established by Hoover, another Republi-
can, Dwight Eisenhower, established a Commission on National Goals
which made its report in 1960. Rather than a broad survey of American
life such as urged by the Hoover report, Eisenhower's Commission fo-
cused on prescriptive goals. Such policy aims included (among others)
"an ending (of) discrimination in higher education by 1970" while
"states make progress in good faith toward desegregation of publicly
supported schools" (1960:4). The Hoover Committee gave only slight at-
tention to international affairs, whereas the world situation was a
central focus of the Eisenhower Commission. Interestingly, the cold
war fueled much of this support. "Communist aggression and subversion...
threaten all that we seek to do at home and abroad...Communist China's
blatant hostility to the United States makes it especially urgent to
strengthen our Pacific defenses and our ties with our Pacific allies"
(1960:18).

Frank Pace, Jr., Vice-Chairman of the National Commission on

Goals, and at the time Chairman of the Board of General Dynamics, commented: "My conception of what this Commission has tried to do is to set out the things for which we should strive over the long term and to identify areas in which inaction might cost us dearly. It should be recognized that the Commission task was to point out what the nation should do. It could not enter into the more difficult and detailed problems of priorities and the exact costing and paying for goals achievement" (1960:30).

One of the first calls for social indicators was contained in Gunnar Myrdal's classic study of American racial attitudes. An American Dilemna (1944), which was funded by the Carnegie Foundation, proposed the establishment of a yearly or decennial index on the progress of black achievement of equality. But this proved to be an isolated cry in the policy wilderness. For the next major broadening step beyond "economic philistinism" occurred only twenty years later, in the early years of the Kennedy administration, when Wilbur J. Cohen (later Undersecretary of Health, Education and Welfare) initiated the annual HEW Trends and the monthly HEW Indicators. These publications have grown increasingly sophisticated and comprehensive (Bauer, 1966:xiii-xiv).

In 1962, the President's Science Advisory Committee issued a report On Strengthening the Behavioral Sciences. Among its recommendations, the PSAC report called for more "systematic collection of basic behavioral data for the United States" (1962). Bauer (1966b:341) credits this report with stimulating several small research programs on social indicators at the University of Michigan's Survey Research Center in Chicago. At this same time, Wilbert Moore and Eleanor Sheldon of the Russell Sage Foundation were working on new methods of "monitoring social change" (Bauer, 1966b:341). This foundation has continued its interest in social indicators (cf. Henriot, 1972; and Bauer and Fenn, 1972).

In 1962 the National Aeronautics and Space Administration began working with the American Academy of Arts and Sciences on a project to determine the "second order consequences" of a vast space program on American society. In order to discover or predict such changes the need for societal monitoring devices, such as social indicators, was appreciated. Raymond Bauer became the Director of Research on the American Academy's program on social indicators. The American Academy's program led to the release of an issue of their periodical, Annals, devoted entirely to the issue of social indicators (1967). This issue, in conjunction with the book entitled Social Indicators, helped to fuel the social indicators' movement.

The project by the National Aeronautics and Space Administration gave a great deal of impetus to the social indicator research movement. NASA's project has been described (by Earl Stevenson, Chairman of the Committee on Space, American Academy of Arts and Sciences as "a pioneer among government agencies in its sensitivity to the wide ranging nature of its effects on society and in its awareness of the need to develop methods of anticipating these effects-- and if possible--bringing them under some degree of conscious control" (Bauer, 1966a:vii). At the same time, in 1966, the National Commission on Technology, Automation and the Economy pointed out in their report that social measures lag seriously behind the ability to measure strictly economic changes. The report called for a system of social accounts (not social indicators per se) to broaden the concept of cost and benefit beyond economic terms. The report emphasized four areas of development: (a) measurement of social costs and net returns from innovations; (b) improved measuring of "social ills"; (c) "performance budget" in areas of social need such as housing and education; (d) development of indicators on economic opportunity and social mobility.

The emergence of social indicators within the Federal government occurred when Bertram Gross was able to stimulate Douglas Cater (Special Assistant to the White House for Social Questions) and John Gardner (Secretary of Health, Education and Welfare) to take positive action. Cater and Gardner liked the idea so well that they convinced President Johnson to establish the HEW Panel on Social Indicators (Bell, 1969). The Panel consisted of 41 social scientists and an equal number of statisticians and administration experts. The Joint Chairmen were Daniel Bell and William Gorham (who was replaced by Alice Rivlin in 1968). It might be added that this executive route of the social indicators movement, like its legislative counterpart, represented a fusion and meeting of minds between liberal politicians and academicians.

In March 1966, the office of Lyndon Johnson directed the Secretary of Health, Education and Welfare to "search for ways to improve the Nation's ability to chart its social progress." In particular, the President's office requested that HEW "develop the necessary social statistics and indicators to supplement those prepared by the Bureau of Labor Statistics and the Council of Economic Advisors. With these yardsticks we can better measure the distance we have come and plan for the way ahead" (Johnson, 1966).

The HEW Panel on Social Indicators responded to Johnson's directive with Toward a Social Report. Delivered January 11, 1969, it urged, in HEW Secretary Cohen's words, "the continued allocation of staff resources in the Executive Branch to prepare a comprehensive social report to the Nation with emphasis on the development of social indicators which will measure social change and be useful in establishing social goals" (HEW Panel on Social Indicators, 1969:iii). However, Panel member Raymond Bauer noted at the time that the HEW Panel "doesn't have either muscle or autonomy of an independent agency to generate the

necessary initiative" to keep a social indicator movement alive"
(Full Opportunity Act, 1968:90).

On July 13, 1969, Richard Nixon established a National Goals
Research Staff within the White House. In establishing the Staff,
Nixon stated, "It is not to be a 'data bank.' It might more accu-
rately be referred to as a key element in a management information
system. For the first time it creates within the White House a
unit specifically charged with the long perspective; it promises
to provide the research tools with which we at last can deal with
the future in an informed and informative way" ("Toward balanced
growth," NGRS, 1970:222). "This will be a small, highly technical
staff, made up of experts in the collection, correlation, and pro-
cessing of data relating to social needs, and in the projection of
social trends. It will operate under the direction of Leonard Garment,
Special Consultant to the President, and will maintain a continuous
liaison with Daniel P. Moynihan in his capacity as Executive Secretary
of the Council for Urban Affairs, and with Arthur Burns, Counsellor
to the President, in his capacity as head of the Office of Program
Development." The functions of the National Goals Research Staff
were to include: (1) forecasting future developments and assessing
the longer-range consequences of present social trends; (2) measuring
the probable future impact of alternative courses of action, includ-
ing measuring the degree to which change in one area would be likely
to affect another; (3) estimating the actual range of social choice;
(4) developing and monitoring social indicators that can reflect the
present and future quality of American life and the direction and rate
of its change; (5) summarizing, integrating and correlating the re-
sults of related research activities being carried on within the va-
rious federal agencies, and by state and local governments and private
organizations (Nixon, Ibid:221-22).

The National Goals Research Staff can be contrasted to earlier
efforts of the Hoover Commission, the HEW Report, and especially the
Commission on National Goals established by Eisenhower. These pre-
viously established groups were oriented towards identifying specific
goals and measuring our progress towards them. There were no such
targets for the NGRS. ."The Staff did not have a goal-setting function;
neither did it have a planning function. Rather its purpose has been
to pull together analyses into a comprehensive, long-range view of po-
licy alternatives that can serve as an aid in the process of decision"
(NGRS, Ibid:22). Originally mandated to produce "annual reports",
the NGRS was disbanded shortly after producing its first report. Since
1970, the Office of Management and Budget's Office of Statistical Po-
licy has taken limited "responsibility for setting up a consistent sys-
tem of social indicators and publishing the results" (Cazes, 1972:10).

The Office of Management and Budget is responsible for producing
this report in the early part of 1974. The study is a survey of eight
indicators (health, public safety, education, employment, income, hous-
ing, population, and leisure and recreation). Although most of the
data composing the broad indicators are well-established federal sta-
tistics, some information originates from private sources. The goal
of the report is to provide composite indices (in a graphic form) of
important variables. The study is designed to appeal to the public
and provide a central and usable source of information on salient
features of American life for professionals. Many federal agencies
have cooperated in the construction of this report. OECD and the
United Nations have both provided encouragement and advice to this
project (Office of Management and Budget, 1972).

What we have in the social indicators "movement" is a step toward bringing social science information to bear upon public policy. But such indicators represent a higher rationalization and systemalization of quantitative data rather than any full array of social science explanations. Thus social indicators is both a step toward a more expansive role for the social sciences, but carries some severe limiting factors in the definition of such a role.

Social Scientists and the Executive Office

Until recently, there were two direct channels by which social scientists could provide their expertise to the President and his top advisers. The first is the general science policy advisory machinery, and the second is the Executive Office's Office of Management and Budget. The Presidents' Science Advisory Committee has had three social scientists members. The Office of Science and Technology has also had several staff members who were social scientists. These two organizations were called upon occasionally to integrate their expertise to find technological solutions to social problems. This was done, for example, in the fields of public safety and energy utilization and supply. Both of these organizations were disbanded in January of 1972.

One of the most influential organizations in the Federal government is the Office of Management and Budget (OMB). The mission of this office is to provide direct staff assistance to the President of the United States. There is frequent interaction between the President and the OMB director. The director attends all meetings of the National Security Council and the Cabinet. In addition to continual advising and reporting to the President, the OMB has the role of transmitting policy, as well as management information, to the departmental level. Instructions from the OMB convey "what agencies should do to accomplish the purposes of the Administration and achieve greater ad-

ministrative efficiency (Bureau of The Budget, 1965:21). The more than 500 staff members of the OMB are comprised primarily of economists. The unusually demanding assignment encompasses the entire range of Federal activity. "Solutions of issues requires skillful combinations of political science, economics, sociology and other social sciences. It is at the summit of the executive branch responsibilities, within the Executive Office of the President, that issues must be and finally are resolved" (Bureau of the Budget, 1965a:2).

Social scientsits from academic settings are pressed into government services at the highest levels, no less than in bureaucratic-line tasks. Henry Kissinger was a Harvard professor of political science before entering the government as head of the State Department; George Schultz was at the University of Chicago before becoming Secretary of State and Treasury. Daniel Moynihan, another Harvard professor, was an Assistant to the President for Urban Affairs before his appointment as American Ambassador to India. These men often serve executive authority without respect to party labels or affiliations. It is their special attribute to be "non-partisan" experts. Such high-level personnel serve to underwrite a view of social science as objective, value-free, and an orientation providing a set of interchangeable parts in a systemic context.

Auxilliary Measures: Industry

Approximately 5 percent of all social scientists who have their doctorate degrees are employed in private industry. The National Science Foundation in a 1968 survey determined that 1,658 social scientists were employed in the private sector. The distribution was as follows: psychologists, 1,001; economists, 405; statisticians, 151; political scientists, 36; sociologists, 35; linguists, 20; anthropologists, 10. This figure may be slightly inflated since some of the

firms labelled as private industry are themselves service agencies
dominated by social science personnel.

The distribution of social scientists across management posi-
tions was determined by Radom (1970:9) to be as follows:

Table: 17 Level and Field of Social Scientists in Industry (by %)

Field	Position			
	top	middle	bottom	total
Economists	33	37	30	100
Psychologists	21	43	36	100
Sociologists	40	20	30	100
Statisticians	4	26	70	100

Radom's typology classifies top management as those who report to the
President or Chairman of the Board of a company. Middle management
is defined as those who report to a departmental head or Vice-President.
Bottom positions are described as those who are supervisors, staff or
technicians, or those who report to middle management personnel. As
Table 17 reveals, social scientists, especially sociologists, are clus-
tered in influential positions in the table of organization. Those
who report to the President or Chairman of the Board are often in a
position to have a significant impact on the policy choices and deci-
sions of a company.

General Motors Corporation is a sound illustration of how social
scientists are deployed for policy research in industry. It has a
Societal Analysis Department which makes long-range studies used in
planning the future activities of General Motors. For example, the
Societal Analysis Department is performing research on social indi-
cators in order to forecast changing social values on a society-wide
scale. Game-theoretic models of political behavior are also being
constructed. Social justification for automotive use of fuel and
materials, the social justification and impact of corporate profit,

and the socio-environmental impact of automobiles are among the subjects of inquiry for this department. As pressures mount on giant corporations to curb their pollution practices, their utilization of social science personnel have sharply increased.

General Motors clearly prefers social scientists with a highly quantitative orientation, again reflecting a strong business tendency to consider social scientists as middle echelon personnel not unlike accountants in skill and performance. This professional staff includes a chemical engineer, a sociologist, a mathematical economist, an economist, a systems analyst and a physicist. The department has a commitment to expand its professional staff to 50 with a total staff of seventy within the next five years. In addition, General Motors has a Department of Urban Transportation which performs socio-economic analyses. This staff contains two economists, two psychologists and one urban planner as well as numerous physical scientists.

Ford Motor Company, General Electric, and Bell Laboratories also conduct social research along similar lines. In general, those corporations best described as multinational in character, i.e., with a high proportion of business production and consumption taking place outside the confines of the United States, have the most social science inputs into their corporate policy and planning. In a sense, this is simply because multinationals must function with an organizational chart and a series of international obligations more akin to a nation-state than to an old-fashioned company producing a single type of product or service. The case of Bell Laboratories is particularly instructive.

Bell Laboratories employs 98 social scientists with Master's or Doctor's degrees in the following fields: Education, 10; Social Studies, 5; Political Science, 1; Psychology, 72; Philosophy, 3; Econo-

mics, 7. The preponderance of its social scientists are in psychology and those primarily concentrating in experimental psychology. Work is performed in the areas of human engineering, educational technology, evaluation of speech quality and fundamental research in human information processing. At times, Bell Laboratories has done some work in social psychology in the areas of communications between two or more people. Its Research Center intends to expand activities in this area. However, the director indicated informally that problems in social science research are very difficult, and Bell tends to proceed cautiously in new and difficult areas. They likewise are on the lookout for solvable problems relating to interpersonal relationships amongst the people who make up the Bell System. Its social scientists are distributed widely throughout Bell Laboratories. However, the Acoustical and Behavioral Research Center has a concentration of about twenty psychologists. As in government, so too in the private sector: first come the economists, then the psychologists, followed in quick succession by the sociologists, political scientists and the anthropologists.

The degree to which private social science laboratories are themselves influenced by general ideological currents remains moot. Just as the general culture of the Department of State is influenced by broad generic writings of political scientists like Hans J. Morgenthau (1973) and Frederick L. Schuman (1969) so too are private laboratories emphasizing psychological research influenced by outstanding individual contributors like environmentalis J. McVicker Hunt and geneticist H. J. Eysenck. For our purposes, given the considerable amount of debate over race, education, and the nature-nurture controversy, we can confine our discussion to a consideration of H.J. Eysenck. His work should be viewed as typifying a broad spec-

trum of psychological opinion whose policy implications are more

often drawn by agencies such as the Educational Testing Service and

Bell Laboratories than by individual psychologists themselves.

There has been some recent criticism of the behavioristic em-
phasis in educational psychology. Specifically, the main complaint
is that oversimplification of psychological theory gives rise to in-
appropriate hypotheses. When these hypotheses are tested, inconclu-
sive or inconsistent results are achieved. To overcome this short-
coming, elite social scientists recommend closer collaboration be-
tween theoretical psychologists and educationists. This would allow
the latter to take advantage of progress in theoretical and applied
psychology. For instance, Eysenck (1972) addresses himself to the
dichotomy between "state" or environmental characteristics and "trait"
or hereditary characteristics in an individual. Eysenck sees as a
basic issue the manipulation of habits (and thus accomplishments of
the individual) by influencing the drive stimuli. He sees two major
areas of control: (1) selectivity and fit of personality type as
the individual progresses through the various "gates" in educational
achievement, and (2) alteration of the material so as to influence
the individual's drive.

From this vantage point a general theory of academic achieve-
ment and personality type has been constructed. Such theories have
a large component of hereditary and possibly racial overtones. By
employing such a theory, a consistent level of educational achieve-
ment is sought across broad socioeconomic and racial groups. This
consistent level would almost certainly not be maximized for the
individual. Rather, it would be a necessary feature of a large-scale
operation, standardizing the achievement of large disadvantaged or
underprivileged groups. Such standardization would permit an adjust-

ment in the ability to contribute to society among such groups.
The level then could be set so that a particular type of contribution
could be otained from members of groups undergoing such an industry-
wide educational program.

One result might be forced equity along paramilitary lines
through national service education and training. By utilizing such
a general theory of educational psychology, it would be possible for
social scientists to establish a program through which untrained
youth of the lower stratum could be funnelzed. The actual goals of
such a national service program or other large-scale education pro-
gram would be established by political and mass elites. It would
then be left to the social scientists to fill in the bridges. So-
cial scientists would design programs which would peg the goals to
the groups and cohorts to be absorbed by such a large-scale pro-
gram of training and service. Thus we might find psychological re-
searchers aiming at retooling the "retarded" for appropriate tasks
in industry by treating cohort groups so that their "states" and
hereditary "traits" can best be adapted or perhaps forcibly altered
to best serve the needs of a military-industrial complex.

Such recommendations need not be limited to the industrial sec-
tor. Manipulatory concepts can be expanded to nation-wide applica-
tions. The concept of "national service" is one such example. Na-
tional service is an idea which implies coercive or voluntary parti-
cipation in vast public projects which could encompass any age group,
but more often youthful cohorts. Social scientists'participation in
such projects, and especially the nature and type of participation,
helps cement the bond between social science and the power of the
state. In the Spring of 1971 a group of educators, public officials,
executives of voluntary associations and social scientists assembled

in New York City, under the auspices of the Russell Sage Foundation,
to explore the dimensions of national service for youth.

The collective statement by several eminent social scientists
foreshadows a movement of social science into a state service in-
dustry. A striking characteristic of many of the participants is
their common interest in military affairs. Morris Janowitz, chair-
man of the conference, is a leading authority of military sociology.
Adam Yarmolinsky, a contributor and now Professor of Law at Harvard,
has served in the Secretary of Defense's Office, as advisor to Presi-
dent Kennedy during the early stages of involvement in Southeast Asia,
and was a strong advocate of a nationwide civil defense shelter pro-
gram. Colonel Jack Butler, member of the United States Army War Col-
lege has performed studies of the volunteer army concept for the De-
fense Department. Charles Moskos is another leading military socio-
logist with a special emphasis on enlisted men and combat soldiers.
Other participants in this typical symposium include Cdr. James Barber,
U. S. Naval War College; Col. H. A. Davis, Project Volunteer Head-
quarters, U. S. Air Force; and Paul Akst, Selective Service Director,
New York.

The participants represented many different professional back-
grounds (for example, Margaret Mead). This underscores the fact that
national identification tends to supercede professional credoes at
critical junctures. Significant points presented by social scientists
at various gatherings on selective service are as follows: social
levelling, mixing social classes, new forms in the convergence of the
military and civilian sectors, pacification of the domestic popula-
tion in the United States, the social control of rioting, the termina-
tion of deviant behavior, and, finally, an end to educational failure.
These points add up to nothing less than an entire reconsideration of

American national policy by a significant portion of the social science community. The fundamental recommendation is that military life for all entails an equality of opportunity, but also an enforced authoritarian democracy at the lowest possible denominator. The rigid suppression of individual differences advocated by experts in the area constitutes a proletarianization of American class structure in the service of the nation-state.

The distinctions between civil and military sectors, between international justice and international order, between domestic disasters and behavioral control are to be eliminated. The highest form of personal obligation and service is aiding the state to achieve whatever goals the nation chooses. National service is to be the exclusive permissible alternative to discontented youth. If a youth fails to adjust or succeed in the larger society his option can only be national service. Marginal adjustments such as "dropping out" or living "on the street" are eliminated, perhaps by a section or corps of the same national service.

In many military-sponsored conferences we find few examples of the social scientists questioning the existence of a national service. The ideological underpinnings of such a system are minimized in favor of detailing the means and style of implementing the national service program. Only one commentator touched on the specific application of the talents of the national service youth. The area mentioned was a system of teacher's aides at inner-city schools. Nowhere in the conference papers are the dangers or potential misapplications of such a program discussed. In the desire to quickly implement a national service program with a large social science planning element, not a few social scientists prefer not to examine such questions. Supporters of the national service program

may not desire such criticism when the program is still in its post-natal stage.

The idealism of social scientists participating in the national service program planning stems from their profound belief in the correctability of national shortcomings, as well as the perfectibility of society through the use of social science. These social scientists forget, however, that the federal government as well as its agencies is limited by historical and geopolitical circumstances. It is committed to managing cumbersome, overgrown committee and data-gathering agencies. It is committed to a status quo merely for the sake of rational functioning. It can only tinker with innovating ideas. Thus federal agencies will limit national service programs and the ancillary social scientists simply to what is immediately useful to the state--not out of choice entirely, but of necessity as well. The social scientist often imagines he is a policy formulator, an innovating designer. Because of the cumbersome operations of government, he will be frustrated in realizing this self-image and be reduced to one more instrumental agent. He gets caught up in theoryless applications to immediate problems, surrenders the value of confronting men with an image of what can be and simply accepts what others declare must be.

The question various conferences on a national military service forcefully raises is not so much on the relationship between pure and applied research, but concerns the character of such application. Applied research is clearly here to stay and is probsbly the most singular and novel element in American social science in contrast to its European background. What is at stake is a highly refined concept of application that removes theoretical considerations of the character and balance of social forces and private interests

from the purview of application. The design of the future replaces
the analysis of the present in our new utopian world.

Research Functions of the United States Information Agency

In its role as a linkage mechanism between American foreign
policy and overseas publics, the United States Information Agency
(USIA) can be described as having a two-fold function: Advising
the executive branch of government about the dynamics of public
opinion abroad and its implications for present and contemplated
United States foreign policies; and Disseminating scientific and
propaganda materials to the publics overseas. The USIA research
program, which is administered by the Research Service in the Of-
fice of Research and Assessment, has two basic functions which
parallel the two major agency objectives: Descriptions and ana-
lyses of public opinions overseas for policy advisory purposes--
including opinions regarding the United States, its foreign policy
and specific issues in which the United States has an interest, and
evaluation of program effectiveness, including analyses of local
media habits and social and communications structures.

These functions are performed through several types of survey
and other empirical research studies. They include basic attitudes
and values, including trends and cross-country comparisons of general
images of the United States and other countries; sampling of opinions
on specific topics or events of current interest relating to American
domestic life or foreign policy; media habits, including stylistic
and thematic preferences; patterns of influence and social structure,
including identification of influential groups and social communica-
tion patterns, which, together with data on media habits, can be used
to help designate priority audiences and prime channels of communica-
tion; Program evaluation studies, including the extent of the audience

attitudes (Agency and local post programs); and finally, foreign

media and information service studies which seek to describe the

foreign information context in which the Agency operates. The

United States Information Agency, through its Research Service,

regularly distributes copies of foreign attitudes research stu-

dies to interested agencies. These generally include the State

Deaprtment, the Arms Control and Disarmament Agency, the Commerce

Department, the Defense Department, the relevant American embas-

sies abroad, the U. S. mission to the United Nations and OECD. These

research reports are compiled into monthly listings and annual biblio-

graphies.

Within the space of approximately twelve months, in 1972, the

Research Service received over thirty memoranda requesting surveys

and monitoring stories for the White House staff and the National

Security Council. These topics of interest have included President

Nixon's visits to the People's Republic of China and the Soviet

Union, Japanese opinion on their national security issues, foreign

reaction to the mining of North Vietnamese ports and rivers, and

general indicators of the United States standing in the world.

Additionally, requests for information have also been received from

the White House Special Action Office for Drug Abuse Prevention on

the potential evaluation of mass media campaigns against drug abuse,

particularly through the use of comic books, and from the National

War College on the impact of the East-West detente.

Through the use of personnel of the International Security Af-

fairs Division of the USIA, the Research Service attempts to insure

that significant documents are placed in the hands of the appropriate

decision makers in other governmental departments. For example,

Brooks McClure, from the International Security Division, is attached

to the Department of Defense. His assignment is to summarize

and then target information for use within the Defense Depart-

ment. At the same time, McClure also advises USIA on Defense

Department needs and interests, and how USIA may be useful to

these ends. Abe Sirkin serves a similar function with the State

Department's Planning and Coordination Staff. In addition, Sirkin

serves as an "interpreter" of social science information for the

State Department and as a "lobbyist" for USIA interests at the

State Department.

The findings of the Research Service are mainly utilized in

these two ways: (1) the usage of social science and public opinion

information to guide the development of policy, and (2) evaluation

of the impact of past decisions on the current international situation.

In the area of guidance, social science research can evaluate

the general situation within a foreign country which is conducting

talks or negotiations with the United States. For example, a series

of foreign opinion studies are usually prepared before President

Nixon has conferences with various Prime Ministers and heads of

foreign nations. Before a conference with West Germany's Willy Brandt,

it was determined that there was no significant amount of anti-Ameri-

can feeling or movement towards neutralism in Germany. Before Richard

Nixon's meeting with Premier Georges Pompidou of France, surveys re-

vealed that, although Franco-American relationships were good, the

consensus of public opinion was that there were very basic differences

in respective national goals which would lead to conflict between the

two nations. A survey done before the President's conference with

Prime Minister Andreotti, discerned a noticeable turn of Italian pub-

lic orientation away from America and towards the European community.

Prior to important discussions with Prime Minister Tanaka, Japanese

public opinion was seen as being quite divided on the subject
of making economic concessions to the United States.

Such anticipatory information makes it possible for nego-
tiators to be more accurately apprised of the true strengths
and weaknesses of their opposite members and the current situa-
tions they are facing in their domestic politics. In international
economic negotiations, the Research Service attempts to determine
what version of the facts will improve the progress of negotia-
tions. They are attempting to see what inputs of information are
likely to be most useful in modifying or influencing foreign opin-
ion in a direction helpful to United States objectives abroad. In-
creasingly, such intelligence activities are dealt with by social
scientists.

The second area of interest of the Research Service is evaluat-
ing the impact of past events on the current world situation. For
example, serious consideration is being given to the upcoming Ameri-
can bicentennial celebration and its international publicity. It
is felt that if too much emphasis is placed on American accomplish-
ments, the U. S. will be seen as an old, tired country. Thus the
emphasis of the publicity is being shifted to America's challenges
and opportunities so that the image it projects is of a young, vital
country. By the same token, the interpretation of American power
as being just past its zenith is seen as encouraging speculation
against the value of the dollar on international money markets.

A further problem is the question of the advisability of candor
in Voice of America broadcasts and USIA publications. Studies have
found that candor heightens credibility. Yet on specific questions,
such as programs depicting the true status of black people in the
United States, the Voice of America has had the effect of compelling

listerners to adopt a more unfavorable picture of America. Thus,
the tension between propaganda and propaganda analysis, which is
particularly evident in the United States--where both are in the
hands of social scientists--may lead to unanticipated consequences.

The USIA surveys provide the policy maker with valuable
"situational" information to deal with international affairs. The
orienting features of such surveys permit the policy maker to evaluate
progress or lack thereof in the pursuit of some of his specific
goals. The series of pre-visit and post-visit surveys of President
Nixon's trips to China and the Soviet Union fall into the areas of
both stocktaking and stockpiling of knowledge. These surveys in-
vestigated the range of expectations and reactions to the visits
among a wide variety of populations of 15 nations. The purpose of
these studies was to measure the impact of the visits on the general
standing of the United States in the eyes of the world. A secondary
purpose of the studies was to measure foreign awareness and expecta-
tions regarding the visits.

The surveys were prepared, analyzed and disseminated in record-
breaking time. The findings of the China surveys were deemed impor-
tant enough by the USIA to warrant presentation on June 20, 1972 to
all the agencies, including the State Department and the White House.
Interest among members of the State Department generated a series of
briefings. After the findings were presented to the State Depart-
ment's Area Directors Luncheon, a long and spirited discussion of
the implications of the findings was held. A copy of the study was
distributed to the White House, extensively annotated in the Presi-
dent's own hand. Documentation of the utilization of this study in
policy making ends here, but thorough reading and notation of the
study by the President is certainly very significant and fulfilling

to the staff of the Research Service.

Significantly, the USIA operates not simply as an information clearinghouse putting American "know-how" to use in an overseas context, but also extracting basic kinds of data of a public, but nonetheless sensitive nature, for utilization in fashioning American foreign policy. This in no way implies illegal or illicit behavior on the part of USIA officials. It is to point out that the fine line between information retrieval and policy relevant commentary is often crossed and criss-crossed. Given the fact that a considerable number of USIA officials are expressly involved in social science research, and beyond that, have social science backgrounds, the role of agencies and middle echelon personnel in the actual conduct of American foreign policy must be ranked as considerable.

As the field of psycho-history expands, with the concomitant analysis of important or famous people from afar, there can be no question that social scientists will come to perform a significant role in providing informational retrieval and attitudinal studies for policy-makers; especially those called upon to make major decisions in face-to-face diplomatic contact. The danger is that such analysis from afar may be superficial and even downright erronious, and hence lead not only to incorrect policy evaluations but mistaken calculations of the intentions of other leaders and ultimately other nations. But in this new field, as in other areas, the answer to poor research is sound research.

Social scientists in national science policy

Social scientists are playing an expanded role in the guidance of American science policy. For example, an increased percentage of members of the prestigious National Science Board are of a social

scientific background. The National Science Board recommends the
orientation of the National Science Foundation which, in turn, is
responsible for the support of basic research in many fields of
science. Of the past 71 members of the National Science Board,
only seven were social scientists (10 percent). However, of the 24
current members of the Board, five are social scientists (21 percent).
Thus the percentage of past as compared to present social scientific
makeup of the Board has doubled.

The Council of Economic Advisers has taken greater interest in
national policy for science and technology. Under consideration are
problems of resource allocation and the general relationship among
science, technology and the economy. For example, in the Annual Re-
port of the CEA of 1972, a chapter was devoted to "Effective Use of
Resources: Research and Development."

The National Association of Manufacturers (NAM) has a staff
for policy consisting of over 290 persons. Of this number 20 per-
cent are social scientists or have a social science degree. Half
of them (i.e. 10 percent) are political science specialists. They
work under Wright Elliott who is the Executive Vice-President and
serves out of the New York Office. Elliott received his doctorate
in political science from Cornell University.

The primary source of information concerning Federal support
for population policy research is the "Federal Program in Popula-
tion Research" (1970), which is an inventory of population research
supported by Federal Agencies. Two editions of this publication
have been published. The federally supported population policy re-
search projects which these inventories list is as follows: (1)
Feasibility of research effects of government population policies
in Eastern Europe (Henry David, American Institute for Research);

(2) Situation reports on population problems, policies, and program (Harrison Brown, California Institute of Technology); (3) Goals and conditions of population control (Kingsley Davis, University of California, Berkeley); (4) Population/Economic growth analysis and presentation (for political and economic policy-makers in developing countries) (Stephen Enke, General Electric Company).

Population Growth and America's Future, is an Interim report prepared by the Commission on Population Growth and the American Future, lists the following population policy research projects and papers which it plans to publish: (a) Congressional-executive relations in the formation of explicit population policy (Phyllis Piotrow, Johns Hopkins University); (b) Historical development of values in the American political legal tradition bearing on population growth and distribution (Peter Brown, Institute of Society, Ethics, and the Life Sciences); (c) Present and future American Ethical norms as limits upon possible population policies (Institute of Society, Ethics, and the Life Sciences); (d) Population policy-making (the and) Constitution (Arthur S. Miller, National Law Center, George Washington University); (e) Guarding against unintended consequences of possible population policies (Theodore J. Lowi, University of Chicago). Outside of government, various foundations and organizations such as Resources for the Future and the Population Council are becoming more active in policy research on the population problem, and the National Academy of Sciences is preparing a report on the policy implications of rapid population growth.

The Office of Emergency Preparedness, formerly in the Executive Office of the President, was abolished as of June 30, 1973, with its functions and pertinent records distributed to several other agencies.

As a central body the OEP had employed social scientists in planning, evaluation and consulting, and now these efforts are still ongoing but dispersed to other agencies. The natural disaster functions were transferred to the Department of Housing and Urban Development.

Except for energy and civil-defense functions, the General Services Administration has been assigned the other OEP functions. The development of policies, plans and procedures for many elements of emergency preparedness programs within the General Services Administration involves inputs from the behavioral, economic and political science disciplines. The emphasis, however, has been mainly on inputs from economics and economists, and is provided by a small in-house professional staff supported in part by a limited amount of research monies used primarily for stimulating or "piggy backing" other Federal agency research allied to the General Services Administration's emergency-preparedness programs.

Social scientists and social technicians, such as Edward Teller, Herman Kahn, Richard Nelson and personnel from RAND Corporation have played a significant role in the design of a civil-defense program. In the early 1960s there was a great deal of propagandizing for the adoption of extensive civil-defense measures. This militating for increased civil-defense programs included Congressional testimony and hearings, government-wide briefings and policy-oriented studies and even the support of President Kennedy. Herman Kahn, an active proponent of tremendous-civil defense programs states "I believe the civil defense program as it went was almost exactly what was recommended in RAND Report (which he authored) R-341, and many people in government will tell you that the government's program of civil defense actually came directly from those briefings (Kahn, 1973). The

Hudson Institute, where Kahn currently is a fellow, has produced

such socio-technical reports in the emergency preparedness area

as Post-Attack Social Organization for the Office of Civil Defense.

Social science and the judicial sector

Social science information is becoming increasingly important

to the American judicial system. A central factor in this develop-

ment is the role social science information plays in providing a

surrogate precedent for the courts. This surrogate is necessary

when the courts probe issues which disturb public sensitivity and

hence tend not to have been dealt with openly before. This is true

in the case of Loving v. Virginia.

American jurist (and later Supreme Court Justice) Louis Brandeis

became an advocate of social justice early in his career. In 1908

he introduced what has become known as the "Brandeis brief" in the

defense of a statute in Oregon. The statute "that no female be em-

ployed in any mechanical establishment, or factory, or laundry in

this State more than ten hours during any one day," was under attack

on constitutional grounds. Rather than focus on legal precedent,

Brandeis utilized evidence from the fields of sociology and economics.

Through this work Brandeis opened up points of law to social inquiry.

Rather than limited to tradition, judicial review could hence be

based on social science information as well.

Over the last fifteen years, social advocacy has become an im-

portant motivating factor in employing judicial decision-making to

achieve social justice through a change in social policy. Some of

the active participants have been the Legal Defense Fund of the Na-

tional Association for the Advancement of Colored People, the Ameri-

can Civil Liberties Union and the "store-front" law firms supported

by the federal Office of Economic Opportunity (OEO). Through

the OEO programs activist lawyers have been encouraged to inter-

vene in legal matters in welfare payments and housing problems.

In 1971, through the efforts of social advocates, the Supreme

Court of California produced an important decision. This deci-

sion struck down the financing of schools through the collection

of local property taxes. The court held that since there was re-

gional variation in income and property value so too there would

be regional fluctuation in the quality of education.

The groundwork was established through a great deal of so-

cial science research devoted to analyzing the mechanisms of the

school finance sytem/ as well as an analysis of various consequences

and available alternatives. Factors taken into account included
in this groundwork

the total assessed valuation of real estate in each town, the number

of dollars spent for each pupil, local variations in property tax

rates/ and the state contributions to student costs were all inclu-

ded in this groundwork (Coons, Clune and Sugarman, 1970).

Social science information has played a striking role in judi-

cial decisions involving race relations (see Brown v. Board of Edu-

cation in a later section). Until the case of Richard Loving, et.

al. v. the Commonwealth of Virginia, the Supreme Court had not con-

sidered anthropological data in the weighing of cases dealing with

racial issues. Until Loving v. Virginia in 1967, arguments about

the concept of race as used by social scientists were not present

in courtroom cross examination, in the supporting amicus curiae/

brief on behalf of Loving. Solomon Katz, an anthropologist at the

University of Pennsylvania and Eastern Pennsylvania Institute, was

invited to help clarify issues and misconceptions regarding the use

and meaning of the concept of race in the legal context (cf. Katz,

1973). Laws of differing clarity and age were interfering with

interracial marriage were carried by sixteen states. The laws re-

lied upon faulty definitions of race whenever they attempted to

classify individuals. The laws depended upon 19th century concepts

about "racial purity" which intrinsicly assumed "racial superior-

ity." Since these assumptions had to be applied to individuals, a

non-specific causal relationship was imputed between a persons in-

tellectual or biological superiority (or inferiority) and his race.

These antimiscegenation laws also relied upon standards of proof

about race which were contingent upon concepts of "blood" and which

could not be applied objectively under the law.

It was clear to social scientists and lawyers alike that anthro-

pology did address questions involved in the legal issues of race,

and that such data were available. A careful study was performed

to test each legal supposition involved in the issue of race. The

suppositions were tested in areas of physical anthropology such as

population variation concepts, history of the races, and biological

variations inherent in race. Katz and his associates determined

that most, if not all, of the basic presuppositions involved in the

application of the race laws were obscure, improper and inappro-

priate. A brief was then constructed on these grounds and the verbal

argument before the Supreme Court was oriented along the information

yielded by the anthropological inquiry.

The Supreme Court justified the striking down of the anti-

miscegenation laws in terms of the Fourteenth Amendment thus basing

the decision on Constitutional issues. During the courtroom pro-

cedures, however, a great deal of attention was devoted to the an-

thropological issues. The justices demonstrated that they under-

stood the meaning of the anthropological argument. Chief Justice

Earl Warren quoted several themes from the literature of physical anthropology. The justices addressed many pointed questions to the appellee (the Commonwealth of Virginia) lawyer as to the enforceability and meaning of race concepts. By the time the cross examination was completed, the Commonwealth lawyers abandoned their argument of biological hierarchy. When evidence as to the weakness of such concepts was introduced, the defense of antimiscegenation laws shifted to social psychological variables involved in maintaining racial purity. While this raised several new points which the social sciences address, no further work was undertaken along these lines (in this brief) since the law was struck down by the Supreme Court.

The most recent illustration of social science participation in legal practice concerns not judicial decision-making per se, but rather the intervention of social scientists in the choice of jury selection to determine the outcomes of jury deliberation. The most outstanding illustration of this procedure involved social scientists Jay Schulam, Phillip Shaver and their associates acting in support of defense counsel of Ramsey Clark and Leonard Boudin. The trial was the well-reported conspiracy trial of the Harrisburg Seven (Schulman, 1973:37-44). Their problem was deciding on prospective jurors who would be favorable to the defendants in an essentially conservative Pennsylvania area. The results, to be sure, were mixed. But the analysis provided indicates that such kinds of social science intervention are indeed a fruitful area for future activity. What makes this especially important is the radical constituency serviced by this form of social science. Whereas most forms of social science involvement in policy-making service one or another elites, this participating support was clearly counter-

establishment. Again, the potency of social science is just
beginning to be felt at levels of "policy" often not considered
as part of the normal cycle of social science and public policy
interaction (cf. also Gordon et al., 1973:280-335).

Interestingly, the attention Jay Schulman and Richard Christie
received in their capacity to assess potential "fair-minded" jurors
extended right as well as left. It has been authoritatively repor-
ted that prior to the Mitchell-Stans trial the Republican National
Committee sought the services of these two sociologists to repeat
the "miracle" that they performed earlier for Berrigan and his co-
defendants. The two investigators adopted quite different moral pos-
tures: Schulman took the position that he would not help in the
Mitchell-Stans trial because unlike the Berrigan trial he felt nei-
ther a legal or moral compunction to support the defense posture.
Christie, for his part, took the view that he was providing an in-
formation service and was quite willing to serve in the same capa-
city in another case with several provisos: First, he would help
select a fair-minded jury, not necessarily one biased on behalf of
the defendants. Second, that the fee be allocated by the Republican
National Committee to a radical cause of his (Christie's) choosing.
What we have in effect is a return to the original problem of the
utility of social science measured over and against any special
morality of the social sciences.

What this section makes abundantly clear is that the policy im-
plementation of the social sciences proceeds in lock-step fashion
with the evolution of quantitative forms of measurement in the social
sciences. When a consensus exists as to what constitutes a social
problem or a social indicator, then the amount of social science par-

ticipation increases considerably. In this sense, the science of
economics came first, because the monetary system provided a ready-
to-hand set of economic measures of production and consumption that
could be handled by that social science. But, as the measures be-
came "softer," the consensus on the values of social science partici-
pation in the policy process became markedly muddled.

The quantification of valuational measures on such items as
whether America is in a state of progress or decline, the measure-
ment of urban decay, criminality, the environment, defense and for-
eign aid and governmental reform, has greatly accelerated the in-
corporation of social science findings into policy analysis. This
is not to deny the critical or reflective role of the social scien-
ces. It is only to note that as long as such a reflexive role is
predominant, social science is largely confined to an academic and
university environment. But when measures for transforming quali-
tative materials into quantitative terms are achieved, at that point
the social sciences move beyond their academic confines and become
very much a part of the larger social and political system.

Policy-makers prefer the utilization of quantitative aspects
of social science in the formation of decisions. The presumed
exact and orderly nature of the quantitative approach has inherent
appeal to the policy-makers in their attempts to order and audit
political options and the implications of their choices. The
rising value of the social sciences to basic types of decisions
requires its growing utilization at a time of internal turmoil
over the essential nature and tasks of the social sciences.

IV. DIFFERENTIAL UTILIZATION OF SOCIAL SCIENCE IN POLICY-MAKING

Social science and policy making establishments

Social science is viewed as valuable by policy-making agencies chiefly under two circumstances: when social science organizations have provided past services in legitimating decisions, and when knowledge is not extensive or exhaustive enough to justify conventional intuitive or common sense approaches to problem solving; in short, when managerial techniques break down. For example, the Office of Management and Budget has demonstrated its effectiveness and ability in both the areas of legitimacy and knowledge. Hence, it is a well-integrated social science establishment vis-a-vis the presidential offices. The same is true of the Council of Economic Advisors. Particularly in areas where past experience is seen as an inadequate guide to future choices, social science agencies will be generated. General Motors doubtless expects a definite payoff from its Societal Analysis Department in terms of forecasting trends and justifying the expense of supporting social science research.

The Federal government in the United States has been unwilling to establish and support a policy voice of social scientists, exclusive of economists. This is evidenced by the failure of the National Goals Research Staff, Council of Social Advisors, or a National Social Science Foundation to take firm root. The usefulness of social scientists in such intimate capacities has not been demonstrated amply enough to the satisfaction of government agencies, at least to justify the allocation of scarce resources of money and power to social scientists at the national level of decision-making.

In some areas social scientists have gained an important, if peripheral foothold. They are now often required personnel on projects ranging from ecology, architecture, mental health, disaster prepara-

tion/ and human factors in engineering. Neither legislation nor
contracts involving federal agencies in these areas can be cleared
without social science sanction. Private organizations and founda-
tions have a significant mediating effect between the social scien-
tific and policy=making realms. They are useful in encouraging pri-
vate work and exploring early developments which may later prove to
be useful for the policy=maker. Such private sources can investi-
gate areas and make commitments which the government, being public-
ly accountable/ and politically sensitive, usually refrains from in-
volving itself in. A good example is the Russell Sage Foundation and
its sponsorship of exploration in social indicators.

At the other end of policy=making--overcoming problems that arise
as a result of past decisions and policy--social scientists are seen
as a source of quick socio=technical "fixes". Much work performed
at the Battelle Institute is characteristic of this type of approach.
NASA's concern about the second=order consequences of a titanic space
program demonstrates a longer=term concern about social impacts and
problems, but more as an after=thought of more "important" technologi-
cal programs than any presumed intrinsic merits. The value of social
scientific work is often seen in terms of planning and program evalua-
tions. At the level of planning, decision makers want wider options
and anticipated consequences presented, rather than specific recomen-
dations for certain courses of action.

The danger of utilizing social science for legitimating purposes
is always present in commissioned work. In the larger perspective,
social science is almost invariably employed to rationalize decisions
which are controversial and in broad public view. Social science
recommendations tend to be accepted or rejected on a basis other than
the inherent quality of the research and conclusions. Thus, in the

Supreme Court desegregation decision, "separate but equal" was an
ideological posture which was no longer accepted for political reasons.
Social scientific breakthroughs on the question of race and race re-
lations provided only supplemental, albeit necessary, information
which supported and legitimated a new series of Court rulings. So-
cial scientific inputs are often one of a multitude of factors that
go into actual decisions. As a result, it is difficult to distin-
guish the specific contribution of each source of influence and thus
isolate the nature and extent of social scientific contribution.

Social science not only encourages change (when a prior consen-
sus dissolves), but may also protect order (when a prior consensus is
present). Thus, social science cannot be seen as simply a "change
agent" or as an "establishment tool". The actual activities of dif-
ferent kinds of social scientists, often working at sub-national
levels, thus becomes especially illuminating in elaborating, if not
entirely resolving, the multiplicity of roles performed by social
scientists, and how they are utilized by policy-making agencies.

Processes of change and order both provide grounds for the support
of social science research. For example, many social science projects
are encouraged because they allow those in power to more accurately
perceive changes that are "inevitable". Social scientists show policy
agencies how to prepare to take advantage of the consequences of such
changes. Arthur D. Little's studies of the recursive effects of tele-
communications (especially cable TV) is one example of this newer tenden-
cy. The Battelle efforts to "fine tune" the school systems to produce
individuals to meet industry specifications rather than abstract con-
cepts of humanism, liberal education, etc., is a further example.
Recommendations which improve public safety forces, such as specialized
education for policemen, upgrading tools and techniques of apprehension,

make the police force a more effective mechanism of social control.

What we have then are three models of social science: (1) as a tool promoting social change, i.e., the school desegregation cases; (2) as a tool controlling change, i.e., support for military or political dimension; such as the Project Camelot effort to establish mechanisms for counter-insurgency and civic action; and (3) as a tool for identifying change and also harnessing such change for established agencies. A fourth model of social science concerns its role in the technical improvement of agency performance, specifically its functions as an instrument in incremental improvements. While this activity probably preoccupies a considerable majority of social science talent, i.e., the evaluation of policy performance, rather than the manufacture of new policies, its very confinement to procedural details makes it unfeasible as a direct instrument of social change. We will, therefore, confine our analysis in this section to the presentation of a series of case studies which, better than any general theory, shows how specific yet typical social science agencies provide services to policy-makers - sometimes within all four models.

Local Planning and the Urbanization Process

George Sternlieb and the Rutgers University Center for Urban Policy Research have made major contributions to social policy since its inception in the early 1960's. These contributions have ranged from the city planning to federal legislation on new housing. Their efforts have touched all branches of government. For example, Sternlieb executed a study of the housing outlook of welfare recipients in New York City. These studies are having a bearing on a number of legal suits on the exclusion of welfare recipients from private housing.

A study of Plainfield, New Jersey, focused on changing neighborhoods, called "zones of emergence": the core of the study were in the

racial composition of the community. This particular study had
a significant impact on the Office of Economic Opportunity (OEO)
programs for dealing with problems in this area and in introducing
the notion of racial mix and racial balance as planned for factors
in urban programming. The Tenement Landlord, a study of Newark,
New Jersey, (Sternlieb, 1966) first performed in 1964 and re-examined
in the early 1970's (Sternlieb and Burchell, 1973) revealed that owner
residence made a substantial difference in the quality of upkeep of a
rented building. This study was a significant factor in the formula-
tion and passage of the "Urban Homestead Act" of 1967.

The Urban Center has produced a set of position papers for the
Housing and Urban Development Department (HUD). This research had
an impact on the evaluation strategy of housing policy; as well as
recommending various actions regarding HUD's participation in local
zoning procedures, building codes and the question of the constitu-
tion of neighborhood decline. The Urban Center has worked with the
New Jersey Governor's Housing Task Force and played a central role
in the formulation of a land-use bill which is currently before the
State legislature. The bill was, in essence, written by social scien-
tists. Beyond that, several of the Governor's speeches on the subject
were clearly prepared by sociologists and economists.

Sternlieb was commissioned to perform a rent-control study for
the City of New York. The problem was to discover the dollar amount
figure which determines adequate upkeep of a residence which is rented.
Sternlieb discovered that rather than a simple rent figure, a cluster
of broad and nebulous factors determined quality of upkeep. This
study was cited in the rationale to remove rent control restrictions
in the City of New York. Whatever the uses or misuses of their ef-
forts, it is plain that the Urban Center is catering to both "local"

and "cosmopolitan" interests and has become an authentic legitimat-
ing factor in policies directed toward the urban dweller, especially
the urban poor.

The Urban Studies Center typifies an increasing trend in the
linkages between policy sectors and social scientists based at
American universities, but fundamentally deriving their income and
influence from federal, state and local agencies. In the case of
the Urban Center, its director has links to the federal government
through the Housing Authority of the Department of Health, Educa-
tion and Welfare, into the New Jersey State government through as-
sociations with the Cahill administration in Trenton, to municipal
governments through large-scale urban research grants on the housing
authority of the cities; and through countless municipalities rang-
ing from rich suburbs like Princeton (Sternlieb, et al., 1971) to
changing semi-urban ghettoes like Plainfield (Sternlieb and Beaton,
1972). In this way, non-university funding has the consequence of
producing desirable research in applied fields, while at the same
time resulting in university "pay-offs": graduate degrees for research
conducted, additional fiscal support for professors and lecturers,
and perhaps the most significant element of all, bringing about a
closer series of connections between social research and applied
policy needs that permit autonomy as well as further integration with
the university community.

The weakness of such an organizational-structural approach is
that it must constantly go outside the university for funding. Uni-
versity organization, in the meantime, absorbs such a high proportion
in its overhead so as to discourage any excessive entrepreneurship,
which may indeed be a blessing in disguise. As in all such instances,
the crucial moment of truth comes when the outside funding sources

begin to dry up, thus leaving the university the choice of either

picking up an unexpected and unwanted overhead burden, or discard-

ing and dismantling these very novel agencies that are most clear-

ly linked to social problems in the broader society. That nearly

every major university can lay claim to similar non-departmental

programs and centers, and hence similar volatile issues, is an in-

dication that the infusion of policy demands on the social sciences

has resulted in revised estimates, not simply of what the social

science role at a modern university is to be in the futre, but what,

in fact, that role means to universities here and now.

This situation also draws attention to the fact that the in-

fusion of policy-related research into the life of social science

has considerably shifted the emphasis of professionals from depart-

mental considerations to task-oriented concerns. Interests in urban

planning are particularly prone to cross-disciplinary activities,

and in this very act serves to dissolve the inherited primacy of

academic departments. This too raises some critical cleavages be-

tween those whose primary stake is in the profession and those who

center their concerns in the policy. In other words, the relation-

ship between social science and public policy effects the inner life

of the social sciences no less than the general patterns of policy-

making. The rise of urbanism as an interdisciplinary structure,

no less than as a way of life, is indicative of this central trans-

formation within the social structure of social science.

Regional and Systems Planning

The Columbus, Ohio, laboratories of Battelle comprise the original

research center of a public purpose and multinational organization de-

voted to scientific research and development. In 1972, Batelle's

staff of 5,600 people carried out over 3,600 studies of 1,700 indus-
trial organizations and government agencies and earned over 71 mil-
lion dollars in fees in the process. The interests of Battelle are
concentrated in materials research, engineering, and systems fields.
Their work relating to social sciences has been in the departments
of biology and medical sciences, technical and business planning re-
search, environmental systems and processes, communications systems
research, and most recently in the Center for Improved Education.

The Social and Systems Sciences Department is comprised of five
research groups totalling about 90 professional researchers and
supporting staff. The backgrounds of the researchers are heavily
concentrated in the quantitative, engineering, systems and physical
science disciplines. The personnel in the Department comprise a
staff with over (thirty) degree specialties, ranging from community
planning and social welfare in the "applied" fields, to economics,
sociology and psychology in the "pure" fields. Although the Depart-
ment is organized around the experience and competence of its five
component groups, rarely is a research project performed by one group
alone. Usually, appropriate talent is furnished to accomplish a given
task.

The major themes of the educational systems group are informa-
tion, technology, educational planning and management, and educa-
tional systems analysis. The group has had experience in applying
educational technology--a systems approach to instructional develop-
ment which includes, for example, behavioral specification of instruc-
tional objectives, development of evaluation techniques and instru-
ments, and pilot testing and evaluation of instructional materials,
techniques and courses. The group has capabilities in educational
network analysis, cost-effectiveness evaluation, evaluation of voca-

tional programs and facilities, and development of differential

staffing models for individualized instruction. The group also has

capability and experience in job and task analysis, experimental de-

sign, psychological measurement, and development of personnel selec-

tion and placement techniques.

The Man/Systems Technology Group has a broad capability in hu-

man factors and engineering psychology as well as in basic methodo-

logical skills that are applicable to a variety of problem areas.

Studies conducted by the group involve the application of principles,

techniques, and literature that relate to systematically designing

equipment, tasks, workspaces, and physical environments for maximum

compatibility with human characteristics. More specifically, group

staff members are knowledgable in such areas as the following: human

capabilities and limitations, characteristics of the human operator,

assessment of human performance, reduction of human error, effects

of environmental factors on performance, man-machine system simula-

tion techniques, and display/control design. This group also has the

capability for planning (or assessing) the design of experiments

involving human subjects. Group staff members are skilled in the

specification of the procedures of data collection, methods of data

analysis, computer applications and the appropriate statistical tests.

In addition, members of this group have experience in conducting

large data collection efforts involving on-site, field interviews.

The primary mission of the Management Systems Group is the

application of science and engineering technology to the solution of

management problems, with emphasis on the development or improvement

of men, facilities, equipment and other resources. The systems ap-

proach to problem solving is the basic philosophy for Management Sys-

tems Group. This philosophy is put into practice both in problem

solving and in management of large-scale multidisciplinary projects.
Projects accomplished by members of the group encompass several areas
of application involving health systems planning and analysis; law
enforcement and corrections; defense logistics and support systems;
salary surveys of scientific and technical personnel and social sys-
tems.

The Community and Economic Development group is responsible for
conducting and coordinating research and action-oriented programs in
the areas of urban studies, locational anslysis, regional development,
minority-oriented programs, demographic analysis; and various types
of modeling. The persons associated with this group have backgrounds
in sociology, industrial development, regional economics, urban eco-
nomics, transportation, city planning, rural and small community de-
velopment, manpower economics and economic geography. Experience of
the group includes socioｅeconomic modeling and analysis; economic de-
velopment; locational analysis; urban studies; and transportation and
trip behavior.

The Environmental and Land Use Planning Group is staffed with
individuals of diverse backgrounds and professional experience and
is leading in cooperative research involving skills in ecology, land-
scape architecture, systems analysis, economics, political science,
meterology, engineering, chemistry and other physical sciences. Pro-
blems have been approached on several geographic scales including
river basins, metropolitcan areas; and groups of states. Problem
areas include water quality, coastal development, regional air qua-
lity, solid waste management, river basin development and economic
growth. The group is also active in such areas as environmental-
impacts assessment, economic dimensions of environmental planning,
social and institutional aspects of environmental planning and re-

creational elements of environmental planning.

The Center for Improved Education runs projects which have
been undertaken by the center as a whole. Battelle's Center has
applied its knowledge of the physical and psychological needs of
children in a wide variety of studies. The goal of one program was
to develop and evaluate a high-quality child-care center to be
operated for the preschool children of employees of a large public
service company. Such a center enables working mothers to stay on
the job and permits others to return to their former jobs. Further,
its successful operation will make the opportunity to work available
to many mothers who have never been able to work before. In another
study, psychologists and educational technologists researched the
needs priorities and recommendations relevant to establishing a
statewide policy of preschool education in a Midwestern state.

In a study of a local school district, vocational education
programming and facility needs were assessed and recommendations
were made for an improved and expanded career education program in
the district. In a third study, the Center for Improved Education
staff members investigated the relationship between an employee's
actional criteria of employability and an employer's stated criteria.
A methodology was developed to enable school systems to reduce dis-
crepencies between employer-desired skills and curriculum-produced
skills.

The objective of several Battelle Center studies has been to
refine and develop education and training programs for prisoner
rehabilitation. In one of these research efforts education special-
ists analyzed the education and training programs at two federal
prisons. They developed a model prisoner education and training
system and formulated recommendations for implementing their model.
In 1972, Battelle initiated a major program with the Ohio Department

of Rehabilitation and Corrections. The goal of this study is to
develop an alcohol education and rehabilitation program directed
toward the reduction of alcoholism among inmates in correctional
institutions.

There has always been a wing of social science quite close
to its social engineering inheritance (Horowitz, 1969:585-898).
With the breakdown of classical models of histrocism, functionalism,
organicism and the like, and the corresponding emergence of systems
design, game theory, decision theory, as variants in the armory of
the behavioral as well as engineering sciences, the relationships
between these two groups have drawn tighter. In the development
of such agencies as RAND Corporation, Systems Development Corpora-
tion, Lincol Laboratories, as well as Battelle, the connections
have become intimate in application no less than theory (cf. Bogulsaw,
1965). The involvement of engineering personnel in broad-scale pro-
grams of international development at the macroscopic end to urban
renewal at more intimate levels of human intervention, has meant that
social scientists have been consulted on a wide array of issues. At
the same time, the social sciences were making far greater use of
computer technology and systems design, and in this way the bridge
between bahaviorism and equilibrium theory in engineering, if not
entirely cemented, at least drew to a closer condition than at any
time since Comte, Pareto and Solrel were involved in the formation
of social science principles.

At the same time, the practical requirements of agencies, federal
or sub-national, began to develop a common rhetoric of equilibrium,
function, design, decision-theory, that led to operationalism becoming
a general criteria for all sponsored forms of research. The social
sciences, perhaps as a consequence of federal research specifications

no less than the inner turmoil created by the breakup of older social
science traditions, began to develop an isomorphic set of working
premises that permitted their researches to be plugged directly in-
to the efforts of engineering principles, and made possible the sort
of large-scale fiscal support which, even as a form of spin-off of
master projects such as those sponsored by NASA, meant a great deal
more support than the social sciences has commanded in the past.
What we witness, therefore, in research efforts of Battelle and like-
minded agencies is a strong impulse to reinterprete social science
data as positive human inputs into new programming on a national and
world scale. The critical tradition clearly suffers in this reinter-
pretation. But then again, the actual broadening out and humaniz-
ing of engineering approaches did expand to a commensurate degree.

Minority Interests and Social Research

The Metropolitan Applied Research Center (MARC) was founded in
January, 1967 by Kenneth B. Clark, a well-known black educator and
psychologist. The MARC Corporation is an independently funded con-
sortium of persons with experience, knowledge and skills in the
fields of social science, law, and municipal and public affairs,
who are committed to the purpose of influencing social policy on
behalf of the poor and racial minority groups. Although the number
of staff members has ranged as high as one hundred, currently the
level is fifty. It is perhaps the most successful, black-run social
science research agency in the nation.

The MARC experiment is an attempt to determine by systematic
exploration whether trained intelligence can be mobilized as an ef-
fective form of power for positive social change (MARC, 1973). MARC's
staff undertakes the monitoring of governmental services and programs
to ensure that the rights of the economic poor and lower-status minority

groups are not ignored or shortchanged and that their share in the

economic and political benefits of the society is not lost or pre-

empted by others because of their lack of power to protect themselves.

When social exploitation is made possible by lack of coherent

and concrete information, MARC tries to gather and present the re-

levant data in a meaningful pattern. Various MARC publications and

films have focused on issues such as educational deprivation, pupil

transportation, residential segregation and daycare in the Inner

City. For example, the pro-busing booklet, Fact Book on Pupil Trans-

portation (1973) allows individuals to refute commonly held mistakes

about busing. Taking the view that busing is "as American as apple

pie" the booklet distills pertinent facts on busing and seeks to pre-

sent these facts so that readers can determine the validity of the

arguments offered by those who seek to prohibit the transportation

of children for purposes of public school desegregation.

MARC academic fellows, largely drawn from the social sciences,

are encouraged to use their skills to influence social policy and to

experiment with ways of narrowing the gap between social science

knowledge and social policy. Monitoring of public and governmental

agencies is performed in order to detect and halt what are perceived

as retrogressive social policy. MARC academic fellows perform watch-

dog services, writing critical articles in response to professional

social science studies and papers which are seen as counter-produc-

tive to equitable social policy. Studies which have come under fire

are James Coleman's report on education and the genetic theories ad-

vocated by Richard Hernstein, Arthur Jensen, and William Shockley

linking intelligence to race by heredity.

As consultant to community groups and national organizations

concerned with social change, MARC often works behind the scenes as

a pressure agency in its own right. MARC personnel act as a cata-
lyst in bringing together civil rights leaders of opposing views,
provide coordinating and advising services for various urban plan-
ning efforts, and help to bring into existence an organization of
black elected officials.

On some issues it is felt that a lobbying appeal to the pub-
lic forum will be the more effective stimulus to social change.
For example, MARC is compiling an easy-to-understand textbook in
social studies aimed at high school and first year college students.
The text covers, among other themes, current arguments on the con-
nections among race, intelligence and heredity. MARC officials an-
ticipate that discussions engendered by this book will help expand
student social consciousness and prepare the groundwork for a more
active utilization of social science findings by minority groups.

Even after doing a great amount of work and research on a par-
ticular issue MARC often finds outlets for the implementation of
its findings difficult. For example, the Washington, District of
Columbia School Board commissioned MARC to design a plan for improv-
ing the reading and arithmetic skills of their elementary school sys-
tem. In their exhaustive study, later published as a book (1968),
MARC saw the school system, rather than poor home environment, as the
main causal factor in the low educational achievement of ghetto chil-
dren. Their recommendations met with mixed response: A few points
of the program, including tutoring and reading teams in certain schools
were implemented. The most central features, however, were not: re-
organization of teacher certification, teacher internships and involve-
ment of parents have been steadfastly opposed by the Washington tea-
cher's union. Because of the vociferousness and solidarity of this
opposition the Washington Board of Education felt it had little choice

but to ignore the rest of MARC's recommendations. But this is clearly typical of all agencies seeking revised policies in the face of established and basically content constituencies.

Kenneth B. Clark, the head of MARC, is also the only black member of the New York State Board of Regents. The agency also operates the Northside Center for Child Development in Manhattan, treating children with personality disorders. In 1966, Clark helped to formulate plans in five East Harlem communities for the purpose of giving parents a voice in the operation of the controversial Intermediate School 201. Continuing his work for community participation in the school systems, he supported a strong school decentralization plan, aided by Ford Foundation funds, which became known as the Bundy plan. The State of New York legislature eventually passed a watered-down version of the Bundy plan, turning over educational control of school of political leaders and teacher unions as well as the community at large.

Recently, the MARC staff has become involved in the Flatbush-Canarsie school busing controversy. Along with the New York Civil Liberties Union, MARC is one of the organizations bringing suit over the suspension of Luis Fuentes, a teacher in the district. However, as the contours of community control have evolved to mean less funds, more racial segregation and considerable idiosyncratic variations in educational policies, Clark and his MARC staff have increasingly questioned such local measures and have begun to re-examine larger scale instrumentalities to induce educational and income equality.

After having been a champion of decentralization, Clark recently announced, during the course of the struggle in the Canarsie School District, that he is now "vehemently opposed" to decentrali-

zation, which he terms a "disastrous experiment" because of "racial
politics" and "intimidational pressures". In explaining this shift
in his position Clark emphasizes that his primary goal has always
been the effective teaching of vital basic skills, especially in
ghetto communities (1968). Clark earlier thought that decentraliza-
tion of school systems, with a reasonable accountability system and
local community involvement, would be a means to an equitable end.
As it has turned out, public energy and emotion has become diverted
to the issue of who was or was not controlling the school rather
than whether the schools were doing their job of teaching children
properly and optimally.

The formation of the Metropolitan Applied Research Center and
the pathbreaking efforts of psychologists like Kenneth Clark and
sociologists like Hylan Lewis represent a large step beyond the con-
ventional situation in which social science organizations and infor-
mation alike are supplied by wealthy and powerful clientele and
utilized exclusively by such a narrow population stratum. The effort
of MARC to break this cycle by involving socially conscious and often
young social scientists and linking their energies to the will and
the interests of the urban power, the racial minorities and the
economically underprivileged, provides a unique experiment in demon-
strating the possibilities of social science at the non-elitist level.
That these efforts have not proven uniformly successful should surprise
no one; or that policy shifts among the social science policy formu-
lators have taken place/ should also hardly come as a surprise. The
overwhelming impression, however, is of serious work, rigorous concern
with factual presentation and public service in areas rarely serviced
by either federal, industrial or university agencies in the past. Per-
haps the most serendipitous finding is that those social scientists

who wish to seriously advise makers of political and social policy
not infrequently end up by entering the political process themselves
in active, change-producing roles.

Public Citizen Research

Ralph Nader is an institution no less than an individual. As
a public interest lawyer he is responsible for many changes and im-
provements in the functioning of public policy in the United States.
He first won national attention by his efforts in improving automo-
tive safety and technology. His book, Unsafe at Any Speed (1965)
attacked the irresponsibility of Detroit automobile manufacturers.
And despite their initial animosity and even harassment, the auto-
mobile industry has finally become "safety conscious". His work,
and that of his many supporters, staff and part-time volunteers, is
directed towards closing the citizen gap. That citizen gap exists,
according to Nader, when business or governmental abuses occur with-
out public knowledge and without mechanisms to correct these abuses.

Public Citizen is a foundation established by Nader and his
associates to solicit funds and supervise a wide variety of opera-
tions held to be in the public interest (Public Citizen, 1972). It
~~Public Citizen~~ serves as an umbrella institution for the Tax Reform
Research Group, the Health Research Group, the Retired Professionals
Action Group, the Citizen Action Group, the Litigation Group and
the Public Interest Research Group, all of which are Nader-supported
research agencies to bring about specific social reforms.

One of the most active has been the Public Interest Research
Gaoup (PIRG). Its staff size varies. Presently, it consists of
five people: two lawyers, one physicist, one political scientist,
and a receptionist-secretary. PIRG uses government documents, indus-
trial reports and various informants as sources of information in

its work. Industries themselves, usually inadvertently, provide cri-
tical information to PIRG investigators. They have become masters
in the art of secondary data analysis - showing the vast possibili-
ties of social scientists in using already existing first-class data
rather than wasting precious time and funds generating second-class
information.

PIRG investigators have given important study materials to Con-
gressional staffs and have provided significant testimony in hear-
ings held by the Environmental Protection Agency and the Traffic
Safety Administration. PIRG was also a force in the passage of the
Retirement Security Benefit Act and in work for the Pension Bill
which has passed the Senate and is now in the House of Representatives.

Another committee operating under the Public Citizen umbrella
is the Health Research Group (HRG). HRG is currently involved in ac-
tivities centering around health and safety problems. Three of the
areas are health problems of foods and drugs, occupational health and
safety and health-care delivery systems (Public Citizen, 1973).
Present activities of food and drug health problems include prepara-
tion of Congressional oversight testimony and/or recommending changes
in legislation and preparation of formal comments on proposed regu-
lations. Here an example is the HRG review of enforcement of Radia-
tion Safety Acts and comments on the federal nutritional guidelines
for foods. Long-range activities include establishing a Technical
Advisory Committee review meeting. Such a review would work to put
these Committees on greater public display. This move would be im-
portant to diminish private industry domination of decisions made
by these groups and to prevent any secret agreements made with govern-
ment regulatory agencies.

Under the category of occupational health and safety, HRG performs ongoing analyses of Occupational Health and Safety Acts which consider the roles of the Department of Labor and the Department of Health, Education and Welfare. Site visits are also conducted by HRG to meet and discuss with workers the Occupational Safety and Health Act, their rights under it, and to aid workers in actions to eliminate hazardous conditions in their work place. 'HRG is working to institutionalize accountability of government, industry and private organization to the public health. This includes activities to improve legal and medical education and to encourage public interest in the activities of social scientists, physical scientists and other professionals in the area of occupational health.

Health Care Delivery Systems scrutiny includes the preparation of consumer manuals of hospital evaluations, indications, alternatives, risks and benefits for common surgical procedures, and a consumer guide to doctors in the Washington area. Professional Standards Review Organizations to evaluate medical practices as per House of Representatives bill number one will be monitored closely to forestall their build in conflicts of interests. These activities are designed to increase accountability of the medical establishment to the consumer. Particular emphasis is placed on the quality of medical care.

Social science is ubiquitous enough to be performed, and ably, by non-social scientists. Thus, in groupings such as the Nader Raiders, all sorts of projects - from housing for the poor, congressional reform, to special care for the aged - are dealt with by young attorneys and public interest personnel who perform as surrogate social scientists: preparing reports on everything from rest homes for the aged to special congressional reports on each member. Whatever the

quality of these reports may be, the plain fact is that social science as a handmaiden to public policy is not confined to those with formal training in the social sciences. The Nader collectivities are a clear indication that those with strong attachments to legal training are probably more likely to catch the attention of legislative or executive reform groups - precisely because of the isomorphism between researchers concerned with legal limits and politicians concerned with legal possibilities.

One of the more intriguing aspects of the Nader groups is that the more they mature over time, the deeper their penetration of major American institutions, the more do they act and perform like any other social science formation in terms of canons of evidence, concern for explicit statement of experimental controls and closer scrutiny to quantitative as well as qualitative aspects of research. The most controversial of the Nader activities involve a person-by-person profile, and examination of Congressional performance is a good indication of this new concern for detail and data. That such an approach has met with hostility and even vilification from orthodox political science groups is indicative of how policy-related social research often leads to re-examination of scientific premises and creates new directions in social science as such. The idea of individual profiles is certainly not implausible and yet the largely variable oriented, rather than person-oriented research of standard political science has led to a neglect of the possibilities of such kinds of political psychology. In any event, we again see a phenomenon in which change oriented groups adopt social science techniques to bring about social reforms, and in that very process provide theoretical inputs that have the potential for changing the structure of scientific paradigms in the long run.

The social science base of the Nader studies is vouchafed by a
number of elements: first, the utilization of specific social indi-
cators to which all Congressmen were subjected to; second, an attempt
to avoid simplified background information as an explanatory device
for Congressional voting behavior; third, the opportunity each Con-
gressman was afforded to comment in either written or verbal form
on the validity of the profile. In short, although journalistic ele-
ments were clearly in evidence, the core of the Nader reports repre-
sented a social science attempt to link social history with personal
biography.

Social science and urban policy-making

Anticipating federal government initiatives to implement fair
hiring practices in municipal agencies, Robert Wagner, former mayor
of New York City, implemented a survey of the racial composition of
the city's work force. This survey was completed in 1963, with an-
nual reports issued since then. By 1971, the need for revised, up-
to-date data was clear. Requests for employment statistics were re-
ceived from various federal agencies, elected officials and concerned
citizens. Individual agencies were hard pressed to provide raw statis-
tical material on their own. The Chairman of the New York City Com-
mission on Human Rights, Eleanor Holmes Norton, advised the mayor that
raw statistics collected and published by individual agencies were in-
sufficient. They could easily be unscientific, misleading, inaccurate
and of little value in determining whether there had been discrimina-
tion. She recommended that the city take its census in the manner of
many other cities and states, including New York State, employing a
uniform system using professional standards. Accordingly, at the urg-
ing of Commissioner Norton, Mayor John V. Lindsay, on October 1, 1971,
issued Executive Order No. 49 regarding the "Conduct of Census Con-

cerning the Composition of the Work Force of City Agencies".

In order to protect the privacy and identity of individual em-
ployees while at the same time maintaining scientific accuracy and
uniformity, the method of "sight survey by supervisors" was utilized.
This method, widely used throughout the country, achieves identifi-
cation through observation (Commission on Human Rights, 1973:1-2).
The Commission must investigate any complaint of discrimination
which could be validated through an investigative technique, not a
social science technique. As a result, a legal methodology is used
to determine infractions of equal opportunity legislation.

The post of Director of Research was formerly filled by social
scientists holding advanced degrees; however, there are none on the
Commission staff at the present time. The research staff, however,
does produce informational studies of a social scientific nature.
Statistical studies such as the Employment of Minorities cited above
are aimed specifically at changing urban policy. The Employment of
Minorities report came up with definite recommendations.

Eleanor Holmes Norton is an attorney with a masters degree in
International Law. But increasingly, as part of her activities as
Chairman of the New York City Commission on Human Rights, she has
relied on the work of social science researchers. In an article on
the selection of teachers and community control (Norton, 1971:29-31)
she makes direct reference to the work of Marilyn Gittell, director
of the Institute for Community Studies at Queens College and to the
parallel efforts of the Center for Community Studies at Columbia
Teachers College. The research efforts of these groups on the superio-
rity of community screening efforts of teaching staffs and the essen-
tially universalistic criteria parents use in the choice of princi-
pals has a direct bearing on New York City's support of community

control. The bitter opposition to this approach by the Teachers
Unions and by white middle-class sectors of the city are indicative,
once again, of the grave and serious issues involved in social policy-
making based on social science premises and researches. The further
support of community educational control by the Ford Foundation pro-
vided yet another element in the dramaturgy indicating that social
science research, sponsored by agencies, can be perceived by communi-
ty sectors as representative of power elites, even though the osten-
sible purpose of the research is a furtherance of social equity.

The activities of the New York Commission on Human Rights also
invaded domains of other agencies - a not infrequent practice en-
couraged by the ecumenical nature of much social research. Arguing
strongly against the approaches taken by the Rutgers Center for Ur-
ban Policy Studies which had been commissioned by the City of New
York to do housing studies and, in fact, tended to accept the end
of urban center cities as de facto, Norton claimed that housing
"represents the singlemost resistant civil rights issue today", and
that upon its solution "hangs the key to a myriad of other American
problems" (Norton, 1972:8-12). She starkly juxtaposes segregation
and integration, going the way of Newark with its 70 per cent minority
and poor, and with one of three citizens on welfare or committing
New York City to inegrating its housing stock by encouraging the
multi-ethnic diversity that is the key to economic vitality. Norton's
approach is clearly in keeping with the efforts of the Community Stu-
dies groups in New York in contrast to the Urban Policy team in New
Jersey. What makes this example especially interesting is that it
illustrates that social science research may not always come up with
uniform answers; but rather, like the policy-making sector as such,
it is subject to the sort of local pressures and state contours that

invite certain kinds of results. In the larger sense, policy plan-
ners and politicians tend to gravitate to the kind of social science
results that buttress their initial persuasions rather than to be
persuaded by new research findings. Thus we find the legal aspects
of social science performing a client-related role, prevailing over
universalistic criteria of social science as a general science.

In an agency such as the City Commission for Human Rights, one
can find an intermediary use of social scientists and lawyers for
the promulgation of new social legislation, or the enforcement of
existing legislation. Indeed, in this New York City grouping the
relationship between agency enforcement and agency sponsorship of
social research is quite plain. Brooke Aronson, director of research
at the City Commission, is trained in political science. She per-
forms a central role of checking the percentages of minority groups
in the city work force, supervises the investigation of complaints
when they arise, and synthesizes material for transmission to the
commission itself. In addition, the directors of this group are
close to a New York University-based group of social scientists
such as psychologist Frank Riessman, editor of Social Policy, which
has evolved sophisticated programs in paraprofessionalism precisely
to insure equity in municipal hiring practices. In this situation
one can see a fusion of activist and social scientist types -- a
fusion based on a clear notion of goals in common and, beyond that,
a distribution of work tasks to achieve these goals: which basically
reduce to equal hiring practices and upgrading of minorities to
existing positions.

Intergovernmental Social Science

There is a growing utilization of social science in policy plan-
ning and evaluation at the intergovernmental nexus. An institu-

tionalized form of this contribution is the National Science
Foundation's Inter-governmental Science and Research Utilization
Office. Several social scientists, such as Bruce Reiss, serve at
the program management level. But the thrust of the program and of-
fice activities is towards the development and funding of projects
outside the National Science Foundation.

Social science inputs have been considerable in the develop-
ment of the Office. In its early days, political scientists conduc-
ted a series of studies on the nature of science and technology ac-
tivities in individual states. Similarly, studies were conducted
by public administrators and economists. These studies and result-
ing recommendations have served as the basis for program strategies
as the intergovernmental science program has unfolded. As part of
the basic study activities there were a number of conferences con-
ducted to begin the dialogue in this area and to develop a community
of interest. Social scientists have had considerable involvement
in this activity as well.

In an effort to establish an academic center of policy compe-
tence in intergovernmental science activities, M. Frank Hersman,
Director of the Office and founder of the intergovernmental science
program, awarded a grant to Pennsylvania State University. This grant
provided for the establishment of a policy-oriented research center
to develop suggested criteria in federal, state and local roles in
fostering national science policy. This center is directed by
Irwin Feller, an economist, and has turned out several landmark
studies in such areas as intergovernmental relations in the deter-
mination of air pollution research and development of a science
and technology capability in state legislatures. In the evolution
of this program a series of policy development studies were under-

taken by mainly public administration experts based in the RAND
Corporation, Abt Associates, Inc., the International City Manage-
ment Association and the National League of Cities/United States
Conference of Mayors. In this way federal policy studies were under-
taken by largely private research agencies - a not uncommon practice
(Reiss, 1973).

A general review of the activities undertaken by the program
since its inception reveals that in addition to the above instances,
social science inputs are scattered throughout the program. Demon-
stration projects in state government, executive and legislative
branches, local government, academic public service and technology
transfer normally include elements of social science participation
on an equal footing with the "hard" or physical sciences. For example,
nine studies have funded in the area of citizen feedback systems
(content, components and competence), fourteen in legislative body
assistance (primarily California), and a like number oriented to-
wards local government science assistance.

One area of social science activity supported at the state
level is the State Council of Economic Advisors for the State of
Minnesota. Starting as a pilot project in 1972, the Council of
Economic Advisors has received nearly $60,000 in National Science
Foundation support. The program of advisors is under the direction
of A. Edward Hunter and Francis M. Boddy, members of the Minnesota
State Planning Agency. And we see here how federal styles of so-
cial-science-based policy are often replicated at state levels.

A second project under the Intergovernmental Science Office's
jurisdiction, and solely social science in nature, is being inves-
tigated by the National Academy of Sciences' Division of Behavioral
Sciences. The project provides for a conference to bring together

social and behavioral scientists interested in the application of
research to policy-making as well as public officials who would be
appropriately called upon to support or participate in the perfor-
mance of systematic field demonstrations growing out of the project.
The title of the proposal is "Study Conference on Social and Beha-
vioral Science Demonstration Projects Related to the Policy and Pro-
gram Responsibilities of State and Local Governments."

One curious fact illustrated by special federal sub-agencies
like the Office of Intergovernmental Science, is that they seem to
prefer non-academic rather than academic institutions in the con-
duct of their researches. Whether this is a consequence of tighter
controls exercised over private agencies or simply a feeling of great-
er cost efficiency, is difficult to ascertain. Yet, it is evident
that university-based social science no longer has an iron-clad mono-
poly over vital researches or policy inputs. The main advantage of
this sort of relationship between federal government and private re-
search agencies is that the customary conservatizing influence of
university departments in this way can be circumvented. On the other
hand, this advantage holds out a risk: that the research performed
will become too "pragmatic" and hence far removed from the normal con-
trols of scientific method and acceptable general theory. In socie-
ties in which the entrepreneurial spirit still ranks as a high element
in research assignments, this increasing tendency to lodge policy-
oriented research in private social science agencies must be considered
both an intriguing and risky tendency that bears careful scrutiny.

Private Enterprise Policy-Making

Perhaps the most fascinating example of directly private enter-
prise, and entrepreneurial tendencies is in the area of urban af-
fairs. We repeatedly return to this field because here the over-

lap between private builders, social planners and constantly revised
policy recommendations, all link up with each other. Most fascinat-
ing is the case of Milgram and "M-Reit", in which the three roles of
entrepreneur, social scientist and policy planner are linked into a
single individual and corporate identity.

Morris Milgram became a builder in 1947. He joined the firm
of William M. Smelo, to learn the housing business so that he could
help end what he called the unwritten law that all new and decent
housing is for white people only. After learning the business for
four and a half years, during which time he supervised construction
of 152 apartments for The Sylvester Company and built small residen-
tial and commercial jobs in the greater Philadelphia area, he re-
tooled in 1952 to develop only interracial communities. Morris Milgram
was the first recipient of the U. S. Congress-established National
Human Rights Award from HUD in 1968. Articles about his work have
appeared in the major mass media, and a national educational tele-
vision show, Seven Who Dared, in 1964, featured Milgram as a civil
rights pioneer. He began developing multiracial housing in 1952.
The major ventures which he organized are as follows (Milgram, 1973):

(a) Concord Park Homes 1954-1957, 139 single-family houses
in Trevose, Bucks County, Pa., selling for $12,000 up and Greenbelt
Knoll, Inc., 19 contemporary single-family houses in Northeast Phila-
delphia selling for $20,000 to $35,000 and up. The ventures together
paid 6% a year to the investors who got back their original $15,000.
At Concord 45% of the buyers were black. At greenbelt Knoll, where
Milgram lives, 42% were black.

(b) Princeton Housing Associates, 1957-1959, with a capital
of about $135,000, two developments totalling 40 houses were built.
Glen Acres, just outside of Princeton, 15 houses at $18,000 to $26,000

and Maple Crest, Princeton, New Jersey, 25 houses selling for
$22,000 to $35,000. Of the 40 buyers, 25% were black. Investors
received 7% a year as a capital gain and their funds were returned.

(c) In 1958, Modern Community Developers was formed to build
multiracial housing nationally, raising $1,000,000 through public
offerings of MCD and a subsidiary. MCD struck a major road block
in Deerfield, Illinois, in 1959 where its two separate improved sites
and model houses were taken away for public parks by this Chicago
suburb in order to keep blacks out. This same community had voted
twice that year that it wanted no more parks. The late Adlai Stevenson
was counsel for MCD but the company lost over $250,000 when the U.S.
Supreme Court declined, in 1963, to review an unfavorable lower court
decision. While the Deerfield case was being fought MCD organized
a partially owned subsidiary, Planned Communities, Inc., with which
it later merged, whose board included Eleanor Roosevelt, Willard Wirtz,
Chester Carlson, inventor of Xerox, James Farmer of CORE, Dorothy
Height of the National Council of Negro Women, Eliot Pratt, publisher
of Current and Irving Fain, Providence Industrialist. The board de-
cided to stop building to avoid Deerfields and to buy good-quality
apartment buildings in good neighborhoods far from the ghettos.
Three were purchased in 1962-64 with Morris Milgram as general partner.

The Mutual Real Estate Investment Trust (M-Reit) was organized
by Morris Milgram and Planned Communities, Inc., PC, which managed
M-Reit. In 1966 it registered a four million dollar stock issue.
By mid-1969, when PC ceased managing M-Reit, about 9,000 people had
invested $12,000,000 to buy $32,000,000 of apartment buildings in 6
states. Integration proceeded without incident. All the buildings
remained a majority white and a minority black.

M-Reit's rapid growth to about 100 times the assets of PC,

which organized it and managed it, caused M-Reit to run itself.
Hence, PC ceased to be its manager and advisor in June, 1969.
PC's shareholders then voted to liquidate. Milgram lost control
of M-Reit after its rapid growth. An informal merger between M-Reit
and Planned Communities was arranged. Thus PC agreed to liquidate
and this liquidation is now in process. In this same year Milgram
reactivated his old family firm as New Hope Housing, Inc., of which
he is owner. It manages housing. In 1969 he formed Partners in
Housing which has invested in over 1,000 units in construction or
planning stages in Massachusetts, Virginia and Pennsylvania, which
is registering a $5,000,000 offering of limited partnership shares.
He owns the common stock of Choice Communities, Inc. which manages
Partners in Housing.

Over $17,000,000 has been invested by 10,000 individuals and
institutions in housing bought or developed under Milgram's leader-
ship. This housing, costing $50,000 serves 4,500 families. All of
Milgram's communities remain well integrated, save the very first
one, Concord Park. There, before the fair housing laws became ef-
fective, heavy demand from black families pushed the bidding for re-
sale houses far higher than nearby communities where the whites were
able to purchase houses easily. This then became largely a minority
community. Partners in Housing is now registering a $5 million of-
fering of limited partnership shares to increase the supply of truly
multiracial housing for families of modest means. Four developments
are under construction in Massachusetts and Virginia. Families have
started moving into two of these. In addition, developments are
owned or under agreement in Texas, California, Pennsylvania and Virginia.

Founding investors in Partners in Housing subscribed $786,000
of which $731,000 is paid. Indications of interest totalling over

$1,000 have been received from over 400 investors, most of whom had
invested in Milgram's previous ventures. The General Partners of
the partnership are Morris Milgram, Charles N. Mason, Jr., and
Choice Communities, Inc., (Choice) a Pennsylvania corporation con-
trolled by Mr. Milgram. The General Partners believe that there
is a need for private investment in multiracial housing for the
following reasons:

(1) Residential segregation has transformed many inner-cities
of minorities, causing segregated school and major social problems.
(2) While some black people may be unwilling to move alone into a
white neighborhood, the General Partners believe a substantial num-
ber would live outside the urban ghettos in an interracial setting;
similarly, many whites would be willing to live in racially inte-
grated areas. (3) In the opinion of the General Partners, marketing
techniques specially designed to induce both blacks and whites to
live in interracial housing, especially low and moderate income
housing, may help to convince others in the housing industry that
there is a worthwhile potential market for integrated housing, and
lend support to the recent activities of the federal government
directed towards reducing discrimination and segregation in housing.
(4) In voluntary multiracial neighborhoods, black and white children
can get equal educational opportunities as mandated by the U.S.
Supreme Court in 1954. In the view of the General Partners, ending
economic and racial segregation in housing will eliminate much of the
need for lengthy debates over neighborhood schools and busing. (5)
The recent moratorium on subsidized housing programs makes more ur-
gent the need for additional private investment to increase the sup-
ply of multiracial housing.

The legal prohibition of racial discrimination in education, voting, access to public accommodations and housing has been achieved during the last 25 years. The General Partners believe that the elimination of black ghettos can also be achieved if enough people thoughtfully use their investment funds and entrepreneurial energies. In order to help advance these goals the partnership intends to invest in properties which in its judgment will increase racial and economic integration in housing and to encourage the managing agents of such properties to use affirmative marketing techniques designed to achieve multiracial housing. The Managing Partners intend to develop and review the rental policies of each project and to advise each occupant of such rentals with a view of facilitating racial and economic integration (Prospectus, Partners In Housing, 1973).

Milgram and his associates have always been quite close to the latest findings in the social sciences. Their efforts have been carefully and critically informed by the latest findings in demographic patterns among the urban blacks, new styles of center city housing and class mobility in and out of urban regions. In fact, his work is singularly informed in the sophisticated techniques of the social sciences, and he himself attributes part of his admittedly modest success to a clear-eyed utilization of social science. Too often, when the relationship between social science and policy making in the United States is discussed, there is a strong tendency to ignore the private sector. In this regard, a close examination of how private enterprise dedicated to the public good is a matter of profound importance - especially in a leading private sector economy.

In this section we have sought to provide a selective view of how the policy processes are aided and abetted by national and sub-

national levels, by private and public sectors of the economy,
and by huge institutions acting as an umbrella for a myriad of
research tasks to individuals focusing their exclusive energies
on one part of the policy-making forest. Seen in this light,
one can better ascertain the social science element - an element
which in the past was largely confined to university surroundings
and which for the most part eschewed policy pronuniamentos as such.
Attention must be drawn to the fact that so much of this policy-
related activity is of extremely recent date. Indeed, for the most
part, we have been describing activities and agencies which came
into being during the last decade of the sixties, a period which
must be seen in retrospect as a remarkable era of experimentation
in the public uses of the social sciences.

V.   SOCIAL SCIENCE DISCIPLINES AND NATIONAL POLICY AGENCIES

The teaching and learning of social science and its relation-
ship to public policy is still drastically underdeveloped in the
United States. Since the collapse of the "policy science" approach
in the fifties, there has been a widespread suspicion that policy
scientist is simply a code word for a poorly trained social scien-
tist, a scholar in search of a lost or never-to-be-found field.
The social indicators and futurology movements of the sixties, while
giving real impetus to this area, are beset by their own problems:
cross-disciplinary research lacking specific focus, and the infusion
of rank amateurs into the area of social forecasting who cloud up
science with astrology. In any event, whatever the exact causes,
the condition of the teaching of social science with a policy orien-
tation still leaves a great deal to be desired.

In response to an enquiry, Pio Ullassi (1973) officer in charge
of academic relations in the external research section at the Depart-
ment of State, indicated that few universities with active social
science sections seem to be offering major courses, much less concen-
trations on public policy. Special programs do exist at Yale, Syra-
cuse, Chicago, Wisconsin and Michigan State universities. In addi-
tion, course offerings with a social science concentration can be
found in specialized parts of such universities as Rutgers, Harvard,
California (Berkeley) and a number of other major centers. At under-
graduate institutions there are hardly any concentrations in public
policy under the auspices of the social sciences; and indeed, there
are still quite a few colleges where the basic core offerings in the
social sciences are still often noticeable by their paucity. The
quality of these courses is obviously indeterminate while their
departmental auspices vary.

For the most part, such courses, when they do exist, are sponsored by the political science departments, are marginal activities rather than central core curriculum. Nevertheless, the efforts at some of the leading universities do provide a notable "secular" effort to reach out and train a new generation of people who might well be directly involved in policy formulation and execution. In basic courses of international relations, economic development, political parties of the Third World, etc. comparative political systems, etc., portions of the work are directly dedicated to policy components. But again, these are largely peripheral rather than core framework.

Curiously, where course instruction in policy matters seems highest is in those taught at the military war colleges, or under the rubric of the Reserve Officers Training Corps. Course outlines for many of their programs indicate a very high utilization of literature on policy-making written by social scientists. The writing of Morgenthau, Henkin, Kaufmann, Boulding, Kahn, Rapaport, Shelling, etc., proliferate in courses having direct military interest. This largely stems from a proximity of foreign affairs to foreign policy, and also to a well-evolved "science" of military strategy. The same set of considerations do not obtain with respect to domestic or subnational policy making.

The most extensive interdisciplinary programming has taken place under the rubric of "national security studies". This has been defined by Trager (1973:3) as those courses concerned with the pursuit of vital national goals in international politics, and concerned primarily with the interaction between the national security system and the larger political and social systems of which it is a part. This particular survey excluded ROTC policy-oriented courses or simple military science courses taught under military academies. Still, it

is the most ambitious survey to date and indicates that the ties

which bind national security to public policy are firmly rooted

in university social science departments. For example, of 230

national security courses, 185 are taught within the political

science departments. The breakdown of such course offerings is

significant for the insight it provides into those areas covered by

social science programming in national policy areas.

Table: 18 Breakdown of National Security Courses

Course Type	Undergraduate	Graduate	Total
National Security Policy; Defense; Strategy; Military Power	130	69	199
Civil-Military Relations; Military-Industrial Complex	15	2	17
Comparative Defense or Security Policies	12	5	17
Arms Control; Disarmament	6	4	10
Military History	40	17	57
Sociology of the Military; Sociology of War	9	3	12
Defense Economics	6	1	7
Miscellaneous	4	7	11
TOTAL	222	108	330

In addition to full-time courses, there are considerable num-

bers of offerings with a strong policy segment (again, it must be

remembered that this survey is confined to largely military or

security type orientations). To the extent that these segments be-

come larger and more numerous, one can anticipate an ever-greater con-

centration in directly policy related courses in the 1970's.

Table: 19 Data On Courses With a National Security Segment*

Total Courses	623
Teachers of these Courses	335
Percent of Time	Number of Courses
1-15%	154
16-25%	162
26-50%	89
51-75%	8
Above 75%	0
No Percent Indicated on Questionnaire	210
TOTAL	623

Table: 19 Note:

>*Many, if not most, of these teachers also have
>a full course in a National Security subject
>and are included in the National Security course
>tabulation above.

Source: National Security Studies Survey

The International Studies Association's Section on Military

Studies (SOMS) was organized in April/ 1970. John Lovell (1972)

was elected chairman and corresponding secretary of the group.

His first task was to try to get a profile of SOMS membership by

sending a questionnaire on research and teaching to each person

who joined. A Special Report summarizing the questionnaire re-

sponses was prepared and mailed in May/ 1972. Financial support

for preparing and mailing the report was provided by the National

Strategy Information Center. The report classified the research-

writing and teaching activities of SOMS members by name under sub-

stantive categories. No cumulative totals were provided.

Table: 20   Teaching Activities of ISA/SOMS Members

ISA/SOMS Members Teaching Courses in the National Security Field	107
Schools Represented by these Members	78
Lovell Report Categories	**Number of Courses**
U.S. National Security Policy, Civil-Military Policy, Strategy	62
U.S. Foreign Policy, Public Policy	20
International Relations	20
Comparative Foreign and Defense Policy	13
Comparative Politics: Role of Military, Revolutionary War	17
Arms Control and Disarmament, Conflict and Conflict Resolution, Peacekeeping, Science and Technology	19
Diplomatic and Military History	15
Others	6
TOTAL	172

In the absence of comparable firm data on the civilian side
of public policy offerings, one can only conclude either that they
are, as the State Department claims (and who have been the only
agency to have systematically surveyed both academic and non-academic
sources) far less numerous; or that they are less systematically
taught, with a higher proportion of segments and a lower percentage
of courses dedicated to the full-time social scientific study of
public policy. What is especially intriguing is how "interdisciplinary"
efforts have simply not caught on. The situation is one in which the
"policy sciences" simply do not exist - at least in course form. What
does exist is the teaching of policy within the conventional rubrics
of economics, sociology, psychology and especially political science.
Thus, the analysis of public policy must turn its attention to the
ways in which each discipline impacts or influences select portions
of the policy-making establishment.

Immediately noteworthy is how each of the major social sciences,
psychology, political science, sociology, etc. maintain their head of-
fices in Washington, D. C. They function as lobbies for their own spe-
cial professional interests, but quite beyond that, serve to recommend
key personnel for special projects, provide raw material for urgent
policy proposals and generally act as a political body unto itself.
This concentration of professional social science headquarters in the
national capital is a clear indication that the federal, policy-making
potentials of the social sciences are widely understood. And as the
limits of academic hiring of social scientists are reached, the area
of personnel expansion into policy-related matters becomes not simply
an issue of ideological persuasion but practical necessity, an area of
growth that warrants the utility as well as practicality of each field
of social science. Thus, let us now turn to a select, case-by-case

study of how each of the social sciences makes a special appeal
and impact on an area of public policy.

The Council of Economic Advisors

The Council of Economic Advisors (CEA) represents continual
and high-level utilization of social scientists and social science
knowledge in a highly quantitative form. The central responsibility
of the Council is to inject economic analysis to policy decision-
making mechanisms at the level of the Executive Office of the Presi-
dent. The CEA was created by the Employment Act of 1946, which set
as a primary goal "to promote maximum employment, production and pur-
chasing power." The focal point of the Council's activity is to
furnish the President with analyses and recommendations directed to-
wards the attainment of these goals. The CEA provides the President
with periodic analyses of current economic conditions and forecasts
future directions of the economy. In-depth economic studies supply
the President with information to make appropriate policy choices to
achieve greater price stability, in order to expand employment and
economic growth and to reach a balance of external payments position.
Recently the CEA scope has expanded to incorporate emphasis on the
optimum evolution of aggregate demand management, the operation and
impact of the wage-price control system of the Economic Stabiliza-
tion Program, and the creation of proposals for international economic
reform.

The CEA's professional staff is drawn from universities and re-
search institutions, and these economists serve a normal tour of duty
for one or two years. There is a high degree of permeability between
the CEA and the ranks of economists. Economists move directly from
the academic setting to the CEA and return, and there is a high degree
of interaction between the groups. The Council's annual economic re-

port has become required reading for economics courses across the
nation. Schools such as the University of Minnesota and the Uni-
versity of Chicago have had a marked impact upon the CEA.

The professional staff contains thirteen senior staff econo-
mists, two statisticians, and eight members in the junior research
staff. The professional staff produces the economic analyses and
policy recommendations. Beyond these functions, staff economists
are involved in many different interagency and Council assignments
which demand broad-based knowledge and analytical abilities.

The CEA's role has diversified well beyond the initial goal
of macroeconomic policy promulgated in the Employment Act. Econo-
mic analysis has been proven valuable in handling the issues involv-
ing the economy which go well beyond employment and price stability.
As the Council's role has become diversified its role of advising the
President has been elaborated to include advising many other agencies,
departments, and offices in the Federal government.

Currently, the CEA incorporates a broad spectrum of economic
issues. The Council involves itself in areas of developing promin-
ance, such as the structure of national science policy, the nature
of programs to improve the environment, studies of foodstuff pro-
duction, and especially attention to the American energy situation.
Other areas include the evaluation of the problems confronting regu-
lated industries, especially the transportation sector, and analysis
of central policy aspects of the promotion of national growth. Work
in the area of human resources deals with manpower programs and many
aspects of health and education policy. At times, the Council super-
vises interagency work dealing with these areas. The CEA contri-
butes to the formulation of Administration policy on overall inter-
national trade policy, as well as the resolution of specific trade

issues. The Council makes inputs on the decisions regarding import-export policy, trade legislation and negotiations and studies on the effect of direct foreign investment and technology transfer abroad. Thus the original narrow concept for a Council of Economic Advisors has been considerably broadened into a full-scale operation at the policy-making level.

The CEA, then, constitutes one of the most widely accepted forms of the institutionalization of social scientists in a policy-making and advisory capacity. So great is the gap between the relatively sophisticated and advanced role played by economists in contrast to the still-underdeveloped stage reached by the other social scientists that in this broad survey where the tendency is to level all social scientific performance, a special point must be made about the thoroughly special status of the economics profession. So widely accepted is its policy-making and advisory roles that perhaps the more critical issue (one which falls quite beyond the scope of this survey) becomes the quantity of social science performance in the conduct of such policy in contexts.

There is considerable interpenetration between academic economists and the Council of Economic Advisors. Indeed, the latter is a prototype for the federal involvement of social scientists. Economists move directly from their university positions into the Council and then return to the universities when their term of service is completed. Often an economist may accept a position at a quasi-academic institution such as the Brookings Institution after his tenure of service in the Council of Economic Advisors expires. In this way, he continues to perform ancillary policy and advisory roles. Recruitment patterns on the Council tend to follow fashionable ideological currents as well as personal networks of prior associations. Hence,

economists from the University of Chicago, in addition to their
representation on the Council, also form a significant element in
the Department of the Treasury and in the Office of Management and
the Budget.

The American Psychological Association

The American Psychological Association is the umbrella organi-
zation of the psychological profession. It is perhaps the largest
single such professional society with an acknowledged crucial role
in setting forth the policy guidelines and even ethical framework
within which psychological research is to be conducted. Since the
psychological profession ranks second only to economics in influence,
members and power in the policy-making area it is perhaps significant
to focus attention on those activities fostered or at least encouraged
by the APA.

The APA has been active in a wide variety of activities involv-
ing policy. Among them have been international affairs, mental health,
the war on poverty and military and non-military aspects of government.

In the international affairs arena, psychologists have construc-
ted a wide variety of simulations and other heuristic devices that
train individuals to cope with various situations that either have
arisen or might arise. Role-playing games include the JCS Politico
Military Desk games (McDonald, 1964) and Harold Guetzkow's pioneer-
ing work in environmental simulation known as Internation Simulation
(1961). Osgood's Graduated and Reciprocated Initiative in Tension-
Reduction Strategy (GRIT) and Abt's Man-Machine simulations have
pioneered in exploring behavioral influences on international affairs,
especially on peaceful alternatives in conflict resolution and settle-
ment (Davis, 1966).

Within the Defense Department there has been the most success-
ful adoption of psychologists' inputs into policy. For example,
Donald Michael discovered that a source of anxiety which impaired
the performance of nuclear submarine crews was concern about the
sailor's family. Part of this anxiety was caused because the sail-
or was out of touch with his family for long stretches at a time.
The Navy changed its personnel and family support policies to re-
lieve this problem. The policy adopted was that the Navy would care
for the families in the event of any type of emergency, thus lift-
ing the burden of concern off the shoulders of the individual sailor.
Indeed, the Office of Naval Research (ONR) has been noted for work-
ing closely with psychologists on a wide variety of shared concerns.
John Dunlop, a psychologist from Norwalk, Connecticut, influenced
the human engineering aspects of contracting for equipment within
the Defense Department. Because of his policy influence the Defense
Department requires that new equipment also include a training pack-
age which can efficiently teach the operators their tasks. The head
of the psychology department at Princeton developed the "cog-wheel"
experiments which have helped to train anti-aircraft gun operators.

The American Psychological Association has been very active in
peace research. For example, Herbert Kelman has clarified attitude
changes in the conformity process (attitude changes occur because
of fear, self-interest and logical appeals) which has helped bridge
the gap between international behavior and psychological theory.
Psychologists were also active in militating against the civil de-
fense policies of the early 1960's (Waskow, 1962, see also Oppen-
heimer, 1964).

The psychology profession was actively engaged in developing
programs for the war on poverty. For example, Milton Kutler of

the Institute for Policy Studies developed a method for funneling
Office of Economic Opportunity funds around the local governments
in order to strengthen the Community Action Program. Martin Deutsch
helped establish "Project Headstart" by determining the effects of
differential exposure to environments on school and pre-school chil-
dren. Leonard Duhl, of the University of California, developed
techniques and programs which gave psychological support and means
of adjustment to Peace Corps Volunteers, both in the field and upon
return to the United States. William Medina has helped to develop
an in-house small-group training for highly placed personnel with-
in the Civil Service Commission.

Corporations have utilized psychologists and psychological
programs in order to develop the capacities of their own personnel.
General Electric and International Business Machines are two exam-
ples of corporations which have extensively employed such techniques.
Rensis Likert has worked in the area of management training and
management problem-solving. Herbert Sheperd and Warren Bennis have
also worked on organizational development techniques. Psychologists
have also evaluated the impact of building design and structure on
work organization and human relations. Understandably, too, psycho-
logists have done work with mental institutions determining, among
other things, the impact of physical space on mental health and on
mental health rehabilitation. Other areas have included decision-
making processes and the impact on individual mental-health percep-
tions and small-group pathologies.

A critical area of support for psychology within the govern-
ment is the National Institutes of Health and the National Insti-
tutes of Mental Health. They operate on a $500 million budget which
includes approximately $49 million for research fellowships, grants

and training. The dismantling of the Office of Economic Opportunity

has weakened the influence of psychologists in federal policy-making.

There can be little doubt that the major support for a federal role

for psychology stems from "liberal" Senators such as Edward Kennedy,

and psychologist John Gardner, former secretary of the Department

of Health, Education and Welfare, whereas the strongest opposition

derives from "conservative" supporters like Senator Ted Stevens and

the Presidential office itself. The size of the budget allocations

for NIH/and OEO-releated programs makes this a real political foot-

ball, and the portion of those funds supervised by psychologists

places them in a central role.

The successful adaptation of the medical imagery by the pro-

fession of psychology has meant a great deal to the policy-making

potentials of the APA. For if the economists could boast of the

"hardest" of the soft sciences, the psychologists could claim a role

in the "healing" sciences. The connection of both with scientism

as an ideology (mathematics in the case of economics, biology in the

case of psychology) has increased their credibility as policy agents

capable of supplying objective information, devoid of bias or spe-

cial pleading. If the criterion used is simply numerical, this stra-

tegy has paid huge dividends; but if the judgement is to be based on

the quality of policy recommendations, or even the results of such

policies, this same strategy would have to be considered problematic.

Anthropology and the Bureau of Indian Affairs

Anthropological contributions to policy commenced with John

Wesley Powell's Bureau of Ethnology in the late Nineteenth Century.

James Mooney's study on The Ghost Dance Religion and the Sioux

Outbreak of 1890 was done in conjunction with the military investi-

gation of the massacre of Wounded Knee in 1891. In the years after

World War Two anthropologists served as advisors to the military
governments and occupation forces of conquered American terri-
tories and occupied Japan and Germany. Anthropological advice
ameliorated many problems for United States Navy administrators
in Malaya. At the same time dozens of anthropologists worked as
consultants for American diplomatic representatives in Allied nations.

During World War Two, anthropologists were called in to con-
sult with the military about the handling of native populations and
behavioral patterns of the cultures of the Axis powers. Ruth Benedict
and Clyde Kluckohn influenced War Department approaches to capturing
and interrogating Japanese prisoners of war. The War Department
policy prior to Benedict's and Kluckohn's advice had been that the
Japanese soldier would not surrender to American forces, and even if
he were captured, would be of little intelligence value to the Allies.
Kluckohn and Benedict maintained that the Japanese soldier would in-
deed be willing to surrender (and not commit suicide after his cap-
ture) and that American forces in the field should modify their
operations accordingly. Not only was the anthropologist's advice
correct but the Japanese soldier was even more useful to intelligence
gathering than his German counterpart. At the conclusion of the
Second World War, Kluckohn and Benedict were central in the advocacy
that the occupation forces in Japan permit the Emperor to continue
as figurehead of the government. Because of the great success Kluckohn
and Benedict enjoyed in the utility of their previous advice, their
recommendations were heeded and the powerful legitimating institu-
tion, the Emperor, remained (Michael, 1973).

Since 1950 Anthropologists have been consulted by various agen-
cies such as the National Research Council, National Science Founda-
tion, National Institute of Mental Health, Office of Education, So-

cial Science Research Council and the Ford Foundation. Anthropological work with policy implications have been performed in psychiatric hospitals evaluating the fit between care and patient need and have advised state commissions on mental health systems. Anthropologists have served as witnesses before American Indian land claims commissions and were a central force in convincing the Federal government to permit the Native American (Indian) Church to use peyote in their religious rites.

Anthropological contributions have been solicited by municipal agencies. For example, Anthony Wallace of the University of Pennsylvania (and the Eastern Pennsylvania Psychiatric Institute) was commissioned by the Philadelphia Housing Association in the late 1950's to prepare a report on the relative "human engineering" merits of high-rise and low-rise housing. The report on the subject was later published by the Philadelphia Housing Authority itself. The state hospital system is another government agency which utilizes anthropological insights and research. For instance, as a result of a miscellany of new information and viewpoints, including the introduction of psychotropic drugs, the realization was made that milieu changes often improve the condition of psychotic patients. Because of general research emphases on chemical and situation factors in disturbed behavior, some state systems are now undertaking the policy of emptying the state hospitals of most of their patients and of maintaining them in out-patient status in contact with community clinics and specially prepared housing situations.

Anthropologists made notable contributions to the National Research Council's Committee on Disaster Studies, which in turn influenced civil-defense programs of the United States. These studies, undertaken in the late 1950's and early 1960's, no

doubt added to a policy decision not to embark the nation on a pro-
gram of deep-shelter building or civil-defense evacuation plans.

The most intriguing and singular contribution of anthropology
in the federal policy apparatus is its role in the Bureau of Indian
Affairs. The continuing unsettled nature of the "Indian Question"
in the United States provides a good test case for the potentials,
and even more, the limitations of anthropology in a policy role
only partially supported by the federal establishment.

John Collier was appointed as Commissioner of the Bureau of
Indian Affairs in 1933. From the beginning of his tenure in office,
Collier tried to introduce a greater use of social research in the
formulation of Bureau policy and in the reform of previous Bureau
policy. By 1934, under his leadership, many of the more destructive
and abusive policies of the Bureau had been re-thought and revised
on the basis of social science research inputs. In the same year,
1933, an anthropological research unit was established as part of the
Indian Bureau; one of its first missions was to undertake studies
of Indian organizational patterns as a basis for developing self-
governing arrangements.

The research work of anthropologists in this area was not com-
pleted when new arrangements for the conduct of tribal affairs were
made and put into motion by other officials in the Bureau. It was
thus a classic case of lack of coordination in the production and
utilization of social science information. It was suggested in an
earlier analysis of applied anthropology in the federal government
that at the time, "the anthropologists...were more interested in
the still functioning Indian patterns and trends of social groupings
than the new social values that were developing" (Kennard and McGregor,
1953:833). Because of this and other problems, the research unit

was disbanded in 1938. Collier blamed its end solely on cuts in Federal appropriations. However, the last director of the Research Unit, anthropologist Scudder McKeel, felt strongly that the regular Indian Service had exerted pressure to end the research program because of the inherent conflict between "the professional administrator with little or no social science training and the 'theorist'" (McKeel, 1944:209).

Despite the formal demise of the Research Unit, some research was conducted intermittently. In conjunction with the Soil Conservation of the Department of Agriculture, social scientist studied land utilization and served as advisors in the Bureau's Education Program. The Bureau also sponsored several long-range studies of Indian life which provided a foundation for future changes in policy.

Collier was not uncritical of either social science techniques or social scientists. Collier's response to a special anthropological report written by staff anthropologists is an example of his approach: ...the report does not prepossess me either as social philosophy or as factual reporting...As a recorder of atomized facts, one may put in years of time among a population and his atomized recording, or photography, may be accurate and even useful. But in determining Indian Service policies and in attempting to evaluate human beings and to chart the future of human spirits, there are needed some endowments of enthusiasm, confidence in the human nature one is dealing with and social philosophy.... This is another case showing that achievement in a special science, anthropology or any other, provides no assurance to deal with social problems (Collier, 1936).

The social scientist is forced to justify, in hard cold facts and statistics, his value to the policy-maker. Just as the anthropologists considered themselves experts on charting human behaviors,

the officials of the Bureau believed strongly in their own "common
sensical" or "experiential" angle on human affairs, especially in
comparison to the abstract "theoretical" approach of social scien-
tists. Further, if the social scientists were not sensitive to
political currents they were abused or bypassed in the course of
bureaucratic in-fighting.

Cohen (1937) has identified some of the many areas in which
there has been practical application of anthropological informa-
tion to the construction of policy by the Bureau of Indian Affairs.
These areas include education, the problems of administrative areas,
economic activities, land tenure, inheritance, health conditions
and art and recreation. He points out that impact of the social
scientific approach to policy-making has had a particularly important
impact on Indian administrators. With the exception of the Collier
years, the Bureau has not set up positions or job descriptions at
the policy level which would attract anthropologists and historians.
At a lower quasi-policy level the Bureau has utilized individuals
with professional social science training: Robert Young, an acknow-
ledged expert in linguistic anthropology (Navajo); D'Arcy McNickle,
who has years of experience in the Bureau and has made important con-
tributions in the field of ehtnohistory; Stephen Feraca, an anthro-
pologist; and Robert Pennington, who studied with Ray Allen Billington
in frontier history, serving as Chief of the Special Projects Sec-
tion, Dvision of Tribal Government Services (Pennington, 1973).

Two social science professionals who have occupied policy in-
put positions in the Bureau of Indian Affairs have been Gordon Mac
Gregor and Grace Underhill. An additional example of policy influence
by a social scientist was Commissioner Philleo Nash, who has a docto-
rate in anthropology. However, despite this infusion of numbers, the

role of anthropologists in the Bureau of Indian Affairs has moved
from a major focus of policy inputs to an area of administration
and auxilliary advising.

Anthropology is a much smaller discipline than either econo-
mics or psychology. Its influence has thus been far more confined
and selective. Yet, by virtue of the intimate connection of anthro-
pology to overseas research and to ministering to the needs of under-
developed peoples, it has been more widely subject to both internal
and external, professional and political criticism than the other so-
cial sciences. It works in areas of wide dissensus rather than con-
sensus. Its support base is thus much weaker politically no less
than financially. That as the case may be, the role of anthropology -
from occupied Japan to the occupied Indian Reservations - has placed
it in the forefront of the disciplines involved in the formulations
of national and local policies affecting wide numbers of people.

Russell Sage Foundation

The Russell Sage Foundation, established in 1907, is dedicated
to the "improvement of social and living conditions in the United
States of America." This phrase is usually interpreted as meaning
support for social scientists and more specifically sociologists
on work with broad-based social implications. The Foundation further
operates on the premise that social science knowledge and methods
can be utilized in the planning, development and implementation of
social action efforts. Beyond that, Russell Sage assumes that the
social sciences can provide an understanding of the dynamics that
facilitate or impede social change.

The Foundation maintains a professional staff of social scien-
tists who advise researchers on a wide range of projects and engage
in their own research. The staff participates in the planning of

each program supported by the Foundation and remains an active partner in the operation of the research and evaluation. One area of particular attention of the Foundation is the application of the findings of its research projects. This interest is manifested by monitoring a project at least into the early stages of practical utilization.

One-fourth of the Foundation's roughly $2 million in expenditures support research projects conducted by its staff members who spend part of their time on Foundation administration and the remainder on their own social science research projects. Recent staff members have included Raymond Bauer, Edgar F. Borgatta, Raymond Mack, James S. Coleman, Kenneth C. Land and Harriet A. Zuckerman. ~~Recent~~ Foundation interest has been focused on Studies of Social Change, Human Resources and Education, Developing the Social Sciences and Social Sciences and Mass Media, Law, and Human Biology.

Within the area of social change, the Foundation has given particular attention to improving the methodology and techniques of social measurement of social change. For example, work is proceeding in conjunction with the University of Chicago's National Opinion Research Center (NORC) on the development of social indicators. Five annual surveys beginning in 1972 will monitor racial attitudes, marriage and family concerns, socioeconomic status, morale, family characteristics and family composition. Useful comparative and longitudinal data will hopefully be generated through this study. Other studies include technological shortcuts to social change: evaluation of social change; developing a report On the Future State of the Union, a study of American population distribution in conjunction with the National Planning Association; generating a macro-sociological model of the United States; monitoring the quality of

American life and the human meaning of social change. In short,
projects which emphasize social science in social policies direct-
ly bearing on the United States. The Foundation does little in the
way of sponsoring overseas activities (Russell-Sage Foundation, 1972).

The domestic mandate behind Russell-Sage Foundation support
for social research is a broad one: extending from the gathering
of primary information in sensitive areas ranging from the occupa-
tional role of women to the dangers in maintaining secret files on
prominent persons, to the forceful presentation of social action
and social reform policies extending from the utilization of social
indicators in federal policy-making to the wider involvement of
foundations in minority-rights activities. Toward this end, Russell-
Sage has a unique internal setup: involving in-house sociologists
doing applied research on a rotating project or per/annum basis,
and an organizational structure in which sociologists are crucial-
ly involved in the decision to allocate funds.

In recent years, Russell-Sage has come under increasing criti-
cism from radical sociologists for not being sufficiently involved
in the practical needs of the poor and the exploited and, beyond
that, in taking a thoroughly meliorative attitude to social change.
In part this criticism is acknowledged by Foundation authorities;
but in part this stems from an original grant charge which mandates
funds for social reform but not for social revolution and which en-
courages research with possible policy payoffs, but not partisan
involvement in the political process. It has definitely moved such
research to such major applied areas as media application of social
science, educational reform among minorities, policy guidelines for
the social sciences and generally assisting projects that have a
potential for wide public appeal and public awareness of social science.

Russell Sage is a clear illustration of a foundation with a special mission: one in which social welfare intersects with social research. But as the century wore on and the social work "profession" distinguishes itself from the sociological "science", the foundation efforts to bridge the gap between informational role and an action role have become somewhat more difficult. In general, it is the "harder" wing of the sociological profession that has carried the day with sociologists rather than social work personnel becoming increasingly pivotal. Yet, within that framework, the Russell Sage Foundation has served to provide an intense lobby for the wider policy uses of the social sciences. In the main, it has done so by providing support for basic research in areas of deep sensitivity and widespread ignorance, such as the problems of aging and dying in American society, or in support of fundamental theoretical and methodological work that could eventually lead to a uniform set of standards for judging sociological products. Whatever the prospects are for such standardization of concerns and procedures, the fact remains that in its more than 65 years of operation the Russell Sage Foundation has not only seen sociology as a profession grow immensely but has also substantially contributed to the character of that growth by the careful and selective investment of its roughly 40-million-dollar portfolio. If its work has been done quietly and in a low-risk context, it has, through its publications as well as its sponsorship of crucial research, served to underwrite the theory of much policy practice in areas of health, welfare, education, sex and race. And in its forthright support of social indicators, further served to tighten the relationship between social science and public policy in domestic areas those areas in which the greatest degree of consensus among selective elites presently obtains.

The Russell Sage Foundation began exhibiting interest in questions of personal rights to privacy versus society's (or organization's) need to know in 1961. This first program was directed toward investigating the implications of standardized achievement testing in the United States. This study found that despite growing use of record-keeping on all aspects of a student's life, there was no standard policy regarding the dissemination of such records -- and often a lack of any policy whatsoever (Goslin, 1963). As a result of this study the Sage Foundation convened a conference to probe the ethical and legal issues involved in the management of records. The report of this conference, which included guidelines on this matter, was distributed to over 100,000 educators and educational policymakers. This report (Sage Foundation, 1970) provoked widespread discussion about record-keeping policy at the local level. The Foundation has extended its interest to analysis of student records and colleges and universities. Russell Sage concern over the power of organizations over its members became focused in a collection of original papers edited by a staff member of the Foundation, Stanton Wheeler (1970), who is also on the faculty of Yale University Law School. This study focused on reports of record-keeping by the business, government, educational, professional and welfare structures.

Human experimentation, another aspect of personal privacy, generated Russell Sage Foundation interest in 1964. A landmark study produced by the chairman of the board of trustees and the president of the foundation (Ruebhausen and Brim, 1965) dealt directly with guidelines for such research. These guidelines have subsequently been included by the Department of Health, Education and Welfare, as well as codes of ethics of various social science pro-

fessional societies. In related studies, Bernard Barber (1972) has examined the practices for review and approval procedures of peer committees with control over projects dealing with human subjects used in experimentation. Jay Katz (1972) has produced for the foundation the most extensive case book approach to the utilization of human experimental subjects in all areas of endeavor. This case book includes the disciplines of medicine, psychology, sociology, biology and law, and the perspectives of the state, investigator, subjects and the professions.

The process of developing social indicators, an area which the foundation has consistently demonstrated interest in, necessitates the large-scale collection and analysis of data from all segments of society. The effect of comingling of broad-based data files and privacy was broached in a Sage Foundation study by Alan Westin (1972). (The preceding discussion is based on Brim, 1972.)

The Westin study originated as a result of initiative by the quasi-official National Academy of Science which established the Computer Science and Engineering Board in July, 1968. The Board wished to discuss questions of due process and privacy within the framework of increasing technological processing of individual records. The most satisfactory approach, the board determined, was to undertake a broad-based case-study attack on the problem of computer recording, retrieving and communication of individual data files. The study included an emphasis on social and policy features of factors shaping individual file use as well as scrutinizing the harder technical linkages. Original research seemed the most feasible approach to the subject matter in order to insure reliability and strengthen reliability.

The long-standing interest of Russell Sage in technology, law
and their relationship with the social sciences, made it receptive
to the proposed Westin study. Westin, a professor of public law and
government at Columbia University, proceeded to draw together a staff
for the study. The staff included specialists in computer science,
economics, journalism, law, political science, psychology and socio-
logy. The staff made over 50 site visits of computer-file facilities.
From these visits (fourteen) in-depth analyses were undertaken. The
report of the study included an extended discussion of the implica-
tions of the findings and a prognastication of future developments
in this area.

The study report, issued in 1972, provoked a flurry of discus-
sion. The federal government, which served as a major focus of the
study, had several areas of record-keeping and exchange on indivi-
dual files carefully scrutinized. More recently, the Twentieth Cen-
tury Fund, another social science oriented philanthropic organiza-
tion, has pursued this area. Howard A. Latin of the Earl Warren
Legal Institute at the University of California, Berkeley, commen-
ced a study in June 1973. Latin is focusing on specific aspects
of computer information processing practices and the individual's
right to privacy.

Political Science and The State Department

One area of significant policy impact for the political science
discipline has been into the Department of State. As early as 1952,
the American Council on Education issued a report on Sponsored Re-
search Policy of Colleges and Universities (1954) recommending the
development of linkages between the political scientist and the
State Department. In April 1964, the Fascell Subcommittee of the
House Committee on Foreign Affairs urged improved usage of social

science research reports (FAR Horizons, May, 1971:1-3).

The State Department sponsored a National Academy of Sciences conference (1966) which recommended "full and effective use of social science research for policy and operations".) Two types of in-house courses are now offered by the Department of State which are oriented towards social science; these are: (1) techniques, concepts and theory of social science disciplines; and (2) courses having as a major component, materials relating to social science. In addition, there are a number of extended training and opportunities in academic institutions for State Department personnel at the policy input level (FAR Horizons, 1968:11). The Foreign Area Research Coordinating Group found relatively few in-house courses dealing directly and primarily with research methods and concepts of the social sciences. However, many courses offered by the government draw heavily on the behavioral and social sciences. Chief examples are the National War College and the Foreign Service Institute. The State Department programs include political scientists such as Joseph La Polombara, A. James Gregor, etc. But these lecturers are in no way bound by State Department policies, They more often than not, provide general orientation and debriefing services.

The State Department encourages the "brokerage" concept of ideas between suppliers and users of social science information. For example, in 1970 they held a conference on "Social Research and Foreign Affairs" where Edwin Fogelman presented a paper on "The Relevance of Social Science Research to Foreign Policy Making" (FAR Horizons 11/70:1-3). In addition to conducting social science research under contract arrangements, academic social science consultants complement the research capabilities of the State Department by working directly with Departmental officers on a variety of po-

licy-related problems (FAR Horizons 3/69:2). The State Department
sometimes issues invitations to private researchers to perform con-
tract research on social science topics. However, the State Depart-
ment does not desire "detailed, formal, unsolicited proposals" from
the private social scientists, especially since such research must
be let out on a competitive bid basis. The overall purpose, then,
is to have a free flow of ideas between Department officers and
qualified outside researchers (FAR Horizons, 7/1971:2).

The political science heart of the State Department is the Bureau
of Intelligence and Research (INR). The staff of INR is now consists of about
330 individuals, of whom 200 or so are professional foreign policy
affairs and intelligence analysts. These analysts are trained in
the social sciences. But political scientists compose the over-
whelming majority of these social science disciplines represented.
There are also economists and a limited number of sociologists and
historians. These social scientists work primarily on applied pro-
blems. INR has displayed less interest in advancing methodology
or theory of the social scientists than in application (Plateg, 1973).
Depending on the assumptions used, INR favors applied research over
basic research in the ratio of 58/42 or 69/31.

INR has two primary responsibilities: (1) To provide raw and
finished intelligence to the Department of State from the intelli-
gence community, to produce finished intelligence of its own for
the Department and to participate in certain community-wide intel-
ligence production efforts. (2) To serve as the coordinator, with-
in the Department, for U. S. Government intelligence activities
abroad which have operational significance for the Department. In
the substantive intelligence field the focus is on timely "policy-
oriented" or "issue-oriented" research. Thus, INR is the organiza-

tion specially assigned within the [Department] of State to supply
information tailored to specific needs, to provide a professional
researcher's view of developments abroad and to insure that the
Department benefits from and contributes to the workings of the
intelligence community (INR, 1973). INR produced a bi-annual "Con-
solidated Plan" analyzing foreign affairs research expenditures and
guiding future research efforts.

An assessment of the current 1974-75 budget will give some idea
of the size and magnitude of the State Department's research effort
in foreign affairs external research. The total amount for the next
fiscal year is $54,600,000, which constitutes an increase in the ex-
ternal research effort of 11.5 per cent. The Agency for Interna-
tional Development (AID) and the Department of State (DOS) both show
planned research funding increases; the Department of Defense (DOD)
and the Arms Control and Disarmament Agency (ACDA) show decreases;
while the United States Information Agency (USIA) remains essentially
the same.

Leaving aside global or multi-regional studies (47.6%) of the
toal USC/FAR effort) and those focusing on the U. S. (0.7%), the
remaining eight regions rank as follows: Africa (28.4%), American
Republics (9.4%), East Asia (5.4%), USSR (2.3%), Western Europe (2.0%),
PRC (1.8%), NESA (1.5%), Eastern Europe (0.8%). This ordering,
very similar to that in the Second Plan, reflects the large role
played by AID in the total USC/FAR funding picture. Between them,
the USSR and PRC will receive 4.1% of foreign-affairs research atten-
tion, up from about 3.% in the Second Plan in which USC/FAR research
objectives called for various actions to improve research on these
countries. The study of affairs within foreign nations will receive
84.3% of the USC/FAR's research attention; the study of relations
between and among nations will receive the remaining 15.7%.

Between the Second and Third Plans there is an absolute as
well as relative decline in research on international relations;
whereas research on international political-social and military
relations each show a steep decline (43.1% and 37.2% respectively),
that on international economic relations shows a small (3.4%) in-
crease. State, USIA and the NSC Staff are the three Member Agen-
cies that devote more of their resources to the study of inter-
national relations than to national affairs. AID's program is
heavily weighted (93.3%) toward the study of national affairs.
Concerning studies that focus on the national affairs of foreign
countries, economic, political-social and military affairs will
receive attention roughly in the ratio of 11:10:1, not too much
different from the Second Plan where the ratio was 13:11:1. As
for research on international relations, economic, political-social
and military relations will receive attention roughly in the ratio
of 2:1:2, a substantial shift from the Second Plan where the ratio
was 2:2:3. Across all regions, science-technology matters--both
national and international--receive only 0.4% of the USC/FAR's plan-
ned research effort.

In the Second Plan, the Member Agencies agreed on six USC/FAR
Research Objectives; in the intervening year, steps have been taken
in pursuit of them. In preparing this Third Plan the Member Agen-
cies have agreed on three new objectives. These, along with a sta-
tus report on the six original objectives, are presented in PART II.
The three new USC/FAR Research Objectives are listed below with ac-
tion responsibilities indicated.

(1) Assess the state of research on the political, social,
economic, military and foreign-policy dynamics of the countries of
the Near East & South Asia and develop recommendations in this field

for the USC/FAR Agencies. ACTION: USC/FAR Consultative Group on

Near East & South Asia. (2) Explore the need and, as appropriate,

recommend steps for advancing knowledge about the evolution, dyna-

mics and long-range implications of emergent international society

(societies) as manifested in multinational public and private in-

stitutions, areas of interdependence among nations and various trans-

national phenomena. ACTION: USC/FAR Consultative Group on Inter-

national Political-Social Relations. (3) Assist ACDA in assessing

the priority research needs in the field of arms control and dis-

armament and develop recommendations in this field for the USC/FAR

Agencies. ACTION: USC/FAR Consultative Group on International

Military Relations.

These two examples are illustrative of principles which hold

true generally. In comparing and contrasting sociologists and poli-

tical scientists, it is evident that the former are concentrated in

domestic affairs with considerable private-sector support, and em-

phasizing tasks for the least advantaged sectors of society; where-

as the latter are concentrated in foreign affairs with considerable

public-sector support, and emphasizing tasks for the powerful and

even dominant sectors of society. Undoubtedly, this helps to explain

differences in the overall posture of the two disciplines: the

"liberalism" of much sociology and the "conservatism" of much poli-

tical science. Even in their respective revolts against empiricism

and functionalisms, these sorts of differences are manifest. For

the msot part sociologists moved into "critical" postures with re-

spect to the American society, while the political scientists moved

into "normative" postures. While no clear causal chain can be es-

tablished between funding conditions and inner disciplinary struc-

tures, certainly not within the confines of this report, is is more

than accidental that those who service the lower portions of society should often be found among the most critical segments of the intelligentsia, while those who service the elite sectors in their research efforts are found with equal frequency to be most supportive of establishment sectors. This entire area of the support basis of social science and the character of the professional ideologies involved needs considerably more work, but it certainly points up more than accidental relationships that can have great importance in the future history of the autonomy of the social sciences.

VI. CASE STUDIES IN SOCIAL SCIENCE PARTICIPATION IN AMERICAN FOREIGN POLICY

Success and Failure of Social Science participation in decision-making

Events have a life of their own. They compel the utilization of whatever tools are available in the arsenal of knowledge to resolve problems considered to be of major national and international standing. The Bay of Pits and the Cuban Missile Crisis, the program of "civic action" to frustrate guerrilla movements in the Third World, the process of "vietnamization" to pacify revolutionary movements in Southeast Asia— all of these are not simply newspaper headlines of the past decade or forms of basic international geopolitics (they are indeed that). They also elicited, each in its own way, a utilization of the social sciences that both amazed and shocked the scientific communities involved. No longer was the old canard about the scientific status of the social sciences being asked in mock seriousness. Rather, the question became, now that the social sciences have come of age, do they serve the universal interests of humanity any better than do the physical or biological sciences? At the same time, and less well known on an international scale, were a series of internal, quite American events: the desegregation of the armed forces; the evolution of the doctrine of equal opportunity and equal access to public education in place of the older legal doctrine of separate but equal; and the rise of affirmative action programs and war on poverty programs that also had an ultimate aim of reducing structural inequality. And here, too, the weight and authority of the social sciences were solicited and called upon to legitimate the national goals of equality and democracy.

Very much like the Presidency itself, one found the social sciences called upon to defend American interests overseas without

respect to their lack of popular and democratic content while these
same social sciences were called upon to expand American horizons
within the nation that did indeed have a popular and democratic
content. This underscores several points: first, that the social
sciences do not create a consensus or a dissensus so much as they
respond to the presence or absence of such public opinion as it
already has been shaped in the crucible of political and economic
struggles. Second, when a dissensus exists, the infusion of social
science neither bails out poor strategic decisions nor serves to
turn the tide of battle. And the converse is also true; when a
consensus does exist, the likelihood of successful utilization of
social science is considerably heightened. Third, by employing a
mandarin model of the social sciences, i.e., a service model; it
is simpler to postulate outcomes in keeping with general political
conditions than if one expects from the social sciences a turning
about of basic political premises and principles. These outer limits
of applied social science understood, it is possible to proceed to
a brief consideration of cases in which social science operated in
areas of international dissensus (with disastrous effects), and in
which it operated in areas of national consensus (with equally suc-
cessful outcomes).

The Cuban Missile Crisis

Doubtless the Cuban missile crisis fits a general definition
of war-game strategy. The United States government had, at the time
of the missile crisis (and still has) three basic national aims
with respect to Cuba. These main goals were intended to prevent the spread
of communism in Cuba, and These sentiments were expressed in a joint
resolution of Congress passed on September 20 and 26, 1962: The
United States is determined: (a) to prevent by whatever means may

necessary, including the use of arms, the Marxist-Leninist regime
in Cuba from extending, by force or by the threat of force, its
aggressive or subversive activities to any part of this hemisphere;
(2) to prevent in Cuba the creation or use of an externally suppor-
ted military capability endangering the security of the United
States; and (3) to work with the Organization of American States
and with freedom-loving Cubans to support the aspirations of the
Cuban people for self-determination (Pachter, 1963:179).

By military power and by other instruments of national power
such as trade discrimination, Cuba was to be isolated in order to make the
maintenance of communism in Cuba costly to the Soviet Union (Mc
Namara, 1963:274). Since it fits his definition, the missile crisis
is a test case relevant to Posvar's theory. The next question be-
came how game-strategy policy was formulated in the Cuban case. In
formal terms the answer is simple. An executive committee of the
National Security Council, appointed ad hoc by President Kennedy,
formulated and recommended a course of action, and the President ap-
proved it. But the real issue is how game strategy came to be im-
plemented, if it was, in the actual policy followed. This is the
crux of the problem and a much more difficult question to answer.

There are several modes of influence to be considered. First
is the assembly and use of specific recommendations or studies
dealing with the introduction of offensive weapons into Cuba. Whe-
ther the analysis is solicited by higher or lower government offices
makes a difference only after the recommendations exist; the first
problem is to establish their existence. Bruce Smith (1966:231) poin-
ted out, however, that the effective advisory group usually goes to
great pains to conceal its impact on policy. For example, the RAND
strategic bases study, "Selection and Use of Strategic Air Bases,"

R-266, was put into effect in 1953 but remained classified until 1962, nine years later. In establishing his case for the influence of this study over air-force policy, Smith relied extensively on personal interviews which might have been difficult to obtain if his dissertation adviser, Don K. Price, had not been both a member of RAND's board of trustees and a Harvard University dean. The RAND Corporation made a number of studies after the crisis, but if any studies were made before the crisis they are still classified (cf. Graham and Brease, 1967). Because any such study would be extremely politically sensitive in nature, it would be unlikely to be declassified in the near future. Second, specific policy recommendations are atypical; most RAND strategy analysis deals with more abstract questions. Information analysis directed toward specific policy is the responsibility of the intelligence branch. Although on the Cuban question the theoretical distinction between research and intelligence fades, the institutional distinction remains clear - research and intelligence functions are performed by different bureaus. By all accounts only the intelligence experts were involved in the executive committee council of war. According to Wohlstetter (1965), no one thought the Cubans and Russians would install the missiles. One must infer, lacking any other evidence, that no specific policy recommendations relating to the Cuban situation were produced by the RAND Corporation. Since RAND's influence seems out of the question in this case, there is no point in speculating about methodological problems such as communication and distortion of policy recommendations or the merits of systems analysis.

The other mode of influence is the pervasive frame of reference contained in the "massive outpouring of scholarship" in support of the new politics based on behavioral psychology. In addition to sig-

nificant effort devoted to systems analysis, the early sixties were characterized by the emergence of war-game theory as the basic form of macroscopic social science. This occurred, in part, as a metaphorical displacement of the "historical" orientations of previous periods characterized by the writings of such men as Hans Morgenthau and Arnold J. Toynbee, and, in part, as a commonly held belief that the results of experimental psychology, particularly of reinforcement, exchange and balance theories, could be extended to cover political behavior between nations. The concurrence of circumstance, that is, the emergence of a group of war-gamers such as Alain Enthoven and Adam Yarmolinsky in positions of advisory power, the professional demands by men like Bernard Brodie and Itheil da Sola Pool to "test" behaviorist assumptions in a broadened context, the coalescence of "systems" designers with engineering backgrounds, such as Seymour J. Deitchman and "social" designers with political science backgrounds, such as Henry A. Kissinger - all of these factors served as a fulcrum for organizing a new view of "relevance", a new faith in a social science of political "meaning".

At the same time that the inner organizational requisites of war-game theory were being met, the outer political requisites of real conflict were also being met in the Cuban missile crisis. This crisis had the perfect scenario dimensions: (1) It was a simple two-person struggle between major powers (or so it seemed to the protagonists at the time); (2) It had a stage setting of showdown proportions that revealed relatively clear-cut and unambiguous dimensions; and (3) It was a situation in which victor and vanquished would be readily determined by the behavior shown. That all of these assumptions were radically in error was either disbelieved or discounted at the time. It was not a simple two-person struggle but one interpreted by Cuba - and much of the Third World - as a strug-

gle between big powers acting arrogantly and a small power acting
with principles to preserve its autonomy and sovereignty. There
was nothing unambiguous about the showdown since, in fact, the reso-
lution was such as to convince all combatants and parties to the
dispute that they had, in fact, been the winner. It was a show-
down without losers, in fact. Indeed, this really made peace pos-
sible under the circumstances, because no one was willing to accept
responsibilities for any defeat or any outcome perceived by each
people as a defeat.

     According to the New York Times's (1962) account of the com-
mitee's October 19 meeting, there were some second thoughts about
the blockade, some renewed interest in an air attack: "The reason
was what the group called a 'scenario' (a phrase originating in
the strategy community) - a paper indicating in detail all the pos-
sible consequences of an action." Elie Abel (1966:86) pointed out
that "Bundy prepared the air-strike argument; and Alexis Johnson
with Paul Nitze's assistance, drafted what came to be called the
blockade scenario," indicating that the frame of reference of the
executive committee was game strategy analysis.

     Bruce Smith (1966:112) noted that "gaming and simulation had
important uses as a training device for government officials to
help them understand what kinds of behavior to be prepared for in
various crisis situation. Crisis games became widely used by high
State and Defense Department officials early in the Kennedy Admini-
stration." In addition, many high-level civilian executives were
formerly members of the game strategy community: Charles Hitch,
Assistant Secretary of Defense (comptroller), Henry Rowen and Alain
Enthoven, Deputy Assistant Secretaries of Defense, Walt W. Rostow,
Assistant Secretary of State, and Paul Nitze, Secretary of the Navy
(Posvar, 1964:48). At the time of the crisis Paul Nitze was Assis-

tant Secretary of Defense for International Security Affairs and
a member of Kennedy's ad hoc crisis committee.

Political gaming as a special subfunction of military policy
is a procedure for the study of foreign affairs that the RAND
Corporation began developing in 1954. A RAND report, referring to
the State Department's interest in gaming, noted that "Even before
the first four games had been completed RAND began to receive re-
quests for information about its political gaming procedures, and
staff members have by now taken part in a substantial number of dis-
cussions about it" (Speier and Goldhammer, 1959:80). As witness
to this interest, "three senior Foreign Service officers from the
Department of State participated in the fourth political game, along
with specialists from RAND's Social Science, Economics and Physics
Divisions" (Speier and Goldhammer, 1959:74).

There is scant doubt that gaming and simulation were widely
used by the President's executive committee. Nearly all higher
echelon figures knew immediately what games were referred to. Al-
though State Department officers like George W. Ball may have
doubted that political games were of greater value than a similar
amount of involvement in ordinary reading and study, many senior of-
ficers even of the "traditional" State Department, no less than the
"modern" Defense Department, participated in the fourth round. Al-
though only a minority of Kennedy's war council came from the Depart-
ments of State and Defense, the rest were seemingly also familiar
with strategy analysis.

The chilling degree to which a game of showdown proportions
had been around the Cuban missile crisis is reported by Schlesinger
(1965:830): "Saturday night was almost the blackest of all. Un-
less Khruschev came through in a few hours the meeting of the Execu-

tive Committee on Sunday night might well face the most terrible
decisions." In a revealing metaphor, Schlesinger then notes, "At
nine in the morning Khruschev's answer began to come in. By the
fifth sentence it was clear that he had thrown in the hand." And
it is finally clear that this unwillingness to risk all-out war on
the Soviet Union's part came "barely in time." Schlesinger con-
cludes by drawing out the option: "If word had not come that Sun-
day, if work had continued on the bases, the United States would have
had no real choice but to take action against Cuba the next week.
No one could discern what lay darkly beyond an air strike or inva-
sion, what measures and countermeasures, actions and reactions might
have driven the hapless world to the ghastly consummation." It
should be noted that this account is made not simply from a writer
but from a member of the President's inner group of advisers, and
that the differences between hard-liners and soft-liners over the
missile crisis concerned the character of the response, not the
necessity for playing the game of showdown poker. Thus, at a cri-
tical point in United States foreign policy, traditional methods
of accommodations were abandoned in favor of a military definition
of the situation - a definition made intellectually palatable by
the "science" of game theory.

Game=strategy analysis also played an influential role through
the Joint Chiefs of Staff. Although Senator Sparkman (1962:75) of
Alabama, in the September hearings remembered "General LeMay,
Chief of Staff of the Air Force, stating that there would be no dif-
ficulty in knocking out those missile sites", only the chairman of
the Joint Chiefs, Maxwell Taylor, actually sat on the executive com-
mittee. When Kennedy met separately with the Joint Chiefs they would
not guarantee that a so-called surgical strike - one that would de-

stroy all the missiles and bombers yet inflict few casualties on the general population - was feasible (cf. Sorenson, 1965). In any case, such feasibility studies are the proper responsibility of the military profession and are not farmed out to research corporations. Posvar's argument about the influence of strategy analysis thus has little value. The final executive committee recommendations actually emerged from a political bargaining process that involved not only the military factors and strategic analysis, but also considerations of morality (for example, Robert F. Kennedy argued against the air-strike position, saying it would be another Pearl Harbor) and international political consequences would follow.

Many questions arise to make even the hardiest political man uneasy over this concept of "surgical strike." For people like Wohlstetter and Kahn, the problem of defense begins with the military issues surrounding a first strike strategy and proceeds to conditions for a second strike situation. The uses of war-game theory thus serve to limit options and deepen ambiguity in the military situation as well. Under such circumstances, it is small wonder that even those who in the past were close to the systems design would raise serious questions as to the efficacy of war gaming.

Given the general context of the political situation of the defense establishment, it is time to examine the Cuban missile crisis in its specifics. The services and the Defense Department expressed different strategic interpretations of the Cuban crisis in the congressional appropriations hearings in 1965. General Curtis LeMay (1963:888-896), Air Force Chief of Staff, expressed the air force position: We must maintain a credible general war force so that lesser options may be exercised under the protection of this general war deterrent. It is the general war strength of aircraft

gressor is willing to take and which deter escalation into an all-
out conflict. In the Cuban crisis this limit was tested..... I
am convinced that superior U.S. strategic power, coupled with ob-
vious will and ability to apply this power, was the major factor
that forced the Soviets to back down. Under the shelter of stra-
tegic power, which the Soviets did not dare challenge, the other
elements of military power were free to exercise their full poten-
tial.

This version of strategic theory is clearly beneficial to the
long-run interests of the air force. The air force answer to the
problem of how to deter minor "aggression" is to play "chicken"
with the air-force-delivered general war force. Posvar's comments
on the Cuban crisis, given above, though brief, seem quite conson-
ant with their force position. General Earle Wheeler (1963:507),
Army Chief of Staff, expressed the army position in his statement:
In my opinion, the major lesson for the Army in the Cuban situa-
tion lies in the demonstrated value of maintaining ready Army forces
at a high state of alert in order to equip national security policy
with the military power to permit a direct confrontation of Soviet
power. As Secretary McNamara pointed out to the NATO ministers re-
cently, "...the forces that were the cutting edge of the action
were the non-nuclear ones. Nuclear force was not irrelevant but
it was in the background. Non-nuclear forces were our sword, our
nuclear forces were our shield." I wholeheartedly agree with this
statement. In the Cuban situation, the Army forces were alerted,
brought up to strength in personnel and equipment, moved and made
ready for the operations as part of the largest U. S. invasion force
prepared since World War II. The air force interpreted limited war
and limited "aggression" as capable of being deterred by strategic

nuclear forces and the credibility of its threatened use, while the army viewed stratetic nuclear forces alone as insufficient.

A circumstantial argument for the influence of strategy expertise could be made if the position of the RAND Corporation coincided with the strategic interpretation of the air force, its sponsor. A staff-initiated RAND study, however, as early as 1957, noted that "in the case of a sharply limited war in Europe, tactical forces have renewed utility, with strategic air forces complementing tactical forces as the necessary enforcers of weapons limitations" (Hoag, 1975:13 and 1961:26). In at least a dozen other studies of limited war before the crisis, the RAND Corporation developed the same theme. Because of the strategic balance of power, "neither side could expect to use its strategic capabilities to enforce a level of violence in the local area favorable to itself." A limited war capability was needed because "we shall not be able to rely on our strategic forces to deal with limited aggressions" (DeWeerd, 1961:17). These studies clearly supported the army doctrine on limited warfare and contributed to the above-mentioned estrangement of RAND and the air force. The Defense Department, however, became quite interested. In early 1962, a large contract was consummated between the RAND Corporation and the Office of the Assistant Secretary of Defense for International Security Affairs (ISA). The ISA contract involved analytic studies of a variety of defense problems, including counterinsurgency and limited war questions, and the annual funding under the ISA contract for a two-year period amounted to over $1,000,000. The ISA contract frightened the Air Force because many Air Force officers felt that some of the civilians in the ISA were contemptuous of military professionalism (Smith, 1966:127).

The standard interpretation of this complaint by the new
civilian militarists (NCM) is the masking of a lack of under-
standing and competence in strategic theory. However, the air
force officers correctly perceived a threat to their position in
the defense establishment - a more plausible explanation. The
NCM theory would similarly attribute the air force's failure to
implement the RAND-generated expertise on limited war to a lack
of understanding. This theory would not explain why bureaucratic
incompetence was limited to the air force and was not also a fault
of the army or Defense Department. The NCM theory of expertise
equates lack of enthusiasm with ignorance and incompetence. One
might argue that the air force neglected RAND's contribution be-
cause they did not know about it; Smith's account of the implemen-
tation of the strategic bases study shows that the communication
of research findings is a long and complicated process. Further-
more, this NCM objection does not explain how the army and the
Defense Department positions coincided with the RAND position -
they knew about RAND's work. The air force refused to understand
because RAND's expert judgment benefited the army to the detriment
of the air force.

Implementation of policy depends not only on the validity of
game theory but also on the question of who benefits. The above
emphasis on conflicts within the defense establishment neglects
the consensus on two articles of faith) ideological anti-communism,
which divides the world into Communists and anti-Communists, and
coercion as the only mode of intercourse between the two.

The careful perusal of the military definition of game theory
reveals that gaming strategy is the "science" of coercion. Any-
thing that is not coercive is irrational from a strategic frame of

reference. Anti-communism, too, is deeply rooted in strategic

analysis. A RAND study notes that if limited wars occur, "they

should be looked at as a local and limited manifestation of the

global struggle between Communism and the Non-Communist World"

(DeWeerd, 1961:17). These two articles of faith pervade not only

the strategy community and the defense establishment but also the

rest of the government involved in the crisis, so that even if the

strategy community had no influence over anyone else it is ques-

tionable whether there would be any substantial difference in policy

(cf. Commager, 1968:15-18).

While this analysis has emphasized the political and socio-

logical aspects of gaming analogies, experts themselves often em-

phasize the truth and rationality of war games. As de Sola Pool

(1967:268) puts matters: "That is essentially policy based on

social science. Traditional political concerns vanish in this

hygienic version of social science." The claim of truth is a power-

ful way to legitimate authority but it is also an exclusive way.

The claim to social science expertise illegitimates other decision

criteria. The illegitimation inherent in the recommendations is a

function of ignorance and bureaucratic incompetence. Further, the

claim that the failure to perceive the role of expertise as a wea-

pon in the political conflict within the defense establishment and

between the defense establishment and civilian groups against mili-

tarism weakens the United States military "posture" abroad. Thus,

game theory serves as an organizational weapon of military terror -

even when its strategies may go awry - as in the Cuban missile crisis.

One might conclude by noting that the United States used war

game strategies while the Soviet Union used conventional rhetoric

of Marxism - and yet the latter managed to walk away with at the

very least, a stalemate and in some interpretations ~~the~~ ^a full vic-

tory. In exchange for the withdrawal of long-range missiles, the

Soviet Union guaranteed the long-range survival of Cuba's social-

ist regime and, no less, a long-term Soviet presence in the Western

Hemisphere. It might be argued that conventional diplomacy might

have netted the United States far greater results: the mainten-

ance of diplomatic ties between Cuba and the United States. Di-

rect negotiations with Castro rather than negotiations with the

Soviets about Castro would have prevented the Soviets from main-

taining a long-range presence and would not have strengthened

Cuba's sense of sovereignty any more than it already is. But, of

course, this would make the military subject to pressures of a

historical, geographic and cultural variety that they reject almost

instinctively. War-game theory is a model of simplicity. It sup-

plies a two-person situation, even if it does sometimes select the

wrong players. It structures outcomes, even if it does leave out

of the reckoning the optimal sort of outcome. It resolves problems,

even if it does so by raising the ante of the problem beyond its

initial worth.

The sociological explanation of the functional role of war-

game theory for the military is still in its infancy (cf. Green,

1966 and Horowitz, 1967: 339-376). Only a final word needs to be

said about the symbol role of war game theory, namely the comfort

provided by a world of psychological neatness of a world in which

the behavior of large-scale nations is reducible to the decisions

of a single man or small group of men. In this sense, war-game

theory is the ultimate expression not only of the military ethic

but also of the elitist and etatist mentality. But it remains the

case that the management of political crisis is made more complex,

not more simple, by the new military technology. The danger is
that military leaders have chosen to ignore this and respond sim-
plistically, precisely as the world of politics and ideology grows
more problematic and complicated.

It is important to appreciate the fact that we have been des-
cribing a conventional war game built on coercion and threat and not
a model of a game premised on a mechanism of positivist reinforce-
ment built on consensus and compromise. Nor am I prepared to argue
the merits of the claim that ultimately consensual game models re-
duce to conflictual models anyhow, thus eliminating the need to
study "milder" forms of game theory. Indeed, one might point out
that the consensual models only seem to penetrate the literature
when some sort of stable equilibrium was, in fact, reached between
the Soviet Union and the United States in the post-missile crisis
period. Hence, war-game theory is not so much an independent in-

put in decision-making as it is a sophisticated rationalization of
decisions already taken.

Beyond the clear sets of objections other analysts of war game
theory and I have pointed out over the years, there is one that has
seemingly escaped everyone's attention in the past (including my own),
namely, the role of war-game theory as a legitimation device for
whatever crude military strategy has been decided upon. A tauto-
logical aspect thus emerges: If the decision to blockade Cuba is
taken, war game theory is appealed to as ultimate arbiter; if the
decision to life the blockade is taken, the same appeal to war gam-
ing is made; and since any complete holocaust would "terminate the
game" and "eliminate the players," there is no real possibility of
disconfirming the "theory on which the decision is ostensibly reached."

Under such a wonderful protective covering of post hoc legitimation and with every strategic decision confirming anew the worth of war game theory, it is extremely difficult to reach any final estimate of the theory as such. For this reason, the examination of real events - particularly military retaliations - may be the clearest way open to analysts for evaluating the potency, or as is more usually the case, the paucity of war-game strategies. When a particular strategy becomes elevated to the level of military theology, the clear and present danger to human survival soon becomes apparent. And in the shock surrounding the Cuban missile crisis - the delayed awareness that the world stood still for a week while games of strategy were permitted to run their course - war game theory had its proudest moment and yet its last moment.

It was not long after the Great Missile Crisis that the "game of chicken" was abandoned in favor of conventional forms of political accommodation. This came about through the mutual realization of the Soviet Union and the United States (especially the latter) that Cuba was not a pawn or an ace-in-the-hole, but a sovereign power in its own right. The Castro Revolution was both national and hemispheric; it evolved its own brand of socialism to meet the challenges of a single-crop island economy. Thus, the Cuban regime was a system that had to be dealt with in traditional political terms of how sovereign states with differing social structures relate to each other. When this dawning took place the Cuban "crisis" was really solved, precisely by surrendering the notion that this was a behavioral situation reducible to the moves and counter-moves of the world's two big military powers. Yet, as long as such repudiation of strategic thinking remains informal and unthinking, the dangers in a repetition of such forms

of crisis management through games of change remain ever present.
And what first appeared as tragedy may return not so much as comedy
but rather as absurdity - in this instance the absurdity of total
mutual annihilation.

Project Camelot

Project Camelot was a project for measuring and forecasting
the causes of revolutions and insurgency in underdeveloped areas
of the world. It also aimed to find ways of eliminating the causes,
or coping with the revolutions and insurgencies. Camelot was spon-
sored by the U. S. Army on a $4-6,000,000 contract, spaced out over
three to four years, with the Special Operations Research Organiza-
tion (SORO). This agency is nominally under the aegis of American
University in Washington, D. C., and does a variety of research
for the Army. This includes making analytical surveys of foreign
areas; keeping up-to-date information on the military, political
and social complexes of those areas; and maintaining a "rapid res-
ponse" file for getting immediate information, upon Army request,
on any situation deemed militarily important.

Latin America was the first area chosen for concentrated study,
but countries on Camelot's four-year list included some in Asia,
Africa and Europe. In a working paper issued on December 5, 1964,
at the request of the Office of the Chief of Research and Develop-
ment, Department of the Army, it was recommended that "comparative
historical studies" be made in these countries: Latin America,
Argentina, Bolivia, Brazil, Colombia, Cuba, Dominican Republic,
El Salvador, Guatemala, Mexico, Paraguay, Peru, Venezuela; Middle
East, Egypt, Iran, Turkey, Far East, Korea, Indonesia, Malaysia,
Thailand, Others, France, Greece, Nigeria. "Survey research and
other field studies" were recommended for Bolivia, Colombia, Ecuador,

Paraguay, Peru, Venezuela, Iran and Thailand. Preliminary

consideration was also being given to a study of the separatist

movement in French Canada. It, too, had a code name: Project

Revolt.

In a recruiting letter sent to selected scholars all over the

world at the end of 1964, Project Camelot's aims were defined as

a study to "make it possible to predict and influence politically

significant aspects of social change in the developing nations of

the world." This would include devising procedures for "assessing

the potential for internal war within national societies" and "iden-

tifying with increased degrees of confidence, those actions which a

government might take to relieve conditions which are assessed as

giving rise to a potential for internal war." The letter further

stated: The U. S. Army has an important mission in the positive

and constructive aspects of nation-building in less-developed coun-

tries as well as a responsibility to assist friendly governments

in dealing with active insurgency problems. Such activities by the

U. S. Army were described as "insurgency prophylaxis" rather than

the "sometimes misleading label of counter-insurgency."

Project Camelot was conceived in late 1963 by a group of high-

ranking Army officers connected with the Army Research Office of the

Department of Defense. They were concerned about new types of war-

fare springing up around the world. Revolutions in Cuba and Yemen

and insurgency movements in Vietnam and the Congo were a far cry

from the battles of World War II and also different from the envi-

sioned - and planned for - apocalypse of nuclear war. For the first

time in modern warfare, military establishments were not in a posi-

tion to use the immense arsenals at their disposal but were, in-

stead, compelled by force of a geopolitical stalemate to increasing-

ly engage in primitive forms of armed combat. The questions of moment for the Army were: Why can't the "hardware" be used? And what alternatives can social science "software" provide?

A well-known Latin American area specialist, Rex Hopper, was chosen as director of Project Camelot. Hopper was a professor of sociology and chairman of the department at Brooklyn College. He had been to Latin America many times over a (thirty)-year span on research projects and lecture tours, including some under government sponsorship. He was highly recommended for the position by his professional associates in Washington and elsewhere. Hopper had a long-standing interest in problems of revolution and saw in this multi-million dollar contract the possible realization of a lifelong scientific ambition.

Were the Camelot participants critical of any aspects of the project? Some had doubts from the outset about the character of the work they would be doing and about the conditions under which it would be done. It was pointed out, for example, that the U. S. Army tends to exercise a far more stringent intellectual control of research findings than does the U. S. Air Force. As evidence for this, it was stated that SORO generally had fewer "free-wheeling" aspects to its research designs than did RAND (the Air Force-supported research organization). One critic inside SORO went so far as to say that he knew of no SORO research that had a "playful" or unregimented quality, such as one finds at RAND (where, for example, computers are used to plan invasions but also to play chess). One staff member said that "the self-conscious seriousness gets to you after a while." "It was all grim stuff", said another.

Another line of criticism was that pressures on the "reformers" (as the participants engaged in Camelot research spoke of themselves)

to come up with ideas were much stronger than the pressures on the
military to actually bring off any policy changes recommended. The
social scientists were expected to be social reformers while the
military adjutants were expected to be conservative. It was fur-
ther felt that the relationship between sponsors and researchers
was not one of equals but rather one of superordinate military needs
and subordinate academic roles. On the other hand, some officials
were impressed by the disinterestedness of the military and thought
that, far from exercising undue influence, the Army personnel were
loath to offer opinions.

Another objection was that if one had to work on policy matters -
if research is to have international ramifications - it might better
be conducted under conventional State Department sponsorship. "After
all," one man said, "they are at least nominally committed to civilian
political norms." In other words, there was a considerable reluc-
tance to believe that the Defense Department, despite its superior
organization, greater financial affluence and executive influence
would actually improve upon State Department styles of work, or ac-
cept recommendations at variance with Pentagon policies.

There seemed to be few, if any, expressions of disrespect for
the intrinsic merit of the work contemplated by Camelot, or of dis-
dain for policy-oriented work in general. The scholars engaged in
the Camelot effort used two distinct vocabularies. The various
Camelot documents reveal a military vocabulary provided with an
array of military justifications, often followed (within the same
document) by a social science vocabulary offering social science
justifications and rationalizations. The dilemma in the Camelot
literature from the preliminary report issued in August, 1964, until
the more advanced document issued in April, 1965, is the same: an

incomplete amalgamation of the military and sociological vocabu-
laries. (At an early date the project had the code name SPEAR-
POINT)

The directors of SORO were concerned that the cancellation
of Camelot might mean the end of SORO as well as a wholesale slash
of research funds. For while over $1,000,000 was allotted to Came-
lot each year, the annual budget of SORO, its parent organization,
was a good deal less. Although no such action has taken place, SORO's
future is being examined. For example, the Senate and House Appro-
priations Committee blocked a move by the Army to transfer unused
Camelot funds to SORO.

However, the end of Project Camelot does not necessarily imply
the end of the Special Operations Research Office nor does it imply
an end to research designs that are similar in character to Project
Camelot. In fact, the termination of the contract does not even im-
ply an intellectual change of heart on the part of the originating
sponsors or key figures of the project.

One of the characteristics of Project Camelot was the number
of antagonistic forces it set in motion on grounds of strategy and
timing rather than from what may be called consideration of scien-
tific principles. The State Department grounded its opposition to
Camelot on the basis of the ultimate authority it has in the area
of foreign affairs. There is no published report showing serious
criticism of the projected research itself. Congressional opposi-
tion seemed to be generated by a concern not to rock any foreign
alliances, especially in Latin America. Again, there was no state-
ment about the project's scientific or intellectual grounds. A
third group of skeptics, academic social scientists, generally
thought that Project Camelot and studies of the processes of revolu-

tion and war in general, were better left in the control of major

university centers and, in this way, kept free of direct military

supervision. The Army, creator of the project, did nothing to

contradict McNamara's order cancelling Project Camelot. Army in-

fluentials not only felt that they had to execute the Defense Depart-

ment's orders, but they are traditionally dubious of the value of

"software" research to support "hardware" systems.

A number of issues did not so much hinge upon, as swim about,

Project Camelot. In particular, the "jurisdictional" dispute be-

tween Defense and State loomed largest. In substance, the debate

between the Defense Department and the State Department is not un-

like that between electricians and bricklayers in the construction

of a new apartment house. What "union" is responsible for which

process? Less generously, the issue is: Who controls what? At

the policy level Camelot was a tool tossed about in a larger power

struggle which has been going on in government circles since the

end of World War II when the Defense Department emerged as a com-

petitor for honors as the most powerful bureau of the administra-

tive branch of government.

The divisions between Defense and State are outcomes of the

rise of ambiguous conflicts such as Korea and Vietnam, in contrast

to the more precise and diplomatically controlled "classical" world

wars. What are the lines dividing political policy from military

posture? Who is the most important representative of the United

States abroad: the ambassador or the military attache in charge

of the military mission? When soldiers from foreign lands are sent

to the United States for political orientation, should such orienta-

tion be within the province of the State Department or the Defense

Department? When undercover activities are conducted, should the

direction of such activities belong to military or political au-
thorities? Each of these is a strategic question with little prag-
matic or historic precedent. Each of these was entwined in the
Project Camelot explosion.

It should be plain that the State Department was not simply
responding to the recommendations of Chilean left-wingers in urging
the cancellation of Camelot. It merely employed the Chilean hos-
tility to "interventionist" projects as an opportunity to redefine
the balance of forces and power with the Defense Department. What
is clear from this resistance to such projects is not so much a de-
fense of the sovereignty of the nations where ambassadors are sta-
tioned as it is a contention that conventional political channels
are sufficient to yield the information desired or deemed necessary.

In the main, congressional reaction seems to be that Project
Camelot was bad because it rocked the diplomatic boat in a sensi-
tive area. Underlying most congressional criticisms is the plain
fact that most congressmen are more sympathetic to State Depart-
ment control of foreign affairs than they are to Defense Department
control. In other words, despite military-sponsored world junkets,
National Guard and State Guard pressures from the home state and
military training in the backgrounds of many congressmen, the senti-
ment for political rather than military control is greater. In ad-
dition, there is a mounting suspicion in Congress of varying kinds
of behavioral science research stemming from hearings into such
matters as wire-tapping, uses of lie detectors and truth-in-packaging.

One reason for the violent response to Project Camelot, espe-
cially among Latin American scholars, is its sponsorship by the
Department of Defense. The fact is that Latin Americans have be-
come quite accustomed to State Department involvements in the in-

ternal affairs of various nations. The Defense Department is a new-
comer, a dangerous one, inside the Latin American orbit. The train
of thought connected to its activities is in terms of international
warfare, spying missions, military manipulations, etc. The State
Department, for its part, is often a consultative party to shifts
in government, and has played an enormous part in either fending off
or bringing about coups d'etat. This State Department role has by
now been accepted and even taken for granted. No so the Defense
Department's role. But it is interesting to conjecture on how
matter-of-factly Camelot might have been accepted if it had had
State Department sponsorship.

Social scientists in the United States have, for the most part,
been publicly silent on the matter of Camelot. The reasons for this are
not hard to find. First, many "giants of the field" are involved in
government contract work in one capacity or another. And few souls
are in a position to tamper with the gods. Second, most information
on Project Camelot has thus far been of a newspaper variety; and
professional men are not in a habit of criticizing colleagues on
the basis of such information. Third, many social scientists doubt-
less see nothing wrong or immoral in the Project Camelot designs.
They are therefore most likely to be either confused or angered at
the Latin American response than at the directors of Project Camelot.
(At the time of the blowup Camelot people spoke about the "Chilean
mess" rather than the "Camelot mess").

The directors of Project Camelot did not "classify" research
materials so that there would be no stigma of secrecy. They also
tried to hire, and even hired away from academic positions, people
well known and respected for their independence of mind. The dif-
ficulty is that even though the stigma of secrecy was formally erased

it remained in the attitudes of many of the employees and would-be
employees of Project Camelot. They unfortunately thought in terms
of secrecy, clearance, missions and the rest of the professional
nonsense that so powerfully afflicts the Washington scientific as
well as political ambience. Project Camelot had much greater dif-
ficulty hiring a full-time staff of high professional competence
than in getting part-time, summertime, weekend and sundry assistance.
Few established figures in academic life were willing to surrender
the advantages of their positions for the risks of the project.

One of the cloudiest aspects of Project Camelot is the role
of American University. Its actual supervision of the contract
appears to have begun and ended with the 25 per cent overhead on
those parts of the contract that a university receives on most
federal grants. Thus, while there can be no question as to the
"concern and disappointment" of President Hurst R. Anderson of the
American University over the demise of Project Camelot, the reasons
for this regret do not seem to extend beyond the formal and the
financial. No official at American University appears to have been
willing to make any statement of responsibility, support, chagrin,
opposition or anything else related to the project. The issues are
indeed momentous, and must be faced by all universities at which
government-sponsored research is conducted: the amount of control
a university has over contract work; the role of university offi-
cials in the distribution of funds from grants; the relationships
that ought to be established once a grant is issued. There is also
a major question concerning project directors: Are they members
of the faculty and, if so, do they have necessary teaching respon-
sibilities and opportunities for tenure as do other faculty members?

The difficulty with American University, in Washington, D.C., is that it seems to be remarkably unlike other American universities in its administrative permissiveness. The Special Operations Research Office received neither guidance nor support from university officials. From the outset, there seems to have been a "gentleman's agreement" not to inquire or interfere in Project Camelot, but simply to serve as some sort of camouflage. If American University were genuinely autonomous it might have been able to lend highly supportive aid to Project Camelot during the crisis months. As it is, American University maintained an official silence which preserved it from more congressional or executive criticism. This points up some serious flaws in its administrative and financial policies.

The relationship of Camelot to SORO represented a similarly muddled organizational picture. The director of Project Camelot was nominally autonomous and in charge of an organization surpassing in size and importance the overall SORO operation. Yet at the critical point the organizational blueprint served to protect SORO and sacrifice what nominally was its limb. That Camelot happened to be a vital organ may have hurt, especially when Congress blocked the transfer of unused Camelot funds to SORO.

Military reaction to the cancellation of Camelot varied. It should be borne in mind that expenditures on Camelot were minimal in the Army's overall budget, and that most military leaders are skeptical to begin with about the worth of social science research. So there was no open protest about the demise of Camelot. Those officers who have a positive attitude toward social science materials, or are themselves trained in the social sciences, were dismayed. Some had hoped to find "software" alternatives to the "hardware

approach applied by the Secretary of Defense to every military-
political contingency. These officers saw the attack on Camelot
as a double attack - on their role as officers and on their pro-
fessional standards. But the Army was so clearly treading in new
waters that it could scarcely jeopardize the entire structure of
military research to preserve one project. This very inability or
impotence to preserve Camelot - a situation threatening to other
governmental contracts with social scientists - no doubt impressed
many armed forces officers.

The claim is made by the Camelot staff (and various military
aides) that the critics of the project played into the hands of
those sections of the military predisposed to veto any social science
recommendations. Then why did the military offer such a huge sup-
port to a social science project to begin with? Because $6,000,000
is actually a trifling sum for the Army in an age of a multibillion
dollar military establishment. The amount is significantly more
important for the social sciences where such contract awards remain
relatively scarce. Thus, there ware different perspectives of the
importance of Camelot: an Army view which considered the contract
as one of several forms of "software" investment; a social science
perception of Project Camelot as the equivalent of the Manhattan
Project.

While most public opposition to Project Camelot focused on its
strategy and timing a considerable amount of private opposition cen-
tered on more basic, though theoretical, questions: Was Camelot
scientifically feasible and ethically correct? No public document
or statement contested the possibility that, given the successful
completion of the data-gathering, Camelot could have indeed esta-

blished basic criteria for measuring the level and potential for internal war in a given nation. Thus, by never challenging the feasibility of the work the political critics of Project Camelot were providing backhanded compliments to the efficacy of the project.

Some of the most critical problems presented by Project Camelot are scientific. Although for an extensive analysis of Camelot the reader would, in fairness, have to be familiar with all its documents, salient general criticisms can be made without a full reading. The research design of Camelot was, from the outset, plagued by ambiguities. It was never quite settled whether the purpose was to study counterinsurgency possibilities or the revolutionary process. Similarly, it was difficult to determine whether it was to be a study of comparative social structures, a set of case studies of single nations "in depth," or a study of social structure with particular emphasis on the military. In addition, there was a lack of treatment of what indicators were to be used and whether a given social system in Nation A could be as stable in Nation B.

In one Camelot document there is a general critique of social science for failing to deal with social conflict and social control. While this in itself is admirable, the tenor and context of Camelot's documents make it plain that a "stable society" is considered the norm no less than the desired outcome. The "breakdown of social order" is spoken of accusatively. Stabilizing agencies in developing areas are presumed to be absent. There is no critique of U.S. Army policy in developing areas because the Army is presumed to be a stabilizing agency. The research formulations always assume the legitimacy of Army tasks - "if the U.S. Army is to perform effectively its parts in the U.S. mission of counterinsurgency it must

recognize that insurgency represents a breakdown of social order...."
But such a proposition has never been doubted - by Army officials or
anyone else. The issue is whether such breakdowns are in the nature
of the existing system or a product of conspiratorial movements.

The use of hygienic language disguises the anti-revolutionary
assumptions under a cloud of aesopian declarations. For example,
studies of Paraguay are recommended "because trends in this situa-
tion (the Stroessner regime) may also render it 'unique' when ana-
lyzed in terms of the transition from 'dictatorship' to political
stability." In this case it is a tactic to disguise the fact that
Paraguay is one of the most vicious, undemocratic (and like most
dictatorships, stable) societies in the Western Hemisphere. These
typify the sort of sterile premises that do not have scientific
purposes. They illustrate the confusion of commitments within Pro-
ject Camelot. Indeed, the very absence of emotive words such as
"revolutionary masses," "communism", "socialism" and "capitalism"
only serves to itensify the discomfort one must feel on examination
of the documents - since the abstract vocabulary disguises rather than
resolves the problems of international revolution. To have used
clearly political rather than military language would not "justify"
governmental support. Furthermore, shabby assumptions of academic
conventionalism replaced innovative orientations. By adopting a
systems approach, the problematic, open-ended aspects of the study
of revolutions were largely omitted, and the design of the study
became an oppressive curb on the study of the problems inspected.

This points up a critical implication for Camelot (as well as
other projects). The importance of the subject being researched
does not per se determine the importance of the project. A socio-
logy of large-scale relevance and reference is all to the good. It

is important that scholars be willing to risk something of their
shaky reputations in helping resolve major world social problems.
But it is no less urgent that in the process of addressing major
problems the autonomous character of the social science disciplines -
that their own criteria of worthwhile scholarship - should not be
abandoned. Project Camelot lost sight of the "autonomous" social
science character.

It never seemed to occur to its personnel to inquire into the
desirability for successful revolution. This is just as solid a
line of inquiry as the one stressed - the conditions under which
revolutionary movements will be able to overthrow a government.
Furthermore, they seem not to have thought about inquiring into
the role of the United States in these countries. This points up
the lack of symmetry. The problem should have been phrased to in-
clude the study of "us" as well as "them." It is not possible to
make a decent analysis of a situation unless one takes into account
the role of all the different people and groups involved in it; and
there was no room in the design for such contingency analysis.

In discussing the policy impact on a social science research
project we should not overlook the difference between "contract"
work and "grants." Project Camelot commenced with the U.S. Army;
that is, to say it was initiated for a practical purpose determined
by the client. This differs markedly from the typical academic
grant in that its sponsorship had "build-in" ends. The scholar
usually seeks a grant; in this case the donor, the Army, promoted
its own aims. In some measure the hostility for Project Camelot
may be an unconscious reflection of this distinction - a dim feeling
that there was something "non-academic)" and certainly not dis-
interested about Project Camelot, irrespective of the quality of
the scholars associated with it.

The issue of "scientific rights" versus "social myths" is
perennial. Some maintain that the scientist ought not penetrate
beyond legally or morally sanctioned limits and others argue that
such limits cannot exist for science. In treading on the sensi-
tive issue of national sovereignty, Project Camelot reflects the
generalized dilemma. In deference to intelligent researchers, in
recognition of them as scholars, they should have been invited
by Camelot to air their misgivings and qualms about government (and
especially Army-sponsored) research - to declare their moral con-
science. Instead, they were mistakenly approached as skillful, use-
ful, potential employees of a higher body, subject to an authority
higher than their scientific calling.

What is central is not the political motives of the sponsor,
for social scientists were not being enlisted in an intelligence
system for "spying" purposes. But given their professional standing,
their great sense of intellectual honor and pride, they could not
be "employed" without proper deference for their stature. Profes-
sional authority should have prevailed from beginning to end with
complete command of the right to thrash out the moral and political
dilemmas as researchers saw them. The Army, however respectful and
protective of free expression, was "hiring help" and not openly and
honestly submitting a problem to the higher professional and scien-
tific authority of social science.

The propriety of the Army to define and delimit all questions
which Camelot should have had a right to examine was never placed
in doubt. This is a tragic precedent; it reflects the arrogance
of a consumer of intellectual merchandise. And this relationship
of inequality corrupted the lines of authority and profoundly limi-
ted the autonomy of the social scientists involved. It became clear

that the social scientist savant was not so much functioning as an
applied social scientist as he was supplying information to a power-
ful client.

The question of who sponsors research is not nearly so deci-
sive as the question of ultimate use of such information. The
sponsorship of a project, whether by the United States Army or
the Boy Scouts of America, is by itself neither good nor bad.
Sponsorship is good or bad only insofar as the intended outcomes
can be predetermined and the parameters of those intended outcomes
tailored to the sponsor's expectations.. Those social scientists
critical of the project never really denied its freedom and inde-
pendence but questioned instead the purpose and character of its
intended results.

It would be a gross oversimplification, if not an outright
error, to assume that the theoretical problems of Project Camelot
derive from any reactionary character of the project designers.
The director went far and wide to select a group of men for the ad-
visory board, the core planning group, the summer study group and
the various conference groupings who, in fact, were more liberal
in their orientation than any random sampling of the sociological
profession would likely turn up.

In nearly every page of the various working papers there are
assertions that clearly derive from American military policy objec-
tives rather than scientific method. The steady assumption that
internal warfare is damaging disregards the possibility that a govern-
ment may not be in a position to take actions either to relieve or
improve mass conditions, or that such actions as are contemplated
may be more concerned with reducing conflict than with improving
conditions. The added statements about the United States Army and

its "important mission in the positive and constructive aspects
of nation building..." assume the reality of such a function in
an utterly unquestioning and unconvincing form. The first rule
of the scientific game is not to make assumptions about friends
and enemies in such a way as to promote the use of different cri-
teria for the former and the latter.

The Pentagon Papers

The publication of the Pentagon Papers is of central impor-
tance to the social science community in at least two respects:
social scientists participated in the development of a posture and
position toward the Vietnam involvement; and at a more abstract
level, the publication of these papers provides lessons about poli-
tical participation and policy-making for the social sciences.

We live in an age in which the social sciences perform a spe-
cial and unique role in the lives of men and in the fates of govern-
ment, whatever be the status of social science theory. And because
the questions of laymen are no longer "is social science scientific,"
but "what kinds of recommendations are offered in the name of social
science," it is important that social scientists inquire as to any
special meaning of the Pentagon Papers and documents over and above
the general and broad-ranging discussions that take place in the
mass media. Thus, what follows is not to be construed as a general
discussion of issues but rather a specific discussion of results.

The Pentagon's project director for a History of United States
Decision-Making Process on Vietnam Policy (now simply known as The
Pentagon Papers), political scientist Leslie H. Gelb, now of Brook-
ings, remarked: "Writing history, especially where it blends into
current events, especially where the current event is Vietnam, is a
treacherous exercise." Former Secretary of Defense Robert S. McNamara

authorized this treacherous exercise of a treacherous conflict in
1967. In initiation and execution this was to be "encyclopedic
and objective." The actual compilation runs to 2.5 million words
and 47 volumes of narrative and documents. And from what has thus
far been made public, it is evident that this project was prepared
with the same bloodless, bureaucratic approach that characterizes
so much federally inspired/ social science and history. The Penta-
gon Papers attempt no original hypothesis, provide no insights in-
to the behavior of the "other side," make scant effort to select
important from trivial factors in the scalation process; they pre-
sent no real continuity with past American foreign policy/ and in
general eschew any sort of systematic survey research or interview-
of the participants and proponents. Yet, with all these shortcom-
ings, these materials offer a fascinating and unique account of how
peace-keeping agencies become transformed into policy-making agencies.
That this record was prepared by 36 political scientists, economists,
systems analysts, inside dopesters and outside social science re-
search agencies/ provides an additional fascination: how the govern-
ment has learned to entrust its official records to mandarin types
who in exchange for the cloak of anonymity are willing to prepare an
official record of events. An alarming oddity is that, in part at
least, the chronicle was prepared by analysts who were formerly par-
ticipants.

For those who have neither the time nor the patience to examine
every document thus far released it might be worthwhile to simply
summarize what they contain. In so doing it becomes clear that the
Vietnam War was neither a Democratic nor a Republican war, but a war
conducted by the political elite, often without regard to basic tech-
nical advice and considerations and for reasons that had far less to

do with curbing communism than with the failure of the other arms
of government in their responsibility to curb executive egotism.
The publication of these papers has chronicled this country's over-
seas involvement with a precision never before available to the
American public. Indeed, we now know more about decision-making
in Vietnam than about the processes by which we became involved
in the Korean War. For instance, we have learned that: (1) The
United States ignored eight direct appeals for aid from Ho Chi Minh
in the first half-year following World War II. Underlying the
American refusal to deal with the Vietnamese leader was the growth
of the cold war and the opposition to assisting a communist leader-
ship. (2) The Truman administration, by 1949, had already accepted
the "domino principle," after the National Security Council was
told, early in 1950, that the neighboring countries of Thailand and
Burma could be expected to fall under communist control if Vietnam
were controlled by a communist=dominated regime. (3) The Eisenhower
administration, particularly under the leadership of Secretary of
State John Foster Dulles, refused to accept the Geneva accords end-
ing the French-Indochina war on the grounds that it permitted this
country "only a limited influence" in the affairs of the fledgling
South Vietnam. Indeed, the Joint Chiefs of Staff opted in favor of
displacing France as the key influence rather than assisting the ter-
mination of hostilities. (4) The final years of the Eisenhower ad-
ministration were characterized by a decision to commit a relatively
small number of United States military personnel to maintain the Diem
regime in Saigon and to prevent a detente between Hanoi and Saigon.
(5) The Kennedy administration transformed the limited risk gamble
into an unlimited commitment. Although the troop levels were indeed
still quite limited, the Kennedy administration moved special forces

units into Vietnam, Laos and Cambodia, thus broadening the conflict to the area as a whole. (6) The Kennedy administration knew about and approved of plans for the military coup d'etat that overthrew President Diem. The United States gave its support to an army group committed to military dictatorship and no compromise with the Hanoi regime. (7) The Johnson administration extended the unlimited commitment to the military regime of Saigon. Under this administration, between 1965 and 1968, troop levels surpassed 500,000 and United States' participation was to include the management of the conflict and the training of the ARVN. (8) After the Tet offensive began in January 1968, Johnson, under strong prodding from the military Chiefs of Staff and from his field commanders, moved toward full-scale mobilization, including the call-up of reserves. By the termination of the Johnson administration the United States had been placed on a full-scale war footing.

Among the most important facts revealed by the papers is that the United States first opposed a settlement based on the Geneva accords, signed by all belligerents; that the United States had escalated the conflict far in advance of the Gulf of Tonkin incident and had used congressional approval for legitimating commitments already undertaken rather than as a response to new communist provocations; and finally, that in the face of internal opposition from the same Department of Defense that at first had sanctioned the war, the executive decided to disregard its own policy advisers and plunge ahead in a war already lost.

Impressive in this enumeration of policy decisions is the clinical way decisions were made. The substitution of war-game thinking for any real political thinking, the total submission of the Department of State to the Department of Defense in the making of foreign

policy / and the utter collapse of any faith in compromise, consensus or cooperation between nations, and the ludicrous pursuit of victory (or at least non-defeat) in Vietnam, all are so forcefully illustrated in these Pentagon Papers, that the vigor with which their release was opposed by the Attorney General's office and the executive branch of government generally, can well be appreciated.

A major difficulty with the thinking of the new civilian militarists is that they study war while ignoring politics (Horowitz, 1963). The recent disclosure of the Pentagon Papers bears out this contention with a vengeance; a kind of hot-house scientology emerges in which the ends of foreign policy are neatly separated from the instruments of immediate destruction. That a certain shock and cynicism have emerged as a result of the revelations in these papers is more attributable to the loss of a war than to the novelty of the revelations. The cast of characters that have dragged us through the mire of a bloody conflict in Southeast Asia, from Walt W. Rostow to Henry A. Kissinger, remains to haunt us and taunt us. They move in and out of administrations with an ease that belies political party differences and underscores the existence of not merely a set of "experts," but rather a well-defined ruling class dedicated to manufacturing and manipulating political formulas.

The great volume of materials thus far revealed is characterized by few obvious themes; but one of the more evident is the utter separation of the purposes of devastation from comprehension of the effects of such devastation. A kind of Howard Johnson sanitized vision of conflict emerges that reveals a gulf between the policy-makers and battlefield soldiers that is even wider and longer than the distance between Saigon and Washington. If the concept of war-gaming is shocking in retrospect, this is probably due more to its utter and

contemptible failure to provide battlefield victories than to any
real development in social and behavioral science beyond the shib-
boleths of decision theory and game theory.

A number of researchers as well as analysts of the Pentagon
Papers were themselves social scientists. There were political
scientists of considerable distinction, such as Morton Halperin and
Melvin Gurtov; economists of great renown, such as Walt W. Rostow
and Daniel Ellsberg; and systems analysts, such as Alain Enthoven.
And then there was an assorted group of people, often trained in
law, such as Roger Fisher and Carl Kaysen, weaving in and out of
the Papers, providing both point and counterpoint. There are the
thoroughly hawkish views of Walt Rostow; and the cautionary per-
spective of Alain Enthoven; and the more liberal recommendations
of people like Roger Fisher. But it is clear that social scien-
tists descend in importance as they move from hawk to dove. Walt
Rostow is a central figure, and people like Carl Kaysen and Roger
Fisher are at most peripheral consultants - who, in fact, seem to
have been more often conservatized and impressed by the pressurized
Washington atmosphere than to have had an impact on the liberaliza-
tion or softening of the Vietnam posture.

The social scientific contingency in the Pentagon were by no
means uniform in their reactions to the quagmire in Vietnam. Poli-
tical scientists like Morton H. Halperin and economist like Alain
C. Enthoven did provide cautionary responses, if not outright cri-
ticisms of the repeated and incessant requests for troop buildups.
The Tet offensive, which made incontrovertible the vulnerability
of the American posture, called forth demands for higher troop levels
on the part of Generals William C. Westmoreland and Maxwell Taylor.

Enthoven, in particular, opposed this emphatically and courageously:
"Our strategy of attrition has not worked. Adding 206,000 more
U.S. men to a force of 525,000, gaining only 27 additional maneu-
ver battalions and 270 tactical fighters at an added cost to the
U.S. of $10 billion per year, raises the question of who is making
it costly for whom.... We know that despite a massive influx of
500,000 U.S. troops, 1.2 million tons of bombs a year, 200,000 enemy
killed in action in three years, 200,000 U.S. wounded in action, etc.,
our control of the countryside and the defense of the urban areas
is now essentially at pre-August 1965 levels. We have achieved
stalemate at a high commitment. A new strategy must be sought."
In the same month, March 1968, when Enthoven prepared this critical
and balanced report, he wrote a curious paper on "Thomism and the
Concept of Just and Unjust Warfare," which, in retrospect, seemed
to be Enthoven's way of letting people know that he was a dissenting
voice despite his earlier commitment to war-game ideology and whiz-
kid strategy.

As a result of these memoranda, Assistant Defense Secretary
Paul Warnke argued against increased bombing and for a bombing pause.
He and Assistant Secretary of Defense for Public Affairs Phil G.
Goulding were then simply directed to write a draft that "would deal
only with the troop issue," hence forcing them to abandon the in-
ternal fight against an "expansion of the air war." And as it final-
ly went to the White House, the report was bleached of any criticism.
The mandarin role of the social scientists was reaffirmed. President
Johnson's commitments went unchallenged. The final memo advocated
deployment of 22,000 more troops, reserved judgment on the deploy-
ments of the remaining 185,000 troops and approved a 262,000 troop
reserve build-up; it urged no new peace initiatives and simply de-

clared that a division of opinion existed on the bombing policy
making it appear that the division in opinion was only tactical
in nature. As the Pentagon Papers declared:

Faced with a fork in the road of our Vietnam policy, the
working group failed to seize the opportunity to change directions.
Indeed, they seemed to recommend that we continue, rather halting-
ly down the same road, meanwhile, consulting the map more frequent-
ly and in greater detail to insure that we were still on the right
road.

One strange aspect of this war game strategy is how little
the moves and motives of the so-called "other side" were ever taken
into account. There is no real appreciation of the distinction be-
tween North Vietnam and the National Liberation Front of South Viet-
nam. There is not the slightest account taken of the actual deci-
sions made by General Giap or Chairman Ho. The Tet offensive seems
to have taken our grand strategists by as much surprise as the poli-
tical elites whom they were planning for. While they were beginning
to recognize the actual balance of military forces, Wilfred Burchett
had already declared, in 1967 to be exact, that the consequences of
the war were no longer in doubt - United States involvement could not
forestall a victory of the communist factions North and South. Thus,
not only do the Pentagon Papers reveal the usual ignorance of the
customs, languages and habits of the people being so brutally treated,
but also the unanticipated arrogance of assuming throughout that logi-
stics would conquer all. Even the doves like George W. Ball never
doubted for a moment that an influx of a certain number of United States
troops would in fact swing the tide of battle the way that General
Westmoreland said it would. The argument was rather over tactics: is
such a heavy investment worth the end results? In fact, not one inner

circle "wise man" raised the issue that the size of the troop commit-
ment might be basically irrelevant to the negative (from an American
viewpoint) outcome of the Southeast Asian operations.   One no longer
expects good history or decent ethnography from those who advise the
rulers, but when this is compounded with a heavy dose of impoverished
war gaming and strategic thinking in the void, then the question of
"science for whom" might well be converted into the question of "what
science and by whom."

All of this points up a tragic flaw in policy-making by social
science experts.   Their failure to generate or to reflect a larger
constituency outside of themselves made them continually vulnerable
to assaults from the military and from the more conservative sectors
of the Pentagon.   This vulnerability was so great that throughout
the Pentagon Papers one senses that the hawk position is always and
uniformly outspoken and direct while the dove position is always and
uniformly ubiquitous and indirect.   The basis of democratic politics
has always been the mass participation of an informed electorate.
Yet it was precisely this informed public, where a consensus against
the war had been building, that was cut off from the policy-planners
and recommenders.   Consequently they were left in pristine isola-
tion to pit their logic against the crackpot realism of their mili-
tary adversaries within the bowels of government.

Certain serious problems arose precisely because of the secrecy
tag; for example, former Vice President Hubert Humphrey and Secretary
of State Dean Rusk have both denied having any knowledge whatsoever
of these papers.   Dean Rusk went so far as to say that the research
methodology was handled poorly: "I'm rather curious about why the
analysts who put this study together did not interview us, particu-
larly when they were attributing attitudes and motives to us."

(New York Times, Saturday, July 3, 1971). Perhaps more telling
is Dean Rusk's suggestion that the Pentagon Papers have the charac-
teristics of an anonymous letter. Along with Dean Rusk, others too
believe that the names of the roughly 40 scholars connected with
the production of these papers should be published. To do other-
wise would not only prevent the people involved from checking the
veracity of the stories attributed to them, but more important,
would keep the social science community from gaining a clearer in-
sight into the multiple roles of scholars, researchers, professors
and government analysts and policy-makers. The nature of science
requires that the human authorities behind these multi-volumes be
identified, as in the precedent established by the identification
of the authors of the various bombing surveys done after World War
II and the Korean War.

One serendipitous consequence of the Pentagon Papers has been
to provide a more meaningful perspective toward the proposed "Code
of Ethics" being advanced by so many social science professional
associations. They all deal with the sanctity of the "subject's
rights." All sorts of words guarding privacy are used: "rights of
privacy and dignity," "protection of subjects from personal harm,"
"preservation of confidentiality of research data." The American
Sociological Association proposals for example, are typical:

Confidential information provided by a research subject must
be treated as such by the sociologist. Even though research in-
formation is not a privileged communication under the law, the
sociologist must, as far as possible, protect subjects and infor-
mants. Any promises made to such persons must be honored.... If an
informant or other subject should wish, however, he can formally
release the promise of confidentiality.

While the purpose of this code of ethics is sincerely geared
to the protection of individuals under study, if taken literally,
a man like Daniel Ellsberg would be subject to penalty, if not
outright expulsion, on the grounds that he was never allowed by the
individuals concerned to make his information public. What so many
professional societies forget is that the right to full disclosure
is also a principle, just as significant as the right of the pri-
vate subject to confidentiality and far more germane to the tasks
of a social scientific learned society. The truly difficult ethi-
cal question comes not with the idea of maintaining confidentia-
lity, but with determining what would be confidential and when such
confidentiality should be violated in terms of a higher principle.
All social science codes of ethics presume an ethical standpoint
which limits scientific endeavor, but when it is expedient to ignore
or forget this ethical code, as in the case of the Pentagon Papers,
the profession embarrassingly chooses to exhibit such a memory lapse.
The publication of the Pentagon Papers should once again point the
way to the highest obligation of social science organizations: to
the truth, plain and simple, rather than the preservation of confi-
dentiality, high and mighty. And unless this lesson is fully drawn,
a dichotomous arrangement will be made between making public the docu-
ments of public servants whose policies they disapprove of, and keep-
ing private the documentation on deviants whom supposedly the social
scientists are concerned with protecting. This is not an ethical
approach but an opportunistic approach. It rests on political and
professional expediency. The need therefore, is to reassert the re-
quisites of science for full disclosure and the ethics of full dis-
closure as the only possible ethics for any group of professional
scientists. If the release of the Pentagon Papers has done nothing

else it has reaffirmed the highest principle of all science: full disclosure, full review of the data and full responsibility for what is done, by those who do the research.

Another area that deeply concerns the social scientist and that is highlighted in the Pentagon Papers is the government's established norms of secrecy. While most officials in government have a series of work norms with which to guide their behavior, few forms of anticipatory socialization have applied to social scientists who advise government agencies. The professionalism of social scientists has normally been directed toward publicity rather than secrecy. This fosters sharp difference in opinion and attitudes between the polity and the academy since the reward system for career advancement is so clearly polarized.

The question of secrecy is intimately connected with matters of policy because the standing assumption of policy-makers (particularly in the field of foreign affairs) is not to reveal themselves entirely. No government in the game of international politics feels that its policies can be candidly revealed for full public review; therefore, operational research done in connection with policy considerations is customarily bound by the canons of government privacy. But while scientists have a fetish for publicizing their information as a mechanism for professional advancement no less than as a definition of their essential role in the society, the political branches of society have as their fetish the protection of private documents and privileged information. Therefore, the polity places a premium not only on acquiring vital information but also on maintaining silence about such information precisely to the degree that the data might be of high decisional value. This leads to differing premiums between analysts and policy-makers and to tensions between them.

Social scientists complain that the norm of secrecy oftentimes involves yielding their own essential work premises. A critical factor reinforcing an unwilling acceptance of the norm of secrecy by social scientists is the allocation of most government research funds for military or semi-military purposes. Senate testimony has shown that 70 percent of federal funds targeted for the social sciences involve such restrictions.

The real wonder turns out to be not the existence of the secrecy norm but the relative availability of large chunks of information. Indeed, the classification of materials is so inept that documents (such as the Pax America research) designated as confidential or secret by one agency, may often be made available as a public service by another agency. There are also occasions when documents placed in a classified category by sponsoring government agencies can be gotten without charge from the private research institute doing the work. But the main point is that the norm of secrecy makes it extremely difficult to separate science from patriotism and hence makes it that much more difficult to question the research itself. Social scientists often express the nagging doubt that accepting the first stage - the right of the government to maintain secrecy - often carries with it acquiescence in a later stage - the necessity for silence on the part of social researchers who may disagree with the political uses of their efforts.

The demand for government secrecy has a telling impact on the methodology of the social sciences. Presumably social scientists are employed because they, as a group, represent objectivity and honesty. Social scientists like to envision themselves as a wall of truth off which policy-makers may bounce their premises. They also like to think that they provide information which cannot be

derived from sheer public opinion. Thus, to some degree, social
scientists consider that they are hired or utilized by government
agencies because they will say things that may be unpopular but
nonetheless significant. However, since secrecy exists, the pre-
mises upon which most social scientists seek to work are strained
by the very agencies which contract out their need to know. The
terms of research and conditions of work tend to demand an initial
compromise with social science methodology. The social scientist
is placed in a cognitive bind. He is conditioned not to reveal
maximum information lest he become victimized by the federal agen-
cies that employ his services. Yet he is employed precisely be-
cause of his presumed thoroughness, impartiality and candor. The
social scientist who survives in government service becomes cir-
cumspect or learns to play the game. His value to social science
becomes seriously jeopardized. On the other hand, once he raises
these considerations his usefulness to the policy-making sector is
likewise jeopardized.

Social scientists believe that openness is more than meeting
formal requirements of scientific canons; it is also a matter of
making information universally available. The norm of secrecy
leads to selective presentation of data. The social scientist is
impeded by the policy-maker because of contrasting notions about
the significance of data and the general need for replication else-
where and by others. The policy-maker who demands differential
access to findings considers this a normal return for the initial
expenditure of risk capital. Since this utilitarian concept of
data is alien to the scientific standpoint, the schism between the
social scientist and the policy-maker becomes pronounced precise-
ly at the level of openness of information and accessibility to

the work achieved. The social scientist's general attitude is that
sponsorship of research does not entitle any one sector to benefit
unduly from the findings - that sponsorship by federal agencies
ought not place greater limitations on the use of work done than
sponsorship by either private agencies or universities.

A major area that deeply concerns social scientists is that
of dual allegiance. The Pentagon Papers have such specific require-
ments and goal-oriented tasks that they intrude upon the autonomy
of the social scientist by forcing upon him choices between dual
allegiances. The researcher is compelled to choose between parti-
cipating fully in the world of the federal bureaucracy or remain-
ing in more familiar academic confines. He does not want the former
to create isolation in the latter. Thus, he often criticizes the
federal bureaucracy's unwillingness to recognize his basic needs:
(1) the need to teach and retain full academic identity; (2)
the need to publicize information; and above all, (3) the need to
place scientific responsibility above the call of patriotic obli-
gation - when they may happen to clash. In short, he does not want
to be plagued by dual or competing allegiances. The norm of secrecy
exacerbates this problem. Although many of the social scientists
who become involved with federal research are intrigued by the op-
portunity to address important issues, they are confronted by some
bureaucracies which oftentimes do not share their passion for re-
solving social problems. For example, federal obligations commit
the bureaucracy to assign high priority to items having military
potential and effectiveness and low priorities to many supposedly
idealistic and far-fetched themes in which social scientists are
interested.

Those social scientists, either as employees or as consultants connected with the government, are hamstrung by federal agencies which are, in turn, limited by political circumstances beyond their control. A federal bureaucracy must manage cumbersome, overgrown committees and data-gathering agencies. Federal agencies often protect a status quo merely for the sake of rational functioning. They must conceive of academicians in their midst as a standard bureaucratic type entitled to rise to certain federal ranks. Federal agencies limit innovating concepts to what is immediately useful, not out of choice and certainly not out of resentment of the social sciences, but from what is deemed as impersonal necessity. This has the effect of reducing the social scientist's role in the government to that of ally or advocate rather than innovator or designer. Social scientists begin to feel that their enthusiasm for rapid change is unrealistic, considering how little can be done by the government bureaucracy. And they come to resent involvement in theory-less application to immediacy foisted on them by the "new utopians," surrendering in the process the value of confronting men with the wide range of choices of what might be done. The schism then between autonomy and involvement is as thorough as that between secrecy and publicity, for it cuts to the quick well-intentioned pretensions at human engineering.

The problem of competing allegiances is not made simpler by the fact that many high-ranking federal bureaucrats have strong nationalistic and conservative political ideologies. This contrasts markedly with the social scientist who comes to Washington not only with a belief in the primacy of science over patriotism but also with a definition of patriotism that is more open-ended and con-

sciously liberal than that of most appointed officials. Hence,
he often perceives the conflict to extend beyond research design
and social applicability into one of the incompatible ideologies
held respectively by the social scientist and entrenched Washington
bureaucrats. He comes to resent the proprietary attitude of the
bureaucrat toward "his" government processes. The social scien-
tist is likely to consider his social science biases a necessary
buffer against the federal bureaucracy.

The publication of the Pentagon Papers sheds new light on poli-
tical pluralist and power concentrationist hypotheses. When push
finally did turn to shove, President Nixon and the government offi-
cials behaved as members of a ruling class and not as leaders of
their political party. President Nixon might easily have chosen
to let the Democratic party take the burn and bear the brunt of the
assaults for the betrayal of a public trust. Indeed, the Nixon
administration might have chosen to join the chorus of those argu-
ing that the Democratic party is indeed the war party as revealed
in these documents; whereas the Republican party emerges as the par-
ty of restraint - if not exactly principle. Here was a stunning
opportunity for Mr. Nixon to make political capital at a no risk
basis by simply drawing attention to the fact that the war was
constantly escalated by President Truman, who refused to bargain
in good faith with Ho Chi Minh despite repeated requests by President
Kennedy who moved far beyond anything President Eisenhower had in
mind for the area by making the fatal commitment not just to land
troops but to adopt a domino theory of winning the war by President
Johnson, whose role can well be considered as nefarious: coming
before the American people as a peace candidate when he had already
made the fatal series of commitments to continuing escalation and

warfare. That the president chose not to do so illustrates the
sense of class solidarity that the political elites in this coun-
try manifest; a sense of collective betrayal of the priesthood
rather than a sense of obligation to score political points and
gain political trophies. And that too should be a lesson in terms
of the actual power within the political structure of a small rul-
ing elite. Surely this must be considered a fascinating episode
in its own right: the reasons are complex, but ~~surely~~ among them
must rank the belief that Mr. Nixon behaved as a member of the
ruling elite, an elite that had transcendent obligations far be-
yond the call of party, and that was the call of class.

One fact made clear by the Pentagon Papers is the extent to
which presidentialism has become the ideology and the style in Ameri-
can political life. The infrequency of any reference to the judi-
cial situation with respect to the war in Southeast Asia and the
virtual absence of any reference to congressional sentiments are
startling confirmations of an utter change in the American poli-
tical style. If any proof was needed of the emerging imbalance
between the executive and other branches of government, these papers
should put such doubt to rest. The theory of checks and balances
works only when they are, in fact, groups such as senators or stub-
born judges who believe in the responsibility of the judiciary and
legislative branches to do just that, namely, establish check and
balance. In the absence of such vigor the war in Southeast Asia
became very much a series of executive actions. And this itself
should give pause to the advocates of consensus theory in political
science.

The failure of the Vietnam episode has resulted in a recon-
sideration of presidentialism as the specific contemporary variant

of power elite theory. The renewed vigor of Congress, the willing-
ness, albeit cautionary willingness, of the Supreme Court to rule
on fundamental points of constitutional law, are indicative of the
resurgence of pluralism. In this sense, the darkest hour of liberal-
ism as a political style, has witnessed a liberal regrouping around
the theme of mass politics. Even the domestic notions of communi-
ty organization and states' rights are indicative of the limits of
presidentialism - so that Mr. Nixon, at one and the same time, is
reluctantly presiding over the swan song of presidentialism in for-
eign affairs while celebrating its demise in domestic affairs. The
collapse of the Vietnam War and the trends toward neo-isolationism
are in fact simply the reappearance of political pluralism in a con-
text, where to go further in the concentration of political power
in the presidency would in all likelihood mean the upsurge of fas-
cism, American style. If the concept of a power elite was reconfirmed
in the Pentagon Papers so, too, strangely, was the concept of poli-
tical pluralism in the public response to them. The countervailing
influence of the Supreme Court was clearly manifested in the ringing
affirmation of the First Amendment, in the denial of the concept of
prior restraint and prior punitive actions and in the very rapidity
of the decision itself. This action by the judiciary, coupled with
a show of muscle on the part of the Senate and House concerning the
conduct of the war, military appropriations, boondoggles and spe-
cial privileges for a select handful of aircraft industries, in
their own way served to underscore the continued importance of
the open society and the pluralistic basis of power. Even executives,
such as Hubert H. Humphrey, have declared in favor of full disclosure
and reiterated the principles guiding the publication of the Pentagon
Papers.

Power elites operate behind a cloak of anonymity. When that
cloak is lifted an obvious impairment in the operational efficiency
of elites occurs. What has happened with the release of the Penta-
gon Papers is precisely this collapse of anonymity, no less than
secrecy. As a result, the formal apparatus of government can assert
its prerogatives. This does not mean that the executive branch
of government will be unable to recover from this blow at its pres-
tige or that it will no longer attempt to play its trump card:
decision-making by executive fiat. It does mean, however, that the
optimal conditions under which power elites operate have been ser-
iously hampered. The degree of this impairment and the length of
time it will obtain depend exclusively on the politics of awareness
and participation, no less than the continuing pressures for lower-
ing the secrecy levels in high-level international decision-making.

Probably the most compelling set of reasons given for Presi-
dent Nixon's bitter opposition to the release of the Pentagon Papers
is that provided by Melvin Gurtov, one of the authors of the secret
Pentagon study and an outstanding political scientist specializing
in Asian affairs. He speaks of three deceits in current American
Vietnamese policy: "The first and most basic deceit is the Admini-
stration's contention that we're winding down and getting out of
the war." In fact, Vietnamization is a "domestic political ploy
that really involves the substitution of air power for ground power."
The second deceit is that "we're truly interested in seeing the pri-
soners of war released." Gurtov notes that "as far as this admini-
stration is concerned the prisoners of war are a political device,
a device for rationalizing escalation, by saying these are acts that
are necessary to show our concern for the prisoners." The third
deceit "is that under the Nixon Doctrine the United States is not

interested in making new commitments in Asia." In fact, the ad-
ministration used the Cambodia coup "as an opportunity for creat-
ing for itself a new commitment in Southeast Asia, namely the sur-
vival of a non-Communits regime in Pnompenh." This outspoken posi-
tion indicates that the defense of the power elite of the past by
President Nixon might just as well be construed as a self-defense
of the power elite in the present.

The Pentagon Papers provide much new light on theories of power
elite and power diffusion and also provide an equal measure of in-
formation on conspiracy theory. And while it is still true that
conspiracies theory is bad theory, it is false to assert that no
conspiracies exist or are not perpetrated by the government. It
might indeed be the case that all governments, insofar as they are
formal organizations, have secrets; and we call these secrets con-
spiracies. From this point of view the interesting question is how
so few leaks resulted from an effort of such magnitude and involv-
ing so many people as setting policy in the Vietnam War. Rather
than be surprised that these papers reached the public domain four
to six years after the fact, one should wonder how the government
was able to maintain silence on matters of such far ranging and far-
reaching consequence.

Cyrus Eaton, American industrialist and confidant of many com-
munist leaders, indicates that the Vietnamese almost instantaneous-
ly were made aware of United States policy decision. But there is
serious doubt that they actually had copies of these materials. Ra-
ther, like the American public itself, they were informed about the
decisions but not the cogitations and agitations that went into the
final decision. Perhaps this is the way all governments operate;
nonetheless, it is fascinating - at least this once - to be privy to

the process and not simply the outcome and to see the foibles of powerful men and not just the fables manufactured for these men after the fact.

These papers tend to underwrite the common-sensical point of view that governments are not to be trusted, and to undermine the more sophisticated interpretation that governments are dedicated to the task of maintaining democracy at home and peace abroad. As bitter as it may seem, common sense cynicism has more to recommend it than the sophisticated, well-elaborated viewpoints which take literally the formal structure of government and so readily tend to dismiss the informal response to power and pressure from men at the top. The constant wavering of Lyndon B. Johnson, his bellicose defiance of all evidence and information that the bombings were not having the intended effect, followed by shock that his lieutenants like Robert McNamara changed their position at midstream (which almost constituted a betrayal in the eyes of the president) were in turn followed by a more relaxed posture and a final decision not to seek the presidency. All of this forms a human drama that makes the political process at once fascinating and frightful; fascinating because we can see the psychology of politics in action, and frightful because the presumed rationality is by no means uniformly present (cf. Horowitz, 1971:37-46).

The publication of the Pentagon Papers, while a considerable victory for the rights of a free press and of special significance to all scientists who still uphold the principle of full disclosure as the norm of all political as well as scientific endeavor, is not yet a total victory for a democratic society - that can only happen when the concept of secrecy is itself probed and penetrated and when the concept of undeclared warfare is finally and fully repudiated

by the public and its representatives. The behavior of the govern-
ment in its effort to suppress publication of the Pentagon Papers
cannot simply be viewed as idiosyncratic but rather as a part of the
structure of the American political processes in which the expert
displaces the politician, and the politicians themselves become so
beholden to the class of experts for information that they dare not
turn for guidance to the people they serve. For years, critics of
the Vietnam War have been silenced and intimidated by the policy-
makers' insistence that when all the facts were known the hawk posi-
tion would be vindicated and the dove position would be violated.
Many of the facts are now revealed - and the bankruptcy of the ad-
vocates of continued escalation is plain for all to see. Hopefully,
this will strengthen the prospects for peace and firm up the criti-
cal capacities of those who, as an automatic reflex, assume the cor-
rectness of the government's position on military affairs.

VII.   CASE STUDIES <u>OF</u> SOCIAL SCIENCE PARTICIPATION IN AMERICAN <u>DOMESTIC POLICY</u>

In a broad survey, it is not possible to statistically measure the rate of failure and success in key policy operations involving an emphatic social science input. But what is clear from the cases cited of foreign policy involvement, is that social science does not, in and of itself, help create policy cohesion. Beyond that, social science participation can not undo the wrongs committed by bureaucrats, politicians and other elite groups. As if to deepen an appreciation of the ancillary, if important, role of social science, we see the same phenomenon operating in reverse within the United States proper. On domestic policy decisions, where a much higher consensus concerning American national goals exists, one finds a much broader acceptance of the social scientists by policy agencies and, in addition, a higher professional approbation for doing such consulting, advisory and evaluating work.

If this line of analysis is correct, then the assumption that social scientists behave as Platonic holders of power or as Machiavellian advisors to power, is in need of drastic modification. For it is more nearly the case that social scientists, sharing as they do the liberal sentiments of that portion of the social stratification system from which they emanate, seek to implement such sentiments with the professional skills and know-how they possess. As a result, a reciprocity often exists between innovative domestic programs and avant-garde thinking in the social sciences (cf. Glazer, 1972:149-181). But such inputs are more nearly indicative of a subordinate rather than superordinate character. More bluntly still, social scientists perform essential janitorial "mopping up" duties

as well as mandarin services of rationalizing policy claims.
They do not sit as Olympian deities over the conduct of United
States affairs. A survey of major domestic policy programs and
the social science participation in them, should help make this
much clear.

Project Clear

The decision to desegregate the armed forces, which, in retro-
spect seems to have both an obvious and modest consequence of a
World War fought on behalf of democratic principles, did not have
quite so obvious a flavor a quarter century ago. Indeed, the execu-
tive, presidential attempts in this direction were frustrated by a
military high command that did not wish to see the armed forces
turned into an experimental camping grounds. In the words of the
then Chief of Staff, General Omar Bradley: "The Army is not out
to make any social reforms. The Army will put men of different
races in different companies. It will change that policy when the
nation as a whole changes it" (cf. Baldwin, 1948:51).

Given such a genuine and deep split between an executive branch
of government that wanted to quickly move toward a more democratic
army and a victorious military army equally unwilling to see tradi-
tional privilege and prestige tampered with, the utilization of the
social sciences to bring off a new social policy must be seen as
innovative as well as interesting; a precedent-setting even of
greater consequence than any of the original participants probably
imagined.

In July/1948, President Harry Truman issued Executive Order
9981 which stated that "there shall be equality of treatment and
opportunity for all persons in the armed services without regard
to race, color, religion or national origin." This order had an

even greater impact on the outlook and aspirations of Negroes than President Roosevelt's earlier Order 8802 forbidding discrimination among war contractors, issued in June/ 1941 (cf. Broom and Glenn, 1965:60). However, neither the Executive order nor the Military resistance perceived the actual modesty of the proposed reform. What was promised and delivered was equality of opportunity, not integration of the armed forces and certainly not any program of "affirmative action" to advance Blacks to officer ranks as rapidly as possible (Stillam, 1968:43).

The urgings for racial reform in the armed forces were brought about by a combination of factors, chief of which were: (a) the hard-headed recognition that Black political strength in Northern urban regions had to be taken into account; (b) the relatively poor performance of racially segregated combat units in both World War II and the early stages of the Korean conflict; and (c) the military awareness that segregation required extra-strength units at a time of a shrinking overall manpower situation in the military (cf. Delfiume, 1969:204/ and Bogart, 1969:10).

The question of desegregation of the armed forces was hardly a matter confined to the military itself. It enlisted the cause of liberal Congressional opinion as well as a solid phalanx of Black political support against segregation; while on the side of traditionalism and racial separation were the Dixiecrat Congressmen, professional career officers generally/ and the usual bureaucratic inertia to avoid any controversy. Yet, there was a shrewd realization that strong hierarchical structures like the armed forces have been able to bring about desegregation more efficiently than institutions that depend upon voluntary action (cf. Bogart, 1969:39). Under such circumstances, the role of the social sciences, clearly

thrown in on the side of reform and racial equity, represented a considerable realization that simple legal mandate or executive order could not, by themselves, achieve the necessary public base of support that would convert an edict into a practice. There were many factors in the desegregation rulings that were crystalized in the military regulations published by the army in January 1950 that established a policy of equality of treatment and opportunity for all persons in the army without regard to race, color, religion or national origin. But above all, this process of conflict resolution took place largely without benefit of social science advisors.

An outstanding team of social scientists became involved with the Operations Research Office (ORO) in 1950. "To initiate a project to determine how best to utilize Negro personnel within the army". The work done under the label "Project Clear" was stated by one high ORO official as: "The Army wants to know what to do with all their niggers." The "Research staff" was then called into existence after and not before desegregation became the undeclared policy of the United States Army.

The social sciences were once again called upon as a legitimizing agency. Social scientists were to provide operational data on utilization of manpower resources rather than on the desirability or feasibility of segregation or integration; which had already been widely acknowledged by high military officials. In his summation of social science and public policy on this matter, Bogart pointed out that: "The Army's desegregation was willed by historical necessity, not by research. It would have come about without Project Clear, and perhaps not very differently or very much later. Social research was conducted on a large scale and at a substantial expense in the process of arriving at the decision and in working

out the procedure for implementing and enforcing it. This means
that both the major decision and all the subsidiary decisions cannot
really be divorced from the influence of the studies" (Bogart, 1969:41).

Project Clear reported four main findings on the "Integration
experience": (1) strong hierarchical structures like the army have
been able to desegregate more efficiently than institutions depend-
ing upon voluntary action; (2) black Americans in and out of the
army resent enforced segregation; (3) many black officers and
noncoms hold positions of rank and privilege to which they could
not return if the armed forces desegregation were to cease imme-
diately; (4) there is a de facto segregation in the army despite
the de jure bans against segregation.

Project Clear enabled the armed forces to claim a pioneering
role in the successful integration of black and white troops in a
formerly segregated institution. It was also the precedent which
provided a model for the civilian Job Corps two decades later, and
the overall desegregation of government institutions. However, it
must also be pointed out that such domestic good works also helped
to point up the limitations of social science in policy roles. For
at no point in the research did the overall weakness in military
structure or military system get dealt with. The social sciences,
like the federal agencies being served, were concerned with creat-
ing mechanisms to reform an institution, not to reveal how the very
existence of such an institution itself might provide a limitation
upon democratic premises and principles.

Brown vs. Board of Education

This Supreme Court decision marks the most significant utiliza-
tion of social science inputs into the direct transformation of do-
mestic policy. On May 17, 1954, the Supreme Court of the United

States handed down a ruling that announced the beginning full citizenship for the country's largest minority. On that day the Court ruled that segregation in the nation's schools was unconstitutional. Twenty-one states that either permitted or required separate school systems for Negroes and whites were told that "separate but equal" was no longer the law of the land. "Separate educational facilities are inherently unequal," declared Chief Justice Earl Warren for the unanimous court.

The school decision was bound to be controversial for in spite of a score of rulings against higher-education segregation in the nation's highest courts, the principle of "separate but equal" as enunciated in Plessy v. Ferguson had never been challenged. It is probable that those Southerners who were watching the pattern of decision-making in the courts expected that, sooner or later, segregation would have to come to an end. But it is likely that they expected an incremental step; the sweeping nature of the pronouncement -- which, after all, was made by a Court comprised of three Southerners and a brand-new Chief Justice with very little judicial background -- fueled the outrage with which it was greeted in the South.

It was a surprising decision, not especially because it ruled for the Negro appellants, but because of the apparent basis of the decision. The Court made virtually no effort to argue from legal precedent. The basis of the decision was, in effect, that times have changed: modern sociological and psychological evidence shows that separate educational facilities are damaging to Negroes. The courts quoted with favor the finding of the Kansas case court: "Segregation of white and colored children in public schools has a detrimental effect upon the colored children. The impact is greater

when it has the sanction of the law; for the policy of separating

the races is usually interpreted as denoting the inferiority of the

negro group. A sense of inferiority affects the motivation of a

child to learn. Segregation with the sanction of law, therefore,

has a tendency to retard the educational and mental development

of negro children and to deprive them of some of the benefits they

would receive in a racially integrated school system" (cf. Clark

and Kamisar, 1969:330).

The social science evidence presented and discovered through

its own research, the court stated, led it to conclude that the

plaintiffs were, by reason of segregation, "deprived of the equal

protection of the law guaranteed by the Fourteenth Amendment." The

decision to a significant degree; represented; and more importantly,

was perceived as a shift from judicial decision based primarily (if

not exclusively) on legal precedent to one based on presumed facts

of social change. That perception had no disastrous consequences

for the court or the decision but it ushered in a period of intense

criticism from conservative sectors which argued that the court

was acting as a policy-making body by using non-legal evidence to

reach its decision; that social science was an improper form of

evidence; and that if the evidence used was invaled the decision

must also be invalid.

Social scientists themselves were not entirely confident of the

worth of the evidence submitted in the school segregation cases. The

argument went that since the court itself has criticized the intro-

duction of non-legal evidence on numerous occasions, and of social

science in particular, a decision based on such evidence was clear-

ly erroneous. There was also some effort to impugn the integrity

of the experts called upon to testify: Kenneth Clark was said to

be biased since he was employed by the NAACP; Gunnar Myrdal was
called a socialist who had been unforgivably critical of the United
States in the work cited (An American Dilemma). The attempt over-
all was clearly to attack the use of social science in general, and
the quality of the social science cited. A third tactic is sugges-
ted by a speech by Strom Thurmond after the implementation decision.
"We might do well," he said, "to adopt the tactics of our opponents.
If propaganda and psychological evidence are effective for our op-
ponents they can be effective for us. Our worthy objective of pre-
serving the Constitution justifies the method" (Thurmond, 1956:22-32).

In other words, if one cannot prove that social science is not
a legitimate form of evidence in the courts and that the social
science used was poor social science, then one should present his
own social science evidence to the contrary. A concerted effort
was mounted in the period after 1955 to persuade the Court to re-
verse itself and to gain support among the public for the idea that
Negroes are inherently unequal. After the school segregation de-
cisions, an attempt was made to formulate a scientific defense for
segregated education. The evidence for segregation usually took
the form of investigations of comparative racial intelligence, psy-
chological test results and the relative intellectual capacity of
whites and Negroes. Research also began to appear on the psychic
traits and personality characteristics of the races, and the extent
to which they are transmitted by heredity or dictated by environ-
ment. This debate has persisted to this day despite the legislative
success of the advocates of civil rights, and many of those who argue
the case for innate racial differences have been taken quite serious-
ly. Arthur Jensen and Robert Herrnstein are the most recent examples.

The attempt to set up a countervailing body of popular opin-
ion, buttressed by the expert opinion described above, was reinfor-
ced by supporters who, whether or not they agreed with the decision,
were concerned about some of its implications. Advocates of states'
rights felt that the decision granted too much power to the federal
government and that it represented a fundamental interference with
states' rights, that is, the right of a state to educate its chil-
dren in accordance with the majority of its citizens' wishes.
Strict constitutionalists felt that it signified an imbalance of
power in the judiciary, and judicial conservatives worried about
the implications of the use of something so temporal as social
science. Unlike legal evidence, it was argued, social science evi-
dence may change with the frame of mind of the researcher. It is
very close to opinion and is certainly not "science" as is, for
example, physics. This attitude, which was far from uncommon, sug-
gests a fundamental misunderstanding about the nature of social
science. Because social scientists could not point to a body of
social science "law", some laymen concluded that it could not be
taken seriously. Some social scientists were not certain that they
liked social science being used as advocacy. The fifties were, after
all, the heyday of functionalism, which advocated that social scien-
tists strive toward a value-free orientation. Social science re-
search, according to this school of thought, should not be contamina-
ted by anything so demeaning as politics. Even some liberals were
nervous about the implications of the political use of social science
research (Berger, 1957:471-77). The Court had used the social
science evidence presented by the plaintiffs to show that they had
suffered damage to their personalities as a result of segregation.
What if, some social scientists wondered aloud, this became legal

precedent, and one had to prove damage to ensure equality under the
law? The right to equality should be protected, it was argued, even
if it made no difference to an individual or even if it were not
harmful to another party. Some lawyers who supported the decision
fretted about the poor quality of logic exhibited in the decision
and regretted that the decision was not more firmly based on legal
precedent (cf. Cahn, 1955:150-59).

Once the school segregation decision was made other political
factors came into play. The administration's low-key reaction to
Southern indignation in the wake of the decision was, perhaps, de-
signed to avoid fanning the flames by involving President Eisenhower
in the controversy; the civil rights actions taken on behalf of Ne-
groes through administrative directive were accomplished quietly--
and slowly. At worst, the Eisenhower administration's inaction re-
sulted from the President's own tepid feelings about civil rights.
But whatever the motivation, the result of the lack of administration
support was that the Supreme Court's decision became vulnerable to
attack; lacking any legitimacy ascribed to it by the executive branch,
it had to stand or fall on the prestige of the Court.

The decision was scrutinized for flaws. Many of the arguments
made by the appellees in the argument before the Court began to ap-
pear in the popular media and found their way into speeches by Southern
congressmen and Southern sympathizers. Critics fastened on the social
science aspect because that was the most novel element of the decision.
Both the decision's critics and its supporters perceived that the use
of social science in this new and, to some, radical way made the decision
vulnerable. Yet, as the arguments presented by the critics shifted
from "all social science is inexact and therefore inadmissible evidence"
to this particular social science research is wrong, and here is the

evidence to the contrary"-- in short, as the critics began to use social science to refute the social science presented in the Brown case, they gave up the battle. For in so doing, pro-segregationists were accepting the legitimacy of social science as evidence; in adopting the genre of evidence used by opponents of segregation, they were conceding the validity of social science advocacy. Today, no one questions whether or not social science may legitimately be used by any court to reverse a legal precedent; in a recent discussion of a forthcoming Supreme Court ruling on busing, Christopher Jencks listed three possible bases upon which the Court could reverse busing precedents, one of which was social science evidence (Jencks, 1972:41).

But the question remains as to the quality of the social science evidence presented in the school segregation decision. In all frankness, it was not very high. The most superior evidence was presented by Kenneth Clark; and as the counsel for South Carolina was quick to point out, there were serious problems in the formulation of his conclusions. Clark could not, for example, convincingly account for the higher incidence of "negative self-identification" on the part of Northern Negroes. One-third of the social scientists sampled by Isidore Chein, who said they felt that segregation was harmful to black and white children, also said they based that decision upon their own research, and two-thirds gave others' research as the primary influence. Yet, so very little research on the effects of segregation had been published in the academic journals; and, in any case, since the Court could not evaluate the research to which they referred, their responses constituted opinion, nothing more. In fact, research on black/white differences did not really begin in earnest until after the Supreme Court decision, which itself stimulated great

interest in and emphasis upon research on Negroes. After 1955, a
number of journals and newsletters began to appear which published
the regular reports on such research and where it was being conduc-
ted. Prior to the decision virtually the only major research done
had been commissioned by the NAACP or appeared in special interest
publications such as the Journal of Negro Education. The funding
for such work was simply not easily available. Aside from civil
rights organizations and Jewish organizations, and some foundation
sponsorship, there was little money around for such research; cer-
tainly no government funding was available.

The criticism of the social science evidence presented before
the Supreme Court by the proponents of segregation had a great deal
of validity. It was hardly conclusive. Moreover, the works cited
by the Court appear to have been almost arbitrarily selected, as
critics have charged. The Court did not make an extensive or systema-
tic effort to find out on its own what social science had to say about
the subject. On the contrary, there is a random quality to its cita-
tions of social science evidence; less important authors and less rele-
vant works of important authors are cited and fundamental works and
authors are omitted. The social science research that had been done
prior to the Brown decision by no means proved that segregation caused
the educational and mental retardation of Negro children; that variable
had simply not been isolated. Furthermore, except for Clark's tests,
very little evidence had been presented to show conclusively that
damage had actually been done to the educational and mental development
of Negro children. In fact, recent research on desegregation and its
effects has indicated that the questions and answers are considerably
more complex than would be supposed from the 1954 decision (cf. Jencks,
1972:120).

This is not to argue that the decision should not or could not have been made. The point is, instead, that the Court made its decision on the basis of its sense of the effect of segregation and the requirements of the Fourteenth Amendment. Members of the Court may have been swayed by the testimony presented by the social scientists; Clark's tests were said to have been particularly convincing. Two NAACP staff members, Herbert Hill and Jack Greenberg, assessed the effect of oral testimony very highly: "The experts were cross-examined, and their testimony was subject to rebuttal; this gave the defendants (arguing for the legality of segregation) a certain opportunity but it enhanced the persuasiveness of the testimony if it could not be shaken" (Greenberg and Hill, 1957:474).

But social science was not the foundation of the decision; it was used to lend weight to what the justices clearly were persuaded was true: that segregated education is unequal education. The problem that the proponents of segregation faced was not that social science led the Court down an erroneous path; rather ti was that the time had come in the judgment of the court -- and judging from the initial media response, in the opinion of many opinion-makers -- for the Negro to take his place as a full-fledged U. S. citizen. Given the widespread faith in education as a panacea for all social ills, the hope was that equal opportunity in education would be enough. Certainly no one forsaw the massive social revolution that was loosed by the Brown victory. The segregationists held a bad deck; but the Court had to find a way to reverse Plessey without seeming to do so. The solution was the argument that the situation in 1954 was no longer what it was in 1896, that times have changed. "In approaching this problem we cannot turn the clock back to 1868 when the Fourteenth Amendment was adopted or even to 1896 when Plessy v. Ferguson was written. We

must consider public education in the light of its full develop-
ment and its present place in American life throughout the Nation."
(cf. Clark and Kamisar, 1969:329).

The Supreme Court is then a policy-making body. And like any
such body it recognizes that there is no truth or untruth, no right
or wrong; there are only degrees of each. Perhaps the Court is less
swayed by the political winds than are other branches of the govern-
ment--the justices are, after all, appointed for life (or until re-
tirement)-- but though it has no constituency it does respond, as is
clear in the Brown case, to its sense of the needs of the body poli-
tic as well as to its awareness of the limitations on what it can do.
It is also clear that the Court is not above internal politics; re-
cent studies (by social scientists) of voting behavior on the Court
have subjected it to the same scrutiny given any other branch of the
government (cf. Schmidhauser and Berg, 1972). It is now recognized--
if it was not before--that the appointment of a Supreme Court Justice
is a political act; that justices vote along distinguishable lines
of judicial conservatism or liberalism, strict constructionism or
activism (cf. Glick, 1971).

Social science can play an important role in the process of
judicial policy-making, just as it has contributed to the formula-
tion of policy by other branches of government. The important point
is that social science has little discernible influence unless it
is taken up and exploited for political reasons. We have only to
look at the lack of positive reaction by political figures when the
social science research does not come up with the expected or de-
sired answers: hence the sad fate of the presidential commission
on drugs and the dismissal of the Population Council's recommenda-
tions for liberalized abortion laws and wider dissemination of birth

control devices. Despite the claims of critics and participants
in the decision alike, the role of social science in the school
desegregation cases was not decisive. By the 1953 argument the
Court asked its "five questions" because it had not found the in-
formation presented in the 1952 brief conclusive and was searching
for another basis for decision. When neither side was able to
present an air-tight historical or constitutional case the Court
was forced to turn back to the social science argument; but even
then the strongest statement for social science in the decision
originated in the Kansas case and was merely quoted by the Supreme
Court. Moreover, the Court was not consistent in its reliance on
social science evidence; otherwise, it would have been more sanguine
about the possibilities for peaceful integration, even in the South,
and would have given a more vigorous order to integrate.

Though, in fact the role of social science in the school segre-
gation cases may be more modest than has been claimed, the cases re-
presented a significant advancement for the social sciences. For the
first time social science played a role in judicial advocacy that re-
sulted in a significant policy decision and initiated what Bayard
Rustin has characterized as the decade in which "the legal founda-
tions of racism in America were destroyed" (cf. Rainwater and Yancey,
1967:9). Brandeis had used social science to prevent a conserva-
tive judiciary from holding back progress; now the Court was taking
an active role in molding that progress. In the process the social
sciences acquired new legitimacy--even though under severe attack--
and within and without the social science profession their power and
potential influence began to be taken seriously (cf. Curtis, 1973).

The War On Poverty

The War on Poverty--rather like the war in Vietnam--was pre-eminently the conception of the liberal, policy-oriented intellec-tuals, especially those who gathered in Washington, and in a sig-nificant sense came to power in the early 1960s under the Presi-dency of John F. Kennedy. Kennedy's Presidential campaign had propounded a fairly radical critique of American society. The Eisenhower era had not been barren of government initiatives, but even when these were of massive dimensions, as in the case of the Interstate Defense and Highway Program, they had tended to be di-rected toward the needs and interests of the middle classes of American society. A major architect in the war on poverty program, Wilbur J. Cohen (1970:4) provides an excellent description of the legislative background to anti-poverty efforts in the post-World War II age of prosperity: "During the 1940s and 1950s relatively little attention was focused on the poor. Although some improvements were made in the social security, unemployment insurance and public assistance programs, it was not until the 1960s that the conscience of the American people, under the leadership of Presidents Kennedy and Johnson, was awakened to the needs of the disadvantaged. The paradox of poverty amidst a nation of plenty became a major social and political issue. While the vast majority of Americans was shar-ing in the gains of a prospering economy, about 22 percent of the population was poor in 1959. President Kennedy took up the cause of the forgotten poor and planned an intensified attack on poverty which President Johnson put into effect. Congress expressed the nation's commitment in 1964: "It is the policy of the United States to eliminate the paradox of poverty in the midst of plenty in this nation." To carry out this commitment, far-reaching, wide-ranging

social legislation was enacted over the next four years. The
Economic Opportunity Act, the Elementary and Secondary Education
Act, Medicare and Medicaid, Social Security Amendments, the Civil
Rights Act and the Rent Supplement Program are a few of the many
laws that were enacted to attack poverty on many fronts. Federal
funds assisting the poor increased from $9.9 billion in 1960 to
$24.6 billion in 1968. The combination of innovative and imagina-
tive programs backed by federal resources and enlightened economic,
fiscal and monetary policies which stimulated economic growth,
providing record levels of employment, reduced the number of persons
living in poverty from 39 million in 1959 to 24 million in 1969.
As a result of substantial social security benefit increases in 1965
and 1967, the incomes of about one and a half million persons were
raised above the poverty line. Job training, rehabilitation, health
and educational programs made it possible for millions of others to
participate in a sustained, prospering economy."

The level and volatility of criticism against the war on poverty
has become so extensive that it is hard to recollect that the start
of the 1960s was a period of deep concern about poverty, especially
the impoverishment of the blacks. The profusion of programs which
came forth during this period may not have led to the eradication of
poverty but it did make possible the rise of black economic possi-
bilities that permitted this huge section of the American population
to take a leading part in the economic expansion that was so notable
a feature of the country during this decade. As Moynihan wryly ob-
serves: "Whatever else is said about us, it makes social statistics
look good". He goes on to add that: "Between 1960 and 1969 the num-
ber of nonwhite craftsmen and operatives, the basic blue-collar oc-
cupations which make up about one third of the work force, increased

40 percent, whereas the number of whites in such jobs rose only 7
percent. The real earnings of nonwhite men averaged a 55 percent
gain during this period, double the increase for whites. In 1968
an event of significance occurred. The median income of young
husband-wife black families outside of the South reached parity with
those of white families. In 1969 even more impressive gains occurred.
Outside the South, the median earnings of husband-wife Negro families
headed by a male twenty-five to thirty-four years of age were 91 per-
cent of the pay of their white counterparts, while for similar fami-
lies with a head age fourteen to twenty-four years, the midpoint of
black income reached 107 percent that of whites. This was surely the
first time in the history of the United States that a broadly defined
category of blacks had higher incomes than did their white equivalents."

However, as the decade wore on, the economic boom wore out. Only
a portion of the black community was able to participate in the na-
tional growth. As a result, the ghettos became ablaze, the cities fur-
ther impoverished, the university campuses disrupted by a cycle of ad-
ministrative blunders, faculty indifference and student opposition.
Under such circumstances, President Johnson decided against seeking
another term in office. When the Democratic party held their 1968
convention in Chicago, protestors were attacked by trained riot police.
The war on poverty was attenuated by the drain of other priorities--
the war in Vietnam, growing military expenditures, and a general un-
willingness to redistribute and reorient economic resources. Yet,
even more central to the mortification of the war on poverty, was the
breakdown of a national consensus to do away with poverty in the United
States. The war on poverty embodied more than a collection of con-
gressional actions. In The war on poverty were people in community action,
action-oriented towards helping the disadvantages and nourished by

hope and optimism (Pilisuk and Pilisuk, 1973:7-8).

Federal antipoverty programs were originally conceived of to deal with issues of adequate housing, training for meaningful jobs, maintaining an adequate income and supplying food to the needy. When efforts to meet these needs began to conflict with entrenched power interests support for antipoverty efforts began eroding. An apolitical view of the situation of the poverty-stricken meant that the structural causes could not be attacked. When a localized group began attaining power it would surely collide with an entrenched power determined to achieve obstruction or cooptation of the local group. Minority group members can be trained to occupy skilled labor occupations. Yet unless other new job opportunities are created for white workers there will only have been replacement rather than upward mobility. The white worker will then become the opponent of the newly trained minority-group member. This fact will further ameliorate labor consensus on poverty issues. Minority communities, appreciating this reality, resist broad programs presented to them as fait accompli by well-intentioned reformers. Thus poverty-stricken groups must decide to either actively participate in the formulation and modification of programs affecting their lives; or become the victims of misdirected albeit well-meaning reformers.

The power structure was threatened by far more than community-action programs and organized groups of poor people. Social science professions and associated para-professionals were also considered threats. These social scientists performed as intermediaries between the powerful and the powerless. In this role of delivering services to the poor, the social scientists could not present themselves as neutral observers calling on the economic and power resources of the American power structure. Thus the participation of social scientists

in the community life of the poor meant that their actions were in-
terpreted as a threat by the government sponsors and the larger pub-
lic (Pilisuk and Pilisuk, 1973:10-12).

Another aspect of community participation is the demand that
the poor participate in focusing their own programs. This demand
demonstrated that the program was readily subject to the influence
of established sources of power. When community action became wide-
spread, it provoked local interests wherever action programs operated.
The war on poverty tapped public funds and utilized public institu-
tions to devote significant attention to local problems. Thus the
local interests, had to be heeded (or at least not disregarded), and
in this case the local interests were represented by city mayors.
The local city officials discovered that they had powerful allies
in the Federal government to whom they could turn. This alliance
focused pressure on the heart of the war on poverty: the Office of
Economic Opportunity. For example, after a mayor's conference the
instrument of pressure on the OEO was the Bureau of the Budget. "The
Budget Bureau, the fiscal arm of the White House, has told the Office
of Economic Opportunity that it would prefer less emphasis on policy-
making by the poor in planning community projects" (New York Times,
1965:5).

The federal government and most local governments would permit
some flexibility in programs in terms of cash-transfer programs and
power given to the poor-so long as these programs remained localized
in such areas as the deep South. However, these programs soon spread
to the urbanized North. When this suffusion took place, to the pre-
sumed detriment of whites and their elected officials, consensus eva-
porated. When such grass roots agreement disappeared, the utility of
the social science to these programs was eliminated (Marris and Rein,

1973:218-219). The Office of Economic Opportunity's goals was the

construction of an interest group consisting of poor people and the

supporters of the poor. This constituency would become strong enough

to make the antipoverty programs politically self-sustaining. If

the community-action programs were successfully coopted by local power

structures, contemporary institutions would be the pathway of funds to

the poor. This essentially meant that the war on poverty would be-

come devoted to the sustenance of these local governments and institu-

tions. The militancy of many of the poor in urban ghettoes was run-

ning high enough to avoid such a fate. However, if only the poor

supported a program they would not be able to constitute a politically

viable force. Faced with this dilemma, OEO attempted to insist that

the poor have very significant representation in community-action pro-

grams. At the same time the OEO applied pressure on the local city

governments to share it's power with these community-action programs.

OEO sometimes incorrectly estimated this compromise on such occasions

as when one of its funded projects conflicted with a government opera-

tion in the same area. These situations could not be avoided and con-

flict was necessary to clarify OEO-city hall jurisdictional boundaries.

The development of the Model Cities program verifies that the question

of community participation could not be side-stepped through the al-

teration of guidelines, laws and administrative directives. The pro-

grams hinged on a compromise which would balance community participa-

tion with local city government (Marris and Rein, 1973:271).

Lack of a constituency was not the central problem facing ad-

vocates of community-action programs. Instead the barrier was that

too many disparate groups with contravening goals competed for limited

available resources. This stand-off between competing factions led

to frustration which eroded community-action consensus. Despite these

shortcomings, some lasting accomplishments were attained by the war

on poverty. Articulate pressure groups have formed in isolated in-

stances. Legal programs have proven of remarkable success in ser-

vicing the needs of the poor. Principles of social evaluation and

planning are now commonly accepted traits of government social pro-

gram construction. Yet lacking any broad-based constituency or any

ties to a wider consensus, the anti-poverty program was unable to

produce a constituency which could generate it's own political de-

fense and support.

The war on poverty was denied resources which were adequate to

its mission, because of fear of overcommitting the President on a

politically uncertain issue. By not clearly defining community par-

ticipation, the programs' supporters became alienated which then con-

firmed initial suspicions about the effectiveness of the program.

Yet the concept of community action tapped dimensions which trans-

cended the search for diluted idealism in combination with political

expedience. The war on poverty directly addressed the problems of

making democracy work in the American society. By attempting to modi-

fy, or at most, reform structural shortcomings of representative govern-

ment, the community-action program sought to alleviate the deprivation

of millions of Americans. Thus the war on poverty faced "an issue

more profound even than poverty--the viability of democracy itself"

(Marris and Martin, 1973:271-272).

What few of the social scientists involved in the war on poverty

were properly able to assess is the extent to which they were not so

much innovating programs as responding to a national crisis in race

relations that had to be met more candidly than during the Eisenhower

administration in the 1950s. Indeed, one early critic, Saul Alinsky,

saw the entire war on poverty as an effort employed "to suffocate
militant independent leadership and action organizations which have
been arising to arm the poor with their share of power" (Alonsky,
1968:173). If such a judgment is tinged with more than a fair share
of hyperbole, it is a fact that even more careful and less parti-
san observers have noted that the war on poverty programs became
vulnerable precisely when it stretched beyond the limits of esta-
blished political lines of authority. Ultimately, protest depen-
ded on government tolerance, not to mention federal funding (Marris
and Rein, 1973:292-93). Under such circumstances, the war on poverty
had severely circumscribed limits that the social scientists could
barely explain, much less move beyond.

In retrospect, it becomes apparent that the war on poverty was
specifically a Democratic Party attempt to maintain and increase its
black urban voting base. This further implied that community-action
programs were to be designed to keep both money and power out of the
hands of Republican-Party controlled State legislatures and placed
into the hands of urban ethnic white and black groups. The additional
element was to circumvent those city governments which could not be
trusted to make sure that benefits actually reached ghetto voters.
Thus, the war on poverty was a delicate balancing act to maintain
traditional constituencies, but also being certain to pick up new
constituencies as well (Piven and Cloward, 1971:262-63). Thus the
circumstances which compelled the Democratic Party national leader-
ship to emphasize the needs of the black community coincided precisely
with the researches being conducted by the social scientists on black
communities indicating that in the past they had been denied both eco-
nomic and political equity.

The social science critics of the war on poverty, at this
point, probably outnumber its adherents. In part, this is a
consequence of an intense polarization over the role of community-
action programs. Those on the left, like Clark and Hopkins (1970:
245-246) viewed such programming as serving to quell any sense of
civil outrage among the poor, while those on the right, such as
Banfield (1970:128-131), say any such federally sponsored programs
as a dangerous continuance to exacerbate civil strife among social
classes. The most recent point of view, and perhaps the most so-
phisticated in retrospect, is that of Greenstone and Peterson
(1973:305-315) who view the war on poverty as basically a structure
which exploited pluralistic bargaining nôrms on behalf of black
interests. They hold this view to be thoroughly consistent with the
primacy of the racial rather than the class problem in America, and
no less consistent with the American approach to cultural diversity.
"For blacks, this policy has the advantage, unlike demands for social
integration, that it does not directly attack the validity of other
minority cultures or even, except indirectly, the dominant largely
white Protestant culture of the whole society. Moreover, this policy
would have the blacks rely more on their own gradually increasing re-
sources rather than on the wisdom, generosity and benevolence of white
American cities. Although racial oppression and inequality often seems
virtually intractable, the policy most likely to eradicate it must fol-
low the path of collective self-development that other ethnic groups
utilized to establish themselves in a society that was at once white
Protestant in its dominant cultural orientation, capitalist in its
economic values, and only partially egalitarian in its political as-

pirations. Community control, for all its faults, can facilitate

the forward thrust of black power in the American regime."

By the late sixties, when the national consensus on the war

on poverty had badly deteriorated, and reached a near breakdown level,

the social scientists themselves lost their unified response to what

the war on poverty could do for the poor and the minorities. While

those most closely associated with the federal programs remained dedi-

cated to its continuation in one form or another, voices of opposition

began to multiply within the social sciences. Silberman (1968:95-96)

pointed out that the Office of Economic Opportunity, through its insis-

tence that community-action agencies be broadly based, had the actual

result of reducing either local initiatives or innovation. Alinsky

(1968:177) viewed the war on poverty as the latest phase of a welfare

industry, aiding for profit firms rather than the poor. He felt, and

not without considerable support from black activists, that the war on

poverty had swollen bureaucracies, increased the number of profes-

sional consultants and coordinators, and generally drained off the

lion's share of funds targeted for the poor and the minorities. "Their

voracious appetite insures that only discarded droppings will drip down

to the poor...Poverty is a blue chip investment". That is it may have

been the displacement of the Johnson-Democratic era with the Nixon-

Republican era brought to an abrupt halt the war on poverty. First

through agency reorganization, next through staff reductions, and

finally through fiscal cutbacks, the war on poverty was wound down,

almost as rapidly as it had been initially mounted.

It is a curious fact that the social scientists were able to

lend their support to the war on poverty at the appropriate time,

and to lend the weight of criticism when that seemed to be called for.

This illustrates a central fact on all social science in relation
to public policy in the United States: when a genuine, broad-based con-
sensus exists, then the social scientists perform major legitimizing and
rationalizing services; but when a dissensus is present, the social scien-
tists can only serve to reflect that situation in the very polarities
of their own professional writings and researches.

The Negative Income Tax

Discussions of negative income taxation have been an ongoing
feature in the economic community for some time. The subject was
informally discussed by economists Walter Heller and William Vickery
(at the time a member of the Treasury Department's Division of Tax
Research) as early as the 1940s. The idea of negative income was
first touched upon in a 1946 article in the American Economic Review
(Stigler, 1946:365). But this was an idea whose time had not yet
come. Chicago economist, Milton Friedman, originated a negative in-
come tax plan in a series of lectures at Wabash College in 1956. His
plan was formally introduced in his book, Capitalism and Freedom (1962).
Friedman viewed the negative income tax proposal as an alternative to
on-going welfare programs. Benefits of the plan, according to Fried-
man, include (1) making the cost to society explicit, (2) the plan
operates outside the market and (3) although reducing individual in-
centive, it does not eliminate incentive entirely (Friedman, 1962:192).

Robert J. Lampman, an economist at The University of Wisconsin,
and a member of the staff of its Institute for Research on Poverty,
developed an alternative negative income tax approach. Lampman saw
his negative tax plan as a supplement rather than a substitute for
existing welfare programs. He recommended the utilization of an
income gap measurement as a base for the negative tax. This was in
opposition to the Friedman plan which advocated basing a system on

unused exemptions and other deductions. Other variations of the
negative income tax have been advanced by Tobin (1965) and Marmor
(1971) among other social scientists (cf. Green, 1967).

A guaranteed annual income, revolving around some form of
negative income tax, was a central feature in a set of recommenda-
tions formulated by the President's Commission on Income Maintenance
Programs (Heineman Commission). This Commission was formed around
in Johnson's administration but concluded its work during the Nixon
administration's first year (President's Commission, 1969:1970). At
this time, under a grant from the Office of Economic Opportunity (OEO),
the Institute for Research on Poverty at the University of Wisconsin,
Madison, began a study on the negative income tax (NIT). Commencing
in 1968, the Graduated Work Incentive Experiment aimed at determining
the labor-supply response to a range of alternative simple income plans.
By the winter of 1969 the Department of Health, Education and Welfare
(HEW) enlisted the Institute for Research on Poverty's assistance in
undertaking a large-scale program of experimentation on income main-
tenance, an area in which the Institute already had centered its re-
sources.

The IRP developed a research agenda in association with MATHE-
MATICA of Princeton, New Jersey. The research, under the direction of
Harold Watts, took a multi-disciplinary thrust, experimenting with
1,200 families in Trenton, Paterson, Passaic, Jersey City, New Jersey,
and Scranton, Pennsylvania. The program, also supported by OEO, in-
vestigated graduated work incentives on the lives of the welfare families
under study (cf. Orr, 1971).

With lead-in money provided by the Ford Foundation, the IRP
generated comparative data with a rural contrast to the New Jersey
studies. This project was absorbed by OEO and established larger pro-

grams in 1969, studying 825 families in Iowa and North Carolina over
a three-year period. Besides permitting a rural-urban contrast, this
study also allowed a Northern-Southern comparison. Taking an inter-
disciplinary approach the study broached the fields of economics, agri-
cultural economics, sociology, political science, law and social work.
The study examined and measured the effect of work on incentives,
changes in expenditure patterns, alterations in family structure, adult
education, health, attitudes and social and political activities (Bawden,
1970).

To complement these two studies the OEO added two more experimen-
tal programs to evaluate NIT and GWIN proposals. One area which was
selected was Gary, Indiana which added black, female-headed families.
Day-care treatments were also added to the experimental design (Kelley
and Singer, 1971). The other study viewed the contrast of the earlier
studies with the Western United States by studying Seattle, Washington.
The Gary study made use of the resources of the Urban Institute and
Indiana University. The Seattle study worked through Stanford Univer-
sity and Stanford Research Institute (Kurz and Spiegelman, 1971).

Social scientists and economists have done a considerable amount
of background, supportive and evaluative work of NIT and GWIN. For
example, Orcutt and Orcutt (1969) made an in-depth evaluation of the
problems of social experimentation in the area of income maintenance.
Cavala and Wiladavsky (1970) studied the political feasibility of in-
come maintenance, focusing on Congressional resistance and means of
overcoming such resistance (1970). Social scientists have also played
a major role in the establishing of the family assistance plan (FAP)
and sociologist Daniel Moynihan is given major credit for selling FAP
to the Nixon administration (Moynihan, 1972). Social scientists gave
testimony on FAP and even earlier groundlaying inquiries (see U. S. Con-

gress, Joint Economic Committee, 1968a, 1968b, 1973; Committee on
Finance, 1972).

The studies discussed above, although not nearly completed or
analyzed, played a significant part in the discussions on family as-
sistance and maintenance. For example, the early results of the New
Jersey study were "displayed prominently as part of the early presen-
tation of the family assistance plan to Congress" (Watts, 1971:17).
Harold Watts, the director of the New Jersey program, commented that the
premature exposure of GWIN and NIT programs may have been inimicable to
the implementation of the plan. "It is at least questionable whether
preliminary results at such an early stage of the experiment should
have been drawn off and used as a part of a major policy debate. One
cannot expect the process of public policy formation to wait upon the
completion of scientific studies" (Watts, 1971:17).

The idea of income redistribution remains firm on the social
science agenda despite the severe loss of George McGovern in the 1972
presidential elections. Gans claims that despite the setbacks "it will
reappear in future presidential campaigns and may some day become the
law of the land" (Gans, 1974:62). Increasingly, sociologists have
joined economists in proposing some variant of the negative income tax
on the supposition that the social effects of income redistribution, in
providing a cushion against total immerseration, would be greater than
its economic effects - since redistribution still would leave the over-
all ratio of affluent to poor, male to female household heads, very much
intact.

Gans' summary indicates that middle-income group support for income
redistribution will grow once it is realized by such groups that it will
mean additional money in their pockets. Nevertheless, the traditional
hostility to welfare and the equal emphasis on work as a fundamental an-

swer to poverty means that the negative tax will at best be a marginal
factor in new policies aimed at alleviating poverty. "As long as most
Americans believe that income should be derived from work and as long
as they favor policies which put people to work rather than on the dole,
the poor are most likely to obtain higher incomes through programs for
full employment and deliberate job creation. Such programs must there-
fore be part of the legislative package when the time comes for America
to adopt income redistribution. From a longer perspective that legis-
lative package is still only a first step, for eventually America must
also consider the redistribution of wealth. Unequal income rests on a
foundation of unequal wealth, and some day that foundation must be dis-
mantled by such policies as the breakup of old fortunes, the levying
of stricter inheritance taxes, the sharing of unredistributed corporate
wealth and the dispersion of stock ownership. If income redistribution
ever becomes politically feasible, the need for greater sharing of the
wealth will soon be apparent, and if Americans feel that wealth which is
not derived from work does not deserve the same protection as income
which is derived from work, policies for redistributing wealth may gain
a more widespread political acceptance than policies for redistributing
income." Thus far, liberal social scientists have convinced only liberal
politicians. The task of reshaping the attitudes of the conservative
politicians and the middle classes remains a future step in the pursuit
of social equity by social scientists. And beyond that the goal of
positively effecting the conditions of the working classes and the wel-
fare masses remains an elusive, unfulfilled goal.

VIII. CONFLICT AND CONSENSUS BETWEEN SOCIAL SCIENTISTS AND POLICY-MAKERS

The last area of our discussion on Social Science and Public Policy in the United States is itself involved in the sociology of political mobilization; that is, how, in turn, politicians judge and assess social scientists, especially the academic community most intimately involved in the affairs of the political domain. The problem is to locate either the mutuality or incompatability of interests which are involved between the two sectors.

Problems and Prospects in the Interaction Between Social Scientists and Federal Administrators

To construct a satisfactory framework we should focus on problem areas which are decisive for both groups: initially, how the interaction is perceived by the social scientists, to be followed by a presentation of problem areas perceived by political men. Apart from the interaction itself, there is the shadowy area of their consequences on the network of proposals and responses following from the relationship between the two contracting parties. For social scientists and politicians not only interact with one another, but the professional ideologies they arrive at and the norms they establish also guide present and future interactions as well.

One of the most serious, and at the same time difficult to resolve, aspects of the relationship of social scientists to politicians is determining at what point normative behavior leaves off and conflictual behavior starts. Only with the latter sort of interaction does a true problem-solving situation exist. For example, the norm of secrecy which guides bureaucratic behavior contrasts markedly with the norm of publicity governing most forms of academic behavior. There is little question that this normative distinction leads

to a considerable amount of exacerbated sentiment. Yet, the dif-
ferences between the two groups at this level seem intrinsic to the
nature of sovereignty and to the nature of science. Such differences
can hardly be "ironed out" or "smoothed over" simply because we would
have a nicer world if they were. Thus, at best, an explication of the
issues can permit an intellectual and ideological climate to unfold
in which differences may be appreciated and in this way come to be
lived with. This must be stated explicitly. Those who expect a set
of recommendations for the governance of relations between social scien-
tists and politicians should be dissuaded from the advisability of
such an approach, lest we find ourselves manufacturing perfect doc-
trinal formulas and juridical restraints that prove far worse than
the initial problem being considered.

Problem Areas Perceived by Social Scientists

The first and perhaps most immediate experience which social scien-
tists have with politicians or their counterparts on various federal
granting agencies relates to the financial structure of contracts and
grants. First, the difference between contracts and grants should be
explained. As an operational definition we can speak of contracts as
those agreements made with social scientists which originate in a fede-
ral bureaucracy. Most research on Thailand and Southeast Asia or on
Pax Americana is contract work. Grants can be considered as those pro-
jects which are initiated by the social scientists. Nonetheless, the
distinction between contracts and grants should not be drawn too sharp-
ly since, in fact, if not in law, many contracts do originate with
social scientists. Such agreements may be structured broadly to give
the researcher a vast range of freedom or they may be narrowly con-
ceived to get a project tailored to an agency's "needs." The entrepre-
neurial spirit of social scientists, particularly those working in non-

academic research centers, makes them ingeniously adept at discovering
what a government administrator is ready to pay for. Thus, while a de
jure distinction between contracts and grants is useful, it is limited
on de facto grounds by the inability to track down who originates a
proposal and also who really shapes the final project.

Perhaps more important than the formal distinction between con-
tracts and grants is the disproportionate funds made available by va-
rious federal agencies for social scientific purposes. The Depart-
ment of Defense in the fiscal year 1967 budgeted 21.7 percent of its
research funds for the social sciences. The Department of State bud-
geted only 1.6 percent of its funds for the social sciences - and most
of this was in the separately administered Agency for International De-
velopment. This disparity indicates that the "modern" DOD is far readier
to make use of social science results than is the "traditional" Depart-
ment of State. A related complaint is that most contracts issued, in
contrast to grants awarded by agencies such as the U. S. Department of
Health, Education and Welfare (HEW) or the National Institutes of Health
(NIH), allocate little money for free-floating research. Funds are tar-
geted so directly and budgeted so carefully that, with the exception
of the overhead portion which is controlled by administrators rather than
scholars, little elasticity is permitted for work which may be allied to
but not directly connected with the specific purpose of the contract it-
self. This contrasts markedly with contracts made with many physical
scientists and even with researchers in the field of mental health,
who are often able to set aside a portion of their funds for innovative
purposes. Even so-called "kept" organizations such as IDA (Institute of
Defense Analyses), SDC (System Development Corporation), or RAND (Rand
Corporation), enjoy more latitude in developing their work programs than
the usual "free" university researchers.

Related to this matter of financial reward for "hardware" and
"high payoff" research is the funding available for social science re-
search as a whole. Social scientists often claim that the funding struc-
ture is irrational. Government funds are available in large sums for big-
team research, but little spillover is available for individual scholarly
efforts. The government reinforces big-team research by encouraging large-
scale grants administered by agencies and institutes and by its stubborn un-
willingness to contribute to individual scholarly enterprise. The assump-
tion is made that large-scale ideas can be executed only by large-scale spend-
ing - a fallacy in logic, if not in plain fact. Large-scale grants are al-
so made because they minimize bureaucratic opposition within the govern-
ment and eliminate specific responsibility for research failures. But at
the same time, this approach contributes to the dilemma of the scholar who
is concerned with research at modest "retail" levels which may be far more
limited than the grant proposal itself indicates. The present contract
structure encourages a degree of entrepreneurial hypocrisy which is often
alien to the spirit of the individual researcher and costly to the purchaser
of ideas and plans. And while individual agency efforts, notably by the
National Science Foundation, have moved counter to this bureaucratic trend,
the bulk of funds continues to be made available without much regard for the
persons actually engaged in the researches.

Social scientists have become increasingly critical of the government's
established norms of secrecy. The professional orientation of social scien-
tists has normally been directed toward publicity rather than secrecy. This
fosters sharp differences in opinion and attitudes between the polity and the
academy since their reward systems for career advancement are so clearly
polarized. The question of secrecy is intimately connected with matters of
policy because the standing rule of policy-makers (particularly in the field
of foreign affairs) is not to reveal themselves entirely. No government in

the game of international politics feels that its policies can be candidly
revealed for full public review; therefore, operational research done in
connection with policy considerations is customarily bound by the canons
of government privacy. While social scientists have a fetish for publi-
cizing their information, in part as a mechanism for professional advance-
ment no less than as a definition of their essential role in the society,
the political branches of society have as their fetish the protection of
private documents and privileged information. Therefore, the polity places
a premium not only on acquiring vital information, but also on maintaining
silence about such information precisely in the degree that the data might
be of high decisional value. This norm leads to differing premiums be-
tween analysts and policy-makers and tensions between them.

Social scientists complain that the norm of secrecy often demands
that they sacrifice their own essential work premises. A critical factor
reinforcing the unwilling acceptance of the norm of secrecy by social
scientists is that a great many government research funds are allocated
for military or semi-military purposes. U. S. Senate testimony has shown
that approximately 50 percent of federal funds targeted for the social
sciences are subject to some sort of federal review check. The real won-
der turns out to be not the existence of restrictions on the use of social
science findings but the relative availability of large chunks of informa-
tion. Indeed, the classification of materials is so inept that documents
(such as the Pax Americana research) designated as confidential or secret
by one agency may often be made available as a "public service" by another
agency. There are also occasions when documents which sponsoring govern-
ment agencies place in a classified category can be secured without charge
from the private research institute doing the work.

The main point is that relating the norm of secrecy to extreme pa-
triotism makes it that much more difficult to question the research design

itself. Social scientists often express the nagging doubt that accepting
the first premise - the right of the government to maintain secrecy - of-
ten necessitates acceptance of a further premise, the necessity for silence
on the part of social researchers who may disagree with the political uses
of their efforts. The demand for secrecy has its most telling impact on
social science methodology. Presumably social scientists are employed be-
cause they, as a group, represent objectivity and honesty. Social scien-
tists like to envision themselves as a wall of truth off which policy-
makers may bounce their premises. They also like to think that they pro-
vide information which cannot be derived from sheer public opinion. In
some degree social scientists consider that they are hired or utilized
by government agencies because they will say things that may be unpopular
but nonetheless significant. Thus the very agencies which contract out
their "need to know" impose a norm of secrecy which strains the premises
upon which most social scientists seek to work.

Terms of research and conditions of work tend to demand an initial
compromise with methodology. The social scientist is placed in a cogni-
tive bind. He is conditioned not to reveal maximum information lest he be-
come victimized by the federal agencies who employ his services. Yet he
is employed precisely because of his presumed thoroughness, impartiality,
and candor. The social scientists who survives in government service be-
comes "gingerly," or learns to play the game. His value to social science
becomes seriously jeopardized. On the other hand, if he should raise these
considerations his usefulness to the policy-making sector is likewise jeo-
pardized. Social scientists believe that openness involves more than
meeting formal requirements of scientific canons; it also requires that in-
formation be made universally available. The norm of secrecy encourages
selective presentation of data. In this area the social scientist is op-
posed by the policy-maker because of conflicting notions of the signifi-

cance of data and their general need to be replicated elsewhere and by others. The policy-maker who demands differential access to findings considers this a normal price extracted for the initial expenditure of risk capital. The academic social scientist has a general attitude that sponsorship of research does not entitle any one sector to benefit unduly from the findings; he believes that sponsorship by federal agencies ought not to place limits on the use of work done any more than when research is sponsored by private agencies or by universities.

The third major area which deeply concerns the social scientists is that of dual allegiance. The social scientists often expresses the charge that government work has such specific requirements and goal-oriented tasks that it intrudes upon his autonomy. He is compelled to choose between full participation in the world of the federal bureaucracy and his more familiar academic confines. He does not, however, want the former to create isolation in the latter. He thus often criticizes the federal bureaucracy's unwillingness to recognize his basic needs: (a) the need to teach and retain a full academic identity; (b) the need to publicize information; and, above all, (c) the need to place scientific responsibility above the call of patriotic obligation - when they may happen to clash. In short, he does not want to be plagued by dual or competing allegiances. The norm of secrecy exacerbates this problem. While many of the social scientists who become involved with federal research are intrigued by the opportunity to address important issues they are confronted by bureaucracies which often do not share their passion for resolving social problems. For example, federal obligations commit the bureaucracy to assign high priority to items having military potential and effectiveness and low priorities to many idealistic themes in which social scientists are interested.

The social scientists connected to the government as employees or as consultants are hamstrung by federal agencies which are in turn limited by political circumstances beyond their control. A federal bureaucracy must manage cumbersome, overgrown committees and data-gathering agencies. Federal agencies often protect a status quo merely for the sake of rational functioning. They must conceive of the academic in their midst as a standard bureaucratic type entitled to rise to certain federal ranks. Federal agencies limit innovating concepts simply to what is immediately useful, not out of choice, and certainly not out of resentment to the social sciences, but from what is deemed as impersonal necessity. This has the effect of reducing the social scientist's role in the government to that of ally or advocate rather than that of innovator or designer. Social scientists, particularly those with strong academic allegiances, begin to feel that their enthusiasm for rapid change is unrealistic considering how little can be done by the government bureaucracy. And they come to resent the involvement in theoryless application to immediacy foisted on them by the "New Utopians," along with surrender of the value of confronting men with the wide range of possible choices of action. The schism between autonomy and involvement is, in its own way, as thorough as that between secrecy and publicity, for it cuts to the quick well-intentioned pretensions at human engineering.

The problem of competing allegiances is not made simpler by the fact that many high-ranking federal bureaucrats have strongly nationalistic and conservative political ideologies in marked contrast with the social scientist. The social scientist comes to the nation's capital not only believing in the primacy of science over nationalism but defining what is patriotic in a more open-ended and consciously liberal manner than that of most appointed officials. Hence, he often perceives that the conflict involves more than research design and social applicability; it is a conse-

quence of the incompatible ideologies held respectively by the social scientists and entrenched Washington bureaucrats. He comes to resent the "proprietary" attitude of the bureaucrat toward "his" government processes. He is likely to conclude that his social biases are a necessary buffer against the federal bureaucracy.

A question arising with greater frequency now that many social scientists are doing federally sponsored research concerns the relationship between heuristic and valuative aspects of work. Put plainly, should the social scientist not only supply an operational framework of information but also assist in the creation of a viable ideological framework? Does he have the right to discuss, examine, and prescribe the goals of social research for social science? Whether social scientists in government service ever raise such issues is less important than the fact that some might refuse any connection with the federal bureaucracy for this reason. Many social scientists, especially those working on foreign area research, bitterly complain that government policy-makers envision social science to be limited to heuristics, to supplying operational code books and facts about our own and other societies, and that the social scientist is supposed to perform maintenance services for military missions. Social scientists, however, also consider their work in terms of its normative function, in terms of the principles and goals of foreign and domestic policy. But given their small tolerance for error, policy-makers cannot absorb mistaken evaluations. This inhibits the social scientist's long-range evaluations and renders empiricism the common denominator of investigation. Factual presentations become not only "value-free" but "trouble-free."

This is not so much indicative of a choice between pure and applied social science research as a consequence of differing perspectives on the character of application. Social scientists working for the political establishment realize that applied research is clearly here to stay. They are the first

to announce that it is probably the most novel element in American-in contrast to European-social science. But federal bureaucrats operate with a concept of application which often removes theoretical considerations from research. Designing the future out of present-day hard facts, rather than analyzing types of action and interests and their relations in the present, comes to stand for a limited administrative Utopianism and creates the illusion that demands for theory and candid ideological commitment have been met.

The social world is constructed like a behavioral field, the dynamics and manipulation of which are reserved for policy-makers, upon which they design futures. But social scientists are aware that "interests" and their representative values are contending for influence on that field, and that social planning is often a matter of choosing among these values for the sake of political goals. Thus, tension arises between social scientists, who consider their work set in highly political terms, and federal bureaucrats, who prefer to consider the work of the social scientists in nonpolitical terms. Indeed, federal administrators particularly go out of their way to depoliticize the results of potentially volatile social research so as to render it a better legitimizing device for their own bureaucratic activities. Social scientists come to suspect that their work is weighed for efficiency and applicability to an immediate and limited situation. The ability of the social system to confront large-scale and long-standing problems is left out of reckoning.

Federal bureaucrats measure the rewards of social science involvement in the government in terms of payoffs generated. These are conceived to be the result of "big-team" research involving heavy funding (like the Model Cities Program). Moreover, the high status of individuals is appreciated when they are at the center rather than the periphery of policy performance, having an opportunity to influence policy at high levels, to secure valuable

information and give prestige to projects in which they participate.
And, it might be added, many social scientists who contract research from
the government seek just such power rewards.

Even those social scientists most involved with the government - as
employees rather than as marginal consultants - express profound reserva-
tions about the reward system. First, as we have noted, social scientists
operate under various degrees of secrecy which stifle their urge toward pub-
licity for the work they do. Recognition goes instead to the men they work
for. Second, social scientists must share responsibility for policy mis-
takes. Thus, they may be targeted for public criticism under difficult con-
ditions more frequently than praised when they perform their duties well.
Finally, those social scientists closest to policy agencies are most subject
to Congressional inquiry and to forms of harassment and investigation un-
like anything that may befall strictly academic men.

The government-employed social scientist runs risks to which his col-
leagues at universities are not subject. He often contends that these risks
are not properly understood by academics or rewarded by policy-makers (salary
scales, for example, are adequate in federal work but not noticeably higher
than academic salaries). Marginal financial payoffs resulting from publi-
cation are often denied the federally sponsored social scientists. Publica-
tion is a sensitive area for other reasons. Social scientists' fears con-
cerning their removal from channels of professional respectability and visi-
bility seem to increase proportionately to their distance from the academy.
Few of those in federal work receive recognition from their own professional
societies and few gain influential positions within these professional es-
tablishments. The marginality produced by federal work means that scholars
willing to be funded through government agencies, or even to accept consul-
tantships, will reject primary association with a federal administration.
For this reason the list of high-quality social scientists who choose to

remain in the government as professional civil-servants remains low.

While outsiders may accuse federally sponsored social scientists of
"selling out", hte latter defend themselves by pointing out that they
make sacrifices for the sake of positively influencing social change.
This self-defense, however, is often received skeptically by their colleagues
in the academic arena (as well as by their would-be supporters in the federal
bureaucracy), who regard such hypersensitive moralism with suspicion. The
upshot of this matter of "rewards" is, then, that status derived from proxi-
mity to sources of power is offset by isolation from the actual wielders of
power - academic no less than political.

Problem areas perceived by the politicians

Social scientists' complaints about their difficulties with government-
sponsored research have received more attention than administrative com-
plaints against social scientists simply because social scientists tend to
be more articulate in examining their feelings and in registering their com-
plaints about the work they do. Also, the relationship of the social scien-
tist to the bureaucrat has a greater import for the social scientist than
for the bureaucrat. It is small wonder that government complaints about so-
cial scientists have been poorly understood.

Federal agencies and their bureaucratic leaderships remain skeptical
about the necessity for employing basic social science data in their own
formulations. Among traditionally appointed officials the local lawyer or
party worker is the key means for transmitting information upward. For
many sectors of the military, expertise comes mainly from military personnel
performing military functions and does not require outside social science
validation. As we witnessed in the military response to the Department of
Defense "Whiz Kids," outside efforts may be considered intrusions. High
military brass (as well as a number of politicians) "sounded off" hotly
against the Defense Department and echoed in their critiques a traditional
posture which pits military intuition and empirical proximity to the real

world against mathematical techniques and "ivory tower" orientations.

When social scientists attempt to combat these doubts and suspicions by preparing memoranda and documents which prove the efficacy of social science for direct political and military use, they may do more to reinforce negative sentiments than to overcome them. When the academy responds that way to the polity (as it did in its recommendations to the Defense Science Board), then it underwrites its own lack of autonomy, if not its own ineptitude. It cannot prove its worth by moral declarations and public offerings to bureaucratic agencies. The total service orientation of social research, in contrast with the independent "feudal" academic orientation, is one which breeds contempt for the performer of such services and a lack of faith in his results. This helps to explain the resentment for social science research extending from the Joint Chiefs of Staff to the Senate Foreign Relations Committee. Suppliers of intellectual labor are well paid if they have a powerful union or guild - as many social sciences have - but they hardly command high status in a political atmosphere which strains toward quick and inexpensive solutions.

The first and perhaps most significant criticism made by administrators against the academy is that social scientists make excessive demands for funds and special treatment while working on projects that frequently have little tactical value. This is translated into a charge of impracticality. Typical is the critique made by the General Accounting Office against the Hudson Institute, headed by defense strategist Herman Kuhn. Underlining charges made by the Office of Civil Defense, the work of the Hudson Institute in the area of the behavioral sciences was scored for being "less useful than had been expected," and cited as unacceptable without "major revision." Various social science reports, particularly those prepared by semiprivate agencies, have been criticized for their superficiality, for their "tired" thinking, for their sensationalism, and above

all, for their lack of immediate relevance. In response, social re-
searchers claim that the purpose of a good report is imaginative effort
rather than practical settlement of all outstanding issues. Govern-
ment agencies should not expect a high rate of success on every re-
search attempt, they argue. One reason for the persistence of this
line of criticism is how rarely demands for high-payoff utilitarian
research are ever contested. The questionable practicality of much
social science research remains a sore point in the relationship which
cannot be resolved until and unless social scientists themselves work
out a comfortable formula governing the worth of relevance in contrast
with the demand for relevance.

Another criticism leveled at academics by federal sponsors issues
from the first: namely, that there are no systems for ensuring that
results obtained in research are usable. A gap exists between the
proposal and fulfillment stages of a research undertaking and there
is an equally wide gap between the results obtained and the processes
involved in grappling with problems. Proposals which are handsomely
drawn up and attractively packaged often have disappointing results.
And while many sophisticated agencies, such as NIH, NSE, or OEO (Of-
fice of Economic Opportunity), are aware of the need for permissiveness
in research design, those agencies more firmly rooted in hard science
and engineering traditions are not so tolerant of such experimentations.
Moreover, it is charged that academics engaged in government research
"overconservatize" their responses to placate a federal bureaucracy.
This may come, however, at the very point when the administrator is
trying to establish some liberal policy departures. The chore of the
federal agency becomes much more difficult since it must cope not only
with bureaucratic sloth and the conservative bias of top officials but

with reinforcements for it in research reports by the social scientists from whom more liberal formulations might have been expected. Thus, not only is there a gap between proposal stage and fulfillment stage in the research enterprise, but also some reports may structure conservative biases into the programs assigned to the federal bureaucracy by Congressional committees or by Executive branch leadership.

The charge of inutility is often related to a differential intellectual style or culture. The government-versus-academy cleavage is largely a consequence of intellectual specialization of a kind that makes it difficult for the typical bureaucrat to talk meaningfully with the typical "modern" behavioral scientists. Most government officers in the Department of State, for example, are trained either in history or in a political science of a normative sort. International relations taught in the descriptive traditions of the Twenties or, at the latest, in the style of a Morganthau or a Schuman continue to prevail. Whatever difficulties may exist between the academy and the polity at the level of role performance, these can at least be overcome by those who share a common intellectual formation. But often communication cannot be achieved with those behaviorists whose vocabulary, methods and even concepts seem esoteric, irrelevant, occasionally trivial and not rarely fraudulent. Thus, at the root of the charge of inutility is a conflict of intellectual cultures that negatively affects the relations between the academics and the politicians.

Federal administrators point out that academic men often demand deferential treatment, contrary to the norms which govern other federal employees. They charge that social science personnel do not really accept their role as government employees but rather see themselves as transiently or marginally connected to the government. Particularly in areas of foreign affairs the academic appears to want the

advantages of being privy to all kinds of quasi-secret information
and of being involved in decision-making, yet ~~to~~ avoid normal re-
sponsibilities which are accepted by other government employees.

Such attitudes smack of elitism to federal officials, and elitism
built into the structure of social scientific thinking. Trained to
analyze problems rather than to convince constituencies, social scien-
tists become impatient with the vagaries of politics, preferring the
challenge of policy. One reason adduced by elected officials for pre-
ferring legal rather than scientific advisers is that the former have
a far keener appreciation of mechanisms for governing people and be-
ing governed by them. The legal culture breeds a respect for the
"popular will" rarely found among social scientists attached to govern-
ment agencies. Indeed, the resentment expressed by many House and
Senate Committees against Defense Department and State Department so-
cial scientists is a direct response to the elitist streak which seems
to characterize social scientists in government.

This is the reverse side of the "involvement-autonomy" debate.
The government pushes for total involvement and participation while
the social scientist presses for autonomy and limited responsibility
in decisions directly affecting policy. Elitism rationalizes the per-
formance of important service while enabling the social scientist to
maintain the appearance of detachment. Although social scientists view
their own federal involvement as marginal, at the same time they demand
access to top elites so that they may be assured that their recommenda-
tions will be implemented or at least seriously considered. But access
at this level entails bypassing the standard bureaucratic channels
through which other federal employees must go.

The social scientist's demand for elite accessibility, though said
to be inspired by noble purpose, tends to set the social scientist apart

from other employees of the federal government. He sees himself as an advising expert instead of an employee. The social scientist takes himself seriously as an appointed official playing a political role in a way that most other federal workers do not. But the federal bureaucracy finds the social scientist has come to Washington to "set the world on fire" along with and finds, that a presumptuous intention, one unmindful of the flame that also burns in the heart of staff administrator.

The question of ready access to leadership rests on notions of the superior wisdome of the social scientist; however, it is precisely this claim that is most sharply contested by federal administrators. Reflecting popular biases, administrators claim that the easy admission of social scientists to the halls of power presumes a correctness in their policy judgments not supported by historical events and not warranted by mass support from popular sectors. The separation of science and citizen roles often justifies lack of citizen participation. The scientific ethos thus comes to serve as a basis for admission into a system of power by circumventing the civic culture. This precisely is why federal bureaucrats feel that they are defending their political constituencies (and not, incidentally, their own bailiwicks) by limiting social science participation in the decision-making process.

If social scientists chafe at being outside the mainstream of academic life during their period of involvement with the political system, the federal bureaucrats are themselves highly piqued by the degree of supplemental employment enjoyed and desired by the social scientists. Also, in clear contrast with other federal governmental personnel, social scientists are able to locate supplemental positions in the Washington, D. C., area. They work as teachers and professors; they do writing on the side for newspapers and magazines; they edit books and monographs; they offer themselves as specialist consultants

capitalizing on their government involvement. They become active in
self-promotion to a degree far beyond the reasons for their being
hired.

In the more loosely structured world of the academy, such self-
promotion not only goes uncriticized but is rewarded. Royalty pay-
ments for textbook writing, involvement with publishing firms in edi-
torial capacities, honoraria connected with membership in granting
agencies, and payments for lectures on American campuses are all
highly respected forms of supplemental "employment." But federal
government employment involves 12 months a year and 24 hours a day.
This condition and its demands are far different from the nine months
a year and fluid scheduling endemic to most social scientist relations
with academic institutions. Federal agencies disdain the marginal as-
pects of the academics' involvement in political life, and their aware-
ness that men involved in government effort are often enough not rep-
presentative of the most outstanding talent available in the social
sciences also disturbs them, particularly because they traffic in the
status spinoff of both the academy and the polity. The anomaly exists
that men who may not have been especially successful in academic life
make demands upon the federal bureaucracy as if in fact they were the
most outstanding representatives of their fields. The same problems
might well arise in connection with outstanding representatives from
the social sciences, but the situation becomes exacerbated precisely
because the federal bureaucrats know they are dealing with - at least
in many instances - second- or and even third-echelon federally employed
social scientists.

Improving Interaction

In this profile, the academics and federal administrators alike
have been presented as more uniform in their responses to each other

than is actually the case. It should not be imagined that the two
groups spend all their time in bickering criticism of each other,
for then certainly no stable relationship worth speaking of could
exist. Still, the roles acted out by both parties make it clear that
we are in a period of extensive redefinition. The criticisms that
academics and politicos have of each other often have a mirror-image
effect, each side sharply focusing on the least commendable features
of the other. Significantly, the political context and content of
this issue has in the main been unconsciously suppressed by both sides.
The academics have preferred to emphasize their scientific activities
in objective and neutral terminology while the politicos express their
interests in organizational and bureaucratic terms. The strangest
aspect of this interaction, then, is that in the world of politics it
seems that nothing is more embarrassing than political analysis and
synthesis. As if by common consent, social scientists and policy-
makers have agreed to conduct their relations by a code of genteel
disdain rather than open confrontation. The gulf between the two
groups requires political distance as an operational equivalent to
the social distance between competing tribal villagers.

There may be cause for concern that federal government sponsor-
ship corrupts the character of social science output because it em-
phasizes big money, an overly practical orientation/ and limited dis-
semination of information, and because it fails to accept that any
research may be potentially subversive. But ironically, timid or op-
portunistic social scientific personnel are not recruited by the
government. Most often the social scientist seeks the federal sponsor
and becomes overly ambitious in the process of pressing exaggerated
claims for unique research designs and high-payoff promises. The chief
danger for the academic who has come to depend on the federal bureau-

cracy for research funds and its variety of career satisfactions is
not more financial dependence; rather it is that he may begin to de-
velop the loyalties and cautionary temperament of the opportunistic
civil servant per se.

Many interlocking appointments between the academy and the polity
have occurred at the organizational level without resolving persistent
questions as to what constitutes legitimate interaction between social
science and public policy. This indicates that the line between the
academy and the polity is blurred enough to require precise determina-
tion of exactly who is stimulating what kind of research and under
what conditions. As it becomes increasingly clear that social scien-
tists are the stimulants and administrators the respondents in a ma-
jority of instances, it becomes obvious also that criticism must be
leveled at social science participation rather than at federal practice.
To understand fully the sources of tension in the interaction between
academics and administrators, it is necessary to illuminate the range
of attitudes toward connection between the government and the academy,
which extends from advocating complete integration between administra-
tors and academics to calling for complete rupture between the two
groups. A spectrum of positions is presented on this matter.

The quarter of a century ~~period~~ from 1945 to 1970 represents a
range of attitudes from complete integration to complete rupture.
From World War II, and even prior to that, during the era of the New
Deal, optimism prevailed about an integrated relationship between
academics and administrators. This was perhaps best expressed by the
"policy-science" approach frequently associated with the work of
Harold Lasswell (1951). In his view the relationship between social
science and the political networks would be an internal affair, with
political men involved in scientific affairs just as frequently and

as fully as scientific men would be involved in political affairs.
The policy-science approach was a noble effort to redefine familiar
departmental divisions of labor. Sociology, political science, econo-
mics and the other social sciences would be absorbed by a unified
policy science which involved a common methodological core. The pro-
blem with his exchange network, as Lasswell himself well understood
in later years, is that federal administrators spoke with the presumed
authority of the "garrison state," while academics (even those tem-
porarily in government service) spoke with the presumed impracticality
of the "ivory tower."

The policy-science approach did in fact have direct policy con-
sequences. The end of World War II and the Fifties saw the rise of
new forms of institutional arrangements for housing social science. But
more than organization was involved. A new emphasis cut across disci-
plinary boundaries. Area studies emerged in every major university.
Communism was studied as part of the more general problem of the role
of ideology in social change. This was followed by centers for ur-
ban studies and the study of industrial and labor relations. But des-
pite the rise of institutionalized methods for uniting specialties,
university department structures had a strange way of persisting, not
just as lingering fossils but as expanding spheres of influence. It
soon became apparent that in the struggle to influence the graduate
student world and to decide who shall or shall not be appointed and
promoted in university positions the "deaprtment" held final authority.
The separate departments of social sciences enabled the disciplines to
retain their vitality. At the same time that the policy-science ap-
proach was confronting departmentalism, disciplinary specialization
was increasing. During the postwar period, anthropology insisted on
departmental arrangements distinguishing it from sociology and theology,

while other areas such as political science and social work became
more sharply delineated than ever before. The policy-science approach
was able to institutionalize all sorts of aggressive and at times even
progressive reorderings of available information, but failed to esta-
blish the existence of a policy-science organization. And this proved
fatal to its claims for operational primacy.

The "policy-science" approach of the fifties was supplanted by
the "handmaiden" approach of the early sixties, in which social science
was to supply the necessary ingredients to make the political world
function smoothly. The reasoning was that the social sciences were
uniquely qualified to instill styles in federal decision-making based
on confirmed data. But this was not to entail complete integration
of services and functions. This handmaiden approach was considered
more suitable to the nature of both the sciences and the policy-making
aspects of government, and was materially assisted by a rising emphasis
on applied social research. They new emphasis on application and
on large-scale research provided the theoretical rationale for janitor-
ial "mop-up" services. Applied research was to make the search for
the big news, for the vital thrust; participation in this intimate
consensual arrangement would be deprive the social sciences of their
freedom but would guarantee relevance. The "theoryless" service ap-
proach was thus wedded to an action orientation.

Advocates of the handmaiden approach such as Ithiel de Sola Pool
(1967) vigorously defended social scientists' obligation to do mean-
ingful research for government. It was noted that an organization
like the Department of Defense has manifold needs for the tools of
social science analysis as a means for better understanding its world.
It was pointed out that the intelligence test had been an operational
instrument in manpower management since World War I, and that the De-

fense Department and other federal agencies had become major users
of social psychology in military and sensitive areas. As the world's
largest training and educational institution, the U. S. government had
to acquire exact knowledge for the selection and training of an enor-
mous number of human subjects. Equally significant was the federal
government's needs for exact foreign area information. This thirst
for knowledge of the particular cultural values and social and poli-
tical structures of foreign countries increased as the world was
carved up into potential enemies or potential allies of the United
States.

The ironic aspect of this support for useful research is that
although the handmaiden approach ostensibly left social science autonomy
intact, it reduced that autonomy in fact by establishing criteria for
federal rather than social science "payoff." High-yield research areas
uniformly involved what the social sciences could do for the poli-
tical structures and not necessarily the other way around. Thus, while
the policy-science approach gave way to the service industry orienta-
tion of the handmaiden approach, the latter, too, was not based on any
real parity between the academy and the polity.

A new approach, considerably removed from both the policy-science
and handmaiden approaches, has been finely articulated by David B. Truman
(1968). As theory, it expresses a renewed sense of equity and parity
between social scientists and administrators. Under Truman's arrange-
ment there would be frequent but largely unplanned interchanges between
federal bureaucratic positions and university positions. This exchange
of roles would prove valuable and could eventually be explored and en-
couraged on a systematic basis. Meanwhile, the selective participation
approach advocates minimal formal structure in the system.

The most important aspect of the selective participation approach
is that it is based upon a norm of reciprocity. A partial inter-
change of personnel could be accomplished primarily through regular
seminars and conferences mutually attended by social scientists and
government administrators, each cluster of men representing carefully
designed combinations. Another method might be alternating presenta-
tion of scientific development and policy problems at these meetings.
Unlike the normal consultant relationship of the handmaiden style,
this would guarantee some kind of equity between the academy and the
polity. Selective participation would include securing grants and
promoting federal research for multidisciplinary teams of academics
working on political problems, instead of the usual outright politi-
cal employment of individual social scientists or academic talent.
This, it was hoped, would provide a flexible arrangement of special-
ties which would fill the gap between scientific knowledge and public
purpose without detriment either to social scientists or political
policy-makers. Operationally, it meant a greater flow of funds from
government agencies to research institutes housed on university cam-
puses, a not inconsequential change over the policy-science approach,
which projected a much more intimate ecological as well as ideological
network.

The dilemma was that the selective participation approach im-
plicitly assumed an exchange network with a parity of strength be-
tween political decision-makers and academics. The approach failed
to demonstrate that the academic would be on a par with the adminis-
trator, for the latter had financial inputs while the former had the
informational outputs. In point of fact the government agency still
does the hiring, even in the selective participation approach; and
the academics participate in a policy-making role without much expec-

tancy of a payoff for social science theory or methodology.

This has given rise to what might be called the principle of
"nonparticipation," which is increasingly being adopted. Social
scientists continue to write and publish in areas of foreign research
or in sectors vital to the national political arena but do not do so
under government contract or as a direct response to a federal agency.
It was felt that if the autonomy of the social sciences means anything
at all, uses and findings legitimately arrived at will be incorporated
into federal policy-making whether or not social scientists partici-
pate actively or critically. The principle of nonparticipation tended
to be adopted by many conservative as well as radical social scientists
who saw in the growth of federal social research a threat to the stan-
dard forms of status advancement in the professions and also a move-
ment toward applied social planning which violated their own feeling
for the generalizing nature of social science. On organizational and
intellectual grounds the principle of nonparticipation served as an
effective response to the policy-science approach. The underlying as-
sumption of the notion of nonparticipation is that the federal govern-
ment has more to gain than does the social scientist by the interaction
between them. Although interaction would be maintained, the order of
priorities would be changed so that social scientists no longer would
have the onerous task of providing high-payoff research for others with
low yields to themselves.

In many ways the principle of nonparticipation suggested that
the university department remain the primary agency in the organiza-
tion of social science instead of the federal research bureau. The
nonparticipant in federal programs often found himself to be the cri-
tic of bureaucratic research in general, and of bureaucratic agencies
attached to universities in particular. He did not want to have his

research controlled by federal decision-making; and, more important,
he did not want a federal agency to usurp what was properly a judg-
ment in the domain of a university department. At the same time, the
principle of nonparticipation spilled over into the principle of ac-
tive opposition. This opposition was registered in the main by young-
er scholars in areas such as history and by graduate students in the
social sciences, that is, among those often involved in student pro-
test movements. From their point of view the matter could not be re-
solved on the essentially conservative grounds of selective use by the
government of the best of social science. A conscious attempt must
be made to utilize scholarship for partisan or revolutionary goals
which could under no circumstances be employed by the establishments
linked to government agencies. As Hans Morgenthau indicated, this
represented a movement away from the belief that the social scientist
and the federal administrator inhabited mutually exclusive institu-
tions / to a belief in a more active opposition because they occupied
mutually hostile positions with antithetical goals.

In one sense, the radical posture accepts the policy-science
appraisal of a political world dominated by the "garrison state" but
rejects its remedy of social science immersion to reorient govern-
ment away from its predatory world missions. The policy-science view
assumed the educability of military-minded rulers. The antipartici-
pation view assumes the reverse, namely, the ease with which social
scientists become incorporated into the military and political goals
of men of power.

Radical critics like John McDermott assert that in practice the
goals of the academy and the polity have become antithetical. Further-
more, they say that, theoretically, they ought to be antithetical. A
transformation of the dream of action into the nightmare of federal

participation ~~has been brought about~~, in which the academy became
in effect an adjunct of the federal establishment. Academic social
scientists' dream of position and prestige has in some sense been
realized by their transformation into men of action: academic men
have become high priests of social change. The desire for social
change has, in effect, overwhelmed the goals toward which such change
was directed.

The move toward active opposition is a critique of the way in
which the university, no less than the government, is structured.
Those who moved away from federal participation simultaneously turned
their energies on the university system. They hold that the academy
itself, as beneficiary of federal funds, has become the political par-
ty of the academic man. The rash of student attacks against the uni-
versity must be considered, in part at least, symbolic attacks against
the notion of integration of policy-making and academic performance.
The most well-guarded non-secret of the present era of university re-
lationships to the government, at least insofar as these ties bear
upon the notion of active opposition, concerns the general political
and ideological climate which now prevails. Surrogate politics has
now become a rooted pattern in American academic affairs, partly be-
cause academics come to politics by way of moral concern, while
politicians come to moral concerns by way of political participation.
Surrogate politics is also a reflex action of the expanding articu-
late but impotent social sectors against what have become the domi-
nant political trends of the United States at this time.

Surrogate politics has its place in national affairs. Indeed,
the question of the relationship between the academy and the polity
is precisely a question of surrogate politics. A common undercurrent
of moral revulsion for professional hucksterism and amateur gamesman-

ship has forced the present review of the status between social scien-
tists and policy-makers. This same reexamination should have taken
place a quarter of a century ago, despite the difficulties of the
situation. But precisely because of the optimal consensus which
existed in the past concerning the political climate, the issues
now being discussed were considered improper topics for social
scientists in pursuit of truth.

During the 1941-1945 period, when the United States was engaged
in a world conflict in which the overwhelming number of citizens felt
involved in the very survival of civilization itself, there were no
pained expressions about government recruiting on campuses. There was
no resentment toward the retooling of universities to satisfy mili-
tary research needs and psychological warfare, propaganda research,
or conventional bombing surveys. Nor were any scholarly panels held
at professional meetings concerning the propriety of social scientists
who accepted appointments under the Roosevelt Administration in the
Office of War Information or in the Office of Strategic Services, such
as those panels which now discuss the propriety of relationships be-
tween social scientists and the Federal Bureau of Investigation or
the Central Intelligence Agency.

Between 1946 and 1960, or the end of the World War II and the
beginning of the Kennedy era, the United States was involved in a
Cold War with the Soviet Union as its primary protaganist. We ob-
viously are not here concerned either with the origins or sources
of the Cold War, but rather the fact of its existence. It was dur-
ing this period that social science was perhaps most partisan in its
commitment to the American foreign policy posture. This partisan-
ship was manifested in many ways: the rise of think tanks with dir-
ect federal sponsorship for applied social science research, the

emergence of specialized centers such as Russian Centers, Southeast
Asian Centers, Latin American Research Councils, that once more were
harnessed to the tasks of American foreign policy. Beyond that was
the automatic assumption that social science did indeed have values,
the values of the American century. The fanciful illusion that this
did not constitute an ideology was nothing more than a chimera be-
hind which the values of social science meshed more perfectly, either
before or since, with the tasks of American foreign policy.

This same era was not so much one of transition from wartime to
peacetime, but rather a movement from an overt world struggle between
democracy (then defined as both capitalist and socialist in character)
and fascism, to capitalism and communism. As a result, this specific
era witnessed, in the West, a growing resurgence of private enterprise.
But in the United States, at least, this resurgence was more ideologi-
cal than organizational. The bulk of funding for research and de-
velopment continued to flow in ever-increasing amounts from public
government sources. As a result, the real gap between State capital-
ism and State communism was far narrower in practice than in theory.
It has been noted that this was also the period in which the real gap
between scientific disciplines diminished to a commensurate degree
(cf. Price, 1965:5, and Salomon, 1973:46-48). This ambiguous line
between disciplines reflected itself specifically in the emergence
of task-oriented social research. The rise of "team" efforts, orien-
ted toward predetermined "projects" had the result of making policy
central. The scientific background of key personnel mattered far less
than the social (or as it sometimes turned out anti-social) goals of
the research design.

Between 1960 (the beginnings of the thaw) and 1972 (the end of
the Vietnamese conflict) controversy over the relationship between so-

cial science and political performance increased in both intensity
and quantity. The breakdown of the consensus was evident within the
social scientific communities by a series of surrogate discussions
over the legitimacy of the war in Vietnam, Latin American self-deter-
mination, or civil strife in American ghettos. Unable to address
such issues directly and unprepared to design structures for future
alleviation of such world and national pressures, social scientists
exaggerate the politics of inner organizational life. Professional
societies engage in mimetic reproduction of central social concerns
on a low-risk and probably a low-yield basis.

Organizational struggles also received, during this period, the
encouragement and support of corresponding professional people and
societies from the Third World and from minority groups. It is no
accident that federal projects which had Latin American targets have
come under particularly severe assault. The existence of a counter-
social-science establishment in countries such as Mexico, Chile,
Argentina, and Brazil provides vocal support for domestic United
States academic opposition, and for firming up such opposition by
posing the threat of total isolation from foreign area research for
a failure to heed the dangers of certain kinds of political research.
Increasingly, black militants in this country have adopted a similar
posture of nonparticipation in social science projects without clearly
stating preconditions of protection of the "rights" of the subjects
or sovereigns.

Since 1972 the fervor over heedless involvement in policy has eased
considerably. However, the feeling that social science should still
remain a respectable distance from policy has had a residual impact.
The emergence of a detente between the United States and the Soviet
Union, and the reestablishment of diplomatic relationships between

the United States and China, coupled internally with a growing con-
servatism with respect to the rights of the poor and the need for
further welfare measures has led to a situation in which social scien-
tists have become increasingly aware of the commodity value of their
researches and the mandarin effects of their findings. Thus, while
the amount of social science activity has increased between 1941 and
1974 almost as a constant, the character of the association between
the social scientists and the political establishment have been tre-
mendously altered over time. The likelihood is that this pattern will
continue into the foreseeable future. The very emergence of the game
theory as a concept replacing organicism subjects the social sciences
themselves to the very analysis they have placed the political actors
under. As a result, the line between social science and political
action may have blurred, while at the same time, the worth of each
to the other has never been more intensely felt.

One might say of social science what Walter Lippmann long ago
said of democracy: it is not a very good instrument for the making
of public policy but it is about the best one available. Similarly,
does this seem to be the case with the social sciences although on a
less philosophical, more pragmatic basis than Lippmann initially had
in mind. In the absence of a mass outpouring of democratic persua-
sion, and in the presence of political corruption in high office and
political apathy among the ordinary citizens, the social sciences
essentially perform the role of cementing American goals and present-
ing them in such a manner, in which, at the very least, if it does
not provide a rational solution to social problems it prevents an ir-
rational solution being adopted toward these same problems. This may
not be saying much for the social sciences but it holds out consi-
derably more promise than for any other method of political participa-

tion by the social science community under present conditions in

American life.

IX. MODEST PROPOSALS ON THE CONDUCT OF SOCIAL SCIENTISTS AND POLICY-MAKERS.

Recommendations are simple to make but difficult to execute. Yet, in a work on policy-making it would be a dereliction of duty not to attempt some policy recommendations. For the most part, these recommendations flow from the description and empirical contents of what preceded this final set of remarks. But again, like most forms of policy recommendation, one cannot be entirely unsure that specualtions are simply being smuggled into a conclusion without sufficient warranty. That as it may be, I believe that the following set of guidelines may assist those in the European community who are charged with considering the conditions for social science participation in the policy-making process/ and who already have passed the first hurdle and decided that such participation and interaction is a good and useful phenomenon.

The European "welfare" tradition in policy affairs is in sharp contrast to the American "free enterprise" tradition. And in plain truth, this latter approach has led to a bureaucratic style in funding that swelled the ranks of the social sciences but did precious little to enrich the quality of its policy recommendations. As a result, we would have to recommend a more imaginative sort of funding program: one which sought greater direct contact between donor and recipient of funds with a concommitant reduction in the number of administrative middlemen. Such funding should also have a series of build-in follow up measures to assure a continuing sort of interest in the results and consequences of policy measurement and implementation. The sharp bifurcation between social scientists who recommend and policy-makers who implement/ is dangerous to both sides, since it creates a network of irresponsibility and misinter-

pretations which can have disastrous real world consequences.
The wider the sources of funding for policy, the greater are the
chances of imaginative and innovative social science. A plurality
of funding sources, coupled with a plurality of support to differ-
ent types of researchers for the same kind of research will serve
a dual purpose: prevent an overconservatized image of the world
and avoid the inevitable idiosyncratic consequences of having only
one sort of response or report on a major area of policy concern.
Finally, one would hope for fewer social scientists working full
time directly for federal, state and city agencies and more part-
time researchers who also have commitments and resource outside the
bureaucratic structure, i.e., university affiliations. The multi-
plicity of linkages enables social sciences to retain their autonomy
and provide honest reporting. It also permits the maximum efficien-
cy on the part of administrative systems at the lowest possible fis-
cal costs. Social scientists have enough differences from the ordi-
nary sorts of administrative personnel to warrant a careful considera-
tion of the types of employments and deployments of their talents.
And the results obtained in the United States would indicate that
those social scientists who maintain several professional roles serve
the needs of the policy sector best; and at the same time run the
least risk in subverting the canons of science and scholarship that
characterize "pure" research situations best located in the univer-
sity and non-profits sectors.

The best argument for the widest possible implementation of
social scientists in legislative, executive and judicial branches
of government at national and sub-national levels is the brake on
idiosyncratic decision-making that often results from too narrow a
consideration of evidence and contexts. The worst argument for

such social science talent being more widely used is to avoid or by-
pass the democratic processes, a situation in which the role of ex-
pertise comes to displace the will of the people on major issues.
Between these two poles the tightrope must be walked. Again, there
are no magic formulas: populism can degenerate into jingoism, just
as assuredly as social science can issue into elitism. But given a
context in which decision-making becomes increasingly sensitive and
complex, and the technological demands are for immediacy of deci-
sions no less than accuracy of forecasting, there can be no question
that the tilt is with the wide deployment of social science. For at
this time there is a widespread utilization of economists as the one
group that are held to be reliable and worthwhile in a policy con-
text. And yet, more and more, the problems are at the qualitative,
rather than quantitative levels, problems of how good, no less than
how much. Under such circumstances, definitions of what constitutes
the good, of how the aims of the society can be meshed and blended
to the constraints of the economy, indicate the need for much wider
use of psychologists, sociologists, anthropologists and political
scientists. Indeed, the very proliferation of the social sciences
at policy levels will itself provide a democratizing effect on those
governments and agencies which at present confine themselves to
economists and engineers.

There exist wide differences between the utilization of
economists and the so-called "hard" social sciences in contrast to
the far less employment of the findings of the so-called "soft" so-
cial sciences. In part, this is an inevitable consequence of the
drive of policy-makers for quantitative information that can easily
be justified, correlated and tabulated, but it is clearly the case
that a great many problems of individuals, communities and nations

alike have are precisely in the area of the quality of life in the
more ubiquitous framework of social values and social norms. For
that reason, one would hope that the inauguration and implementa-
tion of social science is not reduced to simple management techniques
or engineering problems but rather takes cognizance of those murky,
gray areas of psychology and politics that are perhaps less subject
to quantification but at least as useful in their findings for the
framing of individual needs and national goals. For that reason,
we would urge either a single body of social scientists involving
the entire spectrum of disciplines or, failing that, at least two
social science bodies, one reporting on the quantity of goods and
services available and the other on the character and quality of
those goods and services. This will have to be left to each indi-
vidual country, since the history of participation of the social scien-
ces and policy-making are obviously different for different countries.

There is such a heavy emphasis in the training of policy-orien-
ted social scientists on behalf of local communities or national
agencies that we sometimes forget the essential role of criticism
performed by the social sciences. In this context, what we would
urge is the widest possible training of social scientists for policy-
making roles in counter-establishment institutions no less than es-
tablished institutions. The role of social science in setting policy
may more readily take place in connection with the advice and sup-
port of industrial unions, ethnic minorities, special-interest groups,
such as women, the aged or the youth, and even the utilization of
social science to formulate political platforms of out of power and
out of favor parties. In short, in considering the role of social
science as a policy-making device, we have always to emphasize not
simply the sub-national levels at which such relationships between

science and policy can be maintained, but no less the ideological

content of such social science services. The failure to admit this

possibility in the past has led to an undue and unfair assumption

that social science was intrinsically a conservative agency working

on behalf of the established system. In point of fact, only the

widest possible utilization of social science in counter-establish-

ment institutions can break down these powerfully rooted prejudices

that are equally dangerous both for the social scientists and the

policy sector, which, after all, needs the best available information

not the loudest or noisiest forms of patriotism.

One exceedingly important consequence of the high participation

of social science in public policy is that the very doing of social

science becomes directly pegged to public policy definitions of

needs and goals. That is to say, if the problems of ecology and en-

vironment become central, then the fundings open up in this area.

This "Mandarin Effect" signifies several dangerous possibilities:

first, that no research will get done outside of policy-stated needs,

since no funding will be in the offing. Second, that the social

science research will be of a crude empiricist variety, veering sharp-

ly away from any sort of specualtion that might tend to dampen en-

thusiasm of project sponsorship for future research. Third, that

social science will set its priorities in strictly fiscal terms and

hence fail to challenge prevailing orthodoxies. In some measure,

the very tension that must exist between social science and public

policy needs is a safeguard against such a premature atrophy. How-

ever, for this "creative tension" to remain intact, sources of fund-

ing independnet of projects themselves are required. And it is pre-

cisely the unwillingness of donors and sponsors to provide for "free

floating" funds that jeopardizes social science autonomy.

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ary spirit, illustrating what cannot be done, such as in the work
of David Reisman. The purpose of mentioning these names is selec-
tive and not intended as an exhaustive list of who is the most im-
portant contributor to the social sciences. It is to say that sup-
port for individuals, and failing that, respect for these same in-
dividuals to survive intact, and be taken seriously, is an essential
element in any sound federal approach to the relationship between
social science and public policy. It is easy to develop the sort
of conceit and arrogance that stems from money, influence and power
in high places. The best corrective and antiseptic for such sins
of the powerful is the researches of the lonely individual, the
critical voice raising doubts and even obstacles to what may appear
at the self-evident propositions. The European tradition, with its
build-in respect for the intellectual tradition over and against the
scientific tradition is perhaps better able to withstand the arro-
gance of social science power than has been the American tradition,
with its pragmatic predilections. That as it may be, to end on a
cautionary note is as apt as to have begun this study with an op-
timistic flavor.

The needs of policy are best met in a context of the free and
critical exchange of ideas, and the best place for this in the Uni-
ted States remains the university system. Agencies that become too
removed, too distant, from the norms of social science scholarship
are less likely to affirm and reaffirm an independent stance. The
impulse behind private research agencies like Abt in Boston, RAND
in Santa Monica, Systems Analysis, etc., was not simply innovation,
nor simply a way to avoid university fiscal overhead, but rather to
establish a direct tie-in between donor and researcher that made ap-
plied research less rich in theoretical potential, precisely because

'generalizability was not a basic value for fiscal donors to research.
The danger of such private counselling services are many, but all
wrapped up with a lack of accountability to any larger body of know-
ers. That is what a university is for: to establish ground rules
for research/ and hence a system of theoretical accountability quite
beyond the form bookkeeping schedules already kept by such private
agencies.

If the university, by its conservatism, greediness in extract-
ing super-overhead profitability and just plain indifference to ap-
plied research, laid the ground for the present entrepreneurial spi-
rit in American social research, it nonetheless/ affords the most
superior available mechanism for the scientific adjudication of the
research process. If research arms should be vigorous and indepen-
dent in the pursuit of research, even dangerous research, they none-
theless, should not become isolated from the tap roots of knowledge
itself: and the university is the cultural home for such taproots.
The problems of fusing university and policy life are many, but the
problems of bifurcating such a relationship are insoluble, leading
to arrogance, presumptions of hard-headedness and ultimately to a
negation of science as an instrument of criticism as well as con-
struction.

The growth of social science for policy purposes will require
a large-scale shift in the understanding of what science no less than
social science is all about. Models of science which frankly take
into account the role of advocacy procedures, the place of social
forecasting/ and the need for large-scale as well as small-scale plan-
ning mechanisms must begin to augment the traditional empirical and
historical forms of description. The present divisions between "pure"
and "applied" science only serves to permeate and prolongate the myth

of dualism, the idea that "facts" and "values" or "professionalism"
and "occupationalism" are in different realsm. The need for cross-
fertilization has never been greater, and the rise of policy-making
roles for the sciences only points out further this need to maintain
a balance between scientific theory and scientifically based actions.
The content of "radicalism" for science is simply the potentials
of the truth about the world to be implemented over and against the
claims of blood ties, impulse, collective will, national rights, etc.
And thus, it is the rational core of science that gives it its spe-
cial qualities and uses for policy agencies.

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Appendix 1

FEDERAL OBLIGATIONS FOR RESEARCH, BY DETAILED FIELD OF SCIENCE, FISCAL YEARS 1970, 1971, AND 1972

(Thousands of Dollars)

Field of Science	Actual, 1970	Estimates 1971	Estimates 1972
Total, All Fields	5,601,906	5,995,123	6,643,584
Life Sciences, Total	1,533,432	1,735,136	1,945,097
Biological	684,782	735,295	850,875
Clinical Medical	685,633	804,177	874,284
Other Medical Sciences	144,900	168,361	193,169
Life Sciences, NEC	18,117	27,303	26,769
Psychology, Total	113,328	125,166	140,413
Biological Aspects	45,141	47,379	58,390
Social Aspects	64,175	74,569	79,054
Psychological Sciences, NEC	4,012	3,218	2,969
Physical Sciences, Total	1,010,450	1,025,477	1,086,483
Astronomy	210,950	222,196	198,772
Chemistry	243,894	246,627	304,348
Physics	538,333	536,306	568,421
Physical Sciences, NEC	17,273	20,348	14,942
Environmental Sciences, Total	586,631	632,124	701,988
Atmospheric Sciences	287,737	311,193	340,301
Geological Sciences	188,897	193,223	216,329
Oceanography (excluding biological)	91,222	97,290	112,148
Environmental Science, NEC	18,775	30,418	33,210
Mathematics	102,138	103,963	111,770
Engineering, Total	1,967,739	2,013,906	2,197,655
Aeronautical	466,464	473,635	474,598
Astronautical	289,525	287,850	328,946
Chemical	117,224	113,299	122,850
Civil	60,771	80,425	106,178
Electrical	354,351	356,340	393,633
Mechanical	140,011	145,327	143,849
Metallurgy & Materials	151,549	154,734	159,750
Engineering, NEC	367,844	402,296	467,851
Social Sciences, Total	215,852	272,994	311,018
Anthropology	8,763	10,412	15,128
Economics	84,332	89,344	98,706
History	4,542	5,006	5,181
Linguistics	1,989	2,012	2,636
Political Science	7,417	6,070	7,327
Sociology	38,487	50,009	71,840
Social Sciences, NEC	70,322	110,141	110,200
Other Sciences, NEC	72,336	86,357	149,160

SOURCE: National Science Foundation

FEDERAL OBLIGATIONS FOR RESEARCH IN SOCIAL SCIENCES, BY AGENCY AND
DETAILED FIELD OF SCIENCE, FISCAL YEAR 1972 (ESTIMATED)

(Thousands Of Dollars)

Agency and Subdivision	Total	Anthro-Pology	Economics	History
Total, All Agencies	311,018	15,128	98,706	5,181
Departments				
Department of Agriculture, Total	37,273	—	35,274	155
Agricultural Research Service	1,146	—	1,041	—
Cooperative State Research Service	16,363	—	15,497	—
Economic Research Service	15,428	—	14,696	155
Farmer Cooperative Service	943	—	943	—
Forest Service	3,120	—	2,824	—
Statistical Reporting Service	273	—	273	—
Department of Commerce, Total	9,465	—	9,016	—
Bureau of the Census	944	—	495	—
Economic Development Administration	1,591	—	1,591	—
Maritime Administration	550	—	550	—
National Oceanic and Atmospheric Admin.	1,872	—	1,872	—
Office of Business Economics	4,508	—	4,508	—
Department of Defense, Total	8,110	25	868	—
Department of the Army	6,230	25	725	—
Department of the Air Force	303	—	—	—
Defense Agencies	1,110	—	—	—
Departmentwide Funds	467	—	143	—
Dept. of Health, Educ. & Welfare, Total	116,866	2,819	8,000	—
Health Services & Mental Health Admin.	33,517	2,655	7,360	—
National Institutes of Health	1,478	164	140	—
Office of Child Development	2,000	—	500	—
Office of Education	53,375	—	—	—
Social & Rehabilitation Service	12,210	—	—	—
Social Security Administration	14,286	—	—	—
Department of the Interior, Total	1,810	—	1,093	23
Bureau of Land Management	58	—	58	—
Bureau of Outdoor Recreation	76	—	45	3
Bureau of Reclamation	80	—	80	—
Office of Water Resources Research	1,596	—	910	20
Department of Justice, Total	5,146	—	—	—

Appendix 2

FEDERAL OBLIGATIONS FOR RESEARCH IN SOCIAL SCIENCES, BY AGENCY AND DETAILED FIELD OF SCIENCE, FISCAL YEAR 1972 (ESTIMATED)

(Thousands of Dollars)

Agency and Subdivision	Linguistics	Political Science	Sociology	Social Sciences NEC	Psychology
Total, All Agencies	2,636	7,327	71,840	110,200	140,413
Departments					
Department of Agriculture, Total	—	45	1,543	256	31
Agricultural Research Service	—	—	48	57	31
Cooperative State Research Service	—	—	866	—	—
Economic Research SErvice	—	45	333	199	—
Farmer Cooperative Service	—	—	—	—	—
Forest Service	—	—	296	—	—
Statistical Reporting Service	—	—	—	—	—
Department of Commerce, Total	—	—	449	—	1,466
Bureau of the Census	—	—	449	—	613
Economic Development Administration	—	—	—	—	—
Maritime Administration	—	—	—	—	—
National Oceanic and Atmospheric Admin	—	—	—	—	853
Office of Business Economics	—	—	—	—	—
Department of Defense, Total	420	1,600	4,544	653	35,705
Department of the Army	100	1,150	4,230	—	10,142
Department of the Air Force	—	—	—	303	7,160
Defense Agencies	320	440	—	350	13,348
Departmentwide Funds	—	10	314	—	474,489
Dept. of Health, Educ. & Welfare, Total	716	738	24,339	80,254	74,336
Health Services & Mental Health Admin.	—	738	21,312	1,452	38,678
National Institutes of Health	451	—	692	31	22,900
Office of Child Development	—	—	500	1,000	500
Office of Education	265	—	—	53,110	9,838
Social & Rehabilitation Service	—	—	1,835	10,375	2,420
Social Security Administration	—	—	—	14,286	—
Department of the Interior, Total	—	260	265	169	68
Bureau of Land Management					
Bureau of Outdoor Recreation	—	5	20	3	
Bureau of Reclamation					
Office of Water Resources Research	—	255	245	166	68
Department of Justice, Total	—	240	2,206	2,700	2,115

Appendix 2

FEDERAL OBLIGATIONS FOR RESEARCH IN SOCIAL SCIENCES, BY AGENCY AND DETAILED FIELD OF SCIENCE, FISCAL YEAR 1972 (ESTIMATED)

(Thousands of Dollars)

Agency and Subdivision	Total	Anthro-Pology	Economics	History
Departments				
Bureau of Narcotics and Dangerous Drugs	471	—	—	—
Law Enforcement Assistance Admin.	4,675	—	—	—
Department of Labor, Total	12,642	—	12,642	—
Bureau of Labor Statistics	2,617	—	2,617	—
Labor-Management Services Admin	812	—	812	—
Manpower Administration	6,680	—	6,680	—
Workplace Standards Administration	2,533	—	2,533	—
Deaprtment of State, Total	7,080	—	2,789	—
Department Funds	650	—	—	—
Agency For International Development	6,430	—	2,789	—
Department of Transportation, Total	17,455	—	12,347	—
Federal Highway Administration	1,700	—	680	—
Federal Railroad Administration	3,985	—	3,685	—
Office of the Secretary	9,575	—	7,250	—
Urban Mass Transportation Admin.		—	732	—
Other Agencies				
Advisory Comm On Intergovt Relations	487	—	243	—
Civil Aeronautics Board	331	—	331	—
Environmental Protection Agency	808	—	611	—
Federal Home Loan Bank Board	497	—	497	—
Federal Trade Commission	460	—	460	—
National Science Foundation	41,399	8,222	7,000	1,000
Office of Economic Opportunity	41,700	—	6,400	—
Office of Science and TEchnology	20	3	3	3
Small Business Administration	205	—	205	—
Smithsonian Institution	8,059	4,059	—	4,000
Tennesee Valley Authority	386	—	386	—
US Arms Control & Disarmament Agency	634	—	541	—
Veterans Administration	185	—	—	—

Source: National Science Foundation

Appendix 2

FEDERAL OBLIGATIONS FOR RESEARCH IN SOCIAL SCIENCES, BY AGENCY AND DETAILED FIELD OF SCIENCE, FISCAL YEAR 1972 (ESTIMATED)

(Thousands of Dollars)

Agency and Subdivision	Lin- Guistics	Political	Sociology	Social Sciences NEC	Psychology
DEpartments					
Bureau of Narcotics and DAngerous Drugs	-	-	471	-	-
Law Enforcement Assistance Admin.	-	240	1,735	2,700	2,115
Department of Labor, Total	-	-	-	-	-
Bureau of Labor Statistics	-	-	-	-	-
Labor-Management Servic es Admin	-	-	-	-	-
Manpower Administration	-	-	-	-	-
Workplace Standards Administration	-	-	-	-	-
Department of State, Total	-	250	1,886	2,155	-
Department Funds	-	-	-	650	-
~~cy For International Development	-	250	1,886	1,505	-
ᵤepartment of Transportation, Total	-	400	1,220	3,488	-
Federal Highway Administration	-	-	1,020	-	-
Federal Railroad Administration	-	200	100	-	-
Office of the Secretary	-	-	-	2,325	-
Urban Mass Transportation Admin	-	200	100	1,163	-
Other Agencies					
Advisory Comm On Intergovt Relations	-	244	-	-	-
Civil Aeronautics Board	-	-	-	-	-
Environmental Protection Agency	-	-	51	146	-
Federal Home Loan Bank Board	-	-	-	-	-
Federal Science Foundation	-	-	-	-	-
National Science Foundation	1,500	3,450	2,850	17,377	-
Office of Economic Opportunity	-	-	32,300	3,000	-
Office of Science and Technology	-	7	2	2	-
Small Business Administration	-	-	-	-	-
Smithsonian Institution	-	-	-	-	-
Tennessee Valley Authority	-	-	-	-	-
US Arms Control & Disarmament Agency	-	93	-	-	-
Veterans ADministration	-	-	185	-	-

ᵤurce: National Science Foundation

Appendix 3

SOCIAL SCIENCE RESEARCH WITH FEDERAL AGENCY SPONSORSHIP

Rank	Federal funds, 1969 (millions)	Institute	Type	State	Main agency sponsor
1	$162,659	Lawrence Radiation Laboratory	a*	California	AEC
2	156,295	Jet Propulsion Laboratory	a	California	NASA
3	99,302	Los Alamos Scientific Laboratory	a	New Mexico	AEC
4	89,401	Argonne National Laboratory	a	Illinois	AEC
5	76,338	Aerospace Corporation	a	California	AF
6	61,379	Lincoln Laboratory	a	Massachusetts	AF
7	51,218	Applied Physics Laboratory	a	Maryland	Navy
8	49,613	Pacific Northwest Laboratory	a	Washington	AEC
9	48,855	Brookhaven National Laboratory	a	New York	AEC
10	32,702	MITRE	a	Massachusetts	AF
11	31,030	Stanford Research Institute	b	California	DOD
12	23,552	Stanford Linear Accelerator Center	a	California	AEC
13	20,438	RAND	a	California	AF
14	18,093	Cornell Aeronautical Laboratory	b	New York	DOD
15	16,015	Battelle Memorial Institute	b	Ohio	DOD
16	15,423	System Development Corporation	c	California	DOD
17	13,616	National Center for Atmospheric Research	a	Colorado	NSF
18	12,388	Institute for Defense Analyses	a	Virginia	DOD
19	9,961	IIT Research Institute	b	Illinois	DOD
20	9,915	Research Analysis Corporation	a	Virginia	Army
21	9,218	Center for Naval Analyses	a	Virginia	Navy
22	8,577	Ordnance Research Laboratory	a	Pennsylvania	Navy
23	7,652	Ames Laboratory	a	Iowa	AEC
24	7,404	Plasma Physics Laboratory	a	New Jersey	AEC
25	7,231	National Radio Astronomy Observatory	a	West Virginia	NSF
26	5,840	Southwest Research Institute	b	Texas	DOD
27	5,564	Kitt Peak National Observatory	a	Arizona	NSF
28	5,241	Riverside Research Institute	c	New York	DOD
29	4,970	Princeton-Pennsylvania Accelerator	a	New Jersey	AEC
30	4,900	Sloan-Kettering Institute	c	New York	HEW
31	4,642	Electronmagnetic Compatibility Analysis Center	a	Maryland	AF
32	4,321	Mayo Foundation	c	Minnesota	HEW
33	4,175	Syracuse University Research Corporation	b	New York	DOD
34	3,738	Atomic Bomb Casualty Commission	a	District of Columbia	AEC
35	3,555	Cambridge Electron Accelerator	a	Massachusetts	AEC
36	3,527	Southern Research Institute	b	Alabama	HEW
37	3,483	Research Triangle Institute	b	North Carolina	DOD
38	3,459	National Accelerator Laboratory	a	Illinois	AEC
39	3,445	Human Resources Research Office	a	District of Columbia	Army
40	3,400	Urban Institute	c	District of Columbia	HUD
41	3,205	Applied Physics Laboratory	a	Washington	Navy
42	3,089	Midwest Research Institute	b	Missouri	DOD
43	3,080	Hudson Laboratory	a	New York	Navy
44	2,770	Institute for Cancer Research	c	Pennsylvania	HEW
45	2,700	Research for Better Schools	a	Pennsylvania	OE

Rank	Federal funds, 1969 (millions)	Institute	Type	State	Main agency sponsor
46	$ 2,667	Southwest Center for Advanced Studies	c	Texas	NASA
47	2,646	Center for Urban Education	a	New York	OE
48	2,487	Southwest Regional Educational Laboratory	a	California	OE
49	2,485	Medical Research Foundation of Oregon	c	Oregon	HEW
50	2,484	Lovelace Foundation for Medical Education	c	New Mexico	AEC
51	2,457	Franklin Institute	b	Pennsylvania	DOD
52	2,307	Children's Cancer Research Foundation	c	Massachusetts	HEW
53	2,067	Oak Ridge Associated Universities	a	Tennessee	AEC
54	2,039	Worcester Foundation for Experimental Biology	c	Massachusetts	HEW
55	1,978	Jackson Laboratory	c	Maine	HEW
56	1,861	Center for Research in Social Systems	a	District of Columbia	Army
57	1,860	Oklahoma Medical Research Foundation	c	Oklahoma	HEW
58	1,763	Northwest Regional Educational Laboratory	a	Oregon	OE
59	1,746	Central Midwestern Regional Educational Laboratory	a	Missouri	OE
60	1,710	Southwest Education Development Laboratory	a	Texas	OE
61	1,707	Coordination Center in Early Childhood Education	a	Illinois	OE
62	1,685	Far West Laboratory for Educational R&D	a	California	OE
63	1,680	American Institutes for Research	c	Pennsylvania	DOD
64	1,613	Institute of Medical Sciences	c	California	HEW
65	1,454	Learning R&D Center	a	Pennsylvania	OE
66	1,404	Retina Foundation	c	Massachusetts	HEW
67	1,390	Educational Development Center	a	Massachusetts	OE
68	1,359	Southwest Foundation for Research and Education	c	Texas	HEW
69	1,350	Mathematics Research Center	a	Wisconsin	Army
70	1,207	Public Health Research Institute of New York	c	New York	HEW
71	1,200	Center for R&D for Learning and Re-Education	a	Wisconsin	OE
72	1,180	Analytical Services	a	Virginia	AF
73	1,179	Cerro-Toledo Inter-American Observatory	a	Chile	NSF
74	1,169	Salk Institute	c	California	HEW
75	1,131	Wistar Institute	c	Pennsylvania	HEW
76	1,074	Hudson Institute	c	New York	DOD
77	1,041	Space Radiation Effects Laboratory	a	Virginia	NASA
78	999	Eastern Regional Institute for Education	a	New York	OE
79	995	Stanford Center for R&D in Teaching	a	California	OE
80	938	Center for R&D in Higher Education	a	California	OE
81	938	Mid-Continent Regional Educational Laboratory	a	Missouri	OE
82	896	Appalachia Educational Laboratory	a	West Virginia	OE
83	862	Southwestern Cooperative Educational Laboratory	a	New Mexico	OE
84	820	Regional Educational Laboratory for the Carolinas and Virginia	a	North Carolina	OE

Rank	Federal funds, 1969 (millions)	Institute	Type	State	Main agency sponsor
85	$ 820	R&D Center in Teacher Education	a	Texas	OE
86	815	Atomic Power Development Associates	c	Michigan	AEC
87	809	Center for Study of Evaluation of Instructional Programs	a	California	OE
88	800	Upper Midwest Regional Educational Laboratory	a	Minnesota	OE
89	790	R&D Center of Educational Stimulation	a	Georgia	OE
90	699	Fels Research Institute	c	Ohio	HEW
91	670	Southeastern Educational Laboratory	a	Georgia	OE
92	614	Center for Study of Social Organization of Schools and Learning Process	a	Maryland	OE
93	610	Michigan Cancer Foundation	c	Michigan	HEW
94	608	Palo Alto Medical Research Foundation	c	California	HEW
95	587	Policy Research Center	a	New York	OE
96	564	Blood Research Institute	c	Massachusetts	HEW
97	537	Lowell Observatory	c	Arizona	NASA
98	519	Center for Advanced Study of Educational Administration	a	Oregon	OE
99	511	Boyce Thompson Institute for Plant Research	c	New York	HEW
100	500	Center for Educational Policy Research	a	California	OE
101	488	Arctic Institute of North America	c	District of Columbia	DOD
102	457	North Star R&D Institute	b	Minnesota	Interior
103	456	Haskins Laboratory	c	New York	HEW
104	449	Gorgas Memorial Institute	c	District of Columbia	HEW
105	436	Marine Biological Laboratory	c	Massachusetts	NSF
106	390	Central Atlantic Regional Educational Laboratory	a	District of Columbia	OE
107	385	Michigan-Ohio Regional Educational Laboratory	a	Michigan	OE
108	379	Research Foundation of Children's Hospital	c	District of Columbia	HEW?
109	346	Rocky Mountain Regional Educational Laboratory	a	Colorado	OE
110	320	South Central Regional Educational Laboratory	a	Arkansas	OE
111	320	Pacific Northwest Research Foundation	c	Washington	HEW
112	280	Institute for Medical Research and Studies	c	New York	HEW
113	241	Cooperative Educational Research Laboratory	a	Illinois	OE
114	205	Hanford Occupational Health Foundation	c	Virginia	AEC
115	204	Scripps Clinic and Research Foundation	c	California	AEC
116	16ŋ	Bureau of Social Science Research	c	District of Columbia	HEW
117	166	Carnegie Institution of Washington	c	District of Columbia	NASA
118	161	National Opinion Research Center	c	Illinois	HEW
119	160	National Planning Association	c	District of Columbia	HEW
120	41	Institute of Gas Technology	c	Illinois	DOD
121	30	Institute of Public Administration	c	New York	DOD
122	29	The Brookings Institution	c	District of Columbia	NSF

Rank	Federal funds, 1969 (millions)	Institute	Type	State	Main agency sponsor
123	$ 28	Western Behavioral Sciences Institute	c	California	DOD
124	24	Friends of Psychiatric Research	c	Maryland	HEW
125	12	New Jersey Mental Health R&D Fund	c	New Jersey	DOD

* a: R&D center; b: applied research institute; c: other nonprofit institute.

SOURCE:

Appendix 4

RECENT TECHNOLOGY ASSESSMENTS INVOLVING SOCIAL RESEARCH
(SELECTED EXAMPLES)

Title	Sponsoring Agency	Amount (in thousands $)
1. Report of the Northeast Corridor Transportation Project	Department of Transportation (1970)	12,000.
2. Impact of Television on Social Behavior	Health, Education & Welfare (1972)	1,501.
3. Jamaica Bay and Kennedy Airport: A Multi-disciplinary study	National Academy of Science/ Engineering (1971)	350.
4. Social Impacts of Civil Aviation, 1985-1995	Department of Transportation (1972)	236.
5. Political and Scientific Effectiveness in Nuclear Materials Control	National Science Foundation (1972)	254.
6. Assessment of Biomedical Technology	National Science Foundation (1973)	68.
7. Studies of the Social Consequences of Technology	National Science Foundation (1973)	1,500.
8. An Investigation of the Interaction between Technology and Our Legal Political System	National Science Foundation (1973)	107.1
9. An Analysis of Voluntary Citizen Group Uses of Scientific and Technological Information	National Science Foundation (1972)	98.5
10. Study Group on the Societal Consequences of Weather Modification	National Science Foundation (1974)	60.5
11. A Study of Certain Ecological, Public Health and Economic Consequences of the Use of Inorganic Nitrogen Fertilizer	National Science Foundation (1972)	282.4
12. The Impact of a Large Recreational Development Upon a Semi-Primitive Environment: A Case Study	National Science Foundation (1972)	250.

Appendix 5

FORMER MEMBERS AND PRESENT MEMBERS OF THE NATIONAL SCIENCE BOARD

Name and Title	Field	Term
Dr. Sophie D. Aberle Special Research Director The University of New Mexico	Medicine Behavioral Sciences	1950-58
Dr. Rufus E. Clement President Atlanta University	Education History	1960-67
The Very Reverend Theodore M. Hesburgh, C.S.C. President University of Notre Dame	Education Religion	1954-66
Dr. Katherine E. McBride President Bryn Mawr College	Education Psychology	1962-68
Dr. Frederick A. Middlebush President University of Missouri	Education History Political Science	1950-62
Dr. Ralph W. Tyler Director Center for Advanced Study in the Behavioral Sciences	Education Behavioral Sciences	1962-68
Dr. Malcolm M. Willey Vice-President for Academic Administration University of Minnesota	Sociology	1960-64
Dr. W. Glenn Campbell Director Hoover Institution on War, Revolution, and Peace Stanford University	Economics	1972-
Dr. Roger W. Heyns President American Council on Education Washington, D.C.	Psychology Education	1967-

Dr. James G. March
David Jacks Professor of
    Higher Education, Political
    Science, and Sociology
School of Education
Stanford University
	Behavioral Sciences	1968-

Name and Title	Field	Term
Mr. William H. Heckling Dean The Graduate School of Management The University of Rochester	Economics	1972-
Dr. F.P. Thieme President University of Colorado	Anthropology	1964-

SOURCE: