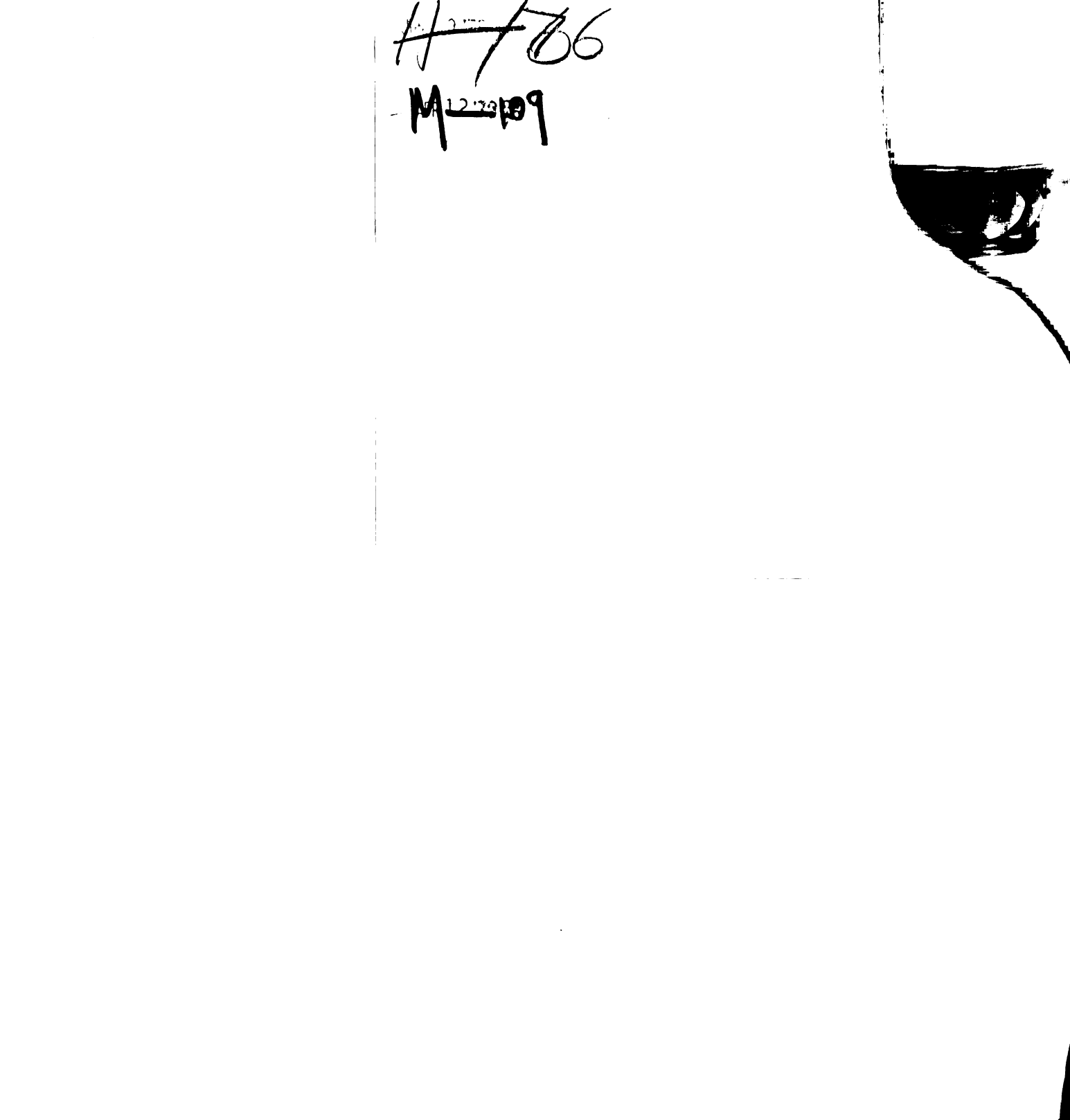

ABSTRACT

THE ECONOMICS OF BUDGET CONSTRAINTS,
TRANSACTION COSTS, BOUNDARIES AND
ARTICULATION OF INTEREST GROUP DEMAND
IN MULTI-COUNTY HEALTH PLANNING AGENCIES

By

Ronald Charles Faas

Project review, as one function of the multi-county agency, has played an increasing role in the distribution of Federal grants, influencing to some extent areawide allocation of resources. This review process is both criticized by some for failing to articulate choice between projects, and indicated by others to assume an added role of "broker" for allocating Federal and State grants within the geographic area. These funding decisions involve conflict, as such choice affects peoples' lives, in terms, for example, of having some nursing homes at many locations vs. many people having to travel further to visit sick or elderly friends at a centralized facility.

One central question studied is whether or not a project got endorsed, for how much relative to that requested, and for whom appear to be associated with which applicants and review committee members participate in the review. Another central question is whether the array of participants is affected by rules and standing operating procedures (S.O.P.s) specifying review authority, composition of committee membership, and boundaries affecting distance to committee meeting.

An economic approach to policy decision analysis explains how such variables might affect performance. In this model of the review process, the relative power of competing interests to achieve their objectives is affected, among other things, by differential costs of participation and by uneven incentives for and costs of generating information favoring the position of one interest and acquiring information with which that position might be effectively challenged by others.

Meaningful comparisons of performance under alternative structures of the variables were obtained in an arena which lacked opportunity for pretests or for random assignment of subjects to treatment and control groups. Two posttest-only designs were utilized to conduct the analysis with cross-tabulations and breakdown procedures under appropriate selection control, and with ANCOVA to obtain statistical control.

Review decisions on health facilities projects by ten areawide Comprehensive Health Planning agencies provided the best opportunity in Michigan to analyze decisions under alternative review authorities by the same review committees. Data were obtained from agencies' minutes and project review logs.

The decision-making agenda in CHP health project review is shaped fundamentally by the review committees, whose recommendations were rarely overturned by agency governing bodies. Who is represented in such decisions? While all CHP governing bodies nominally complied with the Federal mandate for consumer control, membership on review committees was generally dominated by providers located close to the meeting, who had an even greater share of committee attendance. On what basis do members decide? Access to critical information needed by members to challenge favorable information submitted by the applicant is likely to be improved

when (1) the project is considered with reference to a similar project, and (2) both are subject to the same budget constraint. Projects considered with reference to a similar project and subject to a budget constraint did indeed face a more rigorous review than did those not subject considered in isolation without reference to a similar project.

The basic conclusion of this study is that capacities of various actors, namely project applicants and review committee members representing consumers and providers, to participate in and influence project review decisions are asymmetrical, and thus, different actors were affected differently by the rules and S.O.P.s studied. Therefore, policy analysts and administrators concerned about substantive impact on performance (who gets what) might note that effective power, defined as the capacity to influence decisions, depends more on nitty-gritty standing operating procedures (S.O.P.s) of the decision process than on a nominal right to participate on an agency governing body.

THE ECONOMICS OF BUDGET CONSTRAINTS, TRANSACTION COSTS, BOUNDARIES AND ARTICULATION OF INTEREST GROUP DEMAND IN MULTI-COUNTY HEALTH PLANNING AGENCIES

by

Ronald Charles Faas

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Agricultural Economics

1977

This work is dedicated to Beverly Ann Faas and Carlos José Faas. The growth of their love and respect during this intense period of graduate study and its successful completion is a tribute both to the kind of people they are, and to the quality of environment in which it has been our good fortune to live and to work.

ACKNOWLEDGEMENTS

As with all that has value, one's personal development and professional growth involve the costs of opportunities foregone. This holds throughout all stages of life no doubt, but particularly as one pursues a Ph.D. program at mid-career. One's professional growth must be weighed against the developmental needs of the members of one's family, which if neglected may incur irreversible consequences. One simply cannot defer for several years the many claims of a young son learning to cope with a new environment, nor of one's wife grasping a timely opportunity to pursue her own professional training while continuing her responsibilities of managing the household. A recurrent challenge faced by those of us studying during this emerging era of lifelong education and women's liberation is the need to balance to some extent these opportunities with the rigorous demands of a Ph.D. program.

I would like to express sincere gratitude to all those who demonstrated confidence in my potential for continued professional and personal growth, at a stage in life which much of society expects one to have already arrived. Special appreciation is expressed to members of my thesis committee for the intellectual stimulation, friendship, and their constructive criticism of my attempts to apply many of their ideas to the problem studied. These professors include Al Schmid, teacher and seeker of knowledge, who as major professor patiently forced me to develop and articulate my own conceptual and empirical

approach; James T. Bonnen, whose accessibility and interaction reinforced my experiences and theoretical insights as relevant to policy analysis; and Warren J. Samuels, whose encouragement helped me to cultivate a more rigorous analytical capability from a latent interest in political economy; plus Garland Wood, who as a member of my guidance committee encouraged application of my training to problems in both international and domestic rural development. Special thanks are also extended to Larry Libby, neighbor and colleague, for his moral support throughout my graduate program, and to Bill Sinclair, who sustained interest in my research topic from its painful organizational phase to its completion.

I wish to recognize the cooperation of many area and state CHP staff members who made the gathering of the data for this analysis both possible and an enjoyable task. These include Mr. Richard A. Reihmer, Chief of the Division of Health Facility Planning and Construction in the Bureau of Health Facilities of the Michigan Department of Public Health, and his secretary, Ms. Margorie Soderberg; Mr. Richard L. Schmidt, Assistant Director of the Office of Health and Medical Affairs in the State Office of Management and Budget, and the Executive Directors and Project Review Coordinators of the ten area Comprehensive Health Planning Agencies for access to minutes of their governing body and review committee meetings.

I am also grateful to Professors Harold M. Riley, Chairman, and Lester V. Manderscheid, Associate Chairman, for financial assistance from the Agricultural Experiment Station, the W. K. Kellogg Foundation, and the U.S. Department of Agriculture, and for the educational environment provided by the faculty and fellow students in the Department of

Agricultural Economics at Michigan State University. Finally, I wish to recognize my parents, Wilbur and Velma Faas, and my in-laws, Alvin and Pauline Bahn, for their many contributions prior to and during this study.

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CHAPTER I. INTRODUCTION

A. Statement of the Problem

The multi-county agency has emerged in recent years as a new unit sitting at the substate level between local and federal government units in a variety of forms and in growing numbers. At the same time, the flow of grant money to local units from state and federal governments is increasingly being reviewed by these multi-county agencies (having varying degrees of veto power) for consistency with area wide plans and objectives.[1] The empirical focus of this analysis is review of health facilities projects by areawide Comprehensive Health Planning (CHP) agencies.

The project review clearinghouse at the multi-county level, as with most products of collective choice, has evolved as a process which brings together conflicting parties with different goals and expectations. The procedure may be used by local member units as an instrument of local government to protect and serve local constituencies in gaining access to federal resources in the form of planning and action

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[1]This report will use the term "area" to connote a multi-jurisdictional district at the substate level, and the term "areawide" to refer to activities that extend beyond the boundaries of one county into other jurisdictions in the area. The terms "region", "regional", and "regionalism" seem too broad for the analytical focus of this study. "Regionalism" has been studied at both the multi-state (ACIR, 1972) and the substate levels (ACIR, 1973-74). Similarly, one finds reference to "regional" organizations at the multi-state level (Derthick, 1974), to "regional councils" at the substate level (NSRC, 1971) and to "regional planning commissions" composed of two or more local governments even within a single county (Act No. 281, Michigan P.A. 1945).

grant monies. On the other hand, the area clearinghouse is expected by the sponsoring federal agency to make judgments and to take actions which may be perceived as harmful by some local member units. This role as an extension of the executive branch enables some Federal and State officials to face less heat with the shifting of selected aspects of decision-making from their offices to an areawide body composed of local representatives.

Decisions concerning which projects are to be recommended for funding involves conflict, as such choice affects peoples lives. Different parties have preferences for different aspects of decision-making performance, and thus, have different stakes in how these agencies are structured and what resource allocation decisions are made. Federal and State officials may view improved review decision performance in terms, among other factors, of whether the areawide review process actually provides guidance as to a particular project's priority among others in the area, or merely stamps all project applications as high priority to be approved. For example, against a backdrop of rising costs of health care, CHP project review decisions are to reflect a concern for cost containment by controlling excess capacity in beds and services. Yet effective implementation of the cost containment objective requires that local representatives choose between projects, and people seldom share a common preference over which projects should be cut back and which communities should bear the cost of controlling excess capacity. Thus, improved decision-making performance, as defined by Federal and State officials, may have distributional impacts of interest to conflicting parties within the area. Each local unit may be concerned about whether it gets what it feels to be its fair share

of grant money, and different people within a local unit have different preferences as to which projects should be endorsed.[2]

How these decisions affect people's lives may be illustrated by several examples from CHP project review. This process has a responsibility for containing surplus beds and eliminating duplicative services in accordance with the Michigan State Plan for Hospital and Medical Facilities Construction (Michigan 1975) which sets limits to the number of additional acute care and nursing home beds that may be added in each of the State's seventy-seven Health Facility Service Areas (HFSA's). Some people contend that these planning guidelines do not take into account different preferences for quality and location of services.

People in one small town expressed fear of losing their hospital as an eventual result of the area CHP agency decision to merge the obstetrical wards and services of their hospital with that in the neighboring town, in order to contain costs of maintaining full-time, twenty-four hour obstetrical staffs in each. They argued that the guidelines and technical formulas were conceived and formulated primarily to meet conditions in big cities and not necessarily relevant to conditions in small communities. As one person wrote in a letter to the director of the CHP agency:

> Difficult as it may be for some urban oriented planners to grasp, it seems little short of frivolous to expect any one of Norway's three doctors to travel ten miles through Upper Michigan blizzards at 2 a.m. to deliver a baby in the Iron

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[2]Distribution may also be an issue of interest from the perspective of the external sponsoring agency, who may be concerned with whether the dollars go to the areas of highest priority (as defined by the sponsoring agency) or are diverted through the review process to the more powerful.

> Mountain OB ward when adequate facilities can and do[3] exist in Norway within a couple of minutes of traveling time.

Similar conflicts over location are found in nursing home projects. One project applicant stated that it was unfair that the state plan lumped his town together with a large surrounding rural area and that all beds in that region were counted as being available to serve residents in his town. Noting that most of the available beds in the area were located in one nursing home nine miles away and in another twenty-three miles away, the applicant appealed:

> Those homes really don't serve the needs of our residents here. Our people want to keep elderly parents in their own community. (Minsky, 1976)

Conflict over definition of quality of service can be illustrated by another obstetrical bed project in an urban setting. Project proponents argued that while the area did already have a number of beds equal to that authorized by the state plan, none of those were the "abortion-free" obstetrical beds preferred by the project's supporters. This case also illustrates an important point that conflict in CHP project review is not necessarily between consumers and providers of health services. In this project review, a coalition of consumers, providers (from physicians to janitors) and local small business interests in the hospital's vicinity closed ranks to defend the project against attempts by other consumers and providers to not endorse the project.

Another dimension of conflict is found in projects involving the latest technology. For example, the Computerized Axial Tomographic

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[3]Letter from Mr. Walter R. Sundquist to Mr. Bayard Galbraith, director of the Upper Peninsula CHP Association in "Voice of the People," the Iron Mountain News, Iron Mountain--Kingsford, Michigan.

(CAT) scanner is a new and expensive clinical tool that can take cross-sectional pictures of the brain with virtually no risk to the patient. While CAT scans of a patient with suspected brain disease will either rule out the illness or confirm the need for more definitive tests, the CAT scanner is very expensive to own and operate, with purchase price ranging from $400,000 to $600,000. The advent of this new technology has brought on another disease entity, termed "CAT fever," described as an economic disease "that will leave the public with an immense bill for unneeded machines purchased by hospitals and doctors who want to be the first with the latest gadgets." (Katz, 1976)

Beyond such conflicts over goals, there are disagreements as to how goals are to be maintained through the organizational form of multi-county county agencies. One such means which has generated intense interest is the question of how the membership of the multi-county agency is to be composed, as illustrated by three examples. Physicians and hospital officials in three rural East Texas counties, concerned about which counties are combined into an area, argue that the Governor's designation of the three Texoma Council of Government (COG) counties and the North Central Texas COG, covering the Dallas area, as a new Health Systems Agency will concentrate control in the area's larger cities. (Wear, 1975) At the federal level, the National Association of Regional Councils initiated a court suit challenging recent DHEW guidelines allowing the new Health Systems Agencies to be established as non-profit corporations independent of responsibility to local elected officials. (NARC, 1976) Similarly, different parties expressed conflicting views over membership in the Tri-County Regional Planning Commission (TCRPC) around Lansing, Michigan. State

and federal officials threatened to withhold up to $800,000 in planning grant funds if open membership on the commission were not allowed by a specified date, while two rural counties with only 32 percent of the area's population, and fearful of urban domination, held out to retain 50 percent of the commission's members as a condition for admitting the area's second largest city to membership. (Roberts, 1976) These three examples indicate that strong feelings are held and articulated over such representational issues as what counties will comprise the multi-county area, who gets to select the members, and how the votes on the agency's governing body will be distributed among member units. Furthermore, a concept of "mandated representation" to provide a balance between "the previously influential and the hitherto unheard" has emerged in recent years as part of an evolution of legal provisions for those affected by programs to have opportunity for input into the decision-making process. Examples of such provisions include prescriptions that a fifty percent majority of CHP agency governing body membership shall be composed of consumers of health services, and that the advisory council to each substate Area Agency on Aging shall consist of a majority of actual consumers of services to Senior Citizens.

Such emphasis on representation has perhaps eclipsed other institutional dimensions, however, which may have considerable influence on the distribution of project dollars within the area, and on the degree of discipline exercised by the review process. Two such dimensions are standing operating procedures developed internally within the agency which influence the political structure of the project review committee, and the degree of review authority conferred upon the area review process by the sponsoring federal agency. Examples of standing operating

procedures (SOPs) implemented internally include: composition of project review committee membership, provisions for an alternate to represent a member absent from a meeting, rotation of meeting locations among the participating counties, and size of population and number of counties to be represented by the project review committee.

Sponsoring agencies have granted a range of review powers to various multi-county agencies since the implementation of planning grant funding. The role of areawide agencies in project review has evolved from an opportunity for "review and comment," to varying degrees of veto power. This latter role ranges from recommending approval or disapproval on specific project applications, to a "broker" role of recommending how an area grant target is to be allocated among project applications submitted by local units within the area. The power for a multi-county agency to allocate an area grant target (and in effect, to veto low priority projects by recommending that no funds be allocated to them from the grant target) has been incorporated into some categorical programs[4] as well as one special revenue sharing program[5] since 1974. The extension of such power for most federal and state grants to be allocated by multi-county agencies within their areas has been proposed as one component of a national policy for urban and rural development. (Rothblatt, 1974)

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[4]Law Enforcement Assistance Agency (LEAA) action grant funds and Older Americans Act Title III service funds.

[5]Comprehensive Employees Training Act (CETA) Title I, II and VI funds administered by Prime Sponsor Consortia of local government units.

This research starts from three basic premises:[6]

(1) The governing body membership of Michigan's ten area CHP agencies tends to be distributed in proportion to the population of the counties comprising each area; and tends to have a consumer majority. (However, the project review committee membership of the area CHP agencies tends to have a provider majority, and is more concentrated in its distribution relative to the population of component counties than is that of the respective governing bodies. Furthermore, attendance will tend to be more concentrated relative to population than is membership of both governing body and review committee in the respective area agencies.)

(2) Differences do exist in two institutional dimensions: (a) the degree of review authority granted for different projects to the area review agency by its external sponsor; and (b) the internal standing operating procedures (SOPs) implemented within area review agencies.

(3) Variations exist in review decision performance, specifically, the rigor of project cost containment and the distribution of project dollars endorsed or reduced among the local units.

It is expected that each of these two institutional dimensions, the degree of view authority, and the SOPs, are related to both

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[6]These three premises are preconditions to this study, in that lack of such variation would negate the possibility of analyzing relationships between institutions and performance.

dimensions of performance introduced at the outset: (1) the ability of the review process at the areawide level to make choices between project applications to be endorsed and thus provide guidance to the sponsoring agency, and (2) the ability of the area review process to facilitate access to project dollars for some local member units, and thus function as an instrument of local governments in service to their constituencies.

These hypothesized relationships will be specified in greater detail in Chapter IV, following the conceptual framework in Chapter III which developes a rationale for expecting such relationships to prevail.

B. General Objectives

There are four objectives to this research:

(1) Identify variations within the ten Michigan area Comprehensive Health Planning agencies in (a) the degrees of review authority conferred by external sponsors on the review agency for various projects, and (b) internal standing operating procedures that influence the structure of project review committee attendance;

(2) Develop a conceptual model of the project review process, and specify hypotheses linking the institutional variables, (a) and (b) above, with selected dimensions of review decision performance, namely, the rigor of review and the distribution of project dollars endorsed and cutback by county and type of facility;

(3) Test the model with data from capital improvement project review decisions[7] by project review committees and governing bodies in the ten Michigan area CHP agencies;

(4) Identify and discuss performance trade-offs suggested by the results of the study, and suggest relationships that might be observed and tested in future Health Systems Agencies and areawide clearinghouses reviewing projects in program categories other than health.

C. Approach to the Study

The researcher in the early months of this study endeavored to broaden his base of understanding of the project review process, with a view towards identifying tentative institutional variables and performance dimensions, generating specific hypotheses, and locating opportunities for empirical testing. This approach involved concurrent efforts of (1) reviewing relevant literature concerning interrelationships between economics, law and behavioral sciences as applied to rural development and welfare policy; (2) discussing concepts and opportunities with staff and colleagues in the Department; (3) interviewing participants in the planning and review process at the state level and in several of Michigan's substate areas in six program categories;[8] and (4) personally observing area review committee and governing body meetings in these program categories.

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[7] Capital improvement projects are those facilities or equipment subject to review under the provisions of Section 1122 of the Social Security Amendments of 1972 (PL 92-603) or the Michigan Certificate of Need Act (Act No. 256, Michigan P.A. 1972).

[8] These categories were Aging, Comprehensive Employment Training Act (CETA) Manpower, Comprehensive Health Planning (CHP), Criminal Justice and Law Enforcement, Urban Area Transportation, and Water Pollution Control.

Insights gained during this exploratory phase suggested CHP project review as the more fertile focus for the study. CHP agencies seemed to exercise a broader range of review powers than did any other kinds of single-purpose or multi-purpose area agencies, and were involved in the review of more project applications from a broader range of counties throughout the state. Furthermore, preliminary data was found to be available and reasonably complete at the state-level CHP review agency, with supplementary data apparently accessible in the area CHP offices. The researcher built upon his observations of the review process in the local area CHP agency review committee and governing body meetings by interacting with knowledgeable state and area staff, governing body and review committee members of the local agency, and by administering a brief questionnaire to the Directors of the ten Michigan CHP are agencies at their monthly association meeting. A preliminary inventory of institutional variables, as well as a view of performance differences, was thus obtained for further refinement through subsequent interviews with selected CHP staff in other areas.

The researcher then visited the CHP area agencies to gather data on membership, meeting attendance, and project review decisions from minutes of the governing bodies and project review committees, and to verify the list of projects considered by the area agencies (as recorded on the state-level review agency log) and complete missing information. These visits provided further interaction with CHP area Project Review Coordinators, Agency Directors, and Community Health Planners. Their reactions to the study at this stage and suggestions were helpful in refining the operational definitions of variables, tightening up the hypothesized relationships between institutions--

behavior--performance, sharpening the policy relevance of the study, and increasing the researcher's sensitivity to kinds of qualifications that might be placed on interpreting the study's findings.

D. Organization of the Dissertation

The discipline of Agricultural Economics has built its reputation based on a balanced investment between theoretical and empirical analysis, thus fostering both the deductive processes and the inductive processes of knowing. (Bonnen, 1975, p. 756)

This dissertation represents an effort to contribute towards such investment, while primarily strengthening the author's capacity to integrate his analytical processes or system of inquiry with his collection of data and production of information.

The organization of this report draws on the paradigm of data, analysis and information presented by James T. Bonnen, as shown in Figure 1-1. (Ibid, p. 758)

In such a system of inquiry and analysis (right side of Fig. 1-1), one works from a base of theoretical concepts purporting to represent reality. Since concepts cannot be measured directly, they must be operationalized through definition of selected variables (which then need to be matched with data or measured representations of these same variables). The model (specified relationships between the defined variables) is then tested against the data collected in the empirical work. From the appropriate analytical techniques, interpretations and conclusions are drawn. Bonnen emphasizes that if the data collected are to represent any reality, three distinct steps must be taken in the design of the data system (left side of Fig. 1-1). These

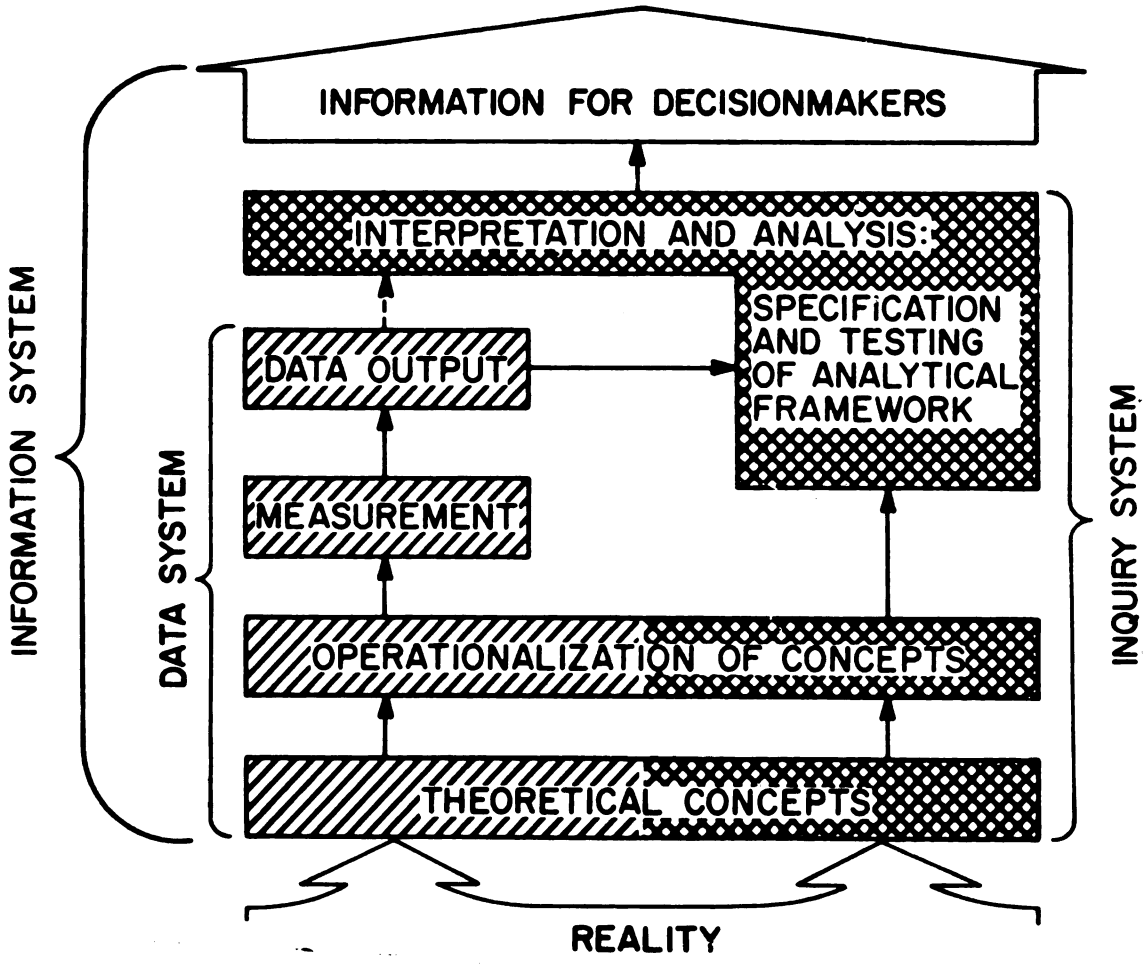

Figure 1-1. An agricultural information system

are 1) conceptualization, 2) operational definition of concepts, and 3) measurement. Basic to any integration of theory and empirical analysis is an insistence that the specified hypotheses and the collected data against which the hypotheses are subjected to empirical test evolve from the same set of theoretical concepts and, to the extent possible, the same set of operational definitions. (Ibid, pp. 757-759)

The base of theoretical concepts utilized in this inquiry includes prior study of the problem under analysis, development of relevant concepts heretofore applied to other problems, and emerging concepts awaiting empirical test. The Review of the Literature in Chapter II is intended to provide an overall picture within which to

fit this report, by reviewing previous research and summarizing the state of the art.

Building on the above contributions, the Conceptual Framework in Chapter III represents the researcher's attempt to develop a foundation of theoretical concepts appropriate to the inquiry at hand. This chapter molds concepts and variables identified by previous work into an Institutions--Behavior--Performance paradigm. Variables operationally defined in the context of CHP health facilities project review transactions serve as a point of departure for both the specification of hypotheses to be tested and the selection of data to be collected for the testing.

Chapter IV presents a model which includes a detailed rationale for the relationships hypothesized between variables and a summary of the hypotheses. The model postulates that internal SOPs and review authority affect which committee members and which applicants participate in the project review transaction; that participation in the review transaction affects review decision performance; and that rigor of review has impacts on the distribution of project dollars.

Chapter V describes the methodology and data base utilized in this analysis. Two post test only designs (Campbell and Stanley, 1966) are evaluated in the context of obtaining meaningful comparisons. Data were collected on 260 acute care and nursing home facilities projects considered by nineteen review committees in the ten Michigan CHP agencies. In addition, attendance data were obtained for the 417 governing body members of the ten agencies, and for 294 members of thirteen of the nineteen review committees. The chapter concludes with an explanation of selected indicators for measuring distributional impacts.

Chapter VI, Analysis and Findings, reports that projects subject to a budget constraint tended to be considered with reference to a similar project and faced a more rigorous review than did projects which were not subject to a budget constraint. Participation in review meetings by consumer representatives was less than that by provider representatives, and tended to decrease as spatial distance to the meeting increased.

Chapter VII concludes that the "broker" role of choosing between projects is unlikely to be played by multi-county review agencies without the imposition of a budget constraint by an external sponsor on project review decisions. The implications of this conclusion to the performance of zero-based budgeting are also explored with an application of the model of the project review process to review of agency appropriations requests by Congressional committees facing and not facing a budget constraint.

CHAPTER II. REVIEW OF THE LITERATURE

This chapter builds a link between the problem as stated in Chapter I and the conceptual tools to be developed in Chapter III for analyzing the problem.

The first section of this chapter provides a background from prior descriptive studies of multi-county agency activity in project review. This background will touch on the growth of multi-county agencies in recent years, trace the evolution of their project review authorities, and present a summary view of the varying roles of Michigan multi-county agencies in project review across functional categories. This first section draws primarily from public administration literature.

The second section of this chapter works towards an economic analysis of the project review process. It draws on studies which help justify viewing the project review process as one of collective choice, which begin to isolate economic components of collective choice, and which suggest that alternative arrangements of the choice process may have different impacts on review decision performance.

A. Background

Multi-county planning and review agencies have added a new dimension to intergovernmental relations in recent years, becoming more involved in the flow of grant money to local units from State and Federal Governments. The rapid emergence of multi-county planning agencies and review procedures has been described by the Advisory

Commission on Intergovernmental Relations as a quiet revolution which occurred in less than a decade. (ACIR, October 1973, p. 337)

1. Growth of areawide planning

The growth of multi-county approaches was nurtured through a blending of several forces. These included (a) the promotion of areawide decision-making capacity in local government by "regionalists" from within public administration and economic development fields to implement their "growth-point" theories, (b) frustrations of officials in the Kennedy-Johnson administrations with the categorical program approach[1] to solving local social problems, and (c) an eagerness on the part of the Nixon-Ford administrations to dismantle through "decentralization" portions of the Federal bureaucracy.

Historically, while decisions concerning the allocation of categorical grant funds to local communities were made within the respective Federal agency bureaucracies, the categorical programs generally required that the need for such funds be documented by a local comprehensive planning process. Initially, where a Federal funding program was established for a physical improvement, a "planning requirement" soon followed. Later, social service programs, as they began to emerge in the mid-1960's, also had to be presented in the context of a local plan. Most of the Federal categorical programs not only "attached" such a planning requirement, but offered planning grant funds as an

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[1]Categorical grant programs refer to the approach whereby within each functional area such as Health, Education, Manpower, etc., a local government unit may apply for an almost infinite number of specific grant programs for more or less narrowly defined purposes. Each specific grant program has its own guidelines, different fiscal periods, matching requirements, applications forms, methods of securing approval, etc.

incentive for local governments to create such planning entities within their units. (HUD, 1972, CDES No. 12, p. 4) In response, local units found themselves setting up a myriad of separate, virtually independent functional programming "systems"[2] in order to obtain categorical grant funds.[3]

Similarly, requirements for multi-county planning were laid on by a host of Federal legislative actions which also provided funding for comprehensive areawide planning. Under the terms of the 1965 amendment of Section 701 of the Housing Act,[4] communities in metropolitan areas were required to have comprehensive areawide planning programs for water and sewer facilities, open space, and land use in order to qualify for related Federal hardware grants-in-aid programs. Amendments in 1968 extended eligibility for "701" planning grants to include non-metropolitan multi-county area. Other multi-purpose planning assistance was provided by the Public Works and Economic Development Act of 1965, which provided planning grants-in-aid and technical assistance for multi-county program activities in Economic Development Districts. (NSRC, 1971, pp. 8-9)

In addition, single-purpose areawide planning processes began to be required by the various functional program categories. The Federal Aid Highway Act of 1962 required the preparation of areawide transportation

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[2]Eighteen separate planning systems were in operation in one city selected for a HUD case study. (Ibid., p. v)

[3]By 1969, functional planning grants were being made to local grantees through twenty-nine Federal programs operated out of nine different Federal agencies. (Mogulof, 1971, p. 27)

[4]Section 701 of the Housing Act of 1954 was originally intended to provide Federal aid for urban planning projects of smaller communities which lacked adequate planning resources.

and development plans involving a prescribed "continuous, coordinated, cooperative" planning process for all metropolitan areas of 50,000 or more population. Similar provisions subsequently emerged in health, manpower and other functional activities to the extent that a 1973 study reported that twenty-four Federal programs contained requirements for areawide planning activity. (ACIR, October 1973, p. 317)

The capacity of these areawide planning processes to affect policy in local units was limited by several factors which had similarly constrained the development of long-range planning capacity in local units. (HUD, 1972, CDES No. 12, pp. 4-5) Principal among these was the isolation of the planning process from the decision-making process within local units. One consequence of the creation of a planning department "free from politics," as prescribed in the 50's and 60's, was to limit its access to and leverage on the decision-making and budgeting processes.[5] As the areawide planning processes emerged, their leverage on local decision-making processes also remained advisory, indirect and informal.

2. Evolution of project review authority

Found to have limited capacity to influence policy decisions by local units, areawide planning also lacked clout in policy implementation, with no role in the distribution of Federal categorical grant funds to local units within the area. Basic priority setting in the categorical system was mainly at the Federal level. It was decided there, not only which programs would receive appropriations and at what local share matching requirements, but also which projects from which

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[5]This and other dilemmas are documented in a study of community planners by Needleman and Needleman (1974).

applicant communities would receive grant funding within each categorical program. (HUD, 1972, CDES No. 8, p. 12)

Given this lack of clout of areawide planning, per se, on policy decisions at either the local level or within the Federal agency hierarchies, potential leverage on implementation of policy became available through project review functions, which began to be assigned to multi-county agencies in the late 1960's.

From the perspective of a local government unit's relation with a Federal program, it was charged that

> Most of the mechanisms are at best opportunities for local governments to exert influence on federal programs operated by other agencies, over which they would normally have no control. The degree to which such influence achieves changes in the programs to meet general government objectives is likely to depend mainly on the planning and negotiating skills of the local government, as well as its political influence, rather than on authority inherent in the mechanisms. [6] (Ibid., pp. 4-5)

However, from the perspective of an areawide planning and review agency's capacity to implement its planning policies, several degrees of review authority can be identified among the variety of project review approaches which evolved. Three approaches which have different degrees of review authority are: (a) review and comment; (b) recommendation of approval or disapproval; and (c) recommended allocation of an areawide grant target. These three review approaches afford the areawide review body differing degrees of veto power over how categorical grant program funds will be allocated within the area.

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[6] The term "mechanism" as used in this quote refers collectively to a variety of planning and coordinating procedures, including planning requirements for specific assistance programs, processes for multi-agency planning, and various arrangements for review and comment on proposed Federal projects.

a. Review and Comment Clearinghouse

The objective of the review and comment clearinghouse process was to involve the local governments to some degree in the planning by independent agencies for Federal grant applications. Through this process, the Federal funding agency requires that local applicants inform the general-purpose governments of their intent to apply for grants, and to secure some form of "sign-off" to indicate this has been done. Such sign-off acknowledges awareness of the applicant's intent, but need not imply concurrence with the project applicantion.

The areawide clearinghouse concept was introduced with Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, which required that each metropolitan area have a regional planning agency charged with the responsibility of reviewing and commenting upon local government applications for some 39 different federal-aid facility programs. Each proposal was to be reviewed in terms of its consistency with the areawide plan. Subsequently, Title IV of the Intergovernmental Cooperation Act of 1968 directed the President to establish regulations governing Federal programs and projects "to assure that they most effectively promoted orderly community development in both urban and rural areas." (NSRC, 1971, pp. 8-9) These provisions were placed into effect through Office of Management and Budget Circular Number A-95 in 1969. This A-95 Project Notification and Review System extended the areawide clearinghouse concept to non-metropolitan areas.[7] By early 1976, the scope of the A-95 review and comment clearinghouse was to be broadened to include areawide review of local

[7]Descriptions of the implementation of clearinghouse functions in rural areas are found in ACIR (1973, Chapter VIII) and in Doeksen et al. (1975).

government applications for more than 200 categorical grant programs administered by twenty-three Federal agencies. (Federal Register, 40, no. 198)

The A-95 review and comment process does not provide the multi-county agency or participating local governments any veto power on project proposals. Such opportunity for review and comment through the clearinghouse agency was intended to assure consistency of Federally assisted projects with areawide plans and priorities. However, the process was largely carried out without the parallel development of areawide policies on which to base such review and comment decisions. Lacking such areawide policy, it became commonplace to certify that the reviewed project "is not in conflict with areawide objectives." (HUD, 1972, CDES No. 12, p. 5)

b. Recommendation of Approval or Disapproval

A useful distinction may be made between opportunity to review and comment on a proposal and being asked to recommend its approval or disapproval. The opportunity to recommend disapproval involves a limited degree of veto power, more so than does a sign-off merely taking note of the project's submission or comment concerning its consistency with existing areawide plans (or its lack of inconsistency with non-existent areawide plans). Under the review and comment process, no indication of approval or disapproval is expected. However, under the procedure allowing the areawide review agency to recommend approval or disapproval, final decision on project proposals remains with the Federal funding agency, just as it does under the review and comment process.

c. Recommended Allocation of Areawide Grant Target[8]

A greater degree of veto power is presented in the opportunity to recommend how an areawide grant target is to be allocated between project applications submitted to the areawide agency for review. Being able to recommend the allocation of explicitly limited resources between competing projects adds an important dimension beyond the recommendation of approval or disapproval. The opportunity to suggest how a specified size pie is to be divided provides a chance to implicitly veto low priority projects by recommending that none of the grant target funds be allocated to them.[9]

This dimension was articulated by an Urban Mass Transportation Administration (UMTA) official during the 1976 Annual Conference of the National Association of Regional Councils. UMTA Administrator Robert E. Patricelli viewed the multi-county review agency as a "broker" among the member governments, with responsibility for the slicing of the pie when there isn't enough money to go around. Anticipating Congressional approval of an urban transportation block grant covering both highways and mass transit, he foresaw the areawide Metropolitan Planning Organization (MPO) as the single agency for setting priorities as to what gets funded and what doesn't. Although the

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[8]An areawide grant target indicates the amount of grant dollars the Federal agency expects to make available to the multi-county area for allocation between projects proposed by communities within that area.

[9]The grant target concept may be utilized by categorical grant as well as "block grant" program approaches. Block grants refer to the grouping of many categorical grant programs into an overall functional area, such as community development or manpower. A block grant program may be administered in many different ways, including distribution directly to local units on a formula basis, and through an areawide grant target to multi-county agencies as introduced above.

Metropolitan Planning Organization is defined in Department of Transportation regulations as "the forum for cooperative decision making by principal elected officials of general purpose government," (NARC, August 1976, p. 2) Patricelli argued "only when MPOs are given real resource allocation responsibility, will state and local governments and transit authorities take them seriously and use them as forums for cooperative decision making." (NARC, June-July 1976, p. 3)

Three types of review authority have been identified. Under the latter, an areawide grant target may be viewed as a budget constraint determined by an external funding source or sponsor of the areawide agency. On the other hand, no budget constraint is given to the areawide agency for projects needing review and comment or a recommendation of approval or disapproval.

3. Roles of selected Michigan agencies in project review

This section will sketch an overview of project review activities conducted by selected areawide agencies in Michigan.[10] The principal focus is the identification of types of review authority which evolved within each agency. However, attention is also given to the legal basis and program objective of each agency, along with its respective geographic delineation, organizational structure and rules of representation as found in Michigan. One type of multi-purpose areawide agency and four single-purpose functional activities will be examined.

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[10]The time frame extends from the establishment of the review activity through the beginning of FY 1975-76.

a. Substate Planning and Development Districts

The State of Michigan contains fourteen substate planning and development districts, designated by the Governor "to serve as a focus for state planning efforts, and as jurisdictions of regional planning and development agencies." (OPC, p. 8) The multi-county planning commissions organized as multi-purpose areawide agencies to represent Michigan's designated substate planning and development districts are referred to as regional councils.[11] (Milliken, 1975, p. 95)

The Michigan Regional Grant Program was initiated in 1972 to provide financial incentives to implement state policy encouraging the organization of one regional council per designated district and the development of staff capability and program continuity. The Regional Grant Program is administered by the Office of Intergovernmental Relations within the Department of Management and Budget. This office also coordinates Federal "701" planning grants to regional councils, as well as to local general purpose governmental units.

Most regional councils in Michigan are organized with two internal bodies that formulate policy. The general assembly, or major policy-making body, is composed of locally elected officials and citizens who are chosen according to the method provided for in the respective council's by-laws. The executive committee, generally composed of the council officers and other general assembly representatives, normally conducts the business of the council, subject to general assembly approval (Milliken, 1974, pp. 83-84) Over two-thirds of the nearly 600 local government officials and other local leaders serving

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[11] Regional councils, in general, are voluntary organizations of local governments established to deal with areawide problems which are primarily local in character, but affect more than one local government.

as representatives to the fourteen regional councils in 1974 were elected officials of general purpose local governments. Appointed representatives included city managers and local planning commissioners, as well as representatives from special districts and private citizens. (Milliken, 1975, p. 97)

State recognition under the Michigan Regional Grant Program qualifies a regional council to be designated as the "areawide clearinghouse" for conducting the A-95 review and comment process within the substate planning and development district.

b. Criminal Justice and Law Enforcement

Multi-county criminal justice and law enforcement planning is conducted under the provisions of the Federal Crime Control Act of 1973 (PL 93-401) which replaced the Omnibus Crime Control and Safe Streets Act of 1968. Areawide criminal justice and law enforcement planning programs were funded by the Federal Law Enforcement Assistance Administration (LEAA) and coordinated by the State Office of Criminal Justice Programs (OCJP) within the Michigan Department of Management and Budget

> to provide technical assistance to local units of government seeking to obtain grants from the Office of Criminal Justice Programs, to coordinate planning efforts among local units of government, to help compile and communicate local viewpoints in the development of the State Comprehensive Plan, to provide a review and comment on applications submitted by units of government within the region, and to serve as a clearinghouse for information regarding the Crime Control Program. (Michigan OCJP, 1971, p. 3)

At the outset, areawide criminal justice planning programs had been conducted by areawide law enforcement planning councils. Beginning January 1, 1974, regional councils assumed this responsibility in Michigan through a criminal justice advisory council appointed by the

respective regional councils.[12] (Milliken, 1974, p. 87) OCJP guidelines implementing the 1973 Federal Act (PL 93-401) specified that the composition of these advisory councils shall include law enforcement personnel, judges, prosecuting attorneys, probation officers, juvenile delinquency specialists, attorneys, corrections specialists, educators, citizens and representatives of each intergovernmental planning organization serving an area which includes all or part of the region. (Michigan OCJP, 1973, p. 28)

Applications for LEAA action grant funds are submitted by local government units through the areawide criminal justice planning and review process. The arewide review process in Michigan was clarified during FY 1970-71 as one of review and comment, rather than approval or disapproval, to "assure that the review of local grant applications is handled with dispatch and without increasing the total time for processing and approving applications." (Michigan OCJP, 1971, p. 4) The process continued as one of review and comment through FY 1974-75. However, for FY 1975-76, each areawide unit was asked to prepare an arewide plan, developing needs and problems, goals and objectives, existing system descriptions and proposed funding schedules for 1976. The areawide criminal justice advisory council and staff then recommended allocation of an annual areawide grant target[13] between selected

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[12]Since 1973, the criminal justice areas in Michigan have generally corresponded to the boundaries of the fourteen substate planning and development districts. The exception is one P & D district which contains a four-county criminal justice planning area plus three metropolitan local planning units as required by the 1971 Amendments to the Crime Control Act.

[13]The FY 1975-76 grant target figure for each area was determined by OCJP through an allocation formula, weighted 60 percent on the 1973 index crimes and 40 percent on the area's estimated 1973 population. (Michigan OCJP, 1974, p. 56)

project concepts to be implemented by local government units. This annual plan, ranking these project concepts by priority, was recommended by the areawide criminal justice advisory council to the regional council for approval to be submitted to the OCJP. Based on feedback on these project concepts from OCJP, the area criminal justice planning staff assisted the local units in preparing project applications to be submitted to OCJP for LEAA action grant funding. For FY 1976-77, the project review role of the area criminal justice advisory councils continued to be one of recommending allocation of an areawide annual grant target between alternative project concepts for local government units.

c. Area Agencies on Aging

The 1973 Amendments (PL 93-29) of Title III of the Federal Older Americans Act of 1965 (PL 89-73) required that states be subdivided into distinct planning and service areas for the delivery of services to older citizens. The overall objective of the Title III program is

> to strengthen or to develop at the substate or area level a system of coordinated and comprehensive services for older persons--services which will enable older persons to live in their own homes or other places of residence as long as possible. (Federal Register 38, p. 28040)

An Area Agency on Aging (AAA) was established in each of Michigan's thirteen planning and service areas[14] designated by the Michigan Office of Services to the Aging (OSA). The AAA in Michigan is generally structured with a policy board of directors and an advisory council.

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[14]Ten of these areas share common boundaries with substate planning and development districts. The Upper Peninsula was designated as one area, which covers three P & D districts. Two areas were designated in the Southeast Michigan P & D district, one for Detroit and Wayne County containing one-third of the state's population, and another for the surrounding six counties.

The policy board generally contains a majority of elected officials designated by local units of government providing financial support to the AAA, and may include some lay elderly consumers appointed by the local units. Federal law requires that the advisory council, however,

> shall consist of representatives of program participants and the general public, including low income and older minority persons at least in proportion to the number of minority older persons in the area, and shall advise the area agency on all matters relating to development and administration of the area plan and operations considered thereunder. At least one-half of the membership of such council shall be made up of actual consumers of services under the area plan. (Ibid., p. 28050)

In Michigan, at least 50 percent of the members of each AAA advisory council are to be elderly consumers, and the balance are to be representatives of agencies providing services to the elderly.

Services to older citizens are purchased by contract or grants from public or private agencies with resources including Title III service funds. Prior to the establishment of the AAAs in mid-1974, project applications for Older Americans Act funds were approved by the state Office of Services to the Aging more or less on a "first-come" basis, with little overall planning based on community needs. Beginning with the last three-quarters of FY 1974-75, each AAA received a Title III service fund grant target[15] to allocate between projects developed in communities within its area. Within this grant target constraint, project proposals were generated by the AAA advisory council, staff

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[15]This grant target was determined by the state OSA on the basis of a weighted formula which provided one full weight for the incidence of individuals in the region over the age of 60; one full weight for the incidence of low income seniors in the region; a half weight for the incidence of minority group seniors (Black, Native American, and Latino); plus a half weight for the elderly residents in the northern rural areas of the state. (Michigan OSA, 1975, p. 10)

and local community organizations. Project priority recommendations were set by the advisory council, and the area plan was then recommended by the advisory council to the AAA policy board for approval, then forwarded to the state OSA for funding. This project review role of recommending allocation of an areawide grant target between projects was continued in Michigan for FYs 1975-76 and 1976-77.

Furthermore, in its role as the focal point for regional planning and implementation of services for senior citizens, the AAA has opportunity for review and comment on other proposals involving State or Federal (non-Title III) funding for services to the aging.[16]

d. CETA Manpower Planning Consortia

The Comprehensive Employment and Training Act (CETA) of 1973 (P.L. 93-203) authorized a block grant approach which combined many previously existing Federal manpower programs into one system. The purpose of CETA was to promote job training and employment leading to self-sufficiency for economically disadvantaged, unemployed and underemployed persons.

The major thrust of CETA was to decategorize and decentralize manpower programs and to put manpower decision-making in the hands of local elected officials. CETA replaced the Manpower Development and Training Act (including Neighborhood Youth Programs, Public Service Career Program, and Concentrated Employment Programs); manpower aspects of the Economic Opportunities Act of 1964 (including the Job Corps, Neighborhood Youth Corps, New Careers, and Operation Mainstream), and

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[16]These include nutrition projects funded under Title VII of the Older Americans Act, special transportation of senior citizens, and the Federal social services program under Title XX of the Social Security Act.

the Emergency Employment Act of 1971 which funded public service jobs for areas of high unemployment. (Clearinghouse, April/May 1975, p. 10)

Areawide consortia could be organized to administer CETA monies provided under Title I, Comprehensive Manpower Services, and Titles II and VI, Public Service Employment Programs. "Prime sponsorship" for CETA programs was limited to (a) an individual local government prime sponsor above 100,000 population, or (b) a prime sponsor consortium in which at least one of the member governments had 100,000 population or more. In "balance of state" areas, Federal funds could be passed through the State as the prime sponsor to (a) "balance of state" consortia formed in areas where no local government unit met the minimum population requirement, or (b) directly to local counties.[17]

Policy decisions for the areawide consortium were generally the responsibility of its administrative board, made up of elected officials from the member local governments. Each prime sponsor was also required to appoint a manpower planning council

> composed of residents of the client community, community based organizations, the employment service, education and training agencies, business and labor, and if applicable the agricultural sector.
>
> The planning councils advise prime sponsors of basic goals, procedures and policies for operating manpower programs; make recommendations regarding plans; provide for analysis of employment, training and related needs; monitor manpower programs under the Act and provide for objective evaluations of manpower delivery and related social service programs. (Ibid., p. 11)

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[17]The State of Michigan encouraged the formation of "balance of state" consortia among county governments within substate planning and development regions. The State developed contracts with such consortia providing basically the same authority and local discretion to local governments in those areas as that provided to the Federally recognized prime sponsors. Eleven counties and four cities each became prime sponsors, while six prime sponsor consortia involved sixteen counties and five cities. (Milliken, 1975, pp. 92-93)

Prime sponsor consortia receive an areawide grant target for each of the respective CETA Title programs, based on level of unemployment and other criteria. Each consortium recommends the allocation of each grant target between competing manpower program requests within the area.

e. Comprehensive Health Planning

A national system of areawide comprehensive health planning agencies was provided for by the Comprehensive Health Planning and Public Health Service Amendments of 1966 (P.L. 89-749).[18] Congress declared in this legislation that

> fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person, in an environment which contributes positively to healthful individual and family living.

and that

> attainment of this goal depends on an effective partnership, involving close intergovernmental collaboration, official and voluntary efforts, and participation of individuals and organizations. (80 STAT.1180. 42 U.S.C.246)

While P.L. 89-749 made no reference to the organizational pattern of areawide agencies, subsequent Federal guidelines determined that such agencies should be controlled by consumers

> . . . broadly reflecting the total population to be served by the agency and representing 'an appropriate balance between the previously influential and the hitherto unheard' (to quote an early statement in the federal guidelines). (Gottlieb, p. 20)

The membership provisions were formalized in the 1970 Amendments to the Public Health Services Act (P.L. 91-515), which amended Section 314(b) pertaining to areawide health planning councils.

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[18] Section 314(b) contained enabling legislation for areawide CHP agencies, sometimes referred to as "314-b" agencies. Section 314(a) provided for the establishment of a state-level "a" agency in each state.

> The membership of such council shall include representatives of public, voluntary, and nonprofit private agencies, institutions, and organizations concerned with health (including representatives of the interests of local government, of the regional medical program for such area, and consumers of health services). A majority of the members of such council shall consist of representatives of consumers of health services. (84 STAT.1305, 42 U.S.C.246)

Michigan organized ten areawide comprehensive health planning (CHP) agencies.[19] Seven of the ten CHP areas were coterminous with substate planning and development (P & D) districts. Two other CHP areas each covered two P & D districts, and another contained the Upper Peninsula's three P & D districts. The Office of Health and Medical Affairs in the Michigan Department of Management and Budget served as the 314-a agency to coordinate, guide and assist the areawide CHP agencies.

Areawide CHP agencies conduct project review of proposed capital improvements projects and of many Federal grant program requests. Capital improvements projects are reviewed under provisions of Federal and State legislation. Both efforts attempt to contain health care costs by controlling excess capacity in beds and services.[20]

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[19]Under the provisions of The National Health Planning and Resources Development Act of 1974 (P.L. 93-641), Michigan's ten areawide CHP agencies were replaced in 1976 by eight areawide Health Systems Agencies (HSAs).

[20]From 1948 to 1972, the number of acute care hospital beds in Michigan almost doubled, while occupancy rates rose from a state-wide average of 70 percent in 1948 to 79 percent in 1972. Because of these trends, many health care analysts assume that there is substantial over-utilization in general acute care hospitals and that a sizable proportion of expenditures by consumers on this form of health care is unnecessary. (LPER Unit, 1974, p. 1) Michigan Department of Public Health uses the estimate that the average daily cost to a hospital of a vacant bed ($70) is about two-thirds the average daily cost of a filled bed ($105). (Ibid., p. 13)

Section 1122 of the Social Security Amendments of 1972 (P.L. 92-603) is an effort to assure that Federal funds appropriated under Titles V, XVIII and XIX of the Social Security Act are not used to support unnecessary capital expenditures for health care facilities or services. The Section 1122 provision applies to providers expecting to be reimbursed under the maternal and child health, medicare or medicaid programs. (Federal Register 38, p. 31381) Michigan's Certificate of Need program (Act No. 256, Michigan P.A. 1972) was set up to minimize overbedding and overutilization, thereby reducing overexpenditures for acute care hospitalization. (LPER Unit, 1974, p. iii)

Projects submitted for Section 1122 review are to be evaluated by four criteria: (1) community need, (2) adequate staffing and operation, (3) economic feasibility, and (4) cost containment or improved quality of care. The criteria are also reflected in the list of eleven factors specified by P.A. 256 to be taken into account in evaluating project applications under the Certificate of Need program.

Before a facility can modernize, convert, build or expand, it must obtain certification from the State Designated Planning Agency (DPA)[21] attesting to the need for more beds or services in the community where the project is proposed. Project review by the areawide CHP agency is required in Michigan for proposed health facility capital expenditures which (1) exceed $100,000, or (2) changes the bed capacity, or (3) substantially changes the services of the facility. (State of Michigan, 1975, p. iv)

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[21]The DPA in Michigan is the Division of Health Facilities Planning and Construction, Bureau of Health Facilities, Michigan Department of Public Health.

The role of the areawide CHP agency is to recommend approval or disapproval of the project's certification by the State DPA. Such certification must be consistent with "but need not necessarily follow exactly the State plan for hopsital and medical facilities construction.[22] (State of Michigan, 1972, Sec. 4) The State plan specifies the number of additional beds needed (if any) for acute care and nursing home facilities in each of seventy-seven Health Facility Service Areas (HFSAs) in the State. The number of additional beds needed in each HFSA serves, in effect, as a grant target for each HFSA within the CHP area. Thus, for projects requesting an increase in bed number, the review process may be viewed as one where the areawide CHP agency recommends the allocation of an areawide grant target (the number of additional beds authorized the HFSA by the State plan) between or among competing project proposals within the HFSA. However, for those capital improvements projects where no HFSA or CHP area target or ceiling is specified by the State plan, project review by the areawide CHP agency involves a recommendation of approval or disapproval for the proposed facility or service.[23]

Furthermore, areawide CHP agencies also participate in the A-95 review and comment process for Federally funded health projects and

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[22]The Michigan State Plan for Hospital and Medical Facilities Construction (State of Michigan, 1975) is updated annually as part of the Federal requirement for receipt of Federal Hill-Burton hospital construction grants, authorized since 1946 under the Hospital Survey and Construction Act (P.L. 79-725) and subsequent amendments and revisions (including the National Health Planning and Resources Development Act of 1974 (P.L. 93-641)).

[23]Health services development funds were authorized by the Health Resources and Development Act of 1974 (P.L. 93-641), but not fully appropriated, to provide grant targets for the Health Systems Agencies to allocate in fostering the development of specific proposals within the area to implement portions of the areawide health systems plan.

programs other than capital improvements. These requests are from units within the CHP area, as well as from the Michigan Department of Public Health or Mental Health.

This background has documented the legislative base for the rapid emergence of multi-county planning agencies and review procedures. Given the limited capacity of areawide planning to influence policy decisions in local units, separate attention was directed to the evolution of project review authority. Three types of review authorities were examined for varying degrees of veto power: (a) review and comment clearinghouse, (b) recommendation of approval or disapproval, and (c) recommended allocation of an areawide grant target, which serves as a budget constraint of review decisions. One general purpose and four special purpose planning and review functions were then discussed to illustrate how these three types of review authorities evolved within selected multi-county agencies in Michigan.

B. Antecedents to an Economic Analysis of the Project Review Process

1. Critique: Can a committee review process make hard choices between projects?

The A-95 review is viewed by clearinghouse officials and local government officials as an advisory procedure that has marginal impact on funding decisions. The ACIR analysis reported that most clearinghouses seldom attach a negative comment to grant applications and that similar findings came from earlier surveys of Section 204 clearinghouses by the Office of Management and Budget. (ACIR, 1974, p. 40)

An early assessment of the A-95 review clearinghouse by Melvin Mogulof in 1971 suggested that most projects get endorsed. His examination of seven metropolitan clearinghouses over a four-month period

found "no action taken under the A-95 review process which could be construed as harmful to a local member government on an important issue." (Mogulof, 1971, p. 38) This finding supported an assertion that "the reviewed can't do the reviewing." (Ibid., p. 48)

Mogulof's analysis of the A-95 review process presents a situation which appears to have elements common with those found in other committee review transactions, including the congressional budget approach, congressional review of agency budget proposals, and congressional oversight of agency activities. The following discussion highlights analyses of these committee decision processes which provide insights useful to further analysis of the project review process.

James A. Thurber described the congressional budget process prior to the 1974 budget reform[24] as one which, similar to the A-95 review, tended to approve all proposals considered.

> Before reform, the history of budgeting in Congress was a history of war between the parts and the whole.

an approach characterized by an inability to set priorities among expenditures.

> By focusing on only one piece of the budget at a time, Congress was never faced with an 'either/or' type of decision. This resulted in a 'both/and' budget. (Thurber, 1976, pp. 198-99)

One problem identified by Thurber in this approach was an imbalance in access to budgetary information. The President had information and used it against Congress to support those programs he favored.

A similar indictment of the review process in representative government is provided by William A. Niskanen, Jr., who contends

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[24] Congressional Budget and Impoundment Control Act of 1974, P.L. 93-344, Statutes at Large, vol. 88, 304.

that ". . . the committee review process is a farce." (Niskanen, 1971, p. 153) Niskanen suggests that in reviewing agency budget requests, a Congressional review committee has neither the time, the expertise, nor the initiative to search for agency inadequacies, due to several factors. These include the large size of agencies, the often incomprehensible nature of the agency's projects, the inability to compare performance because of the absence of competition, the time and expertise demanded for adequate review, and the political demands placed upon the reviewers by pressure groups.

Shifting the focus from agency budget requests to the monitoring of agency activities, Morris S. Ogul cites seven opportunity factors which tend to promote the potential for legislative oversight or to limit the possibility of it. He concluded,

> Congressmen, as individuals, set their priorities in a variety of ways, but they all intend to do what they presume to be important. To the extent that oversight is connected more intimately with the central problem of political survival or with other things that congressmen value, the performance of oversight will improve; to the extent that the link is seen as weak, far-fetched, or elusive, the present state of oversight will persist. (Ogul, 1976, pp. 201-202)

Three factors are particularly relevant to this examination of difficulties in the committee review process. Ogul found that the more technical and complex the subject matter is perceived to be, the less likelihood of oversight. He also lists access to staff and the willingness to use it as important preconditions to substantial oversight. Both of these factors relate to the member's setting of priorities, and Ogul argues that in the calculus of gains and losses to the congressman, oversight has fewer potential payoffs than other activities.

Beyond committee review, differential incentives are also at work in the negotiating and monitoring of government contracts, where the profit-making incentive of the contractor firm competes against government representatives lacking a personal stake in the outcome of the negotiations. Studying cases of research and development contracts, Martin Edmonds found several factors that suggest why the government negotiators tend to lose to the contractors in these contests. (Edmonds, 1971) First, the development costs of technologically advanced projects are difficult to accurately determine. Secondly, the review boards lack the time, will and technical expertise to make sound appraisals of production procedures. Edmonds also noted that companies are able to withhold and distort information and thus mislead government spokesmen. (Warren, 1974, p. 182)

Analyzing deficiencies in the research and development procurement system, Robert A. Solo notes a distinction between evaluating a product (which does not exist at the time the contract is made) and evaluating a promise of performance. Effective evaluation of potential research and development performance would require (1) continual supervision of R & D activities, and (2) judgment at the highest level of technical and scientific sophistication.

Solo argues that

> To choose the efficient, to weed out the sluggard, to evaluate performance, to build in incentive, are responsibilities of government. The responsibilities are inescapable; but before the political economy will or can meet those responsibilities, it must have a leadership with the motivation and, as an even prior requirement, with the competence (the high scientific authority and technical capabilities) required to supervise, to evaluate, and to exercise control over a vastly complex activity and over powerful private organizations. (Solo, 1967, p. 285)

The needed competence and motivation are found wanting by Solo, who notes that the contract-seeker is motivated to sell a promise to the contract-maker, rather than to provide effective performance. Such discrepency between promise and performance generally goes undetected

> (1) because the comparative evaluation of performed R & D requires skills, and abilities of the highest order . . ., and (2) because it is not in the contract-maker's self-interest to investigate performance and to expose failures which may reflect ill upon his judgment. (Ibid., p. 290)

Mancur Olson notes that in the large modern corporation, common stockholders have the legal power to discharge the management at their pleasure. Yet, management tends to control the large corporation, and is able, on occasion, to further its own interest at the expense of the stockholders. Why do the stockholders not exercise their power in such situations? Olson suggests they do not, first, because with thousands of stockholders, any effort the typical stockholder makes to oust the management would probably be unsuccessful. Second, even if successful most of the returns in the form of higher dividends and stock prices would go to the rest of the stockholders, since the typical stockholder holds only a trifling percentage. The potential gain from ousting the management, no matter how inept or corrupt it might be, is a collective good to all the stockholders. The stockholder who holds only a minute percentage of the total stock, like any member of a latent group, has no incentive to work in the group interest in general, or to challenge the management in particular. (Olson, 1971, p. 55)

The foregoing discussion has focused on a broad class of situations which seem to share some common characteristics:

(i) the complexity of the issue imposed a high cost on those who wished to obtain information necessary to make an informed decision;

(ii) different parties had differential incentives to generate or to acquire information relevant to the decision; and

(iii) such differential acquisition of information led to an imbalance between a concentrated interest and diffuse interests, whereby one party tended to prevail over others (a latent group) nominally with more power, as in the cases of the project applicant over the A-95 review body, the bureau over the review and oversight committees, the contract-seeker over the contract-maker and monitor, and the management over the stockholders.

Paul J. Halpern applies Olson's logic of collective action and the earlier work of Anthony Downs (1957) to a similar analysis of difficulties faced by unrepresented interests in the area of consumer and environmental protection. Halpern argues that for many, rational pursuit of self-interest in one of the causes of inaction.

> First, to influence government on a day-to-day basis in its legislative and administrative decisions, one must possess a large amount of technical information about the issues under consideration. Individual companies are experts in their fields. But individual consumers purchase hundreds of products and it is very difficult for them to find the time and energy to become expert on the workings of even one of them. Second, individual citizens can only work for environmental and consumer protection in their spare time while a company can hire full-time lobbyists to do their work for them. Third, the monetary benefits accruing to any one individual or family from lobbying on a given issue are small, the costs of organizing are large, and the benefits would end up being shared by everyone else anyway. Thus no one has an economic incentive to organize, to lobby for environmental and consumer health. (Halpern, 1973, p. 187)

The project review process may also be described by these characteristics. Complex projects presented for review require the investment of much time and effort by committee members attempting to understand them. The project applicant is employed full-time in the project activity, while committee members serve part-time on a voluntary basis. Thus, the costs of organizing opposition to a particular project are high; however, the collective gains from doing so are diffused among many. Given this imbalance, the applicant tends to win against those on the review committee who do not support the proposed project. Under these circumstances, A-95 review decisions are generally characterized as a "both/and" decision rather than an "either/or" choice. A "both/and" choice at the areawide review provides little useful guidance to those elsewhere in the funding agency hierarchy who, given limited resources, must ultimately choose between projects to be funded.

2. Will competition force choice between projects?

Niskanen suggests that decision-making performance of the review process may be effected by the nature of competition among applicants (bureaus) providing the same or similar services. He argues that the effects of competition among service providers requesting budget appropriations depend very much on the nature of the review process and the political structure of the reviewing body. Applying his thesis to the project review process, one may examine the structure of the committee which reviews project applications, and the nature of competition among project applicants requesting committee approval for similar type projects. These points will be discussed in turn in the next two sections.

3. Who gets to choose?

One key element in Niskanen's model of the review process is the political structure of the review body, which may influence the distribution of project dollars endorsed by the review agency among types of projects[25] and among geographic units. Niskanen suggests that if the review committee is dominated by representatives of a group with relatively high demands for the service under review, the quantity of service approved under competing applications will not be much less than that approved under review without reference to a similar application.

The question of who dominates the group is partially a function of who comprises its membership,[26] which of its membership participates, and the relative power of those participating.

Membership composition of CHP governing bodies is prescribed by law such that consumer representatives hold a nominal majority and that membership is to reflect the geographic distribution of population in the area. Such provisions need not be observed, however, in the composition of project review committees within the agency.

Given an equitable share of membership, however, representation on a governing body or review committee provides an opportunity to influence policy choice, but does not assure it. Robert Warren argues that a number of factors in the structure and processes of an

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[25]As will be shown later, the type of project selected also has distributional impacts among age groups or levels of income, for example.

[26]The potential for rules prescribing membership to affect the kinds of priorities set by multi-county planning agencies was demonstrated by David Mullen's finding that a rule requiring that membership represent city interests (as opposed to county-wide or rural) was related to preferences for allocating planning funds to employment impact programs. (Mullen, 1974)

organization impose higher costs upon some participants rather than others for effective participation in decisions. In predicting a person's potential influence, the cost structure of the decision-making system in which he is participating must be taken into account. (Warren, 1970, p. 589)

The effectiveness of a consumer majority in articulating consumer interests is challenged by Patrick O'Donoghue and Rick J. Carlson, who note

> The difficulty is that the slender majority possessed by the consumer is often eroded through lack of attendance by consumer representatives or their lack of understanding of many issues under discussion. Thus, as a practical matter, many CHP agencies are under the effective domination of providers who are both 'committee-wise' and generally more knowledgeable about the issues. (O'Donoghue and Carlson, 1974, p. 286)

William J. Curran cautions, however, that providers should not be assumed to have entirely common interests and to be united against the consumers, that many of them are rivals and competitors, not "fellow conspirators."

> Physicians who work for health maintenance organizations do not have all the same interests as private practitioners. Psychiatrists and surgeons have little in common. If I were staffing a board, I would like to have expert providers debating with <u>other</u> expert providers about the best approach to a problem, not merely providers arguing with consumers. (Curran, 1976, p. 42)

Turning from the consumer-provider representation issue to geographic composition of membership, Warren proposes that variations in scale (number of counties comprising a multi-county area) can have negative effects for the ability of certain local groups to have their interests represented in areawide policy decisions.

4. Who sets the agenda: from which projects do committees choose, and on what basis?

Another key element in Niskanen's review process is whether the service under consideration for funding review is provided by a monopolistic bureau or by competing bureaus. Similarly, in CHP project review, an analytical distinction may be made between review of a project by a review committee with reference to another project(s) proposing similar services, and review without reference to a similar project proposal.

How might the review process be structured to enable the review committee to review projects with reference to similar projects, and would all such "competing" projects face the same rigor of project cost containment?

One important variable identified by Niskanen is the amount of cost information for each service or project available to the reviewing body.

The amount of cost information available concerning health facilities projects may be as difficult for the review body to obtain as in the cases of government bureaus or R & D contractors mentioned earlier. It is generally recognized that the caveat emptor precept (let the buyer beware) is largely inapplicable in the health care field, according to Harry J. Greenfield, who argues that the viability of the concept of consumer sovereignty is in direct proportion to consumer knowledge (and income).

> It is precisely the lack of knowledge by consumers concerning the quality of health care and the virtual lack of control over the quantity purchased--the latter because consumer demand operates indirectly through surrogates (the physician and the hospital), that producer rather than consumer sovereignty may be said to prevail. (Greenfield, 1975, pp. 21-22)

Such uneven access to information is seen by O'Donohue and Carlson as a problem in CHP project review, consumer majority notwithstanding. They see the CHP agency as a

> consumer-controlled body dueling with providers using provider weapons--not only do providers possess the presumed expertise on questions of "need" for facilities, they also have the money to buy hired guns to make their arguments and to manipulate their numbers. (O'Donoghue and Carlson, 1974, p. 285 fn.)

One may ask then, could alternative rules alter the amount of information gnerated which criticizes a project proposal, and could such alternative rules affect who is likely to produce such information?

Some key insights into these questions are suggested by Randall Bartlett's application of price theory to the production of information by various actors in the review process. (Bartlett, 1973) In our analysis of CHP project review, such relevant actors would include the service provider submitting the project application, the CHP agency staff, and the service providers and consumers of health services comprising the CHP project review committee and agency governing body. Can alternative rules provide differential incentives for different actors to produce information critical of particular projects? This question will be explored in the development of the conceptual framework in Chapter III.

CHAPTER III. CONCEPTUAL FRAMEWORK

This chapter develops an economic approach to analyzing the project review processes of a collective body. Each project review decision is viewed as the outcome of a transaction between the applicant and the review committee. Thus, the transaction is the central unit of analysis in this paradigm, which hypothesizes a relationship between institutions or rules, behavior of the participants affected by the rules, and performance as measured by selected indicators. This approach focuses on people-to-people relationships which involve issues of property rights and power. The basic concern is who gets to participate in decision-making, and what has to be taken into account by participants in making those decisions. By analyzing rules affecting the structure of opportunity sets of participants in the project review transaction, this study will attempt to identify certain key characteristics of the review process that appear to affect who gets projects approved for what purposes.

A. Institutions

Institutions in this analysis are defined as "ordered relationships between people which define their rights, exposure to the rights of others, privileges and responsibilities." (Schmid, 1972, p. 893) This section attempts to develop some insights into, first, how selected rules are related to participation in the project review transactions, namely, attendance by members of the CHP project review committee and the committee's opportunity to review competing

applications, and second, how differential participation in the project review transactions are related to review decision performance. Institutions include both the sets of rules affecting who participates, and the resultant differential participation in review transactions which affect what those participants in the review transaction need to take into account during the review committee deliberations.

In a process of interdependent decision-making, institutions structure the opportunity set of an individual participant.[1] An individual's opportunity set is composed of one's physical and emotional capabilities plus one's understandings (legal and customary) of potential options and their relative costs. (Schmid, 1975, p. 13) Thus, one's opportunity set is conditioned, among other things, by institutions which specify one's rights and exposure to the rights of others. In this framework, a property right defines the opportunity for Alpha to act without seeking the formal consent of anyone else, and also defines Alpha's exposure to Beta's right to act without seeking the consent of Alpha or others. Ownership of a right means the opportunity to create costs for others who are affected by the owner's acts, as well as to create benefits for the owner either directly or through the use of exchange values. (Schmid, 1975, p. 13)

Alternative rules confer rights to different parties, creating costs[2] for some and conferring benefits to others. One category of costs imposed is transaction costs, which make it more difficult for some to participate in decision-making than others. The following two

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[1]This discussion draws heavily from the conceptualization by Warren J. Samuels (1972).

[2]Costs are viewed as the loss or reduction in an individual's opportunity set.

examples illustrate how a rule, such as the designation of which county is to have the office of the multi-county health project review agency, imposes asymmetrical transaction costs on different parties, Alpha and Beta, representatives from two adjoining counties. If Alpha's county is designated the agency location, Alpha's cost of participating in review activities is low relative to that of Beta, who must travel a greater distance. Assuming both maximize net benefits of participation, ceteris paribus, Alpha would likely attend more frequently than Beta. In contrast, if the agency is located in Beta's county, Alpha's cost of participating outside his community is higher relative to that of Beta, and it might be expected, ceteris paribus, that Alpha would likely attend less frequently than Beta. Higher costs are indicated for Beta in figure 3-1a and for Alpha in figure 3-1b by a reduction in the respective opportunity sets.

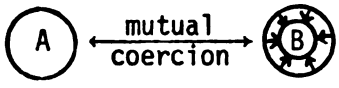

Figure 3-1a. Alpha's partipation costs low relative to Beta's

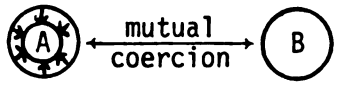

Figure 3-1b. Alpha's participation costs high relative to Beta's

By tracing through likely differences in transaction costs imposed by alternative institutions on different parties, given specified behavioral propositions, consequences of such alternative institutions can be hypothesized. Continuing the example, even if both counties have equal membership on the review committee, projects submitted from the more distant county with less attendance may receive

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[2]Costs are viewed as the loss or reduction in an individual's opportunity set.

less support than those from the core county where the agency office is located. Thus, a rule designating location of the agency office imposes differential transaction costs which may result in unequal participation, differential rigor of review of projects, and unequal distribution of project dollars between the two counties.

This chapter will continue further development of the Behavior and Performance components of the paradigm prior to the specification of hypothesized relationships between institution and performance variables in Chapter IV.

B. Behavior

This section introduces a framework which identifies relevant participants in the review transaction, and specifies behavioral propositions as a basis for predicting behavior of different participants under specified conditions.

1. Relevant actors in project review transactions

Randall Bartlett's extension of the usual economic model's consumer and producer dichotomy to include bureaucrats and elected officials (Bartlett, 1973, ch. 2) lends itself to the identification of key participants in the project review transaction. These actors include: 1) the project applicant, a provider of a health service; 2) the CHP agency staff; and 3) representatives on the CHP governing body and the project review committeee, which include a) representatives of consumers of health services; b) representatives of providers of health services; and c) elected officials of local government. Project review committee members are appointed and accountable to the CHP governing body, while the governing body members are elected, in

some cases directly by the governing body, and in other cases by a council of members which nominally includes a membership larger than that of the governing body.

A project undergoing CHP review in Michigan during the period studied tended to follow the basic sequence outlined in Figure 3-2.

2. Predicting behavior

Behavior in this framework denotes the strategies adopted by participants in response to the incentives and sanctions of the opportunity sets established by the institutions.

Economic theory provides some useful concepts in attempts to predict certain types of behavior. According to Mancur Olson, it is the method and assumptions, not the objects of inquiry, that primarily distinguish economics from the other social sciences. Microeconomic theory is relevant to problems of government and politics "whenever behavior is purposive and there are not enough resources to achieve all purposes." (Olson, 1971, pp. 173-74)

Several propositions relating to behavior of individuals provide a point of departure in this analysis for predicting behavior strategies. These propositions are assertions about reality which are accepted without proof.

> First, all actors are primarily motivated by their own self-interest, and are rational in the pursuit of this self-interest;
>
> Second, all actors labor under the constraint of uncertainty, and hence, all actors are subject to influence in their making of choices; and
>
> Third, actors are asymmetrical in their capacities to seek self-interest, exercise rationality, and counter uncertainty.

Figure 3.2. CHP PROJECT REVIEW FLOWCHART

1. Applicant submits Letter of Intent to Area CHP Agency and to State Designated Planning Agency.

2. Letter of Intent remains inactive, is withdrawn by Applicant, or is followed by Project Application submitted to Area CHP Agency and DPA.

3. Project is analyzed by Area CHP Staff.

4. Project is evaluated by CHP Project Review Committee, who may recommend it be not endorsed, request substantive modification as a condition for endorsement, or recommend endorsement as submitted.

5. Review Committee recommendation is considered by CHP Area Governing Body responsible for CHP Agency review determination.

6. CHP Agency review determination endorsing or not endorsing project is sent to State Designated Planning Agency within 45 days of receipt of Application by CHP Area Agency.

7. DPA makes final review determination and must advise Applicant of such within 60 days after CHP Area Agency's review.

The first proposition combines two core assumptions from standard economic theory. Self-interest is defined sufficiently broadly for individuals to derive utility from some charitable endeavors. Being rational means that the individual's behavior will be an attempt to move closer to, rather than farther from, the attainment of whatever goal chosen by that individual.

The five groups of actors are assumed to have different sets of goals which tend to define the self-interest pursued by individuals in each group. The goals presumed to underlie the behavior of each of the five groups are:

i) project applicants, who as providers of health services will attempt to maximize profits for the providing firm;[3]

ii) CHP staff members, who will attempt to maximize their own job security and the achievement of professional status;

iii) consumer representatives, who will attempt to maximize their own utility (which includes the minization of costs of health care), as well as their chances of continuing on the review committee or governing body;

iv) provider representatives, who will attempt to maximize the profits of the firm represented,[3] as well as their changes of continuing on the review committee or governing body; and

v) elected officials of local government, who will attempt to maximize votes for their re-election to local government.

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[3]As a benchmark, Mark V. Pauly assumes that the nonprofit hospital maximizes profit, and proceeds to explore maximization of physician income. (Pauly, 1974)

Adding the constraints of uncertainty and subceptibility to influence (Bartlett, 1973, p. 36) and asymmetrical capacity (Samuels, 1976, p. 181) provide the basis for a process of influence production, which is a key component in the model being elaborated of the project review process.

3. A Process of Influence Production

Given uncertainty, there is the pervading potential for the production of influence, according to Bartlett. A rational actor, constrained by uncertainty and who is faced with the necessity of making a decision will have to strike a balance between two types of costs. There are costs in making an incorrect decision by not being informed, and there are costs in acquiring information to become informed.

> This balance will lead to a limited amount of information that it is rational to acquire before reaching a decision, and the decision will be based upon this imperfect stock of information. To the extent that an interested external agent is able to affect the acquisition of information, he will be able to influence the decision and hence the behavior of the agent in question. Most often this influence will result from the ability of the influencer to change the relative prices of different types of information faced by the decision maker. (Bartlett, 1973, p. 27)

Bartlett's theoretical explanation of a process of influence production centers on the differential conditions of acquisition, and production, of information. His example of an individual making a decision under uncertainty includes nine assumptions.

i) There exists a single individual, B, who is unable to possess all the information in the world, i.e., he suffers from uncertainty.

ii) B is faced with the decision between two distinct alternatives, X and Y. This can easily be regarded as a multi-option rather than a two option case by regarding X as a decision to do something and Y as the decision not to do

it, Y carrying the implication that any number of alternatives can then be chosen.

iii) In a world of perfect certainty, i.e., if B possessed all information, he would choose alternative X as best.

iv) The acquisition of information is not costless. It can be acquired only at increasing unit cost. (Ibid, p. 28)

v) There is a second individual, A, who is affected by B's decision.

vi) A will be better off if Y is chosen than if X is chosen. A may be a producer interested in a consumption decision, a politician interested in a voting decision, or even a thief interested in the decision of a jury. The possibilities are unlimited.

vii) A possesses a certain amount of information relevant to B's decision, and he is able to separate it into two parts: N_f, which is favorable to decision Y, and N_u, which is unfavorable to it.

viii) A has no means of coercing B into reaching decision Y, but A may subsidize B in his acquisition of information. (Ibid, p. 31)

ix) B applies a constant discount factor d to all information whose acquisition is directly subsidized. The magnitude of d will depend upon a variety of factors, including B's past experience, his personality, and his awareness of A's interest in the decision, but it will always be less than one. (Ibid, p. 34)

Bartlett concludes that whenever A's ex ante estimation of the gain from influence is greater than the costs of producing it, the assumption of rationality requires him to engage in influence production.

As emphasized by Samuels,

> Parties with an interest in the actions of others may decide to become producers of subsidized information, thereby affecting the flow of information to the others by lowering their price of information and thus influencing the decisions reached. But, whether the influence is of the private or public (and of the voting or nonvoting) variety, actors are differentially (read: unequally) situated both in their capacity to produce influence and in the potential payoffs thereof. In short, the powerful can afford to produce, and have the most

> to gain from the production of, influence, (Samuels, 1976, p. 183)

4. Behavior: linking institutions and performance

Behavior, such as that specified in the preceding pages, provides an important link between selected institutions and flows of performance consequences. Prior to turning to the development of the performance component of the paradigm, however, some limitations of the role of behavior in this analytical framework merit attention at this point.

First, the behavior of individuals in each group is assumed; neither the propositions nor the predicted behavioral strategies of the groups are measured in this study. In contrast, the institution and performance variables as operationally defined later in this chapter are capable of measurement. Second, the presumption that participants act in the manner specified enables the policy analyst to hypothesize a flow of consequences from alternative sets of institutions, given those behavioral predictions. Finally, observations of performance, and institutions enables an assessment of predicted performance, that is, an empirical test of the hypothesized relationships between institution variables and performance variables. The value of behavior in this framework, then, is its contribution towards improving the ability to predict performance of alternative rules or policies. However, an empirical test supporting a hypothesized relationship between a selected institution and performance, given specified behavior, in no way proves or disproves the validity of such predictions about behavior.

C. Dimensions of Performance

Performance is defined in this paradigm as the flow of consequences from any particular set of institutional characteristics, given specified behavioral assumptions. Performance dimensions suggest relevant kinds of objectives and impacts to be specified as performance criteria to be measured in evaluating the impact of alternative rules.

This paradigm enables performance to be treated as a multi-dimensional concept. Shaffer and Schmid (1974) warn of a difficulty from two tendencies inherent in viewing performance as a single dimension. Judging performance on the basis of an ideal system as a norm and focusing on a limited set of criteria tend to obscure the necessity to make trade-offs.

One array of performance variables is illustrated by the Tinbergen model of economic policy presented by Fox (1974). Certain variables constitute the targets or goals of policy. Other variables, not sufficiently important to warrant concern, are classified as minor, or "irrelevant" with respect to a given problem, and are considered side-effects of policy.

This frame of reference helps to bring into focus the issue of whose preferences count in the determination of policy targets in an arena of conflicting goals by different parties. What is considered a policy target by Alpha may be irrelevant to Beta, and what is considered a mere side-effect to Alpha may be a goal quite important to Beta.

This fundamental issue can be illustrated with two examples drawn from the problem under study.

1. The officers and staff of an area review agency are concerned about low meeting attendance and wish to avoid the costs of rescheduling meetings when a quorum is not present. A provision to allow a designated alternate to represent an absent member is selected as a policy instrument to achieve the goal of higher meeting attendance. A related impact may be that because some categories of representatives can send alternates more easily than others, the distribution of attendance among counties is changed. Thus, the costs of increased attendance may be borne disproportionately by member counties.
2. The staff of a large area review agency is concerned about the allocation of staff resources to organization and maintenance of project review committees. A proposal to consolidate several sub-unit councils into one areawide project review committee is recommended as a policy instrument to reduce staff effort required for the recruitment of committee members and the organization and assistance of meetings. A related impact, however, may be reduced participation in project review by those interested parties from counties most distant from the area office where areawide review committee meetings are held.

The purpose of specifying multiple dimensions of performance is to identify objectives and impacts that are relevant to the analysis. Such a specification involves two levels of trade-offs. One if that some impacts are ignored as irrelevant and omitted from the analysis. Another is that there are trade-offs between policy targets as perceived by different parties. One party's target may be another's side effect, and vice-versa. This analysis attempts to identify impacts

relevant to various parties by specifying two major dimensions of review decision performance in a manner that will help to illuminate rather than to obscure trade-offs between conflicting goals. These dimensions are rigor of review discipline and distribution of project dollars endorsed.

1. Rigor of review

The rigor of review discipline relates to the tendency of the review agency to make "either/or" choice relative to "both/and" choice. Of analytical interest is the issue of whether a review body will discipline itself to make an "either/or" type of choice without strong incentives to do so, and conversely, given alternative institutions which appear to provide incentives for a more rigorous review, does "either/or" tend to prevail over "both/and" choice in project review decisions?

2. Distribution of project dollars

Capacity for a more rigorous review may please the external sponsor interested in having the areawide agency signal priorities between projects. Such guidance, however, is provided at a cost borne by those whose projects are not endorsed. Therefore, distribution of project dollars endorsed and dollars cut back are also important dimensions of performance in this study. While "adding teeth" to the review process to attain a more rigorous review has a certain intuitive appeal, it should be made explicit whether such discipline might carry with it a systematic bias against certain counties or types of projects.

This introduction to institutions, behavior and performance leads towards a model of the project review process which sets the

stage for the identification and operational definitions of variables in the last section of this chapter.

D. Recapitulation of the Paradigm

1. Towards a model of the project review process

The preceding sections have introduced a theoretical frame of reference for generating hypotheses relating institutions and behavior to performance.

This analysis focuses on transactions between participants in the project review process. A review transaction is defined as the interaction between the project applicant and members of the CHP project review committee. Each participant's behavior in the review transaction culminates in an aggregate review decision which has a flow of consequences, some of which are monitored as performance dimensions.

Two basic questions are central to this analysis. First, are different review decisions systematically related to differing arrangements of who participates in the review transaction? A separate but related focus is on what factors affect who participates in the review transaction. The second central question, then, is whether the particular array of participants in the review transaction might be a consequence of potential participants responding differently to unequal incentives and transaction costs conditioned by alternative rules.

The dual focus of the analysis recognizes an environment of reactive review by CHP agencies. Although participation in the review transaction is the principal analytical focus, the structure of participation is not prescribed by CHP regulations. On the contrary, participation by review committee members is voluntary, and the applicant's timing of project submission for review is at the discretion of

the applicant rather than the agency. If one suspects that review decision performance is affected by variations in the nature of competition in the review transaction (Niskannen) as reflected by the structure of participation by applicants and members, and wants to effect changes in review decision performance, it becomes necessary in this environment to learn whether participation is affected by alternative rules. Are there rules which might affect whether an applicant's project is reviewed with reference to other similar projects, or by itself without reference to a similar project? Likewise, are there rules which might affect whether the review committee attendance is dispersed relative to population or concentrated from one county, and whether it is dominated by representatives or providers or consumers?

Beyond the nominal rule as stated in policy guidelines such as an agency handbook or an organization's by-laws, analytical insight is gained by viewing the actual rule in terms of its effect on opportunity sets, differential transaction costs or power of one party relative to another. The opportunity set of a participant in the review transaction is both constituted and constrained by rules affecting one's own participation and by the opportunity sets of other participants which are themselves established and constrained by rules affecting their participation. For example, the participation of a committee member is conditioned, first, by rules which structure the relative incentives and costs of the member's participation in meetings, and second, by the participation of other members, whose respective opportunities for participation are also supported and constrained by the rules. Finally, the opportunity sets of those members actually participating in the

review transaction are further bounded by the participation of project applicants, namely, whether an applicant's project is considered with or without reference to a similar project.[4] In the same manner, the participation of an applicant is conditioned by rules which affect the timing of submitting the application, by the participation of other applicants which also is affected by the rules, and by the participation of members of the review committee.

These interactions may be illustrated by the case of a nominal rule that implies consumer control of the CHP agency. CHP regulations prescribe that area agency governing body membership be composed of a consumer majority, and be representative of the area's population. Internal SOP's may depart from this requirement, however, in the composition of members appointed to the review committee. Even if a consumer majority were appointed, though, consumer representatives face higher transaction costs of participating in meetings and of acquiring information for project analysis than providers do. Thus, the review committee may be actually dominated by providers having majority attendance and more information about the project, such that the concept of strong consumer participation implied by the nominal rule is eroded by the actual rule of differential transactions costs faced by consumer and provider representatives.

One set of rules structure a decision situation which may have as its function the establishment of further actual rules. These in turn may condition the opportunity set of one participant whose choices then affect the actual opportunity set of another participant. As will

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[4]In other words, is there direct competition between applicants for limited resources?

be developed more fully in Chapter IV, for example, the imposition of a budget constraint may create incentives for applicants to present similar projects for review at the same time, and for each to generate information critical of the competing project, thus lowering for consumer representatives the cost of acquiring information critical of the projects, and facilitating their participation in the projects' evaluation. This illustrates how the actual opportunity sets of review committee members may be affected by choices of others (the actions of each applicant submitting projects for review at the same time, and providing rather than withholding information useful to the project analysis) as well as by rules affecting attendance by the committee members. This example also demonstrates that a seemingly unrelated nominal rule imposing a budget constraint on project activity may have perhaps as much or more impact on effective consumer participation in project review than might the nominal rule of consumer majority which implies but does not necessarily effect control by consumer representatives.

The relationships between nominal rules, participation in the review transaction and review decision performance are summarized in Figure 3-3. The institutions-behavior-performance paradigm has been modified to incorporate the dual focus of the analysis introduced above. This modification is shown in Figure 3-3 as a two-stage sequence: (1) Alternative nominal rules structure differential costs of participation such that some members and applicants participate in the review transaction and others do not. The particular array of people actually participating in the review transaction is an intermediate performance consequence of the nominal rules, and at the same time, is an

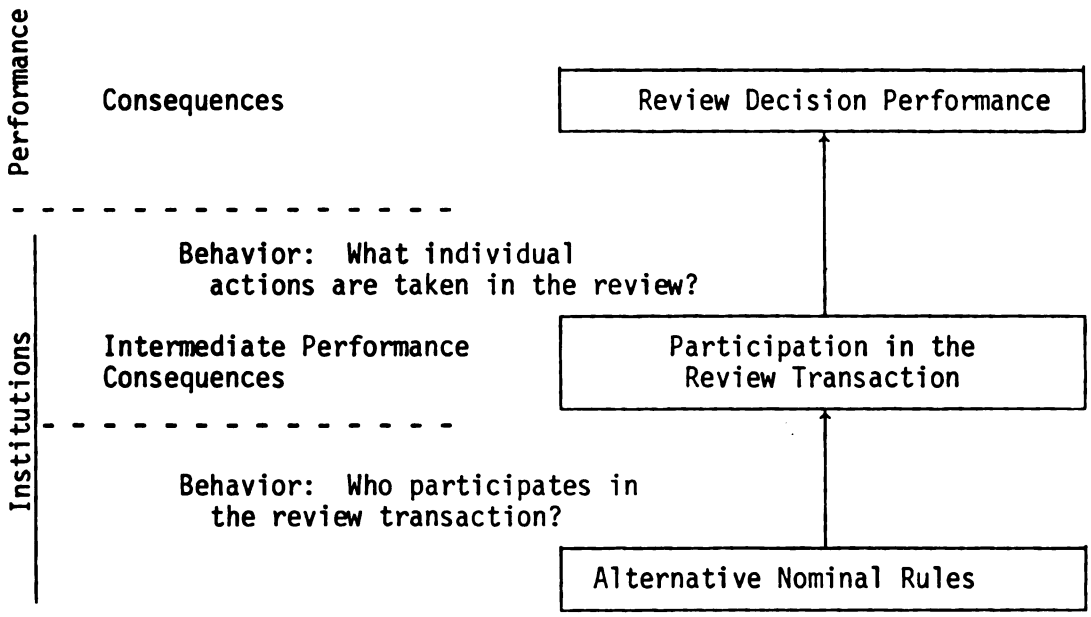

Figure 3-3. Emerging Model of the Project Review Process

institutional variable termed participation in the review transaction for the second stage of the analysis. (2) These different combinations of applicants and committee members participating in the review transaction create and constrain opportunity sets of participants which affect different actions taken by the participants. The consequences of these actions are termed review decision performance.

While participation in the review transaction is considered both an intermediate consequence of alternative nominal rules and a category of institutional alternatives, it is termed an institutional variable in this model. Variables specified as performance in this model are

limited to those included in the final flow of consequences[5] as review decision performance.

2. Operational definition of the variables

a. Alternative Nominal Rules

Two broad classifications of nominal rules have been discussed, those implemented within the area review agency at its own discretion, and those imposed upon the review agency by its external sponsors.

1) Internally selected rules

Five internal standing operating procedures (SOP's) are thought to be related to participation in the review transaction, and subsequently to review decision performance.

i) Composition of review committee membership (county's share of committee membership; county's ratio of advantage of

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[5]An important distinction should be emphasized at this point between two different kinds of relationships involved in institutional problems and production problems. Production problems focus on resource-to-resource relationships concerned with the mix of physical factors necessary to produce a unit of output. Such a production process in health involves inputs, such as facilities, personnel, medicines, etc., which are combined to produce intermediate products, such as diagnoses, followed by operations, vaccinations or other treatments. These in turn produce some state of health as a final product. Institutional problems, on the other hand, deal with people-to-people relationships involving issues of property rights and power. The focus of this analysis is limited to the institutional problem of how do the rules identified earlier affect the allocation of health inputs, specifically, facilities approved within the CHP area. The production problem of what states of health as a final product result from alternative mixes of facilities and other inputs is outside the scope of this anlaysis, albeit an important and difficult problem that merits study by economists with comparative advantage in the analysis of production relationships.

membership relative to share of population; provider representatives as percent of total membership ; and coefficient of concentration[6] of membership relative to population by county within area)

ii) Geographic scale (number of counties represented by the review committee)

iii) Rotation of committee meeting location among counties (percentage of all meetings rotated equally among all counties in the area or subunit)

iv) Provision for alternate (whether a designated alternate may vote in lieu of an absent member)

v) Population scale (size of population represented by the review committee)

2) External rule

One externally determined rule thought to be related to participation in the review transaction, and ultimately to review decision performance, is the degree of review authority conferred upon the area review by its external sponsor. Differing degrees of review authority are defined as whether the specific project under consideration is subject or not subject to budget constraint determined by the external sponsor.

Two rules, the degree of review authority and population scale, are thought to be associated with the issue of whether a particular project application is reviewed against a similar type project or is an isolated decision made without reference to a similar project. The three other

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[6]Coefficient of concentration is explained in Chapter 5, Section D.

internal SOP's, composition of review committee membership, provision for alternate, and geographic scale, are thought to be associated with the issue of which members attend the review committee meetings. These two issue are major components of participation in the review transaction.

b. Participation in the Review Transaction[7]

Two components of the review transaction are review committee member participation and applicant participation.

1) Review committee member participation

The focus of review committee member participation is on which members attend the review committee meetings. The concern is the committee's choice of a particular type project for one location versus similar projects for other locations, and versus other projects. Several dimensions of review committee participation are relevant.

i) Attendance as percentage of membership

ii) Percentage share of committee attendance from applicant's county

iii) Intensity of attendance, shown by county's ratio of advantage (value exceeds 1.0 when county's share of attendance is more than county's share of population represented by committee, and is less than 1.0 when its share of attendance is less than its share of population)

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[7]As developed in the previous section, and summarized by Figure 3.3, participation in the review transaction is treated as an institutional variable, while also an intermediate performance consequence of alternative nominal rules.

iv) Coefficient of concentration[8] of attendance relative to population (a low value approaching zero indicates attendance is distributed by county in proportion to population, and a high value approaching 1.0 indicates that attendance is concentrated from the county having the smallest share of population)

v) Specialization of attendance, shown by the ratio of an area's provider attendance to its total attendance (and by the ratio of an area's consumer attendance to its total attendance)

2) Project applicant participation

The focus of applicant participation is on which project applicants participate in the review process. One issue is which potential applicants persist in bringing their project from the letter of intent stage through submission of application to review of the project. Measures include:

i) Number of applications as percent of number of letters of intent

ii) Percentage of letters of intent withdrawn

iii) Dollars requested per capita in letters of intent

Another issue is whether one's project application enjoys a monopoly position at the time of the review transaction, or competes against similar project applications. Two categories of applicant participation are considered analytically relevant.

i) Is the particular project considered by the review committee with reference to similar projects?

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[8]See Chapter V, Section D.

ii) Is the particular project under consideration considered without reference to similar projects?

3) Differential participation in the review transaction

Integration of the applicant and committee components can provide an infinite array of different participants in the review transaction. Among these, four selected variations are illustrated.

i) Applicant's project considered with reference to similar projects by committee in which the applicant's county has the majority share of attendance

ii) Applicant's project considered with reference to similar projects by committee in which the applicant's county is unrepresented in member attendance

iii) Applicant's project considered without reference to similar project by committee in which the applicant's county has a majority share of attendance

iv) Applicant's project considered without reference to similar project by committee in which the applicant's county is unrepresented in member attendance

c. Review Decision Performance

Two dimensions of review decision performance were suggested in the statement of the problem: (1) the rigor of review discipline exercised by the review process, and (2) the geogrpahic distribution of the projects considered.

1) Rigor of review discipline

This dimension relates to the tendency of the review decision to be an "either/or" or "both/and" type of choice. It is expressed by

several ratios.

i) The project cost containment coefficient, defined as project dollars endorsed/letter of intent dollars for the project considered. This coefficient is a value assigned to each project decision, but which may also be assigned to a group of projects. The value of this coefficient ranges from zero, reflecting the most rigorous review, to value approaching and even exceeding 1.0, which reflect less rigorous reviews.[9]

ii) The ratio of number of projects endorsed without substantive modification/number of projects considered. This ratio is an aggregate value assigned to a group of project decisions.

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[9]The term "project cost-containment coefficient" presents several conceptual difficulties to be addressed. First, the concept of cost-containment as applied in this definition refers strictly to the capacity of the review body to contain the cost of the proposed project. It does not presume to measure whether health care costs are ultimately contained due to a rigorous review that constrains capital expenditures and reduces existing excess bed capacity. Although the legislation establishing the project review process (P.L. 92-603 and Michigan P.A. 256, 1972) imply a production function relationship between excess bed capacity and unnecessary health care costs, analysis of such a production relationship is beyond the scope of this study, as noted above on page 65. Second, measures based on comparisons of project approvals with project applications may be limited due to informal pre-application negotiations, through which those project proposals deemed likely to not receive approval seldom reach the formal application stage. However, this measure which compares projects endorsed with projects proposed by letter of intent, picks up the projects at an earlier stage of the review process, and thus avoids to some extent a severe limitation generally faced in comparing project approvals with project applications. Third, there might be a possibility that applicants may anticipate that dollars endorsed will be less than dollars requested, and thus build into the proposal some fat to be trimmed. As noted by Niskanen in the context of congressional budget review, "Under most conditions, the bureau will propose a higher budget and output, consciously expecting the sponsor to reduce the proposed budget by a proportionate amount. The proportionate reductions made by the several review levels in the sponsor organizations are usually quite predictable." (Niskanen, 1971, p. 46n.) Since, however, the CHP project review process by area agencies was relatively new during the period of observation, no prior track records of proportionate reductions existed on which project applicants could base their requests.

Its value ranges from zero reflecting the more rigorous review, to 1.0 reflecting a less rigorous review.

iii) Two additional ratios specific to bed projects could also serve as indicators of rigor of review discipline.

a) Bed containment quotient defined as the ratio of number of beds endorsed/number of beds authorized by the state plan for the health facility service area (HFSA).

b) Bed containment coefficient defined as the ratio of number of beds endorsed/letter of intent bed number. This measure is similar to the project cost containment coefficient, expressed in beds rather than dollars, however.

2) Geographic distribution of projects considered

The distribution of projects considered by county within CHP areas is expressed in two categories: i) project dollars endorsed; and ii) projects dollars reduced (defined as letter of intent dollars minus dollars endorsed, for projects withdrawn prior to review, disapproved or endorsed following substantive modification). Several criteria are monitored for each category (endorsed, reduced).

i) Number of projects (endorsed, reduced) as percent of total number of projects considered from county

ii) Per capita distribution of project dollars (endorsed, reduced)

iii) County's percentage share of total project dollars (endorsed, reduced)

iv) Ratio of advantage of project dollars (endorsed, reduced)

v) Coefficient of Concentration[10] of project dollars (endorsed, reduced) relative to population)

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[10]See Chapter V, Section D.

3) Summary diagram of the model

The categories of variables are summarized by the diagram of of the project review process shown in Figure 3.3. Specific indicators identified and defined in the preceding discussion have been omitted from the illustration.

Two sets of arrows in Figure 3.4 link the one external rule and the five internal SOP's to participation in the review transaction, and subsequently, participation to review decision performance. These two sets of linkages suggest hypothesized relationships, which are specified in Chapter IV to complete the analytical content of the model.

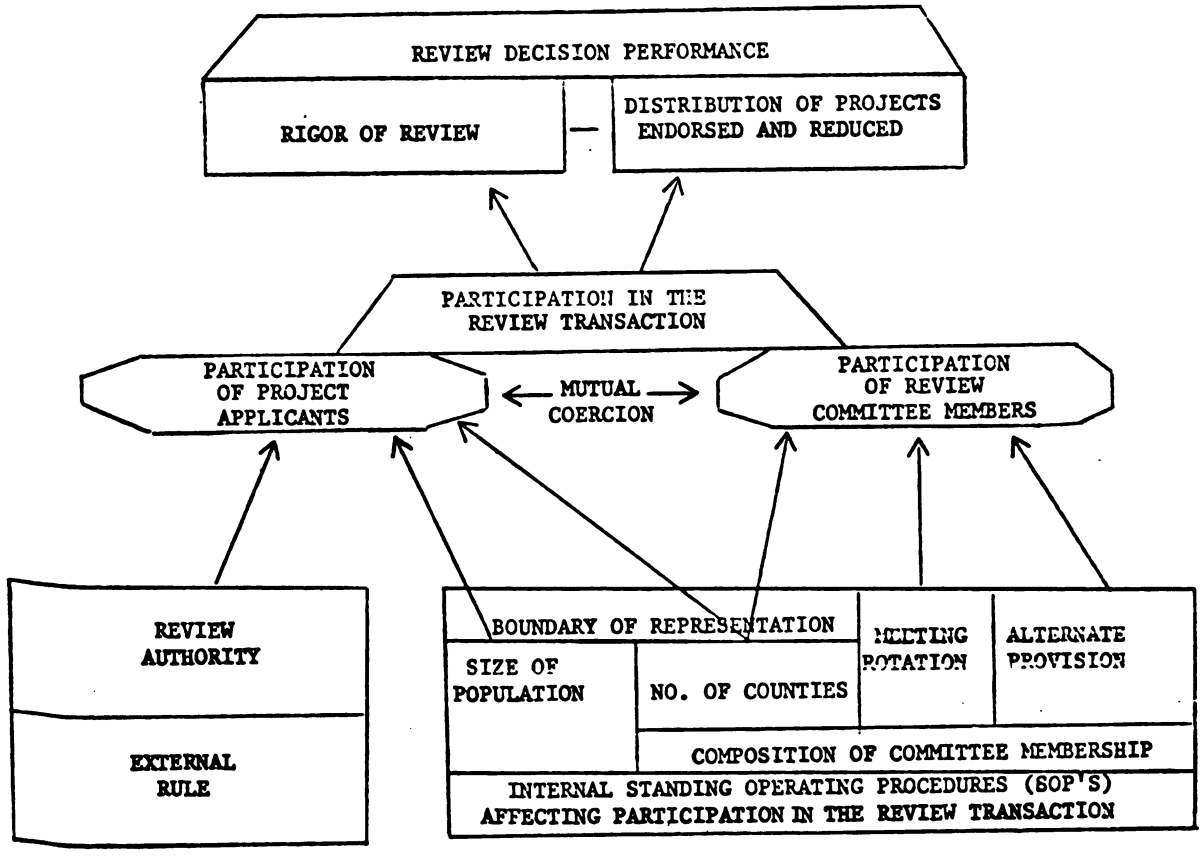

Figure 3-4 Model of the Project Review Process

CHAPTER IV. MODEL OF HYPOTHESIZED RELATIONSHIPS IN THE REVIEW PROCESS

A. Towards the Generation of Hypotheses

This section develops a rationale for hypothesizing relationships between several sets of institutions and performance. This will be done by tracing consequences of predicted behavior applied to four specific institutional situations. Each elaboration will illustrate how participants' opportunity sets might differ under the specified alternative institutions, and suggest some likely performance consequences if participants act consistent with the behavior predicted for each group in Chapter III.

As was emphasized in the recapitulation of the paradigm, the opportunity set of a participant is constrained by the opportunity sets and choices of other participants as well as by the rules. Yet, important analytical insights may be gained by examining the problem in separate components. First, how might alternative rules constrain the opportunity sets of members and applicants, respectively, in terms of who participates in the review transaction? Second, how might review decision performance be affected by different structures of participation by members and applicants, respectively, in the review transaction?

The rationale will focus on four situations?

i) committee member behavior under alternative rules;

ii) applicant behavior under alternative rules;

iii) participant behavior under alternative structures of applicant participation in the review transaction; and

iv) participant behavior under alternative structures of member participation in the review transaction.

1. Committee member behavior under alternative SOP's

Four internal standing operating prcoedures (SOP's) were identified as being relevant to the question of which review committee members participate in the review transaction. Review committee attendance is believed to be related to not only the composition of its membership, but to the number of counties represented, whether the meeting locations are rotated among these counties, and whether an alternate may represent an absent member. This proposition may be restated as, given the composition of the review committee membership by county location and by type of representative, review committee participation by these various categories of members will be affected differently by the number of counties represented, by whether or not the meeting locations are rotated among those counties, and by whether or not an alternate may represent an absent member. The following discussion will elaborate how each of these SOP's imposes differential transaction costs on different categories of representatives, and that such cost differentials affect which participates in the review committee meetings.

a. Geographic Scale and Who Participates

Three categories of counties may be defined, based on the county's location with respect to the location of the CHP agency office and/or the meeting location of the governing body or review committee.

With respect to the governing body, a core county is one in which the CHP are office is located; an adjacent county is one which has all or part of its boundary, other than a corner, common with the boundary of the core county; and a non-adjacent county has no part of its boundary, other than a corner, common with the core county of its CHP area.

With respect to the review committee, a core county is the one in which the review committee meeting is held; an adjacent county is one which has all or part of its boundary, other than a corner, common with the boundary of the core county; and a non-adjacent county is one which has no part of its boundary, other than a corner, common with the county where the meeting is located.

Whether a county is likely to be core, adjacent or non-adjacent in a given area or sub-unit is related to the number of counties represented, and whether all meetings are held in one county or rotated among the respective counties.

1) Number of counties represented

If all meetings are held in one county, the number of counties represented in a multi-county area or its sub-unit affects whether a county is a core, adjacent, or non-adjacent county. Starting with a two-county area, as the number of the counties in the area increases, the percentage of adjacent counties will increase until no additional counties can share a common boundary with the core county. From that point, as the number of counties increase, the percentage of non-adjacent counties will increase, and the percentages of core and adjacent counties respectively will decrease.

Condition 1-1:[1] When all meetings are held in one county, as the number of counties in an area or sub-unit increases, the number of core counties as percent of total will tend to decrease, the number of adjacent counties as percent of total will tend to decrease, and the number of non-adjacent counties as percent of total will tend to increase.

2) Rotation of meeting location

Rotating the location of the place of meeting among participating counties and the frequency of rotation also affect whether a given county is likely to be core, adjacent or non-adjacent. This may be illustrated by a hypothetical example of a four-county area in which Counties A, B, C, and D share a common corner. If twelve meetings were to be rotated equally among Counties A, B, C and D, each would have three meetings as the core county, six meetings as adjacent county and three meetings as the non-adjacent county. Conversely, if only four meetings were to be rotated equally among the four counties and all of the other eight meetings were to be held in County A with Counties B and C core counties and County D non-adjacent, then County A would have nine meetings as core county, two as adjacent and one as non-adjacent, while County D would have only one meeting as core county, two as adjacent and nine as non-adjacent. In the first case, rotating all the meetings equally among the counties was related to an equal distribution of spatial distance among the four counties; in the second case, rotating only part of the meetings was related to an unequal distribution among the counties of the spatial distance from county of residence to the location of the meeting.

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[1]Statements 1-1 and 1-2 are mathematical truisms, thus are termed conditions rather than hypotheses.

Condition 1-2: The higher the percentage of all meetings rotated equally among all counties in the area or sub-unit, the more equal the distribution of counties by core, adjacent and non-adjacent.

3) Differential participation by county location and by type of representative

Transaction costs of participation by governing body and review committee members as well as project applicants, increase from core to adjacent to non-adjacent counties. Such costs bear differently upon consumer representatives than on provider representatives.

One example of transaction cost is that imposed by the spatial distance between the home community of a participant and the location of meetings or staff headquarters. The greater the distance, the higher the costs of attending meetings and gaining benefits from staff services. This holds, not only for governing body and review committee members, but for project applicants or individuals and groups outside the organization who have projects they wish to support (Warren, 1970, p. 590). Besides attending meetings, Warren argues that access costs of communication between agency staff and committee or governing body members, and project applicants vary with spatial distance. "Thus, low access costs between meetings will increase an actor's ability to monitor events and make influence inputs early in the development of issues. It follows, other things being equal, actors located in the same city or county as the staff and those whose resources and occupations result in frequent travel in the region and to the development center will have an advantage over others." (Ibid., p. 591)

Another kind of transaction cost is the cost of being absent from one's position of employment while participating in CHP agency activities. Even among the "leadership elites" generally tapped for these committee

and governing body positions, there may be differences between types of counties in the ability of representatives to get away for the meetings and other participation. To the extent that larger scale enterprises are located in core and adjacent counties, and smaller scale enterprises in non-adjacent counties, the representative from the latter, whether provider or consumer, is less likely to have available an assistant manager in the firm or office to attend to important business while away on CHP activity.

One may also identify differences between provider and consumer representatives in the benefits one may derive from participating as well as in the costs of participation. First, there are differences in benefits to be accrued. Many providers represent firms that are likely to be directly involved in projects being reviewed. Furthermore, health is the primary interest of such firms, so provider firms are most likely to actively encourage their representatives to participate in agency activities. Meeting attendance is likely to be considered a legitimate job function by the firms with whom governing body or review committee members are affiliated, and thus the provider representative suffers no personal loss of salary while attending meetings. On the contrary, given the provider firm's stake in the outcome of project review and related agency activities, any member employee unwilling to carry out CHP agency responsibilities is quite likely to be exposed to sanctions within the firm.

Consumer representatives, on the other hand, are not likely to receive such support for their participation. To the extent that a member is linked to a specific organization, it is probable that health is one among many issues of interest to the organization's members, thus

diluting the representative's sense of accountability to the organization for participation, or the lack thereof. Furthermore, in marked contrast to the provider firm or its representative, neither the consumer member nor organization represented are able to accrue to themselves the benefits derived from active participation in health planning and project review due to the high costs of exclusion, as discussed earlier.

Likewise, costs of attending meetings differ between provider and consumer representatives. In contrast to providers, consumer members are not likely to be able to attend as a function of their employment, but may have to attend on their own time without compensation, and assume their own travel expense if from out of town. There are also differentials in costs of access to information pertinent to the issues being discussed at the meetings. The imposition of such access costs may erode interest in continued participation which may be reflected in less frequent attendance by consumer representatives.

The foregoing discussion has argued that the transaction cost of participation faced by consumer representatives is higher than that faced by provider representatives, and that transaction costs increase as spatial distance increases from core to adjacent to non-adjacent counties.[2] The transaction cost rationale leads to a general hypothesis that differential participation by review committee and governing body members is associated with spatial distance due to county location and with type of representative.

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[2]Three categories of distance were chosen for ease of measurement since members and applicants were identified by county. Alternatively, a continuous variable could have been utilized had actual mileages been obtained.

The participant behavior postulated in the previous discussion may be summarized by the following hypotheses.

Hypothesis 1-3: Differential participation by members is associated with spatial distance due to county location. In terms of attendance as percentage of membership, participation by members from non-adjacent counties will be less than that by members from adjacent counties, which will be less than that from core counties in governing bodies and in review committees.

Hypothesis 1-4: In terms of attendance as percentage of membership, participation by consumer representatives will be less than that by provider representatives within each county location category in governing bodies and in review committees.

With differential participation of members by county location (Hypothesis 1-4), and by type of representative (Hypothesis 1-3), it is expected that some counties will have a greater share of area attendance while others will have a diminished share of attendance relative to their share of area or subunit membership.

Hypothesis 1-5: The percentage of core counties with their share of governing body attendance greater than their share of governing body membership will tend to be higher than that of adjacent counties, which will likewise tend to be higher than that of non-adjacent counties. A similar relationship is expected to be found in review committee attendance relative to membership.[3]

Given the predicted tendency (Hypothesis 1-5) for core counties to have improved their share of attendance relative to their share of membership, and for the non-adjacent counties' share of attendance to

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[3]This relationship may be illustrated with the following numerical example.

	county location		
	core	adjacent	non-adjacent
Number of counties with share of attendance greater than share of membership	2	4	1
total in county location category	2	8	5
Percent of total with share of attendance greater than share of membership	100%	50%	20%

have diminished relative to their share of membership, it would follow that core counties would tend to be "over-represented"[4] in attendance relative to population, while non-adjacent counties would tend to be "under-represented" in attendance relative to population, unless core counties were "under-represented" in membership relative to population.

CHP regulations do prescribe that governing body membership be constituted in proportion to area population. However, no such prescriptions constrain the composition of review committee membership. Thus it is expected that while governing body memberships will be found to be distributed fairly equally relative to population, review committee memberships will be distributed less equally relative to population, with core counties tending to be "over-represented."

Hypothesis 1-6: Within each county location category, the percentage of counties with a ratio of advantage of governing body membership relative to population greater than one (over-represented) will tend towards 50 percent for core counties, for adjacent counties and for non-adjacent counties; however, the percentage of counties with a ratio of advantage of review committee membership relative to population greater than one (over-represented) will be higher for core counties than for adjacent counties and lowest for non-adjacent counties.

The predicted distributions of governing body and review committee memberships relative to population (Hypothesis 1-6) combined with the predicted disparities between core and non-adjacent counties in share of attendance relative to membership (Hypothesis 1-5) suggest that distance would also be related to counties' tendency to be "over-represented" or "under-represented" in attendance relative to population.

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[4]No value judgment is intended by the terms "over-represented" or "under-represented" relative to population.

Hypothesis 1-7: The percentage of counties with a ratio of advantage of governing body attendance relative to population greater than one (over-represented) will tend to be higher for core counties than for adjacent counties, and lowest for non-adjacent counties; a similar relationship is expected to be found for review committee attendance relative to population.

However, compared with governing body membership, review committee membership is expected to be more concentrated among core and adjacent counties (Hypothesis 1-6). Therefore, it is expected that, compared with governing body attendance, review committees will to a greater degree be "over-represented" by core county members and "under-represented" by non-adjacent county members in attendance relative to population.

Hypothesis 1-8: The percentage of core counties with a ratio of advantage of review committee attendance relative to population greater than one (over-represented) will be higher than the percentage of core counties with a ratio of advantage of governing body attendance relative to population greater than one (over-represented); conversely, the percentage of non-adjacent counties with a ratio of advantage of review committee attendance relative to population greater than one will be less than the percentage of non-adjacent counties with a ratio of advantage of governing body attendance relative to population greater than one.

These relationships may be alternatively displayed by the coefficient of concentration of attendance relative to population, which is an areawide or aggregate measure of concentration, as developed in Chapter V, Section D.

Hypothesis 1-9: The coefficient of concentration of attendance relative to population will tend to be greater than the coefficient of concentration of membership relative to population for both governing bodies and review committees; however, the difference will tend to be greater for review committees than for governing bodies.

b. Provision for Alternate and Who Participates

This section will develop an argument that consumer representatives face higher transaction costs than do provider representatives in

arranging for an alternate to represent absent members at the meeting of a review committee or governing body. Furthermore, it will be argued that among providers and consumers, respectively, members from core counties face lower transaction costs than do members from adjacent and non-adjacent counties in arranging for the participation of an alternate.

Building on transaction costs as conceptualized by Rogers (1974, pp. 37-39), three cost components include searching for a person willing to attend as an alternate, insuring that the alternate will in fact carry out his commitment to attend in the member's absence, and getting the alternate to vote and otherwise express himself at the meeting in accordance with the position favored by the absent member. A provider member incurs minimal search cost in asking a colleague in his firm to serve as an alternate. The benefits and sanctions introduced in the previous section serve to effectively reinforce a favorable response to the request, to insure attendance and the kind of behavior at the meeting expected by the provider firm, tending to relieve the provider member of such contractual and policing costs. The consumer member, on the other hand, may have to make numerous phone calls attempting to locate an alternate willing to attend, and might give up the search in frustration. If an alternate does agree to attend, the commitment may be insufficient to overcome unforeseen difficulties in getting to the meeting. Social pressure from the organization represented may not be sufficient to reinforce attendance or the effective articulation of the position advocated by the absent consumer member. Thus, such contractual and policing costs, to the extent incurred, would need to be borne directly by the consumer member.

The rationale that transaction costs of arranging for participation of alternates increases with spatial distance from the meeting location is based upon the factors introduced in the previous section. In addition to the costs of travel, and costs of being absent from one's place of employment, the alternate from the adjacent or non-adjacent county is less likely to be acquainted with other members, and thus may have reservations about participating and articulating the absent member's interests in an environment alien to the alternate.

Hypothesis 1-10: Differential participation by alternates is associated with county location. In terms of alternate attendance as a percentage of membership, participation by alternates from non-adjacent counties will be less than that by alternates from adjacent counties, which will tend to be less than that by alternates from core counties in governing bodies and review committees.

Hypothesis 1-11: In terms of attendance as percentage of membership, participation by consumer alternates will be less than that by provider alternates within each county location category in governing bodies and in review committees.

2. Applicant behavior under alternative rules

a. Review Authority

Differing degrees of review authority were defined earlier as whether or not the specific project under consideration is subject to a budget constraint determined by an external sponsor.

Imposition of a budget constraint specifying, for example, the maximum number of additional nursing home beds that may be approved in an area, will create an incentive for those nursing home operators interested in expansion to promptly submit a project application. Likewise, such a budget constraint imposes costs on the operator interested in expansion but who delays in presenting his application. That cost is

that the authorized number of beds may be already allocated by the review process to those operators submitting the early applications, with no beds remaining to be approved for a later application. Thus, one would expect the rational, profit maximizing operator to promptly submit a project application for a project subject to a budget constraint, and thus one might hypothesize that projects subject to a budget constraint will tend to be considered against similar projects by the review committee.

Conversely, there is little incentive for an operator to rush a project submission on a project not subject to a budget constraint. In fact, there may be an incentive for an operator to submit his application at a time other than when a similar application is being considered by the review committee, to avoid having either project used as a "yardstick" with which to critique the other. Thus, one might expect rational profit maximizing operators to obtain information as to potential timing of similar applications, and attempt to avoid a concurrent review by staggering the submission of applications. Accordingly, one might hypothesize that projects not subject to a budget constraint will tend not to be considered against similar projects by the review committee.

This application of predicted behavior has attempted to hypothesize relationships between alternative review authority rules and applicant participation in review transactions by addressing the question, who is likely to participate as an applicant in the review transaction.

Hypothesis 2-1: The percentage of projects subject to a budget constraint which are considered with reference to a similar project will tend to be higher than the percentage of projects not subject to a budget constraint which are considered with reference to a similar project.

b. Size of Population

The previous discussion explained why projects subject to a budget constraint are likely to be reviewed with reference to a similar project and why projects not subject to a budget constraint are likely to be reviewed without reference to a similar project, assuming a given size of population represented by the review committee.

This section will examine why size of population might also be a factor related to whether a project tends to be reviewed with or without reference to a similar project. This rationale starts from a premise that more projects will be generated in highly populated areas than in less populated areas. A given type of project is more likely to be reviewed with reference to a similar project in an area where many projects are generated than in an area where few projects are submitted. Thus, it is anticipated that projects reviewed by committees representing high population areas are more likely to be reviewed with reference to a similar project than are those reviewed by committees representing low population areas.

Hypothesis 2-2: The number of projects considered will have a high positive correlation with size of population represented; and controlling for whether subject or not subject to a budget constraint, the percentage of projects considered with reference to a similar project will have a high positive correlation with the number of projects considered.

c. Geographic Scale

Section IV.A.1.a.3) elaborated how increased spatial distance imposes progressively higher transaction costs on participation by members from core, adjacent and non-adjacent counties, respectively. Similar increases in transaction costs are faced by potential project applicants as spatial distance increases. Noting costs of creating

projects and evaluating them, Warren emphasizes that the greater the distance, the higher the costs of gaining benefits from staff services for potential applicants. Furthermore, once a project is designed and submitted as an application, greater distance imposes higher costs on non-members wishing to participate in project review meetings in support of the proposal. (Warren, 1970, p. 590)

It seems plausible to hypothesize a relationship between county location and differential participation by project applicants. One might expect to find, for example, if data were available, more inquiries and contact with CHP agency staff by prospective applicants from core than from adjacent or non-adjacent counties, and a higher percentage of such inquiries developing into project letters of intent, and subsequently into project applications. While data were not available on informal inquiries and contacts, data collected on dollars requested in letters of intent, numbers of letters of intent submitted and withdrawn, and numbers of letters of intent evolving into project applications do permit several approaches to testing whether county location is related to differential participation by potential project applicants. Furthermore, two CHP areas had decentralized staff located in sub-unit offices, thereby minimizing spatial distance and related transaction costs to applicants in counties which were non-adjacent to the CHP area office and governing body meetings.

Hypothesis 2-3: The number of project applications as percent of letters of intent will tend to be highest from core counties, lower from adjacent counties, and lowest from non-adjacent counties.

Hypothesis 2-4: The percentage of letters of intent withdrawn will tend to be lowest from core counties, higher from adjacent counties, and highest from non-adjacent counties.

Hypothesis 2-5: Dollars requested per capita in letters of intent will tend to be highest in core counties, lower in adjacent counties, and lowest in non-adjacent counties.

3. Participant behavior under alternative applicant participation

The focus of the applicant participation, as defined earlier, is on whether one's project is considered against one or more similar projects or not by the review committee. The structure of this participation is assumed to have an impact on what other participants tend to take into account in the review transaction.

a. Applicant Behavior

The letter of intent and the project application require the applicant to provide information about his project to the review participants. He has obvious incentive to utilize these as opportunities to subsidize information favorable to his project, thus raising the cost to others who might be inclined to generate information unfavorable to it. The applicant has much to gain from a favorable review approving his project as submitted, and thus what information he provides in the application can be expected to be favorable. In addition, the applicant will place himself at the disposition of the review committee, and subsequently to the governing body, to provide additional information needed by the committee, but as we shall see, the information provided may generally be on the applicant's own terms. The extraction of information negative to the project is a costly process to the several categories of participants who might be nominally expected to attempt the task of generating information critical of the project. Participants differ in their capacities to extract such information, and in their motivations to do so.

b. Staff Behavior

The rigor of staff analysis may depend in part on whether or not the project is subject to a budget constraint. Staff time is limited and may be allocated towards those activities which are thought to further individual staff reputations or promote total agency resources, and away from those activities perceived as threats to individual or agency security. As the area agency is under contract to implement the area bed limitations established by the external sponsor, staff has an incentive to inform review committee and governing body choice such that the authorized budget constraint is not exceeded. Furthermore, if several similar projects are under concurrent consideration, as was hypothesized above in the case of projects subject to a budget constraint, the staff may have at its disposal a comparative base to facilitate the analysis of each project. Thus, a more rigorous staff analysis may be expected of projects subject to a budget constraint being considered against similar projects.

In constrast, there may be high costs related to staff analysis of projects not considered against similar projects, particularly those not subject to a budget constraint. Such costs include time required to develop expertise in new technology equipment or other kinds of projects not frequently reviewed. Local support for the agency and its staff may be jeopardized by attempts to establish criteria in staff analysis for evaluating projects in cases where no criteria have been adopted by the governing body as agency policy. Thus, it seems plausible that a rational staff member might pursue his/her self-interest (maintaining agency resources and his own position within the agency) by conducting a less rigorous analysis of projects not subject to a budget constraint and not reviewed against similar projects.

c. Behavior of Consumer Representatives

It appears perhaps that the representatives of consumers of health services, the group with the most to gain collectively from a rigorous cost containment effort, may be least well equipped to initiate and sustain such effort. Consumer representatives on the project review committee interested in acquiring information critical to the project must initially compete with the project application as information favorable to the project. Contrasted with the applicant provider who can draw support from resources such as professional associations, staff assistance within their firms, and consultants who may have assisted with the preparation of the project application, any consumer representative desiring to challenge the project, or particular aspects of it, must do so as an individual effort, preparing on his own time. Lacking such technical expertise and professional respect, this imbalance may be reflected in a lack of consumer capacity to obtain solid responses from providers and CHP staff to requests for information prior to and during the review transaction.

While the collective gain from a rigorous cost containment effort may be high, such gain has the property of a high exclusion cost. Any participant who initiates and sustains a successful cost containment effort would find it extremely difficult, and costly, to exclude "free-riders" from sharing the collective gain achieved. For example, considerable savings might be available to the entire community if a proposed expansion of unneeded bed capacity could be contained by the review process. Yet, the person involved in such effort can capture only those few dollars relating to his health insurance premium or tax assessment; and as much may easily be captured by each "free-rider" who may have

borne less cost while the effort was being conducted. Thus, the consumer representative faces a high cost with little opportunity to recover enough individual gain to provide an incentive for conducting a rigorous cost containment effort. It might be expected, then, that the rational consumer representative would exercise his self-interest by investing relatively few resources into such an effort.

The argument so far may appear perhaps pessimistic for those who expect health facilities costs to be contained merely through the provision of a review mechanism allowing consumer participation with staff support. Yet, another dimension of the review transaction bears closer examination.

d. Provider Behavior: Applicants Once Again and Other Provider Representatives

This part of the discussion focuses on behavior of providers in the review transaction once the project application has been submitted by the applicant. These participants include provider representatives and project applicants.[5]

Provider representatives generally have little incentive for opposing a project that is not subject to a budget constraint and not reviewed against a similar project. On the contrary, professional sanctions may encourage protection of a project supported by a fellow member of one's health provider profession in the applicant's firm. Thus, one might expect provider representatives to close ranks around the applicant

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[5]Although some project applicants may be provider members of the review committee and/or governing body, non-member applicants are also permitted to participate actively as discussants in the review hearings. Applicants who are members of the review committee or governing body are declared to be in conflict of interest, and thus may not vote on one's own project in the review decision.

and collectively put down any challenge to the project, particularly those raised by consumer representatives attempting to exercise influence on kinds of decisions that have historically been the exclusive domain of the health provider professional associations.

The character of the review transaction where a budget constraint has been adopted as policy by the area governing body may differ from that in which the governing body has not articulated any policy guidelines. For projects subject to a budget constraint, the nature of the review may be such that the burden of proof is on each applicant to justify his proposal to the review committee, and subsequently to the governing body, and to respond to their requests for further information. In contrast, the review of projects not subject to a budget constraint may be characterized by a shift of the burden of proof from the applicant to the project's critic. Those wanting to acquire information unfavorable to the project may have to justify to the applicant (who may be reinforced by fellow providers) their challenges to the professional proposing the new project and assuming its entrepreneurial risks.

The following argument suggests that given the specified behavior, project applicants respond to differing opportunity sets of alternative applicant participation such that varying flows of consequences result. The focus is on two cases of projects reviewed against similar projects; in the first case, projects are <u>not subject</u> to a budget constraint, and in the second case, they are <u>subject</u> to a budget constraint. In the earlier discussion of applicant behavior in this chapter it was suggested that each applicant has incentives in the application to subsidize information favorable to his own project. The question now is, what differences might motivate project applicants to act differently in the process of generating information critical to each other's project?

This argument involves a variation of a theory of oligopoly behavior. In standard economic theory, each participant takes into account the reaction of his rivals to his own actions. In this modification, each applicant bases his own actions, not only on the perceived reaction of other applicants, but also on perceived reactions of the review committee to the area budget constraint or to the lack of such a contraint.

In the case of projects not subject to a budget constraint being reviewed against one or more similar projects, each applicant may assume, consistent with the argument developed earlier, that neither the review committee nor the governing body members have the collective discipline (based on the structure of individual incentives) needed to effectively impose a ceiling or constraint where none is required by the external sponsor. Thus viewing the review transaction in this case as a positive-sum game, in which all applicants might win, each applicant has little incentive to bear the costs of generating unfavorable information exposing weaknesses and cost-cutting opportunities in each others' proposal.

However, in the case of projects subject to a budget constraint being reviewed against one or more similar projects, each applicant while uncertain whether the review committee or governing body will approve a number of additional beds exceeding that authorized by the constraint, cannot afford to assume that the constraint will be relaxed. The cost of an applicant's over-estimating the number of beds to be approved by the review process may be high if it is his project that is not approved by adhering to the budget constraint. Thus, it is in the self-interest of each applicant to build a case for the reduction of beds (total

number applied for minus total number approved) to come out of competing projects, and for his own project to remain intact. Viewing the review transaction in this case as a zero-sum game where one applicant wins by having the other applicants' projects disapproved, then, the rational applicant might be expected to exercise self-interest by generating information likely to identify "soft spots" in the competing applications relative to his own project.

Questions and issues raised by either applicant will likely be dealt with by provider representatives, as such issues raised by a fellow professional may be considered more credible than issues and concerns, however similar, raised by consumer representatives. Once issues are accepted as relevant for discussion by providers, consumer representatives may continue the debate and press the respective applicant for answers. Furthermore, having reviewed similar projects, the consumer representative is also better prepared to evaluate the quality of response, and able to persist in the questioning.

e. Summary of Predicted Performance

The foregoing discussion of participant behavior under alternative applicant participation may be summarized by stating four hypotheses relating participation in the review transaction to review decision performance.

Hypothesis 3-1: Projects subject to a budget constraint and considered with reference to a similar project are likely to face the most rigorous review, as indicated by a high percentage of projects with project cost containment coefficients ranging from zero to less than one, and a low percentage of projects endorsed without substantive modification.

Hypothesis 3-2: Among projects subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review than will those considered with reference to a similar project.

Hypothesis 3-3: Among projects not subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review than will those considered with reference to a similar project.

Hypothesis 3-4: Projects not subject to a budget constraint and considered without reference to a similar project are likely to face the least rigorous review, as indicated by a high percentage of projects with project cost containment coefficients greater than or equal to one, and a high percentage of projects endorsed without substantive modification.

4. Participant behavior under alternative member participation

The previous section's discussion has focused on consequences of alternative participation of project applicants in a context of uncertainty. Assuming a mix of consumer and provider members, but without explicit consideration of who dominates within the committee, the analysis addressed the proposition that rigor of review might be associated with the structure of applicant participation. It was argued that under some conditions it might be more difficult for committee members, particularly consumers, to extract needed information from the project application than under other conditions.

The rationale, as developed, did not consider the polar case where a member may be fully informed of a project's weak points and does articular a strong argument for not endorsing the project, but is simply outvoted by a majority of members who feel that the project is important to their constituencies, while recognizing the project's limitations. The analysis will now consider possible effects of variations in the composition of member participation on review decision performance, first in those project review transactions where the members are presumed to be better informed.

As argued in the previous section, more information is likely to be generated in review transactions where applicants providing a similar service compete for the scarcity associated with the budget constraint, and thus help to generate information critical of the competing project. However, as introduced by Niskanen in Chapter II, the effect of competition between service providers may be tempered if the review committee is dominated by representatives of a group with relatively high demands for the project or service under review.

Given the likelihood of conflict in the review of projects subject to a budget constraint, how might the structure of which members participate affect the rigor of review and whose projects get endorsed or not endorsed?

Addressing the issue of strong consumer representation, Richard A. Posner offers a "paralysis" hypothesis, in which he suggests that

> no construction certificates would be granted because the people who make up this agency (doctors and consumers) are wholly incompatible, warring groups. Appointed precisely to provide a balance of warring factions, they cannot agree on what the public interest requires in the health field. (Posner, 1974, p. 139)

A similar hypothesis is expressed by Pauly in discussing elected consumer representatives.

> It may be that each representative will vote only for projects which benefit his constituency and vote against projects which benefit others' constituencies; almost all projects will get turned down, even some which on balance would have been beneficial. (Pauly, 1974, p. 160)

The "paralysis" hypothesis would suggest a very rigorous review to result from review transactions involving a stand-off between an equal number of providers and well-informed consumers considering projects subject to a budget constraint with reference to similar projects. Furthermore, it would be expected that such "paralysis" would apply

across the board to projects from all county location categories.

What if the review committee were dominated, however, by either providers or consumers? In the case of a strong consumer majority, another hypothesis by Pauly is suggestive when he predicts that an alternative outcome would occur if logrolling develops.

> A majority coalition could be formed which will favor projects in their constituencies and deny absolutely any projects and constituencies of those outside the majority. All funds would be diverted, as far as possible, toward projects favored by the majority. (Ibid., p. 160)

Pauly's hypothesis is consistent with the assumptions introduced in Chapter III, that consumer representatives will tend to maximize utility, i.e., contain health project costs, and also to maximize votes, i.e., support projects for their own constituency and try to contain costs by voting against all other projects.

As the consumer majority increases above 50 percent (and provider share of attendance decreases below 50 percent), one would hypothesize that the review would become more rigorous, for projects subject to a budget constraint and considered against a similar project, for projects submitted by counties other than the one(s) having majority representation, but not for projects from the majority county, however.

On the other hand, as the consumer share of attendance decreases below 50 percent (and provider majority increases above 50 percent), what is the likelihood of a rigorous review as the committee becomes more dominated by representatives generally interested in providing the service under consideration?

In this case, again where projects are subject to a budget constraint and considered with refernce to a similar project, the few

consumer representatives will be able to acquire the information they need to assess the project, but will tend to be outvoted by the providers. Thus, a less rigorous review is expected under these circumstances, with percentage of projects endorsed decreasing as the county share of area attendance decreases.

This discussion has addressed the issue of who is best able to utilize information critical of project applications, as reflected in the impact of alternative structures of member participation on review decision performance.

A comment is in order, however, on whether the structure of member participation might affect review decision performance under uncertainty. As developed in section A.3 of this chapter, the extraction of unfavorable information would be quite costly in the case of projects not subject to a budget constraint and considered without reference to a similar project. Thus, with little effective conflict, the applicant would tend to win his case, i.e., receive endorsement for the project irrespective of the composition of committee attendance, by geographic area or whether dominated by consumers or providers. As argued, consumer members, whether in the majority or minority, would be unable to acquire the information they might want, and provider members, while able to acquire it, would lack incentive to do so. One would thus hypothesize that the review under these conditions would be not rigorous. With most projects receiving endorsement, the distribution of project dollars endorsed by county would be a function of dollars requested and bear little association to committee domination by a particular county or whether by consumer or provider representatives.

The relationships proposed in this discussion of participant behavior under alternative member participation are summarized by two hypotheses, and outlined in greater detail in Table 4-1.

Hypothesis 4-1: For projects not subject to a budget constraint and considered without reference to a similar project, review will tend to be not rigorous, as indicated by a consistently high percentage of projects endorsed, irrespective of variations in provider attendance as percentage of total committee attendance; furthermore, little difference in rigor of review is expected between counties grouped by shares of total attendance.

Hypothesis 4-2: For projects subject to a budget constraint and considered with reference to a similar project, rigor of review as measured by percentage of projects endorsed will tend to vary with provider attendance as percent of total committee attendance. Within a given range of provider attendance as percent of total committee attendance, percentage of projects endorsed and ratio of dollars endorsed to dollars requested will tend to be highest for counties with majority share of attendance and decrease as county share of attendance decreases.

This concludes the generation of the hypotheses to be tested. These hypotheses developed in this section are summarized in the next section of this chapter, which is then followed by a discussion of methodology and data base prior to the presentation of the findings.

B. Summary of the Hypotheses

Three general hypotheses were proposed as the model of the project review process evolved:

(1) Alternative rules are associated with participation in the review transaction, specifically with differential participation by applicants and by members of review committees and of governing bodies;

(2) Differential participation in the review transaction is associated with review decision performance, specifically

Table 4-1. Predicted Rigor of Review and Hypothesized Distribution of Project Dollars per Capita by Review Authority and by Member Participation

Review Authority	Which Members Dominate the Committee?		
	Provider Attendance as Percent of Total	Geographic Distribution	
		County with Majority Attendance ⟷	Counties with Least Attendance
Project not subject to budget constraint and considered without reference to similar project	> 50 percent, 50 percent or < 50 percent.	Predicted highest percentage of projects endorsed and dollars endorsed per capita.	
Project subject to budget constraint and considered with reference to similar project.	> 50 percent,	predicted highest[a] ⟷	high[a]
	50 percent	⟵ predicted lowest[a] ⟶	
	< 50 percent.	predicted higher[a] ⟷	predicted lower[a]

[a]Percentage of projects endorsed and dollars endorsed per capita.

with rigor of review and with distribution of project dollars endorsed; and

(3) There may be distributional impacts associated with the rigor of review.

In the previous section, these general hypotheses were decomposed into specific propositions to be subjected to empirical test. The following summary presents each specific hypothesis, along with a reference (page numbers in parentheses) to its theoretical rationale in section A of this chapter and its empirical finding in Chapter VI.

1. Hypotheses relating rules to participation in the review transaction

a. Geographic Scale to Member Participation

Condition 1-1: (76, 158)
When all meetings are held in one county, as the number of counties in an area or sub-unit increases, the number of core counties as percent of total will tend to decrease, the number of adjacent counties as percent of total will tend to decrease, and the number of non-adjacent counties will tend to increase.

Condition 1-2: (77, 161)
The higher the percentage of all meetings rotated equally among all counties in the area or sub-unit, the more equal the distribution of counties by core, adjacent and non-adjacent categories.

Hypothesis 1-3: (80, 163)
Differential participation by members is associated with spatial distance due to county location. In terms of attendance as percentage of membership, participation by members from non-adjacent counties will be less than that by members from adjacent counties, which will be less than that from core counties in governing bodies and in review committees.

Hypothesis 1-4: (80, 163)
In terms of attendance as percentage of membership, participation by consumer representatives will be less than that by provider representatives within each county location category in governing bodies and in review committees.

Hypothesis 1-5: (80, 171)
The percentage of core counties with their share of governing body attendance greater than their share of governing body membership will tend to be higher than that of adjacent counties, which will likewise tend to be higher than that of non-adjacent counties. A similar relationship is expected to be found in review committee attendance relative to membership.

Hypothesis 1-6: (81, 173)
Within each county location cateogry, the percentage of counties with a ratio of advantage of governing body membership relative to population greater than one (over-represented) will tend towards 50 percent for core counties, for adjacent counties and for non-adjacent counties; however, the percentage of counties with a ratio of advantage of review committee membership relative to population greater than one (over-

represented) will be higher for core counties than for adjacent counties, and lowest for non-adjacent counties.

Hypothesis 1-7: (82, 175)
The percentage of counties with a ratio of advantage of governing body attendance relative to population greater than one (over-represented) will tend to be higher for core counties than for adjacent counties, and lowest for non-adjacent counties. A similar relationship is expected to be found for review committee attendance relative to population.

Hypothesis 1-8: (82, 177)
The percentage of core counties with a ratio of advantage of review committee attendance relative to population greater than one (over-represented) will be higher than the percentage of core counties with a ratio of advantage of governing body attendance relative to population greater than one (over-represented); conversely, the percentage of non-adjacent counties with a ratio of advantage of review committee attendance relative to population greater than one will be less than the percentage of non-adjacent counties with a ratio of advantage of governing body attendance relative to population greater than one.

Hypothesis 1-9: (82, 178)
The coefficient of concentration of attendance relative to population will tend to be greater than the coefficient of concentration of membership relative to population for both governing bodies and review committees; however, the difference will tend to be greater for review committees than for governing bodies.

b. Provision for Alternates and Member Participation

Hypothesis 1-10: (84, 181)
Differential participation by alternates is associated with county location. In terms of alternate attendance as a percentage of membership, participation by alternates from non-adjacent counties will be less than that by alternates from adjacent counties, which will tend to be less than that by alternates from core counties in governing bodies and review committees.

Hypothesis 1-11: (84, 181)
In terms of attendance as percentage of membership, participation by consumer alternates will be less than that by provider alternates within each county location category in governing bodies and in review committees.

c. Review Authority and Applicant Participation

Hypothesis 2-1: (85, 187)
The percentage of projects subject to a budget constraint which are considered with reference to a similar project will tend to be higher than the percentage of projects not subject to a budget constraint which are considered with reference to a similar project.

d. Size of Population and Applicant Participation

Hypothesis 2-2: (86, 187)
The number of projects considered will have a high positive correlation with size of population represented; controlling for whether subject or not subject to a budget constraint, the percentage of projects considered with reference to a similar project will have a high positive correlation with the number of projects considered.

e. Geographic Scale and Applicant Participation

Hypothesis 2-3: (87, 195)
The number of project applications as percent of letters of intent will tend to be highest from core counties, lower from adjacent counties, and lowest from non-adjacent counties.

Hypothesis 2-4: (87, 195)
The percentage of letters of intent withdrawn will tend to be lowest from the core counties, higher from adjacent counties, and highest from non-adjacent counties.

Hypothesis 2-5: (88, 197)
Dollars requested per capita in letters of intent will tend to be highest in core counties, lower in adjacent counties, and lowest in non-adjacent counties.

2. Hypotheses relating participation in the review transaction to review decision performance

a. Review Authority, Applicant Participation and Rigor of Review

Hypothesis 3-1: (94, 200)
Projects subject to a budget constraint and considered with reference to a similar project are likely to face the most rigorous review as indicated by a high percentage of projects with project cost containment coefficients ranging from zero to less than one, and a low percentage of projects endorsed without substantive modification.

Hypothesis 3-2: (94, 200)
Among projects subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review than will those considered with reference to a similar project.

Hypothesis 3-3: (95, 200)
Among projects not subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review than will those considered with reference to a similar project.

Hypothesis 3-4: (95, 200)
Projects not subject to a budget constraint and considered without reference to a similar project are likely to face the least rigorous review, as indicated by a high percentage of projects with project cost containment coefficients greater than or equal to one, and a high percentage of projects endorsed without substantive modification.

b. Member Participation, Applicant Participation and Rigor of Review

Hypothesis 4-1: (99, 210)
For projects not subject to a budget constraint and considered without reference to a similar project, review will tend to be not rigorous, as indicated by a consistently high percentage of projects endorsed, irrespective of variations in provider attendance as percentage of total committee attendance; furthermore, little difference in rigor of review is expected between counties grouped by shares of total attendance.

Hypothesis 4-2: (99, 210)
For projects subject to a budget constraint and considered with reference to a similar project, rigor of review as measured by percentage of projects endorsed will tend to vary with provider attendance as percent of total committee attendance. Within a given range of provider attendance as percent of total committee attendance, percentage of projects endorsed and ratio of dollars endorsed to dollars requested will tend to be highest for counties with majority share of attendance and decrease as county share of attendance decreases.

CHAPTER V. METHODOLOGY AND DATA BASE

"The design of what you are doing is going to determine the significance which can be attached to your results."[1]

The purpose of this chapter is to establish that appropriate data for the empirical analysis of this research were collected in a manner that allows a valid test of the hypotheses presented in the preceding chapter.

The chapter will consist of four parts to acquaint the reader with the rationale as well as the content of the data base. The presentation begins with the selection of the research design, summarizes the variables the data are meant to represent, and then reveals the sources of data. The chapter concludes with an explanation of how some complex measures are calculated for the analysis.

A. Research Design

The process through which a design was selected for this analysis, as well as its consequences, is reflected in the discussion to follow. It begins with the importance of and general approaches to obtaining meaningful comparisons, considers the strengths and weaknesses of two designs considered appropriate to the experimental situations presented by this study, and concludes with some limitations to be placed on the generalizibility of the study's results.

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[1] James T. Bonnen, personal memo.

1. Obtaining meaningful comparisons

The approach to this study treats research design as an issue separable from data analysis. Research design is considered a predetermined plan adhered to by the researcher to secure adequate and proper data which enable the achievement of interpretable comparisons. Data analysis involves the subsequent manipulation of the data collected and the use of statistical tests of significance in the case of sample data. Noting that the "use of significance tests presumes but does not prove or supply the comparability of the comparison groups or the interpretability of the difference found," Campbell and Stanley (1966, p. 22) emphasize the crucial role of good research design.

The problem of obtaining meaningful comparisons in the analysis of consequences of alternative institutions is articulated by Friedman and Macaulay in the context of studying the impact of law on behavior.

> In measuring the impact of law, one problem is the absence of a control; that is, one rarely is able to say with confidence what behavior would have been like had a law not been passed or had a different law been passed. . . Outside of the laboratory, it is often difficult to apply an experiemntal treatment to a group which one has matched in all significant respects to another group which does not receive the treatment.
>
> In the absence of a control group or true experiment, the effectiveness of particular rules may be extremely hard to measure. One can, with some difficulty, discover behavior that seems to be related to the existence of a rule of law, but how can one be sure whether the behavior would have been different if the law had not been passed? (Friedman and Macaulay, p. 366)

Several approaches to the problem of obtaining meaningful comparisons will be introduced and critiqued prior to a discussion of specific research designs.

a. Historical Case Analysis

Such a lack of control is a fundamental difficulty with the historical case analysis approach pioneered by Willard Hurst. With this method, "there is no control group of any kind. A question is posed and a search made of historical experience to see if there are any correlations of legal and economic performance changes," according to Schmid (1973, p. 3). He justifies its use in that "since experiment is limited in the social sciences, we must often resort to historical examples to trace the effect of variation in key variables" (Ibid), yet questions whether this method can be called empirical research, and asks how might it be conducted to increase confidence in its inferences?

b. Use of Theory as a Control Group

Friedman and Macaulay note that without a control group, the social scientist may make use of theory, which acts as an imaginary control group. The social scientist tries to match reality against some theoretical model. For example, "in measuring the effect of government regulation, an economist can use, instead of a control group, what economic theory tells him would have been the results of non-regulation." (Friedman and Macaulay, p.367) They cite as an example Michael E. Levine's study of airline regulation in California (Levine, 1966), which incorporated three distinct methods of determining and evaluating the impact of alternative rules. First, he used an economic model of what the airline industry would be like in the absence of regulation that restricted entry and controlled price competition. Second, he relied on data collected by others about the characteristics of the airline industry to question whether it actually fits those situations

where it is often claimed that due to economic factors, regulation is needed to achieve desired industry performance. Finally, he conducted a case study of an unregulated intrastate route to argue that, as his economic model would predict, this particular airline achieved desired performance. He concluded by generalizing that without regulation, similar results would be found on all routes between cities approximately 400 miles apart, and liking that performance, he advocated ending regulation. (Friedman and Macaulay, 1966, pp. 365-366)

Furthermore, when some other form of control is available, a theoretical framework contributes to the selection and organization of variables to be analyzed. Usually theory "can tell us something about what variability can be expected in the behavior described by the dependent variable," and "what independent variables may be included as statistical controls for the purpose of reducing the unexplained residual variation in the dependent variable." (Cain and Hollister, 1972, p. 120)

c. Quasi-Experimental Design

A true experiment requires that the researcher be able to assign units at random to the control and experimental groups. Quasi-experimental analysis is a mode of analysis designed to deal with a common class of situations in which the investigator has no control over the assignment of individuals or groups to "experimental" and "control" situations. Such situations include

> many natural social settings in which the research person can introduce something like experimental design into his scheduling of data collection procedures (e.g., the when and to whom of measurement), even though he lacks the full control over the scheduling of experimental stimuli (the when and to whom of exposure and the ability to randomize exposures) which

> makes a true experiment possible. (Campbell and Stanley, 1966, p. 34)

Quasi-experimental analysis may thus utilize second-best designs to examine differences between individuals or groups which received the experimental treatment and those not receiving the treatment. However, in such designs lacking random assignment to the experimental and control groups, the non-treated group is more appropriately called a comparison group rather than a control group.

d. Selection Control and Statistical Control[2]

The simplest collection of data for such a comparison design would be to obtain data on performance and compare the averages of the experimental and comparison groups, such as in the following illustration of health performance.

	Average Days Missed Annually
Treated County	_____ days
Nontreated Comparison County	_____ days

Factors, other than the treatment variable, believed to also affect performance, may be isolated in several ways to help control some rival hypotheses. The comparison group may be selected on the basis of having many characteristics identified by experience and theory, other than the treatment variable, common with the treatment group. Additional control may be obtained through statistical analysis holding such factors constant either by cross-tabulation or with a regression model. For example, if age is thought to also affect

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[2]This section draws from Schmid, Kiene, and Updegraff, 1973, pp. 17-22.

health performance in the above example, the age characteristic may be controlled by limiting the comparison to similar age groups as follows:

	Average Days Missed Annually	
	6-17 years old	18-65 years old
Treated County	4 days	20 days
Nontreated County	6 days	23 days

Alternatively, a regression model could similarly show the effect of a certain variable (level of treatment) when other variables are held constant, e.g.,

days missed = f (treatment level, age).

Given the same variables, regression offers no more complete control than does the cross-tabulation presentation. The regression approach offers the advantages of (1) utilizing continuous data such as age rather than forcing the data into a few categories; (2) being more suited to handling a large number of variables; and (3) detecting interaction among the contributing variables.

e. A Synthesis

The research design utilized in this analysis draws from each of the above approaches to obtain meaningful comparisons for testing the effects of selected treatment variables. A theoretical framework has been presented as a rationale for the variables selected and the hypothesized relationships between the variables predicting the effects to be observed. Lacking the opportunity to randomly assign analytical

units to treatment and control groups, appropriate quasi-experimental designs enable the identification of treatment and comparison groups which will be generally analyzed by cross-tabulations, and occasional covariance analysis, to help control for factors other than the treatment variables. Finally, historical research techniques were utilized to gather data on health project review decisions which offered opportunity for analysis of cases facilitating comparisons of treatment and nontreatment groups.

2. Quasi-experimental designs appropriate to this study

Given the foregoing synthesis of general approaches to the problem of obtaining meaningful comparisons, the discussion will now focus on some specific methods of securing and organizing adequate and proper data for this study. Emphasis will be given to the identification of designs which are not only appropriate for, but utilize to the fullest extent possible, the data available from the field investigation. With the kind of data potentially available, the major concerns include which design (or combination of designs) is the best feasible, why is a "better" design not appropriate, and what are the strengths and weaknesses of the selected "second-best" design for a particular problem.

A useful framework for addressing these questions is provided by the Campbell and Stanley survey of various research designs. (Campbell and Stanley, ibid.) Within their framework, this writer has found the following criteria useful in identifying which of the sixteen designs appraised by Campbell and Stanley seem to align most approximately to the experimental situation at hand.

(a) What is the timing and frequency of available observations in relation to the application of the experimental treatment?

(b) Is a nontreatment group available for comparison with the experimental group?

(c) If so, what degree of random assignment, if any, is possible?

The sixteen experimental situations presented by Campbell and Stanley[3] can be divided into three categories, based on the timing and frequency of observations in relation to the experimental treatment.

(a) Posttest only (X O), in which an observation follows the application of a treatment; no pretest is possible.

(b) Pretest-posttest (O_1 X O_2) in which one observation precedes and another observation follows the application of a treatment.

(c) Time series (O_1 O_2 O_3 X O_4 O_5 O_6) in which multiple observations both precede and follow the application of a treatment.

Each of these three categories can be further subdivided into specific designs based upon the availability of comparison or control groups, the latter requiring the random assignment of the selected subjects to the treatment group or the nontreatment group.

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[3]A uniform code and graphic convention-utilized by Campbell and Stanley is followed in presenting distinctive features of research designs. An X represents the exposure of the group to an institutional variable, the consequences of which are to be measured. The Xs and Os in a given row are applied to the same specific subjects. The left-to-right dimension indicates the temporal order, and Xs and Os vertical to one another are simultaneous. Parallel rows separated by a dashed line represent comparison groups not equated by random assignment. (Ibid., p. 6)

The criteria of the timing and frequency of observations in relation to X, the availability of a nontreatment group, and the possibility of random assignment are fundamental to the validity of the various designs, which can be evaluated in terms of internal validity and external validity.[4]

Within the posttest-only and the pretest-posttest groups, designs differ according to the availability of a nontreatment group, and to the extent that subjects can be randomly assigned to the treatment and nontreatment groups. Four posttest-only designs and the major threats to internal validity of each are summarized in Table 5-1. Also shown are four other corresponding pretest-posttest designs and their respective sources of internal invalidity. Both the posttest-only group and the posttest-pretest group contain examples of Campbell and Stanley's three stages of rigor in design, the pre-experimental design, the quasi-experimental design, and the true experimental design.

From this overview of research design, the focus narrows to designs appropriate to the kinds of empirical data available to this study for collection and organization. Two posttest-only designs will be utilized for three groups of analytical tasks derived from the model as it emerged at the end of Chapter III. The static-group comparison design seems appropriate for relating rules to the structure of review

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[4] Internal validity deals with the question "Did in fact the experimental treatments make a difference in this specific instance?" Internal validity is the sine qua non, the basic minimum without which any experiment is uninterpretable. Campbell and Stanley have identified eight classes of extraneous variables, which if not controlled in the research design, might produce effects confounded with the effects of the experimental stimulus, and are thus considered threats to internal validity. External validity deals with the question of generalizibility: "To what populations, setting, treatment variables, and measurement variables can this effect be generalized?" (Ibid., p. 5)

Table 5-1. Research Designs and Sources of Internal Invalidity

Posttest Only Designs		Pretest-Posttest Designs	
Design	Threat fo Internal Validity	Design	Threat to Internal Validity
Pre-Experimental Designs:			
One-shot case study X O	History, maturation, selection, mortality	One-group pretest-posttest O X O	History, maturation, testing, instrumentation, interaction of selection and other factors
Static-group comparison X O --- O	Selection, mortality, interaction of selection and other factors	Non-equivalent comparison group O X O ----- O O	Interaction of selection with maturation
Quasi-Experimental Designs:			
Equivalent materials samples deisgn M_a X_1 O M_b X_o O M_c X_o O M_d X_1 O	None	Equivalent materials samples with pretest M_a O X_1 O M_b O X_o O M_c O X_o O M_d O X_1 O	None
True Experimental Designs:			
Posttest only control group R X O R O	None	Pretest-posttest control group R O X O R O O	None

committee member participation, and likewise for relating rules to the structure of applicant participation. The equivalent materials samples design has some strengths which may be utilized for relating the structure of the review transaction to review decision performance. Threats to internal validity will be noted while discussing each design, then this section will conclude with an evaluation of threats to external validity inherent in these designs.

a. Review committee participation as a consequence of internal SOPs

The static-group comparison design seems

$$\begin{array}{ll} X_i & O \\ - & - \\ & O \end{array}$$

appropriate to the taskof testing hypotheses generated in Chapter IV.A.1. that number of counties represented, rotation of meeting location and provision for alternates are related to review committee participation. (See Hypotheses 1-3 through 1-11 in Section IV.B)

To illustrate, this design will be applied to Hypothesis 1-3.

> Differential participation by members is associated with county location. In terms of attendance as percentage of membership, participation by members from non-adjacent counties will be less than that from adjacent counties, which will be less than that from core counties in governing bodies and in review committees.

For this comparison[5] between members from three categories of counties the design may be shown more precisely as

$$\begin{array}{ll} X_1 & O \\ - & - \\ X_2 & O' \\ - & - \\ & O'' \end{array}$$

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[5]Campbell and Stanley caution that the comparison of X with no X is an oversimplification. The comparison is actually with the specific activities of the nontreatment group which have filled the time period corresponding to that in which the experimental group receives the X. Thus the comparison might better be between X_1 and X_c, or between X_1 and X_0, or X_1 and X_2. (Ibid., p. 13)

where

X_1 represents the spatial distance from non-adjacent counties to meeting location;

O represents attendance as percentage of membership from non-adjacent counties;

X_2 represents the spatial distance from adjacent counties to meeting location;

O' represents attendance as percentage of membership from adjacent counties; and

O" represents attendance or percentage of membership from core counties.

b. Applicant participation as a consequence of alternative rules

The static-group comparison design is considered also appropriate for testing the relationship of review authority, size of population, and geographic role to the structure of applicant participation as rationalized in Chapter IV.A.2.

To illustrate the application of the design to this group of hypotheses (hypotheses 2.1 through 2.5 found in Section IV.B.), consider hypothesis 2-1.

> The percentage of projects subject to a budget constraint which are considered with reference to a similar project will tend to be higher than the percentage of projects not subject to a budget constraint which are considered with reference to a similar project.

The static group compison design may be applied here as

X O
- -
O'

where

X represents a budget constraint

O represents the percentage of projects subject to a budget constraint which are considered with reference to a similar project; and

O' represents the percentage of projects not subject to budget constraint which are considered with reference to a similar project.

Table 5-1 shows that the static-group comparison design may be vulnerable to three threats to internal validity, which are selection, mortality and interaction of selection with other factors.

Experimental mortality refers to the production of observed differences in groups due to differential drop-out of subjects from groups. One major advantage of the pretest-posttest group of designs is that the availability of pretest observations controls for mortality as a threat to validity. A similar control for mortality is built into this study. The observation of review committee participation is attendance as a percent of membership. Similarly, applicant participation is indicated by projects considered with reference to a similar project as a percentage of all projects, whether subject or not subject to the budget constraint. Observing only attendance, or only those projects considered with reference to a similar project, would leave the study vulnerable to the threat of mortality. Differential drop-out is controlled by making the observations relative to all members and to all projects, even though the baseline observations do not strictly qualify as pretests.

Selection involves biases resulting from differential recruitment of comparison groups, producing different mean levels on the measure of effects; the possibility that posttest observations can be

attributed to characteristics of the group as well as to the experimental treatment.

Another serious threat to internal validity of this design is interaction of selection with maturation, etc. Such an effort to explain away a pretest-posttest gain specific to the experimental group must hypothesize an interaction between maturation, history or testing and the specific selection differences that distinguish the experimental and control groups, arguing that the gain might have occurred even without the X.

Given the experimental and the comparison groups do not have preexperimental sampling equivalence, Borg and Gall discuss several alternatives which serve to lessen the initial differences between treatment and nontreatment groups that may arise due to nonrandom assignment. First, the researcher may attempt to do preliminary matching to equalize the treatment and comparison groups as much as possible (on characteristics other than extreme pretest scores). Second, if the subjects in a unit, such as a classroom, cannot be randomly assigned to experimental and control groups, the possibility should be considered of assigning units randomly to groups instead (as apparently required by Campbell and Stanley). A third method to compensate for initial differences between experimental and comparison groups is the analysis of covariance technique which reduces the effects of initial group differences statistically by making compensating adjustments of the final means on the dependent variable. Analysis of covariance loses no subjects from the analysis, and unlike the process of matching for comparable pretest scores which under these circumstances is likely to bring about the regression

effect, does not confound the interpretation of the research results. (Borg and Gall, 1974, pp. 393-94)

A different approach to randomization is found in the next design which enables both the experimental treatment and the comparison non-treatment to be alternatively applied with heterogeneous materials to the same group of subjects.

c. Review decision performance as a consequence of differential participation in the review transaction

The review transaction involves review committee members considering projects presented by one or more applicants. The equivalent materials design seems appropriate for the hypotheses generated in IV.A.3. and IV.A.4. that incorporate review committee decisions which involve, alternately, applicants presenting projects subject to a budget constraint, some of which are considered with reference to similar projects and some which are considered without reference to similar projects, as well as applicants which present projects not subject to a budget constraint, again some of which are considered with reference to similar projects and others which are not.

The application of this design may be illustrated with reference to hypotheses 3-1 and 3-2.

> Projects subject to a budget constraint and considered with reference to a similar project are likely to face the most rigorous review, as indicated by a high percentage of projects with project cost containment coefficients ranging from zero to less than one, and a high percentage of projects withdrawn not endorsed, or modified prior to endorsement.
>
> Among projects subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review than will those considered with reference to a similar project.

The equivalent materials samples design without pretest is shown by

One review Committee	Project Sample A	X_0O	X_1O'
	Project Sample B	X_1O	X_0O'

X_1 represents a structure of applicant participation where applicants present projects subject to a budget constraint considered with reference to a similar project;

X_0 represents a structure of applicant participation where an applicant presents a project subject to a budget constraint considered without reference to a similar project;

O represents the percentage of projects considered in time period one with project cost containment coefficients ranging from zero to less than one; and

O' represents identical observations for projects considered in time period two.

Similar observations may be made of the percentages of projects withdrawn, not endorsed, or modified prior to endorsement to complete the testing of the two hypotheses. Project Sample A may represent acute care beds and Sample B may represent nursing home beds. A random rather than regular alternation of X_1 and X_0 is intended.

This design may be extended to also incorporate hypotheses 3-3 and 3-4 as well as to test hypotheses 4-1 and 4-2 as summarized in Chapter IV.B.

This design is said to control for all major threats to internal validity, including those identified as the weakness of the static group comparison design. Furthermore, the equivalent materials samples design has the same degree of internal validity as the true

experimental design corresponding to this series of situations, the posttest only control group design, shown by R X O

R O.

3. Threats to external validity

As introduced earlier in this chapter, external validity asks about the range of generalizability of the experimental treatment's effect.

Three points should be emphasized at the outset. First, no study ever proves a hypothesis; it merely probes it, and may or may not reject it. Second, true experiments, as well as other designs, are vulnerable to the treats of external validity. Finally, one is faced with a trade-off between internal and external validity. As more rigorous controls are applied to improve the experiment's internal validity, less carry-over or generalizability can be expected between the experiment and related field situations.

One of the four factors identified by Campbell and Stanley that may jeopardize external validity may be associated with the static-group comparison design selected for this analysis (as well as with the posttest-only control group design, the "best" true experimental design had randomization been completely feasible).

The interaction of selection biases and the experimental treatment refers to the possibility that the effects validly demonstrated hold only for that unique population from which the experimental and comparison groups were selected. Generalization efforts will succeed more often if in the initial experiment we have demonstrated the phenomenon over a wide variety of conditions. (Campbell & Stanley, p. 19) In this study, the variety of review transactions involves both acute

care and nursing home facilities projects ranging in value from $100,000 to several million dollars being reviewed by committees from sparsely populated rural communities to metropolitan Detroit.

A fourth threat to external validity is a weakness of the equivalent materials samples design.

This factor is multiple-treatment interference, likely to occur whenever multiple treatments are applied to the same respondents, because the effects of prior treatments are not usually erasable. It is possible that the effectiveness of treatment X_1 depends on the coadministration of treatment X_0. Conversely, if X_1 has some extended effect carrying over into the X_0 periods, as usually would seem likely, the experimental design may understate the effect of X_1. It is recommended that whenever it appears that multiple-treatment interference will affect the generalizability of one's findings, the researcher should choose an experimental design in which only one treatment is assigned to each subject. This could have been accomplished to some extent, perhaps, by observing A-95 review decisions as a comparison group for Area Agency on Aging review decisions allocating a dollar budget constraint as an experimental treatment, for example. However, such gain of external validity may have been offset due to possible interaction of selection and experimental treatment hypothesizing that the effect was unique to projects and people involved in Area Agencies on Aging rather than due to the effect of the budget constraint. It is the judgement of this researcher that any multiple-treatment interference within the context of this analysis is more likely to understate rather than overstate the effect of the experimental variable, thus minimizing the factor as a serious threat to external validity.

This section concludes with the following caveat from Campbell and Stanley.

> Whereas the problems of internal validity are solvable within the limits of the logic of probability statistics, the problems of external validity are not logically solvable in any neat, conclusive way. Generalization always turns out to involve extrapolation into a realm not represented in one's sample. Such extrapolation is made by assuming one knows the relevant laws. . . The sources of external invalidity are thus guesses as to general laws in the science of a science: guesses as to what factors lawfully interact with our treatment variables, and, by implication, guesses as to what can be disregarded. (Ibid., p. 17)

B. Summary of the variables

Three categories of variables to be represented by the empirical data were introduced in the conceptual framework. These categories are alternative rules, participation in the review transaction, and review decision performance. The following outline summarizes the variables defined in Section D.2 of Chapter III.

1. Alternative rules

Two categories of rules are hypothesized to be related to participation in the review transaction.

a. Internal standing operating procedures (SOP's)

1) Composition of review committee membership;

2) Number of counties represented by committee;

3) Rotation of committee meeting location among counties;

4) Provision for alternate;

5) Size of counties represented by committee.

b. Degree of review authority conferred on the area agency by the external sponsor

1) Projects subject to budget constraint;

2) Projects not subject to budget constraint.

2. Participation in the review transaction

Two categories of participants comprising participation in the review transaction are the project applicants and the review committee members attending the review meetings.

a. Applicant participation

Two categories of applicants were identified as relevant to analysis of the review transaction, based on the following criterion:

1) Is the applicant's project considered with reference to similar projects?
2) Is the applicant's project considered without reference to similar projects?

b. Several dimensions of the review committee member participation are considered to be relevant variables

1) Attendance as percentage of membership;
2) Percentage share of committee attendance from applicant's county;
3) Intensity of attendance (ratio of advantage of attendance relative to population) for applicant's county;
4) Degree of concentration of committee attendance relative to population;
5) Specialization of attendance (ratio of provider attendance to consumer attendance) for applicant's county.

3. Review decision performance

Two dimensions of review decision performance were introduced, each with several performance indicators.

a. Rigor of review discipline

1) Project cost containment coefficient (ratio of project dollars endorsed/letter of intent dollars)

2) Ratio of number of projects endorsed without substantive modification/number of projects considered

3) Bed containment quotient (number of beds endorsed/number of beds authorized); and bed containment coefficient (number of beds endorsed/letter of intent bed number)

b. Geographic distribution of projects considered

1) Project dollars endorsed

a) Number of projects endorsed as percent of total number of projects considered from county;

b) Per capita distribution of project dollars endorsed;

c) County's percentage share of total project dollars endorsed;

d) Ratio of advantage of project dollars endorsed relative to population;

e) Coefficient of concentration of project dollars endorsed relative to population.

2) Project dollars not endorsed (the indicators listed under project dollars endorsed also apply here)

C. Sources of Data

The empirical data base for this analysis consists of 260 project review transactions occurring in the ten Michigan Comprehensive Health Planning (CHP) area agencies between July 1, 1974 and September 30, 1975. All projects in this data base were subject to review

under 1122/256 criteria,[6] and consist of both those project applications reviewed by the CHP area review committee during this time frame, and those project letters of intent submitted during this time frame but subsequently withdrawn.[7]

Carl A. Auerbach cites as a rich source of empirical data for study of interrelationships between the legal order and social change "the legal records developed for purposes of law-making and law-application by state and federal judges, executives and legislators--cases, statutes and administrative and executive regulations and decisions." (Auerbach, 1969, p. 24)

Project review by CHP area agencies is a case of law-application by collective bodies of volunteer members functioning as extensions of state and federal executive agencies. Such a record of rules, decisions and practices includes the CHP area agencies' constitutions and by-laws, minutes of their review committees and governing bodies, and project logs of the staff at the CHP area agencies and the Designated Planning Agency (DPA) at the state level.[8] These were drawn upon as sources of empirical data for this analysis.

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[6]Michigan's ten CHP area agencies have been charged with the function of review and comment for all projects covered under section 1122 of the federal Social Security Amendments of 1972 (P.L. 92-603) and the State of Michigan's Certificate of Need legislation (P.A.256, 1972). "The permanent rules for Act 256, if approved as drafted, and P.L.92-603 require a review process for proposed health facility capital expenditures which (1) exceed $100,000 or (2) changes the bed capacity, or (3) substantially changes the services of the facility." (State of Michigan, 1975, p. iv)

[7]Projects withdrawn are defined in this analysis to include those officially withdrawn, plus those letter of intent inactive without subsequent application for one year or more.

[8]Division of Health Facility Planning and Construction, Bureau of Health Facilities, Michigan Department of Public Health.

1. Members and their participation

Data on membership and attendance of the review committees and governing bodies were obtained from the minutes of the respective meetings which listed all members present, where applicable the name of the alternate representing an absent member, and generally the names of absent members. Identification of the member as a consumer representative, provider representative or local government elected official, and the county of residence were obtained from the CHP agency mailing list, grant application and/or in some cases from a staff member.

The provision for an alternate to represent an absent member was first indicated by the Directors of the two CHP area agencies with such provisions, and documented in the agency by-laws as well as by the meeting minutes' identification of alternate present.

Counties comprising the geographic sub-units represented by review committees were identified by CHP area staff and verified by the county identifications of the members of the respective committees. Population data for these counties were taken from the 1973 population estimates of Current Population Reports (U.S. Department of Commerce, 1975).

Three county location categories were specified with respect both to the review committee and to the governing body. Core county was defined as the county where the meeting was held, as identified by the meeting minutes. Adjacent county was defined as having all or part of its boundary, other than a corner, common with the core county. Non-adjacent county was defined as having no part of its boundary, other than a corner, common with the core county boundary.

Governing body meetings were generally held in the county where the CHP area office was located. Several exceptions are indicated in Table 5.2.

The locations of the review committee meetings are also shown in Table 5-2. Due to the use of sub-unit councils as review committees in some CHP areas, the county location category with respect to the review committee may differ from that designated in relation to the governing body. Furthermore, the meetings locations of two review committees were rotated among the counties represented. In these cases, a county location category was determined for each county with respect to each meeting location, then weighted according to the number of meetings held at each location to obtain an aggregate county location category designation for each county.

Membership and attendance data was collected for all ten governing bodies and for thirteen of the nineteen review committees in these agencies. These thirteen review committees reviewed both acute care and nursing home projects. Neither membership nor attendance data were collected for the committees in two CHP areas where separate committees reviewed acute care and nursing home projects. Monetary and time constraints precluded travel to the Upper Peninsula to obtain committee attendance data from the CHP 10, however membership data were obtained from records sent to Lansing.

2. Projects and their review determination

Type of facility was identified for each project on the monthly logs maintained by the Designated Planning Agency for the 1122/256 projects received by the Michigan Department of Public Health. Acute

Table 5-2. Meeting Location of CHP Area Governing Bodies and Project Review Committees, July 1974 through September 1975

CHP	Governing Body, Review Committee	Location
1	Comp. Health Planning Council of Southeastern Mich.,	Detroit
	Greater Detroit Area Hospital Council[a] and	
	Health Facilities Planning Committee[a]	
2	HJL Areawide Comprehensive Health Planning Assoc.,	Jackson[b]
	Health Facilities Subcommittee[a]	
3	South Central Michigan Health Planning Association,	Battle Creek
	Physical Health Committee	Battle Creek
4	Southwest Michigan Health Planning Association,	St. Joseph
	Health Facilities Committee	Benton Harbor[c]
5	GLS Comprehensive Health Planning Council,	Flint
	Health Facilities Committee	Flint
6	Capital Area Comprehensive Health Planning Assoc.,	East Lansing
	Institutional Project Review Committee	East Lansing
7	East Central Michigan Comp. Health Planning Unit,	Saginaw[d]
	Health Facilities Committee	Saginaw[d]
8	West Michigan Comprehensive Health Planning Unit,	Grand Rapids
	Central Community Planning Unit	Grand Rapids
	East Community Planning Unit	Belding[e]
	North Community Planning Unit	meetings rotated
	Northwest Community Planning Unit	meetings rotated
	West Community Planning Unit	Holland[e]
9	North Central Michigan Comp. Health Plan. Coun., Inc.,	Petoskey
	Alpena Physical Health & Manpower Committee	Alpena
	Grand Traverse Phys. Health & Manpower Comm.	Traverse City
	Petoskey Phys. Health & Manpower Committee	Petoskey
10	Upper Peninsula Areawide Comp. Health Plan. Assoc.,	Marquette[f]
	Zone I HPC Health Resources Committee[g]	
	Zone II HPC Health Resources Committee[g]	
	Zone III HPC Health Resources Committee[g]	
	Zone IV HPC Health Resources Committee[g]	

[a]Data not collected on review committee membership or attendance.
[b]Two of nine governing body meetings held in Lenawee County.
[c]One of ten committee meetings held in Cass County.
[d]One of 14 governing body meetings and one of 17 committee meetings held in Bay County.
[e]Meeting locations near county line; Ionia and Montcalm Counties. Allegan and Ottawa Counties each designated as core county.
[f]One of ten governing body meetings held in Manistique County.
[g]Data not collected on review committee attendance.

care and nursing home projects are subject to 1122/256 review; however, home for aging and mental health projects may undergo a non-substantive review.

The degree of review authority was operationally defined as whether or not the project was subject to a budget contraint. Under this criterion, two categories were determined for projects other than scanners, those involving an increase in bed number, and those involving no increase in bed number. The latter category may be subdivided into bed projects and nonbed projects. These categories are further defined as follows:

(1) Increase in bed number (acute care or nursing home)

This category includes projects constructing a bed facility where none existed, converting an existing non-licensed facility to bed use, adding patient beds to a health facility, and changing medical care facility beds to acute care, or home for aging beds to nursing home beds.

(2) Bed projects with no increase in bed number (acute care or nursing home)

This category includes projects replacing an existing bed facility (with no addition to bed number), decreasing the number of beds, modernizing (upgrading, remodeling, or renovating) a bed facility (with no addition to bed number), changing nursing home to home for aged beds or acute care to other beds, or any non-bed modernization project required to correct licensing deficiencies.

(2b) Non-bed projects (acute care or nursing home)

This category includes such projects as new construction

of a non-bed facility or service where one did not exist, or replacement of an existing non-bed facility or service, conversion of an existing building not licensed as a health facility to a non-bed use, replacement of or addition of ancillary services or equipment, or other modernization of non-bed functions of a health facility other than such required to correct licensing deficiencies.

Table 5-3 shows the number of projects in each of these categories for acute care and for nursing homes.

Table 5-3. Number of Projects by Review Authority by Facility Type

Facility Type	Review Authority			
	(1) Bed Increase	(2) No Bed Increase		Total
		(a) bed	(b) nonbed	
Acute Care	22	25	84	131
Nursing Home	111	13	5	129
Total	133	38	89	260

In addition, three categories of review authority were specified for scanner projects, based on program constraints established by the Michigan Department of Public Health.

(S-1) Brain or body scanner applications reviewed by area CHP agency prior to August 27, 1975.

(S-2) Brain or body scanner applications reviewed by area CHP agency between August 27, 1975 and May 10, 1976 subject to program constraints specified in MDPH Departmental Letter No. 25-12 dated August 27, 1975.

(S-3) Brain or body scanner applications reviewed by area CHP agency after May 10, 1976 subject to revised program constraints specified in MDPH Departmental Letter No. 25-12 Revised dated May 10, 1976.

Projects were assigned to these respective categories according to information listed on the project descriptions found on the monthly logs of 1122/256 projects received by the Designated Planning Agency. This information was supplemented by bed number increases recorded on the DPA's Health Facility Service Area project logs and information on CHP area agency minutes and project logs or status reports.

Two indicators were developed to record whether or not a project was considered by the review committee against a similar project or alone without reference to a similar project. One indicator was based on the timing of receipt of the project letter of intent by the review committee and the other was based on the timing of receipt of the project application by the review committee.

On the basis of letter of intent, the project was counted as having been considered against a similar project if prior to completion of its review by the committee, a letter of intent for a similar project had been received by the committee.

On the basis of project application, alternatively, the project was counted as having been reviewed against a similar project if prior to completion of its review by the committee, an application for a similar project had been received by the committee.

Similar indicators were developed to record whether a project was considered or reviewed by the governing body with or without reference to a similar project.

Review committee and governing body minutes, supplemented by project logs and staff indications provided the basis for determining the timing of receipt of letters of intent and project applications, as well as completion of review by the committee and the governing body. Whether or not a project was similar was determined from the project description information sources cited earlier, based on criteria developed by the researcher. Projects involving any change in bed number, such as one increase of 60 nursing home beds and another replacement medical care facility decreasing bed number by 37, which according to committee minutes were reviewed jointly, were counted as similar nursing home projects, as were potential changes in bed numbers due to correction of licensing deficiencies. Conversely, a parking ramp expansion, a hemodialysis unit, a linear accelerator and a replacement of twelve beds through renovation of a wing were not counted as similar acute care projects. Where the researcher had doubt as to whether two projects were similar or not, they were recorded as not similar.

Each project received one of the following review determinations by the review committee, the governing body, and the Desginated Planning Agency:

0 - not reviewed

1 - withdrawn

2 - not endorsed (disapproved by DPA)

3 - endorsed following substantive modification (approved following substantive modification - DPA)

4 - endorsed (approved - DPA)

5 - endorsed by default

6 - reviewed, but no action taken

9 - no review recorded

Review determinations by the review committee and the governing body were obtained from CHP area agency minutes and project logs. DPA review determinations were obtained from the monthly logs of 1122/256 projects maintained at the DPA.

Letter of intent dollars and bed numbers, application dollars and bed numbers, and review determination dollars and bed numbers were recorded from the monthly project logs at the state DPA. Review determination dollars and bed numbers for projects withdrawn or not endorsed were set to zero in this analysis.

Number of beds authorized for acute care and nursing homes were taken from the number of beds to be added for acute care and for long-term care in each Health Facility Service Area as reported in the 1974-75 Amendment to the Michigan State Plan for Hospital and Medical Facilities Construction (State of Michigan, 1975, pp. 418-23).

D. On the Measurement of Distributional Impacts

A major purpose of this inquiry is to determine distributional impacts of alternative structures of the review process. Prior to describing some of the indicators selected for measurement of such impacts, a brief clarification of the term "distribution" is appropriate to distinguish its use in this analysis from other applications of the concept of distribution in economics.

Distribution is often considered as a sector of the physical transformation system along with production and consumption. In such a context, distribution processes normally include "such concerns as transportation, storage, wholesaling, retailing, grading, and assembling, as

well as various processing transformations." (Bonnen, Eicher and Schmid, 1964, p. 48) In another context, the student in principles of economics may be taught that to economists, the problem of "distribution," according to Paul samuelson, is "how factors of production get priced in the market place--with the determination of (1) rents of land and other resources, (2) wages of various kinds of labor, (3) interest rates on capital assets, and (4) profits." (Samuelson, 1964, p. 513) This view of distribution focuses on the problem within context of a given institutional structure and given initial distribution of resources.

In contrast, the question of distributional consequences addressed in this analysis is in a context where the institutional structure is a variable, rather than fixed or given. The basic question asks how alternative rules structuring the review process affect the distribution of resources (health facilities) among the affected parties.

Operational measures developed for describing and comparing inequality, or concentration, should prove useful for the empirical tasks ahead in measuring distributional impacts in this research.

While inequality and concentration have long been central concepts in various social science disciplines, techniques for the measurement of inequalities developed independently with a lack of interchange between the disciplines. (Alker and Russett, 1966, p. 350) Faced with the need to measure both political inequality, such as concentrated, unequally distributed membership and attendance of multi-county project review committees, and economic inequality in the distribution of health facilities project dollars endorsed, one phase of this research involved a search for tools for the measurement of inequalities as have emerged in economics, political science, and regional science. This section attempts to integrate the findings of

that effort by explaining the measures that appear appropriate to the analysis at hand.

These measures of inequality tend to rely on cumulative value distributions rather than on noncumulative measures such as measures of extremeness or measures of average tendencies in frequency distributions. Two cumulative procedures are frequently used to obtain these measures: working with data in percentage form, and defining indices on a 0 - to - 1 or 0 - to - 100 scale by dividing the raw numeral value in particular units by its maximum value calculated in these units. The resulting measures are pure numbers, maximizing the possibility of comparison across variables. (Alker, 1972, p. 345)

The Lorenz curve is a common method of providing a graphic representation of inequality of income distribution. This curve may be obtained by first arraying the units of analysis (families or persons) in an ascending order of per unit income, then calculating the cumulative percentages of aggregate population and aggregate income, and finally plotting the cumulative percentages of population on the horizontal axis and of income on the vertical axis. Were income distributed equally among the population, the plotted curve would correspond with the 45 degree line or diagonal, often termed the line of equality. (Table 5-4 and Figure 5-1)

The area between the Lorenz curve and the line of equality reflects the magnitude of any inequality of income distribution; the larger the area the greater the inequality.

The Lorenz curve type of representation has been generalized to aspects of sociopolitical inequality other than income. One such application in regional science is the localization curve (Figure 5-2) which represents the cumulative percentage of total manufacturing employment plotted on the horizontal axis and the cumulative percentages of employment in industry i plotted on the vertical axis. (Izard, 1960, p. 256)

Hayward R. Alker, Jr. extends the Lorenz curve idea to measures of legislative malapportionment (Figure 5-3) and of racial imbalance in school districts. (Alker, 1972, p. 346, 351)

The Lorenz curve serves as a visual frame of reference for several quantifiable measures of the degree of inequality in order to compare the distribution of income, power or other resources of different populations. Such measures help to describe inequality, or

Table 5-4. A Hypothetical Income Distribution

Order	Income Recipients				Income			
	Number in Category		Percent in Category		Amount Received		Percent of Total	
1	2	Cumulative 3	4	Cumulative 5	6	Cumulative 7	8	Cumulative 9
1	1	1	10	10	$20	20	2	2
2	1	2	10	20	50	70	5	7
3	1	3	10	30	80	150	8	15
4	1	4	10	40	100	250	10	25
5	1	5	10	50	100	350	10	35
6	1	6	10	60	100	450	10	45
7	1	7	10	70	100	550	10	55
8	1	8	10	80	120	670	12	67
9	1	9	10	90	150	820	15	82
10	1	10	10	100	180	1000	18	100

Figure 5-1. A Lorenz Curve

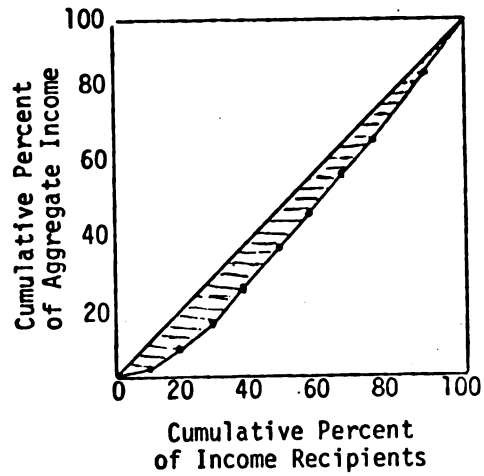


Figure 5-2. Localization Curve

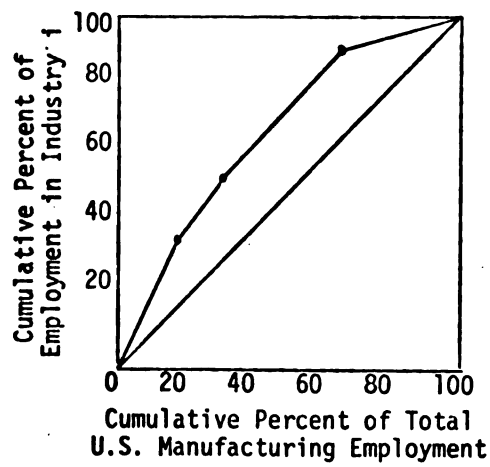
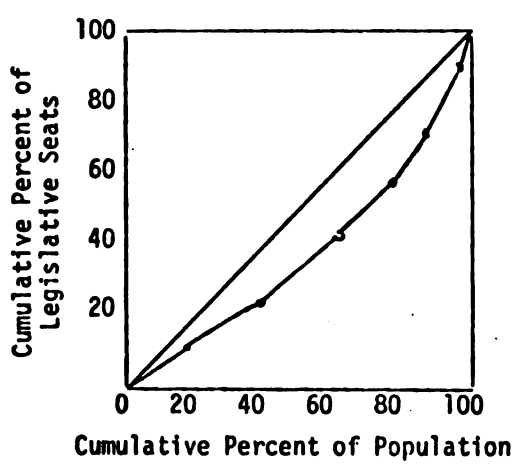


Figure 5-3. Lorenz Curve



concentration, by bearing some standard relation to the distribution itself, rather than to the value in question, thus making initially noncomparable distributions comparable. (Alker and Russett, 1966, p. 350)

The slope of the Lorenz curve provides a measure of "over-representation" or "under-representation" for each population group plotted on the curve. The CHP govening body "ratio of advantage" for county X is the quotient of its percentage share of seats on the CHP governing body divided by its percentage share of area population. Similarly, the location quotient in regional science is defined as a region's share of employment in industry i divided by that region's share of total manufacturing employment, and is represented by that region's slope on the localization curve. (Izard, 1960, p. 256)

The slope of the Lorenz curve may be plotted, with the resulting "slope curve" illustrating other measures of inequality, in addition to the ratios of advantage discussed above.

Table 5-5 with a hypothetical distribution of population and review committee membership among four counties represented illustrates these measures with a Lorenz Curve (figure 5-4a) and a corresponding Slope Curve (figure 5-4b).

The point where the slope of the Lorenz curve equals one is called the equal-share point. The equal-share coefficient measures the percentage of population getting less than the average share of the value portrayed on the vertical axis of the Lorenz curve, and is shown by the distance from the origin to the point on the horizontal axis directly below the equal share point.

Table 5-5. A Hypothetical Distribution of Membership by County

County 1	Area Population			Review Committee Members			Slope (6÷3) 8	Difference (6-3) 9	Coefficient of Concentration
	(1000) 2	Percent 3	Cumulative Percent 4	No. 5	Percent 6	Cumulative Percent 7			
Co.D	40	20	20	1	10	10	0.5	-10	
Co.B	60	30	50	2	20	30	0.67	-10	
Co.C	20	10	60	1	10	40	1.0	0	
Co.A	80	40	100	6	60	100	1.50	20	
Total	200	100		10	100		1.0		0.20

Figure 5-4a. Lorenz Curve based on data from Table 5-5.

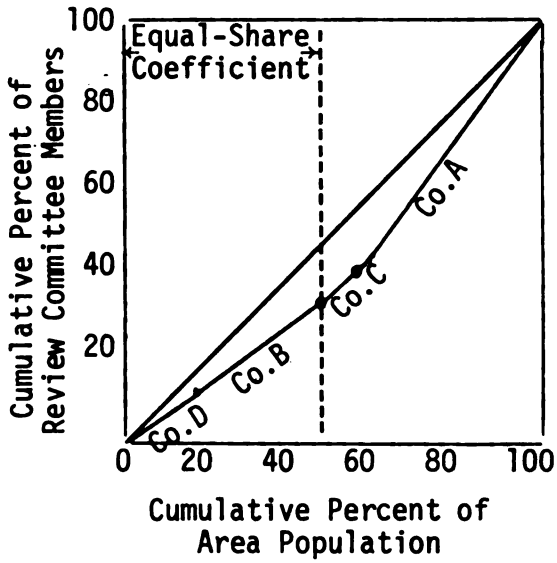
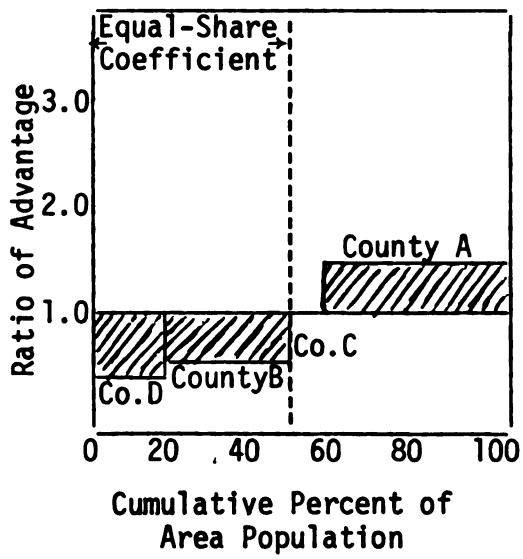


Figure 5-4b. Slope Curve based on data from Table 5-5.



The measures discussed so far each relate to the location of one point on the Lorenz curve or its slope at one segment. Two other measures, the Gini index of concentration and the Schultz coefficient (Schultz, 1951) are full information measures, in that each depends upon location and slope all along the Lorenz curve. (Alker, 1972, p. 348) The Gini index, in geometric terms, is defined as the ratio of the area between the diagonal line of equality and the Lorenz curve to the total area under the diagonal. (This total area under the diagonal may be refered to as the maximum possible area of inequality.)

The Schultz coefficient, another geometrically appealing measure, is derived from the slope curve. It sums the areas of the rectangles on either side of the equal-share coefficient, and is thus equal to the total area of advantage, or the total area of disadvantage. This coefficient has its counterparts in regional science known alternatively as the coefficient of concentration (Hoover, 1971, p. 213) and the coefficient of localization (Izard, ibid., p. 252; Nourse, 1968, p. 66), both coefficients based on the coefficient of geographic association. (Florence, et al., 1943, ch. 5) Both the Schultz coefficient and the Gini index range in value from zero representing perfect equality to one when an infinitesimally small fraction of the population possesses all the values being measured. As suggested, the Gini index cumulates the "distance" between the Lorenz curve and the "line of equality," while the Schultz coefficient cumulates the difference between the slopes or rates of change of these curves. While these two measures represent two different aspects of inequality, both give similar, highly correlated results. (Alker and Russett, ibid.) Due to its ease of calculation for grouped data, the

Schultz coefficient, rather than the Gini index, will be utilized in this analysis. Hereafter it will be referred to as the coefficient of concentration.[9]

This section has examined some measures of inequality considered appropriate for measuring distributional impacts of changes in the rules. The discussion has emphasized cumulative measures derived from applications of the Lorenz curve concept in economics, political science and regional science. Measures introduced and selected for use in the analysis include some which summarize the entire distribution of a variable and some which describe only a particular segment. The coefficient of concentration (as well as the Gini index) is a full information measure in that all the data are used in its calculation. These coefficients depend upon location and slope all along the Lorenz curve, whereas the equal-share coefficient depends wholly on the location of one point on the curve or its slope at that point. Similarly, the ratio-of-advantage depends on the slope of one particular segment of the curve.

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[9]The computation of the coefficient of concentration (Schultz coefficient) from data in a finite number of categories reduces to the formula

$$\sum_{0}^{x_{es}} (\Delta x - \Delta y)$$

where x is the horizontal axis (percentage of area population) and y is the vertical axis (percentage of review committee membership in the case of figure 5-3) of the Lorenz curve, and x_{es} is the point at which y/x equals one. (Schultz, 1951, p. 111) Alternatively, the formula may be stated as:

$$\sum_{0}^{x_{es}} (1 - \Delta y/\Delta x)\Delta x; \text{ or } \sum_{x_{es}}^{100} (\Delta y/\Delta x - 1)\Delta x$$

(Ibid., p. 364)

Finally, it should be stressed that the task of each measure is limited to describing, not explaining, inequalities in the distributions under study. Taken by itself, a coefficient of concentration, for example, provides no explanation of why such might exist. However, as a descriptive measure, the coefficient, and other measures introduced in this section, may enable the empirical testing of hypotheses which will hopefully contribute towards explanation of the degree of concentration involved.

CHAPTER VI. FINDINGS

This chapter reports the results of the analysis in four sections. The first section presents an overview examination of the basic premises outlined in the introduction to establish that sufficient variations exist among institutional and performance variables to merit further analysis. The second and third sections test hypotheses relating selected rules to participation in the review transaction, and subsequently, participation in the review transaction to review decision performance. The final section deals with the question, who bears the burden of rigorous project cost containment.

A. Tests of Basic Premises

The three premises introduced at the close of the statement of the problem in Chapter I merit further examination prior to proceeding with the testing of the hypotheses from Chapter IV.

The first premise set forth the proposition that while the governing body memberships tend to comply with the mandated majority of consumer representatives and are generally distributed in proportion to county population, the review committee memberships have a majority of provider representatives and tend to be distributed less equally relative to population of the counties comprising each area. This premise was supported by the data.

Table 6-1 shows that consumer representatives did comprise a majority of governing body memberships in eight of the ten CHP areas, with the percentage of seats held by consumer representatives ranging

Table 6-1. Distribution of Membership by Type of Representative

Number of Areas or Subunits with Consumer Representatives Having	Governing Bodies	Review Committees
> 60 Pct of Total	0	0
50-60 Pct of Total	8	3
40-49 Pct of Total	2	7
< 40 Pct of Total	0	7
Total No. of Units	10	17
Mean Percentage	51.1	42.5
Range	47.2-58.0	19.7-57.0

Number of Areas or Subunits with Provider Representatives Having	Governing Bodies	Review Committees
> 60 Pct of Total	0	6
50-60 Pct of Total	0	6
40-49 Pct of Total	7	3
< 40 Pct of Total	3	2
Total No. of Units	10	17
Mean Percentage	41.0	53.7
Range	35.0-44.9	28.2-73.7

Source: Appendix Tables B-1, B-2.

from 47.2 percent to 58.0 percent. No CHP area had provider representatives holding a majoirty of the governing body membership, as the percentage of seats held by provider representatives ranged from 35.0 percent to 44.9 percent in the ten areas, with the balance of the seats held by locally elected officials. In contrast, provider representatives

held a majority of review committee appointments in twelve of the seventeen reivew committees studied in eight CHP areas. The percentage of review committee seats held by provider representatives ranged from 28.2 percent to 73.7 percent in the seventeen committees.

Table 6-2 shows that in five of the eight CHP areas where review committee membership data were obtained, the review committee memberships were more concentrated relative to population than were the respective governing body memberships. The three CHP areas with review committee memberships less concentrated than the respective governing body memberships were the three areas with the highest coefficients of concentration for governing body membership relative to county population.[1]

Table 6-2. Concentration of Membership Relative to County Population for CHP Governing Bodies and Review Committees

Governing Bodies		Review Committees	
No. of Areas	Range in Coefficients of Concentration	No. of Committees	Range in Coefficients of Concentration
2	0.11 - 0.13	2	0.15 - 0.19
3	0.14	5	0.22 - 0.37
3	0.18 - 0.25	10	0.04 - 0.19[a]
8		17	

[a] Range does not include a one-county subunit where coefficient of concentration would be zero.

Source: Appendix Table B-3.

[1] The core county in each of these three CHP areas was "under-represented" in governing body membership relative to population, while some adjacent or non-adjacent counties were "over-represented." Each of these three core counties, however, had a higher ratio of advantage of review committee membership relative to population than its respective ratio of advantage of governing body membership relative to population.

The second basic premise asserted that differences exist among the ten area CHP agencies in two institutional dimensions. Variations were expected to be found in selected internal standing operating procedures implemented within area review agencies, and in the degree of review authority granted to the review agency for different projects by the external sponsor. These institutional variables were introduced in the operational definition of variables in Chapter III, and discussed in more detail with the sources of data in Chapter V.

Variations were noted in geographic scale, as indicated by the number of counties represented in CHP areas and on review committees. Four three-county CHP areas and two areas of five to seven counties had area-wide review committees, each representing from three to seven counties. Four CHP areas consisted of from twelve to eighteen counties. As three of these four large areas had review committees organized on a subunit basis, the number of counties represented by the review committee in these four CHP areas ranged from one to fourteen counties. Meeting location was frequently rotated among participating counties in two review committees in one CHP area, and two CHP areas had provisions for a designated alternate to represent an absent member of the governing body or review committee. Size of population represented by the CHP governing body ranged from 268,327 to 999,146 not including the 4,758,391 population of the CHP Council of Southeastern Michigan. The population represented by the review committee ranged from 52,488 to 725,899, again not including that of the CHP Council of Southeastern Michigan. These variations in internal SOP's are detailed in Table 6-3.

Variations were also found in degree of review authority granted by the external sponsor for the 260 projects considered. (Table 6-4)

Table 6-3. Differences in Internal SOPs Implemented by Michigan CHP Agencies, July 1974-September 1975

CHP Area Subunit	Governing Body				Review Committee			
	Population of Area	No. of Counties	Meetings Rotated	Alternate Provision	Population of Area or Subunit	No. of Counties	Meetings Rotated	Alternate Provision
1	4,758,391	7	No	Yes	4,758,391[a]	7[a]	No[a]	Yes[a]
2	268,327	3	No	No	268,327[a]	3[a]	No[a]	No[a]
3	472,757	5	No	No	472,757	5	No	No
4	272,439	3	No	No	272,439	3	No	No
5	575,524	3	No	No	575,524	3	No	No
6	390,514	3	No	Yes	390,514	3	No	Yes
7	725,899	14	No	No	725,899	14	No	No
8	999,146	12	No	No				
Central					416,551	1	No	No
East					89,908	2	No	No
North					85,552	4	Yes	No
Northwest					201,023	3	Yes	No
West					206,112	2	No	No
9	281,132	18	No	No				
Alpena					66,345	5	No	No
Gd. Traverse					144,982	9	No	No
Petoskey					69,805	4	No	No
10	316,911	15	No	No				
Zone I					91,640[b]	6[b]	No[b]	No[b]
Zone II					95,364[b]	4[b]	No[b]	No[b]
Zone III					77,419[b]	2[b]	No[b]	No[b]
Zone IV					52,488[b]	3[b]	No[b]	No[b]

[a]Data not collected on review committee membership or attendance.

[b]Data not collected on review committee attendance.

Table 6-4. Number of Health Facility Projects Considered by CHP Review Committees by Degree of Review Authority

CHP Area Subunit	No. of Projects Subject to Budget Constraint	No. of Projects Not Subject to Budget Constraint		Row Total
		bed	non-bed	
1	35	9	32	76
2	0	3	4	7
3	11	3	7	21
4	15	1	3	19
5	7	2	4	13
6	10	1	3	14
7	14	6	8	28
8				
Central	2	1	8	11
East	1	1	2	4
North	3	1	0	4
Northwest	0	1	4	5
West	3	1	1	5
9				
Alpena	6	0	0	6
Gd. Traverse	6	2	4	12
Petoskey	3	1	3	7
10				
Zone I	5	2	2	9
Zone II	5	3	2	10
Zone III	6	0	2	18
Zone IV	1	0	0	1
Column Total	133	38	89	260

One hundred thirty-three were bed projects subject to a budget constraint[2] and 127 projects were not subject, of which 38 were bed projects involving no addition to bed number and 89 were non-bed projects. It was possible to compare the effect of review authority on review decision performance in fourteen review committees which considered projects under both types of review authority, i.e., those subject and those not subject to a budget constraint.

Given the existence of differences in institutional variables, the third premise held that variations also exist in review decision performance. Two questions serve to investigate the feasibility of further inquiry into factors related to such differences in review decision performance:

1) Do all proposed health capital improvement projects receive endorsement when reviewed by area CHP agencies?
2) Do proposed projects tend to receive the same degree of rigor in their review?

The answers to these two questions, if affirmative, would indicate a lack of variability in review decision performance, thus leaving little opportunity for further analysis.

However, less than two-thirds of the health facilities capital improvement projects considered by the ten Michigan CHP area agencies during the period of this study received endorsement without substantive modification. As shown by the column totals in Table 6-5, 168 of the 260 acute care and nursing home projects considered by the CHP area review process were endorsed by the governing bodies, plus four

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[2]As defined on page 130, projects subject to a budget constraint are those involving an increase in bed number.

Table 6-5. Review Determinations on 260 Michigan Health Facilities Projects by CHP Area Governing Bodies

Review Determination	No. of Projects	Percent of Total	
No review recorded[a]	7	2.7	
Withdrawn	54	20.8	
Not Endorsed	19	7.3	31.9
Modified	10	3.8	
Endorsed	164	63.1	
Endorsed by default	4	1.5	64.6
No action taken[b]	2	0.8	
Column total	260	100.0	

[a]DPA review determination: one disapproved, one modified, and five approved.

[b]Both projects disapproved by DPA.

projects were endorsed be default. Thus, 64.6 percent of the projects considered were endorsed by the governing body without substantive modification. Conversely, about one-third of the projects considered did not survive the CHP review process, as submitted. Fifty-four letters of intent were withdrawn prior to governing body review. Nineteen of the projects reviewed were not endorsed and another ten were endorsed following substantive modification of the initial application. Thus, of the projects considered by CHP review, 20.8 percent were withdrawn, 7.3 percent were not endorsed and 3.8 percent were endorsed only after substantive modification, totaling 31.9 percent of all 260 projects considered. The number 260 includes nine projects which were considered by the Designated Planning Agency (DPA) during the study period, of

which two were reviewed but received no action and seven had no review found recorded in either the review committee or the governing body records.

This evidence rejects a null contention that no variation exists in project review determinations; i.e., that all projects tend to be endorsed by the CHP governing bodies. This overview finding of observed differences in review determinations provides a basis for further investigation of factors which may be associated with such differences.

In response to the second question posed under this third premise, all projects did not undergo the same rigor of review, as measured by dollars endorsed relative to dollars requested by the project letter of intent. Approximately one-fourth of the projects proposed by letter of intent received no endorsement, due either to withdrawal from consideration without or following application, or to the application having been not endorsed during review. Almost half of the projects were endorsed for the same amount of dollars as indicated on the letter of intent, while less than ten percent had some dollars endorsed though less than requested. Nearly one-fourth of the projects considered had more dollars endorsed than initially requested in the letter of intent. This variation in review decision performance, as discussed above and shown in Table 6-6, presents further opportunity to attempt to identify and analyze factors thought to be associated with the differences in the rigor of project cost containment observed in these 260 review decisions.

1. Rationale for Focus on the Project Review Committee

Given a two-stage review process at the CHP area level, as introduced in Chapter III, there are several justifications for an analytical

Table 6-6. Distribution of Projects by Project Cost Containment Coefficient Category

Project Cost Containment Coefficient	Zero[a]	0.001[b]-0.333[b]	0.334[b]-0.666[b]	0.667[b]-0.999[b]	1.0[c]	Over 1.0[d]	Total
Number	62	3	6	15	114	60	260
Pct. of row	23.8	1.2	2.3	5.8	43.8	23.1	100.0
			9.3				

[a]Project received no endorsement.

[b]Project endorsed for less dollars than requested.

[c]Project endorsed for same dollar amount as requested.

[d]Project endorsed for more dollars than requested.

focus on the review committee as well as the governing body. (1) Although the geographic delineation of the area to be represented by the governing body and requirements for its membership composition are prescribed externally, the area CHP agency may exercise its own discretion in the structure of its review committee(s); (2) Thus, more kinds of variations were found in the internal SOP's affecting the review committees than those structuring the governing bodies, and review committee membership tended to be more concentrated relative to county population than did that of the governing bodies. Finally, theoretical considerations suggest that the recommendations of a review committee would rarely be overturned by the governing body. Some data for testing this latter hypothesis is provided by Table 6-7.

Of the 260 projects considered during this period, 200 received a review determination by either a review committee or governing body. The governing body concurred with its review committee on 178 of those

Table 6-7. CHP Review Determinations on 260 Michigan Health Facilities Projects by Review Committees and by Governing Bodies

Review Committee Recommendation (No. of Projects)	Governing Body Review Determination (No. of Projects)								Row Total	
	No Review Recorded	Not Reviewed	With-drawn	Not Endorsed	Modi-fied	Endorsed	Endorsed by Default	No Action Taken	No.	Pct.
No Review Recorded	7	0	0	1	1	3	0	0	12	4.6%
Not Reviewed	0	0	0	0	0	9	0	0	9	3.5%
Withdrawn	0	0	53	0	0	0	0	0	53	20.4%
Not Endorsed	0	0	1	16	0	1	0	1	19	7.3%
Modified	0	0	0	0	7	0	0	0	7	2.7%
Endorsed	0	0	0	2	2	151	1	0	156	60.0%
Endorsed by Default	0	0	0	0	0	0	3	0	3	1.2%
No Action Taken	0	0	0	0	0	0	0	1	1	0.4%
Column Number Total	7	0	54	19	10	164	4	2	260	
Total Percent	2.7%	0.0%	20.8%	7.3%	3.8%	63.1%	1.5%	0.8%		100.0%

200 projects, or in 89 percent of the cases. Furthermore, quasi-concurrence is indicated in seventeen additional cases.[3] Actual disagreement between determinations by the review committee and the governing body were noted in only five of the 200 projects reviewed either by review committee or governing body. Governing body endorsement was noted on one project not endorsed by committee, two projects endorsed by committee were not endorsed by a governing body, and two other projects endorsed by committee received governing body endorsement following substantive modification. Such disagreement on five projects represents 2.7 percent of the 185 projects reviewed by both committee and governing body,[4] and less than two percent of all 260 proposed projects undergoing the CHP area review process in Michigan during the study period. This preliminary analysis provides further support for viewing the review committee as an appropriate focus for analysis of who tends to participate in the review decision transactions.

The analysis now turns to two basic questions posed at the outset of this inquiry, do rules affect who participates in the review transaction, and does who participates in the transaction affect review decision performance.

B. Tests of Hypotheses Relating Rules to Participation in the Review Transaction

This section addresses the basic question, do selected internal standing operating procedures and the degree of review authority granted

[3]Governing body action was taken of fourteen projects either not reviewed or having no review recorded by the review committee. Also, one project endorsed by committee was endorsed by default by the governing body, and two projects not endorsed by committee were either withdrawn or received no action by the governing body.

[4]One of the 186 projects reviewed by review committee was withdrawn prior to governing body review.

by the external sponsor, tend to affect who participates in the review transaction.

The analysis addresses two components of this question. First, are these rules related to differential participation by review committee members? Given the composition of review committee membership, do internal SOP's including number of counties represented, whether meeting locations are rotated among counties, and whether an alternate may represent an absent member tend to be associated with differential participation by review committee members? Are there systematic differences in attrition of attendance by county location and by type of representation that tend to suggest differential impacts of these rules?

Second, are these rules related to differential participation by the project applicants? Does size of population represented by the review committee and the degree of review authority tend to be associated with whether a given project is considered with or without reference to a similar project by the review committee?

Each of these two components of the basic question, do the rules affect who participates in the review transaction, will be analyzed in turn.

1. Which committee members participate in project review?

This section tests the hypotheses that internal SOP's are associated with differential participation of members by county location and by type of representative. Two SOP's, the number of counties represented, and rotation of meeting location among counties, affect a given county's likelihood of being a core, adjacent, or non-adjacent county. In turn, county location is hypothesized to be associated with differential participation by members. Similarly, the third SOP, whether or not an

alternate may represent an absent member, is also thought to be associated with differential participation by members. These general hypotheses will be tested with evidence from governing bodies and from review committees.

a. Geographic Scale and Who Participates

1) Number of counties represented

Within a CHP area, the number of counties represented may be reduced by orgnaizing sub-units, with each to be represented by a review committee. Table 6-8 examined three CHP areas with sub-units to compare the distribution of counties by county location to the three governing bodies and to the twelve review committees. Two review committees which rotate meeting location among counties have been isolated from ten committees which did not rotate meeting locations. Considering those not rotating meeting locations, the organization of review committees on a sub-unit basis allowed the numbers of non-adjacent counties to be reduced from 23 on governing bodies to seven on the review committees, while the number of core counties increased from three on the governing bodies to twelve on the review committees, and the number of adjacent counties increased from twelve on the governing bodies to nineteen on the review committees.

Condition 1-1: When all meetings are held in one county, as the number of counties in an area or sub-unit increases, the number of core counties as percent of total will tend to decrease, the number of adjacent counties as percent of total will tend to decrease, and the number of non-adjacent counties as percent of total will tend to increase.

Table 6-9 shows the effect of the number of counties on distribution by county location for governing bodies and for review committees. As the number of counties represented increased in each case, the number

Table 6-8. Distribution of Counties by County Location to Governing Body and to Review Committee Meetings in Three CHP Areas with Subunit Review Committees not Rotating and Rotating Meeting Location

	Governing Bodies				Review Committees				No. of Subunits
	County Location			Row Totals	County Location			Row Totals	
	Core	Adjacent	Non-Adj.		Core	Adjacent	Non-Adj.		
Committees not rotating meeting location									
No. of counties	3	12	23	38	12	19	7	38	10
Pct. of row total	7.9	31.6	60.5	100	31.5	50.0	18.4	100	
Committees rotating meeting location									
No. of counties	--	2	5	7	1	5	1	7	2
Pct. of row total	--	28.6	71.4	100	14.3	71.4	14.3	100	

Table 6-9. Distribution of Michigan Counties by County Location by Number of Counties Represented

Number of Counties in CHP Area	No. of Areas	County Location to Governing Body						Row	Total
		Core		Adjacent		Non-Adj.			
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Three	4	4	33.3	8	66.7	--	--	12	100
5 to 7	2	2	16.7	7	58.3	3	25.0	12	100
12 to 18	4	4	6.8	18	30.5	37	62.7	59	100
Column total	10	10	12.0	33	39.8	40	48.2	83	100

Number of Counties in Area or Subunit	No. of Committees	County Location to Governing Body						Row	Total
		Core		Adjacent		Non-Adj.			
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1-2	4[a]	6[a]	85.7	1	14.3	--	--	7	100
Three	5	5	33.3	10	66.7	--	--	15	100
4-7	6	6	19.3	18	58.1	7	22.6	31	100
9-14	2	2	8.7	9	39.1	12	52.2	23	100
Column Total	17[b]	19	25.0	38	50.0	19	25.0	76[b]	100

[a]Both counties designated as core county in 2 two-county sub-units where meetings held near county line.

[b]Does not include one three-county and one four-county subunit where review committee meetings were rotated.

of core counties as percent of total decreased, as did the number of adjacent counties as percent of total once the area or sub-unit was large enough to have non-adjacent counties. Also as stated, the number of non-adjacent counties as percent of total increased as number of counties represented increased. Thus these data support the relationship between number of counties represented and the distribution of counties by core, adjacent and non-adjacent.

2) Rotation of meeting location

Given the number of counties represented, the tendency for a county to be core, adjacent, or non-adjacent may also be affected by whether or not the location of the meeting place is rotated among participating counties and by the frequency of such rotation.

Condition 1-2: The higher the percentage of all meetings rotated equally among all counties in the area or sub-unit, the more equal the distribution of counties by core, adjacent and non-adjacent categories.

Table 6-10 shows that in the sub-unit where only 30 percent of all meetings were rotated equally among all counties, the county which was core county most frequently was core county for 77.8 percent of all meetings, while the county which was core county the fewest times was core county for only 11.1 percent of all meetings. In contrast, in the sub-unit where 80 percent of all meetings were rotated equally among all counties, the county which was core county most often was core county for 30 percent of all meetings, while the county which was core county least often was core county for 20 percent of the meetings. Similar distributions are noted for adjacent and non-adjacent counties, indicating a more equal distribution for the sub-unit having the higher percentage of all meetings rotated equally among all counties. These data support Condition 1-2 that the distribution of counties by county location is related to the rotation of meeting place among participating counties.

3) Differential participation by county location and by type of representative

Given this evidence that the distribution of counties among core, adjacent and non-adjacent categories is affected by the number of counties represented, and by rotation of meeting place among counties, the

Table 6-10. Distribution of Counties by County Location with Low and High Percentage of Meetings Rotated

	Percentage of All Meetings Rotated Equally Among All Counties	
	30 percent	80 percent
Percent of meetings as core county by		
county most frequently core county	77.8	30.0
county least frequently core county	11.1	20.0
Mean percent of meetings as core county	33.3	25.0
Percent of meetings as adjacent county by		
county most frequently adjacent county	88.9	50.0
county least frequently adjacent county	11.1	50.0
Mean percent of meetings as adjacent county	37.0	50.0
Percent of meetings as non-adjacent county by		
county most frequently non-adjacent county	77.8	20.0
county least frequently non-adjacent county	0	30.0
Mean percent of meetings as non-adjacent county	29.6	25.0

issue to now be addressed is whether or not spatial distance due to county location is related to differential participation by members.

Hypothesis 1-3: Participation (as measured by attendance as percentage of membership) by members from non-adjacent counties will be less than that by members from adjacent counties, which will be less than that from core counties.

A related issue is whether county location affects participation differently by consumer and provider representatives.

Hypothesis 1-4: Participation (as measured by attendance as percentage of membership) by consumer representatives will be less than that by provider representatives within each county location category.

These hypotheses were tested with data on review committee and governing body member participation, measured by attendance as percentage of membership (meetings possible to attend) as presented in Tables 6-11 through 6-14.

The row totals of Table 6-11 show aggregate data for ten of the thirteen review committees analyzed[5] which support hypothesis 1-3. Review committee participation from twelve core counties (55.2 percent) exceeded that from twenty-one adjacent counties (50.8 percent), which exceeded that from fifteen non-adjacent counties (48.9 percent). To further test this hypothesis, one may control for the number of counties represented comparing member participation by county location categories within a given column. For example, the hypothesis was supported in the left-hand column of the group of nine-to-fourteen counties represented with percentages of 66.8, 48.2, and 43.1, respectively, from core, adjacent and non-adjacent counties. A similar examination found the

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[5]Excluded from Table 6-11 and 6-12 are the two review committees which rotated meeting locations among counties, and the one which allowed alternates to represent an absent member.

Table 6-11. Review Committee Attendance as Percentage of Membership by County Location by Type of Representative by Number of Counties Represented

COUNTY LOCATION Type of Representative	Number of Counties Represented				Row Totals
	1 to 2	three	4 to 5	9 to 14	
CORE COUNTIES[a]	50.5	59.7	53.4	66.8	55.2
Consumers	49.3	48.9	50.0	60.7	51.0
Providers	51.5	64.3	57.7	72.4	58.4
No. of Counties	(5)	(2)	(3)	(2)	(12)
ADJACENT COUNTIES[a]	--	58.0	48.3	48.2	50.8
Consumers	--	64.7	46.5	40.0	45.4
Providers	--	56.3	50.0	60.0	56.1
No. of Counties	--	(4)	(8)	(9)	(21)
NON-ADJACENT COS.[a]	--	--	62.5	43.1	48.9
Consumers	--	--	75.0	16.7	40.4
Providers	--	--	60.0	47.8	53.5
No. of Counties	--	--	(3)	(12)	(15)
ALL COUNTIES[a]	50.5	59.3	52.9	56.5	54.1
Consumers	49.3	51.4	49.6	50.3	49.9
Providers	51.5	62.2	55.6	65.1	57.8
No. of Counties	(5)	(6)	(14)	(23)	(48)
No. of Committees	(3)	(2)	(3)	(2)	(10)

[a]percentages in this column based on consumers, providers, and elected officials.

( )s represent absolute numbers, not percentages.

hypothesis supported in the groups of committees representing three counties, but not supported in the group representing four-to-five counties, where participation from non-adjacent counties exceeded that from both adjacent and core counties. This latter exception may be due to a small sample property, in that non-adjacent representation in this comparison consisted of only four members, one provider on each of the three

committees, and one consumer on one committee. Each of these members had higher participation than did the average of the eighteen members in the comparison group. Furthermore, providers comprised three/fourths of the non-adjacent members, contrasted with fifty-six percent of the adjacent members in this cell.

Hypothesis 1-3 may also be tested by controlling for type of representative in Table 6-11, where participation by consumer and provider members is presented in the right-hand columns of each cell. Referring again to the nine-to-fourteen county group, participation by consumer members declined from 60.7 to 40 to 16.7 percent, respectively, for core through non-adjacent counties. A decline was also noted for provider members, from 72.4 to 60 to 48.8 percent, respectively from core through non-adjacent counties in the nine-to-fourteen county group. This relationship was also found in the row totals, in all three comparisons of provider participation between core and adjacent counties, and in one of two comparisons of consumer participation between core and adjacent counties. Again, small sample property seems to be involved in this exception, where the high percentage for adjacent consumer participation in the three-county group was largely by one member with a 71 percent participation rate who accounted for four-fifths of the membership by consumers in three-county committees. As indicated earlier, small sample property helps to explain why participation by both consumers and providers from non-adjacent counties was observed to be higher than that from adjacent counties.

Table 6-12A reports on an examination of this data in more detail by review committee. The table shows, for example, that controlling for representation by consumer or provider, core county participation

Table 6-12. Summary of Review Committee Comparisons Testing Hypotheses 1-3 and 1-4

A. NUMBER OF COMMITTEES WITH ATTENDANCE AS PERCENTAGE OF MEMBERSHIP FROM

	Representation by Consumers	Representation by Providers	Row Totals
Core County < Adjacent Counties[a]	2	1	3
Core County > Adjacent Counties[b]	4	6	10
Column subtotals	6	7	13
Adjacent Counties < Non-Adjacent Counties[a]	1	2	3
Adjacent Counties > Non-Adjacent Counties[b]	1	3	4
Column subtotals	2	5	7
Core County < Non-Adjacent Counties[a]	1	1	2
Core County > Non-Adjacent Counties[b]	1	4	5
Column subtotals	2	5	7
Summary of All Comparisons			
[a]Number not supporting hypothesis 1-3	4	4	8
[b]Number supporting hypothesis 1-3	6	13	19
Column totals	10	17	27

B. NUMBER OF COMMITTEES WITH ATTENDANCE AS PERCENTAGE OF MEMBERSHIP BY

	County Location: Core	County Location: Adjacent	County Location: Non-Adj.	Row Totals
Providers < Consumers[c]	1	2	0	3
Providers = Consumers[c]	-	1	1	2
Providers > Consumers[d]	9	3	1	13
Column totals	10	6	2	18
Summary of Comparisons				
[c]Number not supporting hypothesis 1-4	1	3	1	5
[d]Number supporting hypothesis 1-4	9	3	1	13
Column totals	10	6	2	18

exceeded adjacent county participation in four of the six committees with adjacent county consumer participation, and in six of the seven counties with adjacent county provider participation. The summary of these findings in Table 6-12A show that for consumers, hypothesis 1-3 was supported in six of ten comparisons, and for providers the hypothesis was supported in thirteen of seventeen comparisons. Combining these two, nineteen of twenty-seven comparisons supported hypothesis 1-3 that participation in review committee meetings declines as spatial distance increases from core to adjacent to non-adjacent counties.

Table 6-11 also provides evidence in support of hypothesis 1-4, with provider participation exceeding consumer participation in all the aggregate cases (row totals) and all counties. Within cells, controlling both for county location and number of counties represented, the hypothesis was supported in all but two comparisons, adjacent counties in the three-county group and non-adjacent counties in the four-to-five county group. Each of these two exceptions involve the small sample problem discussed above. The strength of support for hypothesis 1-4 may be seen in Table 6-12B, which reports on comparisons within each review committee. As summarized, thirteen of eighteen comparisons supported hypothesis 1-4 that participation by consumer representatives in review committee meetings is less than that by providers within each county location category.

Additional support for hypotheses 1-3 and 1-4 is noted when examining similar data for governing bodies as presented in Table 6-13 and 6-14. The distribution of governing body membership appears to be such that fewer small sample problems are found in the non-adjacent county cells. Table 6-13 shows that in the aggregate, governing body

Table 6-13. Governing Body Attendance as Percentage of Membership by County Location by Type of Representative by Number of Counties Represented

COUNTY LOCATION Type of Representative	Number of Counties Represented			Row Totals
	three	5 to 7	12 to 18	
CORE COUNTIES[a]	68.6	64.9	67.9	67.8
Consumers	68.9	58.0	66.7	65.9
Providers	70.9	74.0	70.7	71.5
No. of Counties	(4)	(2)	(4)	(10)
ADJACENT COUNTIES[a]	60.4	60.6	58.0	59.7
Consumers	58.6	64.5	53.8	58.1
Providers	62.1	56.7	65.3	61.3
No. of Counties	(8)	(7)	(18)	(33)
NON-ADJACENT COS.[a]	--	36.5	47.3	46.3
Consumer	--	24.0	43.5	41.6
Providers	--	56.5	50.0	50.7
No. of Counties	--	(3)	(37)	(40)
ALL COUNTIES[a]	65.6	61.1	56.2	61.3
Consumers	65.5	58.7	52.5	54.9
Providers	67.6	63.8	60.9	64.4
No. of Counties	(12)	(12)	(59)	(83)
No. of Governing Bodies	(4)	(2)	(4)	(10)

[a]percentages in this column based on consumers, providers, and elected officials.

( )s represent absolute numbers, not percentages.

participation from core counties (67.8 percent) exceeded that from adjacent counties (59.7 percent), which exceeded that from non-adjacent counties (46.3 percent). Within each group of number of counties represented, participation from core counties was higher than that of adjacent counties, which was higher than that from non-adjacent counties. Furthermore, by controlling for type of representative, the right-hand

Table 6-14. Summary of Governing Body Comparisons Testing Hypotheses 1-3 and 1-4

A. NUMBER OF GOVERNING BODIES WITH ATTENDANCE AS PERCENTAGE OF MEMBERSHIP

	Representation by Consumers	Representation by Providers	Row Totals
Core County < Adjacent Counties[a]	3	3	6
Core County > Adjacent Counties[b]	7	7	14
Column subtotals	10	10	20
Adjacent Counties < Non-Adjacent Counties[a]	0	2	2
Adjacent Counties > Non-Adjacent Counties[b]	6	4	10
Column subtotals	6	6	12
Core County < Non-Adjacent Counties[a]	0	1	1
Core County > Non-Adjacent Counties[b]	6	5	11
Column subtotals	6	6	12
Summary of All Comparisons			
[a]Number not supporting hypothesis 1-3	3	6	9
[b]Number supporting hypothesis 1-3	19	16	35
Column totals	22	22	44

B. NUMBER OF GOVERNING BODIES WITH ATTENDANCE AS PERCENTAGE OF MEMBERSHIP BY

	County Location Core	County Location Adjacent	County Location Non-Adj.	Row Totals
Providers < Consumers[c]	2	3	2	7
Providers > Consumers[d]	8	7	4	19
Column totals	10	10	6	26
Summary of Comparisons				
[c]Number not supporting hypothesis 1-4	2	3	2	7
[d]Number supporting hypothesis 1-4	8	7	4	19
Column totals	10	10	6	26

column of row totals in Table 6-13 show that participation from core counties exceeded that from adjacent counties, which again exceeded that from non-adjacent counties. This pattern held within each group of number of counties represented, with the exception that in the five-to-seven county category, consumer participation from core counties (58 percent) was less than that from adjacent counties (64.5 percent) and that from non-adjacent counties (58.7 percent). This group includes the area in Southeastern Michigan, in which consumers representing three major suburban counties had higher participation rates than the consumers from Wayne county. The results of a more detailed analysis of this data for each governing body are reported in Table 6-14A. The summary shows that hypothesis 1-3 was supported in nineteen of twenty-two comparisons of consumer participation, and in sixteen of twenty-two comparisons of provider participation. Thus, thirty-five of forty-four comparisons supported hypothesis 1-3 that governing body participation declines as spatial distance increases from core to adjacent to non-adjacent counties.

The governing body participation data in Table 6-13 also show strong support for hypothesis 1-4. Provider participation exceeded consumer participation in all of the aggregate cases (row totals and all counties) as well as when controlling for county location and number of counties represented in all but one case, the adjacent county cell of the five-to-seven county committees. Comparisons within each governing body are summarized in Table 6-14B. Provider participation exceeded consumer participation from core counties in eight of ten governing bodies, from adjacent counties in seven of ten governing bodies, and from non-adjacent counties in four of the six governing bodies with

non-adjacent counties. Thus hypothesis 1-4 that, within each county location category, participation by consumer representatives would be less than that by provider representatives was supported in nineteen of twenty-six governing body comparisons.

The differential participation of members by county location (Hypothesis 1-4) and by type of representative (Hypothesis 1-3) would suggest that relative to their shares of area or sub-unit membership, some counties will attain a greater share of area attendance, while others will be left iwth a diminished share of attendance.

Hypothesis 1-5: The percentage of core counties with their share of governing body attendance greater than their share of governing body membership will tend to be higher than that of adjacent counties, which will tend to be higher than that of non-adjacent counties. A similar relationship is expected to be found in review committee attendance relative to membership.

The data presented in Table 6-15 show a systematic difference among types of counties in share of attendance relative to share of membership in governing bodies and in review committees. In the selected areas, 83.3 percent of the core counties had their share of governing body attendance greater than their share of membership, and half of the core counties had their share of review committee attendance exceeding their share of review committee membership. In contrast, adjacent and non-adjacent counties had a smaller share of attendance relative to their share of membership, both on governing bodies and review committees. Hypothesis 1-5 was supported with 83.3 percent of the core counties, 41.2 percent of the adjacent counties and 39.6 percent of the non-adjacent counties having their share of governing body attendance exceed their share of membership, while in similar order, fifty percent of core counties, 33.3 percent of adjacent counties, and twenty percent of

Table 6-15. Distribution of Selected Counties[a] by Share of Attendance Relative to Share of Membership by County Location in Governing Bodies and Review Committees

Number of Counties with	Governing Bodies				Review Committees			
	County Location			Row Totals	County Location			Row Totals
	Core	Adjacent	Non-Adj.		Core	Adjacent	Non-Adj.	
Share of Attendance > Share of Membership	5	7	7	19	6	7	3	16
Share of Attendance < Share of Membership	1	10	18	29	6	14	12	32
Column Totals	6	17	25	48	12	21	15	48
Percent of Total with Share of Attendance > Share of Membership	83.3%	41.2%	28.0%	39.6%	50.0%	33.3%	20.0%	33.3%

[a]Counties omitted are those 25 in the three CHP areas for which review committee data were not collected, those seven in the two review committees which rotated meeting assignments, and those three counties in the review committee which allowed an alternate to represent an absent member.

non-adjacent counties had their share of review committee attendance greater than their share of membership.

Since CHP regulations prescribe that governing body membership be constituted in proportion to area population, it is expected that governing body memberships are distributed fairly equally relative to population among core, adjacent and non-adjacent counties. However, since the composition of review committee memberships are not constrained by such regulations, it is expected that core counties will tend to be "over-represented" in review committee membership relative to population, while adjacent counties will tend to be "under-represented," and yet a larger percentage of non-adjacent counties will be "under-represented."

Hypothesis 1-6: Within each county location category, the percentage of counties with a ratio of advantage of governing body membership relative to population greater than one (over-represented) will tend towards 50 percent for core counties, for adjacent counties and for non-adjacent counties; however, the percentage of counties with a ratio of advantage of review committee membership relative to population greater than one (over-represented) will be higher for core counties than for adjacent counties, and lowest for non-adjacent counties.

Hypothesis 1-6 is tested with the data presented in Table 6-16. The results show that core counties tend to be "under-represented" in governing body membership, with one-third of the core counties' share of governing body membership being less than their share of CHP area population. In contrast, core counties tend to be "over-represented" on the review committee with three-fourths of the counties having a ratio of advantage of review committee membership relative to population greater than one. 58.8 percent of adjacent counties had a ratio of advantage of governing body attendance greater than one, contrasted with

Table 6-16. Distribution of Selected Counties[a] by Ratio of Advantage (Membership: Population) by County Location in Governing Bodies and Review Committees

Number of Counties with Ratio of Advantage of Membership Relating to Population	Governing Bodies				Review Committees			
	County Location			Row Totals	County Location			Row Totals
	Core	Adjacent	Non-Adj.		Core	Adjacent	Non-Adj.	
> 1.0	2	10	13	25	9	8	5	22
≤ 1.0; ≥ Zero	4	7	12	23	3	13	4	20
Equal Zero (Without Members)	--	--	--	--	--	--	6	6
Column Totals	6	17	25	48	12	21	15	48
Percent of Total > 1.0	33.3%	58.8%	52.0%	52.1%	75.0%	38.1%	33.3%	45.8%

[a]See Table 6-15 for basis of selection.

38.1 percent of the adjacent counties being "over-represented" on the review committee. Slightly over one-half of the non-adjacent counties are "over-represented" in governing body membership, while one-third of the non-adjacent counties are "over-represented" in review committee membership relative to their share of population. It should also be noted that none of the 48 counties were unrepresented in governing body membership, while those unrepresented on review committees were all adjacent counties; forty percent of the fifteen non-adjacent counties were unrepresented on review committees.

Given the tendency for core counties to have improved their share of attendance relative to their share of membership, and for the non-adjacent counties' share of attendance to have diminished relative to their share of membership, it would follow that core counties should tend to be "over-represented" in attendance relative to population, while non-adjacent counties should tend to be "under-represented" in attendance relative to population.

Hypothesis 1-7: The percentage of counties with a ratio of advantage of governing body attendance relative to population greater than one (over-represented) will tend to be higher for core counties than for adjacent counties, and lowest for non-adjacent counties; a similar relationship is expected to be found for review committee attendance relative to population.

Table 6-17 shows, for governing bodies and for review committees, the distribution of counties by county location category whether "over-represented," or "under-represented," or unrepresented. Hypothesis 1-7 was supported by the review committee data, with 75 percent of the core counties, 33.3 percent of the adjacent counties and 26.7 percent of the non-adjacent counties "over-represented" relative to their population. The hypothesis was only partially supported by the governing body data,

Table 6-17. Distribution of Selected Counties[a] by Ratio of Advantage (Attendance: Population) by County Location in Governing Bodies and Review Committees

Number of Counties with Ratio of Advantage of Attendance Relative to Population	Governing Bodies				Review Committees			
	County Location			Row Totals	County Location			Row Totals
	Core	Adjacent	Non-Adj.		Core	Adjacent	Non-Adj.	
> than 1.0	3	11	11	25	9	7	4	20
< 1.0; ≥ Zero	3	5	9	17	3	12	4	19
Equal Zero (Without Members)	--	1	5	6	--	2	7	9
Column Totals	6	17	25	48	12	21	15	48
Percent of Total > 1.0	50.0%	64.7%	44.0%	52.1%	75.0%	33.3%	26.7%	41.7%
Pct. of Total Without Members	--	5.9%	20.0%	12.5%	--	9.5%	46.7%	18.8%

[a]See Table 6-15 for basis of selection.

which did show 64.7 percent of the adjacent counties and 44.0 percent of the non-adjacent counties "over-represented" relative to population. However, only 50.0 percent of the core counties were found to be "over-represented, less than the percentage of adjacent counties. Although five of six core counties had higher shares of governing body attendance than membership, it should be recalled that two-thirds of the core counties were found to be "under-represented" in governing body membership relative to population. Given that the core county govering body membership data did not support hypothesis 1-6, it seems consistent that hypothesis 1-7 also would not be supported by the core county governing body attendance data. Further evidence of support for the hypothesis that county location is associated with the degree of representation is found in the observation that the percentage of counties unrepresented is zero for core counties, and increases from adjacent counties to non-adjacent counties, both with governing bodies and with review committees.

Given that review committee membership is expected to be more concentrated among core and adjacent counties, and given the differential participation, it is expected that review committee attendance will be less equally distributed relative to population than is governing body attendance.

Hypothesis 1-8: The percentage of core counties with a ratio of advantage of review committee attendance relative to population greater than one (over-represented) will be higher than the percentage of core counties with a ratio of advantage of governing body attendance relative to population greater than one; conversely, the percentage of non-adjacent counties with a ratio of advantage of review committee attendance relative to population greater than one will be less than the percentage of non-adjacent counties with a ratio of advantage of governing body attendance relative to population greater than one.

Table 6-17 also shows strong support for hypothesis 1-8, that review committee attendance tends to be more concentrated in core counties than does governing body attendance. 75 percent of the core counties were "over-represented" in review committee attendance, compared with 50.0 percent of the governing body core counties. However, only one-third of the review committee adjacent counties were "over-represented" in attendance, compared with 64.7 percent of the governing body adjacent counties. Similarly, 26.7 percent of the review committee non-adjacent counties were "under-represented", less than the 44.0 percent of the governing body non-adjacent counties. Additional evidence may be found in the comparative percentages of unrepresented counties which were higher respectively for adjacent and non-adjacent counties in review committees, than governing bodies.

The coefficient of concentration, as introduced in Chapter V, is an aggregate or areawide indicator of concentration of attendance relative to population.

Hypothesis 1-9: The coefficient of concentration of attendance relative to population will tend to be greater than the coefficient of concentration of membership relative to population for both governing bodies and review committees; however, the difference will tend to be greater for review committees than for governing bodies.

The data from Table 6-18 support hypothesis 1-9, that attendance will tend to be more concentrated than membership in both the governing bodies and review committees, as found in four of six governing bodies and seven of nine review committees. The mean difference in coefficients of concentration of membership and attendance was twice as large for review committees than for governing bodies. The mean coefficients of concentration with and without non-adjacent counties observed in Table 6-18 are consistent with the observations of Table 6-16 and

Table 6-18. Coefficients of Concentration of Membership and Attendance for Selected[a] Governing Bodies and Review Committees

	No. of Counties	Coefficients of Concentration		Difference in Coeff. of Conc. Col. 1 - Col. 2	Mean Difference
		Membership: Population Col. 1 mean	Attendance: Population Col. 2 mean		
Governing Body					
without	3	0.133	0.152	0.019	
non-adjacent	3	0.253	0.245	-0.008	
counties	n=2	0.386 0.193	0.399 0.199	0.011	0.006
with	5	0.138	0.191	0.053	
non-adjacent	12	0.209	0.164	-0.045	
counties	14	0.135	0.148	0.013	
	18	0.143	0.288	0.145	
	n=4	0.625 0.156	0.791 0.198	0.166	0.042
	n=6				0.030
Review Committee					
without	1	0.0	0.0	0	
non-adjacent	2	0.061	0.102	0.041	
counties	2	0.131	0.185	0.054	
	3	0.042	0.046	0.004	
	3	0.148	0.135	-0.013	
	n=4[b]	0.382 0.096[b]	0.438 0.117[b]	0.086	0.022[b]
with	4	0.315	0.431	0.116	
non-adjacent	5	0.273	0.338	0.065	
counties	5	0.365	0.349	-0.016	
	9	0.216	0.323	0.107	
	14	0.282	0.379	0.097	
	n=5	1.451 0.290	1.820 0.364	0.477	0.095
	n=9[b]				0.063[b]

[a]See Table 6-15 for basis of selection.

[b]One-county committee not included in calculation of mean.

6-17. With governing body core counties "under-represented" while adjacent and non-adjacent counties slightly "over-represented" in membership, one would expect governing bodies with non-adjacent counties to be less concentrated in membership relative to population (0.156) than those without non-adjacent counties (0.193). With a more even distribution among core, adjacent and non-adjacent counties being "over-" and "under-represented" in governing body attendance, it is not surprising to find less difference in mean coefficients of concentration of attendance relative to population among those governing bodies without non-adjacent counties (0.199) and those with non-adjacent counties (0.198). In contrast, the high percentage of core counties "over-represented" in review committee membership and attendance, combined with the tendency for adjacent and non-adjacent counties to be "under-represented" in both membership and attendance is reflected in greater differences in the mean coefficients of concentration of review committees with and without non-adjacent counties, both for membership and attendance relative to population.

b. Provision for Alternates and Who Participates

An interest group may be left unrepresented if its consumer or provider representative is unable to attend a particular meeting. A provision allowing a designated alternate to represent an absent member was implemented in two CHP areas to help avoid this problem, and to insure a quorum present for meetings. However, differential transaction costs may be faced in arranging for an alternate to represent an absent member. The general proposition that such a provision for alternates may benefit providers more than consumers, and those traveling

less distance more than those with greater distance will be analyzed by testing two hypotheses.

Hypothesis 1-10: Differential participation by alternates is associated with county location. In terms of alternate attendance as a percentage of alternate membership[6], participation by alternates from non-adjacent counties will be less than that by alternates from adjacent counties, which will tend to be less than that by alternates from core counties in governing bodies and review committees.

Hypothesis 1-11: In terms of attendance as percentage of alternate membership[6], participation by consumer alternates will be less than that by provider alternates within each county location category in governing bodies and in review committees.

Data obtained from one review committee and two governing bodies in the two CHP areas having a provision for alternate participation tends to support these hypotheses. Comparisons of the three are summarized in Table 6-19 which shows that alternate participation decreased as spatial distance increased from core to adjacent to non-adjacent counties, and participation by consumer alternates was less than that by provider alternates.

This tendency for the alternate provision to favor representation by providers and from those counties closest to the meeting location had little apparent impact on shares of meeting attendance held by the respective groups of counties, as shown by Table 6-20. In two cases, attendance by members plus alternates was slightly more concentrated

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[6]Since a designated alternate may be seated only when the member is absent, alternate "membership" is the number of meetings missed by members. For example, a 10-member committee which meets monthly would have a membership base of 120 for the year. If its attendance had been 90, its participation rate would have been 75 percent. Similarly, the number of meetings missed would have been 30, which would have been the maximum "membership" base for the alternates. If alternates had attended a total of 20 of the 30 possible, alternate attendance as a percentage of "membership" would have been 66.7 percent.

Table 6-19. Alternate Participation[a] by County Location and by Type of Representative

	CHP 6 Review Committee	CHP 6 Governing Body	CHP 1 Governing Body
County Location			
Core	24.5%	33.2%	35.3%
Adjacent	0 %	13.0%	25.0%
Non-adjacent	-	-	20.0%
Type of Representative			
Consumer	12.5%	20.3%	29.4%
Provider	22.6%	39.2%	30.6%

[a]Participation as measured by number of meetings attended by alternates as percentage of number of meetings missed by members.

Source: Appendix Table B-4.

relative to population than was membership by members only, and in one case it was less concentrated than either attendance by members only or membership relative to population. In each case however, the core county gained in share of attendance at the expense of the other counties.

c. Summary of Major Findings Relating Rules to Differential Participation by Members

Given the composition of review committee membership by county location and by type of representative, review committee participation by these various categories of members was thought to be affected differently by the number of counties represented by the committee, by whether or not the meeting locations were rotated among these counties, and by whether or not an alternate may represent an absent member.

Table 6-20. Shares of Area Population, Membership and Meeting Attendance for CHP Areas Allowing Alternates by County Location

	CHP 6 Review Committee			CHP 6 Governing Body			CHP 1 Governing Body Core			
	Core	Adjacent	Total	Core	Adjacent	Total	Core	Adjacent	Non-Adj.	Total
Population	68.3%	31.7%	100.0%	68.3%	31.7%	100.0%	54.3%	41.5%	4.2%	100.0%
Membership	83.0	17.0	100.0	78.0	22.0	100.0	51.4	43.9	4.7	100.0
Meetings attended by member	81.5	18.5	100.0	80.0	20.0	100.0	49.3	47.0	3.7	100.0
Meetings attended by member plus alternate	82.9	17.1	100.0	81.8	18.2	100.0	53.9	42.7	3.4	100.0
Coefficient of concentration membership: population			0.15			0.10				0.29
Membership attendance: population			0.13			0.12				0.06
Member and alternate attendance: population			0.15			0.14				0.01

Three categories of counties were defined based on the county's location with respect to the location of the meeting of the review committee (or the governing body for analysis of governing body participation). A core county is the one in which the meeting is held; an adjacent county is one which has all or part of its boundary, other than a corner, common with the boundary of the core county; and a non-adjacent county is one which has no part of its boundary, other than a corner, common with the county where the meeting is located.

A county's likelihood of being a core, adjacent, or non-adjacent county is affected by the number of counties represented, and by whether meetings are rotated among participating counties. In separate analyses of seventeen review committees and ten governing bodies which did not rotate meeting location, as the number of counties represented increased, the number of core counties as percent of total decreased, and the number of non-adjacent counties as percent of total increased. Examination of two review committees which rotated meeting location among the counties found that the higher the percentage of all meetings rotated equally among all counties in the sub-unit, the more equal the distribution of counties by core, adjacent, and non-adjacent with respect to the particular locations of the meetings.

Building upon this evidence that the distribution of counties among core, adjacent and non-adjacent categories is affected by the number of counties represented, and by rotating the meeting location among counties, the analysis then turned to the question of whether or not spatial distance as indicated by county location is related to differential participation by members.

It was observed that county location tended to be associated with differential participation by members of review committees. Participation as measured by meeting attendance as percentage of membership, was highest for core county members and decreased as spatial distance increased to adjacent and non-adjacent counties. Within each county location category, participation by consumer representatives was less than that by provider representatives. These results of differential participation by members of ten review committees were corraborated by analyses of participation by members of ten governing bodies.

The result of this differential participation is that relative to their share of area or sub-unit membership, core counties tended to have a greater share of attendance, while adjacent counties to some extent and non-adjacent counties to much greater extent tended to have a diminished share of attendance. This would provide an advantage to core counties, even if membership were distributed equally among counties relative to population.

However, membership on review committees was found to be more unevenly distributed among counties than was governing body membership. Three-fourths of the review committee core counties were "over-represented" in membership relative to population, and two-thirds of the review committee non-adjacent counties were either "under-represented" or unrepresented in review committee membership.

This concentration of review committee membership in core, and to some extent, in adjacent counties, combined with the increase in erosion of member participation as spatial distance increased from core to adjacent to non-adjacent counties, resulted in an unequal distribution of review committee attendance. Seventy-five percent of core counties

were "over-represented" in review committee attendance relative to population, compared with one-third of the adjacent counties, and about one-fourth of the non-adjacent counties. Furthermore, nearly one-half of the non-adjacent counties were unrepresented in review committee attendance.

Analysis of a provision allowing an alternate to represent an absent member found that alternate participation decreased as spatial distance increased from core to adjacent to non-adjacent counties, and that participation by consumer alternates was less than that by provider alternates. While such differences in participation did not signficantly affect the relative shares of attendance by counties, in each case the small change was in fact in favor of the core county at the expense of the other counties.

Counties for which review committee attendance data were obtained were divided into four groups[7] based on their share of review committee attendance. Table 6-21 shows that nearly four-fifths of the fourteen core counties and none of the adjacent or non-adjacent counties had a majority share of attendance. The remaining forty-seven counties with minority share of attendance were divided equally into three groups, which ranged from twelve to forty-nine percent of attendance, four to eleven percent, and three percent or less. Forty-one percent of the 27 adjacent counties had from twelve to forty-nine percent of the attendance and another forty-one percent had from four to eleven percent. In contrast, fifty-nine percent of the 17 non-adjacent counties claimed only three percent or less of the review committee attendance.

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[7]These four groups will be utilized to analyze relations between committee member participation in the review transactions and review decision performance in Section C.2 of this chapter.

Table 6-21. Distribution of Counties[a] by Share of Review Committee Attendance by County Location

County's Share of Review Committee Attendance	County Location						Row Totals
	Core		Adjacent		Non-Adjacent		
	No.	Pct.	No.	Pct.	No.	Pct.	
≥ 50%	11	78.6	--	--	--	--	11
12 - 49%	3	21.4	11	40.7	2	11.8	16
4 - 11%	--	--	11	40.7	5	29.4	16
3% or less	--	--	5	18.5	10	58.8	15
Column Totals	14	100.0	27	99.9	17	100.0	58

[a]Counties omitted are those 25 counties in the three CHP areas for which review committee attendance data were not collected.

2. Which project applicants participate when?

It was proposed in the theoretical rationale underlying the hypotheses in Chapter 4 (A.2.a. and b.) that an applicant's project is more likely to be considered with reference to a similar project if (a) the project is subject to a budget constraint faced by the review body, and (b) the review committee represents a larger rather than smaller population.

This general proposition will be examined by testing two specific hypotheses.

Hypothesis 2-1: The percentage of projects subject to a budget constraint which are considered with reference to a similar project will tend to be higher than the percentage of projects not subject to a budget constraint which are considered with reference to a similar project.

Hypothesis 2-2: The number of projects considered will have a high positive correlation with size of population represented; controlling for whether subject or not subject to a budget constraint, the percentage of projects considered with reference to a similar project will

have a high positive correlation with the number of projects considered.

Hypothesis 2-1 received qualified support when examining acute care and nursing home projects separately. As shown by Table 6-22, within either type of facility, the percentage of projects considered with reference to a similar project was higher for those subject to a budget constraint than for those not subject. Within the category of projects not subject to a budget constraint, however, the percentage of projects considered with reference to a similar project was lower for non-bed projects than for bed projects involving no addition to bed number. Stronger association between degree of review authority and applicant participation (whether applicants project is considered with or without reference to a similar project) was found for acute care than for nursing homes, with phi coefficients of 0.36, and 0.15, respectively.

Similar findings were observed when examining the structure of applicant participation within each of the nineteen review committees. Table 6-23 shows that the hypothesis had more support among acute care projects than among nursing home projects. It was also supported more strongly for non-bed projects than for bed projects not subject to a budget constraint.

An interaction between type of facility and differences in projects not subject to a budget constraint may explain both why the hypothesis had more support among acute care projects than nursing home projects, and why a lower percentage of non-bed projects were considered with reference to a similar project. First, some non-bed projects were unique in that a review committee might receive only one proposal for a linear accelerator, for example, which would thus be considered without

Table 6-22. Percentage of Projects Considered with Reference to Similar Project by Review Authority and by Type of Facility

Review Authority	Acute Care			Nursing Home		
	Percent	Ratio	No. of Projects	Percent	Ratio	No. of Projects
Project subject to budget constraint	72.7%		22	87.4%		111
Project not subject to budget constraint						
bed-no additions	64.0	1.1[a]	25	84.6	1.03[a]	13
non-bed	31.0	2.0[b]	84	60.0	1.4[b]	5
Subtotal not subject	38.5	1.9[c]	109	77.8	1.1[c]	18

[a]Ratio of row 1 percentage to row 2 percentage.

[b]Ratio of row 1 percentage to row 3 percentage.

[c]Ratio of row 1 percentage to row 4 percentage.

Table 6-23. Comparisons of Percentages of Projects Considered With Reference to Similar Project by Review Authority Within Review Committees by Type of Facility

Number of review committees	Type of Facility: Acute Care	Type of Facility: Nursing Home
considering projects subject to a budget constraint and bed projects not subject		
where percentage of projects considered with reference to similar project for those subject to budget constraint		
was < percentage for bed projects not subject	1[a]	4[a]
was > percentage for bed projects not subject	1[b]	1[b]
was equal to percentage of bed projects not subject	6	4
considering projects subject to budget constraint and non-bed projects not subject		
where percentage of projects considered with reference to similar project for those subject to budget constraint		
was < percentage for non-bed projects not subject	2[a]	0
was > percentage for non-bed projects not subject	5[b]	1[b]
was equal to percentage for non-bed projects not subject	4	1

[a]hypothesis rejected

[b]hypothesis supported

reference to a similar project. Second, even though the first priority for containing excess beds is given to "new construction, additions to existing facilities, or conversion of existing buildings or institutions" (LPER Unit, 1974, p. 5), applicants proposing bed projects involving no additional beds may tend to submit their application early rather than late. Such action might guard against their projects being vulnerable should a review committee exceed the budget constraint with approvals of too many additional beds in early reviews, and attempt in subsequent reviews to get even with the authorized bed number by disapproving a few bed projects that do not involve new beds of additions to existing ones. Table 6-22 shows that a high proportion of acute care projects not subject to a budget constraint were non-bed projects while a low proportion of the nursing home projects not subject were non-bed projects.

Findings were mixed concerning the test of hypothesis 2-2 relating size of population represented by the review committee with the tendency for an applicant's project to be considered with reference to a similar project. Figure 6-1 shows that the number of acute care and nursing home projects each did increase as size of population represented by the committee increased. However, the percentage of projects considered with reference to a similar project appeared to have little association with the number of projects, particularly for acute care, as graphed in Figures 6-2 and 6-3. It should be noted that several review committees having fewer projects met less frequently (from one to seven times) while other committees met more often (from nine to eighteen times) during the fifteen month observation period. It seems plausible that given the same number of projects a committee meeting less frequently would have a higher

Figure 6-1. Number of Acute Care and Nursing Home Projects by Size of Population Represented by Review Committee

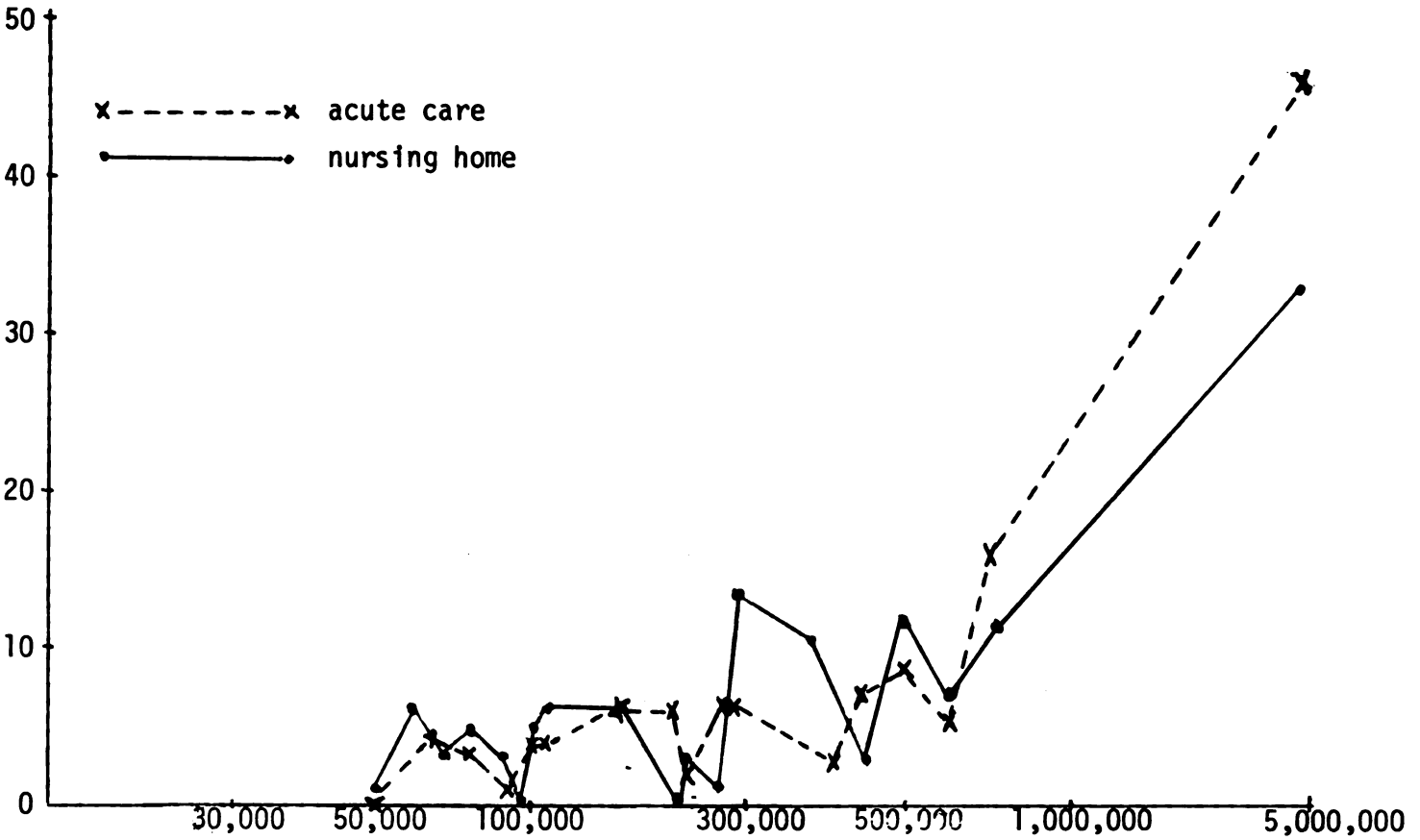
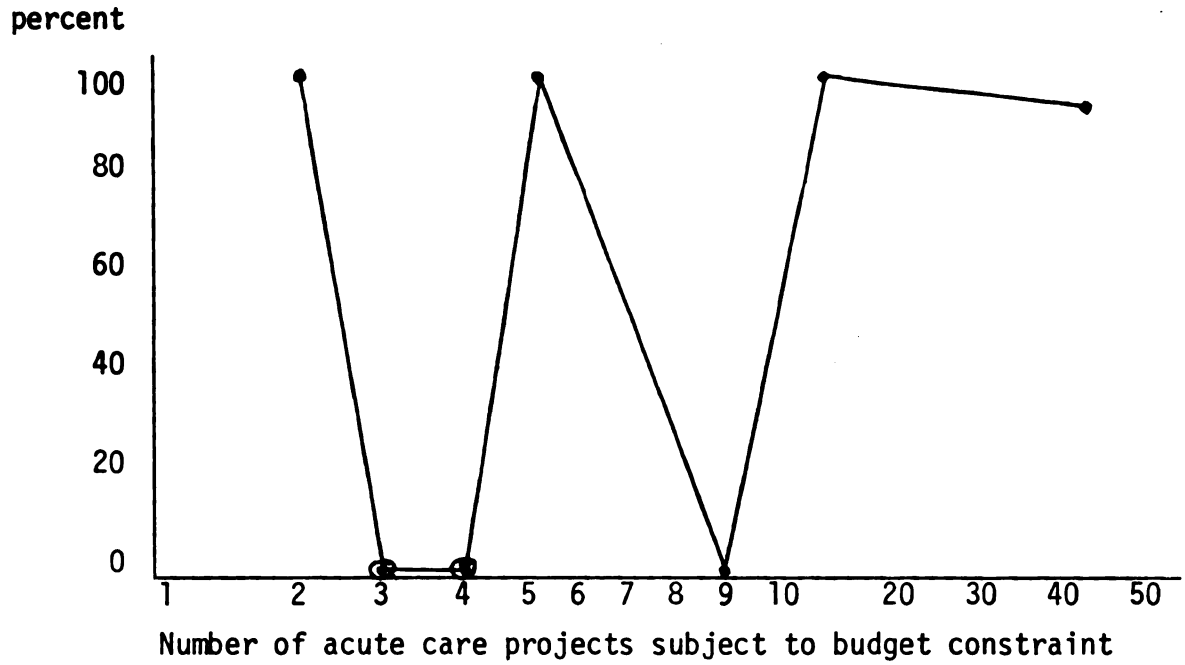


Figure 6-2. Percentage of Acute Care and Nursing Home Projects Subject to Budget Constraint that were Considered with Reference to Similar Project



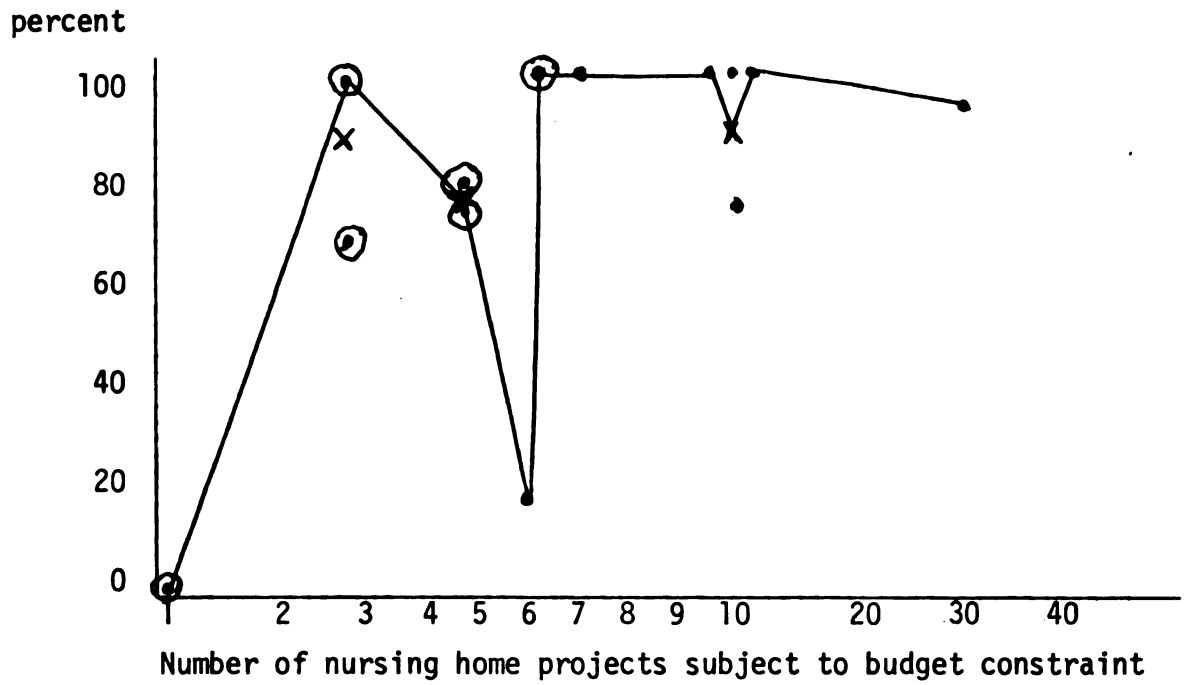
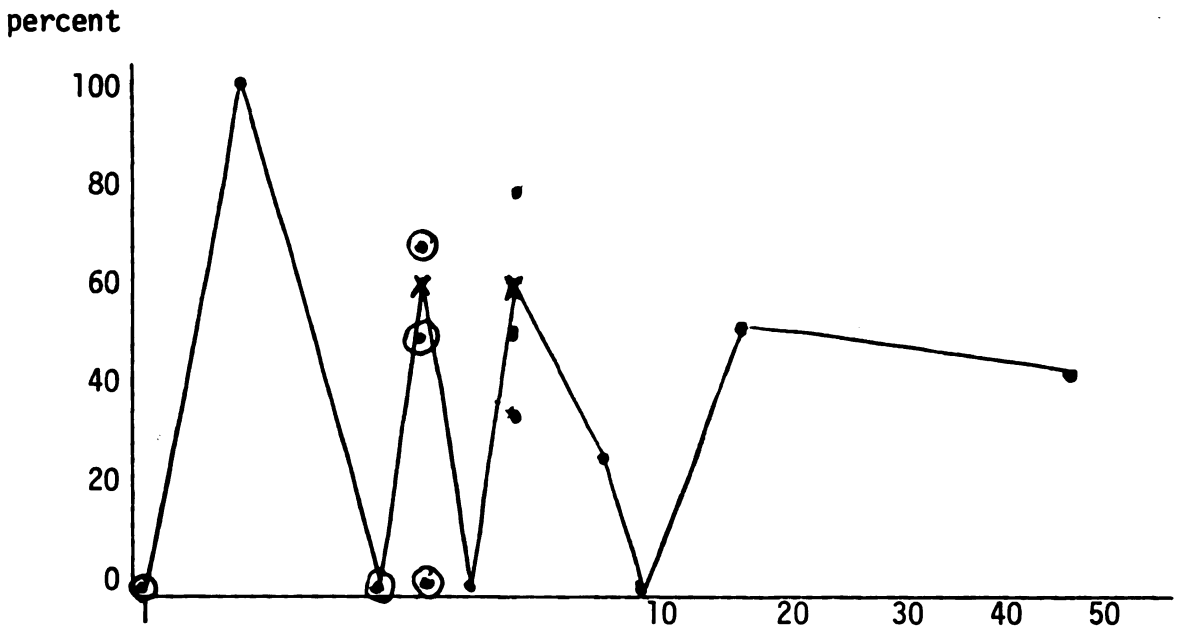
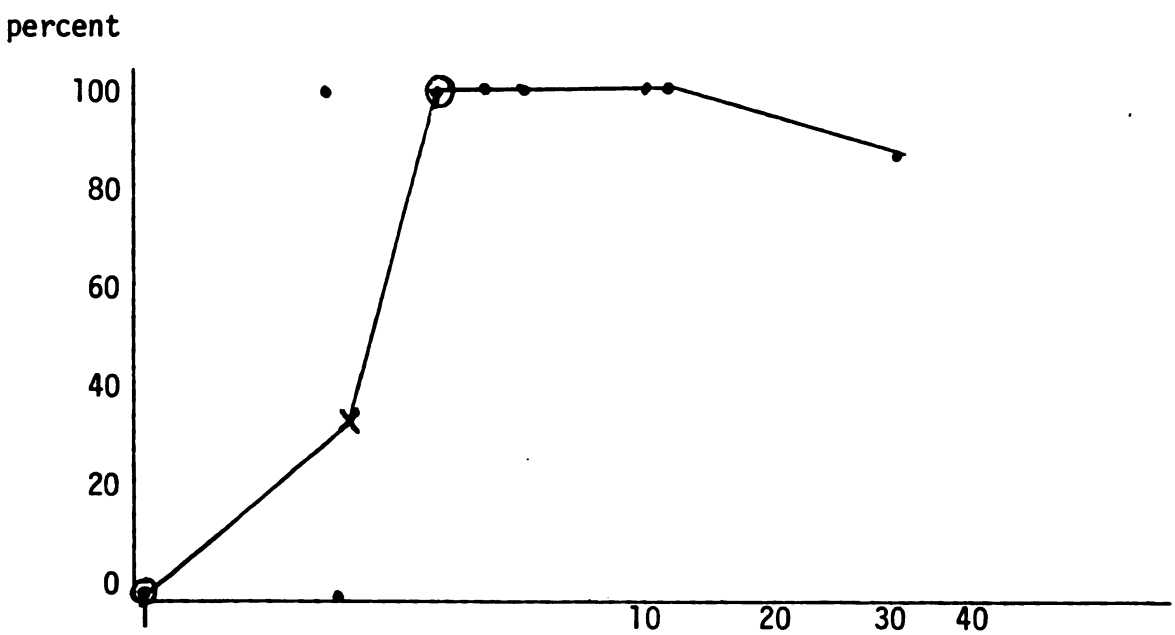


Figure 6-3. Percentage of Acute Care and Nursing Home Projects not Subject to Budget Constraint that were Considered with Reference to Similar Project





percentage of its projects considered with reference to a similar project than would a committee meeting more often. The percentages for those committees meeting less frequently are circled in Figure 6-2 and 6-3.

It was also suggested in Chapter 4 (A.2.c.) that an applicant's tendency to pursue his project proposal through the application stage to committee review is related to spatial distance from the CHP staff. Three specific hypotheses were tested to analyze this suggestion.

Hypothesis 2-3: The number of project applications as percent of letters of intent will tend to be highest from core counties, lower from adjacent counties, and lowest from non-adjacent counties.

This hypothesis is weakly supported by the data in Table 6-24, which shows in the aggregate for all areas a higher percentage of letters of intent reaching formal application in core counties. For both the acute care and nursing home categories, the percentage declines from core to adjacent to non-adjacent counties. An examination of thirty-one comparisons between county location categories within CHP areas, however, found the hypothesis supported in ten, rejected in ten and no differences in percentages in eleven comparisons.

Another indicator for testing this proposition is the percentage of letters of intent withdrawn prior to review. This percentage includes applications which were withdrawn prior to committee review.

Hypothesis 2-4: The percentage of letters of intent withdrawn will tend to be lowest from the core counties, higher from the adjacent counties, and highest from non-adjacent counties.

This hypothesis received stronger support, particularly among the nursing home category. Table 6-25 shows, as hypothesized, that the percentage of projects withdrawn was lowest for core counties, higher for adjacent and highest for non-adjacent counties. The thirty-one

Table 6-24. Percentage of Project Letters of Intent Proceeding to Formal Application

CHP Area	Acute Care				Nursing Home			
	Core	Adjacent	Non-Adjacent	No. of Projects	Core	Adjacent	Non-Adjacent	No. of Projects
All Areas	97.0	96.0	92.9	131	80.7	72.9	66.7	129
1	100	95	100	44	76.2	77.8	50	32
2	100	100		6	100	[a]		1
3	100	100	100	9	75	75	[a]	12
4	80	100		6	75	76		13
5	100	100		6	100	66.7		7
6	100	[a]		3	100	33.3		11
7	100	80	100	16	0	100	60	12
8	100	100	100	20	66.7	50	50	9
9	83.3	100	66.7	10	80	60	80	15
10	100	100	100	11	83.3	100	100	17

[a]No letters of intent.

Table 6-25. Percentage of Project Letters of Intent Withdrawn Prior to CHP Area Review

CHP Area	Acute Care				Nursing Home			
	Core	Adjacent	Non-Adjacent	No. of Projects	Core	Adjacent	Non-Adjacent	No. of Projects
All Areas	4.5	14.3	22.2		24.6	39.6	50.0	
1	4.8	15	33.3	44	38.1	66.7	100	32
2	0	0		6	0	[a]		1
3	0	0	0	9	25	25		12
4	20	0		6	25	33.3	[a]	13
5	0	0		6	0	66.7		7
6	0	[a]		3	0	66.7		11
7	0	20	0	16	100	0	50.0	12
8	0	0	0	20	33.3	100	75	9
9	16.7	0	33.3	10	20	40	40	15
10	0	0	0	11	16.7	0	0	17

[a]No letters of intent.

comparisons between county locations within CHP areas found thirteen supporting the hypothesis, five rejecting it, and eleven showing no difference in percentage of projects withdrawn.

Hypothesis 2-5 tests the relationship suggested between spatial distance to CHP staff and applicant participation in terms of project dollars requested per capita.

Hypothesis 2-5: Dollars requested per capita in letters of intent will tend to be highest in core counties, lower in adjacent counties, and lowest in non-adjacent counties.

This hypothesis received little support as shown by Table 2-26.

Table 6-26. Per Capita Distribution of Project Dollars Requested in Letters of Intent by Type of Facility and by County Location to CHP Staff

	Core Counties	Adjacent Counties	Non-adjacent Counties
Acute care	$18.48	$32.29	$14.14
Nursing home	11.07	11.77	30.94

Within CHP areas, the hypothesis was supported for acute care projects in only five of ten comparisons between core and adjacent counties and in four of six comparisons between adjacent and non-adjacent counties. It was supported for nursing home projects in seven of ten core to adjacent county comparisons, but in only two of six adjacent to non-adjacent county comparisons. Thus, the hypothesis was supported in only nine of sixteen comparisons each for acute care and nursing home projects.

The data generated to test this hypothesis also provide comparisons of dollars per capita requested by type of facility within each county location category. Considered with the aggregate figures shown in Table

6-26, dollars per capita requested for acute care projects exceeded the amount for nursing home projects for core counties in seven of the ten areas and for adjacent counties in six of the ten areas, but for non-adjacent in only two of the six areas with non-adjacent counties.

3. Summary of major findings relating rules to differential participation by applicants

Differential participation by project applicants in the project reivew transaction was thought to be associated with three categories of rules, specifying the degree of review authority, the size of population represented by the review committee, and the spatial distance from the applicant to the CHP staff.

A major finding was that an applicant's project was more likely to be considered with reference to a similar project if the project was subject to a budget constraint faced by the review committee than if it was not subject. However, little association was found between a project's tendency to be considered with reference to a similar project and the size of population represented by the review committee. Thus, enlarging the scale of the area or sub-unit does not appear to be an effective means for bringing about more competition between projects in the review process.

Weak evidence was found linking spatial distance with an applicant's tendency to persist in following the proposed project through to committee review. The percentage of letters of intent resulting in formal project applications declined slightly as spatial distance increased from core to adjacent to non-adjacent counties. Similarly, the percentage of letters of intent withdrawn prior to committee reivew increased from core to adjacent to non-adjacent counties. These tendencies are contradicted,

however, in that no association was found between county location to CHP staff and dollars per capita requested in letters of intent. These findings appear to be consistent with the findings in the earlier section of this chapter (B.2.a) that provider representatives are affected by increased spatial distance, but less so than consumer representatives, given their incentives to participate.

This summary has reported major findings from the analysis of hypothesized relationships between rules and different participation by project applicants in the review transaction. The analysis confirmed two variables to be maintained as components of applicant participation in the subsequent analysis of the relationship between participation in the review transaction and review decision performance. These are whether the applicant's project is considered with or without reference to a similar project, and whether the project was subject or not subject to a budget constraint.

C. Testing of Hypotheses Relating Participation in the Review Transaction to Review Decision Performance

The analysis now addresses the other basic question posed during the elaboration of the model of the project review process (Chapter III, D.1. and Chapter IV, A). Is review decision performance affected by different structures of participation by project applicants and committee members in the review transaction?

This question was broken down into separate components to isolate impacts of differential participation by members and by applicants. Since data were not obtained on committee member participation from three of the CHP areas, effects of alternative structures of applicant participation will be presented first, as data was available for the 260 review

decisions from all ten CHP areas. This will be followed by the impacts of alternative structures of committee member participation as recorded in 149 review transactions from the seven CHP areas for which review committee member participation data were obtained.

1. Applicant participation, review authority and rigor of review

A strong rationale was developed in Chapter IV (A.3) proposing that the structure of applicant participation in the review transaction affects what various participants (applicants and members) have to take into account in the review transaction, and thus has impacts on the rigor of reivew discipline exercised by the committee. It was argued that whether an applicant's project is subject or not subject to a budget constraint faced by the committee and whether the project is reviewed with or without reference to a similar project tend to condition differential opportunity sets of those participating in the review transaction such that differential rigor of review may be observed. These relationships are specified in hypotheses 3-1 through 3-4.

Hypothesis 3-1: Projects subject to a budget constraint and considered with reference to a similar project are likely to face the most rigorous review, as indicated by a high percentage of projects with project cost containment coefficients ranging from zero to less than one, and a low percentage of projects endorsed without substantive modification.

Hypothesis 3-2: Among projects subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review, than will those considered with reference to a similar project.

Hypothesis 3-3: Among projects not subject to a budget constraint, those considered without reference to a similar project will tend to face a less rigorous review, than will those considered with reference to a similar project.

Hypothesis 3-4: Projects not subject to a budget constraint and considered without reference to a similar project are likely

> to face the least rigorous review, as indicated by a high percentage of projects with project cost containment coefficients greater than or equal to one, and a high percentage of projects endorsed without substantive modification.

These hypotheses were tested by cross-tabulation analysis to compare a combined category of review authority and applicant participation with project cost containment coefficients. A similar set of cross-tabulations compared review authority and applicant participation with review determination (percentage of projects endorsed vs. percentage withdrawn, not endorsed or modified prior to endorsement). An example of the results of such analyses are presented in Table 6-27, showing the distribution by project cost containment coefficient ranges, numbers of projects considered and percentage of projects endorsed without substantive modification for all projects considered by the CHP area review process.

The aggregate data from Table 6-27 support the hypotheses that review authority and applicant participation are associated with rigor of review, as measured by the project cost containment coefficient and the percentage of projects endorsed. The strength of association between two variables is indicated by the Cramers V statistic,[8] which for project cost containment coefficient is 0.28, and for the percentage of projects endorsed is 0.49.

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[8]Two descriptive statistics, phi and Cramer's V, provide useful measures of the strength of relationship between variables presented in cross-tabular form. The phi statistic is a suitable measure of association for 2 x 2 tables, and Cramer's V is a slightly modified version of phi which is suitable for larger tables. Phi adjusts the value of chi-square by the number of cases N. and Cramer's V adjusts phi for the number of rows or the number of columns in the table, depending on which of the two is smaller. Each ranges in value from 0 when no relationship eixsts to +1 when the variables are perfectly related. (Nie, 1975, pp. 224-25)

Table 6-27. Distribution of All Projects by Review Authority and by Applicant Participation by Project Cost Containment Coefficient and By Percentage Endorsed

Review Authority and Applicant Participation	Project Cost Containment Coefficient					No. of Projects	Percentage Endorsed[a]
	Zero	0.001-0.999	1.0	> 1.0			
Projects subject to budget constraint							
considered with reference to similar project	57.5	8.8	21.2	12.4		113	42.4
considered without reference to similar project	30.0	5.0	35.0	30.0		20	60.0
Projects not subject to budget constraint							
considered with reference to similar project	17.9	7.1	46.4	28.6		56	80.4
considered without reference to similar project	11.3	8.5	62.0	18.3		71	95.8
						260	
Cramer's V					0.28		0.49

[a]Percentage endorsed without substantive modification.

Subsequent analyses incorporated selection control (Chapter V, A.) for county location to governing body, for type of facility, for county location to governing body within each type of facility, and to select out non-bed projects from comparisons between projects subject and not subject to a budget constraint. These twenty-four sets of comparisons were made for the entire state, for the CHP area of Southeastern Michigan around Detroit which had 76 of the state's 260 projects, and for the balance of the state.

The results in all these comparisons supported the hypotheses. Table 6-28 shows the percentage of projects endorsed by alternative reviee authority and applicant participation for the twenty-four comparisons made for all CHP areas and for the balance of state without the Southeastern Michigan area. The effects of review authority and applicant participation on project cost containment coefficients (and on percentage of projects endorsed) are shown for five selected comparisons of bed projects in all CHP areas by type of facility in Table 6-29, and by county location in Table 6-30, to further illustrate the strength of support found for these hypotheses.

Selection control helps to counter a rival hypothesis that the observed differences are due to non-equivalent projects rather than due to the differences in review authority and in applicant participation. Such a rival explanation is less credible since the comparisons of bed projects within each type of facility supported the stated hypotheses as did the comparisons which included both bed and non-bed projects. Review

Table 6-28. Percentage of Projects Endorsed by Alternative Review Authority and Applicant Participation by Type of Facility and County Location for All Projects and Bed Projects for All CHP Areas and Balance of State without CHP Area 1

Type of Facility & County Location	Percentage Endorsed--All Projects						Percentage Endorsed--Bed Projects					
	Rev. Auth. & Applic. Participation				No. of Projects	Cramer's V	Rev. Auth. & Applic. Participation				No. of Projects	Cramer's V
	1[a]	2[b]	3[c]	4[d]			1[a]	2[b]	3[c]	4[d]		
All CHP Areas												
Acute Care and Nursing Home	42.5	60.0	80.4	95.8	260	0.49	42.5	60.0	74.1	100.0	171	0.34
Core counties	37.5	50.0	81.5	94.7	111	0.55	37.5	50.0	75.0	100.0	65	0.44
Adjacent counties	40.0	66.7	75.0	96.3	96	0.50	40.0	66.7	70.0	100.0	62	0.34
Non-adjacent Cos.	51.5	60.0	88.9	100.0	53	0.39	51.5	60.0	80.0	100.0	44	0.23
Acute Care	62.5	83.3	83.3	95.5	131	0.32	62.5	83.3	75.0	100.0	47	0.32
Core counties	66.7	100.0	85.0	94.1	61	0.26	66.7	100.0	75.0	100.0	20	0.34
Adjacent counties	40.0	100.0	80.0	96.3	50	0.49	40.0	100.0	80.0	100.0	16	0.58
Non-adjacent Cos.	80.0	50.0	85.7	100.0	20	0.39	80.0	50.0	66.7	100.0	11	0.31
Nursing Home	39.2	50.0	71.4	100.0	129	0.28	39.2	50.0	72.7	100.0	124	0.24
Core counties	32.4	40.0	71.4	100.0	50	0.43	32.4	40.0	75.0	100.0	45	0.36
Adjacent counties	40.0	50.0	60.0	--	46	0.13	40.0	50.0	60.0	--	46	0.13
Non-adjacent Cos.	46.4	66.7	100.0	--	33	0.27	46.4	66.7	100.0	--	33	0.27
Balance of State without CHP 1												
Acute Care and Nursing Home	47.5	61.1	83.3	96.0	184	0.47	47.5	61.1	85.7	100.0	127	0.36
Core counties	35.0	60.0	88.2	96.3	69	0.60	35.0	60.0	88.9	100.0	39	0.54
Adjacent counties	48.4	62.5	70.0	94.4	67	0.40	48.4	62.5	85.7	100.0	48	0.32
Non-adjacent Cos.	55.2	60.0	88.9	100.0	48	0.36	55.2	60.0	80.0	100.0	40	0.21

Table 6-28. (continued)

Type of Facility & County Location	Percentage Endorsed--All Projects						Percentage Endorsed--Bed Projects					
	Rev. Auth. & Applic. Participation				No. of Projects	Cramer's V	Rev. Auth. & Applic. Participation				No. of Projects	Cramer's V
	1[a]	2[b]	3[c]	4[d]			1[a]	2[b]	3[c]	4[d]		
Acute Care	85.7	80.0	82.1	95.7	87	0.22	85.7	80.0	84.6	100.0	31	0.20
Core counties	100.0	100.0	85.7	95.8	40	0.19	100.0	100.0	83.3	100.0	11	0.28
Adjacent counties	66.7	100.0	71.4	94.4	30	0.35	66.7	100.0	100.0	100.0	11	0.51
Non-adjacent Cos.	100.0	50.0	85.7	100.0	17	0.48	100.0	50.0	66.7	100.0	9	0.50
Nursing Homes	43.8	53.8	87.5	100.0	97	0.30	43.8	53.8	87.5	100.0	96	0.28
Core counties	31.6	50.0	100.0	100.0	29	0.54	31.6	50.0	100.0	100.0	28	0.52
Adjacent counties	46.4	50.0	66.7	--	37	0.11	46.4	50.0	66.7	--	37	0.11
Non-adjacent Cos.	50.0	66.7	100.0	--	31	0.26	50.0	66.7	100.0	--	31	0.26

[a]Projects subject to budget constraint, considered with reference to similar project.

[b]Projects subject to budget constraint, considered without reference to similar project.

[c]Projects not subject to budget constraint, considered with reference to similar project.

[d]Projects not subject to budget constraint, considered without reference to similar project.

Table 6-29. Distribution of Bed Projects by Review Authority and by Applicant Participation by Type of Facility by Project Cost Containment Coefficient and by Percentage Endorsed

Review Authority and Applicant Participation	Type of Facility	Project Cost Containment Coefficient					No. of Projects	Percentage Endorsed[a]
		Zero	0.001-0.999	1.0	> 1.0			
	Acute Care							
Subject, w/ref to similar[b]		37.5	6.3	18.8	37.5		16	62.5
Subject, w/o ref to similar[c]		16.7	0.0	0.0	83.3		6	83.3
Not subject, w/ref to similar[d]		31.3	6.3	12.5	50.0		16	75.0
Not subject, w/o ref to similar[e]		11.1	0.0	44.4	44.4		9	100.0
							47	
Cramer's V						0.26		0.32
	Nursing Homes							
Subject, w/ref to similar[b]		60.8	9.3	21.6	8.2		97	39.2
Subject, w/o ref to similar[c]		35.7	7.1	50.0	7.1		14	50.0
Not subject, w/ref to similar[d]		18.2	0.0	72.7	9.1		11	72.7
Not subject, w/o ref to similar[e]		0.0	0.0	50.0	50.0		2	100.0
							124	
Cramer's V						0.24		0.24

[a]Percentage endorsed without substantive modification.

[b]Projects subject to budget constraint, considered with reference to similar project.

[c]Projects subject to budget constraint, considered without reference to similar project.

[d]Projects not subject to budget constraint, considered with reference to similar project.

[e]Projects not subject to budget constraint, considered without reference to similar project.

Table 6-30. Distribution of Bed Projects by Review Authority and By Applicant Participation by County Location by Project Cost Containment Coefficient and by Percentage Endorsed

Review Authority and Applicant Participation	Project cost containment coefficient					No. of Projects	Percentage Endorsed[a]	
	Zero	0.001-0.999	1.0	> 1.0				
Core Counties								
subject, w/ref to similar[b]	60.0	15.0	20.0	5.0		40	37.5	
subject, w/o ref to similar[c]	50.0	0.0	33.0	16.7		6	50.0	
not subj, w/ref to similar[d]	33.3	0.0	33.3	33.3		12	75.0	
not subj, w/o ref to similar[e]	14.3	0.0	28.6	57.1		7	100.0	
						65		
Cramer's V					0.32			0.44
Adjacent Counties								
subject, w/ref to similar	57.5	5.0	25.0	12.5		40	40.0	
subject, w/o ref to similar	11.1	11.1	44.4	33.3		9	66.7	
not subj, w/ref to similar	20.0	10.0	30.0	40.0		10	70.0	
not subj, w/o ref to similar	0.0	0.0	66.7	33.3		3	100.0	
						62		
Cramer's V					0.27			0.34
Non-adjacent Counties								
subject, w/ref to similar	54.5	6.1	18.2	21.2		33	51.5	
subject, w/o ref to similar	40.0	0.0	20.0	40.0		5	60.0	
not subj, w/ref to similar	20.0	0.0	60.0	20.0		5	80.0	
not subj, w/o ref to similar	0.0	0.0	100.0	0.0		1	100.0	
						44		
Cramer's V					0.26			0.23

[a]Percentage endorsed without substantive modification.
[b]Projects subject to budget constraint, considered with reference to similar project.
[c]Projects subject to budget constraint, considered without reference to similar project.
[d]Projects not subject to budget constraint, considered with reference to similar project.
[e]Projects not subject to budget constraint, considered without reference to similar project.

decisions on scanner projects[9] provide a unique opportunity for testing the hypothesized relationship between review authority and rigor of review with data from a small number of equivalent projects. As introduced in the discussion of the data base in Chapter V, scanner projects came under three levels of review authority. Four scanner projects were reviewed prior to the implementation of state program guidelines for scanners effective August 27, 1975; eighteen scanners projects faced the review process under those guidelines prior to the issuance of relaxed guidelines on May 10, 1976, after which fourteen more were reviewed through August 1976.[10]

Further evidence of association betw-en review authority and rigor of review is presented in Table 6-31. Comparison of decisions of scanners reviewed prior to and following the implementation of state program guidelines in August 1975 indicate a more rigorous review for projects subject to a budget constraint than for those not subject, as hypothesized.

2. Member participation, application participation, and rigor of review

The foregoing discussion has analyzed the impacts of alternative applicant participation under different review authority on rigor of review, without considering which members participated in the review tranaction. Data on member participation by consumer and provider representatives and by county's percentage share of meeting attendance will now be brought into the analysis to investigate

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[9]The Computerized Axial Tomographic (CAT) scanner can take cross-sectional pictures of the brain or full body with significant reduction of risk to the patient. Purchase prices ranged from $400,000 to $600,000 in 1976.

[10]These 36 scanner projects were not included among the acute care projects in the 260 review transactions previously analyzed.

Table 6-31. Distribution of Scanner Projects by Review Authority by Project Cost Containment Coefficient and by Percentage Endorsed by CHP Area Agencies

Review Authority	Project Cost Containment Coefficient				No. of Projects	Percentage Endorsed
	Zero	0.001-0.999	1.0	>1.0		
Scanners not subject to budget constraint of August 27, 1975	0	0	75%	25%	4	100%
Scanners subject to budget constraint of August 27, 1975 prior to May 10, 1975	33.3	16.7	22.2	27.8	18	66.7%
Scanners subject to relaxed constraint of May 10, 1976	50	14.3	7.1	28.6	14	50%

whether the relationships found between applicant participation under alternative review authority and rigor of review are affected by alternative structures of member participation in the review transaction.

The rationale developed in Chapter IV (A.4.) suggested, first that rigor of review faced by an applicant's project might vary with the county's percentage share of meeting attendance and with the mix of consumer and provider representatives participating, and second, that these relationships between structure of member participation and rigor of review might differ with various combinations of review authority and applicant participation which are thought to affect the likelihood of having information critical of the project generated during the review transaction. Two contrasting combinations were discussed in Chapter IV (A.4.) as a basis for two hypotheses relating alternative member participation with rigor of review.

Hypothesis 4-1: For projects not subject to a budget constraint and considered without reference to a similar project, review will tend to be not rigorous, as indicated by a consistently high percentage of projects endorsed, irrespective of variations in provider attendance as percentage of total committee attendance; furthermore, little difference in rigor of review is expected between counties grouped by shares of total attendance.

Hypothesis 4-2: For projects subject to a budget constraint and considered with reference to a similar project, rigor of review as measured by percentage of projects endorsed will tend to vary with provider attendance as percent of total committee attendance. Within a given range of provider attendance as percent of total committee attendance, percentage of projects endorsed and ratio of dollars endorsed to dollars requested will tend to be highest for counties with majority share of attendance and decrease as county share of attendance decreases.

The two combinations of review authority and applicant participation selected for the empirical tests of these hypotheses were chosen on the basis of contrasting rigor of review, and having an adequate number of review transactions to involve all four county share of attendance groupings and as many review committees as possible. The percentages of projects endorsed by those review committees from which attendance data were obtained are shown in Table 6-32. These percentages are presented for each of six combinations of review authority and applicant participation for acute care and nursing home projects, as are the number of projects considered, and number of review committees.

Hypothesis 4-1 was tested against the thirty-three acute care non-bed projects not subject to a budget constraint and considered without reference to a similar project in ten review committees and involving all four groups of county shares of attendance. Hypothesis 4-1 was generally supported. All but one of the county share of attendance cells in Table 6-33 show 100% of projects endorsed, since only one of the 33 projects in this classification was not endorsed. Table 6-34

Table 6-32. Percentage of Projects Endorsed[a] by Type of Facility by Review Authority by Applicant Participation by County's Percentage Share of Committee Attendance

	County's Percentage Share of Committee Attendance				Percentage Endorsed	No. of Projects	No. of Committees
	≤ 3	4-11	12-49	≥ 50			
Acute Care							
bed projects subject to budget constraint							
considered with reference to similar project	--	100	50	100	85.7	7	5
considered without reference to similar project	--	0	100	--	66.7	3	3
bed projects not subject to budget constraint							
considered with reference to similar project	100	100	--	71.4	77.8	9	4
considered without reference to similar project	--	--	100	100	100	5	5
non-bed projects not subject to budget constraint							
considered with reference to similar project	50	100	100	88.9	84.6	13	7
considered without reference to similar project	100	100	83.3	100	97.0	33/70	10

Table 6-32. (continued)

	County's Percentage Share of Committee Attendance				Percentage Endorsed	No. of Projects	No. of Committees
	≤ 3	4-11	12-49	≥ 50			
Nursing Home							
bed projects subject to budget constraint							
considered with reference to similar project	41.7	47.1	35.3	36.8	40.0	65	10
considered without reference to similar project	--	50	0	50	33.3	6	3
bed projects not subject to budget constraint							
considered with reference to similar project	--	100	50	100	83.3	6	5
considered without reference to similar project	--	--	--	100	100	1	1
non-bed projects not subject to budget constraint							
considered with reference to similar project	--	--	--	--	--	--	--
considered without reference to similar project	--	--	--	100	100	1/79	1

[a]Projects endorsed by committees from which attendance data were obtained.

Table 6-33. Percentage of Projects Endorsed by Review Committees Ranked by Providers' Share of Attendance by Review Authority and Applicant Participation by County's Share of Committee Member Attendance

CHP Area and Subunit	Provider Share of Total Attendance	Bed Projects (Nursing Home) Subject to Budget Constraint and Considered With Reference to Similar Project						Non-bed Projects (Acute Care) Not Subject to Budget Constraint and Considered Without Reference to Similar Project					
		County's Percentage Share of Committee Attendance				Review Committee		County's Percentage Share of Committee Attendance				Review Committee	
		≤ 3	4-11	12-49	≥ 50	Percent Endorsed	No. of Projects	≤ 3	4-11	12-49	≥ 50	Percent Endorsed	No. of Projects
4	72.4	--	50	20	50	38.5	13	--	--	--	100	100	2
5	70.0	--	0	100	0	25	6	--	--	--	100	100	1
6	62.8	50	--	0	28.6	30.0	10	--	--	--	100	100	3
9 Gd. Traverse	62.3	50	0	--	50	40	5	--	100	--	--	100	1
9 Petoskey	61.0	--	100	0	--	50	2	--	--	--	100	100	1
3	58.5	--	33.3	50.0	--	42.9	7	--	100	80	--	85.7	7
7	53.3	37.5	66.7	--	0	41.7	12	100	100	--	100	100	7
8 West	53.3	--	--	0	0	0	2	--	--	--	--	--	--
8 NW	53.	--	--	--	--	--	--	--	--	--	100	100	4
8 East	51.0	--	--	--	--	--	--	--	--	100	100	100	2
9 Alpena	46.9	--	100	33.3	100	66	6	--	--	--	--	--	--
8 Central	45.0	--	--	--	--	--	--	--	--	--	100	100	5
8 North	23.7	--	0	100	--	50	2	--	--	--	--	--	--
Pct. Endorsed by All Counties		41.7	47.1	35.3	31.6	38.5	65	100	100	83.3	100	97	33
Number of Projects		12	17	17	19	65		3	5	6	19	33	

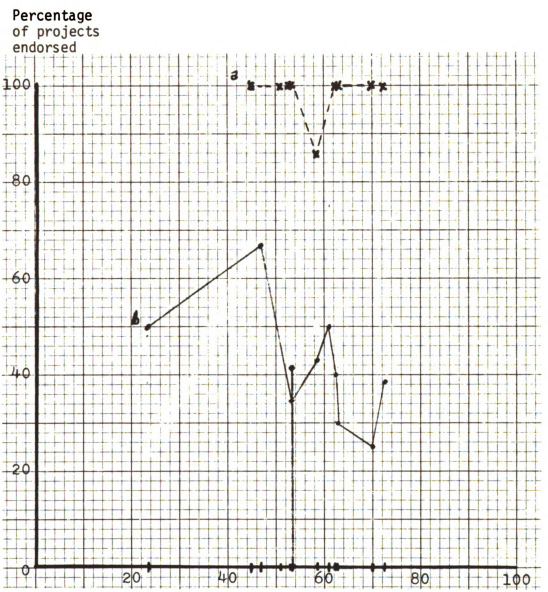
Table 6-34. Ratio of Dollars Endorsed to Dollars Requested by Review Committees Ranked by Providers' Share of Attendance by Review Authority and Applicant Participation by County's Share of Committee Attendance

CHP Area and Sub-unit	Provider Share of Total Attendance	Bed Projects (Nursing Home) Subject to Budget Constraint and Considered With Reference to Similar Project						Non-bed Projects (Acute Care) Not Subject to Budget Constraint and Considered Without Reference to Similar Project					
		County's Percentage Share of Committee Attendance				Review Committee		County's Percentage Share of Committee Attendance				Review Committee	
		≤ 3	4-11	12-49	≥ 50	Area or Subunit	No. of Projects	≤ 3	4-11	12-49	≥ 50	Area or Subunit	No. of Projects
4	72.4	--	0.46	0.23	0.46	0.38	13	--	--	--	1.01	1.01	2
5	70.0	--	0	1.32	0	0.06	6	--	--	--	1.0	1.0	1
6	62.8	0.20	--	0	0.35	0.32	10	--	--	--	1.0	1.0	3
9 Gd. Traverse	62.3	0.41	0	--	0.58	0.41	5	--	0.85	--	--	0.85	1
9 Petoskey	61.0	--	1.0	0	--	0.75	2	--	--	--	1.0	1.0	1
3	58.5	--	0.22	0.13	--	0.19	7	--	1.0	1.03	--	0.95	7
7	53.3	0.38	0.70	--	0	0.41	12	1.23	1.0	--	1.0	1.17	7
8 West	53.3	--	--	0	0	0	2	--	--	--	--	--	--
8 NW	53.0	--	--	--	--	--	--	--	--	--	1.0	1.0	4
8 East	51.0	--	--	--	--	--	--	--	--	0.78	1.05	1.04	2
9 Alpena	46.9	--	1.49	0.09	1.0	0.47	6	--	--	--	--	--	--
8 Central	45.0	--	--	--	--	--	--	--	--	--	0.98	0.98	5
8 North	23.7	--	0	1.0	--	0.48	2	--	--	--	--	--	--
Ratio for All Committees		0.37	0.33	0.24	0.29	0.31	65	1.23	0.97	0.87	1.00	1.02	33
Number of Projects		12	17	17	19	65		3	5	6	19	33	
Dollars Endorsed per project ($1000)		$820	$991	$561	$1209	$905	25	$536	$272	$111	$204	$231	32

shows very little difference in rigor of review as measured alternatively by the ratio of dollars endorsed to dollars requested, as three county share groups had ratios both greater than and less than one. An exception was the group with three percent or less of total attendance which had all three of its projects endorsed for as much or more than the amounts requested.

Hypothesis 4-2 was tested against sixty-five nursing home bed projects subject to a budget constraint and considered with reference to a similar project in ten review committees and including all four county share groups. Forty percent of these projects were endorsed overall, and the percentage varied with the degree of committee domination by providers, as measured by their share of total attendance. However, the data from Table 6-33, as graphed in Figure 6-4, do not support the "paralysis" hypothesis that no project would be approved by committees having a near 50-50 mix of consumers and providers. The disapproval of all (two) projects by one committee whose providers had 53.3 percent of committee attendance was largely offset by the observation that four of the five highest percentages of projects endorsed belonged to five of the six committees found in the middle range of 46.9 to 62.3 percentage share of committee attendance by providers. The graph does suggest, however, that for this combination of review authority and applicant participation, the percentage of projects endorsed appears to decline as the provider share of committee attendance increased.[11] Within review committees, the hypothesis that increased county share of attendance is associated with less rigorous review was also not supported by either

[11]Providers may be more heterogeneous as their share of committee attendance increases. (See also Appendix A.) (Curran)



[a]Non-bed projects (acute care) not subject to budget constraint and considered without reference to similar project.

[b]Bed projects (nursing home) subject to budget constraint and considered with reference to similar project.

Figure 6-4. Percentage of projects endorsed by review committees ranked by provider share of attendance

indicator. On the contrary, the counties with majority share of attendance ranked lowest among the four groups, both in percentage of projects approved and in the ratio of dollars endorsed to dollars requested. Furthermore, the least represented counties fared better than the two groups with largest shares of attendance in percentage of projects approved and led all groups in the ratio of dollars endorsed to dollars requested.[12]

3. Summary of major findings relating participation in the review transaction to rigor of review

Having found review authority (whether the project was subject or not subject to a budget constraint) to be related to the structure of applicant participation (whether an applicant's project was considered with or without reference to a similar project), the analysis then examined whether review authority, applicant participation and the structure of member participation (percentage of total committee attendance by providers and county's share of committee attendance) had differential impacts on rigor of review. The effects of review authority and applicant participation on rigor of review were analyzed with the data available on review transactions involving 260 acute care and nursing home projects plus thirty-six scanner projects. Then, the impacts of member participation were studied on 149 review transactions in the seven CHP areas where review committee membership data were obtained.

Projects subject to a budget constraint and considered with reference to a similar project were found to face the most rigorous review, as

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[12]The hypothesized relationship between county's share of review committee attendance and rigor of review is reconsidered at the close of section C.3 in this chapter.

measured by the lowest percentage of projects endorsed without substantive modification, and a high percentage of projects with project cost containment coefficients ranging from zero to less than one. Those projects subject to a budget constraint which were considered without reference to a similar project tended to receive a less rigorous review than did those considered with reference to a similar project. Projects not subject to a budget constraint were found to receive a less rigorous review than those subject. Those not subject to a budget constraint and considered without reference to a similar project generally received the least rigorous review, as measured by the highest percentage of projects endorsed without substantive modification, and a high percentage of project cost coefficients greater than or equal to one. These relationships were consistently found in comparisons within nursing home and acute care projects within core, adjacent and non-adjacent counties, with and without non-bed projects, and with and without the densely populated CHP area in Southeastern Michigan which had 76 of the state's 260 projects. Further evidence of association between review authority and rigor of review was found by comparing decisions on scanners reviewed prior to and following the implementation of program guidelines constraining the number of scanners to be approved in the respective CHP areas.

Two combinations of review authority and applicant participation were selected to test whether rigor of review might be affected by the mix of consumer and provider representatives participating in the review transaction, or by differences in county's percentage share of committee attendance, and to determine whether these relationships between member participation and rigor of review are affected by different structures

of applicant participation and review authority. The rigor of review for 33 acute care non-bed projects not subject to a budget constraint and considered without reference to a similar project was not affected by differences in member participation, as all but one of the projects were endorsed. Only forty percent of the sixty-five nursing home bed projects subject to a budget constraint and considered with reference to a similar project were endorsed. The percentage endorsed appeared to decline as provider share of committee attendance increased. Within review committees, the counties with majority share of attendance ranked lowest among the four county share groups in percentage of projects approved and in the ratio of dollars endorsed to dollars requested, while the counties with from zero to three percent of committee attendance led all groups in the ratio of dollars endorsed to dollars requested, and also fared better than two other county share groups in percentage of projects approved.

The two major findings from the analysis in this section are 1) strong support for an association between rigor of review, review authority and applicant participation, and 2) lack of support for an association between rigor of review and the structure of member participation.[13]

4. A synthesis: further integration of applicant and member participation to test effects of differential participation in the review transaction on rigor of review

Section one of this chapter analyzed impacts of review authority and applicant participation on rigor of review. In section two, the analysis considered the effects of differential participation by review committee members on two disparate structures of applicant participation. This preliminary examination found that the projects from counties with

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[13]See Section C.3. in this chapter for a reconsideration of this relationship.

less representation did not face a more rigorous review, nor did those from counties most represented face a less rigorous review. The analysis will now go beyond the ninety-eight projects studied in section two and attempt to determine whether county shares of review committee attendance affected rigor of review in the 149 review transactions by the committees where attendance data were obtained.

Consideration of four county share of attendance groups against six combinations of review authority and applicant participation is a task beyond the capability of cross-tabulation. Furthermore, it would be useful to obtain statistical control for other factors thought to affect rigor of review, as suggested in Chapter V (A.1. and A.2.).

Analysis of covariance (ANCOVA) is a technique of statistical control that adjusts the dependent variable for unequal starting points when it is not possible to select random groups that are essentially equal. Such variables, other than the factors being tested, which are thought to affect the dependent variable, are termed covariates and are inserted into the analysis to remove extraneous variation from the dependent variable. "Regression procedures are used to remove variation in the dependent variable due to one or more covariates, and a conventional analysis of variance is then performed on the 'corrected' scores." (Nie, 1975, p. 409)

Four factors were analyzed for their main effects on two indicators of rigor of review, the project cost containment coefficient, and project dollars reduced.[14] These four factors were review authority (bed projects

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[14]Project dollars reduced are defined as dollars requested in letter of intent minus dollars endorsed, for projects withdrawn prior to reivew, not endorsed, or endorsed following substantive modification.

subject to a budget constraint, bed projects not subject, and non-bed projects not subject), applicant participation (whether the project was considered with or without reference to a similar project), county's share of review committee attendance, and county's share of governing body attendance.[15] To assess the affect of these four factors on the rigor of review, facility type and letter of intent dollars were designated as covariates. Differential impacts on acute care and nursing home projects have been consistently present in findings throughout this analysis. While the project cost containment coefficient adjusts for dollars requested in the letter of intent, variation in this variable must be controlled for when using project dollars reduced as a measure of review discipline.

Results of each ANCOVA are shown in Tables 6-35 and 6-36. Table 6-35 shows that review authority had the most significant main effect on variation in project dollars reduced, after the effects of the two covariates, which were also significant, were considered. Neither county's share of attendance at review committee meetings nor at governing body meetings were found to be significant. Weak interaction between review authority and county's share of review committee attendance confirms a similar observation noted in the previous section. Similar weak evidence of interaction between review authority and applicant participation supports the findings pertaining to hypothesis 2-1 earlier in this chapter (B.2.).

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[15]The latter variable was added to check the premise implied throughout the analysis that if shares of meeting attendance affected rigor of review, it would be that of the review committee rather than the governing body that was the most significant.

Table 6-35. Analysis of Covariance

V38	Project Cost Containment Coefficient
By V13	Applicant Participation Facing Committee
V21	Review Authority
V48	County's Share of Review Comm. Attendance
V49	County's Share of Govern. Body Attendance
With V20	Facility Type
V24	Letter of Intent Dollars

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif. of F
Covariates	10.743	2	5.372	20.203	.001
V20	10.515	1	10.515	39.546	.001
V24	.641	1	.641	2.410	.119
Main Effects	4.631	9	.515	1.935	.053
V13	.103	1	.103	.387	.999
V21	2.210	2	1.105	4.156	.018
V48	.929	3	.310	1.164	.326
V49	1.389	3	.463	1.742	.161
2-Way Interactions	10.260	24	.428	1.608	.051
V13 V21	.082	2	.041	.153	.999
V13 V48	3.907	3	1.302	4.899	.003
V13 V49	1.956	3	.652	2.452	.066
V21 V48	5.069	6	.845	3.177	.007
V21 V49	2.230	6	.372	1.398	.221
V48 V49	1.992	4	.498	1.873	.119
Residual	29.779	112	.266		
Total	55.414	147	.377		

149 cases were process.

1 Case (.7 Pct.) was missing.

Table 6-36. Analysis of Covariance

V55R	Project Dollars Reduced
By V13	Applicant Participation Facing Committee
V21	Review Authority
V48	County's Share of Review Comm. Attendance
V49	County's Share of Govern. Body Attendance
With V20	Facility Type
V24	Letter of Intent Dollars

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif. of F
Covariates	100,948,700.952	2	50,474,350.476	24.467	.001
V20	7,682,171.447	1	7,682,171.447	3.724	.053
V24	97,740,918.207	1	97,740,918.207	47.379	.001
Main Effects	26,344,517.006	9	2,927,168.556	1.419	.188
V13	2,121,317.095	1	2,121,317.095	1.028	.314
V21	16,495,845.733	2	8,247,922.867	3.998	.021
V48	2,941,434.735	3	980,478.245	.475	.999
V49	4,785,919.443	3	1,595,306.481	.773	.999
2-Way Interactions	34,644,504.658	24	1,443,521.027	.700	.999
V13 V21	5,446,902.109	2	2,723,451.055	1.320	.270
V13 V48	919,677.887	3	306,559.296	.149	.999
V13 V49	1,458,333.006	3	486,111.002	.236	.999
V21 V48	14,700,679.807	6	2,450,113.301	1.188	.317
V21 V49	5,239,150.154	6	873,191.692	.423	.999
V48 V49	4,982,816.263	4	1,245,704.066	.604	.999
Residual	231,053,258.377	112	2,062,975.521		
Total	392,990,980.993	147	2,673,408.034		

149 cases were processed.

1 case (.7 Pct.) was missing.

These results were corraborated in the ANCOVA on project cost containment coefficient. Table 6-36 shows that the most significant main effect was review authority. However, county's share of attendance at governing body meetings had a higher level of significance than that at review committee meetings, though neither had as significant effect as review authority on the project cost containment coefficient. This finding is consistent with the weak relationship found earlier (Table 6-33) between county's share of review committee attendance and percentage of projects approved. Also noted are strong interactions between whether the project was considered with or without reference to a similar project and county's share of attendance at both review committee and governing body meetings, as well as between review authority and county's share of attendance at review committee meetings.

5. A reconsideration of the hypothesized relationship between review committee attendance and rigor of review

The finding of weak association between county's share of review committee attendance and rigor of review merits further consideration about the conceptual basis for a hypothesis which was not supported in section C.2., that projects from counties with a larger share of attendance would face a less rigorous review. (Hypothesis 4-2)

The theoretical framework suggested a concentration of power held by the applicant relative to the review committee, such that the applicant would generally get his project endorsed. Some conditions were postulated under which endorsement would be less likely. One condition, strongly supported by the empirical evidence, was that projects subject to a budget constraint are less likely to get endorsed than are projects not subject. Within either degree of review authority, this analysis

also found some tendency for projects considered with reference to a similar project less likely to be endorsed than projects considered without reference to a similar project. How might member participation affect the review transaction in those of the above conditions where a more rigorous review is expected? Would more opposition, and information critical of a project, be generated against projects from a county having a greater share of attendance or against those from counties having little representation?

Underlying hypothesis 4-2 was a presumption that committee member support was important to the endorsement of a project, and therefore, those projects lacking active support would face a more rigorous review. Further reflection, however, leads one to propose a reformulation more consistent with the theoretical rationale which argued that support for a project is generated by the applicant's proposal, and is sustained by the favorable information presented by the applicant throughout the review. Rather than asking which members are needed to support a project, the key issue posed was <u>how can effective criticism of a project be generated and sustained</u>. Who is likely to do this under what conditions? It was argued that projects subject to a budget constraint and considered with reference to a similar project are more likely to be vulnerable to criticism initiated by a competing applicant, than by a committee member. To the extent that committee members act on such information, or acquire such without the assistance of a competing applicant, it seems more plausible that it would be done not by the few isolated members from the less represented counties, but by potential blocks of interests within the counties with larger shares of attendance.

But wouldn't the majority or plurality tend to oppose projects that benefit counties with minority shares? It is not obvious that sufficient

incentive to do so exists in the case of health facilities projects in Michigan. The budget constraint is not an area-wide constraint; each CHP area contains three or more health facility service areas, with each HFSA given a separate authorization for additional acute care and nursing home beds. Consequently, majority members would not perceive a project in one HFSA composed of counties with minority shares of attendance competing with projects in the HFSA with majority attendance, and may therefore be less inclined to oppose it. Furthermore, differential participation may be both consequence and cause of differential rigor of review. Members from the outlying counties having a small share of attendance who favor a project may be disinclined to participate, thinking that if projects from their counties are somewhat more inclined to receive endorsement, their participation is not necessary. On the other hand, members from these same counties who do not favor particular projects may be dissuaded by the higher transaction costs involved in getting to the meeting and organizing an effective opposition. Conversely, members from core counties with majority share of attendance who favor a project have an incentive to attend, feeling that their participation is needed, given the tendency for projects from their county to receive a more rigorous review. Neither they, nor their counterparts from the core county who do not favor the project, face transaction costs sufficient to deter their participation.

There appears, then, to be a theoretical basis to suggest that a more rigorous review might be expected for projects from counties with the most representation by committee members than for projects from counties with few representatives.

D. Testing of Hypotheses Relating Rigor of Review to Distribution of Project Dollars Endorsed and Reduced; Does the Sharpness of the Knife Affect Whose Ox Gets Gored?

The preceding section found that project review tended to be more rigorous under some conditions than under others. A sharper review knife tended to cut back more on those projects subject to a budget constraint than those projects not subject, and to some extent, more on those considered with reference to a similar project than on those considered without reference to a similar project.

The distributional question to now be addressed is whether a "sharper knife" affects some projects more than others. Specifically, does the burden of a more rigorous review tend to be borne by some types of counties more than by others, and by a specific type of facility?

Three measures of distributional impacts of a more rigorous review will be shown by core, adjacent, and non-adjacent counties and by acute care and nursing home projects. These three measures are project dollars reduced[16] per capita, ratio of project dollars endorsed per dollar requested, and dollars endorsed per capita.

Table 6-37 shows that for acute care projects, adjacent counties had $7.64 reduced per capita, more than the $5.45 for core and the $5.23 for non-adjacent counties. However, nursing home project dollars reduced per capita was highest for non-adjacent counties at $16.76, which was twice that for adjacent counties, $7.37, which was more than the $4.79 for core counties. Dollars reduced per capita provides a relative measure for comparisons between counties and between types of facilities, but lacks a reference point in terms of dollars requested or dollars endorsed.

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[16]Project dollars reduce defined in section C.3. of this chapter.

Table 6-37. Project Dollars Reduced Per Capita by Type of Facility by County Location to Governing Body

Type of Facility	County Location to Governing Body			
	Core	Adjacent	Non-Adjacent	All Counties
Acute Care	5.45	7.64	5.23	6.31
Nursing Home	4.79	7.37	16.76	7.06
Combined Total	10.24	15.01	21.99	13.37

Table 6-38. Ratio of Project Dollars Endorsed per Dollar Requested by Facility Type by Rigor of Review by County Location

Type of Facility project cost containment coefficient	County Location to Governing Body			
	Core	Adjacent	Non-Adjacent	All Counties
Acute Care				
< 1.0	0.05	0.08	0.15	0.08
≥ 1.0	1.07	1.08	1.33	1.09
Nursing Home				
< 1.0	0.21	0.06	0.10	0.13
≥ 1.0	1.03	1.07	1.05	1.05

Such a reference point is provided with the ratio of dollars endorsed per dollar requested, which is an aggregate project cost containment coefficient for a group of projects. Table 6-38 compares this ratio by type of facility and by county location, for two groups of projects by rigor of review. The two groups are those projects which did not get endorsed for as much as requested (including those projects

not endorsed) and those projects which were endorsed for as much or more than requested. Acute care projects from core and adjacent counties faced a more rigorous review than did those from non-adjacent counties, whose ratios of 0.15 and 1.33 were higher than those of the adjacent and non-adjacent counties. Nursing home projects present a contrasting picture, with those from adjacent and non-adjacent counties being cut back more severely than those from core counties.

The final table, 6-39, shows distribution of project dollars endorsed per capita by three project cost containment coefficient ranges by county location for each type of facility. The rows for project cost containment coefficients of less than one contrast dollars endorsed per capita under the more rigorous review in each type of facility with the other two rows indicating a less rigorous review. Acute care projects facing less rigorous review fared considerably better from adjacent counties than did those from core counties, while non-adjacent counties had the least endorsed per capita in both rows ($5.71 and $3.13). However, non-adjacent counties were favored relative to those from other counties under the more rigorous review. $1.24 per capita was endorsed for non-adjacent county acute care projects, seventy-nine cents for those from adjacent counties, and core counties were relatively worse off under more rigorous review of acute care projects, trailing with thirty-one cents endorsed per capita. For nursing home projects, non-adjacent counties led in dollars endorsed per capita in all three rigor of review rows. Adjacent county projects, however, received more per capita than core county projects did under the least rigorous review, but fell even with and then behind that endorsed for core county nursing home projects as one moves from the row indicating the least rigorous review up to that indicating the most rigorous review.

Table 6-39. Project Dollars Endorsed Per Capita by Rigor of Project Cost Containment by County Location to Governing Body

Type of Facility project cost containment coefficient	County Location to Governing Body							
	Core		Adjacent		Non-Adjacent		All Counties	
	$ per capita	pct. of column	$ per capita	pct. of column	$ per capita	pct. of column	$ per capita	pct. of column
Acute Care								
0.001-0.999	0.31	2.2	0.79	3.1	1.24	12.3	0.59	3.2
1.0	4.59	32.3	9.97	39.5	3.13	31.1	6.61	36.3
> 1.0	9.31	65.5	14.47	57.4	5.71	56.6	11.02	60.5
Column Totals	14.21	100.0	25.23	100.0	10.08	100.0	18.22	100.0
Nursing Home								
0.001-0.999	1.63	35.1	0.47	11.9	1.92	15.4	1.20	23.2
1.0	2.81	60.6	2.77	69.9	5.77	46.4	3.10	59.8
> 1.0	0.20	4.3	0.72	18.2	4.75	38.2	0.88	17.0
Column Totals	4.64	100.0	3.96	100.0	12.43	100.0	5.18	100.0
Combined Column Totals for All Projects	18.85		29.19		22.51		23.40	

These results may be summarized by noting that different distributional consequences were observed with the several indicators. Yet, some common tendencies may be drawn from the comparisons. For acute care projects, the observation that as rigor of review increased, core county projects were endorsed for less dollars relative to the other counties is consistent with the findings that core county acute care projects were endorsed for <u>less per dollar requested</u> among those projects facing the more rigorous review, and ranked behind adjacent county projects in dollars reduced per capita. A similar common pattern is found in nursing home projects, where as rigor of review increased as shown in Table 6-39, adjacent county projects were endorsed for

relatively less; they also had fewer dollars endorsed per dollar requested by projects facing the most rigorous review, and ranked in the middle in dollars reduced per capita. The major point demonstrated by the analysis in this section is that the distributional consequences of a more rigorous review were not neutral.

CHAPTER VII. SUMMARY AND CONCLUSIONS

A. Overview

1. Statement of the problem

The multi-county agency emerged in the mid-1960's as a new approach to planning and development. Project review and comment, as one function[1] of these new agencies, has played an increasing role in the distribution of Federal grants among local units, and thus had potential for some influence on the allocation of resources within the area. Some criticize the project review and comment clearinghouse for failing to articulate choice between projects in an area (Mogulof, 1971; HUD, 1972). Yet others suggest that the multi-county agency should be assigned an added major role of "broker" in the allocation of Federal and State grants within its geographic area. (Rothblatt, 1974; NARC, August, 1976)

Decisions concerning which projects are to be recommended for funding involve conflict, as such choice between projects affects peoples' lives differently. People seldom share a common preference for the level of service quality or the location of the project to be endorsed. People in a small town, for example, express fear of losing their hopsital as a consequence of an areawide Comprehensive Health Planning agency decision to merge the obstetrical wards of their hospital with that of the neighboring town in order to contain costs of maintaining full-time staffs in each. Similar concerns are voiced about

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[1] Three basic functions generally performed are comprehensive planning, project review and comment, and joint services or technical assistance for member local units. (Doeksen et al., 1975; NSRC, 1971)

location of nursing homes, noting that people want to keep elderly parents in their own community rather than utilize available beds in nursing homes ten to twenty miles away. Differences in preferences for quality of service were evident in the case of a project supported by a well-organized urban coalition which articulated a need for "abortion-free" obstetrical beds rather than the existing available beds which already equaled the number authorized for the area by the state plan. Projects involving the latest technology, such as Computerized Axial Tomographic (CAT) scanners, add another dimension of conflict, between hospitals and doctors who want to be the first with the latest gadgets.

This research extends preliminary evaluations of the areawide review and comment process (Mogulof, 1971; ACIR, October 1973 and February 1974) and descriptive studies of multi-county planning organizations (NSRC, 1971; ACIR, May and October 1973; Doeksen et al., 1975). The review authority of multi-county project review has evolved through three stages, from review and comment, to recommending approval or disapproval, to recommending the allocation of a grant target among projects within the area. At the same time, people and their jurisdictional representatives argue over who should pay for the maintenance of these agencies and how the representation should be divided among the member units.

The convergence of these issues poses the first central question of this research. Does whether or not a project gets endorsed, for how much relative to that requested, and for whom appear to be associated with whether the project is subject or not subject to the budget constraint of an areawide grant target, and whether the applicant's county has more or less representation on the decision-making body? The other

central question is whether the array of applicants and review committee members participating in the review is affected by nominal rules and standing operating procedures (S.O.P.s) specifying review authority, composition of committee membership, and boundaries delineating the size of population and number of counties represented which affect spatial distance to the committee meeting.

2. Research approach

How and why such variables might affect performance is explained by the conceptual framework drawn from an economic approach to policy analysis. This model of the review process suggests that rigor of review and distribution of the cut-backs are related to asymmetrical participation in the review transaction. The opportunity sets of project applicants and committee members participating in the review are conditioned by differential transaction costs imposed by alternative nominal rules and standing operating procedures (S.O.P.s) The relative power of competing interests to achieve their objectives is affected, among other things, by differential costs of participation (Warren, 1970) and by uneven incentives for and costs of generating information favoring the position of one interest and acquiring information with which that position might be effectively challenged by others. (Bartlett, 1973) Given the reactive nature of the review process, the analysis begins with policy variables which might affect participation in the review process, then considers impacts of alternative participation on review decision performance.

This theoretical framework utilized an institutions-behavior-performance paradigm (Schmid, 1972 and 1975) to specify relations between relevant participants, which were analyzed with the tools of

equimarginal calculation of cost and gain to describe and predict basic tendencies. (Olson, 1971) This framework contained four features which extend beyond the more conventional uses of neoclasssical theory: (1) The analysis attempted to partially specify the structure of power, defined as the capacity for influencing decisions; (2) it did not assume perfect knowledge, but that information is costly to acquire, and focused on differential conditions of acquisition and production of influence, or information; (3) it introduced the distributional problem into positive allocative analysis by examining consequences of an asymmetical distribution of resources with an for which to produce information; and (4) it treated the individual actor not as autonomous, but subject to influence by others. With such a theoretical framework, the logic of collective choice can be positively approached through the logic of individual choice in a context of constrained maximization, and inequality can be introduced as it affects the actual answer to the problem as to whose interests are to count. (Samuels, 1976, p. 185)

The empirical challenge was how to obtain meaningful comparisons of performance under alternative structures of the variables in an arena where data are difficult to obtain, and which lacked opportunity for pretests or for random assignment of subjects to treatment and control groups. Comparisons were obtained through a static-group comparison design, and where appropriate, an equivalent materials samples design (Campbell and Stanley, 1966). Treatment and comparison groups were analyzed with cross-tabulations and breakdown procedures under appropriate selection control and with an occassional analysis of covariance to obtain statistical control in a more complex portion of the analysis. Review decisions on health facilities capital improvement projects by

ten areawide Comprehensive Health Planning agencies provided the best opportunity in Michigan to analyze decisions under alternative review authorities by the same review committees, using data which picked up each project at an earlier stage in the review process, and which covered projects from a broader range of counties than that available from other review functions.[2] Data were obtained from the minutes of the agencies' governing bodies and review committees, and from project review logs maintained at the state and area levels.

B. Summary of Major Findings

1. Rationale for focus on the project review committee

There are several justifications for an analytical focus on the review committee, given the two-stage review process at the CHP area level. First, although the geographic delineation of the area to be represented by the governing body and requirements for its membership composition are prescribed externally, each area CHP agency may exercise discretionary choice in the structure of its review committee(s). Thus, more kinds of variations were found in the internal S.O.P.s affecting the review committees than in those structuring the governing bodies (Table 6-3), and the review committee membership tended to be more concentrated relative to county population than did that of the governing bodies (Table 6-2). Finally, the recommendations of a review committee were rarely overturned by the governing body.[3] (Table 6-7)

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[2]Other functions considered were Aging, CETA Manpower, Criminal Justice and Law Endorcement, Urban Area Transportation, and Water Pollution Control.

[3]Actual disagreement between determinations by the review committee and the governing body were noted in only five projects, representing 2.7 percent of the 185 projects reviewed by both committee and governing body, and less than two percent of all 260 project proposals undergoing the CHP area review process in Michigan during the study period.

2. Differential participation by members under alternative rules

Given the composition of review committee membership by county location and by type of representative, review committee participation by these various categories of members was thought to be affected differently by the number of counties represented by the committee, by whether or not the meeting locations were rotated among these counties, and by whether or not an alternate may represent an absent member.

Three categories of counties were defined, based on the county's location with respect to the location of the meeting of the review committee (or the governing body for analysis of governing body participation). A core county is the one in which the meeting is held; an adjacent county is the one which has all or part of its boundary, other than a corner, common with the boundary of the core county; and a non-adjacent county is one which has no part of its boundary, other than a corner, common with the county where the meeting is located. A county's likelihood of being a core, adjacent, or non-adjacent county is affected by the number of counties represented, and whether meetings are rotated among participating counties. As the number of counties represented increased, the number of core counties as percent of total decreased, and the number of non-adjacent counties as percent of total increased (Table 6-9). The higher the percentage of all meetings rotated equally among all counties in the subunit, the more equal the distribution of counties by core, adjacent, and non-adjacent with respect to the particular locations of the meetings (Table 6-10).

Spatial distance as indicated by county location relative to meeting place tended to be associated with differential participation by members of review committees. Participation as measured by meeting

attendance as percentage of membership, was highest for core county members and decreased as spatial distance increased to adjacent and non-adjacent counties (Tables 6-11 and 6-12). Within each county location category, participation by consumer representatives was less than that by provider representatives. These results of differential participation by members of ten review committees were corraborated by analyses of participation by members of ten governing bodies (Table 6-13 and 6-14).

The result of this differential participation is that, relative to their share of area or subunit membership, core counties tended to have a greater share of attendance, while adjacent counties to some extent, and non-adjacent counties to much greater extent, tended to have a diminished share of attendance (Table 6-15). This would provide an advantage to core counties, even if membership were distributed equally among counties relative to population. However, membership on review committees was found to be more unevenly distributed among counties than was governing body membership relative to population (Table 6-16). This concentration of membership in core, and to some extent in adjacent counties, combined with the increase in erosion of member participation as spatial distance increased from core to adjacent to non-adjacent counties, resulted in an unequal distribution of review committee attendance relative to population. Nearly four-fifths of the core counties had a majority share of review committee attendance, compared with none of the adjacent or non-adjacent counties. Forty-one percent of the adjacent counties had from twelve to forty-nine percent of the attendance and another forty-one percent had from four to eleven percent of the attendance. In contrast, fifty-nine percent of the non-adjacent counties claimed only three percent or less of the attendance. Furthermore,

nearly one-half of the non-adjacent counties were unrepresented in review committee attendance.[4] (Figure 6-21)

3. Differential participation by applicants under alternative rules

Differential participation by project applicants in the project review transaction was thought to be associated with three categories of rules, specifying the degree of review authority, the size of population represented by the review committee, and the spatial distance from the applicant to the CHP staff.

A major finding was that an applicant's project was more likely to be considered with reference to a similar project if the project was subject to a budget constraint faced by the review committee than if it was not subject (Tables 6-22 and 6-23). Little association was found, however, between a project's tendency to be considered with reference to a similar project and the size of population represented by the review committee (Figures 6-1 to 6-3). Spatial distance was found to be weakly linked inversely with an applicant's tendency to persist in

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[4]A similar erosion of consumer participation was found in comparing governing body membership and attendance with review committee membership and attendance in seven CHP areas for which review committee attendance data were obtained (Appendix Table B-7). While six of the seven CHP areas met the fifty percent consumer majority requirement in govering body membership[5], only four of these governing bodies had consumer majority attendance. Furthermore, three of the thirteen review committees in these seven CHP areas had consumer majority membership, and only two of these thirteen committees had consumer majority attendance.

[5]It might be argued that the consumer majority membership requirement was met in all cases by including elected officials as consumer representatives. Nevertheless, the erosion of consumer involvement can be alternatively illustrated on those terms as well. While none of these seven CHP areas had provider majority membership or attendance on the governing body, nine of the thirteen review committees in these seven areas had provider majority membership, and ten of the thirteen committees had provider majority attendance.

following the proposed project through to committee review. As spatial distance increased from core to adjacent ot non-adjacent counties, the percentage of letters of intent resulting in formal project applications declined slightly (Table 6-24), and the percentage of letters of intent withdrawn (including applications withdrawn) prior to committee review increased (Table 6-25). No association was found, however, between county location to CHP staff and dollars per capita requested in letters of intent (Table 6-26).

4. Participation in the review transaction and rigor of review

Having found review authority (whether the project was subject or not subject to a budget constraint) to be related to the structure of applicant participation (whether an applicant's project was considered with or without reference to a similar project), the analysis then examined whether review authority, applicant participation and the structure of member participation (percentage of total committee attendance by provider representatives, and county's share of committee attendance) had differential impacts on the rigor of review.

Projects subject to a budget constraint and considered with reference to a similar project were found to face the most rigorous review, as measured by the lowest percentage of projects endorsed without substantive modification, and a high percentage of projects with project cost containment coefficients ranging from zero to less than one (Table 6-27). Those projects subject to a budget constraint which were considered without reference to a similar project tended to receive a less rigorous review than did those considered with reference to a similar project. Projects not subject to a budget constraint were found to receive a less rigorous review than those subject. Those not subject

to a budget constraint and considered without reference to a similar project generally received the least rigorous review, as measured by the highest percentage of projects endorsed without substantive modification, and a high percentage of project cost containment coefficients greater than or equal to one.[6] Corraborating evidence of association between review authority and rigor of review was found by comparing decision on Computerized Axial Tomographic (CAT) scanners reviewed prior to and following the implementation of state program guidelines constraining the number of CAT scanners to be approved in the respective CHP areas (Table 6-31).

Two disparate combinations of review authority and applicant participation were selected to test whether rigor of review might be affected by the mix of consumer and provider representatives participating in the review transaction, or by differences in county's percentage share of committee attendance, and to determine whether these relationships between member participation and rigor of review are affected by different structures of applicant participation and review authority. For thirty-three acute care non-bed projects not subject to a budget constraint and considered without reference to a similar project, the rigor of review was not affected by differences in member participation, as all but one of these projects were endorsed (Table 6-33). However, of the sixty-five nursing home bed projects subject to a budget constraint and considered with reference to a similar project, only forty percent were endorsed.

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[6]These relationships were consistently found in comparisons within nursing home and acute care projects within core, adjacent and non-adjacent counties, with and without non-bed projects, and with and without the densely populated CHP area in Southeastern Michigan which had 76 of the state's 260 projects (Tables 6-28, 6-29, and 6-30).

Within this latter group, the percentage endorsed appeared to decline as provider share of committee attendance increased (Figure 6-4).[7] Within review committees, the counties with majority share of attendance ranked lowest among the four county share groups in percentage of projects approved, and in the ratio of dollars endorsed to dollars requested, while the counties with from zero to three percent of committee attendance led all groups in the ratio of dollars endorsed to dollars requested, and also fared better than two other county share groups in percentage of projects approved (Tables 6-33 and 6-34).

5. Rigor of review and whose ox gets gored?

Having found that project review tended to be more rigorous under some conditions than under others, the analysis then addressed a distribution question. Are the cut-backs from a "sharper review knife" suffered more by some types of counties than by others, or by a specific type of facility?

Some common tendencies were drawn from comparisons of several indicators of distributional consequences of more rigorous review. For acute care projects, as rigor of review increased, core county projects were endorsed for fewer dollars per capita relative to the other counties, were endorsed for less dollars per dollar requested among those projects facing the more rigorous review, and ranked in the middle in dollars reduced per capita (Table 6-37, 6-38 and 6-39). A similar common pattern was found in nursing home projects, where as rigor of review increased, adjacent county projects were endorsed for relatively less

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[7]This finding and that of the next sentence are contrary to the original hypotheses. Some possible reasons are explored in the conclusions section of this chapter.

dollars per capita, had fewer dollars endorsed per dollar requested by projects facing the most rigorous review, and ranked in the middle in dollars reduced per capita. The major point demonstrated by this phase of the analysis was that the distributional consequences of a more rigorous review were not neutral among counties nor among types of facilities.

C. Conclusions and Interpretation

The question of who is represented on decision-making bodies has long been a focus for contests of power. One of the commonly expressed hypotheses in health policy is that a significant part of the medical cost spiral has been due to the fact that investment decisions have been made by the professional health providers with little input from consumers of the service. Belief in this hypothesis was one ingredient of Federal legislation in 1966 which required that a majority of the members of health planning agency governing bodies by consumers of health services.[8] During the fifteen month period ending September 30, 1975, eight of Michigan's ten areawide Comprehensive Health Planning agencies met this requirement.[9] Membership on a decision body is roughly equivalent to ownership of a resource, in that it gives a person or group the right to participate in resources allocation decisions. But public

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[8]While the Comprehensive Health Planning and Public Health Service Amendments of 1966 (P.L. 89-749) specified that State health planning councils shall be composed of majority of consumer representatives, the administrative regulations implementing this legislation determined that areawide CHP agencies should be controlled by consumers broadly reflecting the total population to be served. The consumer majority provision for areawide CHP agencies was formalized in the 1970 Amendments to the Public Health Services Act (P.L. 91-515).

[9]In none of these cases did provider representatives hold majority membership, however, in a CHP agency governing body. The difference in the two agencies lacking consumer majority membership was accounted for by local elected officials. (See Appendix Table B-7)

choice theory suggests that there is much more to substantive performance (who gets what) than the nominal right to participate on a governmental body. Effective power, defined as the capacity to influence decisions, depends on some of the nitty-gritty standard operating procedures (S.O.P.s) of the decision process.

First comes the question of how the agenda for decision making is shaped. A common practice is to have a study committee review spending proposals and make a recommendation to the full governing body. While Federal legislation mandates a consumer majority on the governing body, it is silent on membership of the project review committee. As it turns out in Michigan, twelve of seventeen review committees had a provider majority membership during the period studied.[10] Providers had more than sixty percent of the members on six committees. The proportion of provider representatives ranged from twenty-six to seventy-four percent with a medianof fifty-five percent. This represents a potential erosion of power of consumer interests from that mandated and achieved at the governing body level.

Differential participation by review committee members and by project applicants in agency decisions is hypothesized to have two main effects. One is on the overall project cost containment issue and the second effect is on the geographic distribution of new health investments in particular and of government grants in general. Both effects are thought to be influenced by differences in consumer and provider interests, and by geographical differences in participation. Some of the same

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[10]Consumer representatives had majority membership in only three of the seventeen review committees (not counting local elected officials as consumers).

S.O.P.s affect both the consumer-provider conflict and the geographic conflict.

The review committee itself has several S.O.P.s which are hypothesized to affect actual participation by members. One of these involves the size of area represented (number of counties) which affects how far members must travel to meetings. These transaction costs are hypothesized to further affect participation by consumers relative to providers and by members living close to the meeting location relative to those who must travel greater distance.

Membership and meeting attendance are not the same thing. There is cost associated with attendance. Even those committee members in the county where the meeting is held do not get to all the meetings, and cost of attending increases with distance. The argument is further developed that providers have more incentive to bear such cost than consumers do. Table 7-1 shows that actual attendance as a percentage of membership was less for consumers than providers in each of the three county location categories.[11] This provider dominance increases with distance. The ratio of provider to consumer participation increased from 1.15 in core counties to 1.24 in adjacent counties to 1.32 in non-adjacent counties. The overall result was that the provider share of total committee attendance increased with distance from fifty-six percent among ten core counties to sixty-five percent among twenty-one adjacent counties to seventy-three percent among fifteen non-adjacent counties, with a mean of fifty-seven percent for all forty-eight counties in the ten review committees without provisions for alternates or rotating location of meeting.

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[11]Core county is where the meeting was held; other counties were either adjacent or non-adjacent to the core county.

Table 7-1. Providers' Share of Review Committee Membership and Attendance; Participation by Consumers and Providers by County Location

	County Location Category			
	Core	Adjacent	Non-Adjacent	All Counties
Providers' Share of Total Review Committee Membership[a] (mean percentage)	52.8	58.4	67.4	54.3
Participation (mean attendance as percentage of membership)[b] by				
Consumers	51.0	45.4	40.4	49.9
Providers	58.4	56.1	53.5	57.8
Ratio of provider participation to consumer participation	1.15	1.24	1.32	1.16
Providers' Share of Total Review Committee Attendance[a] (mean percentage)	56.3	64.8	72.6	57.4
Number of Committees	10[c]	7[d]	5[e]	10[c]
Number of Counties	12	21	15	48

[a]Source: Appendix Table B-8. All Committees (without alternates or rotated meeting location).

[b]Source: Table 6-11. Row Totals.

[c]Does not include one committee which allowed alternates or two committees which rotated meeting location.

[d]Three of the ten committees had no adjacent counties.

[e]Five of the ten committees had no non-adjacent counties.

To sum up the erosion of consumer representation,[12] attendance data was collected from thirteen review committees in seven CHP areas, none of which had a provider majority in governing body membership. Nine of these review committees had provider majority membership, and ten of the thirteen had provider majority attendance.

Beyond the consumer majority mandate, systematic erosion of representation on a geographic basis[13] is indicated by data from Table 6-17. Three-fourths of the core counties were "over-represented" in review committee attendance relative to population, while forty-seven percent of the non-adjacent counties were unrepresented in attendance. The overall result in terms of county's percentage share of review committee attendance was that nearly four-fifths of the core counties had a majority share, over four-fifths of the adjacent counties had from four to forty-nine percent of the attendance, and nearly three-fifths of the non-adjacent counties claimed only three percent or less of the review committee attendance. (Table 6-21).

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[12]The limitation of meeting attendance as an indicator of power is recognized. Consumer capacity to influence decisions requires not only attendance by consumers, but their effective participation during the meetings as well. However, it is argued that it is difficult for consumers to influence committee decisions if providers only are present. Therefore, acknowledging that meeting attendance by consumers is a necessary but insufficient condition for effective consumer representation, higher proportion of provider attendance will serve as a proxy for diminished consumer power.

[13]While CHP guidelines determined that membership in such agencies should broadly reflect the total population to be served by the agency, more precise geographic representation requirements are specified in the legislation establishing the Health Systems Agencies which replaced CHP agencies in 1976. The National Health Planning and Resources Development Act of 1974 (P.L. 93-641) states that HSA governing body membership shall "include a percentage of individuals who reside in nonmetropolitan areas within the health service area which percentage is equal to the percentage of residents of the area who reside in nonmetropolitan areas." (88 STAT. 2234)

Another rule affecting member participation is the right to send an alternate when a member cannot attend. It is hypothesized that this is easier to take advantage of by providers than by consumers. Providers have colleagues and associates close at hand who can be called upon even at the last minute to fill in for the members with reasonable certainty of complying with the request. These transaction costs are higher for consumer members who probably have no daily contact with their alternates and less assurance that the alternate will attend. The differential use of alternates can be measured by calculating what percentage of the opportunities for alternate attendance were actually filled by alternates (rather than having the seat unfilled).[14] It was found that providers used alternates more often when the member could not attend (Table 6-19). Consumer members used alternates in only thirteen percent of their opportunities while providers used alternates in twenty-three percent of their opportunities in one review committee. Similar results held for the governing body in the same sampled CHP. Taking advantage of lower costs of arranging alternates was thought to contribute to the kind of overall result noted above where provider attendance as a percentage of total committee attendance would be greater for those units allowing an alternate to represent an absent member than for other units not having a provision for alternates.

However, the data in Appendix Table B-8 indicate that provider share of total attendance was considerably less than provider share of

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[14]For example if the member was absent ten times and an alternate filled in five of these, the alternate covered fifty percent of the opportunities. If this percent is higher for providers than for consumers, it means that providers are able to make greater use of alternates to keep their seats from being unoccupied. It means that the percentage of attendance comprised of consumers further deteriorates if they can't get organized to send alternates when their members can't attend.

total membership for both the governing body and the review committee in the CHP agency with a provision for alternates (CHP 6). A rival hypothesis is that given the relatively low transaction cost of arranging an alternate, a provider member may find it more convenient at times to send an alternate rather than personally attend a meeting, or may wish to distribute the responsibility for meeting attendance among several members of the health provider's firm. Similarly, consumer members may find it more convenient to make an extra effort to attend themselves rather than trying to arrange for an alternate to attend.[15] This may be tested by comparing member attendance with member plus alternate attendance as percent of membership for consumers and providers in three cases where alternates were permitted. Table 7-2 shows that provider member attendance as percent of membership was indeed considerably lower than that of consumers in one review committee comparison, while slightly lower and slightly higher, respectively, in two governing body comparisons.

So much for attendance by committee members. Another important consideration in how the decision-making agenda is shaped is the timing

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[15]Further support for the rationale of differential transaction costs facing consumers and providers was found in an analysis of alternate attendance at governing body meetings of one CHP agency for one fiscal year (CHP 6, July 1974 - June 1975).

1. Nine consumer members designated ten alternates, and ten provider members designated twenty-one alternates.

2. Eight of the nine consumer members and four of the ten provider members each designated one alternate, while one consumer and six providers each designated two or more alternates.

3. Seventeen of the nineteen attendances by consumer alternates represented the eight members who had each designated only one alternate; nineteen of the thirty-two attendances by provider alternates represented the four members who had each designated three or more alternates.

Table 7-2. Member and Member Plus Alternate Attendance as Percentage of Membership by Type of Representative

Type of Representative	CHP 6 Review Committee		CHP 6 Governing Body		CHP 1 Governing Body	
	Members	Members Plus Alternates	Members	Members Plus Alternates	Members	Members Plus Alternates
Consumers	88.2	89.7	63.7	71.1	46.4	62.2
Providers	63.2	71.5	60.5	76.0	49.3	64.8

Source: Appendix Table B-4.

of when projects are to be considered by the review committee. Since a project application is prepared and submitted at the discretion of the applicant provider, the project review decision process is thus viewed as a transaction between two major sets of participants, namely, the project applicants and the review committee members. Therefore, differential participation by project applicants submitting project for review is also hypothesized to affect project cost containment and the geographic distribution of health project investments. Furthermore, such timing of participation by project applicants themselves is hypothesized to be affected by S.O.P.s, as was the case with attendance by members of review committees (and governing bodies). One of the S.O.P.s is the kind of review authority granted the CHP agency by its external sponsor. Projects subject to a budget constraint[16] were more likely to be considered by the review committee with reference to a similar project than were

[16]Projects subject to a budget constraint in this study were those acute care and nursing home projects requesting an increase in bed number. The Michigan State Plan for Hospital and Medical Facilities Construction specifies the number of additional beds authorized for each of the State's seventy-seven Health Facility Service Areas (HFSAs). (State of Michigan, 1975, pp. 418-23)

those projects not subject to a budget constraint (Tables 6-22 and 6-23). A project applicant whose project is considered with reference to a similar project interacts directly or indirectly with other project applicants. Such interaction may be direct, for example, if two or more applicants participate in the committee review of similar projects undergoing concurrent review. Even if applicants do not participate together in project reviews, there is likely to be indirect interaction if information obtained from similar project applications or from prior reviews is used as a reference base by the review committee in evaluating the project under consideration.

Why would such differences in applicant participation affect performance? It is hypothesized that the review committee's ability to contain project cost is related to the kind of information available to committee members about the project. Two major sources of information relevant to the evluation of a particular project include that provided by the applicant (which is generally favorable to the project) and that available from applicants proposing similar projects. Whether the information acquired from an applicant with a similar project is likely to be favorable or unfavorable to the particular project under consideration is hypothesized to depend on whether the similar projects are subject or not subject to a budget constraint. Applicants have incentive to generate unfavorable information about competing projects subject to the same budget constraint. Thus, review committee members' access to critical information needed to challenge the favorable information submitted by the applicant is likely to be improved when (1) the project is considered with reference to a similar project, and (2) both are subject to the same budget constraint. This study found that projects

considered with reference to a similar project in the review process tended to face a more rigorous review than did projects considered in isolation without reference to a similar project. Within each of these two categories of applicant participation, projects subject to a budget constraint faced a more rigorous review than did those projects not subject (Table 6-27).

Having considered the effect of differential participation by project applicants, how is performance affected by differences in review committee attendance? First, does the providers' percentage share of review committee attendance affect performance variables such as the ratio of dollars endorsed to dollars requested, or the percentage of projects endorsed by that committee? Figure 6-4 suggests that for a selected group of projects,[17] as providers' domination increases, committees endorse a lower percentage of projects.[18] Perhaps it is a myth that consumers are more cost-conscious than providers. Maybe consumers, when put in positions of authority, are as impressed as the professionals seem to be with the need for new technology and facilities, and may be as subject to local community pride as providers are to professional prestige in wanting to have their own facilities locally even if duplicated elsewhere.

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[17]These were sixty-five nursing home bed projects subject to a budget constraint and considered with reference to a similar project.

[18]However, for thirty-three acute care non-bed projects not subject to a budget constraint and considered without reference to a similar project, the degree of provider domination seemed unrelated to the percentage of projects endorsed, which was high across the board. Six of seven such projects considered by a committee with providers comprising fifty-eight percent of total attendance were endorsed. All eighteen projects considered by four committees with provider share of attendance ranging from twenty-four to fifty-three percent were endorsed, as were all eight projects considered by five committees with provider share of attendance ranging from sixty-one to seventy-two percent (Table 6-33).

Second, turning from the consumer-provider conflict to geographical differences in representation, does a county's share of review committee attendance affect the percentage of its projects that get endorsed, or the ratio of dollars endorsed to dollars requested by that county? Contrary to the original hypothesis that projects from counties with higher percentage share of attendance would face a less rigorous review, it was found that among the group of sixty-five nursing home bed projects discussed in the preceding paragraph, the percentage of projects endorsed was highest (above forty-two percent) for the two groups of counties with less attendance (eleven percent or less of total). The percentage of projects of this type endorsed from counties with majority share of review committee attendance declined to thirty-two percent (Table 6-33). Similarly, the mean ratios of dollars endorsed to dollars requested were higher (0.37 and 0.33) for the two groups of counties with eleven percent or less of total review committee attendance than it was for the two groups with twelve percent or more of total attendance which had mean ratios of 0.24 and 0.29 (Table 6-34).

Why did the counties with larger shares of attendance have a tougher time getting their projects endorsed for the amount requested? Two factors may be at work here, both of which are consistent with the rationale that rigor of review is related to committee access to unfavorable information about the project. The issue is not whether a project will receive a critical mass of committee support, originally presumed to be more readily available from counties with greater shares of attendance. <u>All</u> projects have a strong base of favorable information provided by the application and its supporting documentation, irregardless of the strength of review committee support. The key question is which

projects are more likely to be challenged by unfavorable information, and is such more likely to be generated and sustained by members from counties with greater or lesser shares of total attendance? Such effective criticism would be forthcoming, it would seem, not from a few isolated members from less represented counties, but by potential blocks of interests within counties with larger shares of attendance, characterized by a more heterogeneous group of providers and a critical mass of active consumers. The second factor is that the budget constraint is not areawide. Deach of the several HFSAs within a CHP area receives a separate authorization for additional acute care and nursing home beds. Consequently, projects from an HFSA composed entirely of counties with minority shares of attendance would not be subject to the same budget constraint as projects from the HFSA with majority attendance, and thus would not be opposed by members from the county with majority attendance.[19]

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[19]Two opportunities for further study are suggested by this discussion. First, the role of the same budget constraint within an HFSA needs further analysis to determine whether rigor of review is affected by county's share of review committee attendance within the HFSA or by the number of competing project applicants within the county. Counties with larger shares of committee attendance are likely to also have more providers with competing applications than are the less represented counties. Some indication of this is seen in Table 6-33, which also suggests considerable balance between the four county share of attendance groups. Of the sixty-five nursing home bed projects subject to a budget constraint and considered with reference to a similar project, nineteen were from counties with majority share of attendance, seventeen each from counties with twelve to forty-nine percent of attendance and with four to eleven percent of attendance, respectively, and twelve projects from counties with three percent or less of total committee attendance.

Second, it would be well to relate county's share of review committee attendance to county's project dollars endorsed per capita to preclude the possibility that larger counties may have submitted larger and padded projects, but still wound up with more dollars per capita even after the projects were reduced with more rigorous review. Data from Table 6-21 and 6-39 may be combined to address this question in a cursory manner, however, and suggest that such a possibility is probably not the case. All counties with majority share of attendance were core counties (although three of fourteen core counties had less than majority share).

This analysis of the project review process has applied concepts and methods of economic theory to the study of political decision-making institutions. Such a public choice approach attempts to inquire beyond nominal rules and isolate effective rules of representation and procedure that influence resource allocation decisions. A fundamental issue is how the decision-making agenda is shaped. In the CHP project review process, recommendations by project review committees were rarely overturned by the agency governing bodies. Even though all CHP governing bodies nominally complied with the Federal mandate for consumer control (none had provider majority membership), membership on project review committeess was generally dominated by providers who had an even greater share of review committee attendance due to differential transaction costs between consumer and provider representatives which increased with spatial distance to meeting locations. Within the project review committee, one issue then, is which members participate in the review decision? Another issue is, on what basis do they decide? Committee members are generously supplied by the project applicant with information favorable to the project under consideration. How can members acquire information that is critical of the project, and who has any reason to provide it? Access to such information is likely to be improved in situations where the project is considered with reference to a similar project and both are subject to the

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Similarly, two-thirds of the counties with three percent or less of attendance were non-adjacent counties (although seven of seventeen non-adjacent counties had from four to fifteen percent shares). Total dollars endorsed per capita for core counties ($18.85) was less than that endorsed per capita for non-adjacent counties ($22,51). Core counties did have more acute care dollars endorsed per capita than non-adjacent counties, $14.21 to $10.08. However, this was offset by the distribution of nursing home dollars endorsed per capita, which was $12.43 for non-adjacent counties and only $4.64 for core counties.

same budget constraint, giving competing applicants considerable incentive to generate information unfavorable to the other project. The basic conclusion of this study is that the capacities of various actors, namely, project applicants and review committee members representing consumers and providers, to participate in and influence project review decisions are asymmetrical; thus, different actors are affected differently by rules such as the standing operating procedures (S.O.P.s) analyzed in this study.

These findings confirmed also that such criticisms of the review process as voiced by Mogulof (1971), Niskanen (1971) and others (ACIR, 1973) are applicable to the health facilities project review process, under certain conditions. When projects were not subject to a budget constraint and were considered without reference to a similar project, review decisions tended more often to be characterized as a "both/and" rather than an "either/or" choice. (Thurber, 1976) One may thus conclude from these findings that the "broker" role in resource allocation envisioned for multi-jurisdictional agencies by the Urban Mass Transit Administration official cited in Chapters One and Two is more likely to be assumed when the agency faces a budget constraint than when it doesn't.[20] Unless

[20]Does this focus on rules which create budget constraints suggest that we should forget the question of membership and attendance? Not at all! It simply recognizes that the review committee, however constituted in membership, seems to be at the mercy of the applicants in the cases of projects not subject to a budget constraint that are considered without reference to a similar project, as indicated by the finding that thirty-nine of forty such projects were endorsed (Table 6-32), generally for more dollars than requested in the initial letter of intent (Table 6-34). While percentage of projects endorsed and the ratio of dollars endorsed to dollars requested are only two aspects of rigor of review, which is only one aspect of health project review, these findings do suggest that the question of review committee membership and attendance is more relevant when considering projects subject to a budget constraint than those not subject.

it is perceived by review committee members and project applicants that there isn't enough money to go around to all the projects being considered, there is little incentive, first, for committee members to take on the "slicing of the pie," and second, for project applicants to provide the unfavorable information on competing projects that committee members need to inform the choices they are being asked to make.

D. Implications and Recommendations

These conclusions provide some useful insights into the project review process which, considering the exploratory nature of this research and the relatively narrow scope of its empirical data base, however, must be presented in the form of hypotheses to be considered in practical observations and tested through further research. The results should be of interest to those designing modifications of the structure of the review process, those participating in it as area staff or members, and those affected by review decisions. The results will find different uses in the hands of different people who are affected differently by alternative institutions.

1. Policy implications

a. "Legislative statutes" versus "administrative regulations"

The finding that ten of thirteen review committees had provider majority attendance suggests an erosion of the legislative intent which mandated consumer control of CHP agencies. Given the important role of the review committee in the project review decision process, writers of legislation and others interested in the impacts of legislation, such as that mandating participation by certain groups, would be well advised to follow through and monitor the writing of, and comment on, the administrative regulations that will implement the legislative statutes. Such

follow through should include careful consideration of possible discretionary internal standard operating procedures (S.O.P.s) likely to influence the outcome, as in this case, who will actually be present when project review decisions are effectively made. Furthermore, one must definitely recommend that researchers and policy analysts closely examine such S.O.P.s implemented within an organization when searching for key variables to help explain relationships between structure and performance that would improve the capacity to predict likely consequences of changing the rules.

b. Budget constraint and areawide project review

In general, those wanting the review process to solicit guidance from local input through an "either/or" choice between projects would probably favor the imposition of a budget constraint to structure competition between projects, as would likely those wanting the multi-county agency to play a role in constraining the amount of project activity approved for grant authorizations. On the other hand, those viewing the area review process primarily as a means for obtaining more grant resources for units within the area would more likely oppose a budget constraint, and tend to favor a "both/and" structure of choice so that more requests could be forwarded to the next decision-making point on the premise that those who request more get more funded.

Although the findings of this research were based on a budget constraint in terms of additional acute care or nursing home beds authorized, the conclusions concerning and implications of the relationships between a budget constraint, competition between project applicants and rigor of review should be applicable to other review processes considering the implementation of a budget constraint in the form of an areawide dollar

grant target. Such a dollar constraint has been employed in Michigan since July 1974 in several functional activities.[21] Use of the grant target with multi-county project review is being considered for other programs. Health services development funds were authorized by the National Health Resources and Development Act of 1974 (P.L. 93-641), but not fully appropriated, to provide grant targets for Health Systems Agencies (which replaced the CHP areawide agencies in early 1976) to use in fostering the development of specific proposals within the area to implement portions of the health systems plan. Furthermore, the administrator of the Urban Mass Transit Administration discussed "possible Congressional approval of an urban transportation block grant, covering both highways and mass transit, with the Metropolitan Planning Organization as the single agency for setting priorities as to what gets funded and what doesn't." (NARC, August 1976, p. 2)

The implications of these relationships may be extended beyond domestic programs to the grant review process of international development donor agencies such as the World Bank, Agency for International Development, and the Peace Corps. These findings suggest that a more rigorous review of proposals within the host country would be likely if the local reviewers were to have responsibility for recommending the allocation of a specified grant or loan target between competing project proposals. Without such responsibility for recommending allocation, the central office is likely to continue to be innundated with project requests, all highly recommended and "fully justified" but lacking in the kind of unfavorable information also needed for a critical evaluation by the one who must ultimately "slice the pie."

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[21] These were elaborated in Chapter II, section A.

c. Member participation

Any decision regarding the organizational structure of a CHP governing body or review committee would be difficult to make without affecting costs of participation faced by one group relative to those faced by another. Furthermore, stimulating the "heretofore unheard" to effectively balance the "previously influential" requires a commitment of CHP staff resources, which are limited and have their opportunity costs in other program requirements. For example, in a large geographic area, the "heretofore unheard" in health decisions prior to comprehensive health planning included representatives of consumers and from rural areas. One might increase consumer participation by stacking the review committee with core county consumers and outlying non-adjacent county providers. This might pose problems, however, given the concentration of health facilities and services, and therefore providers, in the core and adjacent counties. Alternatively, one might opt for several sub-unit review committees to lower the participation costs of outlying consumers and yet retain the input of core county providers into the project review process, at an increased cost of staff organizational and committee maintenance effort. The CHP staff members interviewed were generally aware of these trade-offs, yet seemed committed to efforts to increase participation from minority groups, rural areas and by consumers, within constraints of attaining quorums for meetings, accomplishing necessary health planning and project review functions, and maintaining agency credibility with health providers.

Other factors not specified in the analysis might also affect differential costs of participation, such as member income, or time of meeting. Considerable effort was made, for example, to identify low

income members for governing body membership, as mandated. However, the low income category was inevitably filled by a consumer. Some low income providers do exist in health occupations such as rural ambulance drivers, para-professionals in OEO programs, and hospital custodial or kitchen employees, among others. Yet, no recognized low-income provider representatives were identified as members of any governing body or review committee. It seems possible that this biased participation in favor of providers rather than consumers. Similarly, one three-county governing body met at 5:00 p.m. with dinner, so that members could go directly from the office to the meeting. As put by one officer, "If we let them get home first, we can never get them back after dinner." This has obvious appeal in lowering the cost of participation by the professional coming directly from the office. However, the dinner hour may actually be the most difficult time of day for the housewife-mother to break away for an activity she might have considerable interest in at another time of day when it imposed less cost on her husband. In another area where governing body members at the extreme ends faced a 300-mile round trip, travel time and distance were also taken into account. Meetings were generally held on Saturday during the day to minimize time members had to be away from their work.

d. Zero-based budgeting and Congressional budget review

The theoretical logic and empirical findings from this research may be applied to an analysis of the zero-based budgeting process proposed by Jimmy Carter during the 1976 Presidential campaign. The concept was developed in 1968 by Peter Pyhrr, then a Texas Instruments, Inc. executive, and was later implemented in the State of Georgia government. Pyhrr claims that

> The process requires each manager to justify his entire budget request in detail, and puts the burden of proof on him to justify why he should spend any money. (Pyhrr, 1973, p. xi)

Shifting the burden of proof is indeed a key point in the zero-based budgeting concept. Typically, the burden of proof has been on any member of Congress wanting to reduce or eliminate an agency's budget to justify why this should be done. The question remains, however, whether zero-based budgeting will in fact shift the burden of proof from the budget-cutter in the Legislature to the program proponent in the Executive agency.

The basic problem lies in the fact that the agency requesting funding generally holds a monopoly position on information needed by the Congress to make informed budget decisions. Acquisition costs are high to those who wish to extract information critical of the agency's past performance and potential effectiveness. Furthermore, the potential gain from utilizing such information, due either to improved program performance or to reducing budget costs by terminating programs, is a collective good shared by many other legislators in particular and much of the public in general. Thus few legislators have an incentive to bear the cost of sustaining a challenge to the agency or its programs.

On the other hand, key actors have vested interests in generating information favorable to the program under review. These include the agency staff, the Congressional oversight committee or sub-committee members and staff, and other spokesmen for the beneficiaries of the program. These people have strong personal incentives to promote continuation or expansion of the agency, as each may directly bear a high cost in terms of loss of employment, loss of committee function, or loss of program benefits, respectively, if funding for the agency were to be terminated or significantly reduced.

The key analytical issue is whether such nominal change, as the zero-based budgeting process, would have any effective impact on this differential incentive structure which reinforces agency survival and program expansion rather than termination or reduction. Without some change either to lower the cost of access to information critical of the program, or to raise the cost of generating information that builts an exceedingly favorable impression of the agency and program, the burden of proof will effectively remain with the critic to justify the challenge to the agency. That burden is unlikely to be borne to the extent needed to sustain a challenge.

This differential incentive structure reinforces the traditional focus of the debate which has centered around the size of the annual increase to be granted to a program, rather than on the question of the program's termination or retention. Thos expecting zero-based budgeting to shift this reference point should carefully consider, however, the high transaction cost required to maintain this focus on the zero base, once it is shifted. Should it become apparent to managers in the executive branch that no major program is ever going to be terminated or significantly reduced, the zero-based budgeting concept would quickly lose whatever force it had in initially shifting the reference point.

The probability of such prospects are high if program managers take into account the reactions of rivals to their own actions. If one's own actions are based in large part on one's perceived reactions of other program managers and of the Congressional committee members, what rule change might affect such perceived reactions?

First, consider that each agency can reasonably anticipate that all programs will not be cut back to zero, since government in general will

no doubt continue to function. In particular, each Congressional committee and sub-committee will prefer to continue its function, rather than abolish itself from existence. Thus a symbolic relationship develops between an Executive agency and its Congressional patron, each depending on the other for continued survival (Lemann, 1976, p. 37). Such an environment provides ample incentive for a program manager to engage in collusion with other managers and the Congressional committee. Each budget request submitted is likely to be presented within a mutually agreed upon range of acceptable increase from the program's previous authorization. Each manager may assume that the Congressional committee lacks the collective discipline needed to reduce the budget, particularly as committees operated prior to the Congressional Budget Impoundment and Control Act of 1974 (P.L. 93-344). Viewing the situation as a positive-sum game without such a budget constraint, other program managers were perceived as having little incentive to bear any costs of generating unfavorable information exposing weaknesses and cost-cutting opportunities in each others' proposals. Such collusion raised the cost of acquiring such information needed by potential budget-cutters, and which left them little incentive for effectively challenging the agency's presentation.

A budget constraint imposed on the Congressional committee of sub-committee reviewing the agency's budget request, however, should change the incentive structure by raising the cost of such collusion. If agency heads perceive that Congress and its appropriations committees are going to operate within a budget constraint, there is considerable disincentive in a zero-sum game to mutually defend each others' requests or larger budgets. No program manager can afford to assume that the

committee will exceed its authorized budget constraint, as the cost would be extremely high if it is this particular program that were to be reduced or terminated in order to remain within the constraint. Each budget maximizer should also perceive that other managers have an incentive to generate information critical of one's own proposal in order to preserve a "slice of the pie" for themselves. Each program manager would thus have reason to provide the kind of information supporting one's own program request that is least vulnerable to attack by competing managers. Thus, the incentive structure implemented by the budget constraint imposed on the Congressional committee should tend to discipline the size of each program's budget request, and reinforce the focus on a zero-base rather than on an incremental increase.

To effectively shift the burden of proof from the program critic to the agency manager justifying the expenditure, the zero-based budgeting concept needs the reinforcement of a budget constraint on each committee responsible for budget review in order to modify the incentive structure such that program managers perceive colluding among themselves as an alternative too costly to consider.

2. Suggestions for further research[22]

The multi-county area project review process occupies a position within a larger context of service delivery from the agency distributing

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[22]Three suggestions for further research were noted earlier in this chapter.

Two were identified in the Conclusions and Interpretations section (footnote 19). The first would investigate the relationship between rigor of review and county share of review committee attendance within a Health Facility Service Area, as well as any relationship between rigor of review and the number of competing project applicants within a county. The second suggestion was to relate county's share of review committee attendance to county's share of project dollars endorsed per capita,

resoucrces to the ultimate consumer of the services. Due to the necessity to limit the scope of this analysis, which focused on how does the structure of the review process in an areawide agency affect decisions by that agency as to which health facilities are endorsed by those area agencies, important issues on both sides of the project review process were left unaddressed.

The project application is a basic input to the project review process. This research suggested that review committee members have access to more critical information when reviewing similar projects, and explained how the review process might be structured to enable similar programs to be reviewed with reference to each other by the committee. Finding that projects considered without reference to a similar project received the less rigorous review raises another fundamental question needing study. How might competition between the project applicant and review committee members be structured more evenly in the review of dissimilar projects, particularly those involving complex technology. (Some dimensions of this probem are introduced in Appendix A.)

The source of funds is another input to the project review decision process. Further analysis might investigate relationships between the multi-county review agency and its external sponsor(s) at the State and/or Federal level. Concerning the budget constraint, who gets to set the level of the grant target for one area relative to another, and on what

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which would complement the relationship studied between county's share of review committee attendance and rigor of review.

A third suggestion, the need for careful identification of an attention to standard operating procedures (S.O.P.s) as an important component of structural variables was documented in the Conclusions and Interpretations section of this chapter, and was re-emphasized in the policy implications at the outset of this Implications and Recommendations section.

basis? How might the budget constraint be implemented? The rhetoric in terms of "centralized decision-making" versus "decentalized decision-making" generally obscures the multiple dimensional nature of the structure of choice. The dimension considered in this study was, given the level of grant resources that may be allocated within an area, who tends to make the choice between projects, under what conditions. Another dimension is who decides the level of resources each area gets to allocate. A third dimension is who gets to influence the criteria by which each area's grant target is determined. Having established that the structure of relationships within the areawide review transaction vary with and without a budget constraint, a question remains: how would implementation of the budget constraint affect the structure of relationships between participants in the CHP area review process and those in the external sponsoring agency.

On the output side, further research is needed on production relationships between the input mix of health facilities and other resources, including professional personnel, and costs of health care to the consumer. The rationale that health care costs may be controlled by constraining excess bed capacity needs to be subjected to empirical analysis that considers cost increases in other factors of production as well as cost of facilities. The first projects constructed with approval of the project review process in Michigan did not begin construction until after January 1, 1974 for nursinghomes and after April 1, 1974 for acute care. Thus, cost data should be available in 1977 and subsequent years from such projects that could be compared with data on costs prior to the implementation of projects endorsed by the review process to begin testing impacts of the attempt to constrain excess bed capacity on costs of health care. (LPER Unit, 1974)

A separate issue transcends the project review process to the generic conflict between concentrated and diffuse interests, such as illustrated by the various examples in section B, Chapter II. The basic question is how to deal with differences in opportunity sets of conflicting interests, particularly when there are imblanaces in incentives for generating information favoring the position of one interest and for acquiring information with which to effectively challenge that position. This study has examined the specific situation whereby the implementation of the comprehensive health planning agency and its project review process under "consumer control" with professional staff support represents an attempt to modify an imbalance of power between the public consumer of health services and the provider of health services. It was suggested that within this new environment, the project applicant generally still held the advantage relative to the review committee and governing body, not withstanding the latter groups' nominal authority to endorse or not endorse the proposed project. It was found that the review body tended more often to not endorse when the project was subject to a budget constraint and considered with reference to a similar project. Such a finding was consistent with the theoretical rationale that with the review body facing an "either/or" choice, the competing applicants were more likely to generate information critical of each other's project, information that the review body would find extremely difficult and costly to extract in an alternative situation without the assistance of competing applicants operating in an environment of scarcity related to the budget constraint. The theoretical argument and supporting empirical evidence suggest two different strategic appraoches to the basic question: (1) strengthening the capacity of the diffuse interest to extract

the information needed to effectively pursue its cause (through a planning and review process with consumer representation and staff support, in the situation studied) versus (2) creating an incentive for the concentrated interest (and its competitor) to generate the information needed by the diffuse interest. The cases studied suggested that review bodies tended more often to not endorse applicants' projects where applicants were thought to have an incentive to generate information critical of the competing project; but generally tended to endorse under conditions where the applicants lacked incentive to provide anything but the most favorable information. Thus, the budget constraint appears to have a crucial role in creating scarcity and in structuring a related incentive for a competing concentrated interest to generate information that tends to be too costly for the diffuse interest to acquire on its own. A key question is whether this phenomenon has application beyond the project review process. The brief analysis of the zero-based budgeting concept earlier in this section did demonstrate the relevance of a budget constraint to Congressional review of agency budget requests. Whether it has further conceptual and practical application to negotiation and monitoring of government contracts with large private contractors, to stockholder-management relations, or to difficulties faced by diffuse interests in issues of consumer and environmental protection would seem to merit a place on the research agenda.

APPENDICES

APPENDIX A.

CONCEPTUAL AND METHODOLOGICAL CRITIQUE

APPENDIX A. CONCEPTUAL AND METHODOLOGICAL CRITIQUE

A Ph.D. Dissertation is more than a report of research conducted; it also represents a journal of one's learning how to do research. It is a documentation of how one identified and specified a problem, conceived a framework for its analysis, and then conducted the analysis and reported the results to demonstrate the necessary credentials required for entry into one's profession and the community of scholars.

A brief examination of certain difficulties faced in the analysis, other than those discussed in the main text, and why such were circumvented, is an important part of such documentation.[1] These difficulties

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[1]Preparation of such a critique, however, is an activity that is not pleasant. One remembers that at the outset, the excitement of and determination to do "something relevant" was strongly conditioned by an implicit necessity to delineate a problem that was (a) manageable in terms of time and financial constraints, (b) sufficient to meet dissertation requirements, and (c) to be solved in an environment of uncertainty regarding the parameters of either (a) or (b). Having concentrated for so long under a strategy of selecting those concepts and variables which one thought might hang together, it is difficult now to reconstruct that which was excluded as perceived being "too messy." One has to cut through the agony one recalls feeling while trying to find categories of variables that could be operationally defined, and then once accomplishing this breakthough and gathering the data, trying to learn how to solve various computational problems, and how to organize an appropriate presentation of that which was to ultimately be the contents of this thesis. Furthermore, there was the painful ordeal of letting go. One had just learned to cope, it seemed, with a host of interrelated conceptual and methodological problems in an interactive process, and thus found himself being drawn towards trying to address further more of those issues that you finally felt equipped to deal with, at a time when impatient people had good reason to, and did implore you to "shut it off and wrap it up," often in terms unfit to print. Given these feelings, it is somewhat difficult to get in touch with what was discarded and why. However, one has to accept that such an assignment is good for oneself, and that it might, perhaps, provide something of value for others.

involve both conceptual problems in how to distinguish between categories of phenomena and then define such variables in operational terms, and methodological problems such as gaining access to data and developing appropriate capacity to manipulate and analyze the data obtained.

This analysis might well have addressed other performance dimensions beyond rigor of review and geographic distribution of projects considered. Such dimensions include (a) what kinds of projects get articulated and submitted for review; and (b) other categories of distributional impacts not considered. Furthermore, some of the criteria actually specified for the two performance dimensions which were analyzed were discarded either due to lack of access to data, or lack of time for further analysis of data actually obtained. Finally, some additional institutional variables are inferred by the additional performance variables suggested, and there are other possibilities as well. These all relate to some tentative hypotheses, many of which were considered at one stage or another during the research, but which remained only loosely stated and untested.

A. Which Projects Get Articulated?

Observation of the project review process early in this research called attention to the question: what kinds of project proposals get articulated and submitted for review, and what potential alternative projects are left unarticulated? This question frequently became linked with another issue as the research evolved: how could the review process structure competition for those unique projects reviewed in isolation without reference to a similar project? This issue was particularly evident in the cases of complex projects involving advanced technology,

where the choice generally faced by the review committee was to either endorse or not endorse the proposed project.

The notions of comprehensive health planning and project review would intuitively suggest that the review committee members might find it consistent with their role to question, for example, whether a proposed expenditure of $2 million for a new item of technologically advanced equipment might be better spent on an alternative project in the community, as part of their decision process whether to endorse or not endorse the proposal. This is not effectively done, however, for reasons that provide additional insights to the review process that were not adequately developed in the main text.

First, the project review process is reactive in the sense that projects are initiated by the provider. Thus, project review has potential influence on resource allocation only within a context of resource mobilization[2] at the initiative of the applicant provider. The review body is not in a position to ask that a hospital proposing an expenditure within its facility consider the alternative of spending its resources elsewhere in the community outside the hospital's function. Nor could the review body itself effectively generate such alternative project proposals without sponsorship of other providers having the necessary resources available to implement such alternatives.

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[2]David O. Porter and David C. Warner suggest a theory of resource mobilization by organizations, viewing the federal grants-in-aid process from the "bottom-up," rather than a thoery of resource allocation trying to explain the process from the "top-down." (p. 279 in David O. Porter and David C. Warner, "How Effective are Grantor Controls?: The Case of Federal Aid to Education," in Kenneth E. Boulding, Martin Pfaff and Anita Pfaff, Eds., Transfers in an Urbanized Economy--Theories and Effects of the Grants Economy, Belmont, California, Wadsworth Publishing Co., Inc., 1973, pp. 276-302.

However, other providers could mobilize resources and generate alternatives (and often did when the project category was subject to a budget constraint, as indicated in the main analysis). The point to be emphasized here is that even though it is conceptually possible to develop an alternative to a complex project involving advanced technology, it seems to be difficult to do so. The following discussion explores this difficulty in more detail, and may help explain why 58 of the 84 non-bed projects analyzed in this study were considered in isolation by the review process, without reference to a similar project.

A hypothetical example will attempt to illustrate contrasts in the articulation of demand for two project alternatives for reaching a comparable objective--a reduction in lives lost to cancer. The example will emphasize differential incentives for the articulation of demand as expressed by preparation of the project proposal and support for the proposal both in the market and in the public review hearings. One approach would be a hospital proposal to obtain a linear accelerator which would provide curative radiation treatment at reduced risk to the patient than possible with earlier technology. Why would anyone lead the effort to mobilize nearly $2 million involved in the purchase of such equipment and construction of additional space for it, and who might do so? Patients who have need for such treatment are already traveling to be treated by such a facility currently available in a distant metropolitan center. Each could save travel time and cost by being treated closer to home, yet no patient volunteers a bid to individually bear the cost of hiring a qualified consultant to prepare a project for a facility that would allow treatment closer to home. This entrepreneurial function, however, is likely to be performed by a medical specialist

in charge of an emerging oncology[3] department providing radiation therapy in a leading hospital in the local region. Opportunities for professional recognition and growth of his department provide considerable incentives for organizing a project proposal that would enable the hospital to capture a share of the "market" for this service now being lost to the treatment center in the metropolitan area. That anticipated share is estimated to be sufficient to support the costs of implementing such a project. Thus its development has the approval of the hospital administration which contracts an architect and other assistance necessary for the preparation of the project proposal which is submitted and strongly supported in the review process.

It is quite possible, on the other hand, that more lives could be saved at lower cost to people in the community through an alternative investment in a preventative program, such as promoting gynecological examinations aimed at early detection of all existing cases. Various options for financing such a program are available, but the key issue is who might be willing to organize such a project? Just as none of the patients in the curative example would likely bear the organizational cost, it is even less likely that any prospective patient would volunteer to organize a project designed to lower the cost of receiving what is perceived to be bad news in the form of a positive diagnosis. As in the above case, such a latent group requires a political entrepreneur (Olson, 1971, pp. 175-77) to assume leadership in organizing the effort to provide the collective good. Such appears hard to come by, however. There appear to be no comparable incentives of professional recognition or income generation opportunities that would encourage a practicing

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[3]Oncology is the study of tumors.

physician to divert energies towards the design and mobilization of such a project. Thus, an alternative that may have considerable potential for saving lives is left unarticulated, which in turn restricts the opportunity set faced by the review committee to a choice of endorsing or not endorsing the curative treatment approach of the linear accelerator project.

Some implications of such a differential incentive structure affecting which projects get articulated become more dramatic if one speculates a bit further about possible distributional impacts of the two hypothetical alternatives. Beneficiaries of the curative treatment approach may tend to be older men and women, some of whom are retired, whereas younger women (and their families) more likely to be in their income producing years may tend to benefit from the preventative approach indicated. The question of who pays the cost of the curative treatment project is complex and interesting. As indicated above, there is a "market" that the physician can expect to attract. However, those costs are quite possibly spread beyond the benefiting patients in two ways. First, those patients covered by various forms of health insurance are able to have some of those treatment costs paid by the premiums of other insureds requiring less care. Second, some costs of expensive hospital services using more advanced technology may be cross-subsidized through hospital overhead charges billed to customers of lower-cost services. (The threat posed by "minimal-service" proprietary hospitals indicates that such competition may affect the capacity of "full-service" hospitals to provide specialized services at existing relative costs.) In contrast, consider the alternative situation, first, in absence of the preventative examination program mentioned at the outset. The cost of

preventative measures is not covered by some health insurance programs, and thus may be borne directly by the person examined. Furthermore, the consequences of a lack of early detection may fall more heavily on those less inclined to obtain physical examinations at frequent intervals, which may be related to income level among other factors. Turning to the incidence of cost of a preventative program, such could vary with design, ranging from bearing directly on only those examined persons needing treatment to a full public subsidy.

This brief analysis of two hypothetical alternatives suggests that within the existing differential incentive structure for project articulation, a health insurance bias favoring curative versus preventative care tends to reinforce "market" articulation of demand for the curative treatment alternative, which in this comparison benefits older people rather than younger women. However, the costs of such an alternative may be borne far beyond those directly served. Some of those costs may actually be imposed on thos people who would have the most to gain from an alternative project which no one has sufficient incentive to articulate and present for consideration.

B. Other Categories of Distributional Impacts

The foregoing example suggests other categories of distributional impacts not addressed in the main analysis. Key differences in interest groups involve many dimensions other than county location. These would include age and income levels, sex, minority, ethnic and/or religious groupings, occupations, and rural versus urban, among others. Analysis of these dimensions would have required much more detailed data than was readily available from the sources utilized. Specific project files might contain such impact information, if such were estimated on the

project application or during the project review. (Another less ambitious approach might be to simply note whether such impacts were even addressed during the review, without trying to record and analyze what impacts were specified.) Comparable indicators were not listed for review participants, and would have required survey or interview methods to obtain them. Aside from these methodological problems, there is a related conceptual problem involved, which discouraged pursuit of such dimensions. Coalitions of interests, with varying degrees of stability, develop to support or oppose projects. The critical threshholds needed for coalition formation differ with conditions and may vary from one situation to another. A swing minority that is capable of providing a winning majority to one side or another can be very powerful, yet costs of organizing vote trading are high, such that very little log-rolling may actually take place in many cases. This may be a factor in why a minority of a given percentage was found to be more effective in attaining its demands in a small group than in a large group.[4] Coalition formation is a very complex idea. While it may very likely lend itself to analysis by the conceptual framework applied to this research, it was considered outside the scope of this study.

It is granted that such a delineation of scope treated the relationship of degree of representation to performance as one-dimensional function of spatial distance from county of residence to county where the meeting was held. Complicating this were methodological problems of relating several dimensions of review committee participation to any

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[4]See George R. McDowell, "Whose Preferences Count: A Study of the Effects of Community Size and Characteristics on the Distribution of the Benefits of Schooling," East Lansing, Michigan State University, Department of Articultural Economics, Unpublished Ph.D. Disseration, 1975.

given performance measure.[5] Falling back to county share of committee attendance then left the implication of a relationship that was too linear between a group's attendance and getting its demands met.

Another related conceptual problem was the possibility that benefits from projects may flow across county lines, in some cases more than others, suggesting needed disaggregation within counties as to geographic distribution of benefits.

C. Specified Performance Criteria that were Discarded

Some criteria specified for the two performance dimensions indicated in Section D of Chapter III, namely, rigor of review and geographic distribution of projects, were not utilized to the extent anticipated. This was due either to lack of access to data, or lack of time to complete the analysis as planned.

Under rigor of review, two problems were confronted in obtaining number of beds authorized by the State health plan. (This was to be the denominator for the bed containment quotient, defined as the number of beds endorsed/number of beds authorized.) First, these were authorized by Health Facility Service Area and not disaggregated by county. Second, after the data was collected the period of the study was found to overlap authorizations by both the 1974 and 1975 plans, which each extended beyond the time frame of the data collected. In addition, computational problems in computing the bed containment coefficient, defined as the number of beds endorsed/number of beds requested) were not solved due to lack of time.

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[5]This and other situations presented a choice between attempting to use the AGGREGATE procedure in the Statistical Package for Social Scientists (SPSS), which was discouraged, or performing the calculations manually on an electronic calculator.

Similarly, the desired analysis was not completed relating three dimensions of participation in the review transaction to geographic distribution of projects. These were: Is per capita distribution of project dollars endorsed associated with county's share of committee attendance? Is there any relationship between county's share of committee attendance and its share of total dollars endorsed in the area? Is there any relationship between the areawide coefficient of concentration[6] of attendance relative to population and the areawide coefficient of concentration of project dollars endorsed relative to population?

D. Other Institutional Variables and Untested Hypotheses

Several other institutional variables were considered beyond those inferred by the above discussion of additional performance dimensions. The introduction of these will be followed by a discussion of some tentative hypotheses which emerged during the research, but were not tested.

Whether a project was considered with or without reference to a similar project was, in a sense, a crude proxy for the degree of complexity of technology. It was found difficult to conceptualize meaningful distinctions in the level of technology involved in a project, so this avenue was not pursued. However some relationships seemed apparent and merit further work. Within the paradigm of differential access to information, it would cost more to become informed about a complex project, thus the review committee is more dependent upon information furnished

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[6]James T. Bonnen identified an opportunity for improvement in the coefficient of concentration, where a low value approaching zero indicates that attendance is distributed by county in proportion to population. If a high value approaching 1.0 indicates that attendance is concentrated from the county having the smallest share of population, Bonnen suggests that a value approaching -1.0 might be used to indicate that attendance is concentrated from the county having the highest share of population. This useful distinction is not mentioned in the literature on this subject cited in Chapter V.

by the applicant, than with less complex projects. Furthermore, there are fewer complex projects due to their higher cost of implementation, thus they are likely to be reviewed without reference to a similar project, which means that the committee has less experience to draw from, when contrasted with more common projects such as nursing home beds. The elusive problem remains, how to structure more competition in the review of dissimilar projects? Findings of this research suggest that imposition of an areawide annual budget constraint of dollars to be endorsed would reinforce the committee's requests for information. Capacity to further disaggregate the dimension of degree of technological complexity might also help to contribute an answer.

Would source of project funds be related to the rigor of review? For example, would a review committee be less likely to deny endorsement for a project to be financed entirely with local private funds, or local government funds, as compared with those projects requesting funding from State or Federal government sources? An argument was raised in one review that since the people had already approved a millage increase for a County Extended Care Facility, it would be inappropriate for the review agency to refuse endorsement. This raises questions, not only about the timing of the review process in terms of providing guidance to local citizens' decisions, but also regarding whose preferences are more likely to remain sacrosanct in the structure of power to influence how consumers' resources must be spent for health care in the community. Control of the agenda is a potentially important institutional variable.

A related issue is does type of control of the facility make a difference? Eight classifications of type of control are identified in

the Michigan State Health Plan (State of Michigan, 1975), including non-profit, proprietary, Federal, State, County, City and others. In a competitive situation, would a proprietary nursing home be more or less likely to receive endorsement than, say, a county-owned Medical Care Facility, and for what reasons? Would such difference, if any, be associated with other institutional variables, such as varying between areas? Similarly, does the review process tend to favor large hospitals versus small hospitals?

The work of Niskanen (1971) suggests that even when there is competition between project applicants, a particular kinds of facility or service may be more likely to receive endorsement from a review committee that is dominated by representatives of a group with relatively high demands for that service. This hypothesis could have been tested with data differentiating provider representatives affiliated with hospitals and those affiliated with nursing homes, and checking whether the review decisions of those committees with higher representation of one relative to the other tended to reflect a preference for their own services.

An Index of Medical Underservice[7] was developed by the Department of Health, Education and Welfare to determine priority areas for Health Maintenance Organizations under the Health Maintenance Organization Act of 1973 (P.L. 93-222). Would there be any association between a county's index rating and project dollars requested or approved per capita? Within

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[7]The index of Medical Underservice was based on (a) ratio of primary care physicians to population; (b) infant mortality rate; (c) percentage of population which is 65 or over; and (d) percentage of the population with family incomes below the poverty line. Any local unit having an index of 62 or lower on a scale of zero to 100 is considered medically underserved. (Federal Register 40, "Designation of Medically Underserved Areas and Population Groups," No. 170, September 2, 1975, pp. 40315-20.

a given category of medical underservice,[8] would the dollars requested or approved per capita vary by core, adjacent, and non-adjacent counties?

Finally, another interesting area of inquiry would be to trace the interrelationship over time between representation of members and distribution of projects approved. This approach of this study implied that distribution of health projects endorsed might be a function of the distribution of review committee attendance, but found inconclusive results. An equally plausible hypothesis is that review committee members tend to become concentrated in core and urban areas because specialized health facilities and services tend to be concentrated there, thus limiting the kinds of provider representatives that are available from outlying and rural areas. Does this concentration of representation change over time? Has it been affected by the transition from Comprehensive Health Planning Agencies to Health Systems Agencies, with the related reduction in number of agencies and maximum number of thirty members allowable on a governing body?

Another variable considered at the outset of this inquiry was whether the CHP agency had developed its own areawide health plan beyond its obligation to implement the State health plan. Choosing to focus on project review than the planning process, it was decided not to investigate possible relationships between selected institutional variables and whose preferences got reflected in the priorities emphasized by the plan. Another focus, however, was definitely considered within the scope of the problem as defined. That focus was how might such priorities,

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[8]Michigan's counties are divided into three categories: (1) totally underserved--all of the county is considered a medially underserved area (Federal Register 40, p. 40375); (2) partially served--portions of the county are considered medically underserved areas (Ibid., pp. 40376-78); and (3) totally served--none of the county is considered medically underserved.

specifically those indicating internally specified budget constraints, as articulated in the areawide plan affect project review decisions? Can any differences be found in project review decisions by those areas having their own plan and those lacking such? This aspect of the study, however, faced considerable conceptual difficulty in specifying what actually constituted an areawide plan. Since no budget constraints were found to have been determined internally by CHP area agencies,[9] this dimension was not pursued as an institutional variable.

This seems an appropriate point to re-emphasize the focus of this research on the imapct of a budget constraint on project review decisions by various review committees, each having some projects subject to a budget constraint and some not subject. Lacking the variable relating to an internally determined budget constraint, the study was not a comparison between areas. It was also not construed to be an evaluation of CHP agencies, nor was it any attempt to conduct an analysis of health resource allocation with and without project review.

E. Concluding Remarks

An impression is very likely conveyed from this exposure that what was done and reported in this study was fairly modest relative to what could have been done with the data actually obtained, which itself appears to have been "slim pickings" compared to what could have been done with more careful anticipation and integration of the conceptual and methodological difficulties expressed here. However, the same thing can and should be said of most dissertation work, if not all research, if the goal of such effort is not only to contribute towards the partial solution

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[9]This finding is consistent with the theoretical framework and its extension developed in Chapters III and IV.

of problems, but to also improve one's capacity to do so in the process. One then should not lose sight of the fact that a major emphasis of this particular effort was to assess the effect of an externally imposed budget constraint on project review decisions within a context of those other institutional alternatives (including selected standing operating procedures) which could be operationally defined and for which data could be found readily available. This critique is concluded with a personal assertion that this primary goal was accomplished, in a manner (1) which demonstrated (a) the applicability and workability of a conceptual framework that integrated individual incentives with collective choice, consistent with economic theory, and (b) the usefulness of public quasi-legal records as an informative source of data; (2) which improved our descriptive and analytical understanding of the project review process; and (3) which provided a solid preliminary base of conclusions concerning impacts of a budget constraint on project review decisions that suggest important implications for other situations of collective choice as outlined in Chapter VII. That so much related work remaining to be done has been suggested in the foregoing pages would perhaps indicate that (a) the effort need not be faulted as having been done in isolation from other disciplinary and practical problems; and (b) the problem addressed and approach utilized can be considered fertile areas for additional attention by others.

APPENDIX B.

Table B-1. Membership Composition of Ten Michigan CHP Governing Bodies by Type of Representative

CHP Area	Location of Office	Consumer Representatives as Percent of Total		Provider Representatives as Percent of Total
		Consumers Only	Consumers Plus Elected Officials	
1	Detroit	47.2%	55.9%	44.1%
2	Jackson	55.1%	55.1%	44.9%
3	Battle Creek	58.0%	60.2%	39.8%
4	St. Joseph	47.3%	63.7%	36.3%
5	Flint	50.3%	57.3%	42.7%
6	E. Lansing	50.4%	59.9%	40.1%
7	Saginaw	50.0%	58.4%	41.6%
8	Grand Rapids	50.1%	65.0%	35.0%
9	Petoskey	52.0%	58.7%	41.3%
10	Marquette	51.0%	55.9%	44.1%

Table B-2. Membership Composition of Seventeen Review Committees in Eight Michigan CHP Agencies by Type of Representative

CHP Area	Subunit	Consumer Representatives as Percent of Total		Provider Representatives as Percent of Total
		Consumers Only	Consumers Plus Elected Officials	
3		44.6%	44.6%	55.4%
4		19.7%	26.3%	73.7%
5		36.3%	36.8%	63.2%
6		32.1%	32.1%	67.9%
7		39.2%	49.3%	50.7%
8	Central CPU	51.1%	55.6%	44.4%
	East CPU	46.4%	51.8%	48.2%
	North CPU	57.0%	73.8%	26.2%
	Northwest CPU	48.6%	48.6%	51.4%
	West CPU	46.9%	46.9%	53.1%
9	Alpena	56.6%	56.6%	43.4%
	Gd. Traverse	38.8%	44.9%	55.1%
	Petoskey	39.4%	39.4%	60.6%
10	Zone I	34.0%	34.0%	66.0%
	Zone II	44.4%	44.4%	55.6%
	Zone III	47.9%	61.6%	38.4%
	Zone IV	40.0%	40.0%	60.0%

Table B-3. Concentration of Membership Relative to County Population in Michigan CHP Governing Bodies and Review Committees July 1974 - September 1975

CHP Area	Governing Body Coefficient of Concentration	Subunit	Review Committee Coefficient of Concentration	Relative Difference in Concentration (RC - GB)/GB
1	0.05	--	not obtained	not obtained
2	0.01	--	not obtained	not obtained
3	0.14	--	0.37	+1.64
4	0.13	--	0.15	+0.15
5	0.25	--	0.04	-0.84
6	0.11	--	0.19	+0.72
7	0.14	--	0.28	+1.00
8	0.21	Central	0.0	-1.00
		East	0.06	-0.71
		North	0.18	-0.14
		Northwest	0.09	-0.57
		West	0.13	-0.38
9	0.14	Alpena	0.27	+0.92
		Gd. Traverse	0.22	+0.57
		Petoskey	0.32	+1.29
10	0.18	Zone I	0.13	-0.28
		Zone II	0.17	-0.05
		Zone III	0.19	+0.06
		Zone IV	0.06	-0.66

Table B-4. Member and Alternate Attendance as Percentage of Membership by County Location and Type of Representative

County Location	CHP 6 Review Committee		CHP 6 Governing Body		CHP 1 Governing Body	
	Members	Alternates	Members	Alternates	Members	Alternates
Core						
Attendance	123	13	309	61	146	55
Membership	176	53[a]	493	184[a]	302	156[a]
Participation[b]	69.9%	24.5%	62.7%	33.2%	48.3%	35.3%
Adjacent						
Attendance	28	0	71	6	124	34
Membership	36	8[a]	117	46[a]	260	136[a]
Participation[b]	77.8%	0%	60.7%	13.0%	47.7%	25.0%
Non-adjacent						
Attendance	--	--	--	--	11	3
Membership	--	--	--	--	26	15[a]
Participation[b]	--	--	--	--	42.3%	20.0%
Type of Representative						
Consumer	60	1	216	25	141	48
Attendance	68	8[a]	339	123[a]	304	163[a]
Membership	88.2%	12.5%	63.7%	20.3%	46.4%	29.4%
Participation[b]						
Provider						
Attendance	91	12	164	42	140	44
Membership	144	53[a]	271	107[a]	284	144[a]
Participation	63.2%	22.6%	60.5%	39.3%	49.3%	30.6%

[a]Alternate "membership" equals member membership minus member attendance.

[b]Participation is computed as attendance as percentage of membership.

Table B-5. Attendance Composition of Ten Michigan CHP Governing Bodies by Type of Representative

CHP Area	Location of Office	Consumer Representatives as Percent of Total				Provider Representatives as Percent of Total		Total
		Consumers Only		Consumers Plus Elected Officials				
		No.	Pct.	No.	Pct.	No.	Pct.	
1	Detroit	189	46.1	226	55.1	184	44.9	410
2	Jackson	78	50.6	78	50.6	76	49.4	154
3	Battle Creek	51	54.3	51	54.3	43	45.7	94
4	St. Joseph	62	46.6	88	66.2	45	33.8	133
5	Flint	138	51.7	161	60.3	106	39.7	267
6	E. Lansing	241	51.0	267	56.4	206	43.6	473
7	Saginaw	76	47.2	86	53.4	75	46.6	161
8	Gd. Rapids	134	50.4	175	65.8	91	34.2	266
9	Petoskey	58	46.4	66	52.8	59	47.2	125
10	Marquette	73	44.2	82	49.7	83	50.3	165

Table B-6. Attendance Composition of Thirteen Review Committees in Seven Michigan CHP Agencies by Type of Representative

CHP Area	Subunit	Consumer Representatives as Percent of Total				Provider Representatives as Percent of Total		Total
		Consumers Only		Consumers Plus Elected Officials				
		No.	Pct.	No.	Pct.	No.	Pct.	
3		22	41.5	22	41.5	31	58.5	53
4		14	18.4	21	27.6	55	72.4	76
5		41	29.3	42	30.0	98	70.0	140
6		61	37.2	61	37.2	103	62.8	164
7		64	38.8	77	46.7	88	53.3	165
8	Central	77	51.0	83	55.0	68	45.0	151
	East	41	41.8	48	49.0	50	51.0	98
	North	47	48.5	74	76.3	23	23.7	97
	Northwest	54	47.0	54	47.0	61	53.0	115
	West	49	46.7	49	46.7	56	53.3	105
9	Alpena	17	53.1	17	53.1	15	46.9	32
	Gd. Traverse	19	35.8	20	37.7	33	62.3	53
	Petoskey	21	38.9	21	38.9	33	61.1	54

Table B-7. Comparison of Governing Body Membership and Review Committee Attendance in Michigan CHP Areas and Subunits

CHP Area	Subunit	Consumers Representatives[a] as Percent of Total				Provider Representatives as Percent of Total			
		Governing Body		Review Committee		Governing Body		Review Committee	
		Membership	Attendance	Membership	Attendance	Membership	Attendance	Membership	Attendance
1		47.2	46.1	b	b	44.1	44.9	b	b
2		55.1	50.6	b	b	44.9	49.4	b	b
3		58.0	54.3	44.6	41.5	39.8	45.7	55.4	58.5
4		47.3	46.6	19.7	18.4	36.3	33.8	73.7	72.4
5		50.3	51.7	36.3	29.3	42.7	39.7	63.2	70.0
6		50.4	51.0	32.1	37.2	40.1	43.6	67.9	62.8
7		50.0	47.2	39.2	38.8	41.6	46.6	50.7	53.3
8		50.1	50.4			35.0	34.2		
	Central			51.1	51.0			44.4	45.0
	East			46.4	41.8			48.2	51.0
	North			57.0	48.5			26.2	23.7
	Northwest			48.6	47.0			51.4	53.0
	West			46.9	46.7			53.1	53.3
9		52.0	46.4			41.3	47.2		
	Alpena			56.6	53.1			43.4	46.9
	Gd. Traverse			38.8	35.8			55.1	62.3
	Petoskey			39.4	38.9			60.6	61.1

Table B-7. Continued

CHP Area	Subunit	Consumers Representatives[a] as Percent of Total				Provider Representatives as Percent of Total			
		Governing Body		Review Committee		Governing Body		Review Committee	
		Membership	Attendance	Membership	Attendance	Membership	Attendance	Membership	Attendance
10		51.0	44.2		b	44.1	50.3		b
	Zone I			34.0	b			66.0	b
	Zone II			44.4	b			55.6	b
	Zone III			47.9	b			38.4	b
	Zone IV			40.0				60.0	
Number from CHP Areas 3 through 9 with Consumer Majority		6 of 7	4 of 7	3 of 13	2 of 13				
Provider Majority						none	none	9 of 10	10 of 13

[a]Consumer representatives only; does not include elected officials.

[b]Data not collected (See Table 5-2).

Table B-8. Provider Representation as Percentage of Total Review Committee Membership and Attendance

Number of Counties	CHP Area or Subunit	Core Counties			Adjacent Counties			Non-Adjacent Counties			All Counties		
		Membership	Mean Attendance	Mean	Membership	Mean Attendance	Mean	Membership	Mean Attendance	Mean	Membership	Mean Attendance	Mean
1	8 Central	44.4	45.0[a]		--	--		--	--		44.4	45.0[a]	
2	8 East	48.2	51.0[a]		--	--		--	--		48.2	51.0[a]	
2	8 West	53.1	53.3[a]		--	--		--	--		53.1	53.3[a]	
1 or 2 counties			48.6	49.8[a]		--	--		--	--		48.6	49.8[a]
3	4	63.5	72.3[a]		62.2	60.7		--	--		63.2	70.0[a]	
3	5	65.5	63.2		100.0	100.0		--	--		73.7	72.4	
3 counties			64.5	67.8[a]		81.1	80.0		--	--		68.5	71.2[a]
4	9 Petoskey	55.6	48.7		61.8	91.7[a]		100.0	100.0		60.6	61.1[a]	
5	9 Alpena	44.6	47.8[a]		33.3	33.2		50.0	50.0		43.4	46.9[a]	
5	3	54.5	75.0[a]		46.3	37.0		100.0	100.0		55.4	58.5[a]	
4 or 5 counties			51.6	57.2[a]		47.1	54.0[a]		83.3	83.3		53.1	55.5[a]
9	9 Gd. Traverse	42.9	46.7[a]		68.2	84.2[a]		50.0	75.0[a]		55.1	62.3[a]	
14	7	55.2	60.0[a]		36.8	46.9[a]		37.0	38.1[a]		45.8	53.3[a]	
9 or 14 counties			49.1	53.4[a]		52.5	65.6[a]		43.5	56.6[a]		50.5	57.8[a]
All Committees (without alternates or rotated meeting location)	mean	n=10	n=10		n=7	n=7		n=5	n=5		n=10	n=10	
			52.8	56.3[a]		58.4	64.8[a]		67.4	72.6[a]		54.3	57.4[a]
	median	53.8	52.2		61.8	60.7		50	75[a]		54.1	56[a]	
	range	42.9-65.5	45-75		33.3-100	33.3-100		37-100	38.1-100		43.4-73.7	45-72.4	
Rotated Meeting location													
4	8 North	--	--		26.2	23.7		--	--		26.2	23.7	
3	8 Northwest	42.3	47.4		84.3	76.5		54.2	55.0[a]		51.4	53.0	
With Alternates													
3	6	71.6	66.9		50.0	42.9		--	--		67.9	62.8	
All Committees	mean	n=12	n=12		n=10	n=10		n=6	n=6		n=13	n=13	
			53.5	56.4[a]		56.9	59.7[a]		65.2	69.7[a]		53.0	54.9[a]
	median	53.8	52.2		55.9	53.8		52.1	65[a]		53.1	53.5[a]	
	range	52.3-71.6	45-75		26.2-100	23.7-100		37-100	38.1-100		26.2-73.7	23.7-72.4	

[a]Indicates provider share of total attendance is greater than provider share of total membership.

APPENDIX C.

CODEBOOK FOR GOVERNING BODY AND REVIEW COMMITTEE MEMBERS

APPENDIX C. CODEBOOK

FOR GOVERNING BODY AND REVIEW COMMITTEE MEMBERS

Variable Name	Card Column Numbers	Variable Label	Value Labels
CARD	1	Card Number	(4) Governing Body (5) Project Review Committee - Subunit 1 (6) Project Review Committee - Subunit 2 (7) Project Review Committee - Subunit 3 (8) Project Review Committee - Subunit 4 (9) Project Review Committee - Subunit 5
REGION	2	CHP Area	(1) CHP 1 (2) CHP 2 (3) CHP 3 (4) CHP 4 (5) CHP 5 (6) CHP 6 (7) CHP 7 (8) CHP 8 (9) CHP 9 (0) CHP 10
RESPNUM	3 - 5	Respondent (Member) Number	
CONUM	6 - 7	County Number	(1) Alcona (2) Alger (3) Allegan (4) Alpena (5) Antrim (6) Arenac (7) Baraga (8) Barry (9) Bay (10) Benzie (11) Berrien (12) Branch (13) Calhoun (14) Cass (15) Charlevoix (16) Cheboygan (17) Chippewa (18) Clare (19) Clinton (20) Crawford (21) Delta (22) Dickenson (23) Eaton (24) Emmet (25) Genesee (26) Gladwin (27) Gogebic (28) Gd Traverse (29) Gratiot (30) Hillsdale (31) Houghton (32) Huron (33) Ingham (34) Ionia (35) Iosco (36) Iron (37) Isabella (38) Jackson (39) Kalamazoo (40) Kalkaska (41) Kent (42) Keweenaw (43) Lake (44) Lapeer (45) Leelanau (46) Lenawee (47) Livingston (48) Luce (49) Mackinac (50) Macomb (51) Manistee (52) Marquette (53) Mason (54) Mecosta (55) Menominee (56) Midland (57) Missaukee (58) Monroe (59) Montcalm (60) Montmorency (61) Muskegon (62) Newaygo (63) Oakland (64) Oceana (65) Ogemaw (66) Ontonagon (67) Osceola (68) Oscoda (69) Otsego (70) Ottawa (71) Presque Isle (72) Roscommon (73) Saginaw (74) St Clair (75) St Joseph (76) Sanilac (77) Schoolcraft (78) Shiawassee (79) Tuscola (80) Van Buren (81) Washtenaw (82) Wayne (83) Detroit (84) Wexford

REPTYP	8 - 9	Type of Representative (1) Consumer (2) Elected Official (3) Provider (4) Ex Officio
PROF	10-11	Professional Affiliation (1) Physician, Hospital Administrator or Nurse in Hospital (not M.D. in Public Health) (2) Nursing Home Administrator
HFSANUM	19-20	Health Facility Service Area (1) Marquette (2) Crystall Falls - Stambaugh (3) Escanaba (4) Hancock (5) Iron Mountain (6) L'Anse (7) Manistique (8) Munising (9) Newberry (10) Ontonagon (11) St Ignace (12) Sault Ste Marie (13) Menominee (14) Wakefield (15) Petoskey (16) Cheboygan (17) Gaylord (18) Rogers City (19) Traverse City (20) Cadillac (21) Frankfort (22) Grayling (23) Ministee (24) Bay City (25) Saginaw (26) Alma (27) Alpena (28) Bad Axe (29) Cass City (30) Midland (31) Mt Pleasant (32) Tawas City (33) West Branch (34) Port Huron (35) Thumb (36) Muskegon (37) Fremont (38) Hart (39) Ludington (40) Grand Rapids (41) Big Rapids (42) Greenville (43) Holland (44) Ionia (45) Reed City (46) Benton Harbor - St Joseph (47) Dowagiac (48) Niles (49) Kalamazoo (50) Battle Creek (51) Allegan (52) Coldwater (53) Hastings (54) Paw Paw (55) South Haven (56) Sturgis (57) Three Rivers (58) Jackson (59) Albion (60) Hillsdale (71) Lansing (62) Charlotte (63) St Johns (64) Flint (65) Lapeer (66) Owosso (67) Ann Arbor (68) Adrian (69) Howell (70) Monroe (71) Central Detroit (72) Northwest Detroit (73) Northeast Detroit (74) Wayne (75) Dearborn - Wyandotte (76) Pontiac (77) Mt Clemens
HFSATYPE	21-22	HFSA Type (1) Base (2) Regional (3) Community
HFSALOCB	23-24	HFSA Location to Governing Body (1) Core (2) Adjacent (3) Non-Adjacent
HFSALOCC	25-26	HFSA Location to Review Committee Meeting (Value Labels same as HFSALOCB)
COLOCB	27-28	County Location to Governing Body (Value Labels same as HFSALOCB)
COLOCC	29-30	County Location to Review Committee Meeting (Value Labels same as HFSALOCB)

MTG01	41	First-half July 1974 Meeting Attendance (0) Not Member (1) Present (2) Absent (3) Represented by Alternate
MTG02	42	Second-half July 1974 Meeting Attendance (Value Labels same as MTG01)
MTG03	43	First-half August 1974 Meeting Attendance (Value Labels same as MTG01)
MTG04	44	Second-half August 1974 Meeting Attendance (Value Labels same as MTG01)
MTG05	45	First-half September 1974 Meeting Attendance (Value Labels same as MTG01)
MTG06	46	Second-half September 1974 Meeting Attendance (Value Labels same as MTG01)
MTG07	47	First-half October 1974 Meeting Attendance (Value Labels same as MTG01)
MTG08	48	Second-half October 1974 Meeting Attendance (Value Labels same as MTG01)
MTG09	49	First-half November 1974 Meeting Attendance (Value Labels same as MTG01)
MTG10	50	Second-half November 1974 Meeting Attendance (Value Labels same as MTG01)
MTG11	51	First-half December 1974 Meeting Attendance (Value Labels same as MTG01)
MTG12	52	Second-half December 1974 Meeting Attendance (Value Labels same as MTG01)
MTG13	53	First-half January 1975 Meeting Attendance (Value Labels same as MTG01)
MTG14	54	Second-half January 1975 Meeting Attendance (Value Labels same as MTG01)
MTG15	55	First-half February 1975 Meeting Attendance (Value Labels same as MTG01)
MTG16	56	Second-half February 1975 Meeting Attendance (Value Labels same as MTG01)
MTG17	57	First-half March 1975 Meeting Attendance (Value Labels same as MTG01)
MTG18	58	Second-half March 1975 Meeting Attendance (Value Labels same as MTG01)

MTG19	59	First-half April 1975 Meeting Attendance (Value Labels same as MTG01)
MTG20	60	Second-half April 1975 Meeting Attendance (Value Labels same as MTG01)
MTG21	61	First-half May 1975 Meeting Attendance (Value Labels same as MTG01)
MTG22	62	Second-half May 1975 Meeting Attendance (Value Labels same as MTG01)
MTG23	63	First-half June 1975 Meeting Attendance (Value Labels same as MTG01)
MTG24	64	Second-half June 1975 Meeting Attendance (Value Labels same as MTG01)
MTG25	65	First-half July 1975 Meeting Attendance (Value Labels same as MTG01)
MTG26	66	Second-half July 1975 Meeting Attendance (Value Labels same as MTG01)
MTG27	67	First-half August 1975 Meeting Attendance (Value Labels same as MTG01)
MTG28	68	Second-half August 1975 Meeting Attendance (Value Labels same as MTG01)
MTG29	69	First-half September 1975 Meeting Attendance (Value Labels same as MTG01)
MTG30	70	Second-half September 1975 Meeting Attendance (Value Labels same as MTG01)

APPENDIX D.

CODEBOOK FOR PROJECTS

APPENDIX D. CODEBOOK FOR PROJECTS

Variable Name	Card Column Numbers	Variable Label	Value Labels
V1	1	Card	(1) Projects Card
V2	2	Area	(1) CHP 1 (2) CHP 2 (3) CHP 3 (4) CHP 4 (5) CHP 5 (6) CHP 6 (7) CHP 7 (8) CHP 8 (9) CHP 9 (0) CHP 10
V2R		Review Committee Number	(1) CHP 1 (2) CHP 2 (3) CHP 3 (4) CHP 4 (5) CHP 5 (6) CHP 6 (7) CHP 7 (8) CHP 8 Central (9) CHP 8 East (10) CHP 8 North (11) CHP 8 NOrthwest (12) CHP 8 West (13) CHP 9 Alpena (14) CHP 9 Gd Traverse (15) CHP 9 Petoskey (16) CHP 10 Zone 1 (17) CHP 10 Zone 2 (18) CHP 10 Zone 3 (19) CHP 10 Zone 4
V3	3 - 5	Respondent (Project) Number	
V4	6	Review Committee	
V5	7 - 8	County Number	(1) Alcona (2) Alger (3) Allegan (4) Alpena (5) Antrim (6) Arenac (7) Baraga (8) Barry (9) Bay (10) Benzie (11) Berrien (12) Branch (13) Calhoun (14) Cass (15) Charlevoix (16) Cheboygan (17) Chippewa (18) Clare (19) Clinton (20) Crawford (21) Delta (22) Dickenson (23) Eaton (24) Emmet (25) Genessee (26) Gladwin (27) Gogebic (28) Gd Traverse (29) Gratiot (30) Hillsdale (31) Houghton (32) Huron (33) Ingham (34) Ionia (35) Iosco (36) Iron (37) Isabella (38) Jackson (39) Kalamazoo (40) Kalkaska (41) Kent (42) Keweenau (43) Lake (44) Lapeer (45) Leelanau (46) Lenawee (47) Livingston (48) Luce (49) Mackinac (50) Macomb (51) Manistee (52) Marquette (53) Mason (54) Mecosta (55) Menominee (56) Midland (57) Missaukee (58) Monroe (59) Montcalm (60) Montmornecy (61) Muskegon (62) Newaygo (63) Oakland (64) Oceana (65) Ogemaw (66) Ontonagon (67) Osceola (68) Oscoda (69) Otsego (70) Ottawa (71) Presque Isle (72) Roscommon

(73) Saginaw (74) St Clair (75) St Joseph (76) Sanilac (77) Schoolcraft (78) Shiawassee (79) Tuscola (80) Van Buren (81) Washtenaw (82) Wayne (83) Detroit (74) Wexford

V6	9 - 13	Application Number
V7	14-15	Health Facility Service Area Number (1) Marquette (2) Crystall Falls - Stambaugh (3) Escanaba (4) Hancock (5) Iron Mountain (6) L'Anse (7) Manistique (8) Munising (9) Newberry (10) Ontonagon (11) St Ignace (12) Sault Ste Marie (13) Menominee (14) Wakefield (15) Petoskey (16) Cheboygan (17) Gaylord (18) Rogers City (19) Traverse City (20) Cadillac (21) Frankfort (22) Grayling (23) Ministee (24) Bay City (25) Saginaw (26) Alma (27) Alpena (28) Bad Axe (29) Cass City (30) Midland (31) Mt Pleasant (32) Tawas City (33) West Branch (34) Port Huron (35) Thumb (36) Muskegon (37) Fremont (38) Hart (39) Ludington (40) Grand Rapids (41) Big Rapids (42) Greenville (43) Holland (44) Ionia (45) Reed City (46) Benton Harbor - St Joseph (47) Dowagiac (48) Niles (49) Kalamazoo (50) Battle Creek (51) Allegan (52) Coldwater (53) Hastings (54) Paw Paw (55) South Haven (56) Sturgis (57) Three Rivers (58) Jackson (59) Albion (60) Hillsdale (61) Lansing (62) Charlotte (63) St Johns (64) Flint (65) Lapeer (66) Owosso (67) Ann Arbor (68) Adrian (69) Howell (70) Monroe (71) Central Detroit (72) Northwest Detroit (73) Northeast Detroit (74) Wayne (75) Dearborn - Wyandotte (76) Pontiac (77) Mt Clemens
V8	16-18	Month Letter of Intent Received
V9	19-21	Month Application Received
V10	22-24	Month Committee Review Completed
V11	25-27	Month Governing Body Review Completed
V12	28-30	Month DPA Review Completed
V13	31	Application Structure 1 Facing Committee (0) Not Against Similar Letter of Intent (1) Against Similar Letter of Intent
V14	32	Application Structure 2 Facing Committee (0) Not Against Similar Application (1) Against Similar Application

V15	33	Committee Review Determination (0) Not Reviewed (1) Withdrawn (2) Not Endorsed (3) Modified (4) Endorsed (5) Tacit Endorsement (6) No Action Taken (9) No Review Recorded
V17	35	Governing Body Review Determination (Same Value Labels as V15)
V18	36	DPA Review Determination (0) Not Reviewed (1) Withdrawn (2) Disapproved (3) Modified (4) Approved (5) Tacit Approval
V20	38	Facility Type - Letter of Intent (1) Acute Care (2) Nursing Home
V21	39	Review Authority - Letter of Intent (1) Bed - Add (2) Bed - Nonadd (3) Nonbed
V21R		Review Authority - Letter of Intent - Recoded (1) Subject to Budget Constraint (2) Not Subject to Budget Constraint
V23	41-44	Letter of Intent Bed Number
V24	45-49	Letter of Intent Dollars
V25	50	Facility Type - Application (Value Labels same as V20)
V26	51	Review Authority - Application (Value Labels same as V21)
V28	53-56	Application Bed Number
V29	57-61	Application Dollars
V30	62	Facility Type - Review Determination (Value Labels same as V20)
V31	63	Review Authority - Review Determination (Value Labels same as V21)
V33	65-68	Review Determination Bed Number
V33R		Project Beds Endorsed
V34	69-73	Review Determination Dollars
V34R		Project Dollars Endorsed
V35	74	Control (1) Non-profit (2) Federal (3) State (4) County (5) City (6) Proprietary (7) Authority (8) Corporation
V36	75	Application Structure 1 Facing Governing Body (Value Labels same as V13)

V37	76	Application Structure 2 Facing Governing Body (Value Labels same as V14)
V38		Project Cost Containment Coefficient
V38R		Project Cost Containment Coefficient Recoded (1) Zero (2) 0.001-0.333 (3) 0.334-0.666 (4) 0.667-0.999 (5) 1.0 (6) Greater than 1.0
V39		County Location to Governing Body (1) Core County (2) Adjacent County (3) Non-Adjacent County
V40		Application Structure - Beds (1) Bed Subject Without Reference to Similar (2) Bed Subject With Reference to Similar (3) Bed Not Subject Without Reference to Similar (4) Bed Not Subject With Reference to Similar
V41		Application Structure - All (1) All Subject Without Reference to Similar (2) All Subject With Reference to Similar (3) All Not Subject Without Reference to Similar (4) All Not Subject With Reference to Similar
V42		Bed Containment Coefficient
V42R		Bed Containment Coefficient Recoded (Same Value Labels as V38R)
V43		Project Beds Gained
V44		Project Dollars Gained
V45		County Location to Review Committee Meeting (Value Labels same as V39)
V46		County Location to CHP Staff (Value Labels same as V39)
V47		Index of Medical Underservice (1) Totally Underserved (2) Partially Underserved (3) Totally Served
V48		County's Share of Review Committee Attendance (1) Three Percent or Less (2) Four to Eleven Percent (3) Twelve to Forty-nine Percent (4) Fifty Percent or More
V49		County's Share of Governing Body Attendance (Value Labels same as V48)
V50		Application Structure - Beds - Recoded (1) Bed Subject With Reference to Similar (2) Bed Subject Without Reference to Similar (3) Bed Not Subject With Reference to Similar (4) Bed Not Subject Without Reference to Similar

V51	Application Structure - All - Recorded (1) All Subject With Reference to Similar (2) All Subject Without Reference to Similar (3) All Not Subject With Reference to Similar (4) All Not Subject Without Reference to Similar
V52	CHP Agency Review Determination (1) Withdrawn or Not Endorsed (2) Endorsed Without Modification
V53	Project Cost Containment Coefficient - Recoded (1) Zero (2) 0.001-0.999 (3) 1.0 (4) Greater than 1.0
V54	Project Bed Containment Coefficient - Recoded (Value Labels same as V53)
V55R	Project Dollars Reduced

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