COMMUNICATION PATTERNS OF PLANNING OFFICIALS RELATED TO PLANNING EFFECTIVENESS

> Thesis for the Degree of M.A. MICHIGAN STATE UNIVERSITY LARRY KINCAID 1971



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ABSTRACT

COMMUNICATION PATTERNS OF PLANNING OFFICIALS RELATED TO PLANNING EFFECTIVENESS

By

Larry Kincaid

There is currently much activity within the planning profession to develop ways to improve the planning function of city government by expanding the role of the planning Traditionally, the professional planner's role official. has been perceived as being apolitical and value free-aloof from the politics of the governmental decision process. Planning officials conducted studies and supplied information about available options. Recently, however, there has been a trend towards assuming a more active, influential role in the decision-making process. It is proposed that if more people become involved in the planning process and planning officials exert more influence upon decision-makers, then perhaps the planning function will become more effective. Others argue that such activity will only destroy the credibility that the planner has created as a technical professional.

This problem can be reduced to a number of specific variables suitable for empirical research. It is assumed that certain behavior on the part of planning officials will lead to greater departmental effectiveness. Specifically, if they will communicate more often about planning goals with the influential decision makers outside of their department, then they will obtain the support necessary for effective planning. The purpose of the present study is to explore the relationship between the external communication of planning officials and the effectiveness of their department. The ultimate objective is to construct a model to predict department effectiveness based on the characteristics of their staffs and their degree of external integration.

To this end, the direct and indirect relationships among three sets of variables were examined using step-wise, multiple regression techniques and path analysis. Each of the two indicators of departmental effectiveness were regressed on the combined set of staff property variables (length of employment, education, professional organization membership, and propensity to influence decision makers) and external integration variables (interdepartmental communication, interorganizational communication, membership in community organizations, city council attendance, attendance of local group meetings, and involvement in participant planning). Then each of the external integration variables was regressed on the set of property variables. Questionnaires were personally administered to the twenty-one, full-time professional planners in the city planning departments of three middle-sized cities in Michigan. The cities were selected on the basis of control variables considered to be related to the indicators of effectiveness used.

Using the .05 level of significance as the criterion for retaining variables, the step-down multiple regression yielded the following model for predicting departmental effectiveness:



Using Budget Allocation as the measure of effectiveness, 42% of the variance is accounted for by this model; the same model explains 59% of the variance of Productivity as the measure of effectiveness. A basis for inferring time order is discussed, and support for the causal process is presented with a short case history of the most effective department in the sample.

COMMUNICATION PATTERNS OF PLANNING OFFICIALS RELATED TO PLANNING EFFECTIVENESS

Ву

b Lawrence Larry Kincaid

A THESIS

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

MASTER OF ARTS

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CHAPTER I

INTRODUCTION

In the last two decades there has been a growing awareness on the part of professional city planners that the planning function may be ineffectual unless it becomes part of the larger decision-making process of the city. At one time the role of the planner was considered to be that of the aloof, apolitical, value-free technician who conducted the appropriate studies and made information about the alternatives available to the decision-makers. He would supply advice upon request, but would not actively try to influence the decision (Altshuler, 1965). Implementation of the War on Poverty and the Model Cities program has increased the debate in the planning profession concerning the extent to which planners may influence urban decision-making. Accompanying federal insistance on "maximum feasible participation" has been a realization that a plan or project without the support of some constituency has less chance of being implemented. As Chapin (1967, p. 733) describes the situation:

a plan is unlikely to achieve success as an organizing force unless planning is a well established and an

astutely directed function of local government, situated in the mainstream of the decision-making process.

A growing body of literature supports the proposition that organizations that solicit and maintain a high degree of environmental support are more effective (Price, This may be especially true for governmental 1968). agencies that depend upon other branches of government and the political process for their source of operating funds. A high degree of support enables an organization to command the resources necessary for effective operation. In the event of community conflict such support may enhance the position of a city planning department. But how does an organization such as a planning department obtain a strong position within city government? How might an agency increase its environmental support?

Support from the environment, especially from the key decision-makers in an organization's environment, is solicited and maintained through the process of communication. The network and frequency of contacts that planning officials have with key individuals in their environment may be indicative of their relative position in the decision-making process of city government. The more a planning department is integrated into this decision network, the more likely they will be able to command the necessary funds for effective operation and support for their plans. This general principle is described by Downs

in his theoretical work entitled, <u>Inside Bureaucracy</u> (1966, p. 7):

No bureau (or section with a bureau) can survive unless it is continually able to demonstrate that its services are worthwhile to some group with influence over sufficient resources to keep it alive . . . If it is a government bureau, it must impress those politicians who control the budget that its functions generate political support or meet vital social needs.

The purpose of this study is to test the general proposition that the position of an organization in the decision network of its environment is related to its level of effectiveness. Specifically, the study has two main objectives:

- To test the relationship between an organization's degree of integration into its external environment and its degree of effectiveness.
- To construct a model to predict an organization's degree of effectiveness.

CHAPTER II

THEORETICAL FRAMEWORK AND RELATED RESEARCH

Theoretical Framework

The basic framework for the present study originates in J.L. Price's <u>Organizational Effectiveness: An Inventory</u> <u>of Propositions</u>. He presents a framework in which the external components of an organization's political system influence certain intervening variables assumed to be indicators of organizational effectiveness. The basic assumption of his model is that such factors as the organization's institutionalization, productivity, conformity, morale, and adaptiveness intervene between certain behavioral mechanisms and the organization's level of effectiveness. For example, the greater the number of behavioral mechanisms to increase institutionalization, the greater the degree of institutionalization; and, in turn, the greater the degree of effectiveness there is likely to be. The model to be developed in the present study is based on the same set of assumptions.

The intervening variables become the dependent variables in empirical research because of the difficulty of obtaining direct measures of effectiveness for certain types of organizations. This is a problem in research of

governmental organizations. According to Downs (1966, p. 25) this is one of the defining characteristics of a bureau because, "the major portion of its output is not directly or indirectly evaluated in any markets external to the organization by means of voluntary <u>quid pro quo</u> transactions." A planning department does not have the equivalent of a profit and loss statement with which to measure its effectiveness. Therefore it is necessary to use intervening variables as the dependent variables for research. The present study is based on the assumption that institutionalization and productivity are related to effectiveness, and the terms will be used interchangeably.

Definition of Terms

Institutionalization may be defined as the degree to which the decisions of a social system are supported by its environment (from Price, 1968, pp. 47-48; and Johnson, 1960, pp. 15-47). Such support is often manifested in the amount of funds, personnel, etc. allocated to a bureau or a section of a bureau. In their study of planning departments Catanese and Steiss (1970), p. 208) suggest that "one important measure of the success of planning programs is the degree to which local governments are committed to the planning process on a continuing basis." What they have referred to as "planning commitment" is considered equivalent to the intervening variable, institutionalization, used in the present study.

<u>Productivity</u> may be defined as the output of a social system. It is the product that it supplies to other social systems in its environment, or to the greater system of which it is a part. In the case of planning departments of city governments, we are interested in the plans and studies that it furnishes to other governmental departments and to the decision-makers.

External integration is used as a general term to encompass those behavioral mechanisms used to increase an organization's institutionalization and expand its area of productivity. It may be defined as the degree to which a social system is interconnected with other social systems in its environment by means of: (1) the interpersonal communication of its members with members of other organizations, and (2) the joint membership of its members with other social systems in its environment.

Other researchers who have studied city planning departments as social systems have stated the basic relationship between external integration and institutionalization. Dayland and Parker (1962, p. 189) contend that

where governmental planning departments have been established, they operate near the center of a communication system consisting of the governmental organization which is designed to create and effectuate public policies. Because of the crucial importance of governmental policy in every aspect of urban life, non-governmental decision makers form a part of this communication network.

Catanese and Steiss (1970, p. 210) suggest that

planning agencies in cities with high planning commitment might be expected to have certain communication

characteristics which are different from planning agencies in cities with low planning commitment.

These authors have identified an urban communication network which is responsible for creating and effectuating public policy. This network is comprised of nongovernmental decision-makers as well as governmental decision-makers such as the city councilmen, the mayor, city manager, etc. We are interested in the extent to which planning departments are integrated into, or isolated from, this decision network. This decision network is the most important part of its environment; its support is crucial to the success of the planning function.

Planning officials may gain access to, and become a part of this decision network by means of the two types of external integration defined above. They may have direct interpersonal communication with city influentials, or they may communicate indirectly through other individuals that have access to other members of this network, as in the case of important constituents of elected public officials. Planning officials might serve on committees with influentials, or perhaps belong to the same social or civic clubs. Regardless of how they gain access, planning departments whose officials are highly integrated into this decision network are expected to have more support from their environment, and hence a higher degree of institutionalization and effectiveness.

Review of Related Research

Previous research in this area has been undertaken in private industry, governmental agencies, and city planning departments. Price bases the proposition that organizations with a high degree of representation (memberships in other organizations) are more likely to have a high degree of effectiveness on four studies (Warner & Low, 1947; Kaufman, 1960; Selznick, 1953; and Stanton & Schwartz, 1954). All four studies stress the important principle that organizations need the support of their local communities to remain effective. This was found to be true across such diverse organizations as shoe factories, forestry services, the Tennessee Valley Association project, and a mental hospital.

Dayland and Parker conducted a study of planning organizations in the Piedmont Crescent communities of North Carolina to determine the factors related to their effectiveness. They conclude that:

a favorable climate for accomplishment is partly a function of the planner himself . . . of the chief executive, or city manager, . . . and partly a function of the community and its leadership. (1962, p. 213)

The planners' contribution was found to be strongly influenced by the extent to which he emphasized his institutional, educational, and political innovation roles. They found that planning was slowly moving closer to the center of the decision process in an increasing number of policy areas as community acceptance increased.

Catanese and Steiss (1970, pp. 205-301) subsequently conducted an extensive investigation of the correlates of a city's "commitment to planning." Questionnaires were mailed to the planning directors of 95 central cities (of Standard Metropolitan Statistical Areas) with populations between 50,000 and 250,000 inhabitants. An index of planning commitment was constructed using information related to comprehensive plans, the status of renewal programs, zoning, official map status, capital improvements budgeting and programming, planning staff and expenditures, and participation in regional planning activities. Utilizing this information each city in the sample was classified as having high, medium, or low planning commitment. Cross-breaks were done using structural and contextual variables, functional and situational variables, and communication variables. Each simple cross-break was analyzed using a Chi square test and a contingency coefficient.

For the most part their study consists of a search for variables that are related to planning commitment. Quite a number of variables proved to be significantly related to the dependent variable. Since such an extensive number of variables and such a large sample of cities were used, the findings from this study have been used by this author for purposes of control. The most important findings of the Catanese and Steiss study are summarized in the table on page 10.

TABLE 1.--Variables related to planning commitment.

	Structural and Contextual Factors ^a
Rela	ated to Planning Commitment:
1.	The age of the city (reaching 50,000 before 1900)
2.	The number of city councilmen (eight or less)
3.	Form of elections (non-partisan)
4.	Form of government (city manager-council)
5.	Responsibility of Planning Department (directly to Chief Executive or the city council)
6.	Planning Department responsibility for capital budget
7.	Availability of a formal organization chart for the city
Not	Related to Planning Commitment:
8.	Higher population density
9.	Population growth
10.	Strong sense of community in the city
11.	Balance of government revenues and expenditures
12.	Per capita general expenditures
13.	Electoral participation through voting
14.	Independence of the Planning function from city govern- ment
	Situational and Functional Factors
Rela	ated to Planning Commitment:
1.	Length of the Planning Director's service (four years or more)
2.	Adoption of a comprehensive plan by the city council
3.	Size of the planning staff (over seven)

1

1.4

- Percentage of full-time professional planners (over 40%)
- Planning director attendance at city council meetings (low)
- 6. High participation in planning studies

^aThe category in parentheses is positively related to <u>high</u> planning commitment.

Communication Variables

In an effort to obtain information as to the major sources of influence in public policy-making, each planning director rank ordered a set of governmental officials and a set of outside interest groups. Sixty-two per cent ranked the mayor as being the most influential. However, just over half of the planning directors in high commitment cities ranked the mayor as the most influential. And only 41% of the chief executives from high commitment cities ranked the mayor first. These differences were explained by the differences in the form of city government of each city. No pattern could be identified in the ranking of the remaining governmental positions.

Four of the outside interest groups received nearly equal numbers of votes: (1) Chamber of Commerce, (2) local press, (3) social and economic elite, and (4) political parties. It appeared that the local press has a greater tendency to exert influence on decisions in high commitment cities. The social and economic elites exert the most influence in the medium commitment cities, and political parties in the cities with low planning commitment. As in the case of government officials there is no discernible pattern below the level of "most influential." The author made no attempt to measure the extent of communication between planning officials and the community influentials reported.

An effort was made, however, to measure the frequency of communication between planning officials and city government officials. Each director responded to a list of 20 other public officials in terms of their frequency of contact in the following form: (1) daily contact, (2) two times a week, (3) three to four times a month, (4) twice a month or less, and (5) not at all. A strong tendency to communicate most frequently with the mayor is evident in cities with medium commitment scores. Officials in low commitment cities show a tendency to communicate more frequently with the city engineer. Planning directors from high commitment cities reported more frequent contact with the public works director.

1.

The 20 governmental positions were classified in terms of their main functions: Policy Formulation Sector (chief executive, city clerk, chief finance officer, budget director, and city treasurer), the Development Sector (public works director, city engineer, etc.), the Planning Support Sector (planning commission, building inspector, etc.), and the Line Agencies (personnel director, police chief, etc.). Their most significant finding is that planning directors from high commitment cities communicate with their chief executive on a <u>less</u> than daily basis, whereas at the lower end of the planning commitment scale responses indicate a greater propensity for daily communication. The authors conclude that:

with the exception of the chief executive . . . there are no apparent relationships between the level of planning commitment and the frequency of communication between the planning agency and these administrative officials. (Catanese & Steiss, 1970, p. 287)

Furthermore, even though agencies in the Development Sector form important communication links for planning agencies in high commitment cities, there is a clear tendency for the frequency of this communication to be somewhat lower than is the case in cities with lower commitment scores. With the exception of the city planning commission, there is a tendency for planning directors in high commitment cities to have a greater frequency of communication with agencies in the Planning Support Sector. They also have more contact with two members of the Line Agencies: the superintendent of schools and the personnel officer.

A Critique of Previous Research

From the standpoint of the theoretical framework for the present study, the research described above has several important shortcomings. The four studies used by Price (1970) only support the relationship between one type of external integration and organizational effectiveness. Only that of joint membership in other organizations is considered. And, unfortunately, it may only be assumed that their findings generalize to urban planning departments operating within the organization of city governments. Finally, it is not known whether another variable, or set

of variables, may have accounted for most of the variance in "organizational effectiveness."

On the other hand, the study conducted by Catanese and Steiss (1970) may have encompassed far too many variables for the reader to synthesize a coherent, useful pattern of relationships. This shortcoming is due to the nominal level of measurement of many of the variables and the subsequent form of analysis. Only the simple relationships of the independent variables to the dependent variable are reported and analyzed. The authors do not attempt to use control variables to check the significance of the simple relationships that have been found. For instance, the size of the planning staff is positively related to planning commitment. But does this relationship obtain when controlled for the form of government or the age of the city?

Furthermore, there is no explicit statement of the sequence or the direction of the causal statements. Some of the significant relationships may have been due to the indirect effect of other variables; some relationships may have been suppressed by other sets of variables. In short, we cannot be sure of the interrelationships among the whole set of variables in the study.

The Use of Path Analysis to Model Organizational Effectiveness

Some of these shortcomings may be overcome by restricting the study to variables that lend themselves to

interval measurement and using the advantages of multiple regression to interpret the overall pattern among the variables. In his study of media use, Kline (1969) constructs a set of equations to represent the order and direction of the causal process explicitly stated in his theoretical model. The set of ecological-demographic variables has direct effects on the set of life style variables and the set of variables of media usage. Life style variables may also have direct effects on media usage. Stepwise, multiple regression is used to analyze the explicitly stated causal process. The same approach would be useful in organizing the variables related to the effectiveness of planning departments.

This author intends to use the structural and contextual factors reported by Catanese and Steiss as control variables in the selection of cities planning departments to be studied. Data will be collected on the relevant <u>properties</u> (education, length of employment, etc.) of the professional planners of each department, and the extent to which each planner contributes to the external integration of his department through his membership in other organizations and his external communication as an official representative of the planning department. These two sets of variables will be used to construct a model of the causal process influencing the overall effectiveness of each planning department.

If we let the property variables be represented by X_1 , the communication variables by X_2 , and the effectiveness variables by X_3 , we obtain the following equations: (adopted from Kline, 1970)

$$X_{1} = a + b_{1u}X_{u}$$
(1)

$$X_2 = a + b_{21}X_1 + b_{2v}X_v$$
 (2)

$$X_3 = a + b_{31}X_1 + b_{32}X_2 + b_{3w}X_w$$
 (3)

which would correspond to the following diagram:



Figure 1.--The Path Diagram

and rewriting these equations in their standardized form where $Z_i = (X_i - M_i)/i$ we obtain:

$$Z_{1} = P_{1u}Z_{u} \tag{4}$$

$$Z_{2} = P_{21}Z_{1} + P_{2v}Z_{v}$$
(5)

$$z_3 = p_{31}z_1 + p_{32}z_2 + p_{3w}z_w$$
 (6)

where the coefficients, p_{ij}'s, are partial regression coefficients where all of the variables are measured. These may be referred to as standardized path coefficients (Wright, 1960, pp. 189-202). A path coefficient is a number such that p_{ij} measures the fraction of the standard deviation of the variable for which it is directly responsible. Thus in the above equation p_{21} measures the direct effect Z_1 has on Z_2 , while p_{2v} measures the direct effect not measured by Z_2 and which may be attributed to one or a cluster of exogenous variables. (Kline, 1970)

CHAPTER III

METHODOLOGY

Sample Description

The data for the present study are based on personally administered questionnaires of 21 professional city planners from three middle-sized cities in Michigan. Four main criteria were used to select each city planning department: (1) the size of their respective city, (2) their principle source of funding, (3) their willingness to participate in the study, and (4) a preliminary estimation of their relative position on the dependent variable.

Since it was not feasible to conduct the study with planning units from cities the size of Detroit, the decision was made to study the planning departments of the three middle-sized cities that were independent of the Detroit metropolitan area. The three cities used were selected to keep the range of population as narrow as possible: 132,000 to 198,000. At the same time, the cities had to be large enough to support planning departments with more than just one full-time planner.

Rather than sample a larger number of planning departments, it was decided to select three planning

departments that were known to be well dispersed along one of the dependent variables. From information furnished by the Michigan State Office of Planning Coordination it was evident that the three departments in the initial sample differed in terms of their production of planning studies over the last five years. One of the departments appeared to have finished a significantly greater number of studies than the other two. Knowing that the three departments were different meant that it would be possible to explore the variables related to their difference. The following comparative data in Table 2 were ultimately collected for each city.

The comparative information of the three cities indicates that they are similar enough to conduct the study of their planning departments without expecting contamination from structural-contextual variables. The differences noted in the chart were either found to be unrelated to planning commitment by Catanese and Steiss (1970), or they are operating opposite to the direction hypothesized. For instance, they found population and population growth to be unrelated to planning commitment. Although the city manager-council form of government was found to be more prevalent in cities with high planning commitment, both city "B" and "C" in the following sample were found to be lower in both productivity and institutionalization. The type of problems confronting each city was not considered

		City	
	А	В	υ
Population	132,000	198,000	193,000
<pre>% Growth from 1960-1970</pre>	22&	11.5%	-1.88
Planning Commission	Municipal	Municipal	Municipal
Budget	\$17,732,793	\$24,021,790	\$21,392,142
Elections	Nonpartisan	Nonpartisan	Nonpartisan
Form of Government	Weak mayor- city council	City manager- city council	City manager- city council
Organizational Chart	Yes	Yes	Yes
Main Problems	Housing, transpor- tation, employment	Housing, education, employment	Housing, transportation employment
Main Industry	Automotive	Automotive	Automotive

TABLE 2.--Structural and contextual factors.

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in earlier studies. In the present study, each planner was asked to rank order the three most important problems facing their city. As the chart indicates, housing is the number one problem in all three cities, followed by transportation or education, and employment.

Within each department only those members that the planning directors considered to be full-time professional planners were used for the study. Draftsmen, clerical workers, new staff members, etc. were not included. It was felt that only full-time planners would be relevant for the present study. They would have more external communication as representatives of the department, and they would have the greatest impact on the department's productivity and institutionalization. Accordingly, 14 planners were interviewed in city "A," four in city "B," and three in city "C."

Data Collection

The author personally administered a questionnaire to each planner participating in the study. Where a number of planners all worked on the same hierarchical level, it was possible to administer the questionnaire to groups of two to four at a time. Administration occurred in the offices or conference rooms with each planning department.

Duplicate information concerning the departmental budgets and the city operating budgets were collected from the budget departments of each city. Population and population growth figures were furnished by the Michigan

State Office of Planning Coordination from the 1970 federal census.

Operationalization of the Variables

Property Variables

1. Length of employment is the number of years that a planner has worked for the planning department being studied. Each planner simple listed the number of years he had been employed. Responses were rounded to the nearest year, and ranged from one to 20 years.

2. <u>Education</u> was defined as the number of years of formal education that a planner has had. Assigning a "1" for the first year of college and another for every year thereafter, the responses ranged from "3" to "6," with the latter score corresponding to two years of graduate study.

3. <u>Professional Organization Membership</u> was taken as the official membership of a respondent in professional planning organizations such as the American Institute of Planners, the American Society of Planning Officials, etc. A point was given for each association for which the respondent held membership. The total represented his final score. Scores ranged from zero to four.

4. Position was taken as the relative position of the planner in the departmental hierarchy. The following scores were given:

1. planner

2. planning supervisor or senior planner

- 3. assistant planning director
- 4. planning director
- 5. Propensity to Influence was defined as the

extent to which a respondent would attempt to influence their city council's decision concerning a plan or proposal developed by their planning department. The following openended question was used to measure their propensity to influence decisions:

Suppose that an important issue is about to be settled by the city council. The decision concerns a proposal that this planning department has recommended, or will affect a plan developed by this department. Assuming that there is still time for further consideration before a final decision is made, what would you be likely to do?

Three judges sorted each planner's response onto the following scale:

Example

- 1. Very Low "Nothing"
- 2. Low
- 3. Moderate "Attempt to convince planning commission that they should take some action."
- 4. High
- 5. Very High "Count votes . . . act politically to lobby through, send out public notices and work with citizens' groups, provide staff position papers . . . "

Interjudge correlation coefficients of .88, .81, and .85 were obtained.

External Integration Variables

1. Interdepartmental Communication consists of the frequency of contact that members of a planning department have with members of other departments within city government. Each respondent was given a checklist of the following 10 positions representing the important groups or departments in city government: (1) Chief Executive--the mayor or city manager, (2) Planning Commission, (3) City Council, (4) City Clerk, (5) Director of Finance, (6) Director of Public Works or Service Department, (7) City Treasurer, (8) City Engineer, (9) Director of Personnel, and (10) Director of the Model Cities Program. An additional six spaces were included for each respondent to list other important positions or departments with whom they had contact. Rarely were all six spaces used. The first five positions listed were considered to be part of the policy formulation sector. Each respondent was asked to check whether his communication was predominantly with the person who actually held the position listed, or, where applicable, with another member from that department. They then checked how often they communicated with this person using the following responses:

- 7. Once a day or more
- 4. Once or twice per week
- 2. Once or twice per month
- 1. Three or four times per year
- 0. Less often

A scale from zero to seven was used in order to more closely approximate an interval scale. A mean score for each respondent was computed as an indication of his overall level of external communication with members from all of the positions or departments listed. A separate mean was computed for just his frequency of contact with members from the first five positions--the policy formulation sector.

2. Inter-organizational Communication was taken as the frequency of communication that members of the planning department have with members of organizations in their community outside of city government. The type of checklist used in interdepartmental communication was also used here. Since the study is concerned with the decision network in the planning department's environment, it was necessary to include only those organizations expected to have an influence on the decision-making in each city. Fortunately, a study of community influentials had been done for one of the cities in the sample (Form & Sauer, 1959). This information was used to generate the following list of organizations for the checklist: Chamber of Commerce, Community Chest, United Auto Workers Union, Parent Teachers Association, Community Action Program of O.E.O., Regional Planning Office, Local Board of Realtors, Local Division of General Motors (the largest single industrial concern in each city), the Municipal Hospital, and the Local Daily

Newspaper. An additional five spaces were allotted for respondents to add other important organizations with which they had contact. This space was not used by most of the respondents. A mean for each respondent was computed to indicate his over-all frequency of communication with this group of organizations.

3. <u>Community Organization Membership</u> was taken as the number of memberships that each planner held in clubs, civic organizations, service organizations, citizens' groups, churches, etc., in the local community. Scores ranged from zero to eight.

4. <u>Council Meeting Attendance</u> was taken as the frequency of each respondent's attendance at regular city council meetings. The following scale was used for measurement:

- 1. never
- 2. seldom
- 3. now and then
- 4. often
- 5. always

5. <u>Participant Planning</u> was taken as the respondent's having organized or worked with citizens' groups with the expressed purpose of getting them involved in the planning process. Responses were coded as:

0. no

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1. yes

6. <u>Attendance at Local Meetings</u> was taken as the number of hours per week outside of working hours spent in attendance of the meetings of local groups or organizations. The following scale was used to measure this:

- 0. none
- 1. 1 to 2 hours/week
- 2. 3 to 6 hours/week
- 3. 7 to 10 hours/week
- 4. more than 10 hours/week

Intervening Variables Related to Effectiveness

- A. Institutionalization:
 - Percentage of the Budget Allocated to Planning was taken as the ratio of the planning department's budget and the city operating budget for 1970-1971.
 - Percapita Expenditure for Planning was taken as the ratio of the planning budget for 1970-1971 and the city's total population based on the 1970 census.
 - 3. <u>Staff Size</u> was taken as the number of employees budgeted for each department for the 1970-1971 fiscal year. Because of turnover, some of these positions were unfilled at the time of the interviews.

B. <u>Productivity</u> was defined as the number of studies conducted by the department over the last five years

weighted by the department's degree of responsibility for each study. An example of the checklist used for this measure may be found in the appendix. For each type of study checked the department was given points for their degree of responsibility according to the following scale:

- 0. Did not participate/or Not applicable
- 1. Supplied information
- 2. Major contributor
- 3. Our responsibility

The fact that the directors added only one additional study to the original list suggests that it was fairly exhaustive. Theoretically, the scores could range from zero to 48.

Data Analysis

The data were submitted to multiple regression in order to obtain the best model to predict the intervening variables associated with organizational effectiveness. To estimate the parameters step-down regression techniques were used to regress each of the external integration variables on the property variables. Where each parameter estimate was not significant at the .05 level it was removed and the analysis rerun. A similar set of regressions was run with the best two intervening variables being regressed on both the property variables and the external integration variables combined.

The findings will be presented below in diagrams using path arrows to represent direct relationships. The existence of a path arrow will mean that the relationship was statistically significant. The direction of the arrow represents the assumed direction of causality. All variables used in the present analysis are assumed to have an underlying interval quality which make them amenable to multiple regression analysis.

CHAPTER IV

FINDINGS

Results of the Dependent Variables

Table 3 summarizes the results of the four criterion variables assumed to be associated with organizational effectiveness.

These results corroborate the initial estimate of each department's level of effectiveness based on their production of studies. The three departments in the sample are sufficiently dispersed on the criterion variables to render them useful for the present study.

Since the three measures of institutionalization were so highly corrolated (.90 and above) it was felt that all were good indicators of institutionalization. Therefore, only the <u>Percent of the Budget Allocated to Planning</u> (hereinafter referred to as Budget Allocation) and the Productivity Index were used for the path analysis.

The frequency of communication with the chief executive was excluded from the path analysis. For two of the cities the chief executive was the city manager. The other city did not have a city manager, but rather "weak-mayor, city council" form of government. It would be inappropriate

TABLE 3.--Indicators of planning effectiveness.

Department	Per cent of City Budget	Per Capita Expenditure	Productivity	Number of Employees	Total Plan- ning Budget
A	1.07	\$1.45	35	28	\$191 , 000
щ	0.37	0.46	31	10	90,435
U	0.27	0.31	25	9	59,646

to consider communication with the manager and the mayor as equivalent. The former is nearer to the center of the decision network and has more impact on the decision-making process.

However, it is interesting to note the simple correlation of frequency of contact with the chief executive and the department's budget allocation (-.46) and with its index of productivity (-32). This indicates that the planning department with the higher scores on these indicators of effectiveness have significantly less contact with its chief executive. This is the same city with the mayorcouncil form of government. This finding agrees with that of Catanese and Steiss, and is attributed to the different form of government.

Results of the Path Analysis

Let us now turn to the major predictors of Budget Allocation. Figure 2 represents a diagram of the best model resulting from the step-wise multiple regression. The numbers attached to the arrows represent the standardized regression coefficients or path coefficients as explained above. Curved lines and their numbers represent simple correlation coefficients.

The explanation of 42% of the variance points to a powerful set of predictors for Budget Allocation. An examination of the model shows that a property variable and an



Figure 2.--The Path Diagram for Budget Allocation.

external integration variable are equally instrumental in determining the planning department's Budget Allocation.

At first it might appear that planning departments whose staffs have been employed longer have a lower percentage of the city budget allocated to them. However, it is much less misleading to conclude that planning departments whose staffs have been employed for less time receive a greater proportion of their city budget. The departmental means indicate the differences in Length of Employment (Table 4).

TABLE 4.--Length of employment.

Planning Department	Mean Length of Employment
A	4 years
В	8 years
C	12 years

This finding is difficult to interpret until the variable, Length of Employment, is scrutinized more closely. In the sample studied, Length of Employment was practically equivalent to a more common property variable, Age. Planners that have been employed for a number of years are older. The relatively new planners are younger, recent college graduates. Planning departments with higher proportions of the city budget have larger and younger staffs simply because they are expanding. The major part of a planning department's budget is used for staff salaries. The staff members most recently acquired are younger, and, of course, have not been employed very long.

An examination of the three property variables retained in the model yields a more complete explanation. In effect, what the model illustrates is that the newer, younger planners are also more highly educated (r = -.39). The main distinction in level of education was between those who had graduate education and those who did not. As departments grow they employ younger planners with more graduate education.

For this study, controlling on the other property variables seems to delimit the direct effect of Education, but it does not prevent it from working indirectly through other variables. Planners that have been employed for less time have more graduate education (r = -.39). Education also works through Propensity to Influence and Participant

Planning to indirectly affect the criterion variable. Planners with more education tend to have a higher Propensity to Influence the decision-making process (r = .58). This may indicate that graduate schools are emphasizing the political nature of the planning process. It may also be due to the changing norms regarding the role of the professional planner in city government. Finally, it may be due to a "climate" of political action that may be characteristic of expanding departments that obtain a certain number of planners with graduate education.

Propensity to Influence does not show any direct effects, but works through Participant Planning (.37). This is consistent with some of the open-ended responses to the question used to measure this (i.e., "notify citizen's groups, etc."). This finding may indicate that planners with higher Propensities to Influence may only be able to influence the decisions of their city council indirectly through the groups involved in participant planning.

The only External Integration variable retained in the model is Participant Planning. It seems to have a strong direct effect on the percentage of the budget allocated to the planning department. This finding can be interpreted in two ways. If a planning department has a small staff, the resources that it can assign to working with citizen groups are limited. Participant planning requires substantial staff time and probably cannot be

undertaken to any great extent without increasing the size of the staff. So this finding could mean that the city council has granted budget requests so that the planning department can engage in more participant planning activities. From this standpoint, it can be argued that the decision to engage in participant planning leads to an increase in the department's budget, and <u>then</u> the department hires more planners and engages in more participant planning. Such an interpretation contradicts the causal direction represented by the path diagram.

The alternative explanation argues that the direction of causality is from increase in staff and more participant planning, accompanied by the necessary budget increases. Nothing in the model can prove the time order of the relationship among the variables. However, there is evidence to support the second interpretation. This will be presented later in the short case study of departmental The case presented will show that a staff can growth. initiate participant planning with the help of part-time, student planners not actually represented in the budget. If the program is successful the idea may gain the support of the citizens involved, as well as other citizens groups, and they may then apply pressure on government officials to give them more full-time assistance. With local citizen support and pressure from the federal government in the administration of its urban programs, a planning director may be in a good position to ask for more funding.

Analysis of the model presented in Figure 3, shows us that the same set of variables is optimal for predicting Productivity. If the direct effect of Propensity to Influence is retained in the model even though it is only significant at the .08 level, the resulting set of variables account for 66% of the variance; without it, for 59% of the variance.



Figure 3.--The Path Diagram for Productivity.

Given the high correlation between Productivity and Budget Allocation, it is not surprising to find that the same set of predictors has been retained for the model. The interpretation of each model is similar. Departments with larger, more highly educated staffs and larger budgets would be expected to finish more planning studies. The department that scored highest on the Productivity Index is also assisting local participant planning groups to revise sections of the Master Plan for the city that pertain to their vicinities.

The Productivity Index consists of more than just the number of studies conducted by each department. Each

study is also weighted in terms of the department's degree of responsibility for it. It seems reasonable that as a planning department grows in size and influence it would be able to assume more responsibility over an increasingly wider area of planning. If the need for analysis of a new problem area arose, such a department would be in a good position to assume responsibility. More evidence for this interpretation will be given in the case study below.

The Relationship of External Integration to Organizational Effectiveness

One of the major findings of the study is that all but one of the variables used to measure the planning departments' degree of external integration were deleted from the model. This is consistent with the findings of Catanese and Steiss (1970). Analysis of some of the means of these variables (Table 5) shows the similarity that existed among the three departments studied. The means in the table represent the mean of the means (or scores) for the planners of each department. The mean or score in parentheses is that of the director only.

There is very little difference among the means for each planning department. In other words, when all of the planners of each department are used to measure the department's overall degree of integration with the important decision makers in its external environment, there is no significant difference among the three departments studied.

Department	Participant Planning	Communication with Planning Commission	Communication with City Council	Communication with Chief Executive
A B D	0.86 (1)	2.3 (7)	2.4 (7)	0.86 (4)
	0.80 (1)	2.0 (4)	2.0 (2)	3.25 (7)
	0.00 (0)	2.0 (2)	2.3 (2)	2.00 (2)
Department	Communication	Communication	Total	Policy-Sector
	with the City	with the Bud-	Interdepartmental	Interdepartmental
	Clerk	get Director	Communication	Communication
A B D	2.00 (4)	1.07 (4)	2.06 (5.00)	1.76 (5.20)
	1.00 (1)	2.00 (4)	2.32 (3.18)	2.00 (3.60)
	2.00 (2)	1.00 (1)	2.12 (2.92)	1.80 (1.80)
Department	Interorgani	zational	City Council	Community
	Communic	ation	Attendance	Memberships
A B D	1.22 (2	.61)	2.7 (4)	2.1 (8)
	1.19 (1	.17)	3.0 (5)	1.8 (1)
	0.80 (1	.58)	1.7 (2)	2.0 (5)

TABLE 5.--Mean scores for measures of external integration.

However, it can readily be seen that there is a great difference among the means and scores reported for the planning directors alone. The director of the department that was highest on Institutionalization and Productivity (Department "A") communicates with members of his planning commission and city council once a day or more (7). The directors of the other two departments do so less often-once or twice per week (4) or once or twice per month (2). The same pattern is evident for the remaining contacts, except for that of the chief executive.

It appears that the frequency of the director's communication with important decision makers in the department's environment may be positively related to departmental effectiveness. To determine the significance of these relationships would require another study with the planning directors of a larger sample of planning departments.

CHAPTER V

SUMMARY AND DISCUSSION

Summary

The objectives of the present study were: (1) to explore the relationship between indicators of the effectiveness of city planning departments and their degree of external integration, and (2) to build a predictive model of effectiveness based on knowledge of planning staff characteristics and external integration. The study was based on the general proposition that organizations, especially city planning departments, must be well integrated into the mainstream of the decision-making process of the city and obtain support in their environment to be effective. Specifically, it was intended to use path analysis to construct a model to predict a planning department's degree of institutionalization and level of productivity as a consequence of the properties of its planning staff and its degree of external integration.

Questionnaires were personally administered to 21 professional planners in the city planning departments of three medium-sized cities in Michigan. The data were submitted to a step-wise multiple regression using the .05

level of significance as the criteria for retaining variables. To determine the paths of direct effects, each variable related to external integration was regressed on the staff property variables. Then the percentage of the city budget allocated to the planning departments and their level of productivity were regressed on the combined set of staff property variables and external integration variables.

The best set of predictors was the same for each intervening variable associated with organizational effectiveness. Length of employment and participant planning directly accounted for 42% of the variance of the budget allocated to the planning departments, and 59% of the variance of the productivity of the planning departments. Education indirectly affects the criterion variables through the length of employment and the propensity to influence. Propensity to influence works indirectly through participant planning to affect the criterion variables. Its direct effect on productivity was significant only at the .08 level.

One of the major findings was that all but one (participant planning) of the external integration variables were found to be insignificantly related to the intervening variables for organizational effectiveness. It appeared as if the external communication of the planning directors of the departments was related to the criterion variables, but the present sample was insufficient to test the significance of this relationship.

Discussion

Catanese and Steiss were unsuccessful in their attempt to find a relationship between a planning department's level of "planning commitment" and its director's communication with individuals considered to be in the mainstream of the decision process of city government. The present study attempted to retest the same relationship using the external communication of all of the professional planners of the department. No significant differences were found among the three planning departments studied. There was a great difference among the external communication of the directors in the direction hypothesized. However, this may only be characteristic of the sample studied.

This author concludes that using the frequency of contacts with key individuals to "map" the external communication network of a planning department is insensitive to the important aspects of the communication process related to organizational effectiveness. Such a network represents a static picture of a department's external integration at a certain point in time. Its measurement is based on responses to questions like, "How often do you <u>usually</u> communicate with . . . ?" Respondents are required to recall and estimate how often they contact the person listed "on the average," or "generally." Except for the extremes of the scale, the respondents reported some difficulty in making such estimations.

This suggests that it is <u>not</u> the <u>regularity</u> of communication that really matters. Several respondents stated that the frequency of their interaction with key decision makers varied a great deal throughout the year. Their communication is oriented to specific issues. In other words, when an issue arises that directly affects one or more of the key individuals in the planning department's environment, then there may be a sequence of frequent interaction for a certain period of time. Once the issue ceases to be salient the level of interaction may decline to the occasional communication which characterizes most of the year.

It may be the quality and/or the results of their interaction over specific issues that determines whether the planning department will receive support in the future. The <u>timing</u> of their communication may be the most crucial variable. How is the communication network used when an important issue is before the city council? What do the planners do? In their role of professional city planners is it appropriate behavior for them to actively attempt to influence key decision makers? Some of the answers to these questions may be a function of the planning director and his staff: their background characteristics, their level of political motivation, their professional and interpersonal competence, and their perceived credibility.

Questions concerning the general frequency of communication does not adequately measure the dynamic quality

of the communication process. Some of the property variables in the present study appear to have tapped some of the important characteristics of the planning staffs: length of employment (age) and education. The only variable that may have captured some of the dynamic quality of the process is propensity to influence. It may represent a number of related dimensions, such as <u>motivation</u>, actual or hypothetical <u>behavior</u> when key decisions arise, and <u>perception</u> of the appropriate role behaviors of city planning officials.

Propensity to influence is the key variable in the model developed in the present study. It is an important determinant of the type of participant planning that will generate a base of community support for a planning department. Support from some "outside" constituency increases its autonomy, and hence the voice that it has in the governmental decision process. Although the direct relationship between propensity to influence and productivity did not reach significance in the present study (p = .29 at the .08 level of significance), additional data suggest that may have played a very important role in <u>initiating</u> and sustaining the growth of the largest and most productive planning department in the sample studied. A discussion of how this expansion occurred will be presented in a short case study of planning department "A."

A Case Study of Departmental Growth

In 1965, planning department "A" had only five professional planners. Their number had increased to 10 by 1967, and today the staff includes 16 professional planners. During informal discussion with two planners who had been employed during this period of expansion, the author attempted to determine what accounted for this rate of growth.

There seemed to be a general consensus that the planning director was largely responsible for this expansion. The director has been with the department for 10 years. He was described as a "strong planning director" who has been able to "sell the planning approach to the citizens and to the city council." This characteristic of the director is reflected in his "very high" score on propensity to influence the decision process.

His work with citizen groups has been instrumental toward improving the position of the planning function in city government. The department's work with citizen groups has had an impact on city council deliberations, especially concerning issues related to current planning and zoning regulations. The "batting average" for planning has gone up accordingly. They get a better endorsement from citizens for planning goals and the city council is very much aware of this. They can no longer "wheel and deal unmonitored by the citizens like they used to do." More citizens now understand the significance of the zoning process and are

able to check the city council's decisions in this area. Citizens will telephone or personally contact councilmen to make their views known. These views may be better informed now and more difficult to ignore.

An alternative explanation for the department's growth begins with external pressure from the federal government through its urban programs. When the Community Renewal Program (C.R.P.) was first introduced, the city was pressured into increasing the funds for planners on a matched funds basis. This eventually meant the doubling of the planning department's budget. Federal programs also introduced the principle of "maximum feasible participation" of citizens in the areas to be affected by their programs.

However, it was not the input of federal programs <u>per se</u> that expanded the city planning department. The other two cities in the present study also had Community Renewal Programs. Their staffs did not automatically increase with federal programs. The C.R.P. only offered the <u>opportunity</u> to expand the functions of the planning department. Whether the department used this opportunity depended upon how aggressively the director responded. In 1967 department "A" decided to establish their own community renewal planners and they organized a Community Renewal Planning Board that had overlapping membership with the Citizens Community Renewal Planning Board. The planning department eventually was able to convince the members of

these boards that the planning function for the urban renewal projects should be done by their department and not by a separate group of planners.

To accomplish this the planning department had to "go out on a limb" and hire part-time planners to perform their regular planning functions while some of their more experienced planners were assigned to C.R.P. Additional planners may have eventually been covered by federal funds. Initially, however, the department had to overextend its own budget. Consequently, they encountered some difficulty in "making ends meet" at the end of the fiscal year.

The same procedure was employed with the Federal Housing Commission, and a semi-autonomous body, not responsible to the city council. The planning department used Federal Housing Commission funds to do their planning for them, thus averting the establishment of another planning unit. When Model Cities was introduced the same pattern was repeated. The Model Cities Project now has a chief planner, a physical planner, and an economic planner on their staff, but all three are part of the city planning department and directly responsible to its director.

Having three planners inside--but actually outside-the city planning department has served to further increase the autonomy of the planning function in city government. These three planners report feeling more active as "advocates" in the planning process than members of the main

department. They are still unable to speak for the citizens at city council meetings. They could not do this for long and still maintain their effectiveness as members of the planning department. Yet they can be more active in influencing their constituents in Model City areas to speak for themselves on certain issues. This process was actually described as "co-opting" the city government by involving its planners in the Model Cities Program. At times this has resulted in inevitable conflict between members of the Model Cities Program and the city's mayor.

However, for the city council has generally respected the planning department's participation in federal programs for the city. They have supported the idea of the planning department's assuming more projects and taking the role of planning coordination for the various programs in the city. In some ways, this might provide them with more control than they might have had otherwise.

Implications for Further Research

The findings of the present study provide evidence that it may be more enlightening to utilize multiple sets of variables reflecting the causal process to predict organizational effectiveness. This approach proved useful for the study of city planning departments. Path analysis with step-wise multiple regression assisted the researcher to reduce a large, complex set of variables to a more meaningful pattern of direct and indirect relationships. Both

staff characteristics and a measure of external integration were needed to explain the causal process influencing effectiveness.

Along with the study of Catanese and Steiss (1970), the present study failed to find a relationship between effectiveness and measures of external integration based on frequency of communication with key decision-makers in the department's environment. This finding is interpreted as a failure to operationalize the most important aspects of the communication process. Future studies should continue to explore the pattern of relationships among property variables, external communication, and effectiveness. However, better methods of measurement must be developed.

First, it is necessary to find better measures of organizational effectiveness. For further study of planning departments it will be especially beneficial to use indicators of effectiveness that are not as dependent upon the size of the organization as the ones used in the present study. The latter would prove insensitive to real differences in effectiveness among planning departments of approximately the same size.

Second, new measures of the communication process are required. Future studies should attend to the important variables that were suggested by the present study. Specifically, more attention should be given to the <u>timing</u> of external communication as important events arise, and to

the <u>content</u> and outcomes of specific interactions with key decision-makers. This author believes that these are the more important aspects of a planning department's external communication.

That these aspects of the communication process would be difficult to study in real organizations should be obvious. This author suggests that the case study method be used with organizations at the extremes of organizational effectiveness in order to explore more fully the variables identified here. The purpose of the case studies would be to create better methods of measuring these variables. A variety of measures could be tested and validated in the organizations used for the case study. If more efficient instruments can be developed to measure timing, content, and outcome of communication, then these could be used in a larger sample of similar organizations. Such a two-phase approach would permit a refinement and validation of the instruments, and would overcome the lack of generalizability characteristic of case studies of organizations.

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APPENDIX

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INDEX	
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PARTICIPATION: (check one)

*All city planning departments were similar regarding: Master Plan, Zoning Ordinance, Building and Housing Codes.



