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HEWIN, LARRY MAURICE
THE EFFECTS OF ADMINISTRATIVE STYLE AND
COMMUNICATIONS ON FACULTY PERCEPTIONS OF
SHARED AUTHORITY IN THE VIRGINIA COMMUNITY
COLLEGE SYSTEM.

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA,
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THE EFFECTS OF ADMINISTRATIVE STYLE AND
COMMUNICATIONS ON FACULTY PERCEPTIONS
OF SHARED AUTHORITY IN THE VIRGINIA
COMMUNITY COLLEGE SYSTEM

A Dissertation
Presented to the
Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

by
Larry M. Hewin

1978

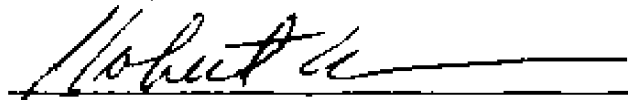
APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.


Accepted May 1978 by

A handwritten signature in cursive script, appearing to read "D. Herrmann", written over a horizontal line.

Donald J. Herrmann, Ph.D., Chairman

A handwritten signature in cursive script, appearing to read "Robert B. Bloom", written over a horizontal line.

Robert B. Bloom, Ph.D.

A handwritten signature in cursive script, appearing to read "Armand J. Galfo", written over a horizontal line.

Armand J. Galfo, Ed.D.

DEDICATION

To Barbara

who lent encouragement

from the beginning to the completion.

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THE EFFECTS OF ADMINISTRATIVE STYLE AND
COMMUNICATIONS ON FACULTY PERCEPTIONS
OF SHARED AUTHORITY IN THE VIRGINIA
COMMUNITY COLLEGE SYSTEM

Chapter 1

The Problem

Need for the Study

The present study arises from concerns about faculty dissatisfactions with how authority is shared, or not shared, in the administration and governance of institutions of higher education, and from concerns about the adverse effects on the operations and members of the institution which may be expected to accompany such faculty dissatisfactions. The theoretical case for shared authority has been extensively documented and appears to have relative little, if any, open opposition. Organizational psychologists, such as Schein (1965), have shown that organizational member dissatisfactions adversely affect the productivity of the organization as a whole. Likert (1967) has conducted extensive research in industrial settings which has demonstrated that (even in the production-type environment) organizations that are perceived by their members as more "participative" are more productive than those perceived as more authoritative.

The contemporary literature of higher education administration and governance is in general agreement with the organizational theorists. The studies of Keeton (1971), the Carnegie Commission on Higher Education (CCHE) (1973), the American Association of University Professors (AAUP) (cited in Carnegie Commission on Higher Education [CCHE]), and Ikenberry (1972) are representative of studies emanating from diversified perspectives and supporting the desirability of

sharing authority in the interests of both institutional effectiveness and member satisfactions. The necessity of applying the same concepts to community colleges has been effectively argued by Monroe (1973); Richardson, Blocker and Bender (1972); and Olson (1968).

Despite the extensive support to the desirability of shared authority, there appears to be a prevalent faculty dissatisfaction with the way in which they see authority being shared:

An American Association for Higher Education (AAHE) Task Force (1967) study of 34 institutions found extensive faculty discontent, "the main source being the desire for increased participation in policy making [p. 1]."

Dykes' (1970) study of a random sample of 106 faculty members of a large Midwestern university found that 95% considered sharing in authority as at a lower level than it should be--53% were dissatisfied, 10% very dissatisfied, and only 28% satisfied with their role in decision making.

An AAUP (1971) survey of all institutions having AAUP chapters found the degree of sharing to be below that recommended by the AAUP 1966 Statement on Government of Colleges and Universities, and endorsed by the Carnegie Commission on Higher Education (1973). The AAHE Task Force study also found that "The main centers of discontent are in the public junior colleges and the new or 'emerging' four-year colleges [p. 1]." The AAUP study did not measure faculty dissatisfaction but did also find the lowest levels of sharing to be in junior or community colleges and the "emerging" public 4-year institutions. Armstrong's (1975) study of Virginia institutions

also found that the lowest levels of sharing were in the community colleges and in 4-year colleges not granting the doctoral degree; the same study found a correlation between the lower levels of sharing and more favorable attitudes toward collective bargaining. Although the correlation coefficient was relatively weak (.18), it combines with prior findings of relatively low levels of authority sharing in community colleges and a relatively strong tendency toward collective bargaining in community colleges to suggest the desirability of further investigation of the relationship. Studies of collective bargaining have shown that: junior colleges are seen as the "first significant battleground of unions and educators [Baldrige, 1971, p. 350]"; "the focus of union organizers is on the community colleges [Ladd & Lipset, 1975, p. 262]"; and sentiment for unionization is strongest in community colleges (CCHE, p. 41).

Summary of the General Need

There appears to be a prevalent gap between faculty perceptions of how authority is shared and how it ought to be shared and a concomitant faculty dissatisfaction with shared authority--a feeling by faculty that administrators are less participative than they ought to be. Organizational behavior theory and the literature of governance and administration both suggest that these conditions may adversely affect institutional effectiveness and overall satisfaction of members with their membership in the institution. Among institutional types nationally, there is evidence that community colleges may be most affected, in that they are among those with the lowest levels of sharing and the highest levels of discontent. There

is a suggestion that their more favorable attitudes toward collective bargaining may be a correlate of their discontent with shared authority. These factors in combination substantiate a general need for research or other initiatives that may aid in altering faculty perceptions of gap in shared authority and related dissatisfactions, and ultimately in increasing institutional effectiveness.

Assessment of Prior Approaches

The research to this point, in attempting to meet the described general need, appears to have been concentrated on several main avenues of approach. The thrust of efforts that reflect the viewpoint of either faculty or faculty associations has been in the direction of recommending more delegation of specific authority to faculty (American Association for Higher Education [AAHE] Task Force, 1967; CCHE, 1973), and revised mechanisms for sharing authority such as improved faculty senates. The limitations of these approaches appear to be: (a) there is no evidence that additional delegations are being made in any significant amounts, and (b) doubt has been cast on the value and effectiveness of improved mechanisms (Dykes, 1967). These approaches may be further constrained by the phenomena noted in Olson's (1968) study of the Washington state community colleges: he found that administrators desired significantly less sharing of authority for faculty than faculty desired they should have.

A second main avenue of approach has been the advocacy of revised models of governance, as alternatives to the bureaucratic model. Baldrige (1971) has advanced a "political" model, Keeton

(1971) has defined an approach for greater sharing among the several constituencies of the college, and Richardson et al. (1972) have advocated a "participative" model specifically applicable to the community college. All aim at greater sharing, reduced dissatisfaction, and improved effectiveness. The limitations to that approach seem to lie in two main factors: (a) there is a conservatism within academe with respect to its own affairs (Kerr, 1963), and (b) there are forces that seem to indicate retention of an essentially bureaucratic form of organization. With respect to the latter, Veysey (1965) has noted that,

It is hard to avoid the conclusion that bureaucratic procedures become essential to continuity of effort, once one grants that American universities should be of generous size. Without such procedures, American academic communities would either become eccentrically authoritarian or fall apart [p. 316].

The trends toward size, mission complexity, increasing external influence, and the bureaucratic form seem to combine naturally to limit the extent to which faculty can conveniently participate in the decision making.

Need for Additional Alternatives

In view of the described limitations on the probable effectiveness and immediacy of results of current approaches, it would appear desirable to examine other alternatives to meeting the described general need. More specifically, there appears to be a need to assess what administrative initiatives might help produce the

desired results. To that end, the present approach considers that the faculty perceptions of communications may be a significant factor in faculty perceptions of shared authority gap, and is a factor expected to be strongly related to administrative style and administrative initiatives. The immediate need, therefore, is to study the existence, nature, and strength of the relationships, and, at the same time, ascertain related faculty perceptions and attitudes.

Purpose

The central purpose of this study was to investigate the relationship between faculty perceptions of communications related to decision making and faculty dissatisfactions with how authority is shared in institutional decision making in the selected Virginia community colleges. The orientation was toward: (a) an exploratory and preliminary investigation of the possibilities of a significant relationship between institutional communications patterns and faculty attitudes concerning shared authority, and (b) an inquiry into both faculty and administrator perceptions and attitudes with regard to authority sharing and related factors that might serve, in combination with the results of other prior research, as a practical basis for the development of administrative initiatives designed to improve faculty satisfactions with how authority is shared, and thereby improve institutional effectiveness.

Research Questions

Pursuant to the stated purpose and orientation, the following derivative research questions were determinants of the design of the study:

1. Is there a significant relationship between faculty perceptions of the effectiveness and openness of communications associated with decision making and their dissatisfactions with how authority is shared?

2. Are faculty perceptions of the nature of the communications pattern significantly related to their perceptions of the overall administrative style employed? Are there any specific aspects of the administrative style and communications pattern that tend particularly to be associated with faculty dissatisfactions with how authority is shared?

3. Is a more favorable attitude toward collective bargaining related to a greater degree of faculty dissatisfaction with how authority is shared?

4. Are faculty perceptions of the communications pattern significantly related to their attitudes about collective bargaining?

5. Is there a significant difference between the views of faculty and those of administrators with regard to the questions of how authority is, and ought to be, shared?

6. On what kinds of issues do faculty perceive the largest gap between how decisions are made and how they ought to be made?

7. Among the various community colleges within the Virginia system, are there consistent relationships between the mean faculty perceptions about administrative style and communications, the perceptions of shared authority gap, and desirability of collective bargaining?

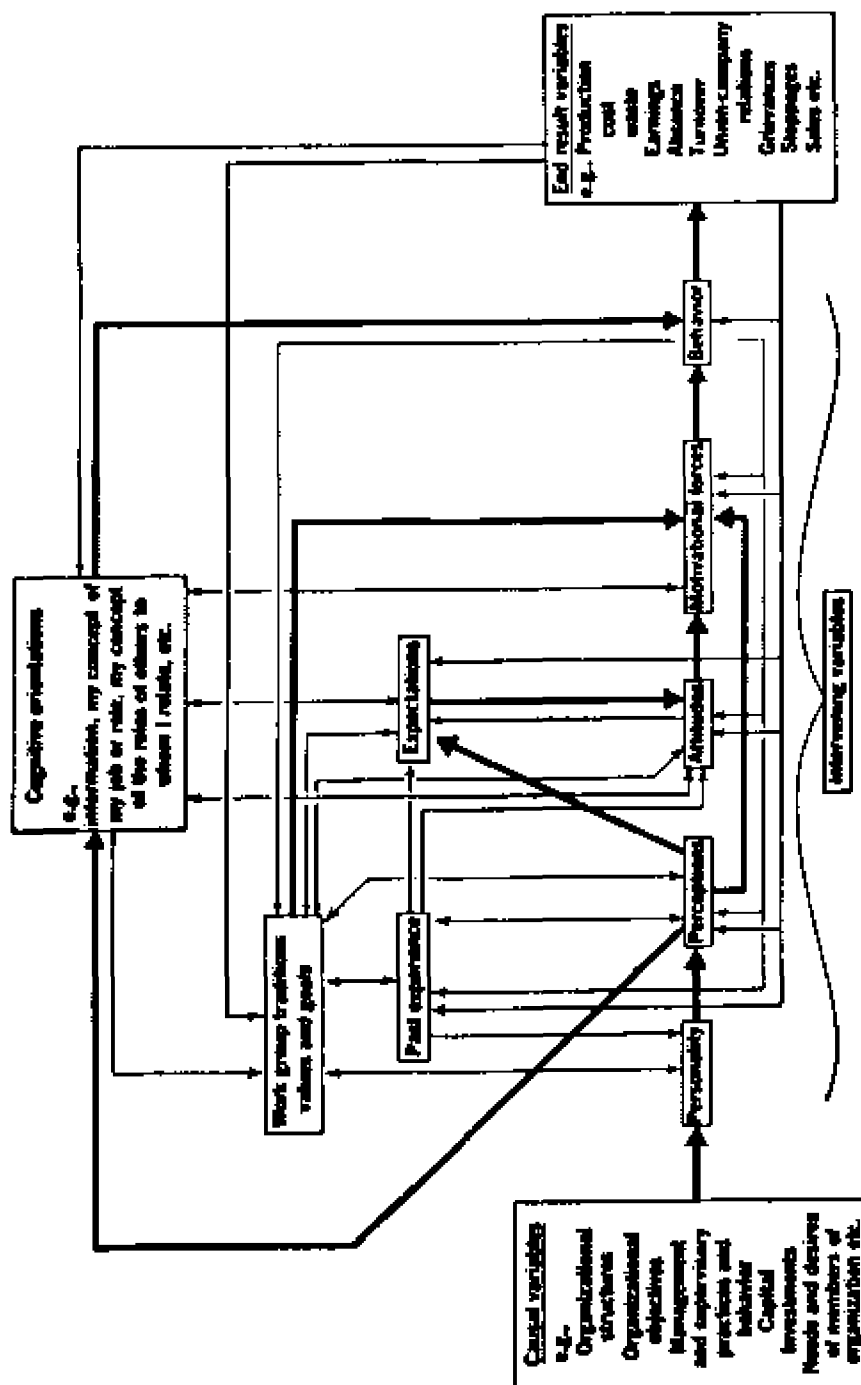
8. What avenues of approach, to improving faculty

participation in decision making, do faculty members feel have the most importance and potential?

9. Are the Virginia community college faculty perceptions of shared authority similar to those revealed in prior studies of other colleges? Do such perceptions reveal a problem requiring attention in the interests of institutional effectiveness?

Theory

The basic orientation of the study is one of exploratory research of a problem viewed in its perspective as a management problem. The behavioral school of management theory was chosen as appropriate since it is "centered around the workers and their interpersonal relations [George, 1968, p. 142]," and facilitates viewing the problem in terms of the variables of interest. Within that field, the model provided by Likert (1967) appears appropriate. It results from more than 10 years of research on a theory of organization and management based upon social sciences. The theory and research results support the belief that organizations that are perceived by their members as more participative are more productive than those perceived as relatively authoritative. The characterization of the organization along the authoritative-participative continuum is derived by ascertaining and integrating member perceptions of an extensive list of organizational variables. The essence of the conceptual model underlying the theory may be seen by reference to Figure 1, taken from an earlier Likert (1961) study. While not portrayed specifically in Figure 1, the complete list of variables includes communications as both a causal variable in the sense that



Schematic pattern of relationships between causal, intervening, and end-result variables.

Figure 1.

it is very much a part of managerial behavior, and as an intervening variable since the pattern of communication within the organization will be partially a result of the effects of causal variables, but also a result of interactions of intervening variables. From Figure 1, it may be seen that causal variables act with other influences on personality to contribute to the perceptions of the member, which in turn act along with other factors on the expectations of the member to contribute to forming member attitudes, and they in turn influence end results through motivation and behavior.

That Likert (1967) associates perceptions of communications with the characterization of an organization, as to how authoritative or how participative it is, is further reflected in the fact that a major portion of the questionnaire used in his research is devoted to communications. If one presumes that employees desire a participative management style, then the more the organization is perceived as authoritarian, the greater will be the perception of a gap in shared authority. Perceived communications appear as a major factor in the determination of the Likert characterization. From studies of managerial styles that appear successful, where the style used results in highly coordinated efforts toward organizational goals, Likert has derived his "Principle of Supportive Relationships" to describe the style:

The leadership and other processes of the organization must be such as to insure a maximum probability that in all interactions and all relationships with the organization each member will, in the light of his background, values, and

expectations, view the experience as supportive and one which builds and maintains his sense of personal worth and importance [p. 103].

In summary, Likert's (1967) work is viewed as consistent with the premise that when administrative style is relatively supportive, the pattern of communications is likely to be relatively open and multidirectional, and that those conditions will be accompanied by relatively small perceived gaps in shared authority. Conversely, a less supportive administrative style, less open and more unidirectional communications, and relatively large perceived shared authority gaps should be found together.

Concepts and Premises of the Study

In brief review, this study was focused on faculty dissatisfactions with shared authority, the typical effects of such dissatisfactions, and how such effects may be reduced. Prior considerations of these problems appear to have viewed them primarily in terms of the need for delegation of authority to faculty or altered organizational arrangements. Communication is occasionally mentioned in such approaches, but it does not appear that there has been any study which has specifically undertaken the job of trying to better understand the role of communications in the overall problem.

The Role of Communications

At a very basic level, it is obvious that communication is inherent in the very concept of shared authority. If the communications fail, there is an attendant probability that the sharing of authority may be flawed.

It is also apparent that sharing authority need not necessarily involve a delegation of decision making. For example, if person A is responsible for a decision, but discusses it with B, defines the constraints on decision, gets advice and comments from B, then makes the decision and rationalizes it to B, there has been a sharing of authority through consultation whether or not the solution of B was the decision made by A, and even though no delegation of authority was made. In the same context, it should be apparent that while an organizational arrangement or mechanism may facilitate the A-B communication, the sharing will still fail if either party is unwilling to communicate, or fails to see the need for the communication. The previously cited Likert (1967) theory suggests that such communication is a significant factor in participant perceptions of shared authority within the organization.

The way in which the administrator perceives the problem of demands for more sharing may be a confounding factor. If he perceives it as primarily a demand for increased delegation of authority or more power, he may see it as a threat to his own authority and influence. If so, he may then be inclined to a more authoritarian stance and motivated to withhold information from the "trouble-makers." Conversely, if the problem is perceived as primarily a problem in human relations, of faculty wanting to feel that they know what is going on and why, that they have been consulted where necessary and appropriate, the administrator may not see the problem as a threat, but as reflective of a need for better communication in the interests of harmonious efforts and better utilization of talents.

If these two hypothetical cases are end points, the question is where does the real situation lie? To what extent are the faculty expressions of desire for increased sharing a desire for new delegations or more power, and to what extent are they a desire for more information and more open communications patterns?

It was an underlying premise of this study that what often appears to be a demand for additional faculty authority (and which may be construed as such by administrators) may be in reality a reflection of unarticulated, or at best poorly articulated, needs for more and better information, for more feeling of involvement, respect, and confidence. If that premise is correct, then within a framework of fixed statutory delegations, there should be a significant relationship between faculty perceptions of communications and faculty perception of gap in shared authority. If the administrative style employed influences the pattern of communications (a la the Likert [1961] model, Figure 1 and accompanying text) there should be a significant relationship between faculty perceptions of the administrative style employed and faculty perceptions of communications. Within the same framework, two suggestions from prior research may be further explored: if collective bargaining is viewed by faculty as being a solution to the shared authority problem, there should be a significant relationship between faculty perceptions of gap in shared authority and attitudes toward collective bargaining; and, whether there is a significant difference between the perceptions of faculty and administrators.

Selection of the Virginia
Community Colleges for
Study

The literature has shown the shared authority problem nationally as generally more severe in community colleges. If the problem is affecting, or may affect, the Virginia system, there is a potential practical value in a study that may aid in providing a basis for administrative initiatives. Additionally, the Virginia system is representative of what may become the most prevalent form of organizing community colleges (Nonroe, 1973).

The Virginia system is basically a single system organizationally. Thus, even though there are 23 colleges, they operate under the same policies and procedures which serve to standardize many of the Likert (1967) causal variables. At the same time, the 23 schools are physically separated and each has a president. This provides some probability of variations in administrative style and communications at the local level and an opportunity for variance of faculty perceptions.

Hypotheses

In consideration of the underlying concepts, premises, and theory, the study objectives, and a review of related literature, the following hypotheses regarding the Virginia Community College System were developed. (Note: The hypotheses are restated in testable form in Chapter 3, Design of Research.) Through testing of these hypotheses, it is hoped to lend substance and direction to the notion that administrative initiatives may alter communications patterns to an extent that both the pattern of sharing authority and the

perceptions of the pattern are constructively improved, thus reducing dissatisfactions and improving institutional effectiveness.

Hypothesis 1

The role or position of the institution members, i.e., whether administrator or faculty, will be significantly related to their perceptions of shared authority gap and to their attitudes toward collective bargaining.

Hypothesis 2

Faculty perceptions of administrative style will be significantly related to faculty perceptions of communications and to the difference between faculty perceptions of how authority is shared and how authority ought to be shared.

Hypothesis 3

Faculty perceptions of communications will be significantly related to the difference between faculty perceptions of how authority is shared and how authority ought to be shared.

Hypothesis 4

Faculty perceptions of administrative style and communications in combination will be significantly related to faculty perceptions of shared authority gap.

Hypothesis 5

Attitudes toward collective bargaining will be significantly related to perceptions of gap in shared authority.

Definition of Terms

The following definitions are used in this study.

Administrative Style

A characterization of administrative behavior with respect to the degree to which such behavior is perceived as engendering mutual confidence and trust between administrators and faculty, as being supportive of others, and as conveying a feeling of openness with regard to exchange of opinions on problems; operationally defined by administering and scoring an adaptation of Section 1, "Leadership Processes Used," of the Likert (1967) questionnaire, "Profile of Organization Characteristics."

Administrators

Those administrators listed as such in the catalogs of the Virginia community colleges, not including the presidents, division chairmen, and some minor administrative positions where the position did not carry faculty rank.

Attitude toward Collective

Bargaining

The member's degree of preference for collective bargaining; operationally defined by scores of summated rating scale responses to a direct question adopted from the prior study by Armstrong (1975).

Communications

The member's perception of the character of the pattern and flow of information and communication of the institution related to decision making in terms of the degree to which it is perceived as relatively open and multidirectional; operationally defined by administering and scoring an adaptation of Section 3, "Character of Communication Process," of the Likert (1967) questionnaire.

Faculty

The full-time instructional staff, not including those who hold administrative appointments even though they may teach and have faculty rank.

Faculty Dissatisfaction with

Shared Authority

An attitude toward how authority is shared within the member's institution, the degree of which is assumed to be related to the shared authority gap; further, operationally defined by the scores of the responses to a direct question utilizing summated rating scale responses for selection.

Shared Authority

Concept that the decision making inherent in the processes of governance and administration is shared by the members of the institution; in this case, the administrators and faculty. The degree of sharing is characterized as falling along the following continuum (AAHE Task Force, 1967).

Administrative dominance. The administration makes decisions essentially on a unilateral basis, with the faculty exercising little or no influence.

Administrative primacy. Authority resides primarily with the administration, but the faculty is actively consulted and its views are given careful consideration. If there is a division of opinion, administrative views are given greater weight.

Shared authority. Both faculty and administration exercise effective influence in decision making.

Faculty primacy. Authority resides primarily with the faculty, although provisions are made for prior consultation with, and airing the views of, the administration.

Faculty dominance. Unilateral decision making authority is vested in the faculty.

Shared Authority Gap

The difference between the member's perceptions of how authority is shared and how it should be shared; operationally defined by the scores of responses to questions using summated rating scales to determine the member's perceptions and the resultant gap. Detail of design and use are in Chapter 3, Design of the Research, herein.

Assumptions

The following assumptions were made for this study:

1. A sample of 10 of the 23 community colleges is representative of the Virginia community college as a whole.
2. A random sample of approximately 15 faculty members and 5 administrators from each college is representative of the total faculty and administrator population of that college.
3. Perceptions of faculty and administrators are at least related to actual practice, and that limited inferences about reality may be drawn from analysis of perceptions.

Limitations

The study was limited to the Virginia Community College System and its members as reflected in the current school catalogs as of the time of the study. The study was concerned with member

perceptions and attitudes which may not reflect actual practices within the system and its institutions.

The study should be considered as exploratory, and perhaps preliminary to other needed research. Any statistical finding in support of the hypotheses should be viewed as merely strengthening the credibility of the hypotheses in that they have "survived a chance of disconfirmation [Campbell & Stanley, 1966, p. 64]."

Overview of Study

The remainder of this report of the study is structured as follows: In Chapter 2, the pertinent literature is reviewed. In Chapter 3, the design, methods, and procedures for the study, the statistical hypotheses, and the methods for analysis are defined and discussed. Chapter 4 contains the analysis of results. Chapter 5 contains an overall summary of the research, and discussion and conclusions relating to the research results. In the immediately following chapter, the review of the literature is made with a view to further illumination of both the preceding Chapter 1 defining background, purposes, and dimensions related to the study problem and the succeeding chapters related to research design, procedures, and methods, and to the results obtained and conclusions drawn from the study.

Chapter 2

Review of the Literature

Introduction

The behavioral school of management theory has gained considerably in stature, activity, and acceptance within industry in the past 40 years since Elton Mayo (cited in Schein, 1965) discovered the now classic "Hawthorne Effect" in his studies of the Hawthorne Works of Western Electric in the late 1920s. The work led to the then new hypothesis that "motivation to work, productivity, and quality of work all are related to the nature of the social relations among the workers and between the workers and their boss [p. 30]," which, in turn, led to the redefinition of industrial psychology as industrial "social" psychology.

In 1938, Barnard (1966) set forth the premises that organization is a system of consciously coordinated activities in which the executive is the most strategic factor. Another premise is that a central function of the executive is the establishment and maintenance of a system of communications required to convey goals and purposes, and implement coordination of activities.

Since that period, industrial research based on behaviorally oriented theories has proliferated and produced evidence of the validity of such theories. While recapitulation of all such work is not appropriate here, it should perhaps be noted that the work of such theorists and researchers as MacGregor, Blake and Mouton, Argyris,

Simon, Herzberg, and Likert (all cited in Schein, 1965, and George, 1968) have all contributed materially to the general view that consideration of the social and psychological aspects of management are necessary, and that the more participative approaches to management will more often produce the desired results. For those desiring to obtain a more detailed overview of the accomplishments and meaning of their work, George's History of Management Thought, 1968, and Schein's Organizational Psychology, 1965, are excellent starting points for viewing their contributions in perspective. It is within such perspective, and in light of the purposes of this study, that the Likert (1961, 1967) model and theory previously discussed in the Theory Section of Chapter 1 was chosen and is viewed as a major work.

Within the literature of administration and governance of higher education, there is widespread agreement with the principles of behavioral theory, and virtually no published disagreement. Yet, ironically, the theories that emanated almost wholly from academe apparently are not being implemented there (see Chapter 1, The Problem). Neither is there any evidence of extensive research within higher education that would test application of the theories to higher education administration and governance in a manner that would parallel the work which has been accomplished in industrial settings. The most prevalent posture appears to be one which can be summarized as philosophic agreement with behavioral theory while adhering in practice to the more traditional and more authoritarian management style, and with it a more unidirectional communications pattern.

The search of the literature of governance and administration of higher education as it relates to shared authority revealed no studies which specifically undertook to assess the role of communications in the shared authority problem. No pertinent study was found which embodied a prior hypothesis with regard to communications.

Although there was no discovery of directly comparable studies, five works were selected for review on the basis that they contribute one or more of the following to the present study purposes:

1. information about faculty and administrator attitudes and perceptions related to shared authority;
2. pertinent findings about the role of communications (even though such findings were incidental to the purposes of a main study);
3. pertinent findings regarding administrative style and its effects; and
4. pertinent information about any of the above, specifically in (a) community colleges, and (b) in the state of Virginia.

In addition to meeting the above criterion, each of the selected studies was also viewed as aiding both the design of the present research and the interpretation of results.

The studies are reviewed individually inasmuch as it appeared that more meaning and perspective would be obtained than by reviewing a single topic across all five studies, thus losing some of the integrity of the individual study. This approach also allows review of the studies in the chronological order in which they occurred, which may provide additional perspective.

In the review of each study, the study and its results are first briefly synopsisized and then followed by a short discussion relating the reviewed study to the present research. Following the reviews of the five studies and at the end of Chapter 2, is a Summary which contains a discussion that undertakes to integrate the overall import and applicability of the prior studies to the present effort.

A Policy Statement by Professors (1967)

The self-characterization of Faculty Participation in Academic Governance (AAHE Task Force, 1967) is that it is "a policy statement by professors about their role in the governance of institutions of higher education [p. v]." Based on observations of and concerns about growing unionism, some actual faculty strikes, and "faculty unrest and demands for more effective representation in the affairs of the college and university [p. 5]," the Task Force set out to examine contributing factors and to recommend procedures "for improving faculty participation in campus government [p. 6]." To do so, they visited and conducted interviews at 34 institutions (nonrandom sample), in various parts of the country, with leaders, officials, and knowledgeable persons. They also interviewed union and professional association officials, and performed a review of relevant literature. The following points are drawn from their findings and recommendations:

1. The faculty discontent was confirmed, the main source being desire for increased participation in policy determination with economic factors appearing as secondary. Junior colleges were one of

the "main centers" of discontent.

2. Campus governance systems should be based on a "shared authority" concept.

3. Issues for shared authority should include--educational and administrative policies, personnel administration economic matters, public questions affecting role and functions of the institutions, and procedures for faculty representation in governance.

4.

There are three alternative approaches to faculty-administration decision-making in campus governance. These include information sharing and appeals to reason, the use of neutral third parties, and the application of political, educational, or economic sanctions. The greatest reliance should be placed on information-sharing and appeals to reason.

Neutral third-party intervention, such as arbitration, can be used constructively when an impasse arises between faculty and administration. Sanctions should be applied only where vital issues are involved and other methods of resolving disputes have failed. Although the strike is a weapon of last resort, there are no persuasive reasons to deny faculty members the right to use this sanction [p. 2].

5. An internal organization, preferably an academic senate, is the preferred mechanism for the concept of "shared authority," relying upon information sharing and appeals to reason as a preferred approach.

6. "Formal bargaining relationships between the faculty and administration are most likely to develop if the administration has failed to establish or support effective internal organizations for faculty representation [p. 3]."

Discussion

As a policy statement by faculty, the study is considered significant in its confirmation of faculty discontent with shared authority and of community colleges as a matter of particular concern, and its affirmation of shared authority as the concept upon which governance should be based. Of equal interest is the strong support to "information sharing and appeals to reason" in preference to sanctions and third-party arbitration as approaches to shared decision making, which appears to support the concept of a strong role for communications.

Finally, the study results link collective bargaining to the shared authority problem as a potential development "if the administration has failed" in what is seen as their job in ensuring shared authority. This latter condition, in the context of other study findings, is viewed as affirmation that solution to the shared authority problem is viewed as a matter for administrative initiatives; otherwise, faculty will likely be led to collective bargaining.

A Study of a University through a Change of Administrations (1967)

Of the several studies included within the present review, Power, Presidents, and Professors (Demerath, Stephens, & Taylor, 1967) is perhaps the most closely related to this study in that it

includes similar main variables in essentially the same model of expected relationships. Power, Presidents, and Professors is the report of the collaborative studies of Demerath, Stephens, and Taylor (1967) at the University of North Carolina, Chapel Hill, North Carolina. The focus is management and organizational behavior; the core of interest is a longitudinal study of the university over 4 years through a change of administration. A questionnaire was administered initially and after the change (4-years later) to all full-time faculty. "The principal idea tested was that change of administrative style produces changes in the participation, the views, and the sentiments of the organization members [p. 13]." They felt that the construction of the study was such that "any differences on the outcome variables--faculty influence, general excellence, and satisfactions, all as rated by faculty--could be attributed to the new administrative style [p. 165]." The new administrative style was characterized in summary as having four noteworthy features:

1. Known and regularized channels of communication and authority, open and used, between faculty and bureaucratic officials.
2. Chancellor and team of top deans comparatively youthful, socially skilled former professors whose objectives were those of the faculty, on the whole.
3. Orderliness of procedures for policy-making and execution, especially through strengthened departments and hard-working officials.
4. Collegial power facilitated by appropriate bureaucratic

authority and process, superseding patrimonial relations and the authority of tradition [p. 166].

The authors' hypotheses were that faculty perceptions (a) of their influence on policies, (b) of the excellence of the institution, and (c) their own satisfactions would all become more favorable. All three were statistically confirmed and provided the foundations for their concluding chapter on "The Case of Collegialized Management [p. 215]." Faculty participation and communications (as perceived by faculty) were regarded as intervening variables and measured in both surveys; both were found to have statistically significant improvements.

Discussion

The parallels with the present study are evident: a change of administrative style, which may be viewed as in part a collection of administrative initiatives, was accompanied by significant changes in faculty perceptions of communications, degree of faculty participation in decision making, faculty satisfactions, and faculty appraisal of the excellence of the institution. Unfortunately for present purposes, the strength of the relationship between faculty perceptions of communications and shared authority was not measured.

A review of the four "noteworthy features" attributed to the new (and more successful) administrative style with a view toward assessing the essential elements underlying the features is instructive. A view might easily be that the factors of "known and regularized channels," the match of objectives of administration and faculty, "orderliness of procedures for policy making and execution,"

"strengthened departments," "hard-working officials," and "appropriate bureaucratic authority and process" are in themselves not different from the classic principles of Weberian (cited in Blau, 1967, pp. 28-32) bureaucracy and, as such, are not likely to satisfy or inspire professors. It must be their application in combination with the remaining elements that produces the desired effects. The remaining elements reduce to open-and-used-channels of communication and authority by "socially skilled" administrators, which might allowably be redescribed as a human relations oriented approach to the exercise of authority employing open- and skilled-communications. (Note: The viewpoint described here does not substantially depart from the analysis of Demerath et al. [1967] as to how essentially bureaucratic approaches are combined with a collegial approach to form a new concept of management described at length in their chapter on "Collegialized Management.") Of interest to the present study is the fact that the changes in perceptions were brought about without reallocations of statutory authority between faculty and administration, major changes in written policies, or new organizational arrangements or mechanisms for facilitating faculty participation.

Faculty Participation in Academic

Decision Making (1968)

Dykes' (1970) research of the College of Liberal Arts and Sciences of a large Midwestern university provides some insights into aspects of the participation problem not well revealed by other studies. As summarized by Wilson's "Foreword," Dykes undertook to ascertain "the faculty's conceptions of its 'proper' role in decision

making, its satisfactions and dissatisfactions with the perceived status quo in campus governance, its reasons for participating, impediments to the process, and how the process operates [p. iii]." Impetus for the study was in consideration of the essentiality of effective faculty participation, professorial dissatisfactions with bureaucratization and hierarchial patterns of authority, and trends toward collective bargaining. In the study, Dykes quotes Wilson's view that colleges and universities ought to be "subject to the same intensive analysis and study which have been brought to bear on various forms of business and industrial enterprise [p. vi]" and notes that the need "remains as unfulfilled today [p. vi]" as when the remark was made (1957). The study was conducted by structured interviews with a random sample (n = 106) of 20% of the college faculty (stratified by rank). Results of interest include the following:

With regard to the "proper" role of faculty in decisions, a substantial number felt that the faculty should usually or always determine academic affairs (86%) and personnel matters (69%). Relatively few felt that faculty should determine financial matters (11%), capital improvements (21%), or student affairs (24%). In case of the latter three areas, there was a prevalent feeling that faculty should recommend and administrators decide. With reference to public and alumni relations, 51% of faculty said faculty should not usually be involved (p. 2).

The responses reflected an ambivalence--the faculty want an active role in decisions, but show a reluctance to give "the time and

energy such a role demands [p. 10]."

51% said more decision making power should rest with faculty; another 44% said the faculty role is not what it should be ideally, but is about what one can realistically expect; only 2% said it was "just about right [p. 11]."

47% of faculty did not know whether there were decisions being made in which they (in their opinion) should be involved (p. 13).

53% were dissatisfied, another 10% very dissatisfied and only 28% satisfied with the faculty role in decision making (p. 15).

"A feeling that the faculty is not kept adequately informed and a corollary suspicion that important decisions are frequently made without faculty knowledge or consultation are the most important sources of faculty dissatisfaction [p. 15]." Others noted the "vacuum between faculty and top-level administrative officers [the] clogged lines of communication [p. 15]," and the difficulty of upward communication.

The study revealed a disturbing discrepancy between what the faculty perceived its role in decision making to be on the campus under study and what its role is in reality, and a "widespread sense of suspicion and mistrust." This was attributed not only to size and complexity of the institution, but to a "serious communications deficiency, accentuated by the nature of the campus, not only between the faculty and the administration but among faculty members themselves [p. 41]." In this regard Dykes concludes that "administrators--who have better access to information concerning institutional decisions--must assume the initiative in making information available

to the faculty [p. 41]."

"The faculty members interviewed attributed to the administration vastly more power than it actually possesses [p. 42]."

Discussion

The study results are viewed as illuminating the present study in several aspects. The faculty desire more decision-making power and more influence; but, at the same time, it is not clear because of their reservations about the demands on their time and energy, that they could accommodate increases if they were granted. They are dissatisfied with their participation and suspicious and mistrustful of administrators. They attribute cause specifically to communications deficiencies. That they frequently do not know they are participating, or that something is happening in which they should participate, or what the limits of the administrators' authority are, all appear to be prima facie evidence of communications deficiencies. The Dykes (1970) conclusion about needs for administrative initiatives is in accord with the premises and underlying hypotheses of the present study.

A Study of Selected Washington Community Colleges (1968)

This analysis focuses on perceived disagreements among various groups of the membership of the institution, the causes and effects of such disagreements, and the extent to which certain pre-selected variables accounted for the perceived disagreements. There were four community colleges randomly selected, and all full-time personnel were administered a pretested and prevalidated 63-item

Likert-type scale for measuring differential attitudes. A 75% response was obtained and the questionnaire was followed by structured interviews with 16 respondents (Olson, 1968). Among the many findings of the study, the following are of specific interest.

"Administrators--including or excluding presidents--desire significantly less participation in governance by the faculty than do either the faculty or the supporting staff [p. 115]."

"Of all major component groups considered, academic faculty desire the greatest participation in governance by the faculty and administrators--presidents excluded--desire the least [p. 115]."

"Generally speaking, the views of vocational-technical faculty closely approximate those of administrators [p. 115]."

Faculty desires for participation were found to be significantly related to desired teaching level, highest degree held, immediately previous teaching assignment, and faculty age (26 to 35, more; 35+, less) (pp. 116-117).

Of the respondents interviewed, 14 out of 16 believed the participation issue to be critical, and 10 felt that it was growing (pp. 123-124).

The "overwhelming majority" of interview responses indicated causes of disagreement as in three broad categories:

(1) Those which pertained in one way or another to the existing distribution of authority in community colleges.

(2) Those which pertained to the evolving transitional character of our emerging state system of community

colleges; and

(3) Those which pertained to the problem of communication and information flow within the institution [p. 125].

With further reference to the third item, communications and information flow: "There was a rather general consensus across all major categories that deficiencies in communication existed between faculty and administration and that this contributed directly to feelings of mutual distrust and lack of understanding of the other's position [p. 129]."

The revealed disagreements among institution components were generally regarded as constructive. A further question aimed at "soliciting respondent recommendations for future resolution of the disagreements as previously discussed [p. 136]," revealed that over 50% of the responses "emphasized the need to concentrate on defining the parameters of and establishing the structure for effective faculty participation in community college governance [p. 136]," while only three of the 16 respondents cited improvements in communications, and three cited "the need for a change in administrative style [p. 138]."

Olson's interpretation of results identifies the main problem as adherence to a "classical or traditional approach to administration [p. 140]" which is authoritarian in nature, production oriented rather than people oriented, and "assumes by virtue of its administrative behavior that the pattern of communication flow in an organization is essentially vertical with the result that the crucial importance of lateral communication is largely ignored [p. 142]."

Olson comments further:

Yet, although there apparently exists a widespread feeling in all sectors of higher education within the state that the prevailing style of administration in our community colleges is classical or traditional in tone and, moreover, that this style just isn't working very well and is in need of substantial change, there does not appear to exist in the field at this time either a mature awareness of exactly why it isn't working or, equally important, a clear perception of the essential interrelatedness of this root cause with other causes often mentioned.

For example, though the complaint that communications and information flow in a particular community college are bad is heard repeatedly in the field, one rarely encounters an individual who accurately perceives this as a symptomatic factor which grows directly out of the administrative model currently employed. Usually a communication problem is attributed to the administrative behavior or personality of a particular individual with the inference being made that if this individual were replaced, hopefully, the problem would be solved [p. 143].

Olson also concludes that if "the prevailing administrative structure and style continue unchanged: it could result in the 'injured' parties seeking equity outside the normal educational channels [p. 146]," and increasing resort to legal and statutory means between the faculty and administration as opposing factions.

Discussion

In summary, the Olson (1968) study confirms a desire by faculty in the Washington state system for more participation. The desire is not fully supported by administrators, and the resulting situation is generally regarded as critical and growing. Perceived causes include the allocations of authority, status of the state system, and communications. The latter was seen to be pervasive and contributing to feelings of mutual distrust between faculty and administrators which agrees with the previously discussed finding by Dykes (1970). The disagreements are seen as constructive; and the most frequently mentioned approach to solution is newly defined parameters and structure for participation, i.e., allocations of authority and mechanisms. Olson's interpretation is directly to the point: administrative style needs revision but there is not a general awareness of why present style does not work and how, as a root causal factor, it interrelates to other often listed causes. He recognizes communication as a significant aspect of administrative style, but notes that faculty most often see it otherwise, as an aspect of an individual administrator's personal traits and characteristics. Finally, Olson's conclusion that, if the problems are not solved internally, the faculty may seek equity "outside the normal educational channels" through resort to "legal and statutory means," lends support to the assessment of other studies that faculty members may resort to collective bargaining as a remedy.

A Study of Public Institutions of Higher
Education in Virginia (1975)

Armstrong's (1975) purposes were to determine faculty perceptions of the implementation of the shared authority concept and to see if faculty favor collective bargaining as a means of sharing authority. A mailed questionnaire to a random sample (n = 350) of faculty, stratified by institutional type, provided 215 usable returns. Armstrong used the AAHE Task Force--developed continuum to characterize the degree of participation, with decision areas characterized after an AAUP model. He undertook to examine the relationships between the variables of institutional type, age, size, and perceptions of shared authority; and between faculty rank and departmental affiliation and both of the two main variables, perceived sharing of authority and attitudes toward collective bargaining. Results of interest include the following:

Overall, the faculty perceived decision making as "somewhere between administrative primacy and shared authority [p. 51]" except in the area of academic programs in which they felt authority was shared.

"In two-year colleges the concept of shared authority was perceived as being practiced least . . . [They] could have been easily classified as exhibiting administrative primacy [p. 53]."

The institutional age was related to perceptions of shared authority--the older, the more the perceived sharing (pp. 53-54).

"Institutional size had no significant relationship to perceived practices of shared authority [p. 54]." (There were

interactions--older, larger--between size and age.)

Academic rank and departmental affiliation were not significantly related to overall shared authority perceptions (p. 66)--although departmental affiliation was significant in decisions pertaining to faculty affairs and appointments, and rank was significant only to appointments (p. 75).

The correlation between perceptions of shared authority and attitude toward collective bargaining had a coefficient of .18, significant at the .05 level, which "seemed to be fairly independent of institutional size, academic rank, and institutional age [p. 90]."

Institutional age, size, academic rank, and departmental affiliation all were significantly related to favorable attitudes toward collective bargaining at the .05 level--i.e., older, less favorable; larger, more favorable; higher rank, less favorable; social science, education, humanities, more favorable (pp. 96; 98).

Discussion

The Armstrong (1975) study shows that the Virginia community colleges apparently experience relatively lower levels of shared authority than other types of public institutions in Virginia, a finding consistent with previously discussed studies of other populations. A relatively weak correlation between levels of shared authority and attitudes toward collective bargaining was found. The study thus provides a reference level of the sharing of authority and a distribution of the attitudes toward collective bargaining as of the time of the study.

It should be noted here that there is a fundamental difference

between the Armstrong (1975) approach to examining the relationship between attitudes toward collective bargaining and perceptions of shared authority and that used in the present study. Armstrong uses the AAHE continuum to study levels of perceived sharing without reference to any ideal or desired level. Thus, he would expect a low level of sharing, for example, "Administrative Primacy," to produce favorable attitudes toward collective bargaining, whether or not that area of decision appears to faculty as appropriate for equal sharing or "Administrative Primacy." When, in effect, he hypothesizes that the shared authority score should be the numerical equivalent of all respondents selecting the "Shared Authority" response in all decision areas, it implies that the concept of shared authority embodies equal sharing in all areas of decision, a conclusion which is not supported by the findings of Dykes (1970) or the AAHE Task Force (1967), and is not consistent with the AAUP (1971) recommendations. The probable effect of the particular approach taken would be to show a weaker apparent relationship between how authority is shared and attitudes toward collective bargaining than may actually be the case, or than may be shown in the present study which proposes to treat attitudes toward collective bargaining as related to differences in perceptions of ideal and actual shared authority. These differences are believed to produce the pressures that generate favorable attitudes toward collective bargaining rather than simply the absolute level of sharing.

Summary

All five of the reviewed studies, which span the period of

1967 to 1975, show a faculty desire for participation in the decision making within their institutions and a concomitant faculty dissatisfaction with how authority is shared. Within the range of types of institutions, the AAHE Task Force (1967) found the 2-year colleges among the lowest levels of sharing and highest levels of discontent. Armstrong's (1975) findings related to Virginia public colleges were similar. Olson (1968) characterizes the shared authority problem in the community colleges of Washington as growing and perhaps critical.

The role of communications is discussed in four of the five studies. The AAHE Task Force (1967) study sees "Information sharing and appeals to reason" as the preferred approach to faculty-administration decision making. Demerath et al. (1967) show that a new administrative style, a strong aspect of which is regularized open communications, produces perceptions by faculty of more participation and faculty satisfactions. The Dykes (1970) study deals with a serious communication deficiency; faculty often do not know about decisions in which they feel they should be involved; they feel they are not informed, not consulted, and that communication lines are "clogged" and difficult. The Olson (1968) findings on communications are similar in general to those of Dykes, and both found poor communications contributing to lack of confidence and trust in administrators.

The Demerath et al. (1967) study shows a relationship between administrative style and initiatives as causal variables, faculty perceptions of communications and faculty satisfactions as intervening variables, and the end result variable of institution excellence.

The AAHE Task Force (1967) study touches on need for administrative action, and the Dykes (1970) study is very specific in suggesting that the administrators, who have more information, "must assume the initiative." The main thrust of Olson's (1968) interpretation of his study results is a plea for revised administrative style, a significant aspect of which is seen by him as better communication. The studies of the AAHE Task Force, Olson, and Armstrong (1975) all indicate the possibility of a relationship between the way in which authority is shared with faculty and faculty inclination toward collective bargaining.

While the immediately preceding paragraphs relate to areas of consistency and agreement between the several studies, and with theoretical considerations, the presence in some of the studies of some possibly confounding complexities should also be acknowledged. Among these are:

Dykes' (1970) finding of an "ambivalence" of faculty viewpoint, that the faculty want an active role in decisions, but show a reluctance to give "the time and energy such a role demands," is perplexing and suggests the desirability of trying to find out more about this aspect of the problem.

Olson's (1968) finding of a basic difference of opinion between faculty and administrators as to what extent authority should be shared suggests that this factor may well contribute to the shared authority problem, and as applied herein substantiates the desirability of inclusion of such inquiry within the present study.

Olson's finding that faculty respondents often see communications

not as an aspect of the administrative system or style employed, but rather as an aspect of the personality of the administrator is troublesome. It may indicate the possibility of some misdirection or bias in responses related to communications.

Notwithstanding the complexities, the reviewed literature is, overall, viewed as supportive of the need for the present study and of the central hypotheses; and as consistent with the adopted Likert (1967) theoretical model, and with the general approach of the study. In particular, the studies highlight the apparent importance of communications to the problem of the study, and role and importance of administrative style, thus providing a framework within which the results and conclusions of the present study may be viewed. The reviewed studies also helped to shape the design and methodology of this study, as will be seen in the following chapter describing in detail the design of the present research.

Chapter 3

Design of the Research

Overview

The purposes of the study required determination of the relationships among specified faculty and administrator attitudes and perceptions within the Virginia community colleges. There appeared to be no practical opportunity for experimental manipulation of variables within the population of interest. Accordingly, the research was conducted as an ex post facto design, utilizing a mailed survey questionnaire to a random sample of faculty and administrators to determine their attitudes and perceptions as of the time of the survey.

Sample

The population consisted of the faculty and administrators of the 23 colleges of the Virginia Community College System (VCCS). To facilitate the main purposes of the study and at the same time accommodate subsidiary purposes requiring by-college comparisons, the following sample procedures, all of which employed tables of random numbers for random sample selections, were employed.

A random sample of 10 of the 23 colleges was desired. Prior approval of the VCCS for conduct of the study within the VCCS had specified that the approval of the president of each participating college would be required. To ensure a final sample of 10 colleges, 15 colleges were randomly selected and their presidents were contacted

for approval. Of those contacted, 12 signified approval of their participation, two declined, and one failed to respond. A sample of 10 was randomly selected from the 12 agreeing to participate. (Note: The random sample of colleges did not include the largest college in the VCCS which, with about 45,000 students, is over 2 times as large as the largest included with the study, and the next largest in the system.)

For each of the selected 10 colleges, approximately 5 administrators, 15 faculty, and 2 division chairmen were randomly selected. (Note: The sample of division chairmen was drawn separately from other administrators to examine whether their attitudes and perceptions differed significantly.) The current catalog listings of the colleges, appropriately numbered, were used for the random selections. The described procedure provided a random sample of 10 colleges, and an initial sample of 50 administrators, 20 division chairmen, and 150 faculty members.

Of the initially selected total sample, 41 out of 50 administrators (82%) responded, 94 out of 150 faculty (63%) responded, and 16 out of 20 division chairmen (80%) responded, providing an overall response rate of 151 out of 220, or 69%. Of the 151 responses, 146 were either wholly usable, or fully usable for main variable purposes. The usable sample was 66% of the initially selected sample. Among the 10 colleges, the mean overall usable response rate was 66.5% with a standard deviation of 12.8% (range = 46%).

Instrumentation

To gather the existing perceptions and attitudes of faculty

and administrators as of the time of the study, a questionnaire employing summated rating scales (Kerlinger, 1973) was developed for mailing to the selected sample. A copy of the questionnaire is contained in Appendix A and the specific sections of the questionnaire are further described in the following paragraphs.

Section I contains questions to determine the respondent's perceptions of how authority is shared in his institution in each of several decision areas. The decision area groups are based on a design developed and used by the American Association of University Professors (1971) in their survey of institutional practices with respect to sharing. The AAUP design was abridged and condensed in order to accommodate to the specifics of the community colleges of Virginia (for example, references to tenure are eliminated), and to reduce questionnaire length in the interests of fostering higher response rates. Eliminated areas were, in part, based on the prior studies indicating relatively low faculty interest in some decision areas (Dykes, 1970). The summated rating scales used to determine the degree of participation were those developed and used by the AAHE Task Force (1967) and again employed by Armstrong (1975) in his study of the public colleges of Virginia.

Section II.A. is a repetition of the same decision areas and scales as in Section I, but asks the respondent to indicate how, in his opinion, authority ought to be shared. Section II.B. includes three direct questions for purposes of internal and external comparisons. The first two questions, 11. and 12., were taken directly from the Dykes (1970) study and question 13. was devised specifically

for this study.

Section III was designed to determine the respondent's perception of the characteristics of his institution with respect to the administrative style employed and the communications related to decision making, and was adapted from Likert's (1967) "Profile of Organizational Characteristics" to meet the specific needs of the present study. The primary purpose of Section IV was to determine the respondent's attitude toward collective bargaining and, in the interests of comparability, used a question and scale similar to that employed by Armstrong (1975). To avoid bias, however, that might result from focusing solely on collective bargaining and because the answers were of interest, additional questions to determine attitudes toward other mechanisms for sharing authority were also included.

Section V included three questions intended to ascertain other attitudes of interest. Question 1 had as its primary purpose the determination of the rank importance as viewed by faculty of (a) additional delegations of authority to faculty, (b) better communications, and (c) better organizational arrangements for sharing. Questions 2., 3., and 4. were intended to provide background or reference material with respect to how the members of the institution saw the effectiveness of the institution and the satisfactions of the members. In addition to the information gathered through the questionnaire, the respondent's highest degree held, academic rank, and whether the teaching area was academic or vocational-technical was ascertained from the college catalog listings and entered on the return questionnaire.

Validity Considerations

With respect to internal validity, there was no experimental manipulation, but an ex post facto analysis of measured variable relationships. Since both theory and prior research indicated the probability that both administrative style and position (whether faculty or administrator) would be expected to directly or indirectly influence attitudes about shared authority gap, and since the factors of rank, highest degree held, kind of teaching activity (whether academic or vocational-technical), and unknown factors associated with a specific school were considered as possibly influential, all of those factors were used as control variables. With respect to all other factors that might influence the dependent variables, internal validity was dependent upon randomization of the sample.

In respect to external validity, the study did not undertake to be closely representative of any population other than that of the faculties and administrations of the colleges of the Virginia system. It was intended that users of the results should draw their own conclusions, in light of the stated limitations of the study, the nature of the results, and comparisons with prior research results, as to applicability of the findings to other populations.

Reliability of the Questionnaire

In the interests of maximizing the reliability of the questionnaire, the various sections relating to the main variables were drawn from previously used instruments. Since several sources were used, each will be discussed separately. The "Shared Authority Gap" questions were structured on the basis of condensing and abridging a

structure of decision areas that had been used by the AAUP (1971) in a survey of all colleges and universities having AAUP chapters. The decision areas were each coupled with the scale to measure location of perception on a continuum of degrees of shared authority that was developed by the AAHE Task Force (1967) and used in their survey of 34 institutions, and applied again by Armstrong (1975) in his study of all public higher education institutions in Virginia. Again, no specific reliability figures are available; however, the scales appeared functionally adequate.

The "Administrative Style and Communications" questions and scales are drawn from the sections of corresponding title of Likert's (1967) "Profile of Organizational Characteristics," and have been modified only semantically to accommodate differences in academic and industrial terminology. An early version of the questionnaire structure was published by Likert in 1961. Between 1961 and 1967, the questionnaire was used with several thousand employees in a series of industrial research programs and expanded, modified, and refined to reduce possible bias. The revised questionnaire was then retested and a finding of a Spearman-Brown split-half reliability of +.97 from one test group and +.99 from another test group was reported. Likert concludes that the instrument "can be used as a reliable instrument to measure the nature of the management system of any organization in which there is at least a minimum level of control and coordination [p. 122]." The "Collective Bargaining Question" had been previously used in Armstrong's (1975) study of institutions in Virginia. The remaining questions were either drawn

from the literature or developed as relatively simple direct questions.

The integrated questionnaire was administered as a test to six persons who were both doctoral students and community college faculty members or administrators. This resulted in several minor suggestions for improvement of arrangements or semantics, which were incorporated in the final questionnaire.

The shared authority gap score has been theorized as a measure of faculty dissatisfaction. Since this constituted a main variable and the specific questions utilized to determine shared authority gap had not been extensively tested, questions 11, and 12, were included for comparison with the shared authority gap scores. Question 12, asked directly for feelings about how the faculty's actual role in decision making compares with an idealized conception. Question 13, addressed directly faculty satisfactions and dissatisfactions with the faculty role in decision making. The response results were compared with shared authority gap scores that were trichotomized as High (3 to 12), Medium (1.5 to 3), and Low (0 to 1.5), and showed the following relationships:

Question 12.

n = 141

Raw chi square = 78.8

Significant level = .0000, 6 degrees of freedom;

Question 13.

n = 138

Raw chi square = 54.37

Significant level = .0000, 6 degrees of freedom. The results were interpreted as supporting reliability of the shared authority gap score as a measure of faculty dissatisfaction with shared authority.

Data Gathering

The questionnaire was mailed to the selected sample. A copy of the initial transmittal letters, and the follow-up letter that was sent to those who had not responded as of 3 weeks after the initial letter, are contained in Appendix B.

Scoring

In general, predetermined numerical values were assigned to the summated rating scales checked by the respondents to determine scores. Details and specific values are contained in Appendix C.

Statistical Hypotheses

The hypotheses are stated in null form. The expectation from theory and prior research was that each would be rejected in favor of the alternative hypothesis. The 5% level of significance was chosen for testing each hypothesis with, additionally, the amount of shared variance used as an indicator aiding interpretation of results.

Hypothesis 1

Position (whether faculty or administrator) will not be significantly related to: (a) Shared Authority Gap, or (b) Attitude toward Collective Bargaining.

Hypothesis 2

Perceived Administrative Style will not be significantly related to: (a) Perceived Communications, or (b) Shared Authority Gap.

Hypothesis 3

Perceived Communications will not be significantly related to Shared Authority Gap.

Hypothesis 4

Perceived Administrative Style and Communications in combination will not be significantly related to Shared Authority Gap.

Hypothesis 5

Shared Authority Gap will not be significantly related to Attitude toward Collective Bargaining.

Statistical Analysis Procedures

The assumption was made that the summated rating scales employed represent approximately equal intervals of attitude or perception values, and that parametric statistics could be used without major error. Computations were performed using SPSS: Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975), Version 7, as installed in the IBM (International Business Machines Corporation) System/370 at the College of William and Mary, Williamsburg, Virginia.

The raw data received on all variables was checked for normality of distribution using either the SPSS (Nie et al., 1975) subprogram "Condscriptive" or "Frequencies," as appropriate. Multiple regression, using subprogram "Regression," was selected to determine the relationship among main variables and control variables on the basis that:

1. It allows study of the relations of several independent variables to a dependent variable, thus, allowing use of several main

variables plus other control variables.

2. An n-way analysis of variance would have, in this study, had substantially unequal, and some empty, cells; and, in converting variables from continuous to nominal, would have lost variance. In addition, incorporation of the desired number of control variables would have made interpretation difficult, if not impractical.

In addition to the main variable of communications, the relationships of position, highest degree held, rank, kind of teaching (academic or vocational-technical), school, and administrative style to the dependent variable of shared authority gap were examined. Also examined were the relationship between position, shared authority gap, and attitude toward collective bargaining. Dummy variables were created, as necessary, to facilitate the use of nominal variables in the regression analysis in accordance with the procedures of SPSS (Nie et al., 1975).

Weighting the Sample

Since the random sample drawn was of approximately equal size for each of the 10 colleges even though the size of the colleges varied, it was necessary to apply a weighting system to the sample from each of the 10 colleges that allocates weight to the sample according to its relative size. In essence, the system employed ascertains the total eligible population (P) within the definitions adopted for this study and the eligible population at each specific college (P_n). Thus, the fraction $\frac{P_n}{P}$ represents the initial weighting

fraction and

$$p_1 + p_2 + \dots + p_n = P.$$

This, in turn, is multiplied by $\frac{St}{Sn}$ where

St = total sample, and

Sn = sample from a specific school.

The net effect is that the real sample size from smaller colleges is effectively reduced while the real sample size from larger schools is effectively increased and the aggregate sample size remains approximately the same. The weighting system was applied using SPSS (Nie et al., 1975) Weight procedures to all computations using the aggregate sample and intended to be generalizable to the population of the system while computations internal to a single school or between schools were made using unweighted data.

Summary

The research was conducted as an ex post facto study of the attitudes related to shared authority and perceptions, as of the time of the study, of a random sample of faculty and administrators of the Virginia Community College System. A mailed questionnaire using summated rating scales was employed to determine the attitudes and perceptions related to the variables of interest. The initially selected random sample which included 220 personnel of 10 colleges yielded 146 usable responses.

The questionnaire was designed to measure the respondents' perceptions of gap in shared authority, the administrative style employed, the pattern of communications at his institution and

attitude toward collective bargaining. Additional control variables were rank, highest degree held, position, teaching activity, and specific school. Additional questions were included to provide insights into related respondent attitudes.

Multiple regression analysis was the principal method utilized to analyze the data with a view toward statistical acceptance or rejection of the hypothesized relationships. The combined specific hypotheses form a construct that expects that position, administrative style, and communications will be significantly related to perceived shared authority gap (in a framework of fixed delegation of administrative authority to faculty and fixed policies), and that attitude toward collective bargaining would be related to perceived shared authority gap.

Chapter 4

Analysis of Results

Introduction

As specified in the preceding chapter, Design of the Research, multiple regression analysis was the primary statistical method used to test the hypotheses and several other relationships associated with the research questions. The use of multiple regression introduces the question of the order in which the independent variables are brought into the regression equation; a question which, as Kerlinger (1973) notes, is often baffling to experts in the field, but which is of importance because it will affect the apparent degree to which the variance of the dependent variable is accounted for by the variation of any specific independent variable. As Kerlinger further notes, there is no "correct method" for determining order of entry of variables; it is problem dependent and related to the theory behind the problem. Accordingly, before proceeding to the analysis of results of the individual hypotheses, the general approaches taken with regard to the order of entry problem and to presentation of regression results are briefly discussed in the following paragraphs.

Order of Entry of Variables in Regression Equations

The main variables of the study are measures of the perceptions and attitudes of respondents. Other variables will function as intervening variables between reality and perception. For example, given

an actual administrative style, both logic and theory indicate that the actual style operates through such intervening individual factors as background, personality, and expectations to form perceptions and attitudes. Applying that generality to the present study, the control variables of rank, highest degree held, kind of teaching, position, and specific college were, when used, introduced first on the premise that such factors operate on the dependent variable attitude or perception prior to or through the selected main independent variables. Similarly, the main variable of administrative style, which was hypothesized as influencing communications directly, and shared authority gap both directly and through its influence on communications, was brought in before communications, but after the other listed control variables. While these approaches were taken on the basis of theoretical considerations, it was recognized that the interrelationships of the causal, intervening, and end result variables is complex and there is much interaction and feedback. Thus, in addition to regressions that treated order of entry generally as described, other regressions were run in the interests of providing other perspectives on the relationships between the variables of interest, and the results of the alternative tests are presented where they were applied.

Terms Used in Presenting

Regression Results

A relatively complete treatment of multiple regression analysis may be found in any one of several sources (Li, 1964; Nie et al., 1975). However, the following terms are defined here for

convenience of the reader:

<u>R</u>	The correlation coefficient between the dependent variable and the independent variable.
Multiple <u>R</u>	The correlation between the dependent variable and two or more independent variables.
<u>R</u> ²	The coefficient of determination; the proportion of the variance of the dependent variable accounted for by the independent variable, or variables.
<u>F</u> ratio	Inferential statistical tool for determining the statistical significance of the linear association of the variables.
<u>df</u>	Degrees of freedom associated with the regression terms.

Tests of Hypotheses

Throughout Chapter 4, in stating or testing hypotheses or research question, or in presenting the results, the relationships are all in terms of, and as measured by, the scored responses to the questionnaire used in the study. In this section, the names of variables used in analyses are capitalized for purposes of easy identification and to avoid any confusion between the variable name and the more general meaning of the word. For example, Shared Authority Gap is

the collection of scores resulting from the questionnaire responses.

Variable Scales and Scores

With the exception of the first hypothesis relating to the effects of Position, the variable scores are arranged such that all hypothesized relationships are expected to be positive. While the complete design of scales and scoring is contained in Appendix C, the following is presented for reader convenience in reviewing the statistical analyses and results that follow.

Variable Name

Shared Authority Gap	0 = no gap, 3 = whole descriptor difference; for example, between Shared Authority and Administrative Primacy (6 = Two whole descriptors).
Administrative Style	Range 1 through 15; 1 is the most participative style, 15 is the most authoritarian.
Communications	Range 1 through 15; 1 is the most open, multidirectional, and 15 is the most closed, unidirectional.
Attitude toward Collective Bargaining	1--Strongly Against, 2--Against, 3--Neutral, 4--Favorable, 5--Strongly Favorable.
Position	Administrators, Faculty, or Division Chairmen.
Activity	Academic or Vocational-Technical (for faculty).

Preliminary Regressions

The hypotheses were stated in terms of the expected effects of:

1. Position on Shared Authority Gap and Attitude toward Collective Bargaining;
2. Administrative Style on Communications and Shared Authority Gap;
3. Communications on Shared Authority Gap;
4. Administrative Style and Communications on Shared Authority Gap; and
5. Shared Authority Gap on Attitudes toward Collective Bargaining.

While these relationships can be, and were, tested by a series of regressions treating each individual hypothesis, it was considered desirable in the cases where Shared Authority Gap was the dependent variable to also combine all independent variables expected to have an effect, including a number of dummy variables representing highest degree held, kind of activity (whether academic or vocational-technical teaching), college, and rank, into a single regression equation for the purposes of evaluating the overall effect of the control variables.

Since the first hypothesis only dealt with the full sample, that is, both faculty and administrators, while the remainder were related to faculty perceptions and attitudes, two such regressions were run, the first with the full sample and the second with the faculty only, and eliminating the dummy variables distinguishing faculty and administrators. In each case, the stepwise regression was

utilized bringing in the dummy variables first and simultaneously, and then Administrative Style, and, finally, Communications.

The regression results from the full sample regression are shown in Table 1. The results shown in Table 1 indicate that only the dummy variables distinguishing faculty from administrators and division chairmen, and the dummy variables identifying the kind of teaching activity have appreciable individual effects while the remaining dummy variables have effects so small as to not warrant further individual attention.

To further assess the collective effects of the dummy variables over and above the effects of Administrative Style and Communications, an additional stepwise regression of Shared Authority Gap with Administrative Style and Communications only was performed with the results shown in Table 1.

The Regression \underline{R}^2 from both regressions were then used to calculate the squared part correlation of .073 which indicates that the collective dummy variables contribute an increment of only 7.3% to the variance of 39.5% accounted for by the main variables of Administrative Style and Communications; further, Table 1 suggests that a major portion of the increment would be due to the effects of Position and Activity.

A second and similar set of regressions were then performed using only the faculty sample and eliminating the dummy variable for Position, since the regression file contained only faculty. The results are shown in Table 2 and are similar to those in Table 1 in that only the dummy variable for Academic Teaching has an appreciable

Table 1

Regression Summary: Full Sample
 (dependent variable--shared authority gap)

With control variables
 [Regression F ratio = 4.437
 23 and 116 degrees of freedom
 significant at better than the .005 level]

Independent variable	Multiple <u>R</u>	<u>R</u> square	<u>R</u> square change
College 9	.123	.015	.015
Administrators	.241	.058	.043
Division chairmen	.365	.133	.075
Academic teaching	.418	.175	.042
Vocational technical teaching	.420	.176	.001
Professor	.434	.188	.012
Associate professor	.450	.203	.014
Assistant professor	.450	.203	
Instructor	.451	.204	.001
Assistant instructor	.452	.204	
Doctoral degree	.452	.204	
Master degree	.457	.209	.005
Bachelor degree	.459	.211	.002
College 1	.459	.211	

Table 1 (continued)

Independent variable	Multiple		<u>R</u> square change
	<u>R</u>	<u>R</u> square	
College 2	.460	.211	
College 3	.460	.212	.001
College 4	.463	.214	.002
College 5	.471	.221	.007
College 6	.481	.231	.009
College 7	.481	.231	
College 8	.481	.232	.001
Administrative style ^a	.636	.405	.173
Communications ^a	.684	.468	.063

Without control variables

[Regression F ratio = 44.673

2 and 137 degrees of freedom

significant at better than the .005 level]

Administrative style ^a	.526	.277	.277
Communications ^a	.628	.395	.118

^aWith the exception of administrative style and communications, all of the variables are dummy variables.

Table 2
 Regression Summary: Faculty Only
 (dependent variable--shared authority gap)

With control variables
 [Regression F ratio = 2.427
 21 and 64 degrees of freedom
 significant at better than the .005 level]

Independent variable	Multiple		R square
	R	R square	change
College 9	.093	.009	.009
Academic teaching	.270	.073	.064
Vocational technical teaching	.273	.074	.001
Professor	.318	.101	.027
Associate professor	.345	.119	.018
Assistant professor	.346	.120	.001
Instructor	.346	.120	
Assistant instructor	.346	.120	
Doctoral degree	.348	.121	.001
Master degree	.365	.133	.012
Bachelor degree	.369	.136	.003
College 1	.369	.136	
College 2	.370	.137	.001
College 3	.370	.137	

Table 2 (continued)

Independent variable	Multiple		R square change
	<u>R</u>	<u>R square</u>	
College 4	.371	.137	
College 5	.384	.148	.010
College 6	.384	.148	
College 7	.390	.152	.004
College 8	.400	.160	.008
Administrative style ^a	.601	.361	.201
Communications ^a	.666	.443	.082

Without control variables
 [Regression F ratio = 28.482
 2 and 83 degrees of freedom
 significant at better than the .005 level]

Administrative style ^a	.549	.301	.301
Communications ^a	.638	.406	.106

^aWith the exception of administrative style and communications, all of the variables are dummy variables.

size effect, the remaining dummy variables having, individually, very small effect.

A second faculty stepwise regression of Shared Authority Gap with Administrative Style and Communications only provided the results shown in Table 2. The two regression R^2 's were used to determine a squared part correlation of .037 indicating that the collective dummy variables contribute an increment of only 3.7% over the 40.6% variance explained by Administrative Style and Communications, and that a large part of the 3.7% would probably be due to the Activity dummy variable.

With the perspective of the relative effects of the dummy variable and main variables thus determined, the individual hypotheses were then tested in a series of separate regressions. The summaries of those tests are presented in Tables 7 and 8 toward the end of this chapter, and are mentioned here for the convenience of those who may wish to refer to them while reading the immediately following narrative presentation of the results of tests of the hypotheses.

Hypothesis 1

Restated. The hypothesis was that the Position of the Virginia community college member, whether faculty or administrator, would be significantly related to his perception of Shared Authority Gap and to his Attitude toward Collective Bargaining. More specifically, it was expected that administrators would perceive a smaller Shared Authority Gap and be less inclined to Collective Bargaining. The alternate or null hypothesis for both cases was that there would be no significant

relationship with Position. Regressions were performed for both cases using the full file of responses and dummy variables for administrators, and division chairmen referenced to faculty.

Shared Authority Gap regressed with Position. This provided the following results. The dummy variable representing administrators was entered first providing an R of .220 and R^2 of .048 with an F ratio of 7.073 (1 and 139 df) which is significant at better than the .01 level. The dummy variables for division chairmen were then entered. The R^2 change was .079 (simple $R = .228$) and the F ratio of 10.069 (2 and 138 df) was significant at better than .005. The regression coefficients (both significant) obtained show that administrators scored Shared Authority Gap 1.14 less than faculty members, and division chairmen scored the gap as 1.69 less than faculty. The mean Shared Authority Gap scores were: faculty, 2.90; administrators, 1.76; and division chairmen, 1.21.

Attitude toward Collective Bargaining regressed with Position. This revealed the following results. The R and R^2 for administrators were .162 and .026 with an F ratio of 3.765 (1 and 139 df), not significant at the .05 level. For division chairmen the simple R and R^2 change were .204 and .060, respectively, with a regression F ratio of 6.510 (2 and 138 df), significant at better than the .005 level. In the regression combining both dummy variables, the F ratio for the regression coefficient for administrators of 6.71 and 9.039 for division chairmen (1 and 138 df) were both significant at better than the .01 level. The regression coefficients were: administrators, $-.664$;

and division chairmen, -1.121.

Hypothesis 1 summary. The hypothesis that Position would be significantly related to Shared Authority Gap was accepted on the basis of the R^2 of .048 and the related F ratio test indicating that the null hypothesis could be rejected with less than a 1% probability that the relationship was due to chance. The regression coefficients indicated that Administrators perceived smaller gaps in Shared Authority.

The hypothesis that Position would be significantly related to Attitude toward Collective Bargaining was not accepted on the basis that the R^2 of .026 had a greater than 5% probability of being the result of chance as indicated by the F ratio test. When both administrators and division chairmen were combined, the combined positions were significantly related to Attitudes toward Collective Bargaining, accounting for .026 and .060 shared variance, respectively, significant at better than the .01 level.

Hypothesis 2

Restated. The hypothesis was that faculty perceptions of Administrative Style would be significantly related to faculty perceptions of Communications and Shared Authority Gap. More specifically, it was expected that relatively high numerical scores on Administrative Style reflecting relatively more authoritarian Administrative Style would be found with relatively high Communications scores indicating a relatively closed and more unidirectional Communications pattern, and with relatively high scores on Shared Authority Gap, reflecting relatively larger gaps. Conversely, it was expected that the relatively

low scores on the listed variables would be found together. Regressions were performed with the full sample of faculty with results as shown.

Communications regressed with Administrative Style. This resulted in an R of .818 and an R^2 of .669 with an F ratio of 169.63 (1 and 84 df), significant at better than the .005 level. A full file (faculty, administrators, and division chairmen) regression was run for comparison, using the dummy control variables for School, Position, Activity, Rank, and Highest Degree Held introduced first and simultaneously, then Administrative Style. The resulting simple R for Administrative Style was .800 and the R^2 change was .445 with a regression F ratio of 13.577 (22 and 117 df), significant at better than the .005 level. The multiple R^2 for the total equation was .719. The regression coefficient for Administrative Style had an F ratio of 185.047 (1 and 117 df), significant at better than the .005 level.

Shared Authority Gap regressed with Administrative Style. This resulted in an R of .549 and an R^2 of .301 with an F ratio of 36.239 (1 and 84 df), significant at better than the .005 level. A full file regression was performed with control variables introduced before Administrative Style, using the procedures described in the preceding paragraph. The resulting simple R for Administrative Style was .526, the R^2 change was .173 with a regression F ratio of 13.714 (22 and 117 df), significant at better than the .005 level. The multiple R^2 for the regression was .405. Since the data had indicated some difference in view between those faculty whose Activity was characterized

as academic and those whose Activity was characterized as vocational-technical, an additional faculty regression was performed introducing dummy control variables for Activity before Administrative Style. The dummy control variables for activity had a multiple R of .272 and R^2 of .074 with an F of 3.312 (2 and 83 df), significant at the .05 level. Administrative Style had a simple R of .549 and R^2 change of .257 with a regression F ratio of 13.523 (3 and 82 df), significant at better than the .005 level. The resultant multiple R^2 for the combined variables was .331. The regression coefficients indicated that for a given perception of Administrative Style, vocational-technical faculty would perceive a significantly smaller Shared Authority Gap. For example, for an administrative score of 5.8, which is near the mean for all faculty, the corresponding predicted Shared Authority scores would be academic faculty, 3.14, and vocational-technical, 2.42. The overall faculty Shared Authority Gap score was 2.91.

Hypothesis 2 summary. The hypothesis that faculty perceptions of Administrative Style would be significantly related to faculty perceptions of Communications and Shared Authority Gap was accepted on the basis of the R^2 of .669 for the Administrative Style--Shared Authority Gap relationship, and the related F ratio statistics indicating that the null hypothesis for both relationships could be rejected with a probability of less than .5% that the relationships occurred through chance. It was also found that the relationship between Shared Authority Gap and Administrative Style is significantly affected by Activity, the academic faculty perceiving a larger Shared Authority Gap

than vocational-technical faculty for a given perception of Administrative Style.

Hypothesis 3

Restated. The hypothesis was that faculty perceptions of Communications would be significantly related to faculty perceptions of Shared Authority Gap. It was expected that high scores on Communications indicating relatively closed and unidirectional communications would be found along with relatively high Shared Authority Gap Scores, and, conversely, low scores for both variables would be found together.

Shared Authority Gap regressed with Communications. This produced an R of .636 and an R^2 of .404 with a regression F ratio of 57.052 (1 and 84 df), significant at better than the .005 level. The same variables were again regressed, but with the dummy variables representing Activity entered simultaneously before Communications. The Activity dummy variables had a multiple R and R^2 of .272 and .074, respectively, and an overall F ratio of 3.312 (2 and 83 df), being significant at the .05 level. The regression coefficients indicated that for any given perception of Communications the resultant Shared Authority Gap score would be approximately .3 less for vocational-technical faculty than academic faculty. Communications, entered next, resulted in an R^2 change of .335, simple R equal to .636, with a regression F ratio of 18.923 (3 and 82 df), significant at better than the .005 level. The combined variables multiple R^2 was .409.

Hypothesis 3 summary. The hypothesis that faculty perceptions

of Communications would be significantly related to faculty perceptions of Shared Authority Gap was accepted on the basis of the R^2 of .404 and the related F ratio statistics indicating that the null hypothesis could be rejected with a probability of less than .5% that the relationship could have occurred through chance. When the regression was controlled for Activity, it was found to be a significant effect, accounting for about 7% of the variance in Shared Authority Gap, the vocational-technical faculty perceiving a smaller gap for a given level of perceived Communications. However, Communications remained significantly and positively related at better than the .005 level and accounted for about 34% of the variance in Shared Authority Gap.

Hypothesis 4

Restated. The hypothesis was that faculty perceptions of Administrative Style and Communications in combination would be significantly related to Shared Authority Gap. The reviewed theory suggested that Administrative Style may act both through Communications and directly on Shared Authority Gap. Accordingly, a regression that entered Administrative Style first, then Communications, was first performed.

Shared Authority Gap regressed stepwise with Administrative Style and Communications. This resulted in the following: the entry of Administrative Style first simply duplicated the results shown for the same two variables in Hypothesis 2--an R^2 of .301, significant at better than the .005 level. The stepwise entry of Communications

resulted in an R^2 change of .106 (simple $R = .636$) with an overall F ratio of 28.482 (2 and 83 df), significant at better than the .005 level. The multiple R^2 for the two variables was .407. After Communications was entered, the F ratio for the final regression coefficient for Administrative Style dropped to .352 (2 and 83 df) which is not quite significant at the .05 level.

Shared Authority Gap regressed stepwise with Communications and Administrative Style. This (with Communications entered first) produced the following results. The entry of Communications first duplicates the results of Hypothesis 3--an R^2 of .404, significance better than the .005 level. The entry of Administrative Style after Communications produced an R^2 change of .003 with an F ratio of 28.582 (2 and 83 df), significant at better than the .005 level. The multiple R^2 for both variables was .407. Again, the regression coefficient for Administrative Style became not significant at the .05 level when both variables were in the equation. (It is of interest to note that in this instance, for all practical purposes, Communications alone is as good a predictor of Shared Authority Gap as are the two variables in combination.)

Since Hypothesis 4 was central to the study interests, additional regressions were performed. The first of these had the purpose of considering both the effects of Activity and possible interaction between Administrative Style and Communications. The order of entry was: (a) dummy variables for Activity, (b) Administrative Style, (c) Communications, and (d) a variable representing the

interaction of Administrative Style and Communications which was simply the product of the two variable values.

Shared Authority regressed stepwise with Activity, Administrative Style, Communications, and Interaction Variable. This provided the following results. The Activity dummy variables had an R of .272 and R^2 of .074 with an F ratio of 3.312 (2 and 83 df), significant at the .05 level. The addition of Administrative Style produced an R^2 change of .257, and an overall F ratio of 13.528 (3 and 82 df), significant at better than the .005 level. The addition of Communications produced an R^2 change of .082 with an overall F ratio of 14.235 (4 and 81 df), significant at better than the .005 level. The Interaction variable produced an R^2 of .004, overall F ratio of 11.405 (5 and 80 df), significant at better than the .005 level. With all variables in the equation, the net resulting multiple R^2 is .417, the major contributors being: Activity, .072; Administrative Style, .257; and Communications, .082. Among those variables, only the regression coefficient for Communications has an F ratio (7 and 193 df), significant at better than the .05 level. This hypothesis was expressed in terms of faculty perceptions and attitudes. However, the full file regressions presented earlier in the Chapter in the Preliminary Regressions section show that the same general relationships are confirmed when the sample includes administrators and division chairmen as well as faculty.

Hypothesis 4 summary. The hypothesis that faculty perceptions of Administrative Style and Communications in combination would be

significantly and positively related to Shared Authority Gap was accepted on the basis of the initial regression results showing an \underline{R}^2 of .301 for Administrative Style, an additional \underline{R}^2 change of .106 for Communications, and a multiple \underline{R}^2 of .407 for the combined variables, with the overall \underline{F} statistics for the regression showing the combination of variables significant at better than the .005 level. While the hypothesis was accepted, a second set of regressions, entering Communications first, showed that Communications alone, accounting for 40.4% of the variance in Shared Authority Gap, was nearly as good a predictor as the combined variables at 40.7%, Administrative Style adding only .3% to the variance accounted for. When dummy control variables for Activity were introduced, they accounted for about 7.4% of the variance in Shared Authority Gap and Administrative Style and Communications contributed an additional 33.9%. An interaction variable for Administrative Style and Communications was statistically significant but of small magnitude, adding only .4%. The final combination accounted for a total of 41.7% of dependent variable variance.

Hypothesis 5

Restated. The hypothesis was that faculty Attitudes toward Collective Bargaining would be positively and significantly related to Shared Authority Gap, and that faculty members perceiving relatively larger gaps in Shared Authority would be more favorably disposed to collective bargaining.

Attitude toward Collective Bargaining regressed with Shared Authority Gap. This, using the total faculty sample file, resulted in

an R of .207, and R^2 of .043 with an F ratio of 3.746 (1 and 84 df), which was not significant at .05 level.

Hypothesis 5 summary. The hypothesis of the study was not accepted and the null hypothesis was accepted on the basis of the regression statistics estimate of a greater than 5% chance that the .043 R^2 could have occurred through chance.

Statistical Tests Related to Research

Questions

The research questions postulated in Chapter 1 were not all incorporated into the main hypotheses. The section that follows relates to the questions not dealt with by the hypotheses and gives a description of the statistical procedures and results applicable to each question.

Question 1

What were the faculty and administrator perceptions and attitudes with respect to the main variables, and were they significantly different from each other? A T Test for each of the main variables testing whether the faculty mean was significantly different from the administrators mean was performed and the results are shown in Table 1. While there was an expectation of direction of difference for each of the variables based on the literature, the two-tailed significance was nevertheless used since it is more conservative and no formal prior hypotheses were stated.

Table 3 indicates that for all of the main variables except Administrative Style, for which there was no significant difference

Table 3
 Administrator-Faculty T Tests for
 Main Variables

Variable	Administrators			Faculty			t value	Two- tailed signifi- cance
	n ^a	m	sd	n	m	sd		
How decisions are made	38	10.325	1.618	88	11.053	1.736	-2.23	.028
How decisions should be made	38	9.604	1.393	85	8.316	1.749	4.05	.000
Shared author- ity gap	38	1.765	1.203	89	2.888	1.952	-3.99	.000
Communications Administrative style	38	5.766	1.606	90	6.648	1.985	-2.45	.016
Attitude toward collective bargaining	38	5.659	1.148	90	5.787	1.957	-0.47	.639
	38	2.481	1.390	87	3.1218	1.342	-2.46	.015

^an = number in sample; m = mean; sd = standard deviation

between administrator and faculty perceptions, the perceptions and attitudes are significantly different with less than a 5% probability that the difference occurred through chance. Translating some of the figures of the Table into verbal descriptors, it is evident that both groups saw decisions as made in the Administrative Primacy category, the difference being that faculty perceived them as fairly centered in that category whereas administrators perceived them as nearer to Shared Authority. Faculty felt that decisions should be very nearly centered in the Shared Authority category, while administrators felt that decisions should be made in the upper part of Shared Authority nearer Administrative Primacy. The mean perception differences are the basis for the larger Shared Authority Gap perceived by faculty as compared to the gap perceived by Administrators.

The common perception of both groups with respect to the Administrative Style employed is that it is very nearly centered between the end points of the authoritative-participative continuum, but slightly to the participative side of center. The two groups differ on Communications; faculty placing it slightly toward the more closed side of the center of the continuum and administrators placing it slightly on the more open side of center. With respect to Attitude toward Collective Bargaining, the mean of the administrators is about half-way between Neutral and Against, while the score of the faculty is about 1/8 of the way between Neutral and Favorable.

Question 2

Are there significant differences in the faculty Shared Authority Gap subscores among the several decision areas? The mean

subscores for faculty for each decision area are shown in Table 4.

T Tests were performed for all possible pairs of the subareas with the results as shown in Table 5. Inspection of Table 5 indicates that the two highest scores from Table 4 are each significantly higher than each of the two lowest scores: the area of Academic Planning and Policy, and the area of Professional Duties are each significantly higher than Academic Operations and Student Affairs. Faculty Status is somewhere in between the highest and lowest, significantly different only from Student Affairs, the lowest.

Question 3

To what extent do faculty perceptions of the elements, or subareas, of Administrative Style and Communications predict Shared Authority Gap? Can such predictors provide suggested directions for administrative initiatives and improved communications?

Several factors combined to prevent a precise answer to this question. There were five subareas of Administrative Style and six subareas of Communications, or a total of 11 independent variables. These 11 variables had a mean intercorrelation ratio among themselves of .77 which is a higher correlation than their mean correlation with the dependent variable (.51). An effect of this relatively high multicollinearity is that the reliability of partial regression coefficients as an indicator of relative importance is lessened (Nie et al., 1975). Secondly, the causal paths among the variables is unknown and, consequently, the exact meaning of results from a stepwise regression bringing in variables iteratively from most powerful to least powerful is not clear.

Table 4
Faculty Mean Gap for Decision-making
Subareas

Number and decision area	n ^a	m	sd
1. Academic operations--such matters as degree requirements, curricula, academic standards and performance	88	2.386	2.379
2. Faculty status--such matters as appointments, renewals, promotions, and dismissals	87	2.819	2.195
3. Academic planning and policy--such matters as new programs, degrees, personnel and facilities, plans and allocations	85	3.13	2.597
4. Professional duties--such matters as teaching loads and assignments, community service activities	89	3.364	2.671
5. Student affairs--such matters as academic discipline, extra-curricular activities, and student government	86	2.031	2.046

^an = number; m = mean; sd = standard deviation

Table 5

T Test, Pairs of Decision Subareas

Faculty status	Academic planning and policy	Profes- sional duties	Student affairs	Subarea
T = -1.65 84 .102	T = -2.60 93 .011*	T = -3.99 86 .000*	T = 0.47 85 .636	Academic operations
	T = 0.97 81 .334	T = -1.69 85 .095	T = 2.23 82 .028*	Faculty status
		T = 0.65 83 .516	T = 3.12 81 .003*	Academic planning and policy
Key:				Profes-
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> T = <u>n</u> <u>n</u> degrees of freedom, significance level </div>				T = 4.18
				84 .000*
				sional duties

*p < .05

In view of the confounding factors, a series of standard regressions and a series of stepwise regressions were performed for academic faculty, vocational-technical faculty, and for the total faculty while controlling for Activity. The regressions were examined for consistency among them with respect to the regression coefficients and contribution of the independent variables to shared variance with the dependent variable.

The subareas are as defined in Section III of the questionnaire at Appendix A. For convenience in reviewing results, they are defined in abbreviated form:

1. Administrative style
 - i. Administrator's confidence and trust in faculty.
 - ii. Faculty confidence and trust in administrators.
 - iii. Administrator's supportive behavior toward others.
 - iv. Administrator's behavior such that faculty feel free to discuss things with division chairmen.
 - v. Extent to which division chairmen seek and use faculty opinion and ideas on problems.
2. Communications
 - i. Interaction and communication on achieving organizational objectives.
 - ii. Direction of information flow.
 - iii. Downward communication characteristics.
 - iv. Upward communication characteristics.
 - v. Sideward communication characteristics.
 - vi. Psychological closeness of administrators to faculty.

The regression results indicate that among the listed 11 variables, the Communications variables 2.iv, and 2.vi, were most important, and probably of about equal importance, followed by 2.v, and 1.ii. The complete series of regressions were too lengthy for complete description here but the following examples of results provide an indication of the importance and contribution of the named variables. In standard regressions controlling for Activity, the variables 2.iv., 2.v., 2.vi., and 1.ii. alone account for 45.3% of the variance in Shared Authority Gap as compared to the regression of all 11 variables accounting for 47.6%, in both cases the regressions being .005 significance level and controlled for Activity. In a stepwise regression approach, variables 2.iv., 2.v., and 2.vi. alone account for 43.9% of the variance in Shared Authority Gap as compared to 47.6% for a regression with all variables brought into the equation, both at .005 level of significance. A regression of Communications with the elements of Administrative Style showed that 1.ii. and 1.iii. contribute 69% of the 73% total variance accounted by all five elements. It, therefore, appears that faculty trust and confidence in administrators, administrator's supportive behavior, upward communications, psychological closeness, and lateral communications are the most influential.

Question 4

Is the relationship between faculty perceptions of Communications and Attitudes toward Collective Bargaining a stronger relationship than that between Shared Authority Gap and Attitudes toward Collective Bargaining?

As shown in the test results of Hypothesis 5, the latter relationship ($R^2 = .043$) was not significant at the .05 level. The regression of Attitude toward Collective Bargaining with Communications resulted in the following:

$$\underline{R} = .268,$$

$$\underline{R}^2 = .072,$$

F ratio of 6.489 (1 and 84 df), significant at better than the .025 level. It was concluded that faculty perceptions of communications are positively and significantly related to attitudes toward collective bargaining, the relationship being stronger than that for Shared Authority Gap.

Question 5

With reference to the underlying premise of the study that faculty may be more concerned with more and better communications and information than with new delegations of authority or revised organizational mechanisms for sharing, do the faculty responses to Section VI of the questionnaire indicate significant differences?

Section VI addressed means of improving participation and asked the respondent to rank order, in terms of their opinion as to relative importance and potential, items related to the following avenues of approach: (a) reduction of influence from outside the institution, (b) new delegations to faculty, (c) more communication and consultation, (d) more availability of time for faculty participation, (e) better organizational arrangements or devices, and (f) other (as specified by the respondent). A Kendall Coefficient of

Concordance, \bar{W} was calculated to be .36. The chi-square equivalent was determined to be 163.8 with 5 df, significant at the .001 level (Galfo & Miller, 1970).

The respondents rank order scores were transformed to normal scores, using the procedures and table of Normal Scores for Ranks provided by Li (1964), in order that standard statistical procedures for normal populations might be applied. The normalized scores had the following means, standard deviations, and standard errors:

Number and item	Item	Mean	Standard deviation	Standard error
1.	Reduction out- side influence	-.080	.733	.079
2.	New delegations	.302	.525	.057
3.	More communications	.639	.615	.066
4.	More faculty time	.368	.729	.078
5.	Better organiza- tion mechanism	.112	.642	.068
6.	Other	-.971	.795	.085.

T Tests of all possible pairs for significant differences were performed. The results related to the present question show that the item score for Communications is significantly above either New Delegations or Better Organizational Mechanisms. For the former a

mean difference of .324 had a T value of 3.79 (86 df), significant at the .000 level. The latter with a mean difference of .526 had a T value of 5.40 (87 df), significant at the .000 level. The T Tests for the Communications item showed Communications significantly above all other items, the poorest significance level being .007. Faculty Time is significantly above all but New Delegations, from which it does not differ significantly. New Delegations, in turn, is not significantly above (T = 1.85, 84 df, .068) Better Organizational Mechanisms at the .05 level of confidence. New Delegations is significantly above Reduction in Outside Influence (.000 level), but Better Organizational Mechanisms is not (.103 level). The responses, therefore, are viewed as indicating that faculty preference for more information and communications is significantly stronger than their preference for either revised organizational mechanisms or new delegations of authority.

Question 6

With respect to the theoretical premises of the study that faculty perceived Shared Authority Gap affects both faculty satisfactions and institutional effectiveness, do the scored responses on the questionnaire for Shared Authority Gap show a significant relationship to scored responses to questions related to member satisfactions and perceived institutional effectiveness?

To test the question, the scored responses to Question V.3. of the questionnaire were first used. The question was:

Considering all factors, including your work and workload, salary, opportunity for promotion, general environment, the

quality and impact of the educational programs, and your participation in the affairs of the institution as a whole, how do you regard your membership in your institution as a whole?

The respondent was asked to check one level of a five-level summated rating scale ranging from Highly Satisfactory to Highly Unsatisfactory. The Satisfaction scores were regressed stepwise, first controlling for Activity, with Shared Authority Gap scores. The multiple R for the complete regression was .539, R^2 was .291, the F ratio of 11.341 (3 and 83 df) was significant at better than the .005 level. The R^2 contributed by the control variables for Activity was .019, thus, Shared Authority Gap accounted for 27.2% of the variance in faculty Satisfactions.

To investigate whether Administrative Style and Communications had significant effect on Satisfactions over and above its contribution operating through Shared Authority Gap, Administrative Style and Communications were entered into the regression, in combination, stepwise after the control variables, for Activity, and Shared Authority Gap. The resulting regression showed the following: multiple R of .744, R^2 of .555, F ratio of 20.175 (5 and 81 df), significant at better than the .005 level. Communications had contributed an additional 16.3% and Administrative Style 10.1% over what Shared Authority Gap alone accounted for in the variance of Satisfactions, for a total of 53.6% shared variance.

It was apparent that there is significant relationship between

Shared Authority Gap and faculty Satisfactions as measured by questionnaire responses. Administrative Style and Communications are also significantly related to such Satisfactions over and above their effects on Shared Authority Gap.

The second half of Question 6 required testing the scored responses related to Institutional Effectiveness for a significant relationship with Shared Authority Gap. Question V.2. of the questionnaire asked respondents to rate their institution in comparison with other community colleges on three items (Faculty Competence, Administrative Competence, and Quality of Educational Programs) by checking a rating on a five-step scale ranging from Excellent to Poor. The mean of the individual responses to the three items was computed and used as an index to overall Institutional Effectiveness.

The Institutional Effectiveness index was regressed stepwise with the control variables for Activity entered first and, then, Shared Authority Gap, for all faculty responses. The regression produced a multiple R of .479, R^2 of .230, F ratio of 8.245 (3 and 83 df), significant at better than the .005 level. To determine whether Administrative Style and Communications would have additional significant effect over and above that of Shared Authority, those two variables were added in combination in the next step after the Activity control variables and Shared Authority Gap. The resultant regression produced a multiple R of .667, R^2 of .445, F ratio of 13.009 (5 and 81 df), significant at better than the .005 level. The distribution of accountability for the variance in Institutional

Effectiveness was Activity control variables, .048; Shared Authority Gap, .181; Communications, .216; and Administrative Style, .000.

It was apparent that both Shared Authority Gap and Communications had a significant and positive relationship with perceptions of Institutional Effectiveness at better than the .005 level of significance, and that Shared Authority Gap accounted for approximately 18.1% and Communications 21.6% of the variance in Institutional Effectiveness (39.7% together) as rated by the faculty responses used to compute the Institutional Effectiveness index.

Question 7

Is the difference between the mean perceptions of faculty and administrators of how decisions are made significantly related to mean faculty perceptions of communications? The question was posed in the interest of exploring whether the difference between the perceptions of the two groups about decision making was itself an indicator of poor communications. To test the relationship, the data were aggregated by college and the means of the variables of interest for each college computed. The difference between the means of faculty response scores and administrator response scores on Section I of the questionnaire (How are decisions made?) was computed and will be called here, for convenience, Difference. The Differences were regressed with the Communications means (faculty perception) for each college. The resulting R was .211, R^2 was .045, F ratio was .373 (1 and 8 df), which was not significant at the .05 level. The expectation that mean faculty perceptions of Communications by

college would be significantly related to the mean Differences by college was not confirmed.

Question 8

Are the mean faculty perceptions of Administrative Style and Communications by college significantly related to the faculty mean perceptions of Shared Authority Gap by college? Are the Shared Authority Gap faculty means by college significantly related to mean faculty Attitude toward Collective Bargaining?

To test these relationships, the means of the variables of interest by college were first computed. Since prior tests had indicated that academic faculty and vocational-technical faculty often differed significantly in their attitudes and perceptions, a new variable representing the percentage of academic faculty to total faculty in the samples by college was computed and is, for convenience, designated Per herein.

The mean faculty Shared Authority Gap was regressed stepwise with Per entered first, then, the means of Administrative Style and Communications together entered on the second step. The resulting regressions show that Per alone has an R of .811, an R^2 of .658, an F ratio of 15.418 (1 and 8 df), significant at better than the .005 level.

At the second step, Administrative Style had insufficient potential effect for entry and Communications was automatically entered alone. The resultant regression had a multiple R of .836, R^2 of .697, with an F ratio of 8.112 (2 and 7 df), significant at

the .025 level. The R^2 change contributed by Communications was .040. To further ascertain the relative strength of the Communications means, the Shared Authority Gap means were regressed with the Communications means alone. The resulting R was .601, R^2 .361, and F ratio 4.526 (1 and 8 df), which was not quite significant at the .05 level.

It is apparent that there may be a significant relationship between Communications means and Shared Authority Gap means, but the small sample size ($n = 10$ colleges) affected F ratios and the relationship did not meet the .05 significance level criterion of the study and the relationship was not confirmed. The variable Per, for percentage of academic faculty to total faculty in the samples by college, was significantly related to mean Shared Authority Gap, alone and in combination with Communications and they accounted for 65.8% and 4.0%, respectively, of the variance in Shared Authority Gap means in stepwise regression. Similar regressions were run to test for a significant relationship between the faculty means of Shared Authority Gap and Attitudes toward Collective Bargaining, but none were found significant at the .05 level.

Sources of Faculty Dissatisfactions

with Decision Making

Question II.B.13. of the questionnaire asked for a free response to the question, "In your opinion, what contributes most to faculty dissatisfaction with respect to decision-making on your campus?" The response rates in terms of percentages of the total

sample who responded to the question were: faculty, 77%; administrators, 82%; division chairmen, 69%.

The responses were reviewed and categorized and the number of responses in each category counted. The results are presented in Table 6. The reader should view the results with the following concerns in mind: the difficulties of interpretation and categorization of free responses, and the possibilities of bias resulting from the overall context of the questionnaire.

Sources of Overall Satisfaction,

Dissatisfaction and

Recommendations

for Remedial

Actions

Question V.4. of the questionnaire asked for a free response to the question, "What matters contribute most to your satisfactions or dissatisfactions, and what remedial actions would you recommend?" The number of members responding to this question and that number as a percent of the total sample responding to the questionnaires as a whole was: faculty, 68 (75%); administrators, 28 (72%); and division chairmen, 11 (69%).

The factors contributing to overall satisfactions and dissatisfactions were numerous and diverse, and it is not deemed pertinent to provide here a complete tabulation, but, rather, a more general summary. With respect to faculty satisfactions, the most frequently mentioned sources were associated with teaching, teaching conditions, classroom autonomy, academic freedom, and the social and

Table 6
Institution Members' Opinions as to Sources
of Faculty Dissatisfactions with
Decision-making

Number and percentage of comments attributing cause to source				
Sources	Faculty	Adminis- trators	Division chairmen	Number percent
Poor communications--				
lack of informa-	(13.8)	(29.3)	(36.4)	(19.9)
tion	13	12	4	29
Faculty apathy, dis-				
interest or inef-				
fectiveness of	(9.6)	(26.8)	(27.3)	(15.6)
participation	9	11	3	23
Administration too				
authoritarian	(6.4)			(4.1)
	6			6
State level influence				
or decisions	(7.4)	(4.9)	(9.0)	(6.8)
	7	2	1	10
Lack of consulta-				
tions with faculty	(20.3)	(14.6)		(17.8)
	20	6		26
Consulted but input				
ignored	(12.8)	(7.3)		(10.3)
	12	3		15

Table 6 (continued)

Number and percentage of comments attributing cause to source				
Sources	Faculty	Adminis- trators	Division chairmen	Number percent
Ineffective or inadequate leadership	(9.6) 9	(7.3) 3		(8.2) 12
Quality, Timing or lack of, decisions	(11.7) 11	(7.3) 3	(27.3) 3	(11.6) 17
Impotent committees or faculty memberships	(6.4) 6	(2.4) 1		(4.8) 7
Lack of suitable mechanisms for participation	(1.1) 1			(00.7) 1
Total (all 100%)	94	41	11	146
Number of members responding	70	32	11	

professional associations (38 out of 63 comments). Only seven comments out of the 63 reflected satisfactions drawn from the administrative relationships or from communications or consultation.

The single most frequent dissatisfier was salary, mentioned 15 times out of 84 total comments. Items receiving 4 to 6 mentions each included program funding support, teaching conditions and class size, level of workload, methods of assigning workload, plant and physical conditions, state level influence, and promotion policy. Related to the central interests of this study, there were 10 complaints relative to administrative style or competence, 7 relative to lack of trust or confidence in administrators, and 12 that related to poor communications, lack of consultation, or disregarding of faculty inputs for a total of 29 out of 83 that related to administrative style, communications, and sharing of authority. Of the specific recommendations for remedial actions, 7 of 23 related to the same factors.

Summary and Interpretation of Statistical

Results

The preceding sections of Chapter 4 have presented the statistical analyses of the study data as applied to the hypotheses of the study, and to a series of questions derived from the research interests introduced in Chapter 1. The following sections will summarize the results obtained from the statistical analyses. All hypotheses, research questions, and results are in terms of the attitudes and perceptions of the members of the Virginia Community College System as measured by their questionnaire responses as of the

time of the study.

Results of Tests of Hypotheses
and Ancillary Tests

The study hypotheses formulated at the beginning of the research were stated in Chapter 1 and restated in Chapter 3 in testable form. The hypotheses were tested using multiple regression analysis. In view of the stated exploratory orientation of the study, questions that were ancillary to several of the hypotheses were also examined. A summary of results of the tests of the hypotheses is contained in Table 7, and a summary of the ancillary tests results is contained in Table 8. The combined tables reflect the following results with respect to the specific hypotheses and the ancillary questions.

Hypothesis 1

Position held was found to affect shared authority gap perceptions, administrators and division chairmen both perceiving smaller gaps in shared authority than faculty members. The effect of Position held on attitudes toward collective bargaining for faculty and administrators was not significant at the criterion level of significance (.05). When administrators and division chairmen were combined and compared to faculty, the effect of position was significant, the faculty having significantly more favorable attitudes toward collective bargaining.

Hypothesis 2

The correlation between faculty perceptions of administrative style and perceptions of communications was .82, the former

Table 3
Summary: Results of Tests of Hypotheses

Hypothesis no.	Dependent variable	Independent variables ^a	F simple	R ² change	F ratio ^b	Degrees of freedom	Significance level	Hypothesis: Acceptance or rejection
1a	Shared authority gap	Dummy variables for position ^c						
		administrator	.220	.048	7.073	1, 139	.01	accepted
		division chairman combination	.228	.079	10.069	2, 138	.003	accepted
1b	Attitude toward collective bargaining	Dummy variables for position						
		administrator	.182	.026	3.765	1, 139	.05	rejected: null
		division chairman combination	.204	.060	6.510	2, 138	.003	accepted acceptable when combined
2a	Communications	administrative style	.810	.669	167.630	1, 84	.003	accepted
2b	Shared authority gap	administrative style	.549	.301	36.139	1, 84	.003	accepted
		communications	.436	.404	37.032	1, 84	.003	accepted
4	Shared authority gap	administrative style	.549	.301	36.239	1, 84	.003	
		communications	.636	.106	24.482	2, 83	.003	
		combination	.430	.407				accepted
5	Attitude toward collective bargaining	shared authority gap	.207	.043	1.746	1, 84	.05	accepted

^ashown in order of entry

^bF ratio is for overall regression, including prior listed independent variables with more than one independent

^creferenced to faculty

Table 8
Summary: Results of Tests Ancillary to Hypotheses

Hypothesis No.	Groups Included ^a	Dependent variable	Control variables	Independent variable		Regression ^b R^2
				Name	R^2 change	
2a	F, A, DC	Communications	College position activity rank highest degree	Administrative style	.44	.319
2b	F, A, DC	Shared authority gap	College position activity rank highest degree	Administrative style	.173	.405
2c	F	Shared authority gap	Activity	Administrative style	.257	.331
3	F	Shared authority gap	Activity	Communications	.335	.404
4	F	Shared authority gap	Communications	Administrative style	.003	.407
4	F	Shared authority gap	Activity	Administrative style	.257	
				Communications	.082	
				Interaction	.004	.417
4	F, A, DC	Shared authority gap	College position activity rank highest degree	Administrative style	.173	
				Communications	.043	.468

^aF for faculty, A for administrators, DC for Division chairmen

^bAll regressions are significant at better than the .005 level; all are stepwise regressions, order of entry as shown

accounting for 67% of the variation in the latter. When the relationship was controlled for the variables of college, position, activity, rank, and highest degree held, and the perceptions of administrators and division chairmen were included, perceptions of administrative style accounted for 45% of the variance in perceptions of communications, while all of the variables combined accounted for 72%.

The correlation between faculty perceptions of administrative style and perceptions of shared authority gap was .55, the former accounting for 30% of the variance of the latter. When the same relationship was controlled for the kind of teaching activity, perceptions of administrative style accounted for 26% of the variance in shared authority gap perceptions, and the control variables about 7%, for a total shared variance of 33%. For a given perception of administrative style, vocational-technical faculty perceived a significantly smaller shared authority gap. When the perceptions of administrators and division chairmen were included with those of faculty and the relationship reexamined while controlling for college, position, activity, rank, and highest degree held, perceptions of administrative style accounted for about 17% of variance in perceptions of shared authority gap and the control variables about 23%.

Hypothesis 3

The correlation between faculty perceptions of communications and perceptions of shared authority gap was .64, the former accounting for 40% of the variance in the latter. When the relationship was controlled for the kind of teaching activity, the combined variables accounted for 41% of the variance in perceptions of shared authority,

the perceptions of communications contributing about 34% and the control variables about 7%.

Hypothesis 4

The multiple correlation between the combination of faculty perceptions of administrative style and perceptions of communications and perceptions of shared authority gap was .64, the combined variables accounting for about 41% of the variance in shared authority gap perceptions, an amount not appreciably more than that accounted for by effects of perceptions of communications alone. When the relationship was controlled for teaching activity, the total shared variance was about 42%, with administrative style and communications in combination accounting for about 34%. An interaction variable, testing for possible interactive effects between administrative style and communications, was statistically significant but contributed less than 1% to the variance shared with perceptions of shared authority gap. Further investigation of the relationship including the perceptions of administrators and division chairmen and controlling for the effects of college, position, activity, rank, and highest degree held resulted in the combination of administrative style and communications accounting for about 24% of the total for all variables of 47% shared variance with perceptions of shared authority gap.

Hypothesis 5

The correlation of .21 and shared variance of .04 for the relationship between faculty attitudes toward collective bargaining and perceptions of shared authority gap were not significant at the criterion .05 level.

Research Question Results

The following results were obtained:

1. Differences in faculty and administrator perceptions and attitudes--two-tailed tests for significant differences between faculty and administrator scores on the main variables revealed that the difference in perception of administrative style was not significant at the .05 level. Both groups perceived it as nearly centered in the authoritarian-participative continuum. All other differences were significant at the .03, or better, level. Faculty members perceived decisions as made at a higher level of administrative primacy, perceived a larger shared authority gap, communications as more closed, and were more favorable in their attitudes toward collective bargaining. Faculty also thought authority ought to be shared more than did administrators.

2. Differences in faculty perceived shared authority gap among subareas of decision making--T Tests of faculty scores of pairs of decision subareas showed that the two subareas having the largest gaps, the areas relating to decisions about professional duties and academic planning and policy, were significantly different from the two lowest, those related to decisions about academic operations and student affairs, all differentiated at the .01 level or better. Decisions about faculty status was between highest and lowest groups differing significantly only from the lowest, decisions about student affairs at the .03 level of significance.

3. Relative weight of faculty perceptions of elements of administrative style and communications--the regressions performed

suggested that among the 11 elements, those related to faculty trust in administrators, to administrators' supportive behavior, to the psychological closeness of administrators and faculty, and to upward communication had most influence. In combination, they account for about 44% of the variance shared with shared authority gap scores as compared to about 48% of the variance shared with all 11 variables.

4. Relationship of faculty perceived communications to attitudes toward collective bargaining--a correlation coefficient of .27 and coefficient of determination of .07 were significant at the .025 level. A significant and positive relationship is indicated.

5. Faculty preferences for improving participation decision making--faculty rankings of the several approaches to improving participation were converted to normal scores for statistical analysis. The results of T Tests indicated that more communication and consultation was the most preferred avenue, significantly higher than all other avenues at the .007 level of significance or better, including both new delegations of authority and better organizational arrangements (both at the .000 level).

6. Relationship of faculty perceived shared authority gap to faculty overall satisfactions and perceived institutional effectiveness--a regression of faculty scores for satisfaction with membership with perceptions of shared authority gap indicated a significant relationship at the .005 level of significance and with a coefficient of determination of .27. A further regression that added administrative style and communications scores stepwise and in combination after shared authority gap determined that communication contributed an

additional .16 and administrative style .10 to the final combined coefficient of determination of .54, significant at the .005 level of significance. An index of faculty perception of institutional effectiveness, the mean of faculty perceptions of faculty competence, administrative competence, and quality of educational programs, was constructed and regressed with faculty perceptions of shared authority gap. A coefficient of determination of .23, significant at better than the .005 level was obtained. Again, administrative style and communications were added in combination and stepwise to the regression. The resulting regression was significant at the .005 level. The overall coefficient of determination derived a .18 contribution from shared authority gap, .22 from communications, and .00 from administrative style for about .40 total.

7. Relationship of perceived communications to differences in means of faculty and administrators' perceptions of how decisions are made--the by-school means of the differences were regressed with the by school means of faculty perceptions of communications. The resulting coefficient of determination of .05 was not significant at the .05 level.

8. Hypotheses 4 and 5 retested on the basis of the means of the variables by college--the means of the main variables by college were computed along with a variable (Per) representing the ratio of academic faculty to total faculty at each school. Means of shared authority gap were regressed stepwise controlling first for Per, then entering the means of administrative style and communications together. The resulting regression provided a coefficient of determination for

Per of .66, and for communications .04, for a total of .70, significant at the .025 level. Regression of the shared authority gap means with the communications means alone resulted in a coefficient of determination of .361 which was not quite significant (1 and 8 df) at the .05 level. Thus, there may be a fairly strong by-school relationship between faculty mean perceptions of shared authority gap and communications, but the present study failed to confirm it at the .05 level. Similar regressions of the means of attitudes toward collective bargaining with the means of shared authority gap by school failed to substantiate any relationships significant at the .05 level.

Free Response Questions

The questions soliciting free responses obtained the following summary results.

1. Sources of faculty dissatisfactions with participation in decision making--of faculty reply to the questionnaire as a whole, 77% responded to this particular question. The most frequently mentioned sources of dissatisfactions were lack of consultation with faculty mentioned 20 times (20.3%); poor communications and lack of information 13 times (13.8%); and faculty input ignored 12 times (12.8%), for a total of about 47% of the items mentioned that related to communications, upward or downward. Among administrators and division chairmen, about 1/3 of the items mentioned related to poor communications or lack of information. Within the same groups, about 1/4 of the mentioned items related in one way or another to faculty apathy, disinterest or other aspects of faculty ineffectiveness in participating in decision making as a source of dissatisfaction, whereas only 9.6%

of faculty comments saw this as a source.

2. Sources of overall faculty satisfactions, dissatisfactions, and recommended remedies--of the total of faculty questionnaire respondents, 68 (75%) responded to this question. With reference to satisfactions, the most frequently mentioned sources were related to the teaching process and associated factors and to the social and professional associations (60% of the total comments). Only 11% attributed satisfactions to the processes of administration, consultation, or communications. The most frequent dissatisfier was salary which accounted for 18% of the comments. Sources that all received 5% to 7% each of the total included program funding, teaching conditions and class size, levels of workload, methods of assigning workload, plant and physical conditions, state level influence, and promotion policies. About 35% of the complaints related to aspects of administrative style, communications, and sharing of authority. About 30% of the faculty recommendations for remedies related to the same factors.

Summary and Overview Results

The statistical analysis of the study data confirmed the principal hypotheses of the study regarding the relationships among the variables of faculty perceptions of administrative style, communications and shared authority gap. Ancillary analyses confirmed the underlying premises of the study. The analyses failed to confirm, at the criterion .05 level of significance, the hypothesized relationship between faculty perceptions of shared authority gap and attitudes toward collective bargaining. However, faculty perceptions of

communications were found to be significantly related to collective bargaining attitudes. In the final chapter, the study is summarized, the conclusions drawn from the analyses are set forth and discussed in the light of theory and prior research, and recommendations for the future are developed.

Chapter 5

Summary, Conclusions, and Recommendations

Introduction

The study arose from concerns about prevalent faculty dissatisfactions with shared authority and the expected adverse effects of such dissatisfactions on member's overall satisfactions and on institutional effectiveness. Community colleges were of particular interest because of the lower levels of sharing and higher levels of faculty discontent reported in the literature. From those considerations, a general need for research was defined. Prior approaches considering revised models of governance, more delegations of authority to faculty, and revised organizational mechanisms were viewed as not immediately promising of results, leading to the conclusion that additional alternatives were desirable.

The Approach

To that end, the present study considered that communications might well be a significant factor in faculty perceptions of shared authority gap, and would itself be a factor strongly related to administrative style and initiatives. The principal purpose of the study, then, was to study the nature and strength of the relationships, and at the same time ascertain the relationship between faculty perceptions of shared authority gap and their attitudes toward collective bargaining. The orientation was dual: first, toward ascertaining the stated relationships; and second, toward

exploration that might provide a rational basis for both administrative initiatives and further research.

The Virginia Community College System was chosen for the study on the basis of its attributes considered in the framework of a theoretical model of expected relationships drawn from the behavioral school of management theory. Underlying premises of the study were that communications are necessarily inherent in the concept of shared authority and would, therefore, affect perceptions of sharing; and that what appears to be a consistent demand by faculty for new delegations of authority to faculty, or new organizational arrangements, may be in reality demands for better and more open communications.

From those central premises and considerations, the specific hypotheses related to the Virginia Community College System were formulated. The main thrust of the collective hypotheses expected that within a fixed framework of delegated authority the perceptions of faculty about communications would be strongly related to perceptions of administrative style and that perceptions of shared authority gap would, in turn, be strongly related to perceptions of communications. Additionally, it was expected that the perceptions of faculty and administrators about shared authority would be significantly different, and that faculty attitudes toward collective bargaining would be significantly related to their perceptions of shared authority gap.

The Literature

There were five studies, spanning 1967 to 1975, reviewed, and

all reflected a faculty desire for authority sharing and concomitant dissatisfaction with how they saw authority being shared. Of the studies, four discussed the role of communications. Communications were seen as generally poor, difficult, and contributing to lack of confidence and trust in administrators. Of these studies, three recognized communications as a major tool in authority sharing, but none measured a relationship between communications and shared authority. A study embodied a conceptual model similar to the present study and affirmed a relationship between administrative style, a major aspect of which was the communications pattern, and perceptions of shared authority. Several studies suggested a relationship between faculty dissatisfactions with shared authority and attitudes toward collective bargaining. Administrator-faculty disagreement about how much authority should be shared was found in one study. Overall, the literature lent credence to the need for the study, importance of communications, and the role of administrative style in establishing the communications pattern.

The Design

The study was an ex post facto design using a mailed questionnaire to determine the attitudes and perceptions of a random sample of faculty and administrators of the Virginia Community College System. The initially selected sample of 220 persons from 10 colleges yielded 146 usable responses.

The questionnaire employed summated rating scales to measure respondent's perceptions of gap in shared authority, the administrative style employed, the pattern of communications at his institution,

and attitude toward collective bargaining. Also collected were data on related attitudes and perceptions, and several attribute variables. Multiple regression analysis was the principal statistical tool used to test the hypotheses and research questions, with T Tests also used on some of the latter.

Principal Findings

The underlying premises and hypotheses of the study, with regard to the relationships among the variables of faculty perceived administrative style, communications, and shared authority, were supported. More specifically:

1. The faculty did perceive a gap in shared authority. They perceived decisions as made in the Administrative Primacy mode, and believed that decisions should be made in the Shared Authority mode.

2. The faculty mean rankings of alternative approaches to improving faculty participation in decision making indicated more communications and consultation as having the most importance and potential, significantly above all other approaches.

3. Faculty perceptions of shared authority gap were significantly related to their perception of the communications pattern. Faculty perceptions of communications were, in turn, significantly related to their perceptions of administrative style.

4. Faculty perceptions of shared authority gap were found to be significantly related to their perceptions of institution effectiveness and to their own overall satisfactions with institutional membership, as expected. Further, it was found that administrative style and communications had significant effect on satisfactions and

perceived institutional effectiveness, over and above the effects of shared authority gap.

The hypothesized relationship between faculty perceptions of shared authority gap and attitudes toward collective bargaining was not supported at the .05 level of significance. Had the relationship been statistically significant, it would still have been a rather minor effect. It is not apparent that faculty dissatisfactions with shared authority contribute materially to favorable attitudes toward collective bargaining. An unpredicted relationship between perceptions of communications and attitudes toward collective bargaining was discovered, indicating that where communications are perceived as relatively closed and unidirectional, faculty attitudes will be more favorable toward collective bargaining.

The hypothesized effect of position, whether faculty or administrator, on perceptions of shared authority gap was supported, administrators perceiving a smaller gap in shared authority than did faculty members. Further, administrators and faculty differed significantly as to how decisions are made and on how decisions should be made, the faculty perceiving less and desiring more faculty sharing than did administrators.

Discussion of Findings in Relation to Theory and Prior Research

The discussion that follows undertakes to serve the dual orientation of the study toward: (a) administrative initiatives that might be suggested by the findings, and (b) the implications for future research. Toward those ends, foundational matters that appear

common to both orientations are discussed first and then followed by separate discussions addressed to each of the two purposes.

The Shared Authority Gap

The means of the perceptions related to shared authority are shown, on a reproduction of a portion of the continuum used in the questionnaire, on Figure 2. The graphic presentation of the various perceptions about decision making provides perspective on two points of interest:

1. The faculty apparently perceive a need to shift decision making from about the center of administrative primacy to the central area of shared authority.

2. Administrators and division chairmen do not perceive a very large need for change--the way decisions are made is a relatively small distance from how, in their view, they should be made.

It should also be noted that the perceptions and preferences portrayed in Figure 2 are based on the means of the five decision subareas. The faculty perceived gap for the subareas of decision making relating to professional duties and academic planning and policy are larger than the means, and, consequently, the faculty dissatisfactions and the gap between faculty and administrator viewpoints with respect to those decision areas alone may be expected to be larger yet than those portrayed in Figure 2.

The difference in perceptions between faculty and administrators as to the reality of how decisions are actually made, and the differences in viewpoint as to how decisions should be made, may be sources of conflict and tension between faculty and administrators.

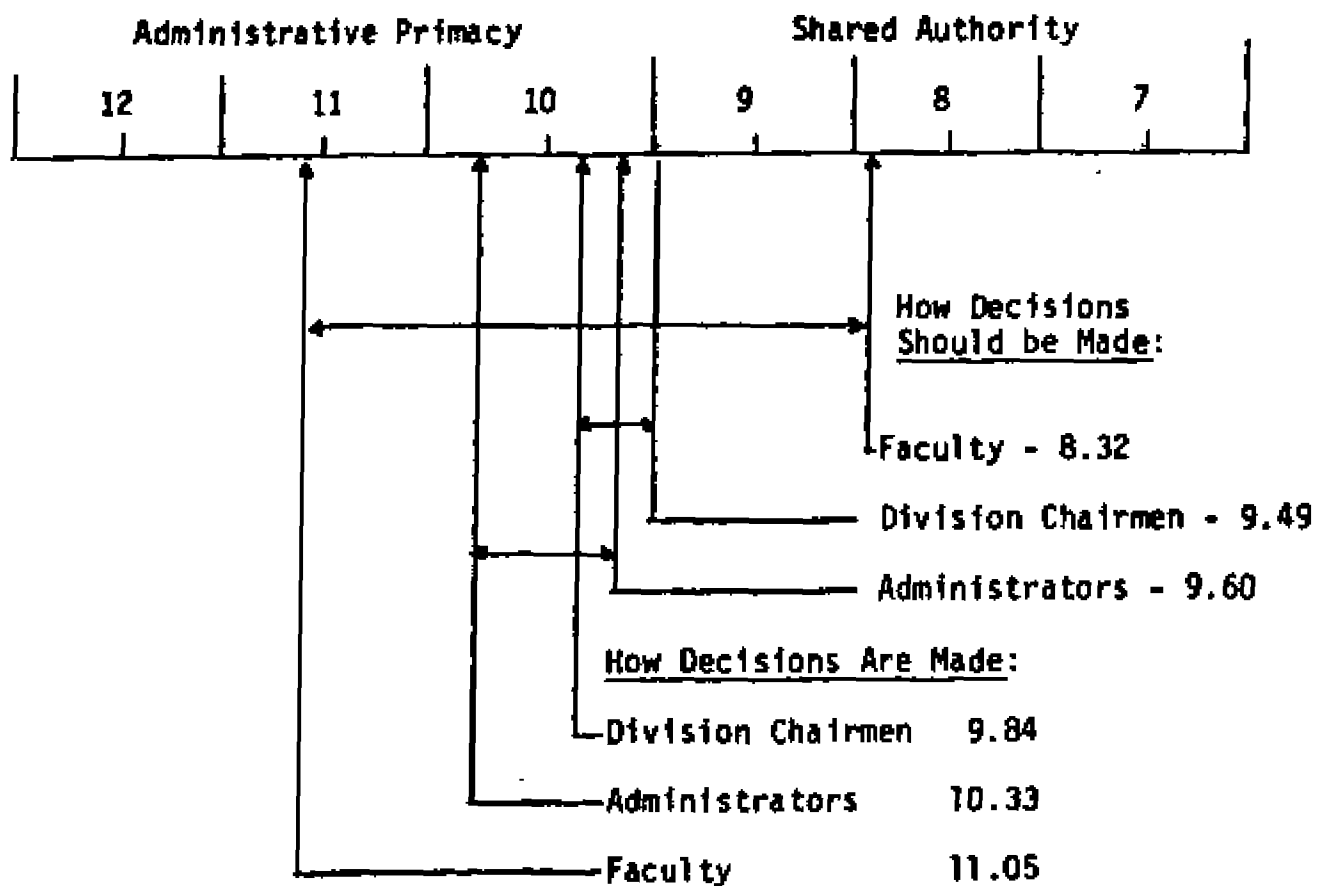


Figure 2. Mean Perceptions about Decision-making.

Certainly, the differences in perceptions are in themselves indicators of need for more communication aimed at more mutuality of perceptions as to what is happening, and, hopefully, more agreement about what should happen. The difference of opinion between faculty and administrators about how much authority sharing there should be agrees generally with the findings of Olson (1968) with respect to the community colleges in the state of Washington.

Effects of the Faculty Perceived

Shared Authority Gap

The findings of the study appear to support the theoretical expectations with respect to institutional effectiveness and member satisfactions. Faculty perceptions of gap accounted for 27% of the variance in overall faculty satisfactions with institutional membership and accounted for 23% of the variance in their perception of institutional effectiveness. This, in part, replicated the finding of Demerath et al. (1967) that when faculty perceived a greater participation in decision making, their satisfactions and estimates of institutional effectiveness both increased, and is in agreement with the Theory Section in Chapter 1 herein.

At the same time, the hypothesized effect of shared authority gap on attitudes toward collective bargaining was not supported by the data analysis. Had the relationship been statistically significant, it would still have been a rather minor effect, the perceptions of shared authority gap accounting for approximately 4% of the variance in attitudes toward collective bargaining. It is apparent that attitudes toward collective bargaining are mainly determined by

other factors. It may also be that faculty have perceived that collective bargaining is not really supportive of the objectives of sharing of authority in the decision making associated with educational issues, as has been suggested by the Carnegie Commission on Higher Education (1973), Steger (cited in Monroe, 1973), and Richardson et al. (1972).

Relative Import among Subareas
of Decision Making

Analysis of the faculty responses with respect to the gap between how decisions are made and how they should be made revealed some differences among the decision subareas. The gap between actual and ideal decision-making modes were larger for decisions related to professional duties and academic planning and policy than for decisions related to student affairs and academic operations. However, the difference in mean scores between the two groups of decision subareas only represents approximately 1/3 of one verbal descriptor difference (i.e., 1/3 of the distance between Shared Authority and Administrative Primacy). Considering the kind of measurements made, the degree of difference in relative importance of the areas to faculty should probably not be considered large. Rather, the perspective that faculty have a fairly substantial interest in greater sharing in all areas may be the more important one, with the differentiation indicating the areas in which the largest increases in sharing is desired.

The Role and Pattern of
Communications

With regard to role, the original premise of the study, that faculty might favor more effective communications and more consultation in preference to delegations of additional areas of authority to faculty or better organizational arrangements between faculty and administrators, was supported. Faculty perceptions of the quality of communications was found to account for approximately 40% of the variance in the faculty perceived shared authority gap. What was not forecast was the even larger impact of communications that the data analysis suggests. Adverse effects on institutional effectiveness and member satisfactions expected from gaps in shared authority was one of the stated concerns of the study. The hypotheses considered only the effect of communications on such end results through its effects on shared authority gap as an intervening variable. The study results show, however, that while faculty perceptions of shared authority gap account for 27% of the variance in overall satisfactions, communication can account for an additional 16% (and administrative style an additional 10%) after the effects of shared authority gap is accounted for, or a total shared variance of 54%. Similarly, faculty perceived shared authority gap accounted for 18% of the variance in perceived institutional effectiveness, and communications added 22% more accountability, bringing the total to 40%. Of lesser importance, communications perceptions accounted for approximately 7% of the variance in attitudes toward collective bargaining. In light of the apparent multiple effects of communications, some of

which are rather strong effects, it would appear from the present study results that communications is not only a key factor in perceived shared authority gap, but the pattern of communications is of fundamental and pervasive importance to institutional effectiveness. The data would also tend to support the view that faculty desires for increased sharing are not so much a desire for increased power as they are a plea for better information, more consultation and accord to professional status--a "human relations" approach to management, more in the vein described by Demerath et al. (1967).

Aside from the role and effects of communications, the question of how the pattern is currently perceived is of some interest. By applying the mean scores of faculty perceptions for subelements of communications to the questionnaire descriptors, a verbal profile of mean faculty perceptions can be obtained. Faculty see "little" interaction and communication aimed at achieving the objectives of the organization. The direction of information flow is described as "mostly downward." Downward communication is viewed as: being initiated primarily at the top or patterned on communication from the top; giving faculty only the information the administrators feel they need; and being sometimes acceptable and sometimes viewed with suspicion. Upward communication is perceived as "limited" with only moderate responsibility on the part of faculty to initiate upward communications; the information that the administration wants to hear flows and other information may be limited. They see a slight to moderate need for a supplementary upward communication system. Sideward communications were characterized as fair to good.

Psychological closeness of administrators to faculty was described as between "fairly close" and "can be moderately close if proper roles are kept." Administrators' understanding of faculty problems was placed between "some knowledge and understanding" and "understands problems quite well." The perceptions of administrators and faculty about each other were perceived as being between "moderately accurate" and "often in error on some points." The overall faculty ($n = 91$) mean communication score for all subareas was 6.45 which places it almost in the center of the Likert (1967) continuum between the relatively closed and unidirectional pattern end and the open, multidirectional end.

The Role and Pattern of Administrative Style

At the intuitive level, the role of administrative style, the leadership processes used in achieving organizational goals, appear almost obvious. While science and technology were required to put a man on the moon, the pronouncement by President Kennedy that defined it as a national objective and the supportive behavior that followed were no less important and necessary.

The results of the present study are supportive of that intuition: the relationship between faculty perceptions of administrative style and patterns of communication was strong, a correlation of .82, and 67% shared variance. When the relationship was examined for the whole sample, including perceptions of administrators and division chairmen, and controlling for five attribute variables, administrative style still accounted for 45% of the variance in

perceptions of communications. And, as the preceding sections have argued, good communications are important to organizational effectiveness.

It is not intended to suggest that the study findings reflect that the only problems are to establish good downward communications and to advance an open ear toward upward communications. The "ambivalence" of faculty attitudes toward participation found by Dykes (1970) appears to exist in the Virginia system, along with some problems of lateral communications, as reflected by the responses to the open-ended questions of the present study (see Table 6). But even in those problems, it appears likely that initiatives for remedial action must come from the top administrators, since an adequate alternate source is not readily visible.

The pattern of administrative style as perceived by the faculty members at the time of the study can also be approximated by application of the mean scores for the elements of administrative style to the corresponding descriptions of the questionnaire. Administrators were described as having substantial but not complete confidence and trust in the faculty; they are perceived as still wishing to keep control of decisions. The faculty confidence and trust in administrators was characterized as subservient. The score for the extent to which administrators display supportive behavior placed it in the edge of the "displays supportive behavior quite generally" near the "displays supportive behavior in condescending manner and situations only" category. Administrative behavior was perceived as making faculty feel rather free to discuss things about

their job with their division chairman. Division chairmen were perceived as usually getting the ideas and opinions of faculty in solving job problems and trying to make constructive use of them. The overall mean faculty score for the several elements was 5.79 which was better than the communications score and placed it slightly to the "participative" side of the center of the authoritative-participative continuum. In the case of administrative style, the perceptions of administrators did not differ significantly from those of the faculty. As in the case of communications, prior research results would indicate the desirability of efforts toward achieving a more participative administrative style. The present study findings support that viewpoint. There is also the distinct possibility that a successful administrative effort in improving the communications pattern might also result in more favorable perceptions of administrative style. To put it another way, the combined administrative style and communications scores may reflect that faculty feel that the administration is not really so much authoritarian, but are the architects of a relatively closed communications policy. Hence, opening of the communications pattern might well lead to a shift in perception of administrative style toward participative. Such an effect would not be unlike the phenomena described by Demerath et al. (1967) wherein a large part of the change in administrative style seemed to be a more open and effective pattern of communications.

The Elements of Administrative

Style and Communications

As reflected in Chapter 4, the effort of the study to assess

the relative importance of the elements that comprised these two main variables did not succeed in providing answers of any precision because of the problem of the multicollinearity among the elements. A judgment was made on the basis of a series of iterative regressions that the two factors of administrative style that are most important, and that predict communications nearly as well as all five factors, are:

1. the extent to which faculty have confidence and trust in administrators, and
2. the extent to which administrators display supportive behavior toward others.

Among the communications elements, the two elements that predict shared authority gap well are:

1. upward communications pattern--the adequacy, accuracy, and the faculty's feeling of responsibility for initiating accurate upward communications, and
2. the psychological closeness of administrators to faculty--the understanding by administrators of the problems of faculty and the accuracy of the perceptions by faculty and administrators of each other.

The four elements listed were found to account for 44% of the variance in faculty perceptions of shared authority as compared to 48% of all 11 elements.

Conclusions

In view of prior theory and research, and the findings of the present study, conclusions are drawn. They are as follows.

Possibilities for Administrative

Initiatives

The most desirable initiative is that suggested in the previously cited comment of Wilson (cited in Dykes, 1970) that colleges ought to be "subjected to the same intensive analysis and study which have been brought to bear on various forms of business and industrial enterprise [p. iii]." It is apparent that there exists within academe a substantial theoretical base supported by a body of empirical findings that can prescribe a science-based systems approach to establishing a more participative and more effective management system for administering colleges. It would appear that this kind of approach, which has been applied effectively in industry, is not generally being applied in colleges. Olson's (1968) study of the Washington state community college ends with an eloquent plea for a revision of administrative style and structure. The desirability of Olson's recommended action appears well-supported by the Demerath et al. (1967) study--the recommended kind of administrative style works and produces the desired results. For those who might wish to follow, the style is defined by Demerath et al. in their chapter on "Collegialized Management," to which Likert's (1967) The Human Organization would provide an excellent supplement.

Considering that the literature of higher education administration and governance has widely advocated greater faculty participation, and that the basis for meeting such an objective in organizationally effective ways has been available but not generally applied, it is probably reasonable to assume that no immediate and

widespread movement toward wholly revised management systems is likely to develop. Accordingly, the thrust of portions of the present study has been in the direction of developing a diagnostic basis for assessing where the potential might lie for more limited administrative initiatives, particularly, within the community college system.

The data from this investigation suggests efforts aimed generally at increasing faculty trust and confidence in administrators, at more supportive behavior of administrators toward faculty, and at more administrator-faculty contact, in communications and consultation, with emphasis on open and responsible upward communications. This would include specific and conscious actions on the part of administrators and top leadership to ensure that:

1. Faculty know what decisions have to be made and what the constraints and limits on decision are.

2. Faculty are consulted prior to the decisions, and encouraged, or even required, to provide their inputs.

3. Faculty are provided directly with information as to the decision made, and a rational basis for the decision, indicating wherever possible how the faculty input was utilized and, if faculty recommendations were not accepted, why it was necessary or preferable to make the decision that was made.

Should it be found desirable to initiate such an effort in a limited number of decision areas, the study data would suggest concentration on: matters relating to professional duties such as the assignment of duties, teaching loads, and community service activities; matters of academic planning and policies such as programs and personnel and

facilities plans and allocations; and faculty status matters such as appointments, renewals, promotions, and dismissals.

The differing perceptions of faculty and administrators as to both the reality and ideals of decision making appears as both a problem and an opportunity. It is a management problem to the extent that it reflects the lack of a common basis for proceeding as a team, but is an opportunity for further communication, and the generation of mutual confidence and trust, in jointly and cooperatively exploring the questions of "How are we doing this?" and "How should we be doing it?"

The development of a specific and workable program of administrative initiatives in the communications area embodying the aims of the preceding paragraphs is not an easy task, nor one amenable to a "cookbook" of directions for distribution and implementation. It requires, first, the full acceptance of top- and middle-management of the nature of the problem, the need for improvements, and the conception of how the improvements are to be made. (In planning for shifts in administrative style, Likert [1967] recommends, and the Demerath et al. [1967] study tends to support the view, that causal variables be considered first. As applied here, the central causal variables would include the policies, actions, behavior, and image of the administration.) If the top- and middle-administrators can agree, an appropriate group can then be charged with the development of a detailed plan of action for approval and implementation. In that regard, many, if not most, colleges or college systems have within their own resources the personnel capabilities required for the

development and implementation of such plans.

The inclusion of the image of the administration among the matters of concern may need further comment. Brown (1973) had noted that where leadership is perceived as having a persistent image of values and integrity, the image will overshadow explanations of current decisions. If this is, in fact, true, it is probable that a program of initiatives in communications cannot expect overnight success; the administrators must develop over a period of time a persistent image of being devoted to the values of open communication and consultation and of acting accordingly. This problem, and the difficulties encountered, are illustrated by the following comments drawn from the free responses of the study questionnaires.

From a faculty member:

Top administrators promised "participatory management" and group decision making by "consensus" several years ago when they took over and have not followed through on their promises. Faculty committee ("task forces") recommendations are ignored/lost/filed away. Decisions are arbitrary--no consultation with those directly affected. Administrators are too touchy--become defensive--if opposing views or criticism of ideas are expressed. . . . There is a problem of communications throughout the school. Most people feel the President and Dean of Instruction cannot be trusted. There have been too many incidents of saying one thing and doing another, giving limited information, etc.

From an administrator in the same college:

A more open and honest trust in one another, from administrators on down, would really eliminate many petty problems that crop up. Our President and Dean of Instruction are honestly trying to be open, use participating management, etc., but it takes more time than one realizes.

The quoted faculty member and the administrator both recommended regular meetings ("not just during a crisis") with faculty to share and discuss. From the limited available data, one cannot be certain, but it appears probable that in that particular college the president is sincerely trying to increase sharing (which is not evident in some other colleges) but may be having troubles stemming from lack of a well-organized approach and from the relative priorities of other matters placed on him. If so, organized assistance and support might well help him succeed.

Those who advocate the need for a totally different model of governance and administration or a total revision of an administrative style may prove to be correct, but, as has been previously stated, the acceptance of such models does not appear imminent. The present study results indicate that the communications pattern within the organization is possibly a more powerful factor in the shared authority problem than it has been previously considered. Communications and consultation appear desired by faculty in preference to authority per se. It is not evident that more open communications present any threat to administration. It is evident that administrative style and initiative can affect materially the pattern of communications, and it appears that changes in communications patterns

are likely to occur only if they are initiated by administrators. In summary, while communications does not appear to be a way of providing a total solution to the problems of shared authority, it does appear to be a powerful lever, and is perhaps the lever that most needs to be used by administrators.

Implications for Research

The present study has been characterized as exploratory and has, of necessity, used a post hoc research design, and considered only the perceptions of a random sample of members of the Virginia Community College System. Within those limitations, it may be considered as supporting the findings of the longitudinal study of Demerath et al. (1967) with respect to the generalizations that a change in administration, which has among its major features more regular and open communications, will produce greater faculty perceptions of shared authority, satisfaction, and institutional effectiveness. The distinction of the present study was the hypotheses about and measurements of the relationships between communications and other variables which tend to suggest a more powerful role for communications in the academic organization than has been generally recognized.

The two main questions for future research would appear to be:

1. Is the communications pattern as powerful and significant a factor in shared authority and organizational effectiveness as the interpretation of results of the present study suggests?

2. What, specifically, should a concerned administrator do to achieve the desired pattern of open- and multidirectional-communications?

With respect to the first question, controlled experimental research would be most desirable, but may not be possible. If experimental research is not possible, longitudinal studies or post hoc studies could provide additional confirmation or refutation.

In the event that others might undertake replication in other colleges, it would appear desirable to further develop the measurement instruments, particularly the section which undertakes to measure by decision areas, how decisions are and should be made, since some of the responses to the present study would indicate that the decision areas were not well adapted to the community college perspective, and that the authority sharing continuum may have had some ambiguity for some persons. The adapted Likert (1967) questionnaire appeared to function well, and might be improved further by additional attention to wording questions to suit the specific academic organization to which it is to be applied.

Recommendations

The desirability of more faculty participation in the processes of community college administration should be reevaluated and the potential for achieving such participation through improved communications and more consultation should be carefully considered. More specifically, it is recommended that:

1. the need for and desirability of greater faculty sharing in institutional decision making, in the interests of improved

institutional effectiveness and faculty satisfactions, be recognized and accepted;

2. administrators not view all faculty desires for more participation in decision making as demands for more power or greater delegations of authority, but rather as being more predominantly the expression of desires for more communication, more consultation, a greater sense of belonging, and of having their expertise used to good effect in institutional processes;

3. the concept be accepted that the needed patterns of communication and consultation will likely be obtained only as a result of a program of initiatives developed by top- and middle-administrators in cooperation and implemented over a relatively long period in consistent fashion;

4. faculty recognize the potential for their contributing to better communications--this might include, at the least, (a) more effort at understanding and empathizing with administrators in regard to the total environment in which decisions are made and the constraints that must affect such decisions, and (b) more effort by faculty to stimulate, foster, and contribute to better lateral and upward communications;

5. further research be conducted to assess the role, character, and effect of communications on organizational activity and end results within community colleges;

6. further research be conducted to assist administrators in developing and implementing programs designed to achieve the desired patterns of communication; and

7. the community college leadership take an active role in the development of initiatives, and in sponsoring, guiding, and cooperating with the recommended research.

APPENDIX

APPENDIX A
SURVEY QUESTIONNAIRE

Section 1: How are the decisions made?

	Admin. Dominance	Admin Primacy	Shared Authority	Faculty Primacy	Faculty Dominance
1. <u>Academic Operations</u> - such matters as Degrees, requirements, curricula, academic standards and performance.					
2. <u>Faculty Status</u> - such matters as appointments, renewals, promotions and dismissals					
3. <u>Academic Planning and Policy</u> - such matters as new programs, degrees, personnel and facilities plans and allocations.					
4. <u>Professional Duties</u> - such matters as teaching loads and assignments, community service activities.					
5. <u>Student Affairs</u> - such matters as academic discipline, extracurricular activities, and student government.					

SECTION IIA Now, in your opinion, should the decisions be made:

Please consider again the same categories as in Section I, using the same system for checking selections, but this time giving your opinion as to how decision making should proceed in your institution. Please consider realistically such factors as real-world external constraints on the institution's administration, the demands on your time, and other such factors as you feel appropriate in arriving at your decisions

	Admin Dominance	Admin Primacy	Shared Authority	Faculty Primacy	Faculty Dominance
6. <u>Academic Operations</u> - such matters as degree requirements, curricula, academic standards and performance.					
7. <u>Faculty Status</u> - such matters as appointments, renewals, promotions and dismissals.					
8. <u>Academic Planning and Policy</u> - such matters as new programs, degrees, personnel and facilities plans and allocations.					
9. <u>Professional Duties</u> - such matters as teaching loads and assignments, community service activities					
10. <u>Student Affairs</u> - such matters as academic discipline, extra-curricular activities, and student government.					

11B

11. Please check which of the following statements, when measured against your conception of what the faculty's role in decision making ideally should be, best expresses your personal feelings about the faculty's actual role on your campus:

- A. The faculty is involved too much in decision making; considering other responsibilities, there is altogether too much demand on faculty members. _____
- B. The degree of faculty involvement and faculty influence on decisions is just about right. _____
- C. The faculty's role is not what it should be ideally, but it is about what one can realistically expect. _____
- D. The faculty has too little influence on decisions; more of the decision making power should rest with the faculty. _____
- E. Don't know or no answer. _____

12. Speaking generally, would you say the faculty is very well satisfied, satisfied, dissatisfied, or very dissatisfied with its role in decision making?
- Very well satisfied _____
 - Satisfied _____
 - Dissatisfied _____
 - Very dissatisfied _____
 - Don't know _____

13. In your opinion, what contributes most to faculty dissatisfaction with respect to decision making on your campus?

111. Characteristics of Administrative Style and Communications Related to Decision-Making

Instructions: On the lines below each organizational variable (item), please place an X at the point which, in your experience, describes your institution at the present time. Treat each item as a continuous variable from the extreme at one end to that at the other.

Organizational Variable

i. Leadership processes used

a. Extent to which administrators have confidence and trust in faculty

Have no confidence & trust in faculty	Have condescending confidence & trust, such as master has in servant	Substantial but not complete confidence and trust; still wishes to keep control of decisions	Complete confidence and trust in all matters
---------------------------------------	--	--	--

b. Extent to which faculty, in turn, have confidence and trust in administrators

Have no confidence & trust in administrators	Have subservient confidence & trust, such as servant has to master	Substantial but not complete confidence and trust	Complete confidence and trust
--	--	---	-------------------------------

c. Extent to which administrators display supportive behavior toward others

Display no supportive behavior or virtually none	Display supportive behavior in condescending manner in situations only	Display supportive behavior quite frequently	Display supportive behavior fully in all situations
--	--	--	---

d. Extent to which administrators behave so that faculty feel free to discuss important things about their jobs with their division chairperson

Faculty feel completely free to discuss things about their job with their division chairman	Subordinates feel rather free to discuss things about the job with their division chairman	Subordinates do not feel very free to discuss things about the job with their division chairman	Subordinates do not feel at all free to discuss things about the job with their division chairman
---	--	---	---

a. extent to which division is allowed in solving job problems	Always gets ideas & opinions & always tries to make constructive use of them	Usually gets ideas & opinions & usually tries to make constructive use of them	Sometimes gets ideas & opinions of subordinates in solving job problems	Seldom gets ideas & opinions of subordinates in solving job problems
2. Character of communication process	Very little	Little	Quite a bit	Much with both individuals and groups
a. extent of interaction & communication aimed at achieving organization's objectives	Downward	Mostly downward	Down and up	Down, up, and in between
b. upward communication	Initiated at all levels	Restricted on communication not top but with some initiative at lower levels	Primarily at job patterns in communication from top	Initiated throughout organization
c. extent to which administrators will initiate some negotiation with faculty	Provide minimum of information	Leaves faculty only information on the administrator level they need	Gives information needed to answer most questions	Seeks to give faculty all relevant information & all information they want

<p>(3) Extent to which communications are accepted by faculty</p>	<p>Generally accepted, but if not, openly and candidly questioned</p>	<p>Often accepted but, if not, may or may not be openly questioned</p>	<p>Some accepted and some viewed with suspicion</p>	<p>Viewed with great suspicion</p>
<p>6. Upward communication</p>	<p>(1) Adequacy of upward communication via line organization</p>	<p>Very little</p>	<p>Limited</p>	<p>Slight need</p>
<p>(2) Faculty's feeling of responsibility for initiating accurate upward communication</p>	<p>None at all</p>	<p>relatively little, usually communicates "filtered" information & only when requested</p>	<p>Some to moderate degree of responsibility to initiate accurate upward communication</p>	<p>Considerable responsibility felt</p>
<p>(3) Accuracy of upward communication via line</p>	<p>Accurate</p>	<p>Information that administration wants to hear; other information may be limited or cautiously given</p>	<p>Information that administration wants to hear flows; other information is restricted and filtered</p>	<p>Tends to be accurate</p>
<p>(4) Need for supplementary upward communication system</p>	<p>No need for any supplementary system</p>	<p>Slight need for supplementary system</p>	<p>Moderate need for supplementary system</p>	<p>Great need for supplementary system</p>
<p>6. Sideward communication, its adequacy and accuracy</p>	<p>Usually poor</p>	<p>Fairly poor</p>	<p>Fair to good</p>	<p>Good to excellent</p>

5. Psychological closeness of administrators to faculty if the following items between administrators & faculty:

(1) How well do administrators know and understand problems faced by faculty

(2) How accurate are the perceptions by administrators and faculty of each other?

Usually very close	Fairly close	Can be moderately close if proper roles are kept	Far apart
Knows and understands problems of faculty very well	Knows and understands problems of faculty quite well	Has some knowledge and understanding of problems of faculty	Has no knowledge or understanding of problems of faculty
Often in error	Often in error on some points	Moderately accurate	Usually quite accurate

Section IV Usefulness of Participatory Devices

A number of devices have been utilized at various higher education institutions to facilitate meaningful faculty participation in decision making. Please check the appropriate blank to signify which descriptor best reflects your attitude with respect to potential value of each of the following devices at your institution.

	Strongly Favorable	Favorable	Neutral	Against	Strongly Against
1. Divisional Staff Meetings	_____	_____	_____	_____	_____
2. Ad hoc Faculty Committees	_____	_____	_____	_____	_____
3. Standing Faculty Committees	_____	_____	_____	_____	_____
4. Faculty Senate	_____	_____	_____	_____	_____
5. Professional Associations	_____	_____	_____	_____	_____
6. Collective Bargaining	_____	_____	_____	_____	_____
7. Other (please specify)	_____	_____	_____	_____	_____

Section V

1. Means of Improving Participation

Listed below are several areas which have been suggested as avenues for improving faculty participation in decision-making. Please rank order these items with respect to your opinion of their relative importance and potential for effecting improvements. Mark the most important highest potential No. 1 and the least No. 6.

Rank

- * Reduction of Influences from Outside the Institution _____
- * Delegation to faculty of some decisions now made by administration _____
- * More communication and consultation between faculty and administration; more openness _____
- * More availability of time for faculty participation in decision making _____
- * Better organizational arrangements or devices (Senates, Committees, etc.) _____
- * Other (please specify) _____

2. Institutional Effectiveness - As compared to other community colleges with which you are familiar, please rate your institution with respect to the following:

<u>Item</u>	<u>Excellent</u>	<u>Above Average</u>	<u>Average</u>	<u>Below Average</u>	<u>Poor</u>
* Faculty Competence	_____	_____	_____	_____	_____
* Administrative Competence	_____	_____	_____	_____	_____
* Quality of Educational Programs	_____	_____	_____	_____	_____

3. Satisfaction with Institutional Membership

Considering all factors, including your work and workload, salary, opportunity for promotion, general environment, the quality and impact of the educational programs, and your participation in the affairs of the institution as a whole, how do you regard your membership in your institution?

_____ Highly Satisfactory

_____ Satisfactory

_____ Not particularly satisfactory; nor particularly unsatisfactory

_____ Unsatisfactory

_____ Highly Unsatisfactory

4. What matters contribute most to your satisfactions or dissatisfactions, and what remedial actions would you recommend?

APPENDIX B

QUESTIONNAIRE TRANSMITTAL LETTERS

59 Hinster fax
Williamsburg, Virginia 23185

26 September 1977

Dear Community College Faculty Member:

The degree to which faculty participate in the decision-making associated with the administration and governance of institutions of higher education has been a matter of continuing concern to faculty, administrators, and researchers, and rightly so, since it would appear to affect not only faculty satisfactions, but institutional effectiveness.


I am conducting a study that is aimed at a better understanding of how Virginia Community College System faculty and administrators view authority-sharing and related matters within their institution, with a view to establishing a basis for the development of specific recommendations for improvements. The study has been authorized by the Office of the Chancellor, VCCS, and the President of your college.

You have been included in a random sample of faculty members and administrators. I am, therefore, requesting your cooperation and assistance with the study by filling out the enclosed questionnaire, and returning it to me in the stamped self-addressed envelope which has been provided. I would like to stress that your personal participation is important to obtaining statistically valid results and a useful study and, of course, will also be sincerely appreciated by me. As a small token of my gratitude of your participation and because I hope you will be interested, I will, on completion of the study, furnish all respondents a brief summary of the results.

The questionnaire will remain completely confidential. Neither you nor your institution will be identified with the response you make to the questionnaire. The identification number will be used for study control purposes only.

I sincerely believe that the study has a potential for contributing to the future satisfactions and effectiveness of community college teachers. Objective and competent reviewers have agreed. But since the objectives can only be obtained by a full response, I once again urge, and express my thanks to you for, your kindness and interest in promptly completing and returning the questionnaire.

Sincerely,



LARRY M. HEWIN
School of Education
College of William and Mary

Encl
Questionnaire

59 Winster fax
Williamsburg, Virginia 23185

12 October 1977

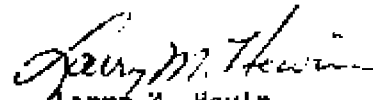
Dear Community College Member:

By letter of 26 September 1977 I requested your support to a study of shared authority and related matters within the Virginia Community College System. Since I have not yet received your completed questionnaire, I am taking the liberty of contacting you again to urge your participation in the study.

As indicated in my first letter, I and others believe that the study results may provide a basis for recommendations for improvements that would benefit the VCCS and its members. The returns to date support that belief. However, for the study to be truly representative of the VCCS community, your personal input is needed. The study includes administrators at various levels as well as full-time teaching faculty and it is essential that all sectors of the population be adequately represented.

It may be that the original questionnaire has been misplaced or is not readily at hand. I am therefore enclosing an additional copy of the questionnaire and a stamped self-addressed envelope. I will sincerely appreciate it if you will take advantage of them to complete and return your questionnaire at your very earliest convenient opportunity.

Sincerely,


Larry M. Howin

School of Education
College of William and Mary

APPENDIX C
SCORING SYSTEM

Scoring System for Questionnaire

For Section I and II.A.:

Faculty Dominance, 1-3

Faculty Primacy, 4-6

Shared Authority, 7-9

Administrative Primacy, 10-12

Administrative Dominance, 13-15

Gap Scores by Decision Area: Question 1. - Question 6. = Gap 1

Question 2. - Question 7. = Gap 2

Question 3. - Question 8. = Gap 3

Question 4. - Question 9. = Gap 4

Question 5. - Question 6. = Gap 5

Shared Authority Gap

$$\frac{\text{Gap 1} + \text{Gap 2} + \text{Gap 3} + \text{Gap 4} + \text{Gap 5}}{5}$$

(Absolute values of gap were used
to determine the mean.)

For Section II.B.:

Question 11.

- | | |
|--|---|
| A. Faculty too involved in decision making | 1 |
| B. Faculty involvement about right | 2 |
| C. Faculty role not ideal, but realistic | 3 |
| D. Too little faculty influence on decisions | 4 |
| E. Don't know or no answer (treated as missing data) | 0 |

Question 12. Very well satisfied	1
Satisfied	2
Dissatisfied	3
Very Dissatisfied	4
Don't know (treated as missing data).	0

For Section III.:

All questions were scored 1 to 12, the 1 end of the scale representing the most participative style of administration and the most open, multidirectional pattern of communications and the 12 end representing the most authoritative administrative style and most closed and unidirectional communications patterns. (Note that the numerically low score is not always on the same side of the scale due to random alternation to avoid set bias.)

The Administrative Style score is calculated as the mean of the element scores:

$$\text{Index of Administrative Style} = \frac{Q1a + Q1b + Q1c + Q1d + Q1e}{5}$$

(Note: Q1a = score on Question 1.a., etc.)

The Communications element scores where the element had multiple questions was calculated as the mean score of the several questions, for example:

$$\text{Score for 2c} = \frac{2c(1) + 2c(2) + 2c(3)}{3}$$

Similarly, for the overall Communications score, the mean of the elements was taken:

$$\text{Communications index} = \frac{2a + 2b + 2c + 2d + 2e + 2f}{6}$$

For Section IV.:

For attitudes toward participator devices

Strongly Against	1
Against	2
Neutral	3
Favorable	4
Strongly Favorable	5

For Section V.:

1. Rank ordering of means of improving participation was either 1 to 5 or 1 to 6, dependent upon whether the respondent specified and ranked the "Other" question.

2. Institutional Effectiveness items were scored

Excellent	1
Above Average	2
Average	3
Below Average	4
Poor	5

3. Satisfactions with Institutional Membership were scored

Highly Satisfactory	1
Satisfactory	2
Not particularly satisfactory; not particularly unsatisfactory	3
Unsatisfactory	4
Highly Unsatisfactory	5.

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ABSTRACT

THE EFFECTS OF ADMINISTRATIVE STYLE AND COMMUNICATIONS ON FACULTY PERCEPTIONS OF SHARED AUTHORITY IN THE VIRGINIA COMMUNITY COLLEGE SYSTEM

Larry M. Hewin, Ed.D.

Donald J. Herrmann, Ph.D., Committee Chairman
The College of William and Mary in Virginia

Prior research has indicated faculty dissatisfaction with sharing of authority in the administration of higher education institutions. Theory expects such dissatisfactions to adversely effect overall institutional effectiveness. The central purpose of this study was to assess communications as a factor in faculty perceptions of shared authority and related dissatisfactions. Secondary purposes were to study the relationship of administrative style to faculty perceptions of communications patterns and shared authority gap, and whether favorable attitudes toward collective bargaining were related to dissatisfactions with shared authority. The Virginia Community College System was chosen for study because of its representativeness of a prevalent type of community college governance.

The ex post facto study design used a mailed questionnaire to determine the attitudes and perceptions of a random sample of faculty and administrators in 10 randomly selected colleges of the 23 in the Virginia system. The sample of 220 yielded 146 usable returns. Summated rating scales were used to determine respondent' views as to how decisions are and should be made, their degree of satisfaction/dissatisfaction, perceptions of administrative style and communications patterns, preferences among alternative approaches to the improvement of authority sharing, attitudes toward collective bargaining, and perceptions of the overall effectiveness of their institution. Control variables representing other attributes of respondents were also included in the analysis. Multiple regression analysis was the principal statistical method.

The results indicated that faculty did perceive a gap in shared authority; they saw decisions as made in an administrative primacy mode and felt it should be a shared authority mode. The gap the faculty perceived was significantly larger than that perceived by administrators. Among alternatives for improving shared authority, faculty preferred more communications and consultation to both new delegations of authority to faculty and improved organizational arrangements to facilitate sharing. Faculty perceptions of shared authority gap were strongly related to their perceptions as to the relative openness and multidirectionality of the communications

pattern ($R = 0.64$), and communications patterns were in turn strongly related to perceptions of the administrative style employed ($R = 0.82$). As expected, faculty perceptions of shared authority were also found to be significantly related to perceptions of their institution's effectiveness ($R = 0.48$) and to overall satisfactions with institutional membership ($R = 0.54$). Attitudes toward collective bargaining were not, as hypothesized, significantly related to perceptions of shared authority gap at the criterion 0.05 level of significance.

It was concluded that the communications pattern and the faculty perceptions of it are a major factor in faculty dissatisfactions with how authority is shared, and appear to be more important than how much specific authority for decision is actually delegated to faculty, or the organizational arrangements for sharing. The dissatisfactions appear to influence perceptions of institutional effectiveness. The strong relationship between administrative style and communications pattern was interpreted as indicating that desired communications patterns would be obtained only by an appropriate program of administrative initiatives.

VITA

Larry M. Hewin

Born July 27, 1924, Laurens County, South Carolina.

Education

Undergraduate: Clemson, Clemson, South Carolina, 1940-1942 and 1946-1948, B.S., Mechanical Engineering.

Graduate: George Washington University, Tidewater Center, Hampton, Virginia, 1967-1970, M.S., Administration.

The College of William and Mary in Virginia, Williamsburg, Virginia, 1972-1976, Certificate of Advanced Graduate Study in Education.

The College of William and Mary in Virginia, Williamsburg, Virginia, 1976-present, Doctoral Program in Higher Education Administration.

Experience

1942-1946, U.S. Army Air Corps Pilot, Operations Officer, and Flight Instructor.

1948-1951, Mechanical Engineer, National Advisory Committee for Aeronautics, Hampton, Virginia.

1951-1962, Aeronautical Engineer, Aeronautical Research Scientist, and Supervisory Engineer at various organizational levels with U.S. Army Aviation Research and Development Laboratories at Fort Eustis, Virginia.

1962-1974, Technical Director and Deputy Director of Aviation

Research Laboratory, Fort Eustis, Virginia.