

MEASURING AND PREDICTING THE EFFECTIVENESS OF  
ACADEMIC DEPARTMENT HEADS

by

RONALD K. SPANGLER

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requirements for the degree

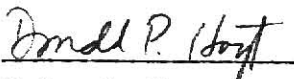
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Approved by:

  
Major Professor

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## CHAPTER 1

### INTRODUCTION

#### Background

"The purpose of evaluation is not to prove, but to improve"; so begins the report of a Phi Delta Kappa National Study Committee on Evaluation (1971). This quote has special significance when the focus of the evaluation is on the academic department head. The increasing emphasis on "accountability" has caused many institutions of higher education to examine the functioning of their administrators. Of particular interest is the department head (or chairperson) since this administrator forms the important interface between the faculty and the deans and vice presidents.

A comprehensive examination of department head effectiveness is valuable because of the important role the department occupies in a university community. Dressel and Reichard (1970, p. 387) also emphasize this importance, "...the department has become a potent force, both in determining the stature of the university and in hampering the attempts of the university to improve its effectiveness and adapt to changing social and economic requirements...". Increasing economic constraints and anticipated declines in enrollments ensure that the role of the department will receive closer scrutiny by university administrators and regents. Competition among departments for

limited resources is inevitable. An equitable solution to this problem will require that department heads develop and communicate sound ideas about the functioning of their departments (Faricy, 1974).

A major reason for concern about evaluation of the department head is that he/she is largely responsible for the success of the department. Faculty members who are dissatisfied with the performance of the department head will not "work" at maximum efficiency (Copeland, 1975; Campbell and Gregg, 1957); thus the head has an enormous influence on overall departmental productivity (Anderson, 1968; Patton, 1961). For these reasons, improving the effectiveness of a department will often involve improving the chairperson's performance through a comprehensive examination of his/her performance.

To formalize this examination, many institutions have introduced evaluation systems of one type or another. Some of these have been well planned; others have been superficial evaluations or intentional "whitewashes" designed to satisfy an administrative requirement while insuring the political well-being of the department head.

However, the blame for inadequate evaluations does not lie solely with insincere motives or self-protective desires. A primary cause is the lack of specific research into the functions and performance of academic department heads. Until the early 1970's, virtually no empirical investigations had been undertaken. And since then, the literature on the topic has been limited. This is especially true for findings which have some degree of generalizability (Faricy, 1974).

The need to pursue investigations of academic department heads has been amply argued (Nygaard, 1974; McCarthy, 1972; Campbell and Gregg, 1957, 1971; Dressel, Johnson, and Marcus, 1970; Dressel and Reichard, 1970). Yet there are serious problems which hinder the development of useful evaluation instruments (Dressel, 1976; Losák, 1975; Ritchie, 1974; Peterson, 1973). The most critical problem concerns the purpose of the evaluation; i.e., the use to which it will be put. It is well documented that if such evaluation programs are to gain the department head's support, they must provide information which will helpfully guide efforts to improve administrative effectiveness (Dressel, 1976; Campbell, 1971; Nygaard, 1974). Without this element, the typical department head's attitude toward participation in an evaluation system will be less than enthusiastic.

The advantages of focussing on self-improvement are threefold. First, the department head will have a basis for identifying strengths and weaknesses. This knowledge is essential if the administrator is expected to improve overall effectiveness. Secondly, if this type of information is made available to deans or others concerned with improving departmental effectiveness, they will be in much better positions to make suggestions concerning improved policies or practices. Finally, as a consequence of the second benefit, the department heads should generally be more at ease about the evaluation process, since the concern for improvement provides a common focus of attention.

The main interest of this investigation was to refine an evaluative instrument based on faculty members' perceptions of their

department head. The importance of continuous assessment of evaluation procedures has been noted by Dressel (1976). Careful attention to this point is essential if one is to avoid criticism of the instrument.

### Statement of the Problem

The following questions, some of which were studied by McCarthy in 1972, will guide this investigation:

- 1) Can faculty members provide reliable judgments in the three following areas?
  - a) importance of departmental objectives
  - b) department head's performance toward attainment of departmental objectives
  - c) behavioral characteristics of the department head
- 2) Is there an underlying structure of the faculty members' judgments which could clarify the nature of the department head's job and the alternative administrative styles which might be chosen?
- 3) Can effectiveness, as judged by faculty members, be predicted on the basis of particular administrative behaviors of the department head?
- 4) Are there measures which will accurately reflect the level of agreement on departmental objectives:
  - a) among the faculty members of the department?
  - b) between the department head and the faculty members?
- 5) Are there differences in function or style that are related to specific characteristics of the department or the department head?

A consequence of the investigation of these questions will be the refinement of an evaluation instrument initially developed by McCarthy (1972) and subsequently revised by Hoyt (1976).

### Importance of the Study

In 1972, McCarthy developed an evaluation system for administrators of academic departments based on the premise of providing information which would enable the department head to improve. This investigation is an attempt to refine this particular evaluation instrument and to re-assess McCarthy's findings.

McCarthy's study was limited by several factors. Most importantly, it included only 50 department heads from one institution (Kansas State University). The number was too small to develop stable estimates of parameters or to permit sophisticated statistical treatment. Generalization beyond Kansas State was clearly unwarranted. Beyond this, McCarthy's instrument consisted of items which had little previous trial in the higher education setting. Thus, his list of functions was perhaps unduly influenced by his need to obtain approval from the Executive Committee of the KSU Faculty Senate. And his list of behaviors was taken largely from an instrument which had been used in industrial/military settings; thus it made frequent reference to the "staff" rather than the "faculty". It also used the masculine pronoun throughout, a convention no longer generally acceptable.

On the basis of McCarthy's findings, practical experience with the instrument, and common sense, Hoyt (1976) made a revision. Three of the original 18 functions were excluded. In addition, 6 others were reworded to clarify the intent. Of the behavior items, 7 were excluded on the basis of McCarthy's findings. All others were revised, at least in a minor way, by changing all masculine pronouns to "he/she" and by changing "staff" to "faculty". In addition, a basic change was

made in the instructions; whereas McCarthy asked how important each function had been during the past year, Hoyt asked how important the faculty member thought the function should be. Besides these changes, Hoyt also expanded the number of questions asked of the department head.

Given these changes and the shortcomings in the original data, the need to establish basic characteristics of the revised instrument was obvious. Attention will be devoted to several points, the first of which is the reliability of faculty members' judgments. Although highly reliable judgments are a necessity in such an evaluation system, many were of low or moderate reliability in McCarthy's original study.

A key strategy in the McCarthy study was to discover relationships between specific administrative behaviors and performance on each function. The stability of his findings were suspect on the basis of his relatively small sample. In addition, the numerous changes in phraseology which Hoyt introduced in the revision made it essential that these relationships be re-examined in this study.

Beyond this, it should be helpful to discover the underlying structure of both the functions of the head and of the dimensions of administrative behavior. A factor analysis in each of three areas should clarify these matters:

- 1) the faculty members' ratings of importance of several departmental objectives
- 2) their ratings of the department head's performance on these objectives
- 3) their behavioral descriptions of the department head.

These analyses should provide a clearer way of characterizing departmental objectives and administrative styles which may be related to administrative



effectiveness of one or another type.

McCarthy noted, but did not study, the possibility that conditions other than department head's behavior may have an important impact on evaluations. One purpose of this investigation was to examine a few of these, including the condition's of appointment of the head, his/her longevity, frequency of faculty meetings, and physical facilities of the department.

To accomplish these purposes, it was necessary to expand the data base by including results from three institutions in addition to Kansas State University. This was made possible by two KSU administrative offices: the Office of Educational Resources in which the original instrument was developed and the Center for Faculty Evaluation and Development in Higher Education, which markets faculty and department head evaluation services to other universities in the United States. Comparison of results from four separate universities should allow a greater degree of generalizability as well as increased stability of statistical results. The lack of such generalization has been one of the problems inherent in previous efforts (Faricy, 1974; Stroup, 1966).

#### Assumptions and Limitations

For this investigation, it was assumed that both the department head and faculty would respond thoughtfully and candidly to the instruments. The faculty were assured complete anonymity of their responses and the department head was assured of confidentiality of his or her results. Of course, a related assumption was that faculty members are qualified to judge how well various functions of the

department head were performed. Although these judgments are subjective, they were made by experienced faculty members whose everyday activities brought them in close contact with the department head's work.

The evaluations were all conducted in the Spring of 1976; it was assumed that the findings can be generalized to other years. Generalization to other universities and department heads assumes that the four institutions and their department heads were representative of a larger population of universities and department heads. These assumptions are theoretically testable, but not with the data available from this investigation.

The instrument used was designed solely for the purpose of providing feedback for the department head to allow improvement in his or her effectiveness. Thus, it may differ substantially from instruments designed to gather information to be used strictly for reappointment decisions. A final limitation is that department heads participated under differing conditions; some were required, others volunteered. Generalization to a specific population is not justified. A likely consequence is that normative results may be somewhat inflated over those that would be obtained if full participation were required.

## CHAPTER 2

### REVIEW OF THE LITERATURE

This investigation is concerned with a comprehensive evaluation of department heads. Such an evaluation requires consideration of four general factors:

- 1) perceptions of the department head roles
- 2) agreement on department head functions
- 3) administrative behavior styles
- 4) predicting effectiveness

These categories are not necessarily independent, but it is convenient to employ them as a way of organizing the relevant literature.

#### Perceptions of the Department Head Roles

While empirical research on this topic has been limited, a number of views have been expressed concerning the duties of the department head. Because many of these responsibilities are related to each other, they have been subdivided in attempts to identify the general roles which the department head must fulfill.

Over twenty years ago, Bauer (1955) stressed that the demands on college and university administrators were heavy and that supplemental personnel were needed. A large number of functions were designated for the department head. New demands were created by

pressures to be more accountable and to implement new policies and laws with respect to such matters as affirmative action and equal opportunity. While the administrative demands have increased, there has been no reduction in the expectation that the department head will continue teaching and conducting research.

Academician, administrator, and leader are three roles of the university department head identified by McLaughlin, Montgomery, and Malpass (1975). The academician role is comprised of duties associated with teaching, advising, conducting and encouraging research, and curricular development. The role of administrator includes developing an efficient organization, providing a service to other organizations, and maintaining goals and requirements of the central administration. Finally, the leadership role requires selecting, supporting, developing, motivating, and evaluating the faculty. This study provides a useful summary of department head duties; however, the roles defined were rather general.

Clarification of the purposes and functions of the department head is a necessary part of the evaluation process (Campbell, 1971). McCarthy (1972) attempted this by classifying 18 specific functions into four general roles: 1) departmental representative, 2) communicator and staff developer, 3) organizer and 4) leader. The functions were stated in behavioral terms, an important requirement according to Greene (1972) and Campbell (1971). In condensed form, these are:

### Departmental Representative

- \* participates in faculty government
- negotiates university support for the department
- facilitates fund raising from outside sources
- improves the department's image
- \* facilitates job placement for graduates and staff

These activities constitute much of the management function that have been identified for department heads (Metty, 1969; Aldmon, 1960). They also correspond quite well to the administrator role suggested by McLaughlin and associates (1975).

### Communicator and Staff Developer

- communicates university expectations to faculty
- guides faculty evaluation procedures
- rewards faculty appropriately
- maintains faculty morale
- fosters faculty development

The importance of communication was repeatedly emphasized both prior to McCarthy's work (Erickson and Pederson, 1966; Blau and Scott, 1963; Aldmon, 1960) and in later studies (Henry, 1974; Scott, 1972). Other functions in this category relate to direct support of the faculty and resemble McLaughlin's (1975) leadership role.

### Organizer

- guides the development of plans
- allocates faculty responsibilities
- understands academic specializations in the department

This role has been identified in several studies (Siever et al 1972; Siever, 1969; Katz and Kahn, 1969; Gerber, 1967). The title for this role seems appropriate since the functions encompass the chairperson's efforts to structure the department.

#### Leadership

recruitment of faculty

fosters good teaching

stimulates research and scholarly efforts

\* encourages faculty to provide professional services

guides curriculum development

The existence of this role has also received a great deal of support (Henry, 1974; Dressel et al, 1970; Siever et al, 1972; Siever, 1969). However, as McCarthy acknowledges, leadership is involved in all of the roles. Thus, identifying specific duties as belonging to a single leadership role is not wholly justified, even though a similar role was identified by McLaughlin and associates (1975).

Subsequently, Hoyt (1976) eliminated three of the eighteen functions in McCarthy's instrument. The functions eliminated are noted by an asterisk in the preceding lists.

Despite a fair degree of consensus about roles, there is no dependable empirical data to support any one conceptual scheme. It would be helpful to determine if the application of modern statistical techniques might provide a firmer basis for conceptualizing the work of the department head.

#### Agreement about Department Head Functions

The literature is somewhat inconsistent in whether or not there

is agreement about the most essential functions. Siever and associates (1972) reported considerable agreement among faculty members, department heads, and deans about the relative importance of various duties performed by the department head. Caution is warranted with respect to this point because judgments were made on a limited list of structured activities. Other research suggests the possibility of great disagreement. Patterson (1966, abstract) suggests that "faculty members regard the ideal chairperson as a facilitator of their own self-determined goals..." And Metty (1969) found that the department heads' concern with administrative procedures and resources differed noticeably from faculty concerns.

Despite the conflicting conclusions, knowledge of the level of agreement among the faculty and between the faculty and the department head can be important. McCarthy (1972) developed two indices of agreement, harmony and consensus; both were related to judgments of effectiveness.

#### Administrative Behavior Styles

If the evaluation program is intended to guide improvement efforts, it is necessary to discover how particular behaviors relate to performance. The task is to identify successful administrative styles. Nearly all of the research in this area has been done in settings outside of higher education.

Two dimensions have consistently emerged in research on leadership styles. The first is primarily related to accomplishment of tasks and generally involves organizational and technical skills. Interpersonal skills comprise the second dimension; orientation toward personal relationships and work with others is stressed. These dimensions were

initially identified by Halpin and Winer (1957) and Hemphill (1955) in conjunction with the Ohio State studies of leadership. They labelled the first dimension "initiating structure". It is characterized by a well structured relationship between the leader and his staff and by the establishment of well-defined patterns of organization, channels of communication, and procedures. "Consideration", the second dimension, is characterized by friendships with members of his/her staff.

Later studies employing different methodologies in a variety of industrial and military settings found very similar results (Schriesheim, House, and Kerr, 1976; Kerr, Schriesheim, Murphy, and Stogdill, 1974; Reddin, 1970). Generalization to higher education must be tentative for two reasons. First, "departments themselves have been resistant and almost invulnerable to attempts to introduce scientific management into the university" stated McCarthy (1972, p.1). This resistance not only generates criticism of evaluation in higher education, but may also suggest that new principles of management will be needed. Secondly, faculty members do not occupy the same subordinate role as that found in many industrial and military settings. In fact, the faculty scholar is often regarded as the most prestigious individual on the campus, and it is not unusual for leading faculty members to be better paid than their administrative superiors. How this will affect the generalization of previous knowledge is not clear. McCarthy's findings (1972), based on an adaptation of the Halpin and Winer (1957) technique, suggest that such generalization may be more justified than is commonly assumed.



McCarthy based part of his original instrument on 30 items from Hemphill and Coons' (1957) Leader Behavior Description Questionnaire, the same instrument studied by Halpin and Winer. He also devised 10 original items. In addition to relating scores on "initiating structure" and "consideration" to performance ratings, McCarthy examined the relationship of each behavior item to each of 18 performance ratings. On the basis of these findings, Hoyt (1976) eliminated seven items which were generally unrelated to performance ratings. He also developed four a priori scales from the remaining 33 items:

1. Structuring, which was very similar to Initiating Structure.
2. Sensitivity to Faculty Needs was quite comparable to Consideration.
3. Openness to Change/Action, a set of items reflecting a willingness to consider alternatives and a tendency toward decisiveness.
4. Respect for Faculty Opinion, composed of items reflecting tendencies to seek out and act upon faculty ideas and to keep faculty informed.

These a priori scales had estimated reliabilities ranging from .82 to .91. These were highly intercorrelated, however, suggesting the desirability of further statistical refinement.

A final point with respect to administrative styles is Schroeder's (1969) finding that size of the institution, type of college, and rank of the faculty were all unrelated to leader behaviors. This finding provides justification for using data from several universities to examine the structure of administrative behaviors.

### Predicting Effectiveness

Relating the department head's behavior to his or her performance on departmental objectives is the key to formative evaluation (Dressel, 1976). This is the type of feedback which will allow the department administrator to focus his or her attention on behaviors that are related to below average performance.

Much research has supported strong positive relationships between both Initiating Structure and Consideration to different measures of effectiveness. Hemphill (1955) found both of these styles moderately correlated with the reputational ranking of the department. Fiedler's (1967) model of leadership effectiveness was modified by Reddin (1970) to provide measures of leadership equivalent to Initiating Structure and Consideration. Again, both were related to effectiveness of managers in industrial settings. Other research has supported the idea that high levels of both of these administrative traits are necessary for maximal performance (Yukl, 1971; Fleishman and Simmons, 1970; Halpin, 1957).

An increased emphasis upon human relations in management has strengthened the importance of Consideration as an administrative style. This is reflected in studies of important characteristics of department heads (McLaughlin et al, 1975; Borrevik, 1972; Siever et al, 1972; Gerber, 1967). The importance of faculty morale also lends emphasis to this factor. In a study of faculty participation in administration, Gardener (1971) stressed the importance of the interpersonal relationship between the faculty and the department head. Powers (1973) also found that high scores on leader behavior are correlated highly with morale.

More recent evidence suggests that although Consideration does improve effectiveness, it may not be a necessary condition for effective performance. It was found to moderate the effect of Initiating Structure on subordinate's morale in an industrial setting (House, Filley, and Kerk, 1971). Since morale is an important concern for most department heads, this finding may have direct implications for effectiveness.

In a comprehensive review of the literature dealing with Consideration and Initiating Structure, Kerr Schriesheim, Murphy, and Stogdill (1974) noted ambiguity in the findings relating these leadership styles to effectiveness. Graen, Dansereau, and Minami (1972) cited some instances where Consideration was negatively related to effectiveness. Fleishman and Harris (1962, p. 54) offered an explanation which agrees with Kerr and associates' (1974) analysis of the conflicting results: "under 'low Consideration' climates, high Structure is seen as threatening and restrictive by subordinates, but under 'high Consideration' climates this same Structure is seen as supportive and helpful". Thus, Consideration may act as a moderator for Structure.

Additional evidence supporting this concept of Consideration as a moderating variable is offered by Steger, Woodhouse, and Goocey (1973). In a study of mental health clinic managers, they discovered that the most effective manager was the one who combined empathy with administrative skills. However, contrary to common expectations, the manager who possessed administrative skills but lacked empathy was nearly as effective as the manager with both. The importance of this finding is enhanced by the fact that the empathetic manager

low in administrative skills was much less effective than the other two types. Thus, interpersonal relations may occupy a less significant role than previously thought.

McClelland and Burnham (1975) strongly support such a conclusion, contending that too much emphasis upon interpersonal relations will decrease effectiveness regardless of administrative competence. In an industrial setting, they found that a moderate emphasis on interpersonal relations when combined with administrative skills is substantially more effective than either a high or low emphasis. Such managers are perceived as being fairer than: 1) the "good guy" who wants to stay on friendly terms with everyone or 2) the manager with the "reputation of being ready to march over his grandmother if she stood between him and advancement". Since considerable evidence supports the moderating effect of interpersonal skills, attention should be focused on their role in the effectiveness of academic department heads.

Administrative behaviors alone, however, do not totally account for the effectiveness of department heads. In fact, most of the studies in this section reported only moderate predictive relationships. Types of evidence which may usefully augment such ratings have been identified by Dressel (1976): 1) reports of typical incidents which have given rise to a rater's reaction and 2) interviews conducted by outside, unbiased evaluators or by senior professors or professors emeriti. Hoyt's (1976) revision of McCarthy's (1972) instrument urges the faculty member to make written comments about selected aspects of performance to provide supplementary information. Similarly, the revised form provides the department head with the opportunity to

identify extenuating circumstances which may interfere with effectiveness.

Of course, the ability to successfully predict department head effectiveness is only an intermediate goal. The ultimate purpose is to identify characteristics related to the successful performance of a particular function. Meaningful feedback of such information should enable the department head to improve administrative effectiveness.

## CHAPTER 3

### METHODOLOGY

#### Sample

Four large public universities were selected for this study on the basis of their willingness to participate in a department head evaluation system. At Kansas State University, approximately half of the department heads volunteered to participate in this system. Although the other three institutions will not be identified at their request, they were all large public universities, offering Ph.D.s in a number of fields. At University A, located in the eastern United States, this evaluation was a part of a self-improvement program for which one third of the department heads volunteered. From the south, University B required participation of all department heads as part of their administrative development. It was also required at University C as one aspect of routine departmental reviews; only about one-fourth of the department heads were involved since the review is conducted quadrennially on a rotating basis. This information is summarized in Table 1.

While the conditions of participation were not identical, for purposes of this investigation it was assumed that the differences were not important enough to justify separate analyses of each data set. No assumptions were made about how representative these institutions were of the population of institutions of higher education.

Table 1

## The Sample of Department Heads From Each University

<u>University</u>	<u>Location</u>	<u>Number Participating</u>	<u>Approximate Percentage Participating</u>	<u>Number Used in Analyses<sup>a</sup></u>
Kansas State	Midwest	27	50%	26
A	East	38	33%	33
B	South	25	100%	21
C	Midwest	23	25%	23
<u>Total</u>		<u>113</u>		<u>103</u>

<sup>a</sup>Those departments with less than five faculty responding were excluded from the sample.

However, it was assumed that the pattern of relationships discovered in this investigation would be representative of that which characterizes complex universities as a group.

To insure stability in the ratings, those department heads rated by fewer than five faculty members were excluded from the sample. Table 1 also describes the consequences of this decision.

The second "samples" of interest are the faculty members of each department who supplied ratings of their head. Unfortunately, the number of faculty eligible to rate the department head was only available from two institutions: Kansas State University and University B. In these institutions, the overall participation rate was 82 percent. Representatives from the other institutions indicated that the response rates were nearly 100 percent.

Table 2 gives the number of faculty evaluating each department head and the percentage of faculty participating in each department (when known). These percentages are similar to those in McCarthy's (1972) initial study.

### Measures

Importance. The department head rated the importance of the 15 departmental functions used in Hoyt's (1976) revision of McCarthy's (1972) instrument. Faculty members were asked to rate how important they felt each of the functions should be for their head. Both sets of ratings were made on the following scale: (1) not important, (2) only so-so, (3) fairly important, (4) quite important, and (5) essential.

Performance. Each faculty member was also asked to judge how effectively the department head had performed each function during the previous 12 months. Respondents were urged not to rate an item if they felt



Table 2

## The Sample of Faculty From Each Department

Kansas State University				University A	
Department Code	Number of Faculty		Percentage Participating	Department Code	Number of Faculty Participating
Eligible	Participating				
1	38	33	87	27	12
2	26	24	92	28	21
3	20	14	70	29	28
4	8	6	75	30	18
5	15	10	67	31	5
6	20	16	80	32	12
7	18	14	78	33	7
8	15	13	87	34	16
9	13	11	85	35	13
10	30	26	87	36	8
11	12	10	83	37	6
12	9	7	78	38	6
13	12	8	67	39	10
14	13	9	69	40	7
15	16	11	69	41	10
16	14	8	57	42	7
17	15	9	60	43	15
18	8	5	62	44	6
19	8	6	75	45	7
20	13	8	62	46	19
21	6	5	83	47	6
22	14	10	71	48	9
23	25	16	64	49	9
24	27	19	70	50	8
25	8	7	88	51	19
26	10	7	70	52	5
				53	5
				54	5
				55	6
				56	17
				57	6
				58	17
				59	29

Table 2 (continued)

University B				University C	
Department Code	Number of Faculty Eligible	Number of Faculty Participating	Percentage Participating	Department Code	Number of Faculty Participating
60	9	9	100	81	9
61	18	18	100	82	13
62	20	20	100	83	14
63	9	9	100	84	10
64	6	5	83	85	20
65	19	19	100	86	5
66	13	13	100	87	9
67	11	11	100	88	16
68	12	10	83	89	18
69	16	15	94	90	30
70	14	13	93	91	7
71	45	42	93	92	16
72	40	26	65	93	18
73	12	10	83	94	14
74	24	20	83	95	5
75	33	29	88	96	19
76	7	7	100	97	14
77	21	20	95	98	16
78	8	7	88	99	15
79	20	17	85	100	7
80	12	11	92	101	24
				102	7
				103	10

they could not make a valid judgment. Ratings were made on the following five point scale: (1) poor, (2) only so-so, (3) in between, (4) good, and (5) outstanding.

Characteristic Behaviors. A final set of ratings were made by the faculty members to provide measures of the head's administrative behavior. The list of administrative behaviors was prepared by Hoyt (1976) on the basis of previous experience with McCarthy's instrument and the literature cited in Chapter 2. These 33 behavioral statements were used to describe the head on a five point scale: (1) hardly ever (not at all descriptive), (2) less than half the time, (3) about half the time, (4) more than half the time, and (5) almost always (very descriptive).

Departmental Characteristics. The department head responded to five questions about features of the department: percentage of tenured faculty, facilities, frequency of faculty meetings, years of experience as head, and the conditions of the department head's appointment. Such characteristics were believed to moderate effectiveness or administrative behavior.

Two other characteristics of the department concern agreement regarding the importance of the 15 responsibilities: 1) the degree of agreement among the faculty members and 2) the degree of agreement between the faculty as a whole and the department head. McCarthy (1972) devised a measure of each comparison: harmony and consensus.

Harmony, the measure of agreement among the faculty, was computed by summing the standard deviations of faculty ratings of importance for the 15 activities. Thus, the higher the score, the lower the harmony.

A more refined measure was proposed for this investigation. Ebel's (1951) intraclass correlation coefficient describes the agreement among judges asked to rate the performance of a number of subjects on a task. Conceptually, this is similar to the faculty members' ratings of the department head's performance on a number of functions.

Basically, the intraclass correlation coefficient is computed from variance estimates obtained by performing an analysis of variance on the matrix of ratings for each function. The coefficient is a ratio of the variance between the ratings of the 15 functions to the total variance. The larger the coefficient, the greater the agreement among the faculty. Appendix A contains a more complete explanation of this measure. Conceptually, this measure seems to have two advantages. First, its practical range is similar to that of the well known Pearson correlation and therefore lends itself to easy interpretation. Secondly, it more sensitively reflects the variance in ratings given on a particular item than does the harmony measure.

McCarthy's measure of consensus focused on the agreement between the faculty and the department head on importance. It was computed by summing the absolute differences between the department head's ratings of importance and the corresponding average faculty ratings for the 15 functions. The higher the score, the lower the consensus. McCarthy's measure did not allow for differences in frame of reference between the department head and the faculty.

To correct this problem, Hoyt (1975) proposed a standardized T-score approach. A T-score was computed for each importance rating made by the department head. This was also done for each of the average faculty

ratings of importance. Hoyt's proposed measure was obtained by averaging the absolute differences between the department head T-score and the average faculty T-score over the 15 functions. The higher the score, the lower the agreement between the faculty and the department head. This measure was unbounded, difficult to understand, and therefore hard to interpret.

A simple Pearson product-moment correlation of the department head's importance ratings with the average faculty ratings of importance will be used in this study. Differences in frames of reference will not affect this measure; it is bounded, and its calculation and interpretation are straightforward.

### Data Collection

Each university handled the arrangements for its department heads to participate in the evaluation system. At Kansas State University, all department heads were invited to participate. Other institutions informed their department heads of the evaluation as described earlier in this chapter. A representative of each institution had considerable contact with the Office of Educational Resources regarding the evaluation procedures.

Separate instruments were used to collect the ratings from the department head and from the faculty. Initially, all participating department heads were sent a cover letter of instructions, an approval form, and the instrument on which they gave their ratings. Copies of these forms appear in Appendix B.

The instrument for collecting the faculty ratings was then sent to each faculty member identified by the department head. A cover letter explained the process and assured the faculty member of the anonymity of their responses and comments. Also emphasized was the fact that the

group results would be given only to the department head. Appendix C contains copies of these materials.

All instruments were returned to the KSU Office of Educational Resources, either directly or through the representative of the particular institution. The data were then coded and transferred to disk storage at the KSU Computing Center. Computer analyses of the data produced a summary information report which was returned to the department head along with an interpretive manual. Examples of the feedback materials are included in Appendix D.

### Hypotheses

Hypothesis 1. Faculty members can make reliable judgments of importance, performance, and behavior regarding the functioning of the head of their department.

Two separate procedures were used to test this hypothesis. First, the faculty in each of 48 departments containing at least 10 faculty members were divided into two groups of approximate equal size. The average ratings of the two groups were inter-correlated using the Pearson product-moment method for each group of measures: importance, performance, and behavioral characteristics. The correlation for each item was then adjusted by the Spearman-Brown prophecy formula to give an estimate of reliability. This hypothesis will be accepted for those measures with reliabilities of .80 or higher.

A second estimate of a measure's reliability was obtained by computing the intraclass correlation coefficient from the matrix of faculty member ratings grouped by department; this was done for each of the 63 measures. Ebel (1951) demonstrated that the intraclass correlation coefficient can be somewhat more conservative than the product-moment coefficient. It will be used to provide a check on

the estimate made from the subsample data.

Hypothesis 2. There is an underlying structure in the faculty members' ratings that will clarify the nature of the department head's job and the alternative administrative styles which might be followed.

Factor analysis was employed to test this hypothesis. A principal component factor analysis was performed on each of four groups of ratings: the department head's ratings of importance, and average faculty ratings of importance, performance, and behavioral characteristics. Average faculty ratings were used because the variation among faculty members was assumed to be of little importance in determining underlying structures. This assumption was also examined by performing a factor analysis on the individual ratings ( $N = 1,333$ ). The varimax rotation method was used. A moderately oblique rotation was also tried, since factors need not necessarily be orthogonal.

To further explore this hypothesis, internal consistency reliabilities were examined for measures suggested by the factor analyses. This hypothesis will be supported if relatively distinct factors can be found which: 1) aid in clarifying the underlying dimensions of the ratings, 2) are not inconsistent with the literature cited previously, and 3) are measured with satisfactory reliability.

Hypothesis 3. Faculty members' ratings of the head's performance can be predicted from their ratings of his/her behavior with sufficient accuracy that the latter can be recommended for diagnostic use.

Initially, the intercorrelations of performance and behavior ratings were examined. Correlations of .40 or greater were judged as supportive of the hypothesis.

An additional test of this hypothesis was made by using multiple regression procedures. The 15 performance ratings were each employed

as a dependent variable. Scores representing each reliable factor of administrative behavior (administrative style scores) were used as the independent variables in a stepwise multiple regression procedure. Such a procedure is justified since these scores were simply linear combinations of specific measures (Kerlinger, 1973). This hypothesis was supported if any or all of the beta weights were significant at or beyond the .05 level of probability.

Hypothesis 4. Differences in either performance or behaviors are unrelated to differences in characteristics of the department.

Five characteristics of the department were supplied by the department head. Each department could be classified as belonging to one of the particular response groups for each characteristic. However, for two of these characteristics the distribution was highly skewed. To avoid this uneven distribution several responses were collapsed into a single group. Thus, for the measure on frequency of faculty meetings, the responses "none", "1 or 2", and "3 to 5" were collapsed. On another measure, conditions of the department head's appointment, no distinction was made between election for a specific term and election for a non-specified term.

In addition to these five characteristics, two others were examined. These were the measures of agreement on the importance of departmental objectives: 1) agreement among faculty members and 2) agreement between the faculty and the department head. The response groups for both of these measures were formed by dividing the distribution of scores on each into three groups: 1) 0 to 29 percentile, 2) 30 to 69 percentile, and 3) 70 to 100 percentile.

Discriminant analysis was used to test this hypothesis. The set of performance measures and the set of administrative style scores were



used separately to try to discriminate among the response groups for each of the seven characteristics. The hypothesis was rejected for a particular characteristic if the discriminant power of a derived function, as measured by Wilk's lambda, was significant at the .05 level of probability.

## CHAPTER 4

### RESULTS

#### Descriptive Data

For each of the 15 functions of a department head three separate measures were obtained. The department head rated the importance of each of these functions. Faculty members separately rated how important they thought each function should be as well as the effectiveness with which the department head performed each. Descriptive results for these three types of ratings are summarized in Table 3.

The importance ratings were highly skewed. This was not unexpected, since the 15 functions were selected on the judgment of administrators and faculty members that they were the most vital activities of the department head. Hoyt (1976) had earlier eliminated three of McCarthy's 18 functions partially on the grounds that, in practice, they were not rated as important as the other fifteen.

Ratings of the department head's performance of these functions were much less skewed. The range of average performance ratings was from 3.42 to 3.89, and standard deviations were substantially higher than those for faculty ratings of importance.

Tables showing the inter-correlations among the performance ratings and among the importance ratings may be found in Appendix E. Correlations among the performance ratings were moderately high,

Table 3

Ratings by Department Heads and Faculty Members  
for 15 Department Head Functions  
(N=103 Departments)

Department Head Functions	Importance				Performance	
	Head		Faculty		Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
1. Guides faculty evaluation procedures	4.29	.74	4.21	.36	3.42	.54
2. Rewards faculty appropriately	4.68	.53	4.49	.33	3.59	.51
3. Guides organization and planning	4.38	.73	4.45	.35	3.64	.60
4. Allocates faculty responsibilities	4.25	.68	4.27	.37	3.84	.47
5. Faculty recruitment	4.51	.64	4.19	.42	3.89	.56
6. Fosters good teaching	4.50	.68	4.45	.34	3.62	.55
7. Stimulates research and scholarly activity	4.08	.88	4.17	.38	3.50	.63
8. Guides curriculum development	3.98	.78	4.07	.48	3.61	.60
9. Maintains faculty morale	4.26	.80	4.25	.39	3.44	.79
10. Fosters faculty development	4.14	.71	4.11	.34	3.63	.54
11. Communicates university expectations	4.26	.74	4.20	.41	3.95	.48
12. Communicates department's needs	4.86	.42	4.66	.24	3.95	.70
13. Facilitates extramural funding	3.37	.99	3.77	.42	3.28	.81
14. Improves department's image	3.93	.83	4.09	.39	3.77	.72
15. Encourages balance among specializations	4.08	.78	4.04	.39	3.73	.46

ranging from .23 to .79 and averaging .57. Correlations among importance ratings were lower, ranging from  $-.32$  to  $+.73$  and averaging .35.

Nearly all types of ratings are subject to the "halo effect" (Thorndike, 1971; Isaac & Michael, 1971; Anastasi, 1968); the rater's overall impression of the ratee tends to color all judgments, reducing the amount of discrimination which can be made among distinctively different characteristics. High inter-correlations suggest a significant "halo effect".

On the other hand, many human characteristics are inter-related non-spuriously. It would not be surprising if department heads who were superior in the design of faculty assessment procedures tended also to be superior in making merit recommendations; those who are effective in maintaining morale probably perform other functions better than those whose departments suffer serious morale problems. Therefore, the mere presence of significant inter-correlations does not prove that the halo effect destroyed the raters' ability to make discriminating, valid judgments.

The inter-correlations in Appendix E are based on average ratings by faculty members in each department. Even though the halo effect may significantly dilute each rater's discriminatory powers, there is a reasonable chance that the average ratings will still be usefully discriminatory; this would occur if the halo effect did not destroy all discrimination and if there was a tendency for positive and negative "halos" to cancel. The fact that, although almost all inter-correlations were positive, they varied widely and averaged below .60 suggests that a useful degree of discrimination was made despite the operation of the halo effect.

Another concern was ability (or willingness) of the faculty to distinguish between importance and performance. The correlations of the average importance ratings with the average performance ratings are shown in Table 4. Of particular interest is the diagonal of this matrix, since the main concern is with relationships between the two ratings of the same function. These correlations range from -0.02 to .42 with a median of 0.17; 11 of the 15 were significantly different from zero. Nonetheless, the diagonal correlations were sufficiently low to permit statistical analyses based on the assumption that "importance" and "performance" were different qualities.

The other measures obtained from the faculty were ratings of the head on 33 administrative behaviors. Table 5 provides the summary statistics. Note that items 4,14,16,17,18,24,25, and 27 are negatively worded. To put these items on the same scale as the others, it is necessary to subtract the mean from 6.00.

All but 6 of the 33 items averaged between 3.00 and 3.99. Standard deviations were above 0.5 on all but three items and above 0.6 on 16 of the 33, suggesting that the five-point rating scale permitted reasonable discrimination and provided a satisfactory ceiling and floor for the ratings.

Inter-correlations are shown in a table in Appendix E. Many were very high, with the maximum of  $\pm .88$ . However, there are also many low and non-significant correlations. The average correlation was .47. It appears that the previous conclusion regarding the halo effect holds equally well for this set of ratings.

### Tests of Hypotheses

Hypothesis 1. Faculty members can make reliable judgments of

Table 4

Faculty Importance Ratings Correlated with Performance Ratings  
for 15 Department Head Functions  
(N=103 Departments)

Importance		Performance														
		Function number														
Function number <sup>a</sup>		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1		16	04	12	-05	05	06	-11	08	-06	-01	-10	-10	-12	-02	05
2		15	03	-03	-04	02	-05	-20	-07	-17	-10	-05	-08	-24	-11	-06
3		-10	-06	12	01	08	12	-11	-11	-05	11	10	-03	-01	04	29
4		16	15	17	16	16	15	-04	18	01	18	22	02	02	08	34
5		01	02	16	-01	32	07	-02	12	03	06	18	02	05	02	17
6		03	03	13	-05	21	27	-05	14	-03	09	05	-06	03	01	19
7		-04	07	-10	-01	-18	-07	18	-14	-06	-02	-11	-11	02	-10	-21
8		02	-02	17	05	20	19	-14	27	02	12	18	-01	02	06	35
9		13	17	05	01	09	14	-09	06	01	11	10	-09	-11	-04	17
10		13	14	22	09	21	22	03	25	-01	22	22	14	11	08	22
11		13	16	04	10	08	16	-11	03	02	15	13	-03	-06	02	20
12		-02	09	06	12	10	07	-08	05	01	11	12	-02	-08	-02	20
13		-10	-07	-09	-16	06	-08	-03	06	-04	-03	-11	01	42	05	-14
14		08	16	28	12	24	25	01	30	04	21	17	10	16	17	32
15		23	15	24	01	23	22	-01	24	06	17	26	14	06	15	28

<sup>a</sup>Decimal points have been omitted. Correlations of magnitude .16 or greater are significant at the .05 level of probability.

Faculty Ratings of Behaviors Descriptive  
of Their Department Head  
(N=103 Departments)

Behavior	Descriptiveness	
	Mean	S.D.
1. Makes own attitudes clear	3.96	.53
2. Tries out new ideas with the faculty	3.59	.59
3. Assigns faculty to particular tasks	4.05	.48
(4) Works without a plan	(1.93)	.61
5. Maintains standards of performance	3.69	.53
6. Emphasizes deadlines	4.01	.60
7. Encourages use of uniform procedures	3.63	.56
8. Makes role understood by all	3.73	.55
9. Lets faculty know what's expected of them	3.66	.54
10. Sees that faculty work to capacity	3.36	.54
11. Sees that faculty work is coordinated	3.30	.61
12. Does little things to please	3.50	.76
13. Is easy to understand	3.91	.68
(14) Keeps to him/herself	(2.31)	.68
15. Looks out for personal welfare of faculty	3.65	.64
(16) Refuses to explain actions	(1.66)	.53
(17) Acts without consulting faculty	(2.13)	.57
(18) Slow to accept new ideas	(2.03)	.67
19. Treats all faculty as equal	3.95	.73
20. Is willing to make changes	3.98	.55
21. Puts faculty at ease in conversation	4.12	.63
22. Puts faculty suggestions into action	3.64	.46
23. Gets faculty approval on important matters	3.96	.61
(24) Postpones decisions unnecessarily	(1.79)	.58
(25) More a reactor than an initiator	(2.39)	.73
26. Welcomes faculty suggestions about department	4.15	.62
(27) Responds to a faculty clique	(2.03)	.67
28. Makes allowances for faculty problems	3.96	.52
29. Acknowledges good work	3.63	.63
30. Explains decisions	3.94	.53
31. Gains faculty input on important issues	4.14	.46
32. Stresses departmental accomplishments	3.89	.52
33. Stresses faculty morale	3.66	.71

Note: Items in ( ) are negatively worded, thus a low score is desirable.

importance, performance, and behavior regarding the functioning of the head of their department.

The first measure of reliability was a split-half correlation obtained from a subsample of large departments. Each of 48 departments having 10 or more responding faculty were divided in half. The mean ratings of the two groups were correlated for each function. This correlation was then adjusted using the Spearman-Brown prophecy formula to estimate the reliability for a department in which the mean number of faculty members was 13 (the average for all 103 departments).

The intraclass correlation coefficient, a slightly more conservative estimate, was also used to estimate reliability for all 103 departments. This was done primarily as a check on the split-half measure.

Table 6 shows both reliability measures for average faculty ratings of importance and performance. Since the minimally acceptable reliability figure was .80 (for the split-half measure), this hypothesis was rejected for 14 of the 15 importance ratings; average faculty judgments of importance apparently were unreliable.

Faculty members, however, appeared to be able to rate the department head's performance of these same functions more reliably. A split-half reliability of .80 was obtained on 8 of 15 functions, and 2 others were very close to this figure (0.79 for "fosters good teaching" and 0.78 for "fosters faculty development"). On the whole, the hypothesis was more tenable for performance ratings than for importance ratings.

Both estimates of reliability for average faculty ratings of 33 administrative behaviors are shown in Table 7. This hypothesis was accepted for 11 items, and for 11 additional items the split-half estimate varied from 0.76 to 0.79, suggesting a marginal acceptance



Table 6  
Reliabilities of Faculty Ratings of Department Head Functions  
(N=103 Departments)

Department Head Functions	Importance		Performance	
	Split-half <sup>a</sup>	Intraclass	Split-half <sup>a</sup>	Intraclass
1. Guides faculty evaluation procedures	.42	.44	.65	.60
2. Rewards faculty appropriately	.39	.50	.64	.51
3. Guides organization and planning	.53	.57	.81	.71
4. Allocates faculty responsibilities	.64	.65	.60	.55
5. Faculty recruitment	.69	.56	.85	.70
6. Fosters good teaching	.72	.54	.79	.66
7. Stimulates research and scholarly activity	.60	.59	.85	.71
8. Guides curriculum development	.85	.75	.83	.72
9. Maintains faculty morale	.74	.57	.89	.81
10. Fosters faculty development	.48	.47	.78	.57
11. Communicates university expectations	.75	.60	.72	.61
12. Communicates department's needs	.15	.28	.91	.75
13. Facilitates extramural funding	.75	.53	.81	.79
14. Improves department's image	.70	.57	.91	.81
15. Encourages balance among specializations	.67	.60	.66	.49

<sup>a</sup>Adjusted by the Spearman-Brown prophecy formula.

Reliabilities of Faculty Ratings of Behaviors  
(N=103 Departments)

Behavior	Reliability	
	Split-half <sup>a</sup>	Intraclass
1. Makes own attitudes clear	.78	.68
2. Tries out new ideas with the faculty	.80	.67
3. Assigns faculty to particular tasks	.65	.55
(4) Works without a plan	.77	.59
5. Maintains standards of performance	.73	.59
6. Emphasizes deadlines	.80	.74
7. Encourages use of uniform procedures	.74	.62
8. Makes role understood by all	.71	.59
9. Lets faculty know what's expected of them	.73	.62
10. Sees that faculty work to capacity	.69	.56
11. Sees that faculty work is coordinated	.80	.68
12. Does little things to please	.79	.74
13. Is easy to understand	.79	.76
(14) Keeps to him/herself	.89	.74
15. Looks out for personal welfare of faculty	.77	.64
(16) Refuses to explain actions	.81	.66
(17) Acts without consulting faculty	.80	.66
(18) Slow to accept new ideas	.86	.78
19. Treats all faculty as equal	.81	.75
20. Is willing to make changes	.78	.71
21. Puts faculty at ease in conversation	.71	.72
22. Puts faculty suggestions into action	.75	.64
23. Gets faculty approval on important matters	.82	.73
(24) Postpones decisions unnecessarily	.80	.69
(25) More a reactor than an initiator	.85	.76
26. Welcomes faculty suggestions about department	.77	.70
(27) Responds to a faculty clique	.64	.61
28. Makes allowances for faculty problems	.73	.59
29. Acknowledges good work	.78	.65
30. Explains decisions	.77	.64
31. Gains faculty input on important issues	.72	.56
32. Stresses departmental accomplishments	.78	.57
33. Stresses faculty morale	.77	.72

Note: Items in ( ) are negatively worded.

<sup>a</sup>Adjusted by the Spearman-Brown prophecy formula.

of the hypothesis. Only 11 items were rated with unacceptably low reliabilities.

Conclusions about the "accuracy" of ratings (in the sense of reliability) will be more defensible if they reflect both the correlational data of Tables 6 and 7 and the data regarding the variability of ratings given in Tables 3 and 5. Correlations are affected by the variability of the data. The standard error of measurement is the statistic used to take this into account.

How large a standard error is permissible before accuracy is unacceptably low? Again, the standard must be somewhat arbitrary. It was decided that if the 95 percent confidence interval exceeded 0.5 (5 percent of the total scale), the rating would be deemed "inaccurate". Thus, standard errors of measurement below .26 would be considered "accurate".

Of the 15 Importance ratings, only 2 failed to meet this level of accuracy (Rating #1 and Rating #2, whose standard errors were .27 and .26 respectively). For the performance ratings, eight had standard errors of .25 or less; standard errors were .26 for Ratings #3 and #9, .27 for #15, and from .30 to .35 for Ratings 1,2,4, and 13. The 33 behaviors were judged less accurately. Standard errors of less than .26 were found on 9 of them (numbers 1,14,16,17,18,22,30,31, and 32), while standard errors of .26 to .29 were found in 14 others (numbers 2,3,4,5,6,7,9,11,20,23,24,25, 26, and 28). Of the remainder, nine had standard errors of .30 to .35 (numbers 8,10,12,13,15,19,21,29, and 33) while one (number 27) had a standard error of .40.

Given these results, it can be concluded that satisfactory accuracy (in the reliability sense) was generally achieved on Importance ratings. Results for Performance ratings were marginally acceptable. But accuracy of ratings on most behavioral items needs further improvement. On the other hand, in no instance were standard errors so large as to preclude any further analyses.

Hypothesis 2. There is an underlying structure in the faculty members' ratings that will clarify the nature of the department head's job and the alternative administrative styles which might be followed.

A principal component factor analysis with varimax rotation was performed on the department head's ratings of importance. The same procedure was applied to three other sets of data -- the average faculty ratings of importance, performance, and administrative behaviors.

Table 8 shows factor loadings (after rotation) obtained from the analysis of the department head's ratings of importance. The items are grouped according to the factor on which they loaded most highly.

Factor 1 appears to include activities which stimulate the faculty to greater achievement; the other factors relate to departmental procedures, plans, and/or policies. Content of the other factors can be summarized as follows: 2) planning, 3) communication, 4) faculty assessment, 5) balancing the department, and 6) faculty recruitment. The factor loadings suggest relatively distinct factors; only two functions (6 and 11) load highly on more than one factor.

The 6 factors are fairly easily interpreted, and account for 65% of the variance. They provide one way to conceptualize the role of department head.

Table 9 provides similar information from the factor analysis of average faculty ratings of importance. Only 4 factors were derived, accounting for 70% of the variance.

A faculty assessment factor is the only factor common to both analyses. Two other factors contained 12 of the remaining 13 items. The first of these was composed of items which, in one way or another, attempted to meet faculty needs. The other consisted of items descriptive of the

Table 8  
Factor Loadings of Department Head Importance Ratings  
(N=103 Departments)  
-Varimax Rotation-

Department Head Functions	Rotated Factor Loadings for Factor:					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
7. Stimulate research/scholarly activity	.68	.03	-.02	.18	-.12	.20
10. Fosters faculty development	.61	-.01	.08	.12	.10	.07
13. Facilitates extramural funding	.47	-.07	.31	.02	-.12	.24
6. Fosters good teaching	.42	.42	.05	.07	-.03	-.15
9. Maintains faculty morale	.35	.15	.22	-.06	.09	-.05
8. Guides curriculum development	.07	.79	.10	-.08	.26	.05
3. Guides organization and planning	.01	.30	.08	.08	.04	.04
14. Improves department's image	.27	.12	.69	.02	.13	.00
12. Communicates department's needs	.05	.13	.64	.06	.02	.16
11. Communicates university expectations	-.01	.43	.45	.14	.17	-.09
1. Guides faculty evaluation procedures	.10	.23	.10	.72	.05	-.02
2. Rewards faculty appropriately	.10	-.05	.01	.62	.03	.13
15. Encourage balance among specializations	.05	.08	.10	.08	.81	.15
4. Allocates faculty responsibilities	-.04	.21	.06	.01	.38	-.12
5. Faculty recruitment	.16	.04	.10	.12	.03	.70
<u>Factor</u>	<u>Eigen Value</u>		<u>% of Variance Accounted For</u>			
1	3.16		21.0			
2	1.92		12.8			
3	1.39		9.2			
4	1.24		8.3			
5	1.10		7.3			
6	1.00		6.7			
<u>Total</u>			<u>65.3</u>			

Table 9  
Factor Loadings of Average Faculty Importance Ratings  
(N=103 Departments)  
-Varimax Rotation-

Department Head Functions	Rotated 1	Factor 2	Loadings 3	for Factor: 4
9. Maintains faculty morale	.81	.28	.19	-.01
11. Communicates university expectations	.78	.23	.23	-.07
4. Allocates faculty responsibilities	.75	.13	.26	-.15
12. Communicates department's needs	.67	.22	.28	.05
10. Fosters faculty development	.58	.08	.51	.03
15. Encourage balance among specializations	.45	.16	.43	-.14
1. Guides faculty evaluation procedures	.14	.79	.28	.02
2. Rewards faculty appropriately	.35	.74	-.06	.02
8. Guides curriculum development	.48	.04	.65	-.30
14. Improves department's image	.47	.20	.59	.01
6. Fosters good teaching	.51	.20	.58	.04
3. Guides organization and planning	.51	.03	.56	-.11
5. Faculty recruitment	.22	.14	.48	-.06
13. Facilitates extramural funding	-.02	-.04	.34	.26
7. Stimulates research/scholarly activity	-.05	.05	-.08	.89

Factor	Eigen Value	% of Variance Accounted For
1	6.81	45.4
2	1.47	9.8
3	1.30	8.6
4	.94	6.3
Total		70.1

chairperson's efforts to structure or lead the department. A single item (stimulating research/scholarly activity) loaded on the last factor. These factors were less distinct than those in the preceding analysis; several items loaded on more than one factor. Results in this analysis may be suspect because the basic correlations were attenuated by the limited range of ratings.

Since the factor structure of the preceding analysis was not very clear, a factor analysis was performed using individual ratings rather than average ratings. Results are shown in Table 10.

Unfortunately the three factors extracted accounted for only 50% of the variance. Two of the three factors were easy to interpret -- faculty assessment (Factor 2) and support for research (Factor 3). All other items loaded on the first factor. It is probable that this factor reflects the increased halo effect to which individual ratings are subject.

A final factor analysis of individual importance ratings was done using an oblique rotation to allow for moderately correlated factors (see Table 11).

Little information was obtained that could aid in conceptualizing importance ratings. Two factors were derived that accounted for less than half of the total variance. The second factor was the same as the factor relating to the support of research in the previous analysis. The first factor included all other items and accounted for the bulk of the variance; again, the finding probably reflects the operation of the halo effect. The two factors were correlated moderately at .55.

These attempts to determine an underlying structure that would aid in conceptualizing the role of the department head were only modestly successful. None of the analyses involving faculty ratings

Table 10  
 Factor Loadings for Individual Faculty Importance Ratings  
 (N=1,333 Faculty Members)  
 -Varimax Rotation-

Department Head Functions	Rotated Factor Loadings for Factor:		
	1	2	3
8. Guides curriculum development	.65	.09	.15
4. Allocates faculty responsibilities	.58	.29	.14
6. Fosters good teaching	.58	.23	.18
3. Guides organization and planning	.57	.25	.14
9. Maintains faculty morale	.54	.27	.16
14. Improves department's image	.52	.17	.37
11. Communicates university expectations	.52	.24	.20
10. Fosters faculty development	.50	.24	.25
15. Encourages balance among specializations	.49	.21	.28
5. Faculty recruitment	.45	.12	.17
12. Communicates department's needs	.44	.27	.30
2. Rewards faculty appropriately	.23	.83	.16
1. Guides faculty evaluation procedures	.29	.44	.14
13. Facilitates extramural funding	.16	.09	.75
7. Stimulates research/scholarly activity	.26	.21	.40
<hr/>			
<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variance Accounted For</u>	
1	5.70	38.0	
2	1.03	6.8	
3	.97	6.5	
<u>Total</u>		<u>51.3</u>	



Table 11  
 Factor Loadings for Individual Faculty Importance Ratings  
 (N=1,333 Faculty Members)  
 -Oblique Rotation-

Department Head Functions	Rotated Factor Loadings for Factor:	
	1	2
4. Allocates faculty responsibilities	.67	.30
6. Fosters good teaching	.64	.33
3. Guides organization and planning	.63	.29
14. Improves department's image	.63	.49
9. Maintains faculty morale	.63	.31
8. Guides curriculum development	.62	.31
10. Fosters faculty development	.61	.38
11. Communicates university expectations	.60	.34
15. Encourages balance among specializations	.59	.41
12. Communicates department's needs	.58	.42
2. Rewards faculty appropriately	.58	.33
1. Guides faculty evaluation procedures	.49	.27
5. Faculty recruitment	.49	.29
13. Facilitates extramural funding	.41	.76
7. Stimulates research/scholarly activity	.44	.48
<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variance Accounted For</u>
1	5.70	38.0
2	1.03	6.8
<u>Total</u>		<u>44.8</u>

of importance were satisfactory. When average ratings were used, correlations were undesirably attenuated by a severely restricted range; when individual ratings were used, a clear structure failed to emerge, probably because of the halo effect. The factor structure based on the department head's rating was reasonably satisfactory; but, given earlier results on reliability, there is grave doubt as to how stable such ratings may be (and, consequently, how stable the matrix of intercorrelations would be).

Average faculty ratings of performance should be relatively free of the deficiencies in importance ratings noted above and may, therefore, provide a better conceptualization of the department head's role. Factor analysis of the average faculty ratings of performance, using varimax rotation, provided the data shown in Table 12.

Three factors were derived that accounted for 74% of the variance. The first factor accounted for most of this variance; it included items that describe personnel management activities. The second factor included five items; a descriptive summary of this factor might be "planning and development". The remaining factor grouped four items which seem to have in common some concern for the department's reputation.

This factor structure seems to offer a better conceptualization of the 15 department head functions than did preceding analyses. Although several individual items loaded on more than one factor, for all but one, the loading on one factor was clearly higher than on any other.

To be consistent with the approach used previously, a factor analysis was also performed on the individual ratings of performance. The resultant factor structure is shown in Table 13. The three factors accounted for 61% of the total variance, but several of the items loaded nearly equally on two or more factors. The interpretation of these

Table 12  
 Factor Loadings for Average Faculty Performance Ratings  
 (N=103 Departments)  
 -Varimax Rotation-

Department Head Functions	Rotated Factor Loadings for Factor:		
	<u>1</u>	<u>2</u>	<u>3</u>
2. Rewards faculty appropriately	.82	.21	.32
9. Maintains faculty morale	.67	.37	.31
4. Allocates faculty responsibilities	.64	.47	.15
10. Fosters faculty development	.63	.37	.36
1. Guides faculty evaluation procedures	.63	.28	.37
11. Communicates university expectations	.46	.43	.38
8. Guides curriculum development	.23	.74	.36
3. Guides organization and planning	.39	.73	.37
6. Fosters good teaching	.43	.67	.27
15. Encourages balance among specializations	.42	.66	.06
5. Faculty recruitment	.16	.60	.48
13. Facilitates extramural funding	.22	.14	.74
12. Communicates department's needs	.38	.38	.66
14. Improves department's image	.47	.44	.60
7. Stimulates research/scholarly activity	.44	.31	.55
<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variance Accounted For</u>	
1	9.11	60.7	
2	1.05	7.0	
<u>3</u>	<u>.98</u>	<u>6.5</u>	
Total		74.2	

Table 13  
 Factor Loadings for Individual Faculty Performance Ratings  
 (N=1,333 Faculty Members)  
 -Varimax Rotation-

Department Head Functions	Rotated Factor Loadings for Factor:		
	1	2	3
3. Guides organization and planning	.68	.26	.27
8. Guides curriculum development	.66	.21	.27
6. Fosters good teaching	.62	.40	.18
4. Allocates faculty responsibilities	.57	.30	.26
15. Encourages balance among specializations	.54	.32	.27
9. Maintains faculty morale	.52	.41	.24
7. Stimulates research/scholarly activity	.47	.43	.25
11. Communicates university expectations	.45	.22	.41
5. Faculty recruitment	.37	.30	.35
2. Rewards faculty appropriately	.29	.73	.27
1. Guides faculty evaluation procedures	.37	.57	.25
10. Fosters faculty development	.47	.53	.25
12. Communicates department's needs	.27	.21	.76
14. Improves department's image	.48	.29	.50
13. Facilitates extramural funding	.17	.39	.44

<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variance Accounted For</u>
1	7.42	49.4
2	.92	6.1
3	.83	5.6
Total		61.1

factors is not as clear-cut as it was when average ratings were used. The department reputation factor was similar to the third factor of this analysis. The second factor was composed of three items related to faculty assessment. All other items loaded most highly on the first factor. Again, the suspicion is that the halo effect may have obscured the underlying structure.

Results from applying an oblique solution were consistent with this hypothesis. Only one factor, accounting for 50 percent of the variance, was derived.

The structure which emerged from analysis of the average performance ratings (Table 12) appeared to clarify the basic features of the department head's role. Consequently the hypothesis was judged to be tenable for the average faculty ratings of performance but not for either set of importance ratings.

The second part of this hypothesis concerned the identification of administrative approaches by analyzing faculty ratings of the 33 administrative behaviors. Again, principal component analysis was used and a varimax rotation was applied; rotated factor loadings are shown in Table 14.

Seventy-three percent of the total variance was accounted for by four factors. The first factor alone accounted for approximately 50% of the total variance. The 12 items loading most highly on this factor can be characterized as emphasizing democratic practices. The 10 items which loaded primarily on the second factor appear to depict efforts to organize and structure the department. On the third factor, the seven items loading most heavily also carried substantial factor loadings on Factor 1; their content suggests a concept like "Sensitivity to others", an interpersonal attribute which may well be related to the democratic attitudes identified by the first factor. The fact that additional variance was accounted

Table 14

Factor Loadings for Average Faculty Ratings of Behavior  
(N=103 Departments)  
-Varimax Rotation-

Behaviors	Rotated Factor Loadings for Factor:			
	1	2	3	4
(17) Acts without consulting faculty	-.88	-.16	-.15	-.07
23. Gets faculty approval on important matters	.88	.24	.18	-.03
31. Gains faculty input on important issues	.85	.20	.27	.10
19. Treats all faculty as equal	.82	.03	.41	.12
(16) Refuses to explain actions	-.78	-.02	-.30	-.30
26. Welcomes faculty suggestions about dept.	.72	.13	.40	.31
30. Explains decisions	.71	.32	.36	.28
20. Is willing to make changes	.62	-.01	.28	.57
22. Puts faculty suggestions into action	.61	.25	.36	.38
(18) Slow to accept new ideas	-.61	.08	-.23	-.53
(27) Responds to a faculty clique	-.58	-.19	-.15	-.25
13. Is easy to understand	.55	.28	.50	.20
7. Encourages use of uniform procedures	.17	.76	-.01	-.11
6. Emphasizes deadlines	-.18	.76	-.10	-.06
8. Makes role understood by all	.30	.74	.38	.23
9. Lets faculty know what's expected of them	.21	.73	.29	.26
11. Sees that faculty work is coordinated	.30	.70	.26	.32
10. Sees that faculty work to capacity	.09	.69	.23	.39
5. Maintains standards of performance	.31	.56	.14	.28
1. Makes own attitudes clear	.28	.44	.43	.20
3. Assigns faculty to particular tasks	-.08	.43	.10	.36
( 4) Works without a plan	-.36	-.43	.08	-.41
12. Does little things to please	.54	.17	.65	.07
21. Puts faculty at ease in conversation	.62	-.01	.63	.10
(14) Keeps to him/herself	-.36	-.05	-.62	-.30
33. Stresses faculty morale	.51	.26	.62	.33
29. Acknowledges good work	.39	.30	.59	.23
28. Makes allowances for faculty problems	.54	.09	.55	.18
15. Looks out for personal welfare of faculty	.48	.18	.51	.27
(25) More a reactor than an initiator	-.11	-.22	-.24	-.86
2. Tries out new ideas with the faculty	.36	.24	.21	.72
(24) Postpones decisions unnecessarily	-.23	-.48	-.11	-.56
32. Stresses departmental accomplishments	.08	.26	.38	.49

Factor	Eigen Value	% of Variance Accounted For
1	16.76	50.8
2	3.94	12.0
3	2.01	6.1
4	1.36	4.1
Total		73.0

Note: Items in ( ) are negatively worded.

for by the third factor argues that it should be kept separate from the first. Finally, a fairly distinct fourth factor emerged containing four items and accounting for 4.1 percent of the variance. The common element among these items appears to be the energy which the department head applies to his duties. An appropriate label for the factor might be "vigor".

Table 15 presents the results of a varimax rotation performed on the individual faculty ratings of the administrative behaviors. Three factors accounted for 53% of the total variance. The first factor included all of the positively worded items from the first, third and fourth factors from the analysis of the average ratings; in toto, this factor appears to resemble the "Consideration" factor identified in the Ohio State studies (Hemphill, 1955; Halpin and Winer, 1957). The nine items in the second factor were those included in the second factor of the average ratings, and correspond closely to the "Initiating Structure" items of the Ohio State studies. The third factor consisted exclusively of the negatively worded items.

An oblique rotation was also applied to these ratings. Nearly the same results were obtained as shown in Table 16, except that the order of derivation of the second and third factors was reversed.

For the purpose of identifying administrative styles of department head behavior, the results from the factor analysis of the average faculty ratings seem more useful than those from individual ratings. The "negative factor" which emerged from the latter may well reflect biases of the halo effect. Beyond that, while both analyses confirmed factors similar to Initiating Structure and Consideration, the first offered a refinement on Consideration, dividing it into "Demoractic Practice" and "Sensitivity to Faculty". In addition, it suggested a fourth factor, "Vigor", which may

Table 15

Factor Loadings for Individual Faculty Ratings of Behavior  
(N=1,333 Faculty Members)  
-Varimax Rotation-

Behaviors	Rotated Factor Loadings for Factor:		
	1	2	3
19. Treats all faculty as equal	.71	.12	-.19
26. Welcomes faculty suggestions about dept.	.70	.24	-.20
31. Gains faculty input on important issues	.68	.33	-.19
20. Is willing to make changes	.68	.20	-.21
21. Puts faculty at ease in conversation	.66	.15	-.23
30. Explains decisions	.66	.36	-.23
33. Stresses faculty morale	.64	.32	-.21
22. Puts faculty suggestions into action	.64	.33	-.10
12. Does little things to please	.62	.27	-.21
23. Gets faculty approval on important matters	.62	.28	-.16
29. Acknowledges good work	.61	.38	-.19
15. Looks out for personal welfare of faculty	.60	.33	-.13
13. Is easy to understand	.57	.33	-.29
2. Tries out new ideas with the faculty	.54	.35	-.20
28. Makes allowances for faculty problems	.52	.30	-.01
32. Stresses departmental accomplishments	.41	.35	-.04
6. Emphasizes deadlines	.11	.64	.03
9. Lets faculty know what's expected of them	.41	.63	-.21
8. Makes role understood by all	.36	.62	-.16
10. Sees that faculty work to capacity	.29	.61	-.06
11. Sees that faculty work is coordinated	.40	.57	-.17
7. Encourages use of uniform procedures	.13	.56	.04
5. Maintains standards of performance	.37	.55	-.11
3. Assigns faculty to particular tasks	.25	.46	.10
1. Makes own attitudes clear	.41	.46	-.21
(24) Postpones decisions unnecessarily	-.01	-.19	.67
(18) Slow to accept new ideas	-.30	.08	.67
(25) More a reactor than an initiator	-.08	-.14	.66
(16) Refuses to explain actions	-.30	.06	.62
(17) Acts without consulting faculty	-.23	.05	.60
(4) Works without a plan	.01	-.13	.60
(27) Responds to a faculty clique	-.30	-.04	.57
(14) Keeps to him/herself	-.24	.02	.53
	<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variance Accounted For</u>
	1	12.35	37.4
	2	3.26	9.9
	3	1.74	5.3
	Total		52.6

Note: Items in ( ) are negatively worded.



Factor Loadings for Individual Faculty Ratings of Behavior  
(N=1,333 Faculty Members)  
-Oblique Rotation-

Behaviors	Rotated Factor Loadings for Factor:		
	1	2	3
30. Explains decisions	.77	-.34	-.49
31. Gains faculty input on important issues	.76	-.31	-.48
26. Welcomes faculty suggestions about dept.	.76	-.32	-.37
33. Stresses faculty morale	.75	-.33	-.43
29. Acknowledges good work	.74	-.32	-.48
20. Is willing to make changes	.73	-.32	-.32
19. Treats all faculty as equal	.72	-.29	-.26
22. Puts faculty suggestions into action	.72	-.22	-.45
12. Does little things to please	.71	-.32	-.38
21. Puts faculty at ease in conversation	.70	-.33	-.28
15. Looks out for personal welfare of faculty	.70	-.25	-.43
13. Is easy to understand	.69	-.40	-.43
23. Gets faculty approval on important matters	.69	-.26	-.41
2. Tries out new ideas with the faculty	.67	-.32	-.43
28. Makes allowances for faculty problems	.58	-.11	-.39
1. Makes own attitudes clear	.58	-.31	-.52
32. Stresses departmental accomplishments	.51	-.13	-.41
(18) Slow to accept new ideas	-.39	.70	-.05
(25) More a reactor than an initiator	-.27	.69	.10
(24) Postpones decisions unnecessarily	-.21	.68	.16
(16) Refuses to explain actions	-.38	.64	-.01
(17) Acts without consulting faculty	-.31	.61	-.01
(27) Responds to a faculty clique	-.41	.61	.08
(4) Works without a plan	-.16	.60	.10
(14) Keeps to him/herself	-.32	.55	.01
9. Lets faculty know what's expected of them	.64	-.33	-.69
8. Makes role understood by all	.58	-.26	-.68
6. Emphasizes deadlines	.31	-.04	-.64
10. Sees that faculty work to capacity	.49	-.16	-.64
11. Sees that faculty work is coordinated	.60	-.28	-.62
5. Maintains standards of performance	.55	-.22	-.60
7. Encourages use of uniform procedures	.30	-.02	-.59
3. Assigns faculty to particular tasks	.37	.02	-.51
Correlations	1	2	
			Factor
			1
			2
			3
			Total
			Eigen Value
			% of Variance Accounted For
			12.35
			37.4
			3.26
			9.9
			1.74
			5.3
			52.6

Note: Items in ( ) are negatively worded.

help differentiate among administrative approaches. Given these findings, the hypothesis concerning the conceptualization of administrative styles was accepted.

The next step was to develop measures of these factors. Such measures are needed to examine the relationship of administrative styles to performance. Three measures were computed for comparison; each using an unweighted linear combination of a particular group of items. Negatively worded (and loaded) items were scored in reverse. The rules for item selection were as follows:

Type A: items which loaded greater than .40 (or less than -.40) on a particular factor were included; the same item may be included on more than one scale.

Type B: items with a factor score coefficient greater than .10 or less than -.10 were selected; the same item may appear on more than one scale.

Type C: only items loading most highly on the particular factor were included; a given item appears on only one scale.

The four style scores were computed by each of these methods. Inter-correlations among the factor scores for each type are shown in Table 17 along with the number of items in each factor score. The reliabilities also shown are measured by Coefficient Alpha, Cronbach's (1951) index of internal-consistency. Although the scores tended to be progressively more highly inter-correlated, the reliabilities were consistently high for all types. The Type C factor scores are simplest to compute and the easiest to explain. Although they are rather highly intercorrelated, this disadvantage is outweighed by their simplicity and reliability. For this reason, Type C scores will be used in further analyses of administrative styles.

Table 17

Intercorrelations and Reliabilities of Three Types of  
Administrative Behavior Factor Scores  
(N=103 Departments)

<u>Type A    Factor Scores</u>					<u>Number of items included</u>	<u>Reliability<sup>a</sup></u>
1	2	3	4			
1					17	.97
2	.39				11	.91
3	.64	.45			11	.95
4	.57	.39	.49		7	.88

<u>Type B    Factor Scores</u>					<u>Number of items included</u>	<u>Reliability<sup>a</sup></u>
1	2	3	4			
1					8	.95
2	.36				6	.88
3	.70	.46			7	.93
4	.61	.49	.60		3	.85

<u>Type C    Factor Scores</u>					<u>Number of items included</u>	<u>Reliability<sup>a</sup></u>
1	2	3	4			
1					12	.96
2	.52				10	.91
3	.85	.52			7	.93
4	.59	.66	.60		4	.86

Note: All correlations shown are significant at or beyond the .05 level of probability.

<sup>a</sup>Reliability was determined by Cronbach's coefficient alpha (1951).

In summary, the attempt to conceptualize the department head's role by analyzing importance ratings failed, whether these ratings were made by the department head or by the faculty. Low reliability, the limited range of scores, and the halo effect all may have contributed to this failure. A satisfactory underlying structure was found for performance ratings, however, which helped to clarify the role of the department head.

An analysis of administrative behavior ratings also yielded an underlying structure which suggested four basic administrative styles or approaches. A reasonably simple and satisfactory method of computing a summary score for each factor was identified.

The items included in the factors accepted for conceptualization purposes are listed below:

#### Performance of Department Head Functions

##### I. Personnel Management

1. Guides faculty evaluation procedures
2. Rewards faculty appropriately
4. Allocates faculty responsibilities
9. Maintains faculty morale
10. Fosters faculty development
11. Communicates university expectations

##### II. Department Planning and Development

3. Guides organization and planning
5. Faculty recruitment
6. Fosters good teaching
8. Guides curriculum development
15. Encourages balance among specializations

### III. Building the Department's Reputation

- 7. Stimulates research/scholarly activity.
- 12. Communicates department's needs
- 13. Facilitates extramural funding
- 14. Improves department's image

### Administrative Styles

#### I. Democratic Practices

- 13. Is easy to understand
- (16).Refuses to explain actions
- (17).Acts without consulting faculty
- (18).Slow to accept new ideas
- 19. Treats all faculty as equals
- 20. Willing to make changes
- 22. Puts faculty suggestions into action
- 23. Gets faculty approval on important matters
- 26. Welcomes faculty suggestions about the department
- (27).Responds to a faculty clique
- 30. Explains decisions
- 31. Gains faculty input on important issues

#### II. Structuring

- 1. Makes own attitudes clear
- 3. Assigns faculty to particular tasks
- (4).Works without a plan
- 5. Maintains standards of performance
- 6. Emphasizes deadlines

- 7. Encourages use of uniform procedures
- 8. Makes role understood by all
- 9. Let's faculty know what's expected
- 10. Sees that faculty work is to capacity
- 11. Sees that faculty work is coordinated

### III. Interpersonal Sensitivity

- 12. Does little things to please
- (14). Keeps to him/herself
- 15. Looks out for personal welfare of faculty
- 21. Puts faculty at ease in conversation
- 28. Makes allowances for faculty problems
- 29. Acknowledges good work
- 33. Stresses faculty morale

### IV. Vigor

- 2. Tries out new ideas with faculty
- (24). Postpones decisions unnecessarily
- (25). More a reactor than initiator
- 32. Stresses departmental accomplishments

Hypothesis 3. Faculty member's ratings of the head's performance can be predicted from their ratings of his/her behavior with sufficient accuracy that the latter can be recommended for diagnostic use.

The initial test of this hypothesis required correlating average ratings on each administrative behavior item with those on each performance item. Table 18 supplies the results. It also shows the frequency of low (.40-.54), moderate (.55-.69), and high (.70+) correlations for each behavior item. The latter information provides an initial index of

Table 18

Faculty Behavior Ratings Correlated with Performance Ratings  
(N=103 Departments)

Behavior number <sup>a</sup>	Performance Function number															Predictive Correlations <sup>b</sup>		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	HI	MED	LO
1	38	43	40	44	33	39	35	32	54	47	58	45	31	44	45	0	1	8
2	49	49	64	51	56	60	57	66	58	53	56	66	48	64	48	0	9	6
3	42	29	34	33	25	39	38	33	30	30	42	42	18	43	39	0	0	4
(4)	-47	-47	-68	-52	-48	-52	-42	-64	-37	-44	-42	-50	-25	-52	-38	0	2	10
5	54	57	58	55	46	64	46	48	51	45	53	46	24	59	53	0	5	9
6	18	06	36	16	14	24	-01	24	-07	13	28	07	-17	10	35	0	0	0
7	30	26	43	34	21	40	10	28	21	28	44	21	-09	24	44	0	0	4
8	61	61	63	57	38	60	46	50	59	65	72	64	31	58	58	1	10	2
9	63	63	63	59	42	56	46	48	54	60	60	54	30	52	55	0	8	6
10	53	54	59	54	46	57	40	52	40	57	58	59	29	52	58	0	8	6
11	57	61	75	65	54	67	61	60	57	72	69	63	39	63	72	3	10	1
12	50	64	53	57	38	59	46	38	78	64	40	41	33	55	42	1	5	6
13	61	63	53	56	38	62	49	47	82	56	58	57	35	61	42	1	8	4
(14)	-44	-41	-30	-34	-36	-45	-43	-26	-64	-48	-39	-44	-39	-48	-31	0	1	7
15	54	68	56	61	46	60	50	45	71	68	37	50	49	57	44	1	6	7
(16)	-44	-54	-46	-50	-38	-47	-47	-39	-74	-52	-47	-55	-42	-53	-31	1	1	10
(17)	-40	-52	-50	-47	-36	-50	-45	-41	-66	-54	-47	-43	-30	-49	-36	1	0	11
(18)	-48	-48	-56	-38	-51	-54	-63	-50	-60	-52	-40	-61	-53	-63	-33	0	5	8
19	45	58	47	52	40	49	44	34	77	57	41	41	39	54	37	1	2	9
20	48	58	55	47	45	49	57	48	64	52	42	59	49	60	37	0	6	8
21	50	54	41	46	35	46	43	29	78	55	43	45	35	50	28	1	1	9
22	55	66	64	56	45	58	52	49	72	67	56	62	44	64	46	1	9	5
23	36	50	52	50	36	51	34	35	64	53	47	38	20	44	38	0	1	7
(24)	-55	-49	-64	-56	-46	-58	-54	-55	-49	-51	-58	-66	-39	-69	-43	0	8	6
(25)	-54	-50	-58	-45	-58	-50	-61	-62	-48	-46	-47	-70	-58	-69	-32	1	6	7
26	49	52	58	50	46	55	53	43	73	58	49	59	45	59	35	1	5	8
(27)	-22	-39	-45	-50	-39	-42	-41	-36	-51	-53	-39	-34	-28	-46	-53	0	0	8
28	41	47	42	49	45	47	36	35	66	57	42	41	43	46	48	0	2	11
29	58	63	52	44	33	52	55	29	62	63	47	47	44	55	38	0	6	6
30	52	59	61	60	49	56	54	48	75	61	64	60	40	62	49	1	8	6
31	40	52	52	51	40	48	45	40	70	60	53	47	36	53	41	1	1	12
32	50	41	53	40	46	40	46	43	38	40	47	52	36	52	31	0	0	12
33	66	66	64	59	52	66	56	52	84	64	59	61	39	70	48	2	9	3

<sup>a</sup>Items in ( ) are negatively worded.

Note: Decimals have been omitted.

<sup>b</sup>LO=.40-.54 MED=.55-.69 HI=.70+

Correlations of magnitude .16 or greater are significant at .05

diagnostic potency of each behavior item.

Most of the correlations were moderate with a few exceeding .70 or  $-.70$ . Of the 495 correlations, only 9 failed to reach the .05 level of significance. Clearly, the two sets of ratings were related. Nearly all of the behavior items were correlated .40 or higher with at least eight of the performance ratings. The exceptions were behavior items 3, 6, and 7, which correlated  $\pm .40$  or higher with four or fewer performance items. Because of their dubious predictive power, these items were excluded from further analyses.

These exclusions affect only the second administrative style factor, Structuring. Table 19 summarizes the Type C factor score information after items 3, 6, and 7 were excluded from the second factor. The reliability of the second factor only decreased from .91 to .90; the correlations with factors 1, 3, and 4 all increased slightly.

Multiple regression procedures were used as a further test of this hypothesis. Adjusted Type C factor scores (Table 19) were used as the independent variables. Fifteen stepwise multiple regression analyses were performed using the average performance rating of a function as the dependent variable in each case.

Table 20 shows the significant beta weights and associated zero order correlations. Also shown is the multiple correlation resulting from optimally combining the significant predictors. These results offer considerable support for the hypothesis; very substantial relationships existed between administrative style scores and performance ratings. The multiple correlations ranged from .58 to .87 and averaged .68. For all but one of the functions, 40% or more of the variance was accounted for by variation in style scores. And for the exception, "Facilities extramural funding", over a third of the variance was explained.



Table 19  
Inter-correlations and Reliabilities of  
Adjusted Administrative Behavior  
Factor Scores  
(N=103 Departments)

	Correlations Adjusted Factor Scores <sup>a</sup>				Number of items included	Reliability <sup>b</sup>	Mean	S.D.
	1	2	3	4				
1					12	.96	47.81	5.96
2	.63				7	.90	25.78	3.12
3	.85	.62			7	.93	26.22	3.87
4	.59	.73	.60		4	.86	15.30	2.06

<sup>a</sup>These differ from the Type C factor scores of Table 17 in that behavior items 3,6, and 7 have been excluded from the second factor.

<sup>b</sup>Reliability was determined by Cronbach's coefficient alpha (1951).

Table 20

Relationships of Administrative Behavior Factor Scores  
to Performance Ratings of Department Head Functions

(N=103 Departments)

Beta Weights, Simple Correlations and Multiple Rs

Performance Functions	Administrative Style								R
	1		2		3		4		
	$\beta$	r	$\beta$	r	$\beta$	r	$\beta$	r	
<u>Personnel Management</u>									
1. Guides faculty evaluation procedures			.46	.67	.33	.62			.72
2. Rewards faculty appropriately			.43	.69	.42	.68			.76
4. Allocates faculty responsibilities	.27	.60	.52	.69					.72
9. Maintains faculty morale	.32	.82			.58	.85			.87
10. Fosters faculty development			.42	.70	.44	.71			.78
11. Communicates university expectations	.18	.57	.62	.73					.75
<u>Planning and Development</u>									
3. Guides organization and planning	.18	.63	.47	.76			.25	.70	.81
5. Faculty recruitment	.21	.50					.49	.61	.64
6. Fosters good teaching			.50	.71	.32	.64			.75
8. Guides curriculum development	.32	.64					.44	.67	.71
15. Encourages balance among specializations			.68	.68					.68
<u>Building Department's Reputation</u>									
7. Stimulates research/scholarly activity	.30	.58					.47	.65	.69
12. Communicates department's needs	.17	.60	.21	.68			.50	.78	.79
13. Facilitates extramural funding					.23	.47	.41	.54	.58
14. Improves department's image	.33	.66					.56	.75	.80

Note: All results shown are significant at or beyond the .05 level of probability.

All in all, the results offered considerable support for the hypo-<sup>65</sup>thesis. Individual item correlations were sufficiently high that the department head should be able to identify strengths (behaviors highly related to successful performance of a given function) and weaknesses (behaviors that are highly related to unsuccessfully performed functions). In addition, the multiple regression analyses should provide helpful clues on the dynamics of administrative functioning. Predictions of effectiveness were sufficiently accurate that the unsuccessful department head may find considerable help in comparing indices of his/her style with those of more successful colleagues.

Hypothesis 4. Differences in either performance or behaviors are unrelated to differences in characteristics of the department.

The department head provided information about the percentage of tenured faculty, department facilities, annual number of department meetings, his/her administrative experience, and the terms of his/her appointment. In addition, two measures of agreement about the importance of various functions were constructed. The intra-class correlation was used as a measure of agreement among the faculty. A Pearson product-moment correlation between the head's rating and the average faculty rating of importance was used as a measure of head-faculty agreement. Both this measure and Hoyt's T-score approach corrected a defect in McCarthy's measure of consensus. The proposed measure correlated .87 with the T-score measure and, since it was easier to compute and to explain, was accepted for this study. The distribution of each of the two agreement measures to be used are found in Appendix F.

Discriminant analysis was used to test this hypothesis. Performance ratings and administrative style scores were used separately to attempt to differentiate among groups formed by measures of each of these seven characteristics. Only results significant at or beyond the .05 level of

probability are shown in the following tables.

Table 21 summarizes results for departments with different percentages of tenured faculty members. Only one function of performance items differentiated significantly among departments classified in this way. The main discrimination was between departments with very few tenured faculty (less than 40%) and all other departments. Faculty members in the least tenured departments tended to give higher performance ratings on Rewarding the faculty and Allocating faculty responsibilities; they gave lower ratings on Guiding faculty evaluations and Maintaining faculty morale. Since performance ratings did significantly differentiate among departments with different tenure rates, the hypothesis was rejected in this instance.

A similar analysis was undertaken using administrative style scores. No function discriminated significantly; administrative styles did not differ as a function of tenure rate. Therefore, in this instance the hypothesis was supported.

Results for differences in the number of buildings in which a department is housed are not shown since no significant discriminant functions were derived. Thus the hypothesis was also supported for both performance ratings and administrative style scores for this characteristic.

Both performance and administrative style differentiated departments which differed in the number of annual faculty meetings. See Tables 22 and 23. As Table 22 shows, there was a regular and nearly linear progression of increased effectiveness as the number of faculty meetings decreased. Faculty members in departments with 0-5 meetings gave the highest performance ratings on all five discriminating variables (Guiding faculty evaluations, Maintaining faculty morale, Rewarding faculty, Stimulating research and scholarly activity, and Fostering faculty development). Department heads holding the most number of meetings received the lowest ratings on all of these except "rewarding the faculty appropriately", where the average

Table 21

Differentiation of Departments Differing in Tenure Rate  
on the Basis of Performance Ratings

Tenure Groups: Function	Performance Means				Standard. Coeff.
	Over 80% N=20	60-79% N=24	40-59% N=27	Under 40% N=29	
1. Guides faculty evaluation procedures	3.46	3.48	3.44	3.34	-.83
2. Rewards faculty appropriately	3.45	3.59	3.58	3.69	.94
4. Allocates faculty responsibilities	3.83	3.82	3.71	3.97	.62
8. Guides curriculum development	3.50	3.54	3.61	3.70	-.98
9. Maintains faculty morale	3.43	3.58	3.43	3.28	.41
Centroids in reduced space:	-.38	-.33	-.22	.74	

Table 22

Differentiation of Departments Differing in Frequency of Faculty Meetings  
on the Basis of Performance Ratings

Number of Faculty Meetings per year: Function	Performance Means			Standardized Coefficient
	0-5 N=19	6-9 N=28	10+ N=56	
1. Guides faculty evaluation procedures	3.66	3.49	3.31	-.78
2. Rewards faculty appropriately	3.70	3.56	3.57	1.08
7. Stimulates research/scholarly activity	3.79	3.60	3.35	-.53
9. Maintains faculty morale	3.73	3.56	3.27	-.54
10. Fosters faculty development	3.82	3.65	3.55	-.54
Centroids in reduced space:	-.68	-.28	.37	

and that for the intermediate group were nearly identical.

The hypothesis was also rejected for administrative styles (Table 23). Again department heads holding more than 10 faculty meetings were noticeably different. They were rated lower in democratic practices and lower in structuring than were heads holding fewer meetings. However, the standardized coefficient for the latter was negative. After the differentiating power of "Democratic Practice" had been taken into account and after the positive correlation between these two scores was considered, the relative contribution to group differentiation was negative for the "Structuring" score; i.e., after the Democratic Practice score was considered, higher scores on Structuring were more characteristic of heads who called many meetings.

Results for groups defined on the basis of the administrative experience of the head are presented in Table 24. Again, this hypothesis was rejected for performance ratings. Two significant functions were extracted. The first primarily differentiated first year department heads from those with experience; "beginners" received higher performance ratings on all four significant activities (Stimulates research/scholarly activity, Guides curriculum development, Communicates department's needs, and Improves department's image). The second function was difficult to interpret; it appeared to discriminate the second and fourth groups from the first and third.

The results suggest that new department heads may be given a "honeymoon" by the faculty. On the other hand, they may be more effective because they have not been worn down by the constant struggles which the departmental administrator encounters. This explanation is consistent with results for the administrative style variables. The one significant function contained a single significant score, that for "Vigor". The first year department head obtained the highest Vigor scores. These gradually decreased as the experience of the department head increased.

Table 23

Differentiation of Departments Differing in Frequency of Faculty Meetings  
on the Basis of Administrative Style Scores

Number of Faculty Meetings per year: Style	Style score Means			Standardized Coefficient
	0-5 N=19	6-9 N=28	10+ N=56	
1. Democratic Practice	50.40	49.22	46.21	1.22
2. Structuring	27.10	25.46	25.49	-.44
Centroids in reduced space:	.34	.34	-.28	

Table 24

Differentiation of Department Heads Differing in Experience  
on the Basis of Performance Ratings

Years experience: Function	Performance Means				Standardized Coefficients	
	First N=11	1-2 N=24	3-5 N=30	6+ N=38	1	2
7. Stimulate research/scholarly activity	3.91	3.67	3.40	3.36	-.63	.69
8. Guides curriculum develop- ment	4.28	3.60	3.55	3.47	1.07	-.29
12. Communicates department's needs	4.13	4.09	3.92	3.82	.24	.93
14. Improves department's image	4.11	3.74	3.90	3.60	.66	-1.45
Centroids in reduced space: 1)-1.23		-.13	.32	.19		
2) -.31		.45	-.38	.10		

Table 25 contains the results for discriminating between appointed department heads and elected chairpersons. Only 10 were elected, 82 were appointed by the dean. No information was available for the other eleven. One function was derived from performance ratings. In departments where the head was elected, the faculty gave lower performance ratings to "Facilitates extramural funding" but higher ratings to "Guides organization and planning", "Maintains faculty morale", and "Fosters faculty development". The coefficient for the latter was negative, however, indicating that, when all performance ratings were considered, a high rating on fostering faculty development was relatively more characteristic of heads than of chairpersons.

The hypothesis was also rejected on the basis of two administrative styles; see Table 26. Heads functioning as chairpersons were rated higher on both Interpersonal Sensitivity and Vigor.

Results of the attempt to differentiate departments according to the level of agreement among faculty importance ratings are shown in Table 27. In the analysis of performance ratings one discriminant function was found. Average performance ratings of two activities, "Guides Curriculum development" and "Fosters faculty development", were highest in departments whose faculty were least agreed. The trend of these means appeared to be non-linear; in fact, the intermediate agreement group received the lowest ratings on "Guides curriculum development". Department heads whose faculty members were most agreed were rated highest on the other two activities, "Guides planning and development" and "Fosters good teaching". Again, mean performance ratings were lowest for the middle level agreement group.

The centroids appeared to be linear (.64, -.10, and -.48 for the low, middle, and high groups, respectively). Essentially this means that the degree of faculty consensus was directly related to the relative effectiveness



Table 25

Differentiation of Department Heads and Department Chairpersons  
on the Basis of Performance Ratings

Function	Type:	Performance Means		Standardized Coefficient
		Head N=82	Chairperson N=10	
3. Guides organization and planning		3.61	4.07	.64
9. Maintains faculty morale		3.41	4.10	.89
10. Fosters faculty development		3.65	3.73	-.64
13. Facilitates extramural funding		3.33	3.22	-.41
Centroids in reduced space:		-.13	1.12	

Table 26

Differentiation of Department Heads and Department Chairpersons  
on the Basis of Administrative Style Scores

Style	Type:	Style Score Means		Standardized Coefficient
		Head N=82	Chairperson N=10	
3. Interpersonal Sensitivity		26.15	29.12	.50
4. Vigor		15.18	17.00	.63
Centroids in reduced space:		-.10	.89	

Table 27

Differentiation of Departments Differing in Agreement Among the Faculty  
About Importance on the Basis of Performance Ratings

Function	Performance Means			Standardized Coefficient
	0-29 N=30	30-69 N=41	70-100 N=32	
3. Guides organization and planning	3.67	3.56	3.72	-.53
6. Fosters good teaching	3.56	3.54	3.78	-.99
8. Guides curriculum development	3.74	3.47	3.66	.84
10. Fosters faculty development	3.76	3.58	3.56	.84
Centroids in reduced space:	.64	-.10	-.48	

Table 28

Differentiation of Departments Differing in Agreement Between the Head  
and the Faculty About Importance on the Basis of Performance Ratings

Function	Performance Means			Standardized Coefficient
	0-29 N=31	30-69 N=42	70-100 N=30	
1. Guides faculty evaluation procedures	3.41	3.40	3.47	-.67
2. Rewards faculty appropriately	3.62	3.62	3.52	.67
4. Allocates faculty responsibilities	3.79	3.86	3.87	-.46
5. Faculty recruitment	3.89	3.83	3.97	-.73
8. Guides curriculum development	3.62	3.68	3.50	.86
9. Maintains faculty morale	3.33	3.57	3.35	.44
12. Communicates department's needs	3.96	3.87	4.04	-.64
13. Facilitates extramural funding	3.48	3.29	3.04	.66
Centroids in reduced space:	.23	.38	-.76	

of the head in fostering teaching and guiding planning as opposed to fostering faculty development and guiding the curriculum. That is, if the sum of the first two means is subtracted from the sum of the last two means, the results form a linear trend (+.27, -.05, and -.28 for low, average, and high groups, respectively). Why this should be so is as unclear as why the performance of the middle group was generally the poorest.

This hypothesis was also rejected for administrative styles. The "Vigor" score was the only one which significantly discriminated among the three groups. Again, the trend was non-linear. The highest mean (15.82) was for the lowest agreement group, the next highest (15.25) for the highest agreement group, and the lowest (14.95) for the medium agreement group. Department heads tended to exhibit more vigor when the faculty were substantially divided or substantially united in their views of various administrative activities.

Differentiation among departments which differed in the level of head/faculty agreement was also achieved through a single function of performance ratings; see Table 28. A uniform trend among the mean performance ratings was not evident. On four activities (Guides faculty evaluations, Allocates faculty responsibilities, Faculty recruitment, and Communicates department's needs), heads in the high agreement group were rated highest; trends among the three groups were inconsistent for each activity. For two other activities (Guides curriculum development and Maintains faculty morale), the medium level agreement group was rated highest. And for Facilitates extramural funding and Rewards faculty appropriately, highest performance ratings were given to the lowest group.

Agreement on importance between the department head and the faculty was clearly related to faculty ratings of performance. But interpretations of these relationships were obscured by inconsistent findings for

various types of performance. The hypothesis was not rejected for administrative styles. The four scores revealed no significant discriminatory power.

To summarize findings relevant to this hypothesis, certain characteristics of the department were clearly related to performance ratings and administrative style. Six of the seven tests of the hypothesis which involved faculty ratings of performance were significant. The same was true for four of the seven tests involving administrative style scores. Therefore, the overall decision was to reject the hypothesis; differences in performance ratings and administrative styles were related to differences in characteristics of the departments.

## CHAPTER 5

### SUMMARY, CONCLUSIONS AND IMPLICATIONS

#### Summary

At each of four large public universities many department heads participated in an evaluation program designed to ultimately aid in improving effectiveness. Faculty members rated the importance of department head functions, the head's performance of those functions, and behavior designed to describe administrative styles. Importance of the functions were also rated by the head. Faculty ratings and written comments were made anonymously and the resulting summary report was returned only to the department head.

These data were analyzed for the purpose of refining the evaluation system. Several questions relevant to administrative theory were investigated. Specific hypotheses and the tests used to examine them are described below.

Hypothesis 1. Faculty members can make reliable judgments of importance, performance, and behavior regarding the functioning of the head of their department.

A subsample of departments with 10 or more faculty members was used to compute a split-half correlation which, when adjusted, served as an estimate of reliability. The hypothesis was accepted for measures with reliabilities of .80 or higher. A second estimate, the intra-class correlation coefficient, was computed from data supplied by

all departments. Standard errors of estimate were also computed.

Hypothesis 2. There is an underlying structure in the faculty members' ratings that will clarify the nature of the department head's job and the alternative administrative styles which might be followed.

Various factor analyses of both department head and faculty members' ratings were used to examine this hypothesis. Both average faculty ratings and individual ratings were subjected to principal component analysis. For the latter, oblique solutions were obtained and compared with orthogonal solutions. Support for the hypothesis was assumed if factors were found which: 1) were interpretable, 2) were generally consistent with previous research, and 3) were measured with satisfactory reliability.

Hypothesis 3. Faculty members' ratings of the head's performance can be predicted from their ratings of his or her behavior with sufficient accuracy that the latter can be recommended for diagnostic use.

The two sets of ratings were correlated to test this hypothesis. In addition, multiple regression procedures were used to predict performance ratings from administrative style scores. The hypothesis was considered supported if zero order correlations exceeded .40 and if beta weights were significant at the .05 level of probability.

Hypothesis 4. Differences in either performance or behaviors are unrelated to differences in characteristics of the department.

Two measures were constructed to reflect agreement on importance 1) among faculty members, and 2) between the faculty and the department head. Five other characteristics of the department were described by the department head. Performance ratings and administrative style

scores were used separately in multiple discriminant analyses to differentiate among departments which differed on a particular characteristic. The hypothesis was rejected if discriminant power, measured by Wilk's lambda, was significant at or beyond the .05 level of probability.

### Limitations of the Study

The assumption that data from the four universities could be legitimately combined was not tested. Previous research suggests that such an assumption is tenable, but the question merits specific attention in future investigations.

Another possible limitation was imposed by the variation in conditions under which department heads participated. Participation was required at two of the institutions, while it was voluntary at the other two. Such a difference may well affect institutional means, but would not necessarily affect correlations, the prime statistic used in this investigation.

A related point concerns the response rate. The percentage of faculty responding was generally well above the level commonly accepted in survey research. Differences of unknown magnitude and character may still exist between those who responded and those who didn't. Again, it seems unlikely that this shortcoming would seriously affect correlational data, although means may well have been affected.

It was assumed that faculty would respond thoughtfully and candidly. However, many factors may make such an assumption implausible; e.g., personality conflicts between the head and the faculty member, timing

of the evaluation in relation to merit increases, personal ambitions, or jealousies. By averaging the ratings across the faculty members in a department, it was believed that such biases would be reduced.

Even if this assumption were acceptable, a distinction should still be made between perceptions and reality. If the perceptions of the faculty are inconsistent with reality, neither the evaluation nor the suggestions for improvement would be valid. Anonymity of faculty responses (including written comments) was guaranteed to increase the possibility of obtaining objective responses.

The 15 functions obviously did not constitute an exhaustive list. Only the most commonly acknowledged duties were included. In certain instances, some other functions may be more critical.

Likewise, administrative behaviors critical to a given head or circumstance may not have been included. Again, such a limitation is not likely to be serious. The original instrument included 40 items, 7 of which were deleted as a result of McCarthy's (1972) findings on the basis of low relationships to performance measures. As a result of this study, three additional items were eliminated for a similar reason.

Finally, it is unfortunate that a second sample was not available for cross-validation of the multiple regression equations. "Shrinkage" is inevitable, and regression coefficients are frequently unstable. However, in view of the magnitude of the zero order correlations, it seems unlikely that the multiple R's would be seriously reduced in a cross-validation study.

Generally, these limitations seem unlikely to seriously affect the results. Nonetheless, they form a realistic framework for considering the major conclusions.



## Conclusions

Hypothesis 1. In toto, the ratings used in this study had satisfactory reliability; hypothesis 1 was supported. However, support for the hypothesis was weak for a number of individual items and for some of the statistical tests. Using the split-half technique, only one of the 15 faculty importance ratings had a reliability greater than .80. However, when standard errors were computed, all but two items exceeded the pre-established standard of accuracy.

In general, split-half reliabilities for performance ratings and for ratings of administrative techniques were higher than for importance ratings. Eight performance ratings had split-half reliabilities above .80 and two others had coefficients of .78 and .79; .60 was the smallest coefficient. Results of standard error analyses produced similar conclusions; there was a definite need to improve reliabilities for 5 of the 15 activities.

Twenty-two of the behaviors (administrative techniques) had split-half reliabilities above .75; 11 were above .80. The lowest coefficient was .64. When standard errors were computed, nine met the pre-determined standard of accuracy, 14 others were marginally accurate (standard errors of .26 to .29), and 10 were noticeably deficient.

Hypothesis 2. Although several of the analyses failed to clarify the roles of the department head, a useful conceptualization was suggested by a factor analysis of average faculty ratings of performance. Three relatively distinct types of responsibilities were identified: personnel management (functions which directly involve relationships with the faculty); planning and development (organization and direction); and building the department's reputation (stimulating visibility).

Four factors emerged from an analysis of the average faculty

ratings of the department head's behavior. These "administrative styles" were labelled democratic practice, structuring, interpersonal sensitivity, and vigor.

As a result of these analyses, relative coherent conceptualizations of administrative roles and processes emerged. Therefore, Hypothesis 2 was supported.

Hypothesis 3. This hypothesis was also supported. Faculty ratings of the department heads' behavior predicted their ratings of performance on each of the 15 functions. Only three behavior items were unrelated, or only modestly related, to performance ratings. When the other 30 items were correlated with the 15 performance means, 378 of the 450 correlations were above .40, 143 were above .55 and 18 were above .70.

Hypothesis 4. Contrary to the null hypothesis, ratings of performance and measures of administrative style were found to be generally related to the characteristics of the department selected for study; the hypothesis, then, was rejected. However, for one characteristic, the number of buildings in which the department was housed, the null hypothesis was supported.

Departments which differed in other characteristics were differentiated by performance ratings and, usually, by scores on the administrative style measures also. The findings can be summarized as follows:

1. In departments where less than 40% were tenured, department heads were rated as more effective in allocating faculty responsibilities. However, they were less effective in establishing evaluation procedures and maintaining faculty morale.

2. In departments where ten or more faculty meetings were held per year, department heads received low ratings on guiding faculty evaluations, maintaining faculty morale, fostering faculty development, stimulating research/scholarly activity, and rewarding the faculty. They were also rated low in the administrative scales of "Democratic Practice" and "Structuring".
3. First year department heads were given higher ratings than their more experienced colleagues on: "stimulating research/scholarly activity", "guides curriculum development", "communicates department's needs", and "improves department's image". They also scored higher on the "Vigor" scale.
4. Departmental chairpersons (elected by the faculty) were rated lower than heads in facilitating extramural funding. But they were judged as more effective on: "guides organization and planning", "maintains faculty morale", and "fosters faculty development". On administrative style measures, chairpersons averaged significantly higher than heads on both "Interpersonal Sensitivity" and "Vigor".
5. In departments where faculty agreement on importance was low, heads received high performance ratings on "guides curriculum development" and "fosters faculty development", but low ratings on "guides organization and planning" and "fosters good teaching". The Vigor scale was higher for both low agreement and high agreement departments than for those with an intermediate degree of faculty consensus.

relatively agreed on importance, the head was rated high on "guides faculty evaluations", "allocates faculty responsibilities", "faculty recruitment", and "communicates department's needs". However, this same group received relatively ineffective ratings on "guides curriculum development", "maintains faculty morale", "facilitates extramural funding", and "rewards faculty appropriately".

### Implications

#### For Administrative Practice and Improvement

McCarthy (1972) developed the first validated instruments for the evaluation of department heads. This revision and refinement of his work should help fill a significant void. Its establishment of underlying structures for conceptualizing the department head's role and for describing administrative behavior should facilitate the communication and interpretation of faculty ratings. This will be particularly true if functions included in a particular role or administrative style are listed together on the report prepared for the department head.

A significant development was the establishment of correlations between specific administrative behaviors and effectiveness ratings. These results permit the identification of specific strengths (behaviors predictive of high performance ratings) and weaknesses (behaviors predictive of low performance ratings) with respect to a particular function. Thus, the department head should be able to focus attention on relevant behavior.

The relationships of administrative style scores to performance ratings provide a type of content validation of the structures derived in the second hypothesis as well as a more macroscopic way of examining

improvement needs and strategies. Personnel management functions were best predicted by the Interpersonal Sensitivity and Structuring scales. That is, on functions relating to their needs, faculty members gave high performance ratings to department heads who established firm guidelines but still communicated a personal concern for the faculty. Democratic practice also contributed to the prediction of performance on these and other functions. This suggests that, regardless of the department head's emphases, willingness to listen to the faculty's suggestions and to operate in a fair and equitable manner is important.

Effectiveness in department planning and development was related to scores on the Structuring and Vigor scales. Evidently, performance on these tasks is facilitated by making expectations and guidelines explicit and by a willingness to act on proposals.

The task of building the department's reputation may assume added importance as university enrollments decline and resources become less available. While democratic practice was moderately predictive of success in this area, performance was best predicted by the Vigor score. This suggests that research and program funds are more likely to be captured by department heads who are decisive and committed to action.

These substantial predictive relationships appear to provide useful clues for developing improvement strategies. Obviously, first steps in changing involve the identification of functions needing improvement and of techniques or approaches relevant to particular types of accomplishments. These findings should make a useful contribution to the successful execution of such initial steps.

Improved feedback must be accompanied by a commitment of the department head, the faculty, and the institution if significant improvement in administrative effectiveness is to be realized. Otherwise, this type of evaluation can become as perfunctory as any other, to be used primarily to satisfy expectations of the faculty or a requirement of the dean. Given an appropriate atmosphere, successful change will be more likely if the department head is encouraged to examine his/her behavior in a way that is more supportive than threatening. Special administrative development seminars, offered on a volunteer basis and led by successful department heads might be one way to utilize the faculty feedback effectively.

#### For Higher Level Administrators

Deans and/or vice-presidents are continually faced with appointment or reappointment decisions concerning department heads; therefore, they must constantly make assessments or predictions of effectiveness. Although this evaluation system was designed as an aid to improvement, it conceivably could serve as an aid in the reappointment decision. It would be especially helpful to examine changes in performance, strengths, and weaknesses over a period of time.

Extreme care must be taken in interpreting the results for this purpose. As shown in this study, certain characteristics of the department which are beyond the head's control may influence faculty ratings; these should be carefully considered. There may be other extenuating circumstances which require special interpretations (e.g., retrenchment pressures; the dean's directive to clear out "dead wood"; the lack of resources or space).

Even if the results were not available to deans, the findings of this study should be helpful. Deans should be able to communicate with

department heads about priorities if both use the conceptualization of roles suggested by this investigation. Similarly, deans should find this structure of roles helpful in making their own appraisals of effectiveness. Finally, criteria for selecting new department heads can be improved by reviewing this investigation's findings about the relationship of style to performance. Obviously, departments will differ in terms of their priorities, and different priorities will arise at different times. Therefore, the "type" of leader a department needs may change from time to time. In some personnel searches, deans may need to emphasize vigor; in others structuring; and so on. Regardless of the particular needs, these results should help deans to develop careful, rational strategies.

#### For Administrative Theory

Little empirical research has been conducted on administration in higher education. The results of this investigation suggest that this setting is not unique. One key administrative style was Structuring, a factor which has direct counterparts in the military and industrial settings and which is clearly related to the Initiating Structure factor from the Ohio State Leadership Studies (Halpin, 1966; Halpin and Winer, 1957).

Consideration, the second leadership factor found by Halpin and his colleagues, bears a noticeable similarity to two related, but distinct, administrative styles found in this study -- Democratic practice and Interpersonal sensitivity. Although the correlation between these two was relatively high, the distinction should be retained since they played unique roles in the prediction of performance. The discovery of a "Vigor" factor adds a dimension which was lacking

in earlier theorizing about administrative dynamics. There is no way of knowing at present whether this factor is unique to higher education or had simply been overlooked in research completed in other settings.

Of particular significance was the relationship between Interpersonal sensitivity and administrative effectiveness. Recent research has cast doubt on the value of interpersonal relations to effectiveness in administration. Some studies suggested that interpersonal relations can be overemphasized to the point of reducing effectiveness. Although this hypothesis was not specifically tested in this investigation, interpersonal sensitivity was found to be of major importance only to the personnel management role. Given this finding, it seems appropriate to recommend that future studies in other settings differentiate among criteria in order to determine if the role of interpersonal skills depends on which administrative task is being addressed.

#### For Future Research

There is an obvious need to establish an expanded data base to conduct replications and extensions of this investigation. Formal tests should be made to determine the effects of type and size of institution.

Results of the discriminant analyses showed that certain characteristics of the department were related to differences in ratings of performance and behavior. Additional potential "moderators" should be considered. For example, size of department, type of discipline, general level of support, and freedom from unsettling pressures (e.g., retrenchment) constitute potentially important conditions which could affect ratings. Similarly, characteristics of the faculty



respondents may moderate ratings (e.g, morale, personal relationship with head, agreement with departmental priorities). It may also be wise to take into account abilities and other qualifications of the department head. The behavior items assess style or technique; but technique may be of little use if the department head lacks the ability to discern quality, fails to anticipate trends, or interprets information erroneously. Further research is needed to accurately determine the effect of these characteristics on faculty ratings.

Efforts should be taken to improve the reliabilities of some items. This likely will require re-writing some to be more specific. New response options may need to be considered in some instances.

Obviously, independent validations must be a high priority concern. Can the faculty ratings of performance be defended as criteria? Are their ratings of behavior truly descriptive of the department head? Such research is likely to be expensive. The most defensible criteria are the judgments of experts who have spent hundreds of hours observing, interviewing, and collecting objective data (number of grant applications funded, placement of graduates, scores of majors on GRE's, etc.). It is urgent that some widely acceptable criteria be developed so that those urging the type of economical process represented by this study can determine the validity consequences.

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## APPENDICES

## Appendix A

### An Illustration and Discussion of the Intraclass Correlation Coefficient

## Appendix A

## An Illustration and Discussion of the Intraclass Correlation Coefficient

Consider a hypothetical department with 8 faculty members. All make judgments as to the importance of each of the 15 department head functions. These ratings may be summarized as follows.

Function number	Faculty Member Code								Total	Mean
	A	B	C	D	E	F	G	H		
1	4	5	4	4	3	5	5	3	33	4.12
2	3	4	4	5	4	3	4	5	32	4.00
3	2	3	3	3	5	4	5	3	28	3.50
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
15	1	2	3	3	2	4	2	4	21	2.62
Total	64	53	48	65	69	54	58	49	460	

To identify the different sources of variance in these ratings it is convenient to perform a simple analysis of variance. The results would be presented in standard source table format.

Source	df	SS	MS
Between functions	14	35.17	2.51
Within functions	105	111.50	1.06
Between raters	7	28.40	4.05
Error (interaction)	98	83.10	.84
Total	119	146.67	

These estimates are obtainable even when the matrix of ratings is incomplete. Faculty members often choose not to respond for one reason or another, so this is a necessary feature of the technique used in this type of evaluation.



The intraclass correlation coefficient,  $r_k$ , provides an estimate of the reliability of the mean importance ratings of the 15 department head functions. The computational formula is simply a ratio of variances:

$$r_k = \frac{\text{MS between functions} - \text{MS within functions}}{\text{MS between functions}}$$

However, there is some disagreement as to whether the between raters variance should be excluded from the MS within functions when it is used in the equation. The distinction depends upon the way in which the results are used. According to Ebel (1951, p. 412):

"Specifically, the 'between-raters' variance should be removed where the final ratings on which decisions are based consist of averages of complete sets of ratings from all observers, or ratings which have been equated from rater to rater such as ranks, Z-scores, etc. Likewise, if comparisons are never made practically, but only experimentally, the 'between-raters' variance should be removed. But if decisions are made in practice by comparing single 'raw' scores assigned to different pupils [functions] by different raters, or by comparing averages which come from different groups of raters, then the 'between-raters' variance should be included as part of the error terms."

Since comparisons between different departments are essential for establishing norms for these reliabilities, the between raters variance must be included in the within functions mean square. This reasoning is also supported by Winer (1969). The norms are necessary to determine what is a "high" degree of agreement with respect to a large group of departments.

To return to the hypothetical example, the intraclass correlation coefficient,  $r_k$ , would be computed as follows:

$$r_k = \frac{2.51 - 1.06}{2.51} = 0.57$$

According to the norms developed for this measure, a value of 0.57 would be "average" (in the middle 40 percentile of the distribution).

As a final point, it should be noted that this intraclass correlation coefficient can be negative when the variance within functions is very large compared to the between functions variance. When this is the case, a lack of reliability is indicated by insufficient variance between functions. This results in an unbounded measure in the negative direction, an undesirable feature. To facilitate interpretation, it is recommended that such results be arbitrarily set equal to -1.00. Thus the range of the measure will appear to be comparable to that of a standard correlation coefficient.

Additional discussions of the intraclass correlation coefficient can be found in the following references.

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## Appendix B

### Department Head Instruments



Office of Educational Resources  
215 Fairchild Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5712

For several years we have offered department heads the opportunity to obtain faculty reactions to their administrative functioning. While this program has always been conducted on a voluntary basis, I urge you to seriously consider participating this year. The reason for this special plea is that we have revised the instrument and need as much participation as possible in order to re-norm it and develop dependable estimates of reliability and validity. Hopefully, even department heads who will not be continuing in that capacity will be willing to assist in this effort.

To participate, you should fill out one copy of the (blue) information form and one "Approval Form" listing the faculty members who should provide ratings. We will contact the people you listed, obtain ratings from them, summarize these via computer analysis, prepare a typed copy of "free responses", and mail the results to you along with an interpretive guide.

Unless you make a specific request, the results will not be made available to anyone else (deans, vice-presidents, etc.) They will, however, be used to conduct the research necessary for understanding and interpreting the report.

I hope that you will be able to participate. Please call me if you have any questions.

Sincerely,

Donald P. Hoyt  
Director

DH:kc  
Enclosures

## APPROVAL FORM

I request that faculty members in this Department complete the Department Head rating form prepared by the Office of Educational Resources to help me evaluate and improve my administrative effectiveness. I understand that faculty ratings will be made anonymously and that summary results for the entire group will be sent only to me.

---

Date

---

Signed

---

Department

Names of faculty members who should be asked to provide ratings:  
(Include address also if other than the department office).

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_

16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_
23. \_\_\_\_\_
24. \_\_\_\_\_
25. \_\_\_\_\_
26. \_\_\_\_\_
27. \_\_\_\_\_
28. \_\_\_\_\_
29. \_\_\_\_\_
30. \_\_\_\_\_

OFFICE USE

	2	3	4	5

## EVALUATION OF DEPARTMENT CHAIRPERSON/HEAD

Kansas State University, Office of Educational Resources

PLEASE PRINT:

[illegible][illegible]

The list below describes activities which some department chairpersons/heads pursue. Write in the Code Number which describes your judgment of how important each of these is in your role as chairperson/head.

1 = Not important      2 = Of minor importance      3 = Fairly important  
4 = Quite important      5 = Essential

### RATING

## ACTIVITY

- .39. Guides the development of sound procedures for assessing faculty performance.
- .40. Recognizes and rewards faculty in accordance with their contributions to the department's program.
- .41. Guides development of sound organizational plan to accomplish departmental program.
- .42. Arranges effective and equitable allocation of faculty responsibilities such as committee assignments, teaching loads, etc.
- .43. Takes lead in recruitment of promising faculty.
- .44. Fosters good teaching in the department.
- .45. Stimulates research and scholarly activity in the department.
- .46. Guides curriculum development.
- .47. Maintains faculty morale by reducing, resolving, or preventing conflicts.
- .48. Fosters development of each faculty member's special talents or interests.
- .49. Understands and communicates expectations of the University administration to the faculty.
- .50. Effectively communicates the department's needs (personnel, space, monetary) to the dean.
- .51. Facilitates obtaining grants and contracts from extramural sources.
- .52. Improves the department's image and reputation in the total University community.
- .53. Encourages an appropriate balance among specializations within the department.

54. Approximately what percentage of the faculty in this department is tenured?  
 \_\_\_(1) Over 80% \_\_\_(2) 60-79% \_\_\_(3) 40-59% \_\_\_(4) Under 40%
55. Are members of the department housed:  
 \_\_\_(1) in a single building \_\_\_(2) in more than one building
56. How many formal department faculty meetings were called in the past 12 months?  
 \_\_\_(1) None \_\_\_(2) 1 or 2 \_\_\_(3) 3-5 \_\_\_(4) 6-9 \_\_\_(5) 10 or more
57. How many years have you served as head/chairperson of this department?  
 \_\_\_(1) This is my first year. \_\_\_(2) 1-2 years \_\_\_(3) 3-5 years \_\_\_(4) 6 or more yrs.
58. What are the terms of your appointment as head/chairperson?  
 \_\_\_(1) I was appointed by the dean and serve at his/her pleasure \_\_\_(2) I was elected by the faculty for a specific term \_\_\_(3) I was elected by the faculty but not for a specific term

## Appendix C

### Faculty Member Instruments



Office of Educational Resources  
215 Fairchild Hall  
Manhattan, Kansas 66506  
Phone: 913 532-5712

Dear Faculty Member:

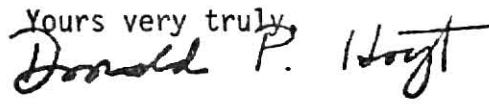
The head of your department has requested that this Office collect and summarize faculty reactions to his/her administrative functioning. A copy of this request is enclosed, together with an answer card and a return envelope. The rating form is on the reverse side of this letter.

In general, ratings such as these are more valid if the respondent can neither gain nor lose, personally, as a result of them. Therefore, we ask that you not identify yourself, directly or indirectly. If you wish to make free comments on the back of the answer form, we will type these on a separate sheet before forwarding them to the department head.

Naturally, procedures like this cannot provide an "in depth" appraisal or diagnosis. But many department heads have reported that this type of feedback has helped them, particularly if a high percentage of the faculty responded. I hope you can take the 10-15 minutes required within the next day or two to help insure that your department head receives a useful report.

A summary of results from all departmental faculty will be sent to the department head only. Whether or not anyone else sees these results is under the exclusive control of the department head.

Thank you for your cooperation.

Yours very truly,  
  
Donald P. Hoyt  
Director

DPH:jb

Enclosures



## FACULTY RATINGS OF DEPARTMENT CHAIRPERSON/HEAD

Office of Educational Resources, Kansas State University

**INSTRUCTIONS**

Please use the separate answer card to describe your perception of your department chairperson/head. To encourage objectivity and candor, responses should be made anonymously. Use a No. 2 pencil to record your answers on the card.

The list below describes 15 activities which some department chairpersons/heads pursue. In answer blanks 1-15, fill in the response which best describes your judgment of how important each of these should be for your chairperson/head, using the following code:

- 1 = Not Important  
2 = Only So-So  
3 = Fairly Important

- 4 = Quite Important  
5 = Essential

Then fill in answer blanks 16-30 to describe how effectively you feel your department chairperson/head performed each function during the past 12 months. Leave the item blank if you feel you cannot make a valid judgment; otherwise, use the following code:

- 1 = Poor  
2 = Only So-So  
3 = In Between

- 4 = Good  
5 = Outstanding

**ANSWER BLANKS**  
**IMPORTANCE PERFORMANCE**

- | IMPORTANCE | PERFORMANCE |
|------------|-------------|
| 1          | 16          |
| 2          | 17          |
| 3          | 18          |
| 4          | 19          |
| 5          | 20          |
| 6          | 21          |
| 7          | 22          |
| 8          | 23          |
| 9          | 24          |
| 10         | 25          |
| 11         | 26          |
| 12         | 27          |
| 13         | 28          |
| 14         | 29          |
| 15         | 30          |

**ACTIVITY**

- | ACTIVITY  |
|---|
| Guides the development of sound procedures for assessing faculty performance.   |
| Recognizes and rewards faculty in accordance with their contributions to department's program.                              |
| Guides development of sound organizational plan to accomplish departmental program.   |
| Arranges effective and equitable allocation of faculty responsibilities such as committee assignments, teaching loads, etc. |
| Takes lead in recruitment of promising faculty.   |
| Fosters good teaching in the department.  |
| Stimulates research and scholarly activity in the department.   |
| Guides curriculum development.  |
| Maintains faculty morale by reducing, resolving, or preventing conflicts.   |
| Fosters development of each faculty member's special talents or interests.  |
| Understands and communicates expectations of the University administration to the faculty.                                  |
| Effectively communicates the department's needs (personnel, space, monetary) to the dean.                                   |
| Facilitates obtaining grants and contracts from extramural sources.   |
| Improves the department's image and reputation in the total University community.   |
| Encourages an appropriate balance among academic specializations within the department.                                     |

Use answer blanks 31-63 to indicate how frequently each of the following 33 statements is descriptive of your department chairperson/head.

- 1 = Hardly ever (not at all descriptive).  
2 = Less than half the time.  
3 = About half the time.  
4 = More than half the time.  
5 = Almost always (very descriptive).

The department chairperson/head:

31. Makes own attitudes clear to the faculty.
32. Tries out new ideas with the faculty.
33. Assigns faculty members to particular tasks.
34. Works without a plan.
35. Maintains definite standards of performance.
36. Emphasizes the meeting of deadlines.
37. Encourages the use of uniform procedures.
38. Makes sure his/her part in the department is understood by all members.
39. Lets faculty members know what's expected of them.
40. Sees to it that faculty members are working up to capacity.
41. Sees to it that the work of faculty members is coordinated.
42. Does little things to make it pleasant to be a member of the faculty.
43. Is easy to understand.
44. Keeps to him/herself.
45. Looks out for the personal welfare of individual faculty members.
46. Refuses to explain actions.

The department chairperson/head:

47. Acts without consulting the faculty.
48. Is slow to accept new ideas.
49. Treats all faculty members as his/her equal.
50. Is willing to make changes.
51. Makes faculty members feel at ease when talking to them.
52. Puts faculty suggestions into action.
53. Gets faculty approval on important matters before proceeding.
54. Postpones decisions unnecessarily.
55. Is more a reactor than an initiator.
56. Makes it clear that faculty suggestions for improving the department are welcome.
57. Is responsive to one "clique" in the faculty but largely ignores those who are not a member of the clique.
58. In expectations of faculty members, makes allowance for their personal or situational problems.
59. Lets faculty members know when they've done a good job.
60. Explains the basis for his/her decisions.
61. Gains input from faculty members on important matters.
62. Acts as though visible departmental accomplishments were vital to him/her.
63. Acts as though high faculty morale was vital to him/her.

Use the back of the answer card to clarify your ratings or make other comments which might help your department chairperson/head improve administrative effectiveness. Such comments will be typed on a separate page before being passed on to the department chairperson/head.

## Appendix D

### Sample Feedback Materials

## FACULTY RATINGS OF DEPARTMENT CHAIRPERSON/HEAD

CHAIRPERSON/HEAD:

DEPARTMENT:

NUMBER ASKED TO REACT: 17

NUMBER RESPONDING: 14

PERCENT RESPONDING: 82

ACTIVITY	FACULTY RATINGS					
	AVERAGE		NO. RATING		S.D.	
	IMPORT	PERF	IMPORT	PERF	IMPORT	PERF
COMMUNICATION						
9. MAINTAINS MORALE (5)*	4.6	2.9(LO AV)	14	14	0.9	1.5
11. COMMUN. U EXPCTNS (5)	4.7	3.9(AVG)	14	14	0.5	1.2
12. COMMUN DEPTS NEEDS (3)	4.2	3.7(AVG)	13	13	0.8	1.2
14. IMPROVES DEPT IMAGE (4)	4.5	3.6(AVG)	14	14	0.5	1.4
FACULTY EVALUATION & DEVELOPMENT						
1. GUIDES FAC EVAL PROC (4)	4.7	3.6(HI AV)	14	14	0.5	1.2
2. REWARDS FAC APPROP (5)	4.6	3.4(AVG)	14	14	0.9	1.7
4. ALLOCATES FAC RESP (5)	4.2	3.7(AVG)	13	13	0.9	1.2
6. FOSTERS GOOD TCHG (5)	4.6	3.4(AVG)	14	14	0.6	1.6
10. FOSTERS FAC DEV (4)	4.4	3.3(LO AV)	14	14	0.8	1.5
DEPARTMENTAL LEADERSHIP						
3. GUIDES DEV OF PLANS (5)	4.5	3.0(LO AV)	13	13	0.7	1.2
5. FAC RECRUITMENT (5)	4.5	4.2(AVG)	13	13	0.7	1.1
7. STIM RSCH/SCHOL EFRT (3)	4.1	4.1(HI AV)	14	14	0.8	1.0
8. GUIDES CURR DEV (4)	3.9	3.6(AVG)	13	12	1.0	1.2
13. FACIL EXTRAM FUNDS (2)	2.6	2.3(LO AV)	12	10	0.9	0.9
15. ENCR BAL IN SPECLZTN (4)	4.3	3.4(AVG)	14	14	0.7	1.4

\* CHAIRPERSON/HEAD RATING OF IMPORTANCE IS SHOWN IN ( ).

## EVALUATION SUMMARY

	COMMUNICATION	FAC EVAL & DEV	DEPT LDRSHP	TOTAL
1. PERFORMANCE WTD BY FAC IMP RATINGS	3.5(LO AV)	3.5(AVG)	3.5(AVG)	3.5(AVG)
2. PERFORMANCE WTD BY HEAD'S IMP RTGS	3.5(LO AV)	3.5(AVG)	3.5(LO AV)	3.5(LO AV)
3. AGREEMENT AMONG FAC ON IMPORTANCE	.68(HI AV)	.74(AVG)	.80(LO AV)	.75(AVG)
4. HEAD/FAC AGREEMENT ON IMPORTANCE	.60(AVG)	.54(HI AV)	.52(HI)	.55(HI AV)

**THIS BOOK  
CONTAINS  
NUMEROUS PAGES  
WITH THE ORIGINAL  
PRINTING BEING  
SKEWED  
DIFFERENTLY FROM  
THE TOP OF THE  
PAGE TO THE  
BOTTOM.**

**THIS IS AS RECEIVED  
FROM THE  
CUSTOMER.**



## FACULTY RATINGS OF CHAIRPERSON/HEAD

CHAIRPERSON/HEAD:

DEPARTMENT:

ITEMS REFLECTING STRENGTHS (S) OR WEAKNESSES (W) IN THE  
TEN ADMINISTRATIVE ACTIVITIES JUDGED MOST IMPORTANT  
BY THE FACULTY (ACTIVITIES LISTED IN ORDER OF IMPORTANCE)

ITEM**	ADMINISTRATIVE ACTIVITY (NUMBER)*									
	<u>11</u>	<u>1</u>	<u>6</u>	<u>2</u>	<u>9</u>	<u>5</u>	<u>14</u>	<u>3</u>	<u>10</u>	<u>15</u>
31 (4,5)										
32 (4,5)										
33 (5)										
34 (1)	W					W		W		
35 (4,5)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
36 (4,5)	W		W					W		
37 (4,5)										
38 (4,5)										
39 (4,5)										
40 (4,5)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
41 (4,5)	S									
42 (4,5)										
43 (5)	S				S		S	S	S	
44 (1,2)				W						
45 (4,5)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
46 (1)										
47 (1)										
48 (1)	S			S	S		S	S		
49 (5)										
50 (5)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
51 (5)	W				W					
52 (4,5)	S						S			
53 (4,5)										
54 (1)										
55 (1,2)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
56 (4,5)										
57 (1)					W			W	W	W
58 (5)										
59 (5)										
60 (4,5)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
61 (5)										
62 (5)	W	W		W			W	W		
63 (4,5)			W						W	W

\* SEE PAGE 1 OF REPORT TO IDENTIFY THE SPECIFIC ACTIVITY  
ASSOCIATED WITH A GIVEN NUMBER.

\*\* SEE PAGE 2 OF REPORT TO IDENTIFY THE CONTENT OF EACH ITEM: DESIRABLE RESPONSE  
IN ( ).

INTERPRETING FACULTY RATINGS OF  
THE ACADEMIC CHAIRPERSON/HEAD

*A Manual for Improving Administrative Effectiveness*

(SECOND REVISION)

DONALD P. HOYT  
OFFICE OF EDUCATIONAL RESOURCES  
KANSAS STATE UNIVERSITY

MANHATTAN, KANSAS

1976

## INTERPRETING FACULTY RATINGS OF THE CHAIRPERSON/HEAD

Donald P. Hoyt  
Kansas State University

This manual provides information about the chairperson/head evaluation program. It describes the content and process, gives the source and meaning of the data provided on the computer report prepared for the chairperson/head, and suggests how the report can be used to improve administrative effectiveness.

### BASIC QUESTIONS AND ANSWERS

1. *Who supplied ratings?* A roster of potential faculty respondents was provided by the chairperson/head. In most instances, this included full-time faculty members at the rank of instructor or above. The number and percent responding are shown in the top section of the first page of the report.

2. *What characteristics were rated?* Ratings were made of 15 activities which receive different emphases from individual chairpersons/heads. These were grouped into three types of activities as follows:

#### A. *Communication*

1. Maintains faculty morale by reducing, resolving, or preventing conflicts.
2. Understands and communicates expectations of the University administration to the faculty.
3. Effectively communicates the department's needs (personnel, space, monetary) to the dean.
4. Improves the department's image and reputation in the total University community.

#### B. *Faculty Evaluation and Development*

1. Guides the development of sound procedures for assessing faculty performance.
2. Recognizes and rewards faculty in accordance with their contributions to the department's program.
3. Arranges effective and equitable allocation of faculty responsibilities such as committee assignments, teaching loads, etc.
4. Fosters good teaching in the department.
5. Fosters development of each faculty member's special talents or interests.

#### C. *Departmental Leadership*

1. Guides development of sound organizational plan to accomplish departmental program.
2. Takes lead in recruitment of promising faculty.
3. Stimulates research and scholarly activity in the department.
4. Guides curriculum development.
5. Facilitates obtaining grants and contracts from extramural sources.
6. Encourages an appropriate balance among academic specializations within the department.



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3. *What dimensions of these characteristics were rated?* Chairpersons/heads rated only one dimension--the *importance* of each activity. A 5-point rating scale was used (1 = not important; 2 = of minor importance; 3 = fairly important; 4 = quite important; 5 = essential). Faculty members rated both how *important* they thought each activity *should be* (using the scale described above) and *how well the chairperson/head performed each*. A 5-point scale was also used for performance ratings-- 1 = poor; 2 = only so-so; 3 = in between; 4 = good; 5 = outstanding. Raters were asked to consider the chairperson/head's work only during the past 12 months.

4. *Didn't the faculty make other ratings of the department head?* Yes, faculty were asked to describe the department head by responding to 33 specific questions about his/her administrative behavior. These questions are listed in Appendix A. The response alternatives were: 1 = Hardly ever (not at all descriptive); 2 = Less than half the time; 3 = About half the time; 4 = More than half the time; 5 = Almost always (very descriptive). Page 2 of the report also lists these items in abbreviated form.

#### CONTENT OF THE REPORT

Page 1 of the printout shows evaluative results. Page 2 shows how the faculty described the chairperson/head's behavior on the 33 questions shown in Appendix A. Page 3 is a matrix for guiding efforts to improve administrative effectiveness by identifying strengths and weaknesses.

#### UNDERSTANDING PAGE 1

The data on Page 1 of the report should help you answer two important questions:

1. *To what degree is there consensus regarding the role of the chairperson/head?*
2. *How effective do faculty members believe the chairperson/head is in performing specific roles or types of roles?*

#### Departmental Consensus

Two types of dissonance should be considered. (a) There may be disagreement among the faculty as to the role of the chairperson/head. (b) There may be disagreement between the chairperson/head and the faculty as a whole as to this role.

*Faculty consensus* can be inferred from the standard deviations (S. D.) of importance ratings, shown in the next to last column on Page 1 of the report. Standard deviations above 1.0 indicate substantial disagreement among the faculty. While such disagreement is not always bad, departments whose faculty are relatively agreed on emphases generally have more success in reaching their goals.

The average of these standard deviations for each of the three types of emphasis (communication; faculty evaluation and development; departmental leadership) and for all activities is reported as Item 3 in

the *Evaluation Summary* at the bottom of Page 1. A verbal label appears in parentheses beside this figure. These labels describe how your results compared with those for other chairpersons/heads who have participated in this program.<sup>1</sup>

"HI" means your results were in the highest 10 percent.

"HI AV" means your results were in the next 20 percent.

"AVG" means your results were in the middle 40 percent.

"LO AV" means your results were in the next 20 percent.

"LO" means your results were in the lowest 10 percent.

Because a low standard deviation is indicative of high agreement, it is easy to misinterpret the meaning of the words on the printout. In this instance, "HI" means "high agreement" and, therefore, describes those with low standard deviations.

Agreement between the chairperson/head and the faculty as a whole can be inferred by comparing the importance ratings from these two sources. Probably the items needing most attention are those rated 4.5 or higher by the faculty; if the chairperson/head rating was "3" or lower on any such items, there appears to be a serious need to seek improved consensus. Likewise, if the average faculty rating is in the 4.0-4.4 range, chairperson/head ratings of "1" or "2" indicate significant lack of agreement; and faculty ratings in the 3.5-3.9 range show important discrepancies with chairperson/head ratings of "1". Because of a natural reluctance to suggest that any activity is unimportant, average faculty ratings will seldom be below 3.0. For this reason, faculty ratings below 3.5 should probably be considered "significantly" discrepant from chairperson/head ratings of "5".

The absolute differences between the two importance ratings have been averaged for each of the three types of emphases and for all activities. Results are reported as Item 4 in the *Evaluation Summary* at the bottom of Page 1. The verbal labels adjacent to each figure compare your results with those of other participants. Again, a "HI" rating indicates high agreement (and, therefore, a low average absolute difference).

#### Performance (Effectiveness)

The second column of faculty ratings shows their average response to the question, "How well did the chairperson/head perform this activity during the past 12 months?" As noted earlier, numerical ratings of 1-5 were used to represent judgments of poor, only so-so, in-between, good, and outstanding. In addition, a verbal report is made of how your results compared with those of other participants (HI, HI AV, AVG, LO AV, LO).

The performance measures take on their most important meaning when they are combined with importance ratings. Relatively low performance ratings on unimportant activities are of little significance; but on

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1. Appendix B provides norms for all measures provided by the report.

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important activities, they identify areas needing special attention. High performance on unimportant activities coupled with average or low performance on the most important ones suggests that the chairperson/head may need to re-assess the priorities used to direct administrative energies.

Performance and Importance ratings were combined to yield the results shown opposite Items 1 and 2 in the *Evaluation Summary* at the bottom of Page 1. In the first of these (*Performance weighted by faculty importance ratings*), each performance average was multiplied by the corresponding average faculty rating of importance. These products were summed, and the result divided by the sum of the importance ratings. The same process was followed for Item 2, except that the chairperson/head's rating of importance was substituted for the average faculty rating of importance. The *Evaluation Summary* shows how your results compared with those of other participants.

#### UNDERSTANDING PAGE 2

Page 2 of the printout shows the percentage of total respondents who gave each of the five possible responses (hardly ever . . . almost always) to each of the 33 behavioral questions shown in Appendix A. These percentages will total 100 unless one or more respondent omitted the item. The percent failing to respond can be calculated by subtracting the total percent from 100.

An important question to be answered by the Page 2 printout is, "How much agreement was there among the faculty?" In general, if 75 percent of the respondents gave replies in adjacent categories (i. e., responses 1 and 2, 2 and 3, 3 and 4, 4 and 5) one can infer that chairperson/head behavior was perceived similarly by most of the faculty. As this figure declines, the probability increases that faculty description of the chairperson/head on that item is too unreliable to be trusted.

The 33 items have been grouped into four "Administrative Traits", and the results are shown at the bottom of Page 2. These "traits" are briefly described below:

1. *Structuring* refers to administrative behaviors which clarify roles, relationships, procedures, and expectations. There is little ambiguity in departments where the chairperson/head is high on this trait.
2. *Sensitivity to faculty needs* refers to the tendency to be concerned with faculty members as persons. Those high on this trait are generally perceived as warm and considerate people.
3. *Openness to change/action* refers to a willingness to consider alternatives, a low need to defend departmental traditions, and a proclivity for decisiveness.
4. *Respect for faculty opinion* refers to tendencies to seek out and act upon faculty ideas and to keep faculty informed on matters of interest and concern to them.

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Previous research suggests that each of these traits is positively related to at least some aspects of administrative performance. However, it is not certain that there is some combination of these traits which describe the "ideal" chairperson/head. For the present, it is suggested that the scores, singly and in combination, be used to describe your particular administrative style; but not to suggest directly alterations in that style which might improve effectiveness.

#### UNDERSTANDING PAGE 3

The 10 activities rated as "most important" by the faculty are identified (in order of importance) across the top of Page 3. The identifying numbers correspond to those shown on Page 1.

The first column on the left lists an identifying number for the 33 specific administrative behaviors. These numbers correspond to those listed on Page 2.

At the place where a given "activity" and a given "administrative behavior" intersect, the printout will show a "W" (weakness), "S" (strength), or a blank (neither). A "W" is printed if (a) previous research established that the behavior item was significantly related to the performance rating<sup>2</sup> and (b) the percentage who described you by checking the "preferred response" was 15 or more points *below* the corresponding percentage for all chairpersons/ heads. Similarly, an "S" is reported if your percentage for the "preferred response" was 15 or more points *above* the corresponding percentage for all chairpersons/heads.

The reason for choosing a 15 percentage point difference is that the standard error of measurement is approximately 15 percentage points. Therefore, there is reasonable assurance that ratings which differ from the average by 15 or more percentage points represent more than chance fluctuations from average.

#### IMPROVING PERFORMANCE

The problem of diagnosing administrative performance and discovering ways of effecting improvements is highly complex. No survey, no matter how well conducted or how thoroughly analyzed, can offer comprehensive, valid suggestions to the chairperson/head. However, the results may offer useful clues which, in combination with other considerations, could be worthwhile in your efforts to improve your effectiveness. The following steps are suggested.

1. Determine if there is a need to develop a stronger sense of departmental unity. To do this, examine the two types of "consensus" or "agreement" measures reported on Page 1.

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2. Appendix C identifies the behavioral items related to effective performance on each activity.



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Is there evidence of considerable disagreement among the faculty as to your role? If so, are there obvious reasons why this might occur? (Is there a clear "old vs. young" division of opinion? A "tenured vs. non-tenured" split? A disunity which corresponds to academic specializations or theoretical dispositions? Are you yourself a "factor" which divides the faculty?)

Before problems can be solved, a diagnosis is needed. Once you've identified a "faculty disunity" problem and inferred its most probable cause (by following the process described above), you should be in a better position to determine the probable impact of such strategies as altering the "mix" on departmental committees, establishing new committees or task forces, encouraging new "team" approaches to teaching and/or research, attempting more "heart-to-heart" talks with some or all faculty members, etc.

Another type of dissonance arises when the faculty and the chairperson/ head are in disagreement over the latter's role. Clearly, such a state of affairs is undesirable. It would seem prudent to identify the particular roles where the discrepancy is greatest. Then ask yourself, "Am I wrong?" Occasionally, a chairperson/head stresses a given role because he/she misread the attitude of the faculty; in this case, "backing off" is usually both easy and wise.

More often, the discrepancy reflects either a *lack of understanding* (LU) or a *lack of acceptance* (LA) by the faculty of the chairperson/head's responsibilities. It is easier to correct LU than LA. Improved *understanding* can usually be achieved by more systematic attention to communication (including better use of memos to faculty members, the bulletin board, and faculty meetings). Improved *acceptance*, on the other hand, usually requires opportunities for the faculty to communicate fully *their* views and to feel that these are understood before the chairperson/head tries to explain how these views conflict with other forces. It may be necessary to consider an *advisory* or *executive committee* as a continuing safeguard against excessive dissonance between the faculty and the chairperson/head.

2. Identify the particular roles or activities where improvement is most needed. In general, it is best to begin with the *importance ratings* on Page 1. Identify all activities which you rated as "Essential" (5) and which the faculty rated as 4.5 or higher. List any activities of this type where your performance rating was LO, LO AV, or AVG. These activities should merit your highest priority.

Determine second order priorities by examining activities you rated as "Quite important" (4) and for which the faculty importance rating was at least 4.0. Again, list (in the reverse order of performance means) those where you were LO, LO AV, or AVG.

Third order priorities can be determined in the same way by considering activities you rated as "Fairly important" (3) and for which the faculty importance rating was at least 3.5.

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For some chairpersons/heads, the resulting list of activities where improvements are needed may be so lengthy as to be overwhelming. It is probably unwise to attempt too much at once. Rather, select (at most) 3 or 4 activities to concentrate on; select only one if the activity is an especially difficult or troublesome one for you.

Then, perhaps with the aid of consultants or advisors whom you respect (your faculty advisory committee; another chairperson/head; your dean; the campus faculty development officer; etc.) begin to make a list of (a) what you have done to pursue the activity and (b) what additional approaches you might consider.

In exploring the prospects of implementing new approaches, it may help you to consider what sources of aid or support you have available to you. Most institutions offer services or have expertise (faculty or administrative) related to such matters as grantsmanship, teaching effectiveness, performance appraisal, and organizational strategies. In attempting to strengthen your performance, it often helps if you have support, encouragement, and advice from someone else.

3. Use Page 3 of the printout to identify any specific behavioral patterns which you may be able to modify profitably. Starting with the highest priority activities, identify the behavior items which were rated as "weaknesses" (W) on Page 3. It is also a good idea to make a separate list of relevant "strengths" (S). The problem is to invent ways of altering the W behaviors without disrupting the S's. Again, consultation and advice from respected colleagues may result in insights which you were unable to arrive at on your own.

The W's and S's are important only if the performance rating (Page 1) was disappointing. Occasionally, department heads obtain high performance ratings even though their administrative techniques are not generally recommended (i. e., Page 3 contains many W's). It would probably be unwise for such individuals to attempt any major changes in administrative style; what they've been doing, though unorthodox, has apparently been effective.

#### A NOTE OF CAUTION

Are the evaluation results considered to be a valid assessment of administrative competency? There are several reasons why the answer to this question is "not necessarily".

First, there may be objectives which you are stressing which are not covered by the instrument. Second, faculty feedback may not always be reliable (Note the earlier comments regarding the standard deviations of faculty ratings). Third, there are other elements in the University community who are affected by chairpersons/heads and who could judge performance from perspectives different from that of the faculty. Deans

are the most obvious case in point. Students might also represent a source of input, though they would probably have to rate policies and programs rather than the chairperson/head *per se*. In some departments, off-campus contacts with business, industry, and government constitute an important aspect of the chairperson/ head's job; ratings from these sources would be desirable in such cases.

For these reasons, it is probably wise to consider faculty feedback as supplemental to a comprehensive evaluation of chairperson/head performance. There will be few chairpersons/heads who will find faculty views irrelevant. But such views are seldom sufficient if a total appraisal of administrative effectiveness is desired.

## APPENDIX A

### ITEMS DESCRIBING CHAIRPERSON/HEAD BEHAVIORS

- |   |   |
|---|---|
| <p>The department chairperson/head:</p> <ol style="list-style-type: none"> <li>31. Makes own attitudes clear to the faculty.</li> <li>32. Tries out new ideas with the faculty.</li> <li>33. Assigns faculty members to particular tasks.</li> <li>34. Works without a plan.</li> <li>35. Maintains definite standards of performance.</li> <li>36. Emphasizes the meeting of deadlines.</li> <li>37. Encourages the use of uniform procedures.</li> <li>38. Makes sure his/her part in the department is understood by all members.</li> <li>39. Lets faculty members know what's expected of them.</li> <li>40. Sees to it that faculty members are working up to capacity.</li> <li>41. Sees to it that the work of faculty members is coordinated.</li> <li>42. Does little things to make it pleasant to be a member of the faculty.</li> <li>43. Is easy to understand.</li> <li>44. Keeps to him/herself.</li> <li>45. Looks out for the personal welfare of individual faculty members.</li> <li>46. Refuses to explain actions.</li> </ol> | <p>The department chairperson/head:</p> <ol style="list-style-type: none"> <li>47. Acts without consulting the faculty.</li> <li>48. Is slow to accept new ideas.</li> <li>49. Treats all faculty members as his/her equal.</li> <li>50. Is willing to make changes.</li> <li>51. Makes faculty members feel at ease when talking to them.</li> <li>52. Puts faculty suggestions into action.</li> <li>53. Gets faculty approval on important matters before proceeding.</li> <li>54. Postpones decisions unnecessarily.</li> <li>55. Is more a reactor than an initiator.</li> <li>56. Makes it clear that faculty suggestions for improving the department are welcome.</li> <li>57. Is responsive to one "clique" in the faculty but largely ignores those who are not a member of the clique.</li> <li>58. In expectations of faculty members, makes allowance for their personal or situational problems.</li> <li>59. Lets faculty members know when they've done a good job.</li> <li>60. Explains the basis for his/her decisions.</li> <li>61. Gains input from faculty members on important matters.</li> <li>62. Acts as though visible departmental accomplishments were vital to him/her.</li> <li>63. Acts as though high faculty morale was vital to him/her.</li> </ol> |
|---|---|



## APPENDIX B

## NORMS FOR:

- B-1. Performance Weighted by Faculty Importance Ratings
- B-2. Performance Weighted by Chairperson/Head's Importance Ratings
- B-3. Agreement Among Faculty on Importance
- B-4. Head/Faculty Agreement on Importance
- B-5. Mean Importance Ratings By Faculty
- B-6. Mean Performance Ratings By Faculty
- B-7. Norms For Mean Scores on Administrative Traits

TABLE B-1

NORMS FOR PERFORMANCE WEIGHTED BY FACULTY IMPORTANCE RATINGS

	Rating*				
	LO	LO AV	AVG	HI AV	HI
Communication	3.0-	3.1-3.4	3.5-3.9	4.0-4.1	4.2+
Fac Eval & Development	3.0-	3.1-3.4	3.5-3.7	3.8-4.0	4.1+
Department Leadership	3.1-	3.2-3.5	3.6-3.9	4.0-4.1	4.2+
Total	3.0-	3.1-3.4	3.5-3.8	3.9-4.1	4.2+

TABLE B-2

NORMS FOR PERFORMANCE WEIGHTED BY HEADS IMPORTANCE RATINGS

	Rating*				
	LO	LO AV	AVG	HI AV	HI
Communication	3.0-	3.1-3.5	3.6-3.9	4.0-4.2	4.3+
Fac Eval & Development	3.0-	3.1-3.3	3.4-3.7	3.8-4.0	4.1+
Department Leadership	3.0-	3.1-3.4	3.5-3.9	4.0-4.1	4.2+
Total	3.0-	3.1-3.4	3.5-3.8	3.9-4.1	4.2+

TABLE B-3

NORMS: AGREEMENT AMONG FACULTY ON IMPORTANCE  
(STANDARD DEVIATION OF IMPORTANCE RATINGS)

	LO	LO AV	AVG	HI AV	HI
Communication	1.20+	.90-1.19	.70-.89	.60-.69	.59-
Fac Eval & Development	1.20+	1.00-1.19	.80-.99	.70-.79	.69-
Department Leadership	1.20+	1.00-1.19	.80-.99	.70-.79	.69-
Total	1.20+	1.00-1.19	.80-.99	.70-.79	.69-

TABLE B-4

NORMS: HEAD/FACULTY AGREEMENT ON IMPORTANCE  
(AVERAGE DISCREPANCY BETWEEN IMPORTANCE RATINGS OF HEAD AND FACULTY)

	LO	LO AV	AVG	HI AV	HI
Communication	1.20+	.80-1.19	.60-.79	.40-.59	.39-
Fac Eval & Development	1.00+	.60-.99	.40-.59	.30-.39	.29-
Department Leadership	1.20+	.80-1.19	.60-.79	.40-.59	.39-
Total	1.00+	.80-.99	.60-.79	.40-.59	.39-

## NORMS FOR "IMPORTANCE" RATINGS BY FACULTY

	Rating*				
	LO	LO AV	AVG	HI AV	HI
9. Maintains Morale	3.8-	3.9-4.1	4.2-4.5	4.6	4.7+
11. Commun U Expctns	3.7-	3.8-3.9	4.0-4.3	4.4-4.6	4.7+
12. Commun Dept Needs	3.9-	4.0-4.2	4.3-4.5	4.6-4.7	4.8+
14. Improves Dept Image	3.3-	3.4-3.8	3.9-4.3	4.4-4.5	4.6+
1. Guides Fac Eval Proc	3.6-	3.7-3.9	4.0-4.2	4.3-4.4	4.5+
2. Rewards Fac Approp	3.8-	3.9-4.2	4.3-4.5	4.6-4.7	4.8+
4. Allocates Fac Resp	3.7-	3.8-3.9	4.0-4.3	4.4-4.5	4.6+
6. Fosters Good Tchg	3.7-	3.8-4.2	4.3-4.5	4.6-4.7	4.8+
10. Fosters Fac Dev	3.4-	3.5-3.7	3.8-4.1	4.2-4.4	4.5+
3. Guides Dev of Plans	3.7-	3.8-4.0	4.1-4.5	4.6-4.7	4.8+
5. Fac Recruitment	3.2-	3.3-3.8	3.9-4.3	4.4-4.5	4.6+
7. Stim Res/Schl Effrt	3.4-	3.5-3.8	3.9-4.3	4.4-4.5	4.6+
8. Guides Curr Dev	3.2-	3.3-3.6	3.7-4.0	4.1-4.4	4.5+
13. Facil Extrm Funds	2.5-	2.6-3.1	3.2-3.9	4.0-4.4	4.5+
15. Enchr Bal in Splztn	3.6-	3.7-3.8	3.9-4.2	4.3-4.5	4.6+

TABLE B-6

## NORMS FOR "PERFORMANCE" RATINGS BY FACULTY

	Rating*				
	LO	LO AV	AVG	HI AV	HI
9. Maintains Morale	2.5-	2.6-3.1	3.2-3.7	3.8-4.1	4.2+
11. Commun U Expctns	3.1-	3.2-3.5	3.6-4.1	4.2-4.3	4.4+
12. Commun Dept Needs	2.9-	3.0-3.5	3.6-4.1	4.2-4.4	4.5+
14. Improves Dept Image	2.9-	3.0-3.5	3.6-4.2	4.3-4.4	4.5+
1. Guides Fac Eval Proc	2.5-	2.6-3.1	3.2-3.5	3.6-4.0	4.1+
2. Rewards Fac Approp	2.8-	2.9-3.3	3.4-3.8	3.9-4.2	4.3+
4. Allocates Fac Resp	3.2-	3.3-3.5	3.6-4.0	4.1-4.3	4.4+
6. Fosters Good Tchg	2.9-	3.0-3.3	3.4-3.8	3.9-4.2	4.3+
10. Fosters Fac Dev	2.9-	3.0-3.3	3.4-3.8	3.9-4.1	4.2+
3. Guides Dev of Plans	2.8-	2.9-3.2	3.3-3.7	3.8-4.2	4.3+
5. Fac Recruitment	3.1-	3.2-3.7	3.8-4.1	4.2-4.5	4.6+
7. Stim Res/Schl Effrt	2.9-	3.0-3.3	3.4-4.0	4.1-4.3	4.4+
8. Guides Curr Dev	2.9-	3.0-3.3	3.4-3.8	3.9-4.2	4.3+
13. Facil Extrm Funds	2.2-	2.3-2.8	2.9-3.7	3.8-4.3	4.4+
15. Enchr Bal in Splztn	3.1-	3.2-3.5	3.6-4.0	4.1-4.3	4.4+

\* LO = Lowest 10 Percent  
 LO AV = Next 20 Percent  
 AVG = Middle 40 Percent  
 HI AV = Next 20 Percent  
 HI = Highest 10 Percent

TABLE B-7  
NORMS FOR MEAN SCORES ON ADMINISTRATIVE TRAITS

	Rating*				
	LO	LO AV	AVG	HI AV	HI
Structuring	3.2-	3.3-3.6	3.7-4.0	4.1-4.3	4.4+
Sensitivity to Fac Need	3.2-	3.3-3.7	3.8-4.1	4.2-4.4	4.5+
Openness to Action	3.4-	3.5-3.8	3.9-4.2	4.3-4.4	4.5+
Respect for Fac Opinion	3.3-	3.4-3.7	3.8-4.2	4.3-4.5	4.6+

TABLE C-1  
RESPONSES ON ITEMS WHICH DIFFERENTIATE DEPARTMENT HEADS WHO WERE MOST  
SUCCESSFUL AND LEAST SUCCESSFUL IN EACH ACTIVITY

ITEM**	ACTIVITY*														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
31.	-	4,5	5	5	-	5	5	5	4,5	-	4,5	-	4,5	5	-
32.	-	4,5	-	4,5	-	4,5	-	5	4,5	-	5	-	5	5	-
33.	5	-	5	-	-	-	-	5	-	-	5	-	-	-	-
34.	-	-	1	-	1	-	1	1	-	-	1	1	-	-	-
35.	4,5	4,5	4,5	-	5	-	5	4,5	-	-	5	-	-	4,5	-
36.	-	-	5	5	-	5	4,5	5	-	-	5	-	4,5	4,5	-
37.	-	-	4,5	-	-	4,5	-	4,5	-	-	-	5	-	4,5	-
38.	-	-	4,5	-	-	5	-	4,5	-	-	5	-	-	-	-
39.	4,5	-	4,5	-	-	-	-	4,5	-	-	4,5	-	-	-	-
40.	-	-	4,5	-	4,5	4,5	-	4,5	-	-	-	-	-	-	-
41.	4,5	-	4,5	4,5	5	4,5	-	4,5	-	-	5	-	-	-	-
42.	-	5	5	4,5	-	4,5	5	-	4,5	4,5	5	-	4,5	4,5	5
43.	-	-	5	5	-	-	5	5	5	5	5	5	5	5	-
44.	-	1,2	-	1	-	-	-	-	-	-	1	-	-	-	1
45.	5	4,5	5	5	-	5	-	5	4,5	4,5	5	-	5	4,5	5
46.	-	-	-	1	-	-	-	-	1	-	1	1	-	-	1
47.	1	-	1	-	-	-	1	-	1	-	1	-	-	1	-
48.	-	1	1	1	-	-	1	1	1	-	1	-	1	1	-
49.	-	5	5	5	-	5	-	5	5	5	5	-	-	5	5
50.	-	5	5	-	-	-	5	5	-	-	5	5	5	5	-
51.	-	-	-	5	-	-	-	-	5	-	5	-	-	-	-
52.	4,5	4,5	4,5	-	-	-	4,5	-	4,5	4,5	5	-	5	5	4,5
53.	4,5	5	5	5	-	4,5	5	5	4,5	5	5	-	-	-	-
54.	-	-	1	-	1	-	1	1	-	-	1	1	1	-	-
55.	-	1,2	1	-	1	-	1	1	-	-	1	-	1	1,2	-
56.	5	4,5	5	5	-	5	5	5	5	5	5	-	-	5	-
57.	-	-	1	-	-	-	1	-	1	1	5	-	-	-	1
58.	-	-	-	-	-	-	-	-	5	5	-	-	-	-	5
59.	5	5	5	5	5	5	-	5	5	5	5	5	5	5	5
60.	4,5	-	5	5	-	-	-	-	5	-	5	-	-	5	-
61.	5	5	5	5	-	-	-	5	5	-	-	-	-	5	-
62.	5	5	5	-	-	-	-	5	5	-	5	5	5	5	-
63.	5	5	5	4,5	-	4,5	-	5	5	4,5	5	-	5	5	4,5

\*See Appendix B to identify specific activities.

\*\*See Appendix A to identify specific items.

## Appendix E

### Inter-correlations of Each Set of Measures

	DHIMP01	DHIMP02	DHIMP03	DHIMP04	DHIMP05	DHIMP06	DHIMP07	DHIMP08	DHIMP09	DHIMP10
DHIMP01	1.00000	0.44435	0.19437	0.06654	0.09503	0.15858	0.20640	0.16376	0.00225	0.16629
DHIMP02	0.44435	1.00000	-0.01285	-0.04547	0.20768	0.09065	0.15922	-0.08375	0.03913	0.16853
DHIMP03	0.19437	-0.01285	1.00000	0.09153	0.06164	0.11131	0.07576	0.25457	0.07989	-0.02447
DHIMP04	0.06654	-0.04547	0.09153	1.00000	-0.05346	0.12872	-0.06550	0.21221	0.05695	0.00938
DHIMP05	0.09503	0.20768	0.06164	-0.05346	1.00000	-0.00544	0.27598	0.09391	0.04017	0.13366
DHIMP06	0.15858	0.09065	0.11131	0.12872	-0.00544	1.00000	0.30926	0.34914	0.24296	0.22152
DHIMP07	0.20640	0.15922	0.07576	-0.06550	0.27598	0.30926	1.00000	-0.01204	0.20602	0.43406
DHIMP08	0.16376	-0.08375	0.25457	0.21221	0.09391	0.34914	-0.01204	1.00000	0.19597	0.09279
DHIMP09	0.00225	0.03913	0.07989	0.05655	0.04017	0.24296	0.20602	0.19597	1.00000	0.26159
DHIMP10	0.16629	0.16853	-0.02447	0.00938	0.13366	0.22152	0.43406	0.09279	0.26159	1.00000
DHIMP11	0.25428	0.06648	0.12306	0.21715	0.02291	0.20574	0.01355	0.43361	0.16342	0.06170
DHIMP12	0.09733	0.11087	0.10537	0.12062	0.22577	0.09975	0.08146	0.14120	0.22206	0.06198
DHIMP13	0.09226	0.05955	-0.00527	-0.15380	0.25463	0.14740	0.40465	0.00938	0.14829	0.30254
DHIMP14	0.19285	-0.00542	0.13988	0.04784	0.1170	0.19759	0.11419	0.20973	0.26157	0.26317
DHIMP15	0.13169	0.10924	0.08516	0.33323	0.15577	0.00072	-0.00890	0.31062	0.10852	0.12225

	DHIMP11	DHIMP12	DHIMP13	DHIMP14	DHIMP15
DHIMP01	0.25428	0.09733	0.09326	0.19285	0.13169
DHIMP02	0.06648	0.11087	0.05955	-0.00542	0.10924
DHIMP03	0.12306	0.10537	-0.00527	0.13988	0.08616
DHIMP04	0.21715	0.12062	-0.15380	0.04784	0.33323
DHIMP05	0.02291	0.27577	0.25463	0.12170	0.15577
DHIMP06	0.20574	0.09975	0.14740	0.19759	0.00072
DHIMP07	0.01355	0.03146	0.40465	0.11419	-0.00890
DHIMP08	0.43361	0.14120	0.00938	0.20973	0.31062
DHIMP09	0.16342	0.22206	0.14829	0.26157	0.10852
DHIMP10	0.06170	0.06198	0.30254	0.26317	0.12225
DHIMP11	1.00000	0.36683	0.05402	0.37954	0.20317
DHIMP12	0.36683	1.00000	0.23898	0.44922	0.09264
DHIMP13	0.05402	0.23898	1.00000	0.35230	0.01539
DHIMP14	0.37954	0.44922	0.35230	1.00000	0.22105
DHIMP15	0.20317	0.09264	0.01539	0.22105	1.00000

DETERMINANT OF CORRELATION MATRIX = 0.0514195 ( 0.514194740-01)

	FACIMP01	FACIMP02	FACIMP03	FACIMP04	FACIMP05	FACIMP06	FACIMP07	FACIMP08	FACIMP09	FACIMP10
FACIMP01	1.00000	0.61498	0.29204	0.24744	0.25542	0.40278	0.03479	0.28769	0.39165	0.23925
FACIMP02	0.61498	1.00000	0.13677	0.38766	0.17389	0.24495	0.04688	0.15011	0.46720	0.26877
FACIMP03	0.29204	0.13677	1.00000	0.56362	0.43881	0.54521	-0.16337	0.73170	0.50334	0.56867
FACIMP04	0.24744	0.38766	0.56362	1.00000	0.23641	0.52296	-0.19448	0.53922	0.69947	0.56974
FACIMP05	0.25542	0.17389	0.43881	0.23641	1.00000	0.43794	-0.11228	0.41005	0.31527	0.34874
FACIMP06	0.40278	0.24495	0.54521	0.52296	0.43794	1.00000	0.00124	0.62920	0.58630	0.62652
FACIMP07	0.03479	0.04688	-0.16337	-0.19448	-0.11228	0.00124	1.00000	-0.32396	-0.03325	-0.02859
FACIMP08	0.28769	0.15011	0.73170	0.53922	0.41005	0.62920	-0.32396	1.00000	0.52606	0.57938
FACIMP09	0.39165	0.46720	0.50334	0.69947	0.31527	0.58630	-0.03325	0.52606	1.00000	0.61867
FACIMP10	0.23925	0.26877	0.56967	0.56974	0.38874	0.62552	-0.02859	0.57938	0.61867	1.00000
FACIMP11	0.34640	0.39441	0.59547	0.68718	0.24052	0.58445	-0.10218	0.56132	0.72953	0.51397
FACIMP12	0.33476	0.40528	0.58419	0.58436	0.39266	0.52097	-0.00632	0.47648	0.65070	0.53031
FACIMP13	0.36754	-0.04607	0.18243	0.38838	0.13131	0.09969	0.21690	0.13233	-0.01798	0.12329
FACIMP14	0.39842	0.26500	0.51030	0.55214	0.38598	0.64362	-0.08715	0.58287	0.56751	0.62285
FACIMP15	0.26652	0.28373	0.36618	0.51893	0.34166	0.53312	-0.19921	0.54953	0.50688	0.59252

FACIMP11 FACIMP12 FACIMP13 FACIMP14 FACIMP15

	FACIMP11	FACIMP12	FACIMP13	FACIMP14	FACIMP15
FACIMP01	0.38640	0.33476	0.06754	0.39842	0.26652
FACIMP02	0.39441	0.40528	-0.04607	0.26500	0.28373
FACIMP03	0.59547	0.58419	0.18243	0.51030	0.36618
FACIMP04	0.68718	0.58436	0.08838	0.55214	0.51893
FACIMP05	0.24062	0.39266	0.13131	0.38598	0.34166
FACIMP06	0.59445	0.52097	0.09969	0.64362	0.53312
FACIMP07	-0.10218	-0.00632	0.21690	-0.08715	-0.19921
FACIMP08	0.56132	0.47648	0.13233	0.58287	0.54953
FACIMP09	0.72953	0.65070	-0.01798	0.56751	0.50688
FACIMP10	0.51397	0.53031	0.12329	0.62285	0.59252
FACIMP11	1.00000	0.68289	0.01987	0.57987	0.47865
FACIMP12	0.68289	1.00000	0.10706	0.48695	0.38384
FACIMP13	0.01327	0.10706	1.00000	0.25884	0.11830
FACIMP14	0.57887	0.48695	0.25884	1.00000	0.54286
FACIMP15	0.47865	0.38384	0.11830	0.54286	1.00000

DETERMINANT OF CORRELATION MATRIX = 0.00015571 0.15572508D-03)

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	PERF01	PERF02	PERF03	PERF04	PERF05	PERF06	PERF07	PERF08	PERF09	PERF10
PERF01	1.00000	0.74070	0.61364	0.59353	0.45849	0.59425	0.60907	0.52761	0.67687	0.57796
PERF02	0.74070	1.00000	0.59330	0.70540	0.45373	0.56399	0.55989	0.48130	0.69804	0.75062
PERF03	0.61364	0.59330	1.00000	0.67992	0.68809	0.73100	0.62953	0.78996	0.60449	0.66147
PERF04	0.59353	0.70540	0.67992	1.00000	0.47291	0.59979	0.51178	0.56247	0.69019	0.53530
PERF05	0.45849	0.45373	0.68809	0.47291	1.00000	0.61551	0.47387	0.67782	0.47636	0.46214
PERF06	0.59425	0.56399	0.73100	0.59979	0.61551	1.00000	0.60387	0.71072	0.64459	0.63321
PERF07	0.60907	0.55989	0.62953	0.51178	0.47387	0.60387	1.00000	0.51394	0.58237	0.59334
PERF08	0.52761	0.48130	0.78996	0.56247	0.67782	0.71072	0.51394	1.00000	0.54438	0.51503
PERF09	0.67687	0.69804	0.60449	0.68019	0.47636	0.64459	0.54237	0.54438	1.00000	0.64958
PERF10	0.57796	0.75062	0.66147	0.58680	0.46214	0.63321	0.59334	0.51503	0.64958	1.00000
PERF11	0.51335	0.57788	0.61735	0.55489	0.50188	0.54090	0.51553	0.49792	0.56983	0.60515
PERF12	0.57899	0.57639	0.69805	0.52727	0.59769	0.56176	0.62546	0.57138	0.57731	0.61085
PERF13	0.43080	0.45454	0.41565	0.32303	0.52310	0.36644	0.58258	0.44846	0.42626	0.50101
PERF14	0.59724	0.67789	0.69603	0.59417	0.61457	0.66183	0.66971	0.66307	0.69290	0.66742
PERF15	0.39933	0.46550	0.62809	0.58347	0.48926	0.64174	0.41255	0.58742	0.52919	0.62499

	PERF11	PERF12	PERF13	PERF14	PERF15
PERF01	0.51325	0.57890	0.43880	0.59224	0.39933
PERF02	0.57788	0.57639	0.45454	0.67789	0.46950
PERF03	0.61735	0.69805	0.41565	0.69603	0.62809
PERF04	0.55489	0.52727	0.32303	0.53417	0.58847
PERF05	0.50188	0.59769	0.52310	0.61457	0.48926
PERF06	0.54090	0.56176	0.36644	0.66183	0.64174
PERF07	0.51553	0.62546	0.58258	0.66971	0.41255
PERF08	0.49792	0.57138	0.44846	0.66307	0.58742
PERF09	0.56983	0.57731	0.42626	0.69290	0.52919
PERF10	0.60515	0.61085	0.50101	0.66742	0.62499
PERF11	1.00000	0.75876	0.34068	0.70455	0.60435
PERF12	0.75876	1.00000	0.58751	0.75537	0.41728
PERF13	0.38068	0.58751	1.00000	0.60153	0.23436
PERF14	0.70455	0.75537	0.60153	1.00000	0.53113
PERF15	0.60435	0.41728	0.23436	0.53113	1.00000

DETERMINANT OF CORRELATION MATRIX = 0.0000021( 0.21111182D-05)

STYLE01	STYLE02	STYLE03	STYLE04	STYLE05	STYLE06	STYLE07	STYLE08	STYLE09	STYLE10
STYLE01	1.00000	0.49444	0.21317	-0.25796	0.37719	0.24842	0.33355	0.72371	0.62564
STYLE02	0.49444	1.00000	0.39477	-0.48367	0.41487	0.03544	0.18047	0.53565	0.52921
STYLE03	0.21317	0.39477	1.00300	-0.20213	0.37525	0.24278	0.27780	0.45122	0.50584
STYLE04	-0.25796	-0.48367	-0.20213	1.00300	-0.46786	-0.29823	-0.33705	-0.44198	-0.50265
STYLE05	0.37719	0.41487	0.37525	-0.46786	1.00300	0.31055	0.43636	0.61389	0.59136
STYLE06	0.24842	0.03544	0.24278	-0.29823	0.31055	1.00000	0.63499	0.43482	0.42663
STYLE07	0.33355	0.18047	0.27780	-0.33705	0.43636	0.63499	1.00000	0.56571	0.52689
STYLE08	0.72371	0.53565	0.45122	-0.44198	0.61389	0.43482	0.56571	1.00000	0.80215
STYLE09	0.62564	0.52921	0.50584	-0.50265	0.59136	0.42663	0.52689	0.80215	1.00000
STYLE10	0.45191	0.52921	0.50584	-0.39182	0.57617	0.45353	0.52541	0.72030	0.72030
STYLE11	0.52522	0.57705	0.50531	-0.54296	0.58084	0.43680	0.55821	0.73179	0.75519
STYLE12	0.43761	0.40999	0.04996	-0.27413	0.44151	-0.01988	0.20941	0.42362	0.38461
STYLE13	0.58523	0.50761	0.24222	-0.39175	0.52396	-0.02414	0.26183	0.55495	0.37323
STYLE14	-0.55258	-0.50593	-0.18303	0.17168	-0.23945	0.03914	-0.06391	-0.43579	-0.33547
STYLE15	0.39724	0.47133	0.18227	-0.42749	0.47627	-0.02311	0.11041	0.50307	0.46695
STYLE16	-0.50241	-0.55690	-0.09329	0.36087	-0.33945	0.22399	-0.19543	-0.47915	-0.36523
STYLE17	-0.37930	-0.44794	-0.04658	0.41658	-0.42920	0.06091	-0.24259	-0.46501	-0.37969
STYLE18	-0.31347	-0.71413	-0.19056	0.39127	-0.34533	0.22261	-0.01975	-0.34725	-0.29318
STYLE19	0.33177	0.44025	0.06150	-0.32332	0.37763	-0.15245	0.17131	0.41434	0.32577
STYLE20	0.33058	0.72159	0.17358	-0.47346	0.38177	-0.17392	0.05204	0.41790	0.37651
STYLE21	0.42299	0.38292	0.07414	-0.21792	0.30094	-0.22795	0.12054	0.41265	0.31835
STYLE22	0.45749	0.63735	0.20803	-0.40383	0.54365	0.05741	0.23180	0.60603	0.49385
STYLE23	0.39563	0.42039	-0.00274	-0.44969	0.43033	0.01544	0.32762	0.50963	0.39750
STYLE24	-0.46888	-0.57426	-0.42229	0.60469	-0.59238	-0.31127	-0.33380	-0.61997	-0.54170
STYLE25	-0.40853	-0.74731	-0.42649	0.51050	-0.45384	-0.06966	-0.02773	-0.47427	-0.45521
STYLE26	0.44920	0.59315	0.16137	-0.43068	0.37755	-0.06455	0.24773	0.56517	0.42029
STYLE27	-0.42727	-0.59005	-0.09634	0.36722	-0.36829	-0.02712	-0.23759	-0.36256	-0.32781
STYLE28	0.52569	0.45166	0.08357	-0.26692	0.30959	-0.05321	0.13700	0.45023	0.34237
STYLE29	0.50504	0.48207	0.24041	-0.23462	0.46440	0.08940	0.27563	0.60601	0.58263
STYLE30	0.66664	0.61948	0.24898	-0.42574	0.51461	0.03573	0.28723	0.69913	0.58924
STYLE31	0.51117	0.50288	0.07399	-0.38814	0.41037	-0.05261	0.25950	0.53434	0.43636
STYLE32	0.43249	0.58461	0.18737	-0.42848	0.32816	0.15100	0.16662	0.44831	0.42251
STYLE33	0.54177	0.63990	0.25529	-0.43329	0.46196	0.03266	0.27585	0.62404	0.52198

	STYLE11	STYLE12	STYLE13	STYLE14	STYLE15	STYLE16	STYLE17	STYLE18	STYLE19	STYLE20
STYLE01	0.5252	0.40761	0.58523	-0.55298	0.39724	-0.50241	-0.37930	-0.31347	0.38177	0.39058
STYLE02	0.57705	0.40999	0.50761	-0.50593	0.47133	-0.55590	-0.64704	-0.71413	0.44025	0.72159
STYLE03	0.50531	0.04995	0.24222	-0.18303	0.18227	-0.09229	-0.04654	-0.18256	0.06150	0.17359
STYLE04	-0.54296	-0.27413	-0.39875	0.17168	-0.42749	0.36087	0.41656	0.30127	-0.32032	-0.40346
STYLE05	0.53084	0.44151	0.52056	-0.23945	0.47627	-0.33945	-0.42920	-0.34533	0.37763	0.38177
STYLE06	0.43680	-0.01588	-0.02414	0.03914	-0.02311	0.22099	0.06091	-0.22261	-0.15245	-0.17362
STYLE07	0.55821	0.20941	0.26188	-0.06391	0.11041	-0.10583	-0.24259	-0.01975	0.17131	0.05208
STYLE08	0.75329	0.50968	0.65495	-0.43579	0.50307	-0.47915	-0.46501	-0.34725	0.41434	0.41790
STYLE09	0.73179	0.42360	0.55904	-0.35867	0.46995	-0.36520	-0.37969	-0.29118	0.32577	0.37651
STYLE10	0.75519	0.38461	0.37323	-0.33547	0.37322	-0.21398	-0.24008	-0.32200	0.24255	0.34451
STYLE11	1.00000	0.49259	0.53274	-0.36496	0.55013	-0.40934	-0.44118	-0.39331	0.41296	0.43464
STYLE12	0.49259	1.00000	0.65387	-0.63484	0.77512	-0.58006	-0.62454	-0.52920	0.71868	0.52939
STYLE13	0.53274	0.69387	1.00000	-0.56643	0.63712	-0.71345	-0.62185	-0.56271	0.68354	0.61257
STYLE14	-0.36496	-0.63484	-0.56643	1.00000	-0.54215	0.62439	0.47750	0.57733	-0.58558	-0.53328
STYLE15	0.55013	0.77512	0.63712	-0.54215	1.00000	-0.53474	-0.55561	-0.53016	0.63878	0.60344
STYLE16	-0.40584	-0.58006	-0.71345	0.62439	-0.53474	1.00000	0.74302	0.72018	-0.81434	-0.75067
STYLE17	-0.44118	-0.62454	-0.62185	0.47750	-0.55561	0.74302	1.00000	-0.60522	-0.80512	-0.59312
STYLE18	-0.39331	-0.52920	-0.56271	0.57733	-0.53016	0.72018	-0.60522	1.00000	-0.66163	-0.87319
STYLE19	0.41296	0.71868	0.68354	-0.58558	0.63878	-0.81434	-0.81512	-0.66168	1.00000	0.70008
STYLE20	0.43464	0.52939	0.61257	-0.53328	0.60344	-0.75067	-0.59312	-0.47819	0.70008	1.00000
STYLE21	0.39057	0.73597	0.76181	-0.64470	0.59798	-0.74010	-0.62924	-0.58753	0.84623	0.62562
STYLE22	0.58456	0.66542	0.66220	-0.50566	0.67174	-0.70038	-0.60479	-0.71805	0.70521	0.76544
STYLE23	0.44020	0.63272	0.61322	-0.44667	0.57350	-0.71213	-0.86578	-0.50579	0.77893	0.53850
STYLE24	-0.53891	-0.30622	-0.49537	0.33926	-0.36734	0.43407	0.31283	0.49577	-0.32021	-0.43951
STYLE25	-0.50522	-0.33134	-0.36548	0.47619	-0.49409	0.41412	0.25462	0.61072	-0.30689	-0.56094
STYLE26	0.51863	0.71184	0.66172	-0.60562	0.63458	-0.78992	-0.72533	-0.76688	0.79317	0.78692
STYLE27	-0.49981	-0.47572	-0.34493	0.46255	-0.48150	0.61252	0.61587	0.51993	-0.60199	-0.49321
STYLE28	0.45686	0.65791	0.57485	-0.64569	0.74749	-0.61474	-0.55683	-0.54893	0.69107	0.59427
STYLE29	0.55637	0.69102	0.59932	-0.56577	0.57323	-0.53164	-0.45954	-0.54788	0.59783	0.57813
STYLE30	0.61478	0.62923	0.74766	-0.57910	0.61541	-0.80734	-0.74542	-0.66305	0.76478	0.70888
STYLE31	0.49739	0.63234	0.65752	-0.52200	0.59152	-0.78681	-0.84533	-0.60423	0.81903	0.63269
STYLE32	0.45905	0.33666	0.35930	-0.46225	0.39936	-0.25484	-0.21929	-0.30789	0.28569	0.40453
STYLE33	0.59455	0.79783	0.70532	-0.68491	0.70239	-0.65347	-0.62698	-0.61791	0.73542	0.62264

	STYLE21	STYLE22	STYLE23	STYLE24	STYLE25	STYLE26	STYLE27	STYLE28	STYLE29	STYLE30
STYLE01	0.42299	0.45749	0.39563	-0.46988	-0.40933	0.44920	-0.42727	0.52569	0.50534	0.66664
STYLE02	0.38292	0.63735	0.42039	-0.57426	-0.74731	0.59315	-0.50005	0.45166	0.48209	0.61948
STYLE03	0.07414	0.20900	-0.00274	-0.42229	-0.42649	0.16137	-0.09634	0.08357	0.24341	0.24898
STYLE04	-0.21792	-0.40388	-0.44969	0.63669	0.51090	-0.43069	0.36922	-0.26692	-0.23462	-0.42574
STYLE05	0.30094	0.54365	0.43033	-0.52238	-0.45384	0.37755	-0.36829	0.30959	0.46643	0.51461
STYLE06	-0.22285	0.05741	0.01544	-0.31127	-0.06965	-0.06495	-0.02712	-0.06321	0.38943	0.35773
STYLE07	0.12054	0.23380	0.37162	-0.33380	-0.02773	0.24718	-0.23359	0.13700	0.27563	0.28723
STYLE08	0.41265	0.60603	0.50963	-0.61997	-0.47427	0.56517	-0.36256	0.45823	0.60501	0.69413
STYLE09	0.31035	0.49385	0.39750	-0.54170	-0.45521	0.42039	-0.32781	0.34237	0.58263	0.58924
STYLE10	0.22335	0.51389	0.24843	-0.53173	-0.57644	0.37640	-0.36796	0.30006	0.45703	0.46860
STYLE11	0.39057	0.58856	0.44020	-0.53891	-0.50572	0.51863	-0.40981	0.45686	0.55637	0.61478
STYLE12	0.73597	0.66542	0.63272	-0.30622	-0.33134	0.71194	-0.47572	0.65791	0.69132	0.62423
STYLE13	0.76181	0.66220	0.61322	-0.49537	-0.36548	0.66172	-0.34493	0.57484	0.59932	0.74766
STYLE14	-0.64670	-0.50565	-0.44667	0.39425	0.47619	-0.60562	0.46255	-0.64569	-0.56577	-0.57910
STYLE15	0.59708	0.67174	0.57350	-0.33734	-0.49409	0.61458	-0.48150	0.74749	0.57323	0.61541
STYLE16	-0.74010	-0.70098	-0.71213	0.43407	0.41412	-0.78982	0.61252	-0.61474	-0.53164	-0.80734
STYLE17	-0.62924	-0.60479	-0.86578	0.31293	0.25462	-0.72533	0.61587	-0.55683	-0.74542	-0.74542
STYLE18	-0.58753	-0.71805	-0.50579	0.49577	0.61072	-0.76588	0.51993	-0.54893	-0.54788	-0.66305
STYLE19	0.84623	0.70521	0.77898	-0.32021	-0.30689	0.79317	-0.60199	0.69107	0.56783	0.76478
STYLE20	0.62562	0.78544	0.53850	-0.43951	-0.56094	0.78992	-0.49821	0.59427	0.57813	0.70828
STYLE21	1.00000	0.64343	0.62280	-0.30530	-0.29729	0.76582	-0.43356	0.64591	0.64532	0.69017
STYLE22	0.64343	1.00000	0.65092	-0.53218	-0.51714	0.78326	-0.48826	0.63253	0.68001	0.74067
STYLE23	0.62280	0.65092	1.00000	-0.31926	-0.18137	0.69365	-0.54533	0.62867	0.49824	0.74697
STYLE24	-0.53218	-0.31926	-0.31926	1.00000	0.63054	-0.44193	0.32549	-0.29696	-0.41874	-0.51109
STYLE25	-0.31926	-0.18137	-0.18137	0.63054	1.00000	-0.45174	0.38584	-0.37978	-0.42737	-0.50101
STYLE26	0.78326	0.78326	0.69965	-0.44183	-0.45174	1.00000	-0.55519	0.65471	0.65215	0.78031
STYLE27	-0.48826	-0.48826	-0.54533	0.32548	0.38584	-0.55519	1.00000	-0.51898	-0.34267	-0.60379
STYLE28	0.64591	0.64591	0.62867	-0.29696	-0.37978	0.65471	-0.51398	1.00000	0.53362	0.65729
STYLE29	0.64532	0.68001	0.49824	-0.41874	-0.42737	0.55215	-0.34267	0.53862	1.00000	0.65411
STYLE30	0.69017	0.74967	0.74697	-0.51109	-0.50101	0.73031	-0.60379	0.65729	0.65411	1.00000
STYLE31	0.69708	0.69904	0.87959	-0.36496	-0.31768	0.75128	-0.64118	0.65900	0.59501	0.84170
STYLE32	0.36848	0.37466	0.22553	-0.46700	-0.62506	0.36309	-0.31187	0.39868	0.46349	0.36441
STYLE33	0.74593	0.69055	0.64723	-0.47301	-0.56749	0.77126	-0.51663	0.69858	0.70911	0.72178



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STYLE01	STYLE31	STYLE32	STYLE33
0.51117	0.43246	0.54177	0.54177
0.51288	0.50461	0.63990	0.63990
0.07099	0.18737	0.25529	0.25529
-0.39814	-0.42848	-0.43029	-0.43029
0.41037	0.32816	0.46156	0.46156
-0.05261	0.15100	0.03266	0.03266
0.25850	0.16662	0.27585	0.27585
0.53434	0.44831	0.62404	0.62404
0.43086	0.42251	0.52193	0.52193
0.32356	0.43640	0.49075	0.49075
0.49739	0.45905	0.59455	0.59455
0.62234	0.33666	0.79783	0.79783
0.65752	0.35930	0.70532	0.70532
-0.52200	-0.46225	-0.68491	-0.68491
0.59152	0.30936	0.70230	0.70230
-0.73631	-0.25484	-0.65347	-0.65347
-0.84533	-0.21029	-0.62698	-0.62698
-0.60423	-0.38789	-0.61791	-0.61791
0.81933	0.28569	0.73542	0.73542
0.63269	0.40453	0.62264	0.62264
0.69708	0.36843	0.74590	0.74590
0.69904	0.37466	0.69055	0.69055
0.87959	0.22553	0.64728	0.64728
-0.36496	-0.46700	-0.47301	-0.47301
-0.31768	-0.62506	-0.56749	-0.56749
0.75128	0.36309	0.77126	0.77126
-0.64118	-0.31187	-0.51663	-0.51663
0.65900	0.39868	0.69358	0.69358
0.58501	0.46349	0.70911	0.70911
0.84170	0.36441	0.72178	0.72178
1.00000	0.28529	0.65780	0.65780
0.28529	1.00000	0.62036	0.62036
0.59780	0.62036	1.00000	1.00000

DETERMINANT OF CORRELATION MATRIX = 0.000000( 0.33781461D-17)

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## Appendix F

### Distribution of the Measure of Agreement on Importance

1) among faculty members

and

2) between the faculty  
on the whole and the  
department head

## Distribution of the Measure of Agreement on Importance

1) among faculty members and 2) between the faculty  
on the whole and the  
department head

Dept. Code	1) Intraclass Correlation	2) Pearson Correlation	Dept. Code	1) Intraclass Correlation	2) Pearson Correlation
1	.67	.29	27	.54	.56
2	.74	.71	28	.83	.07
3	.76	.46	29	.73	.74
4	.36	.25	30	.71	.67
5	.46	.03	31	.78	.62
6	.71	.21	32	-.33	.44
7	.29	.59	33	-.16	.24
8	.40	.38	34	.40	.67
9	.20	-.11	35	.57	.33
10	.76	.79	36	.50	.50
11	.14	.11	37	-.18	.64
12	-.51	.56	38	.57	.03
13	.34	.48	39	.75	.28
14	.37	.19	40	.19	.51
15	.58	.71	41	.24	.48
16	.66	.52	42	.60	.67
17	.52	.59	43	.70	.45
18	.29	.56	44	.66	-.07
19	-1.78	.28	45	.10	.19
20	.55	.34	46	.59	.14
21	.28	.01	47	.66	.31
22	.60	.76	48	-.14	.26
23	.78	.77	49	-.01	.52
24	.70	.37	50	.70	.52
25	-.01	.33	51	.70	.68
26	-.90	.36	52	.07	.43
			53	-2.68	.14
			54	-.09	.54
			55	.63	.75
			56	.59	.63
			57	.04	.59
			58	.71	.57
			59	.76	.39

Dept. Code	1) Intraclass Correlation	2) Pearson Correlation	Dept. Code	1) Intraclass Correlation	2) Pearson Correlation
60	.69	.60	81	.04	.06
61	.70	.55	82	.63	.45
62	.63	-.03	83	.32	.61
63	.35	.69	84	.33	.23
64	.68	.37	85	.62	.27
65	.84	.76	86	-.04	.54
66	-.46	.29	87	.66	.47
67	.70	.17	88	.60	.26
68	.82	.65	89	.87	.88
69	.81	.27	90	.57	.49
70	.45	.52	91	.12	.32
71	.89	.69	92	.66	.67
72	.86	.55	93	.62	.44
73	.79	.81	94	.83	.66
74	.83	.62	95	.17	.05
75	.86	.78	96	.58	.26
76	.77	.86	97	.26	.41
77	.92	.75	98	.52	.17
78	-3.45	.06	99	.39	.62
79	.62	-.09	100	.73	.42
80	.48	.61	101	.74	.45
			102	.19	.36
			103	.55	.32



MEASURING AND PREDICTING THE EFFECTIVENESS OF  
ACADEMIC DEPARTMENT HEADS

by

RONALD K. SPANGLER

B.S., Kansas State University, 1975

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AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Psychology

KANSAS STATE UNIVERSITY

Manhattan, Kansas

1977

## ABSTRACT

This investigation had two major purposes: 1) to refine measures of the administrative effectiveness of academic department heads, and 2) to predict their effectiveness on the basis of their administrative behaviors.

Faculty members and department heads from four large public universities participated in an evaluation program designed ultimately to aid in improving administrative effectiveness. Faculty members rated the importance of 15 department head functions and the head's performance on those functions; they also described the head's administrative style by responding to 33 behavioral items. Faculty ratings were made anonymously and a summary of these ratings was reported only to the department head. Department heads also rated the importance of each function and described five characteristics of the department. Two additional measures of departmental characteristics were developed: 1) agreement among the faculty, and 2) agreement between the head and the faculty as a whole as to the relative importance of each function.

Four hypotheses guided the investigation:

Hypothesis 1. Faculty members can make reliable judgments of importance, performance, and behavior regarding the functioning of the head of their department.

Hypothesis 2. There is an underlying structure in the faculty members' ratings that will clarify the nature of the department head's

job and the administrative styles which might be followed.

Hypothesis 3. Faculty member's ratings of the head's performance can be predicted from their ratings of his or her behavior with sufficient accuracy that the latter can be recommended for diagnostic use.

Hypothesis 4. Differences in either performance or behaviors are unrelated to differences in characteristics of the department.

Statistical tools included correlational techniques, principal component analysis, and multiple discriminant analysis. Results supported the following conclusion:

1. Generally, the reliability of the ratings were satisfactory. Split-half reliabilities of importance ratings were low, but due to very low variances, so were standard errors. Reliability coefficients for behavior ratings were relatively high, but about one-third had undesirably high standard errors. Performance ratings generally yielded reliability coefficients and standard errors which were acceptable.

2. Three relatively distinct types of responsibilities were identified from average faculty performance ratings.

Personnel management - functions which directly involve relationships with the faculty.

Planning and development - functions involving organization and direction.

Building the department's reputation - functions which stimulate visibility.

Four administrative styles emerged from the analysis of average faculty ratings of behavior.

- |                             |  |
|-----------------------------|--|
| Democratic practice -       | efforts to seek and act on faculty views.                              |
| Structuring -               | efforts to clarify roles, relationships, procedures, and expectations. |
| Interpersonal sensitivity - | tendencies to exhibit warmth and consideration for the faculty.        |
| Vigor -                     | proclivities for decisiveness and commitment to action.                |

3. Measures of the department head's behavior were highly predictive of faculty ratings of performance. Multiple correlations between the four Style scores and performance ratings ranged from .58 to .87 and averaged .72.

4. The fourth hypothesis was the only one stated in the null form. It was rejected for six of the seven characteristics investigated. The sole exception was the number of buildings in which the department was housed. Percentage of tenured faculty, frequency of faculty meetings, department head's experience, type of appointment, agreement on importance among the faculty and agreement between the head and the faculty as a whole were all related to performance in unique ways. Some of these were also related to ratings of administrative style. These findings suggest that such characteristics may have a moderating effect on effectiveness.

Findings were discussed in terms of their implications for improving effectiveness, administrative decision making, administrative theory, and future research.