# A STUDY OF FACTORS RELATED TO MOBILITY AND FACULTY PRODUCTIVITY AND ACHIEVEMENT AT MICHIGAN STATE UNIVERSITY; A FOLLOW-UP STUDY

Thesis for the Degree of Ed. D.
MICHIGAN STATE UNIVERSITY
Elwin F. Cammack
1964



This is to certify that the

thesis entitled A Study of Factors Related to Mobility and Faculty Productivity and Achievement Michigan State University; A Follow-Up Study presented by

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has been accepted towards fulfillment of the requirements for

Ed.D. degree in Education

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#### ABSTRACT

A Study of Factors Related to Mobility and Faculty Productivity and Achievement at Michigan State University A Follow-Up Study

#### by Elwin F. Cammack

The study was intended as an exploratory investigation of the interrelationships between faculty productivity and achievement and factors
affecting attraction and retention of faculty members at Michigan State
University. The general purposes of the study can be categorized into
two groups: first, an investigation of those relationships which are
related to Michigan State, and second, a study of the relationships which
are general in nature and relate to any institution or academic position.

Specific purposes of the study were (1) to investigate the relative importance attached by faculty members to specific aspects of Michigan State University in a decision to remain at the University, (2) to investigate the relative importance attached by faculty members to specific aspects of the University in a decision to leave, (3) to investigate the relative importance attached by faculty members to specific aspects of any academic position, and (4) to relate faculty perception of an academic position, both at Michigan State University and at other institutions of higher education, to measures of faculty productivity and achievement.

Methodology of the Study The sample included all faculty members appointed to the staff during the period from June 1, 1953 through September 1, 1955 and whose appointment was subject to the tenure regulations of the University. Usable questionnaires were received from

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ninety faculty members who were still employed by the University as of January 1, 1964 and from seventy-six faculty members who had voluntarily terminated before January 1, 1964. Productivity and achievements were measured by scaling and combining factors such as rank, salary, the number of publications of various kinds, the involvement in learned and professional societies, the involvement in graduate student advising, the extent of professional consulting activities, public service activities, and service on college and university committees. Further, faculty members who had left the University were ranked by Department Chairmen at Michigan State. Chi-square distributions were used to determine whether or not differences existed in the way in which faculty members grouped according to these measures perceived a set of forty-six factors as they related to Michigan State University and to the selection of an academic position in general.

Findings of the Study It was found that voluntarily terminated faculty members were slightly younger and were receiving higher mean salaries than those who had remained at the University. Those who had remained were found to be more active in student advising, public service functions, and learned and professional societies than those who had terminated.

Faculty members who had remained and were high on the productivity and achievement scales were found to be more satisfied with the administrative attitudes and practices and with physical facilities and resources available at the University, with the exception of facilities and resources directly related to research, than were those low on these scales. Both high and low productivity groups were found to be quite satisfied with the quality of the student population, the prestige of

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Michigan State University, and the cultural, recreational, and educational opportunities of the University Community.

Economic compensations, especially salaries, were found to be highly influential in decisions of faculty members to remain in a position or to seek employment elsewhere. Specific professional functions were found to be important to all faculty members in the selection of or satisfaction with an academic position. However, the more productive of the present faculty members expressed greater concern for opportunities to do research as part of their professional assignment than did those low on the scales.

Finally, tenure was found to be of greater importance to faculty members who had been less successful in gaining recognition within the institution and within the academic discipline with which the faculty member was affiliated than to those faculty members ranked high on the productivity and achievement scales.

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Вy

Elwin F. Cammack

#### A THESIS

Submitted to
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in partial fulfillment of the requirements
for the degree of

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#### CHAPTER I

#### NATURE AND SCOPE OF THE STUDY

Solutions to the problems of faculty recruitment and retention are becoming increasingly urgent in a period of rapidly rising enrollments in colleges and universities and a highly competitive market for academic personnel. The shortage of highly trained manpower and the opportunities for employment afforded by business, government, and industry are creating critical needs for colleges and universities to reassess their capabilities to acquire and retain staff qualified to carry the responsibility of higher education. Although research on student populations has been extensive during the past decade or two, relatively few attempts have been made to study programs and policies related to college and university faculties. Studies of conditions of employment and service and of job satisfactions of the faculty as they relate to quality in higher education should become common practices in American higher education. If institutions of higher education are to achieve a level of excellence they must obtain and retain the services of faculty who are capable of insuring the achievement of the goal of excellence.

#### Rationale for the Study

The President's Committee on Education Beyond the High School, in 1957, stated that:

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The most critical bottleneck to the expansion and improvement of education in the United States is the mounting shortage of excellent teachers. Unless enough of the Nation's ablest manpower is reinvested in the educational enterprise, its human resources will remain under-developed and specialized manpower shortages in every field will compound. Unwittingly the United States right now is pursuing precisely the opposite course. Demands for high quality manpower have everywhere been mounting, but the colleges and universities have found themselves at a growing competitive disadvantage in the professional manpower market.

search conducted at the University of Minnesota, said, "In my opinion, the problem of quality in staffing our colleges is more serious than any of the other problems created by the huge increase in college-age population and the continually increasing clamor for college education."

He suggests that the problem of faculty recruitment and motivation has two dimensions, "(1) problems of recruiting people into college teaching in general, and (2) problems of attracting and holding college faculty members in a particular institution or a particular type of institution."

Wilson, currently president of the American Council on Education, believes that, "The 'here today and gone tomorrow' attitude which some institutions force upon their faculties gives no opportunity for group coherence and morale to develop, and where there is no reasonable continuity, membership is consequently devalued."

In 1957, the

<sup>1</sup> The President's Committee on Education Beyond the High School, Second Report to the President (Washington: U.S. Government Printing Office, 1957), p. 5.

<sup>&</sup>lt;sup>2</sup>John E. Stecklein, Research on Faculty Recruitment and Motivation, Studies of College Faculty, Western Interstate Commission for Higher Education (Boulder: 1961), p. 11.

<sup>3</sup>Ibid.

<sup>4</sup>Logan Wilson, The Academic Man (New York: Oxford University Press, 1942), p. 59.

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Educational Policies Commission stated that, "Recruitment and maintenance of outstanding faculties is the most urgent, and in many ways
most difficult, problem of higher education in current years."

Among institutions of higher education, Michigan State University has been exceeded by few in its rate of growth and development during the past several years. If the University is to continue to develop and expand while at the same time maintaining academic excellence, continuous effort and attention must be given to maintaining an excellent faculty. Not only must the University be capable of securing the services of capable young scholars and teachers, but it must also induce the most competent faculty members to remain.

The limited research in the area of quality of faculties and factors related to the abilities of institutions to attract and retain faculty members has pointed up the need for further investigation of the interrelationships between faculty attraction and retention and quality. Therefore an investigation of the reasons faculty members remain at or leave Michigan State University and of the relationship of these reasons to faculty productivity and achievements is considered to be both appropriate and timely.

### Purposes of the Study

The study is intended as an exploratory investigation of the interrelationships between faculty quality and factors affecting attraction and retention of faculty members at Michigan State University. Hence the general purposes of the study can be categorized into two groups: first, an investigation of those relationships which are

lEducational Policies Commission, <u>Higher Education in a Decade</u>
of Decision (Washington: National Educational Association, 1957), p. 150.

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related only to Michigan State, and, second, a study of relationships which are general in nature and relate to any institution or academic position.

Specific purposes of the study are (1) to investigate the relative importance attached by faculty members to specific aspects of the University in a decision to remain at Michigan State, (2) to investigate the relative importance attached by faculty members to specific aspects of the University in a decision to leave the University, (3) to investigate the relative importance attached by faculty members to specific aspects of any academic position, and (4) to relate faculty perception of an academic position, both at Michigan State and at other institutions of higher education, to measures of faculty productivity and achievement.

#### Statement of the Problem

This study is an investigation of factors related to mobility and faculty productivity and achievements at Michigan State University through a follow-up study of new appointees for the years 1953-54 and 1954-55. The study will attempt to evaluate the extent to which the following six principles characterize factors related to mobility and the productivity and achievement of the University faculty.

- 1. Physical facilities and resources, both for research and teaching, contribute to morale and job-expectation and hence affect mobility and faculty productivity and achievement.
- 2. A student population of quality, and departments and colleges with recognized prestige are crucial in developing a productive staff.

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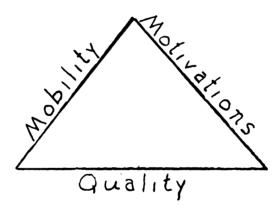
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- 3. Economic compensations and the degree of security made possible by tenure regulations tend to reduce mobility and may affect faculty productivity.
- 4. The cultural and recreational opportunities offered by the University and immediate community facilitate acquisition and retention of a productive faculty.
- 5. Administrative attitudes and practices influence mobility and faculty productivity and achievement.
- 6. The nature and extent of work load affect mobility and faculty productivity and achievement.
  The model



will serve as a construct about which each of the stated principles will be investigated. The extent of the interrelationships between productivity and achievement, motivations or reasons for leaving or staying in an academic position, and mobility will be sought.

#### Definition of Terms

For the purposes of this study the following terms will be used as defined.

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- appointed to the University staff during the period June 1, 1953 through September 1, 1955. A further limitation is that the appointment was one which was subject to tenure regulations adopted by the University. Persons on temporary appointments were not included in the study.
- 2. Former faculty is defined to mean those faculty under tenure rules who were appointed to the University staff during the period June 1, 1953 through September 1, 1955 but who subsequently resigned from the University before January 1, 1964.
- 3. Faculty productivity and achievement and quality will be be used interchangeably throughout the study. Quality will be measured by composites of faculty rank, salary, number of publications, memberships in learned societies and professional organizations, offices held in learned societies and professional organizations, public service activity, University committee work, and the numbers of masters and doctoral students for which faculty members have served as major committee chairmen.
- 4. <u>Voluntary termination</u> means a resignation of a faculty member who was or would have been offered continuation of employment at the University.
- 5. <u>Involuntary termination</u> will refer to the termination of employment of those faculty members who did not achieve tenure or were otherwise encouraged to leave Michigan State University.
- 6. Appointee will refer to those faculty who were appointed to Michigan State University during the period from June 1, 1953 through September 1, 1955 and for whom the appointment was subject to the tenure regulations adopted by the University.

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#### Limitations of the Study

The writer is cognizant of the limitations of questionnaire studies and acknowledges such limitations in this study. However, it was deemed advisable at the outset to subject the study to these limitations as a more desirable choice than the use of the interview technique. Faculty members, who traditionally espouse the principle of intellectual integrity, could be expected to exercise judgment and acceptable standards of objectivity in their responses to the items included on the questionnaire. Although the size of the sample is adequate when considered in terms of the size of the total faculty, the selection of faculty appointed during a limited period of time may have caused a tendency toward homogeneity. The sample may also reflect certain characteristics of the University at the time the faculty members were appointed which may no longer exist or may have changed considerably. Characteristics of the academic market place which have been altered in the intervening years may also be reflected in the sample. Hence, the possibility of bias must be considered whenever inferences are made.

A further limitation of the study is the recognized difficulty inherent in an attempt to develop a measure of faculty productivity and achievement. The measures, as developed in the study, are not intended to be adequate for measuring individual productivity but rather to include activities which are generally accepted as important functions of the academic man and to use these measures for securing group trends. The specific activities included in the measure of productivity and achievement and the scales used will be elaborated in another chapter.

Another facet of a study of college and university faculty

mobility is that of recruitment. The study will deal with this problem only as it relates to reasons faculty members decided to remain at or leave Michigan State.

The purposes of this first chapter have been to develop a rationale for the study, to introduce the problem and principles which will be investigated, and to acquaint the reader with the significance, definitions, sample, and limitations of the study. Chapter II is a review of concepts and literature directly related to this study. Chapter III is a description of the procedures used in the collection of data, the source of the data, a description of the sample used in the study, an introduction to the questionnaire used, and a statement of the type of statistical analyses used in the study. Chapter IV is a discussion of descriptive data and comparisons of the various groups in the sample. Chapter V is the presentation and analyses of collected data, and Chapter VI includes a summary of the findings, conclusions and inferences drawn, and the implications of the study for further research.

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## CHAPTER II

## CONCEPTS AND RELATED RESEARCH

The majority of the studies of faculty mobility during the past two decades have dealt with the entrance of faculty members into or exit from the profession or certain institutions and hence are tangential to the present study. These studies will be summarized only as they relate to this study.

Supply and Demand An imbalance of supply and demand is certain to have significant effects on faculty mobility with possible detrimental effects on the quality of faculty members available to many institutions. A number of studies have attempted to project the degree of imbalance to be expected during the next decade and therefore the effect on mobility.

Harris is of the opinion that, "to solve the problem of supply, we shall have to depend on streamlining and improving preparation; improve income status; economies in the use of teachers; greater use of part-time teachers, women, and retired faculty; accelerated promotions; improved organization of the market." He proposes that the increased demand for college and university faculty members can be partially supplied by the utilization of faculty members holding the M.A. degree rather than the traditional Ph.D. degree in the junior

Seymour E. Harris, <u>Higher Education</u>; <u>Resources and Finance</u> (New York: McGraw-Hill Book Company, Inc., 1962), p. 693.

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colleges, many liberal arts colleges, and many professional schools without seriously affecting the quality of education.

Berleson has suggested that economies in teaching may reduce the anticipated number of new faculty members needed. For example, an increase in the student-faculty ratio by one would reduce by 25,000 the number of additional teachers needed as projected to 1970. He further argues that although enrollments have been rapidly increasing, the number of Ph.D.'s has increased at an equal to or greater rate. Such an argument ignores the demand for individuals holding the Ph.D. in government and industry. Wolfle projected an increase from 109,000 Doctors' degrees granted in 1955 to 212,000 by 1970. Such an increase would not be equal to some projected rates of increase in student population. Thompson projected a student enrollment in higher educational institutions of 6,800,000 by 1970, as contrasted to approximately 2,700,000 students enrolled in 1955. These data suggest that the demand for college and university faculty members during the coming decade will increase at a rate greater than the supply.

The implications of the academic market for educational institutions are effectively summarized by Grundstein as follows:

For the measurement of the effectiveness of its faculty development program, an institution will have to determine the "academic market" in which it is competing. The outcome of its institutional planning should place it in a defined market that has

Bernard Berleson, <u>Graduate Education in the United States</u> (New York: McGraw-Hill Book Company, 1960), pp. 70-80.

<sup>&</sup>lt;sup>2</sup>Dael Wolfle, <u>America's Resources of Specialized Talent</u> (New York: Harper and Brothers, 1954), p. 283.

Registrars and Admissions Officers, 1961), p. vi.

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of Part Research significance for the institution in terms of the realization of its goals and commitments. A competence in institutional planning emerges as a requisite of a faculty development program.

Faculty Morale and Job-Satisfaction The implications of faculty morale and job-satisfaction on mobility have been investigated within several specific institutions. Notable among research studies on faculty morale and job satisfactions was that done at New York University under the direction of John Dale Russell. The stated purposes of the study were (1) to examine the inter-relationships among the parameters of morale built into the Russell questionnaire. (2) to identify certain key items of the questionnaire that would account for the variance of the total group and hence measure the level of faculty morale, and (3) to examine the effectiveness of parameters such as rank, teaching level, principal functions, and actual salary for predicting the level of faculty morale. It was found that the items could be combined into groups and that some reduction in number of groups was possible. Most pertinent to the present study was the finding that there was a direct relationship between the principal functions of the faculty members and morale, but that morale level was directly related to professional functions. For example, research persons as a group display a higher level of morale than those whose principal function is teaching.

INathan D. Grundstein, "Approaches to Development: Faculty
Development," (Pittsburg: University of Pittsburg, 1960), p. 26.
(Mimeographed.)

<sup>&</sup>lt;sup>2</sup>Joseph Tanenhaus, Sidney G. Roth, and Robert H. Lilienfeld, "Faculty Satisfactions and Dissatisfactions: A Methodological Study of Part II of the Russell Questionnaire," The Role of Institutional Research in Planning. (Madison: Office of Institutional Studies, 1962), pp. 93-120.

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In reporting another aspect of the study, Russell<sup>1</sup> deals with job satisfactions and dissatisfactions as measured by factors which were considered to be attractions away from New York University.

Factors listed as attractions away from the University were, in order of importance,

(1) the scholarly reputation of the institution making the offer, (2) substantially larger salary than now being received, (3) opportunities for research, (4) the extent of normal teaching load, (5) the kind of library facilities, (6) the kind of classroom, laboratory, and office facilities, (7) the kind of housing available for the family, (8) fringe benefits, other than salary, retirement, etc., (9) educational opportunities for children in the family, (10) opportunity to take on greater responsibility and to render a greater service to society, (11) opportunity to be near relatives and other friends, (12) opportunity to live in a different part of the country, and (13) opportunity to live in a different city or town.

Russell also found faculty members in general to be somewhat more strongly oriented to their subject-matter disciplines than to the institutions in which they serve.

Kosow<sup>3</sup> conducted a morale study undertaken to design and test for validity and reliability an opinionnaire for measuring faculty morale. The instruments used were (1) a questionnaire consisting of items relating to ten major areas of personnel practices: purpose, philosophy, and acceptance of institutional aims; relations with colleagues; personnel practices; participation in administration; communications; relations with students; academic freedom; personal growth

<sup>1</sup>John Dale Russell, "Faculty Satisfactions and Dissatisfactions,"
The Journal of Experimental Education, XXXI (December, 1962), pp. 135-39.

<sup>&</sup>lt;sup>2</sup><u>Ibid.</u>, pp. 135-139.

<sup>3</sup>Irving Lionel Kosow, "Factors Affecting Faculty Morale in Four Community Colleges," (unpublished Doctor's dissertation, New York University, 1960).

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and emotional values; departmental initiative; and physical facilities and resources, (2) an instrument designed to secure data on income, tenure status, professional memberships, teaching load, faculty rank, and other items of a personal nature. He found that only faculty rank resulted in significantly different levels of faculty morale status where the investigation was confined to a specific institution. Comparisons between institutions revealed significant differences due to the degree of authoritarianism practiced by the administration.

The conference on Improving the Effectiveness of College
Faculties isolated ten factors which, "contribute significantly to
faculty morale and to better college teaching." Among these factors
were, an atmosphere of freedom of thought, extensive faculty participation in the planning and management, generous recognition for
faculty services, policies of promotion, tenure, and retirement that
reduce the fear and frustration arising from economic and social
insecurity and sufficient clerical and technical help.

Allen<sup>2</sup> undertook an investigation of the role conflicts and congruences encountered by new faculty members as they enter the college or university community. She also attempted to determine the effect of first year experiences upon a shift in role or point of view of these new faculty members. She found that lack of clarification on policies related to the relevance of teaching, of research, of publication, of committee work, and of student advising to advancement

H. J. Corman, "Campus Issues and Problems," The Annals, Higher Education Under Stress, (September, 1955), p. 53.

<sup>&</sup>lt;sup>2</sup>Lucille Allen, "Faculty Expectations, Satisfactions, and Morale," Studies of College Faculty (Boulder: Western Interstate Commission for Higher Education, 1961), pp. 65-81.

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in rank and salary at time of appointment contributed to disenchantment and dissatisfactions with the position. She further concluded that the research illustrated the role assumed by department chairmen as being crucial in the satisfactions or dissatisfactions of new faculty members. A word of caution is appropriate, however, since the progress report summarized above dealt with interviews of a limited number of new faculty members.

Faculty Attraction and Retention Studies A widely known study of faculty attraction and retention, yet one that was intended to have popular appeal is that done by Caplow and McGee. 1 Faculty members in their study seemed to be preoccupied with prestige factors. This may be explained, in part at least, by the fact that the study dealt with faculty members associated with "prestige" institutions. Some of the most pertinent findings of the study were that (1) reliable information concerning the academic market is seldom available to those who comprise it, (2) voluntary movement is the result of dissatisfaction with the current position, opportunities for advancement, or a gradual drifting away and loss of interest in the present position. (3) universities usually are only slightly influenced by announced offers from other institutions in their efforts to retain faculty members, and (4) "the ability of great departments to hold staff is no better than that of mediocre departments. The higher the rank of the department in the disciplinary prestige system, the more it serves its individual members by conferring a derivative reputation on them. This reputation tends

<sup>1</sup> Theodore Caplow, and Reese J. McGee, The Academic Market Place (New York: Science Editors, Inc., 1961).

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to make them more desirable to other universities, more independent of their own, and more inclined to mobility."

Marshall<sup>2</sup> conducted a study of faculty mobility through a survey of approximately 300 chairmen, each from departments of economics, English, and chemistry and of 450 professors of economics. Information was obtained from the departments as to size, turnover, number of persons hired during a three-year period, promotion practices, and hiring procedures. A questionnaire to the faculty members in the departments of economics was designed to secure data relative to years of teaching experience, reasons for changing positions, methods of securing present position, and satisfactions or dissatisfactions with present position. Marshall concluded that economic factors were important to faculty members but that they were not a dominant element. He found that "many of the things that faculty seem to prize highly are not always in the power of the institution to grant—top—quality students, challenging colleagues, and a prestige institution, not to mention geographic location."<sup>3</sup>

Motivations for becoming a college teacher and appraisals of this career choice were the aspects of college faculty attraction and retention studied by Eckert<sup>4</sup> in a questionnaire study of 706 faculty members in 32 Minnesota colleges and universities. The author con-

<sup>1&</sup>lt;u>Ibid</u>., p. 107.

<sup>&</sup>lt;sup>2</sup>Howard D. Marshall, <u>The Mobility of College Faculties</u> (New York: Pageant Press, Inc., 1964).

<sup>3&</sup>lt;u>Ibid.</u>, p. 128.

<sup>4</sup>Ruth E. Eckert, "Faculty Views on the Recruitment of College Teachers," The Journal of Higher Education, XXXI (May, 1960), pp. 244-251.

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cluded that a major finding of the study was that there seems to be no such thing as a college teacher. She stated, "In recruiting candidates to this field, it is clearly not safe, therefore, to assume that prospective college teachers will respond to the same kind of career appeals." The major satisfactions of a college teaching career as reported in the study were association with college-age students. helping young people grow, observing students' growth and success, working and studying in one's own field, able and well-motivated students, fine colleagues and administrators, intellectually stimulating associates, freedom and independence in work, and a sense of social usefulness. Major dissatisfactions were too much red tape and routine duties, poor and unmotivated students, and poor salary. Recommendations by faculty members of ways to retain staff in order of frequency of mention were higher salaries, lighter work loads, more time for research, promotions and other recognitions based on merit, better atmosphere for work, and more security and fringe benefits. Eckert stated further that, "administrative-faculty tensions were evident in a number of institutions, with occasional faculty members affirming that the biggest single cause of loss of a strong staff is bad administration."

In the opinion of new faculty members in NCA colleges and universities, a higher percentage of their problems were personal in nature rather than associated with the institution according to a study by McCall.<sup>3</sup> A significant finding was that no instructional

<sup>1&</sup>lt;u>Ibid.</u>, p. 49.

<sup>&</sup>lt;sup>2</sup><u>Ibid</u>., p. 250.

<sup>3</sup>Harlan R. McCall, "Problems of New Faculty Members in Colleges and Universities," The North Central Association Quarterly, XXXI (Fall, 1961).

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problems were among the three considered to be most critical by new faculty in large institutions. The eight most critical problems were

(1) acquiring adequate secretarial help, (2) acquiring adequate office space, (3) understanding promotion and salary increase policies, (4) finding suitable living quarters, (5) knowing what other departments expect of my department, (6) knowing what other departments of the college teach, (7) fulfilling expectations regarding research activities, and (8) knowing the institutional procedure to be followed for curriculum revision.

McCall also found that no instructional problems were among the first eight critical problems identified by new faculty members in institutions enrolling 3,000 or more students. He suggests that these findings can be explained by the fact that either instructional problems are less difficult in large institutions or that new faculty members are preoccupied with the complexities of life within a large complex institution. It was found further that new faculty members perceive as real problems such items as acquiring office space, finding living quarters, acquiring secretarial help, etc. An admitted shortcoming of the study was that the identification of critical problems was dependent upon the willingness of new faculty members to acknowledge experiencing these difficulties.

The research most directly related to the present study was done at the University of Minnesota under the direction of Stecklein and Lathrop.<sup>2</sup> The study was sub-divided into four phases; (1) the identification of reasons new staff members had accepted appointments on the University of Minnesota faculty, (2) the determination of what factors

<sup>1&</sup>lt;u>Ibid.</u>, p. 225.

<sup>&</sup>lt;sup>2</sup>John E. Stecklein, and Robert L. Lathrop, <u>Faculty Attraction</u> and <u>Retention</u>; <u>Factors Affecting Faculty Mobility at the University of Minnesota</u> (Minneapolis: University of Minnesota, Bureau of Institutional Research, 1960).

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Benefits for High deterred prospective faculty members from accepting positions at the University. (3) the determination of those factors which had caused qualified faculty members to leave the University of Minnesota, and (4) the identification of factors that had held faculty members at the University despite attractive offers from elsewhere. Both the interview technique and questionnaire survey were used as methods of collecting data. Stecklein and Lathrop concluded, consistent with the findings of Caplow and McGee, that institutional prestige was a dominant factor in the institutional attractiveness to faculty members. They, however, were quick to add that prestige as a major attraction, "should in no way be cheapened by being used as a substitute for adequate salary, rank, or other job conditions." Other significant results were that (1) faculty members, particularly new faculty are concerned with the calibre of their associates and the opportunities for collaboration as a method for promoting professional growth, (2) good lines of communications are vital in attracting and retaining faculty. (3) the professional duties and provisions for research are of vital importance to faculty, and finally, (4) as the competition for faculty members becomes more keen, inducements in the form of fringe benefits will become increasingly important to colleges and universities in their abilities to attract and retain faculty members.

A study of faculty opinions toward salary, fringe benefits, and working conditions as they apply to specific types of institutions within the California system of higher education was reported by Duxbury.<sup>2</sup>

<sup>1&</sup>lt;u>Ibid.</u>, p. 106.

<sup>&</sup>lt;sup>2</sup>David A. Duxbury, "Faculty Opinion Toward Salary, Fringe Benefits, and Working Conditions," <u>California State Coordinating Council for Higher Education</u> (Sacramento, 1963).

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As a result of the study, Duxbury concluded that in general, "(1) working conditions at a particular institution play an important role in attracting a faculty member, whereas salary considerations are of major importance in retaining a faculty member, and (2) fringe benefits appear to play a secondary role in both attraction and retention." Factors considered to be of major importance by faculty members of the University of California in the selection of an academic position were, in order of rank, (1) salary, (2) time for research, (3) reputation of institution, (4) calibre of associates, (5) income potential, (6) reputation of department. (7) duties and responsibilities. (8) research facilities. (9) academic freedom, and (10) educational philosophy of the departments. It is worthy of note that these findings of the California study are consistent with those of Caplow and McGee and of Stecklein and Lathrop at the University of Minnesota. In each instance, however, the studies involved major "prestige" institutions. Duxbury found that faculty members at the California State Colleges and Junior Colleges were concerned with the economic aspects of the position as were the University of California faculty, but that they were more interested in the professional function and much less concerned with matters of prestige than were the University faculty.

Shryock, 2 in his study of the University of Pennsylvania faculty, develops the prestige theme beyond that of other studies summarized. He does, however, conclude that if the University of Pennsylvania is to maintain a faculty of excellence it must put greater emphasis upon

<sup>1</sup> Told., p. 40.

<sup>&</sup>lt;sup>2</sup>Richard H. Shryock, <u>The University of Pennsylvania Faculty: A Study in American Higher Education</u> (Philadelphia: University of Pennsylvania Press, 1959).

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salary and faculty participation in the academic policy decisions of the University.

Faculty Evaluation and Productivity The present study differs from those previously summarized in the degree to which it attempts to relate faculty attraction and retention to productivity and achievement. It is, therefore, appropriate that brief consideration be given to concepts of faculty evaluation.

Attempts at arriving at some index of faculty productivity inevitably involves a determination of what constitutes the appropriate function of faculty members. Shryock differentiates between the "college teacher" and the "university professor." He contends that

efforts to improve teaching in undergraduate colleges, desirable in themselves, should not be permitted to interfere with a university's prime purpose . . . Distinctions should be made, therefore, between independent and university-colleges, and between "college teachers" and "university professors."

The problems of measuring the productivity of "teaching scholars" and "writing scholars" according to Shyrock is a qualitative distinction, "since the 'scholarship' of writers is exposed more directly to outside, professional criticism than is that of teachers. The latter may be scholarly and effective or they may not, but even in the latter case they usually get by; whereas, the writer must meet at least minimal standards of industry and intelligence." He attempts to further differentiate the two groups when he states that,

A more serious distinction relates to the respective audiences of the two groups, the first reaching immature students, the second the world of learning. The first function is shared by all undergraduate faculties, the second is the distinctive

<sup>1&</sup>lt;u>Ibid.</u>, p. 255.

<sup>&</sup>lt;sup>2</sup>Ibid., p. 37.

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function of university (that is, graduate) faculties. If it were not for this second activity, universities would lose their chief <u>raison d'etre</u>. Thus it is quite proper and desirable that university staff members should be known first for their publications or the equivalent in creative works.

This preoccupation with the research function of college and university faculty members is not characteristic of all persons concerned with faculty development. Weeks<sup>2</sup> expresses concern for problems created by the attitude, interest, and motivation of a growing number of faculty members. He believes the desire for recognition and status among one's associates in an academic discipline made possible through publication has caused a division of faculty loyalties between professional organization and college or university. He concludes that if teaching were given the importance it deserves and were more properly rewarded, more university faculty members would endeavor to improve the quality of their instruction and would develop greater loyalty to the purposes of the institution.

The intricate interrelationships between institutional goals or objectives and the faculty evaluation processes are made explicit by DuBridge when he states,

Each institution must ask what kind of scholars it wishes to attract to assist and guide its students in their collaborative learning process. I think it can now be said that, in the scientific field at least, the smart young scholar will carefully avoid those institutions which advertise that they will restrict the learning process to that which is already in textbooks and that crossing the frontiers of ignorance will be out of bounds. 3

<sup>1</sup> Ibid., p. 37.

<sup>&</sup>lt;sup>2</sup>I. D. Weeks, "Teaching and Institutional Service vs Research and Professional Writing," <u>Journal of Higher Education</u>, XXV (January, 1964), pp. 45-47.

Raymond F. Howes (ed.), <u>Vision and Purpose in Higher Education</u> (Washington: American Council on Education, 1962), pp. 48-49.

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Humphreys said, "A distinguished faculty is fashioned of promising individuals set in an environment that fosters both individual and collective development. The creation of that environment is a joint enterprise, with administration carrying the brunt of the effort."

"scholarly output of a university typically has three dimensions—instruction, research, and service." He points out that evaluation of research and publication has been on quantitative measures without much attempt at qualitative measures. The need for qualitative measurement has been increased by a trend toward multiple authorship and increased use of mimeographed reports as a method of reporting.

Gustad<sup>3</sup> made a study of policies and practices in faculty evaluation in 584 colleges and universities. Included in the study were liberal arts colleges, private universities, state universities, state and municipal colleges, teachers colleges, junior colleges, and technical and professional institutions. Factors found to be most frequently used in evaluation were classroom teaching, items such as cooperation, Christian character, church membership and activity and compatibility, personal attributes, student advising, length of service in rank, publication, committee work, research, professional society activity, public service, competing offers, supervision of graduate

Richard F. Humphreys. "Interdependence of Administration and Faculty," School and Society XIIC (February 8, 1964), pp., 48-49.

<sup>&</sup>lt;sup>2</sup>John E. Stecklein, and Paul G. Jensen, <u>A Comparison of Publication Forms Used by the Faculty 1935-1936 and 1955-1956</u> (Minneapolis: University of Minnesota, 1964), p. 11.

<sup>3</sup>John W. Gustad, "Policies and Practices in Faculty Evaluation," Educational Record, XXXXII (July, 1961), pp. 194-211.

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study, and consultation. Gustad concludes by stating.

Absolute precision and objectivity in faculty evaluation are almost certainly unattainable. Greater precision and objectivity, however, are not. It is axiomatic that, before one sets out to measure something, he must know what it is he wishes to measure. And why.

McGrath<sup>2</sup> studied opinions of seventy-five teachers considered to be unusually competent selected from each of fifteen liberal arts colleges. These teachers were asked to furnish data concerning age, highest degree, rank, length of service, and publications during the period from 1955 through 1960. They were also asked questions related to the adequacy of their preparation for college teaching. Research activity was considered to be essential in the life of the undergraduate college teacher by 40.6 percent of the sample. The dominant view concerning graduate school training of future teachers of college undergraduates was "that the primary emphasis should be placed on the acquisition of knowledge and the mastery of the intellectual processes required to deal with subject matter in a rather narrow field." 3

Attempts to evaluate the faculty at the University of Pittsburg resulted in development of the following criteria as guides in the evaluation process.

1. Effectiveness as a teacher - including items such as knowledge of subject matter, ability in presentation, ability to provide leadership and incentive to graduate students, refusal to

<sup>1&</sup>lt;u>Ibid.</u>, p. 210.

<sup>&</sup>lt;sup>2</sup>Earl J. McGrath, "Characteristics of Outstanding College Teachers," <u>The Journal of Higher Education</u>, XXXIII (March, 1962), pp. 148-152.

<sup>3&</sup>lt;u>Ibid.</u>, p. 151.

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compromise academic standards, student advising and counseling,
participation in curriculum development, and effective communication,
both written and oral.

- 2. Research and scholarship scholarly attitude, capacity for independent thought, originality and quality of publications, plans for further research, recognition by learned societies, and administration of research projects.
- 3. Professional stature continuing study, attainment of recognition in academic field, high calibre consulting work, and activities in learned and professional societies.
- 4. Other contributions University service, student life, committee assignments, and administrative assignments.

Voeks<sup>2</sup> attempted to determine if differences existed in teaching effectiveness as measured by the University of Washington Registration scale and by the number of publications. Weighted scores were used to compute a total publications score. It was found that no statistically significant difference existed, as measured by the Registration scale, between faculty members who had done a great amount of publishing and those who had done little or no publishing. The groups were also subdivided according to academic disciplines and the results showed that teaching and publishing were independent variables as determined by the methods of the study.

<sup>1</sup>Stanton C. Crawford, "A University-wide Program of Faculty Development," The Educational Record, XXXXII (January, 1961), pp. 49-53.

<sup>&</sup>lt;sup>2</sup>Virginia W. Voeks, "Publications and Teaching Effectiveness," The Journal of Higher Education, XXXIII (April, 1962), pp. 212-218.

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ithin a Ornell Ferguson compared faculty members who had been promoted within a one-year period at the University of Hawaii with those who had not been promoted. He found that those who had been promoted scored significantly higher on the Brayfield-Rothe job satisfaction index. He also found that of forty-two factors, faculty rank served to influence most significantly the job satisfaction score. A basic weakness of the study was, however, the conclusion that present productivity is associated with higher job satisfaction if past productivity has been rewarded, but by lower job satisfaction if productivity has not been rewarded where the only criterion for productivity measurement was an advancement in rank.

Summary An examination of numerous studies of college and university faculties shows that studies of faculty entrance into and exit from institutions and the profession have been fairly common but that few studies have attempted to relate mobility to the level of excellence of college and university faculties. The literature is sufficiently plentiful and conclusive with respect to faculty evaluation and productivity to be useful in the construction of the measures of faculty productivity and achievement as described in Chapter III.

John Bodley Ferguson. "Job Satisfaction and Job Performance Within a University Faculty" (unpublished Doctoral dissertation, Cornell University, 1960).

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## CHAPTER III

## PROCEDURES USED IN THE COLLECTION AND ANALYSIS OF THE DATA

The purposes of this chapter are to outline the procedures used in the collection and treatment of data. A description of the sample and of the instruments used, the methods of data collection, the bases for measuring productivity and achievement, and the procedures for data analysis will be discussed in order.

Description of the Sample The sample consisted of all faculty members appointed to the University staff during the period from June 1, 1953 through September 1, 1955. In order to identify faculty members who could have been expected to remain at the University, only those persons with full-time appointments subject to the tenure regulations of the University were included. Names, departments, and appointment dates were secured from the minutes of the meetings of the Board of Trustees.

The rationale for selecting the sample as described above was,

(1) a sample of adequate size could be identified on the basis of the selection criteria, and (2) faculty members appointed during the selected period could have, in the ensuing years, been expected either to have achieved tenure, to have resigned, or to have been terminated. Thus it was assumed that the sample could be sub-divided into three groups; (1) those who have achieved tenure and therefore accepted permanent status, (2) those who terminated voluntarily, and (3) those who

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were not reappointed or were otherwise encouraged to seek employment elsewhere, each of adequate size for the purposes of the study.

The sample was sub-divided into three groups; the present faculty group, the former faculty members who voluntarily terminated, and the former faculty members who were not reappointed or were otherwise encouraged to leave. The present faculty group was taken to be all faculty members appointed during the specified period and still employed by the University on January 1, 1964. All others were taken to be in the former faculty group. The former faculty group was further subdivided into two sub-groups; those who terminated voluntarily and those who were not reappointed or were otherwise encouraged to leave. This sub-division was accomplished by providing department chairmen with a list of former faculty and requesting the chairmen to indicate which individuals were not reappointed or were otherwise encouraged to terminate. Present addresses of all former faculty members were also requested from department charmen at the same time. The former faculty who terminated voluntarily will be referred to as voluntarily terminated faculty and former faculty who were not reappointed or were otherwise encouraged to leave will be referred to as involuntarily terminated faculty.

Three-hundred forty-five faculty were appointed during the period from June 1, 1953 through September 1, 1955. One-hundred thirty-nine were still employed by the University on January 1, 1964, and 206 had terminated in the intervening years between September 1, 1955 and January 1, 1964. Of the group who had terminated, 168 were classified as voluntary termination. Only thirty-seven were not reappointed or were otherwise encouraged to leave.

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The Questionnaires Used The questionnaire used in the study was designed to secure data which would facilitate investigation of the extent to which six principles characterized factors related to mobility and the productivity and achievement of the University faculty. These principles, as previously stated in Chapter I are as follows:

- 1. Physical facilities and resources, both for research and teaching contribute to morale and job-expectation and hence affect mobility and faculty productivity and achievement.
- 2. A student population of quality and departments and colleges with recognized prestige are crucial in developing a productive staff.
- 3. Economic compensations and the degree of security made possible by tenure regulations tend to reduce mobility and may affect faculty productivity.
- 4. The cultural, recreational and educational opportunities offered by the University and immediate community facilitate acquisition and retention of a productive faculty.
- 5. Administrative attitudes and practices influence mobility and faculty productivity and achievement.
- 6. The nature and extent of work load affect mobility and faculty productivity and achievement.

It was necessary that data related to the activities and accomplishments of the sample used in the study be secured for the period of time covered. It was also necessary that the reactions of faculty in the sample to a list of factors dealing with the various aspects of an academic position be collected. Hence the questionnaire consisted of three parts; (1) a summary of activities, accomplishments, and personal data related to the professional positions of the sample for

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the years covered in the study, (2) a checklist of factors which were assumed to be of varying importance as indicators of faculty satisfaction and as motivations for remaining in a position or seeking employment elsewhere, and (3) a set of open-ended questions designed to provide opportunity for respondents to discuss the reasons they had decided to remain at Michigan State University or to seek employment elsewhere.

A first draft of the questionnaire was prepared and discussed with members of the staff of the Office of Institutional Research.

Refinements were then made and copies of the questionnaire distributed to the Faculty Advisory Board to the Office of Institutional Research.

Further refinements were made as the result of the suggestions of this Board and sample copies distributed to three faculty members who had been appointed to the staff near the period included in the study.

Final revisions and refinements were made after considering suggestions offered during the trial run. A study conducted by Stecklein and Lathrop<sup>1</sup> on Faculty Attraction and Retention, Factors Affecting Faculty Mobility at the University of Minnesota was useful in the determination of factors affecting mobility. A study of Faculty Opinion Toward Salary, Fringe Benefits, and Working Conditions<sup>2</sup> by the California Coordinating Council for Higher Education supplied further data and theory useful in the construction of the instruments used in the present study.

Part "A" of the questionnaire consisted of items relating to rank, age, highest degree, institution granting highest degree, salary,

Stecklein and Lathrop, loc. cit.

<sup>&</sup>lt;sup>2</sup>Goordinating Council for Higher Education, <u>Faculty Opinion</u>
<u>Toward Salary</u>, <u>Fringe Benefits and Working Conditions</u> (Sacramento: Coordinating Council for Higher Education, 1963).

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number of years served at each rank, publications, activities in learned societies and professional organizations, public service functions, student advising, and college or university committee work, Part "B" sought respondents' judgements of the relative importance of a list of factors as they entered into a decision of the faculty to remain at or leave Michigan State University and the relative importance of each factor to the individual in the selection of and/or of remaining in any academic position. The factors covered the general areas of intellectual climate, facilities and services, professional function, economic compensations, institutional prestige, and the community. The present faculty members were asked to rank order the five factors which had been most important in their decision to remain at Michigan State. The voluntarily terminated faculty members listed in rank order the five factors which had contributed most to their decision to leave the University. Questionnaires were not mailed to the involuntarily terminated faculty members.

The present faculty members were also asked to respond to three open-ended questions. These were as follows:

- 1. What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?
- 2. What aspects of M.S.U. would serve to attract an outstanding faculty to the University?
- 3. On the basis of your experience, what aspects of the University have caused capable faculty members whom you have known to seek employment elsewhere?

Open-ended questions posed to voluntarily terminated faculty members were as follows:

- 1. If you are currently employed in higher education what aspects of your present college or university tend to encourage competent staff to remain at the institution?
- 2. What aspects of your present college or university would serve to attract outstanding new faculty to the institution?

Collection of Data The primary source of data for the study was the questionnaire as described above. Questionnaires were mailed to the 139 individuals appointed during the years 1953-54 and 1954-55 who were still employed by the University as of January 1, 1964. Of the total group, 90, or 64.8 percent returned usable responses. Correct names and addresses were obtained for 126 of the 168 appointees in the former faculty group who had been categorized as voluntary terminations by the department chairmen. Seventy-six or 60.3 percent of those classified as voluntary terminations returned completed questionnaires before the cut-off date for inclusion in the study. Follow-up letters were sent to both groups encouraging them to return the questionnaire. (Copies appear in the appendix).

Letters were also sent to the deans and department chairmen outlining the objectives of the study and soliciting their support in encouraging faculty members in their colleges and departments to participate in the study.

As stated previously, 38 individuals in the former faculty group were classified as involuntary terminations by the department chairmen. No attempt was made to contact these appointees. Rather, data on appointments, salary, and advancements in rank were obtained from the minutes of the meetings of the Board of Trustees. These data have been summarized for the purpose of comparing rank and salaries of

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the group with the other two groups included in the study.

Measure of Productivity and Achievement A major purpose of the investigation was to determine if faculty members at differing levels of productivity and achievement attach varying degrees of significance to different aspects of the University. The anticipation was that areas of satisfaction and dissatisfaction of faculty at different levels of productivity and achievement might be isolated which would make it possible for the University to increase its holding power on a quality faculty. The accomplishment of this objective was dependent upon the construction of a valid measure of faculty productivity and achievement. Authorities are in general agreement that certain types of activities and accomplishments are typical of outstanding faculty members.

Lasarsfeld and Thielens, 1 in their study of social scientists, used a "productivity index" computed by assigning one point for each of the following: (1) has written a dissertation, (2) has published at least one paper, (3) has read three or more papers at professional meetings, and (4) has published at least one book. Those social scientists with a score of "3" or "4" were classified as the high group, those with a score of "2" as the medium group, and those with a score of "1" were in the low group. An "Honors Index" was also used in which one point each was given for (1) has a Ph.D., (2) has published three or more papers, (3) has held office in a professional society, and (4) has worked as a consultant.

Paul F. Lazarsfeld and Wagner Thielens, Jr., The Academic Mind (Glencoe, Illinois: The Free Press, 1958), p. 403.

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However, the determination of a composite measure of the activities and accomplishments which could be assumed to be a reliable measure for this study was considered to be an empirical problem. The problem was reduced to one of providing answers to the following questions.

- 1. Are there faculty activities and accomplishments which can be grouped together in a specified pattern which produce one or several different factors contributing to a composite numerical score indicative of faculty quality or productivity and achievement?
- 2. Is there a total numerical score based on scaling and combining these several activities and achievements and which is a reliable measure of a faculty group characteristic? It is to be assumed, for the purposes of this study, that there exist activities which serve as valid indicators of faculty quality or productivity and achievement.

Data on the rank, salary, number of publications of various types, memberships in learned societies and professional organizations, offices held in learned societies and professional organizations, public service activities, doctoral candidates for whom the faculty member has served as major advisor, masters candidates for whom the faculty member has served as major advisor, and service on University and College committees were obtained from responses to the questionnaire for both the present faculty members and the voluntarily terminated faculty members. These data were scaled, arbitrarily, according to the following pattern.

1. The scaling for academic rank was "8" for professor, "6" for associate professor, "4" for assistant professor and "2" for instructor.

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- 2. The salary scaling was 1 9 with intervals of \$1,000 beginning with the below \$8,000 category, adjusted to twelve months, and ending with the \$15,000 and above category.
- 3. The numerical number used for scaling the publications was arrived at by multiplying the number of books by "3" and adding one-third the sum of all other publications.
- 4. The number of memberships in national learned societies and professional organizations was divided by "2" and the scaling for offices held in these same organizations was taken to be "N," the number of offices held.
- 5. A scaled score for graduate student advising was arrived at by dividing by "3" the number of doctoral candidates for whom the faculty member had served as major advisor and dividing by "8" the number of masters candidates for whom the faculty member had served as major advisor. The sum of these two was then used as the scaled score for student advising.
- 6. Scaling for activity on major university and college committees and in public service functions were taken to be "N," the number of instances reported.

Based upon the scaling as described above, the solutions to the two questions posed were sought through the use of factor analysis techniques and a modification of the Kuder-Richardson reliability formula. First, an inter-correlation matrix was computed for the nine variables, rank, salary, publications, learned society and professional society memberships, offices held in learned societies and professional organizations, public service activities, number of doctoral students, number of masters students, and university committee activities (see

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, E. d. appendix). The inter-correlation matrix revealed that only rank and salary and the number of doctoral advisees and masters advisees were correlated at a level greater than .50. The data were then analyzed by use of principal-components analysis. Varimax rotation procedures were used with the Kiel-Wrigley criterion as the control for the number of variables rotated. It was found that the dimensionality of the set of nine variables could be reduced to a more manageable fourdimensional space. As has been stated previously, the nine variables were relatively independent of each other as was indicated by the intercorrelation matrix, hence it was not possible to greatly reduce the dimensions required to define the domain under investigation. The four dimensions were X which consisted of the compensational variables rank and salary, X2 which consisted of the student advisory variables, the number of doctoral advisees and the number of masters advisees, X3 which consisted of the professionalism variable of publications and memberships and offices held in learned societies and professional organizations, and  $X_{L}$  which consisted of the service variables of public service activity and college and university committee assignments. It was clear from the analysis that the faculty activities about which data were collected can be grouped into four somewhat independent groups.

The answer to the second question posed was sought through the application of a reliability test developed by Hoyt<sup>2</sup> for which the "coefficient of reliability gives the percentage of variance in the distribution of test scores that may be regarded as true variance,

Harry H. Harman, Modern Factor Analysis (Chicago: University of Chicago Press, 1960), p. 90.

<sup>&</sup>lt;sup>2</sup>Cyril Hoyt, "Test Reliability Estimated by Analysis of Variance," Psychometrika, VI (June, 1941), pp. 153-160.

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that is, as variance not due to the unreliability of the measuring instrument. "I The formula used was

$$\mathbf{r_{tt}} = \frac{\mathbf{k}}{\mathbf{k-1}} \left[ 1 - \frac{\sum \mathbf{v_i}}{\mathbf{v_t}} \right] \quad \text{where}$$

V<sub>i</sub> = variance of item i

V<sub>t</sub> = variance of subjects' scores

and k is a factor which compensates for the length of the measuring instrument. Application of the test to the measure of faculty productivity and achievement produced an internal consistency reliability score of .681. The score clearly suggests that there exists a commonality in the measure. If the measure were to be applied to individuals, it would be highly desirable that the coefficient of reliability more nearly approximate unity. However, since the purposes of this study require only that it is possible to effect sub-groupings within a population, the value of rtt is considered to be adequate.

Department chairmen were also asked to make a judgemental quality rating of the voluntarily terminated faculty according to the following scale:

- 1. The resignation of the faculty member represented a distinct loss to the University.
- 2. Although the faculty member's work was satisfactory, the resignation did not represent an irreplaceable loss to the University.

In summary, it has been possible to show by the use of empirical methods that the faculty activities for which data have been collected in the study can be scaled and summed to give a total measure of productivity and achievement. It has also been shown that these activities can be combined into four general categories which have been labeled

<sup>1</sup> Ibid., p. 155.

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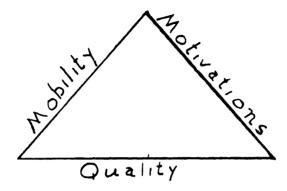
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the compensational, student advisory, professionalism, and service variables.

## Procedures for Data Analysis The construct



suggests that the analysis of the data be such as to permit an investigation of the relationships between the quality of the faculty and the reasons for remaining at Michigan State or seeking employment elsewhere, of the relationships between quality and the holding power of Michigan State, and of the relationships between motivational factors and retention or holding power of the University. The construct implies the use of comparison of the several groups; (1) the voluntarily terminated faculty members versus present faculty members, (2) the groups arrived at by sub-dividing according to scores on the measure of productivity and achievement, (3) the groups resulting from the department chairmen's ratings of the voluntarily terminated faculty members, and their responses to the items on the questionnaire. The chi-square statistic was used to determine if, in fact, differences existed in the responses given by the various groups.

Specific limits were established to eliminate chance error.

The selection of a given rejection region is dependent upon certain

"practical" aspects of the investigation. Since the purposes of the

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statistic were not to accept or reject a given number of hypotheses but rather to determine whether or not differences in opinion were found to exist, a ten percent (.10) level of significance was considered adequate. Student's "t" distribution was used to determine whether ranks, salaries, length of service at given ranks, and professional activities of the present faculty members differed from those of the voluntarily terminated faculty members. A five percent (.05) level of significance was chosen for this test of the difference of means. The CDC 3600 computer was used for computations of frequencies, percents, means, and contingency tables.

Summary This chapter has considered the source of data, a description of the sample, a discussion of the questionnaires used, a measure of faculty productivity and achievement, and the methods for analysis of the data. The following chapter will present the descriptive data and comparisons among the three groups; present faculty members, former faculty members who had voluntarily terminated, and former faculty members classified as involuntary terminations.

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## CHAPTER IV

## DESCRIPTIVE DATA AND COMPARISONS

Descriptive data concerning the sample are summarized in this chapter. Also included are comparisons of the various sub-groups of the sample with respect to academic rank, salary, degrees earned, and involvement in professional activities. Each respondent was asked to supply pertinent data in part "A" of the questionnaire. Most comparisons will be made between the present faculty group and the voluntarily terminated faculty group. The exceptions are rank at initial appointment and salary at the time of initial appointment. In these cases, comparisons will be made among present faculty members, voluntarily terminated faculty members, and involuntarily terminated faculty members.

Differences between the group of present faculty members and the group of voluntarily terminated faculty members will be determined through the use of the Student's "t" distribution as a test of significant differences of the means. Although the sample did not satisfy all of the assumptions considered to be desirable for this method of statistical inference, it was thought that a statistical analyses of means would provide a useful basis on which to make comparisons. It must be remembered that the sample was not, necessarily, representative of all faculty members who decide to remain at or leave Michigan State University. Furthermore, the sample is an adequate representation of college and university faculties only to the extent to which Michigan

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State University faculty members are typical of the total population.

A five percent (.05) level of significance for a two-tailed test was used in the determination of significant differences. Population variances were assumed to be equal even though exact values are not known.

analysis reveals that the voluntarily terminated faculty, as a group, are somewhat younger than the present faculty group (t = 2.845, p <.05, d.f. = 164). The mean age of the present faculty group was 41 years old while the average age of the voluntarily terminated group was 38 years old. It was found that 13.2 percent of the voluntarily terminated faculty members were in the age interval 31-35 as compared to 5.6 percent of the present faculty members in this age interval. Furthermore it was found that 28.9 percent of the present faculty members were 46 years old or over as compared to 14.4 percent of the voluntarily terminated faculty members who were at least 46 years old.

TABLE 4.1

CHARACTERISTICE OF SAMPLE
PRESENT AGE

Am	Present 1	Facul <b>ty</b>	Voluntarily Terminated Faculty			
Age	Frequency	Percent	Frequency	Percent		
30 or less	0	0	0	0		
31 - 35	5 .	5.6	10	13.2		
36 - 40	27	30.0	28	36.8		
41 - 45	32	35.6	27	35.5		
46 - 50	15	16.7	8	10.5		
51 - 55	7	7.8	2	2.6		
<b>56 - 60</b>	4	4.4	1	1.3		
61 - 65	0	0	0	0		
0 <b>ver</b> 65	0	0	0	0		
Total	90	100.1	76	99.9		
Mean Age	4	1	38			

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Rank and Salary The distribution of rank of initial appointment and present academic rank distributions are shown in Table 4.2 for present and voluntarily terminated faculty members. The distributions of rank of the initial appointment of the involuntarily terminated faculty members are also given in Table 4.2.

Exact comparisons of the present rank for the present faculty members and for voluntarily terminated faculty members becomes difficult because several of the voluntarily terminated faculty members either have taken positions of administration which do not involve rank, or have accepted employment outside the area of higher education, or are housewives and are not presently employed. It is noteworthy, however, that while no significant differences were found to exist between the two groups as to rank at the time of initial appointment, 30.0 percent of the present faculty members currently hold the rank of professor as compared to 51.0 percent of the voluntarily terminated faculty members who are now employed in positions for which rank is granted. Only 7.4 percent of the voluntarily terminated faculty members currently employed in positions granting academic rank hold the rank of assistant professor as compared to 20.0 percent of the present faculty.

Comparison of the involuntarily terminated faculty members with the other two groups shows no significant differences as to rank at the time of initial appointment.

Salary distributions at the time of initial appointment and present salary distributions are given in Tables 4.3 and 4.4. No significant differences were found to exist between the mean salary of the present faculty members and those of the voluntarily terminated faculty members at the time of initial appointments. The mean salary

TABLE 4.2

CHARACTERISTICS OF SAMPLE RANK OF INITIAL APPOINTMENT AND PRESENT RANK

		Present Faculty	Facul	ty	Te	Voluntarily Terminated Faculty	tarily   Facu	, ilty	l Iei	Involuntarily Perminated Faculty	arily Faculty
	I. App	Initial Appointment	Pre	Present	Ir Appo	Initial Appointment	Pr	Present	Ini Appoi	Initial Appointment	Present
	Frequency	fercent	Frequency	fercent	<b>L</b> redneucl	Percent	<b>L</b> redneucl	Percent	Frequency	Percent	
Professor	٦	1.1	27	30.0	. 4	1.3	28	36.8	0	0	
Assoc. Prof.	ដ	13.3	7	8.74	9	7.9	23	30.3	0	ပ	data
Assist. Prof.	39	43.3	18	20.0	59	38.2	4	5.3	15	42.2	not
Instructor	37		8	2.2	9	52.6	0	0	22	57.8	secured
Other	٦		0	0	0	0	27	27.6	0	0	
Total	8	100.0	8	100.0	92	0.001	92	100.0	37	0.001	
Mean Rank*	3	3,278	٦	1.944	5	3.421	2	2.671	3.	3,222	

\*Ranks were equated to numerical values for the purposes of comparison according to the following scheme. Professor = 1, Associate Professor = 2, Assistant Professor = 3, Instructor = 4.

TABLE 4.3

CHARACTERISTICS OF SAMPLE SALARY OF INITIAL APPOINTMENT

	Present Faculty	Facul	ţ,	Te	Voluntarily Terminated Faculty	Voluntarily inated Facu	y ulty	Ţ.	Involuntarily Terminated Faculty	taril d Fac	y ulty
	10-month	77	12-month	9	10-month	77	12-month	ဌ	10-month	77	12-month
	requency Percent	Ledneuch	taeorea	Ledneucl	Percent	Ledneuck	faeorea	Frequency	faconer	requency	Percent
Less than \$ 5,000	21 23.3	3	3.3	17	27.6	4	5.3	13	50.0	4	33.3
\$ 5,000 - \$ 5,999	21 23.3	7	7.8	ተ	18.4	7	15.8	2	38.5	٧	41.7
\$ 6,000 - \$ 6,999	10 11.11	6	0.01	4	5.3	7	9.5	n	11.5	8	16.7
\$ 7,000 - \$ 7,999	2 2.2	∞	8.9	4	5.3	4	5.3	•	ł	1	1
<b>8</b> 8,000 - <b>8</b> 8,999	:	₹	5.5	i	ł	8	2.6	1	1	٦	8.3
666,6 \$ - 000,6 \$	!	٦	1.1	Н	1.3	н	1.3	1	1	1	i
\$10,000 - \$10,999	1	ł	1	٦	1.3	7	1.3	1	ł	1	i
\$11,000 - \$11,999	1	1	1	1	1	1	1	1	;	1	1
\$12,000 or over	1	-	1.1	1	ŀ	1	1	1	1	1	1
Not reported	2 2.2	1	1	1	•		1	1	•	1	1
Mean salary (adjusted to 12 mo.)	\$7,	\$7,456			\$7,342	342			\$6,500	00	

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Less ti \$ 8,000 \$ 9,000 \$10,000 \$11,000 \$12,000 \$14,000 \$15,000 Not rep

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at the time of initial appointment for the involuntarily terminated faculty group was considerably less than for either present faculty members or the voluntarily terminated faculty members. Fifty percent of involuntarily terminated faculty members were appointed for a tenmonth salary of less than \$5,000 as compared to 23.3 percent of the present faculty members and 27.6 percent of the voluntarily terminated faculty members. Differences in the percentages at other salary levels are equally as large.

TABLE 4.4
CHARACTERISTICS OF SAMPLE
PRESENT SALARY

	Pı	resent F	aculty			Volunta minated	•	_ty
	10 <b>-</b> n	onth	12-m	onth	10-m	onth	12-n	nonth
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than \$ 8,000 \$ 8,000 - \$ 8,999 \$ 9,000 - \$ 9,999 \$10,000 - \$10,999 \$11,000 - \$11,999 \$12,000 - \$12,999 \$13,000 - \$13,999 \$14,000 - \$14,999 \$15,000 or over Not reported	4 8 12 17 4 3 2	4.4 8.9 13.3 18.9 4.4 3.3 2.2	2 2 3 4 5 6 8 4 4	2.2 2.2 3.3 4.4 5.5 6.6 8.9 4.4 4.4	2 3 4 3 5 4 1 3 2 4	2.6 3.9 5.3 3.9 6.6 5.3 1.3 3.9 2.6 5.3	2 1 1 8 8 7 16	2.6 2.6 1.3 10.5 10.5 9.2 21.0
Mean salary (adjusted to 12 months)		\$11,4	,56			<b>\$</b> 12,	895	

The mean salary at the present time of the voluntarily terminated faculty members is significantly higher than that of the present faculty group. (t = 3.551, p < .05, d.f. = 164). Furthermore, 23.6

percent o of \$15,00{ members r faculty m was consi members h professor (t = 4.1)faculty were for instruc to prov of seve or mono and ab works. be tweer number

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percent of the voluntarily terminated faculty members reported salaries of \$15,000 or over in contrast to 6.6 percent of the present faculty members reporting salaries at this level.

A comparison of present faculty and voluntarily terminated faculty members according to the number of years served in each rank was considered to be worth while. It was found that present faculty members have served a longer period of time at the rank of associate professor (t = 4.563, p < .05, d.f. = 164) and assistant professor (t = 4.171, p < .05, d.f. = 164) than have the voluntarily terminated faculty members (Table 4.5). No statistically significant differences were found in the number of years served at rank of professor and of instructor by faculty members in the two groups.

<u>Publications</u> The respondents to the questio naire were asked to provide data relating to the number of their publications in each of several categories. These included the number of books, bulletins or monographs, articles in professional and popular journals, reviews and abstracts, papers presented to learned societies, and other creative works. The only apparent difference, as shown in Table 4.6, existing between the two groups in terms of number of publications is a mean number of articles equal to 6.84 for the present faculty in contrast to a mean number of 5.80 for the voluntarily terminated faculty. This difference was not, however, statistically significant as determined by the Student's distribution.

Student Advising Activities Table 4.7 contains data concerning the student advising activities of the two groups. It will be noted that the mean number of advisees at all levels for the present faculty members is greater than that for the voluntarily terminated faculty

TABLE 4.5

CHARACTERISTICS OF SAMPLE YEARS SERVED IN EACH RANK

			F.	Present F	facul ty	y.				Vol	unter	Voluntarily Terminated Faculty	rminat	ed Facı	ulty	
	Q.	Prof.	Assoc Prof.	Assoc. Prof.	Ass Pr	Assist. Prof.	ដ	Inst.	Æ	Prof.	Assoc Prof.	Assoc. Prof.	Ass Pr	Assist. Prof.	ដ	Inst.
Years	<b>Ere</b> d <b>neucA</b>	Percent	<b>Lie</b> dn <b>euc</b> l	fercent	Frequency	fercent	<b>L.e</b> dneucl	Percent	Frequency	Percent	Ledneuch	tneorel	L.edmench	Percent	Fredmency	<b>tneor</b> e¶
<b>,</b>	2	7.8	~	3.3	7	7.7	5	5.6	2	2.6	80	10.5	₩	10.5	9	7.9
7	~	3.3	7	75.2	13	74.4	•	6.7	M.	3.9	2	13.2	7	8.5	٧	9.9
~	<u>~</u>	3.3	13	21.1	ቷ	15.6	7	7.8	9	7.9	9	7.9	ห	15.8	얶	13.2
4	₩	8.9	2	11.1	20	22.2	7	7.8	8	5.6	ឧ	13.2	#	14.5	9	7.9
<b>5</b> 0	ł	1	2	5.6	2	דיו	4	7.7	~	3.9	7	5.3	7	8.5	7	9.5
9	Н	1.1	7	7.8	6	10.0	-	1.1	4	5.3	ς,	3.9	ν	9.9	1	1
<b>~</b>	~	2.2	₹	5.6	m	3.3	9	6.7	<b>~</b>	1.3	٦	1.3	٦	1.3	i	ł
₩ (	-	1.1	Н	1.1	-	1:1	~	2.2	1	1	1	1	1	1	ł	ł
6	ľ	ł	8	2.2	٦	1.1	Н	1.1	7	5.6	1	1	1	1	1	1
LO or Bore	~	2.2	n	3.3	R	2.2	7	1.1	1	i	i	1	1	ł	٦	1.1
Mean years																
served	·	<u>щ</u>	7	2.778	w.	3.627	•	267	<b>н</b>	1.289	٦	1.724	7	2,289		.211

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members. The results are as would have been anticipated since some of the voluntarily terminated faculty are not currently engaged in teaching and do not, therefore, have opportunities for student advising equal to those of the present faculty members. Differences in student advising activities were not subjected to the statistical test for significance due to the extreme variations found to exist in the number of students individual faculty members had served in an advising capacity.

TABLE 4.6
CHARACTERISTICS OF SAMPLE
PUBLICATIONS

	Present Faculty	Voluntarily Termin. Faculty
	Mean	Number
Books	.41	•43
Bulletins or monographs	.70	.85
Articles	6.84	5.80
Reviews or abstracts	2.58	2.12
Papers presented to learned soc. Other creative works (chapters	3.65	3.45
in books, etc.)	•94	1.04

TABLE 4.7
CHARACTERISTICS OF SAMPLE
STUDENT ADVISING

	Present Faculty	Voluntarily Termin. Faculty
	Mean	Number
Principal adviser		
Currently enrolled or active		
a. Masters	5.05	3.55
b. Doctors	2.58	1.03
Awarded degrees in past five years		
a. Masters	8.34	3.16
b. Doctors	1.67	.67
Major adviser to undergraduate students past five years	74.3	65.5

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TABLE 4.8

CHARACTERISTICS OF SAMPLE
MEMBERSHIPS AND OFFICES IN NATIONAL
PROFESSIONAL AND LEARNED SOCIETIES

		Present	Faculty	У	ŗ	Volun Terminated	tarily i Facul	ty
	Membe	erships	<b>0f</b> :	fices	Membe	ership <b>s</b>	0f:	fices
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
0 1 2 3 4 5 6 7 8 9	6 15 17 15 11 4 3 4	6.7 16.7 18.9 16.7 12.2 4.4 3.3 4.4	53 22 11 4 	58.8 24.4 12.2 4.4 	12 13 9 8 7 12 7 4 3 1	15.8 17.1 11.8 10.5 9.2 15.8 9.2 5.3 3.9 1.3	52 14 6 1 2 1	68.4 18.4 7.9 1.3 2.6 1.3
Mean number	3.	.200	0	.622	,	.553		.776

Professional Societies and University Committees Table 4.8 shows that present faculty members belong to a larger number of learned and professional societies than do the voluntarily terminated faculty members (t = 10.590, p <.05, d.f. = 164). However, no statistically significant differences were found between the two groups as to the mean number of offices held in learned and professional societies or the mean number of college and university committees on which they had served (Table 4.9). According to the data reported in Table 4.8, 68.4 percent of the voluntarily terminated faculty members have held no offices in learned and professional societies while 58.8 percent of the

present faculty group have not held offices in such organizations. It was found that 55.3 percent of the voluntarily terminated faculty members have not served on any university committees during the past five years in contrast to 38.9 percent of the present faculty members who reported no university committee involvements.

TABLE 4.9

CHARACTERISTICS OF SAMPLE SERVICE ON UNIVERSITY COMMITTEES

	Present	Faculty	Volun Terminate	tarily i Faculty
	Frequency	Percent	Frequency	Percent
ı	12	13.3	5	6.6
2	18	20.0	7	9.2
3	9	10.0	6	7.9
4	9	10.0	6	7.9
5	3	3.3	8	10.5
5 6	3	3.3	5	6.6
7				
8	1	1.1		
None	35	38.9	42	55.3
Mean number	1.6	 589	2.2	250

Professional Function When asked to state in which function they considered themselves to be most valuable to their institutions, very similar responses were given by both groups. The largest percentage stated that they felt their most useful function was that of teaching with research listed by the second largest group. Rank ordering of responses of present faculty members shows teaching most frequently mentioned followed by research, teaching and research, teaching and student advising, administration, student advising, and professional service. Rank ordering of responses of the voluntarily terminated

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faculty members shows teaching mentioned most frequently followed by research, administration and teaching and professional service listed an equal number of times, professional service, teaching and student advising, and teaching and research (Table 4.10).

TABLE 4.10

CHARACTERISTICE OF SAMPLE MOST VALUABLE FUNCTION IN INSTITUTION

	Present 1	Faculty	Volunta Terminated	
	Frequency	Percent	Frequency	Percent
Teaching	34	37.8	27	35.5
Research	13	14.4	11	14.5
Student advising	5	5.6		
Administration	8	8.9	6	7.9
Professional service	2	2.2	5	6.6
Teaching and research	13	14.4	2	2.6
Teaching and professional service	2	2.2	6	7.9
Teaching and student advising	9	10.0	3	3.9
Other	4	4.4	4	5.3
Total	90	100.0	76	100.0

Highest Degree A compilation of institutions from which highest degrees were earned showed that 37 or 22.3 percent of all new faculty appointees for the years 1953-54 and 1954-55 received their highest degrees from Michigan State University. The next largest group of new appointees had earned their highest degree from the University of Illinois followed by Iowa State University, Cornell University and the University of Michigan, and 47 other universities. It was also found that 96 or 57.8 per cent of all new appointees earned their highest degree from a Big Ten University. Table 4.11 shows, however, that there is little

difference between the present faculty members and voluntarily terminated faculty members in terms of institutions granting the highest earned degree. Data in Table 4.12 indicates that a slightly larger percentage of the present faculty members earned doctorates than did the voluntarily terminated faculty members.

TABLE 4.11

CHARACTERISTICS OF SAMPLE
INSTITUTIONS CONFERRING HIGHEST DEGREE

	D	Voluntarily	
	Present Faculty	Termin. Faculty	Total
Michigan State University	21	16	37
University of Illinois	10	4	14
Iowa State University	5	4	9
University of Wisconsin	4	3	7
University of Michigan	4	2	6
State University of Iowa	3	2	5
Cornell University	3	4	7
Ohio State University	3	2	5
University of Colorado	2	1	3
University of Chicago	2	1	3
Columbia University	2	4	6
University of Minnesota	2		2
Northwestern University	2	2	4
Yale University	2	1	j
Purdue University	2	3	3 5 3
University of Pennsylvania	2	ĺ	3
University of Washington	1	3	4
Thirty-seven other		•	•
universities with one			
each or less			

Public Service and Consulting Finally, data related to public service activity are reported in Table 4.13. It is noteworthy that 42.2 percent of the present faculty reported some public service work at the state level while only 14.5 percent of the voluntarily terminated faculty had been involved in public service work at this level during the past five years. In contrast, 21.1 percent of the voluntarily

terminated faculty members reported public service activity considered to be national in scope as compared with 15.6 percent of the present faculty members.

TABLE 4.12
CHARACTERISTICS OF SAMPLE
HIGHEST DEGREE EARNED

		sent	Termi	tarily nated ulty
	Frequency	Percent	Frequency	Percent
Bachelors (Arts, Science, etc.) Masters (M.S., M.A., M.A.T., etc.) Professional (M.D., D.V.M., Ll.D.,	1 13	1.1	2 13	2.6 17.1
etc.) Doctors (Ph.D., Ed.D., etc.) Other	2 74	2.2 82.2	2 49 —	2.6 77.7

TABLE 4.13

CHARACTERISTICS OF SAMPLE PUBLIC SERVICE ACTIVITY

		esent culty	Termi	tarily nated ulty
	Frequency	Percent*	Frequency	Percent*
International in scope (i.e. A.I.D.) National in scope State (boards of educ., extention,	10 14	11.1 15.6	5 16	6.6
etc.)	38	42.2	11	14.5
Local (boards of educ., etc.)	24	26.7	12	15.8
Regional (i.e. North Central Assoc.)	8	8.9	2	2.6
Inter-University	15	16.7	2	2.6
Intra-University	10	11.1	3	3.9
Industry	24	26.7	16	21.1

\*Note: Do not total to 100 because some respondents have served in more than one type activity.

Summary Data analyzed in this chapter have shown that the voluntarily terminated faculty members were somewhat younger, that they are receiving higher salaries at the present time, that a larger percentage are presently receiving salaries of \$15,000 or greater, and that they have tended to serve shorter periods of time in each rank than have the present faculty members. The two groups were found to be quite similar with respect to the number of publications and professional involvement in learned societies and consulting work. Some evidence also exists to suggest that, as a group, the involuntarily terminated faculty members had been identified as being less capable than the other two groups at the time of initial appointment.

Bias of the sample must be considered when generalizations are made from these findings. The tendency to higher salaries and more rapid advancement of the voluntarily terminated faculty members may be partially due to the fact that the most successful members were more willing to respond to the questionnaire.

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## CHAPTER V

## PRESENTATION AND ANALYSIS OF THE DATA

The examination of a set of six principles, as previously stated in Chapter III, and the extent to which these principles characterize mobility patterns and productivity and achievements of faculty members is a major purpose of this study. Data presented and analyzed in this chapter and relevant to each stated principle are as follows: (1) the degree of satisfaction of present faculty members with a list of fortysix factors as these factors apply to conditions at Michigan State University. (2) the importance of these factors to present faculty members in the selection of any academic position. (3) the importance of these same factors to voluntarily terminated faculty members in the selection of any academic position, (4) the degree of satisfaction of voluntarily terminated faculty members with these factors at their present institution, (5) reasons present faculty members have remained at Michigan State, and (6) reasons voluntarily terminated faculty members decided to leave M.S.U. These data will be presented and analyzed relative to each of the six principles.

The group of present faculty members have been sub-divided into two sub-groups for the purposes of statistical analysis. The groups will be referred to as the <u>high group</u> and the <u>low group</u> of present faculty members. These groupings represent the level of productivity and achievement of the faculty members according to the various

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components of the productivity and achievement measure as previously described (see page 34). The group of voluntarily terminated faculty members were also sub-divided into two sub-groups. The high group of voluntarily terminated faculty members are those faculty members the department chairmen designated as representing a distinct loss to the University. The low group of voluntarily terminated faculty members are those faculty members the department chairmen designated as those whose work was satisfactory but whose resignation did not represent an irreplaceable loss to the University.

The principles have been placed in three categories; the institutional principles, the occupational principles, and the community principles. The data on the significant differences of opinion among the various groups of faculty members, both present and voluntarily terminated, as determined by the chi-square distribution are included in the text of the Chapter. Data concerning the differences between the present faculty members' and the voluntarily terminated faculty members' perception of the factors, the degree of satisfaction with the factors, and the reasons for leaving or remaining at Michigan State are summarized in tables included at the end of the Chapter. The data in these tables are relevant to all six principles; hence will arise the need to refer to given tables several times in the analysis.

## Institutional Principles

I. Physical facilities and resources, both for research and teaching, contribute to morale and job-expectation and hence affect mobility and productivity and achievement.

Seven factors included in the list of forty-six factors pertained

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to physical facilities and resources. These were office space, classrooms, library, secretarial services, technical assistance, availability
of graduate and research assistants, and availability of research funds.
The statistical analysis of responses to these factors along with an
analysis of the free responses of the faculty members will be considered as they relate to the academic position in general, the academic
position at Michigan State, and reasons faculty members have decided
to remain at or leave Michigan State University.

An Academic Position in General Chi-square distributions were used to determine if differences existed between the way in which the high and low productivity groups of present faculty members viewed the physical facilities and resources factors in the selection of any academic position (Table 5.1). Faculty members low in the service component, the professionalism component, and the total measure of productivity and achievement were found to attach greater value to the office space factor than did present faculty members high on these scales. Also, the low group according to the service component placed greater value on the availability of graduate and research assistants as a criterion in the selection of any academic position than did the group high on this scale.

The high group as measured by the advising component were found to attach greater significance to the technical assistance, availability of graduate and research assistants, and the availability of research funds factors than did the low group as measured by this component.

The availability of graduate and research assistants was found to be more important to the group high on the professionalism component and the total measure. Greater value was attached to the availability of

TABLE 5.1

PHYSICAL FACILITIES AND RESOURCES, ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

			Measure of I	Measure of Productivity and Achievement	d Achievement	
		Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
	Office space	I2=7.343 (A)	X <sup>2</sup> =5.563 (A)	•	•	6
•	Classrooms	•	•	•		$I^{\sim} = 6.119 (A)$
- '	Library	•	•	•	L=4.864 (A)	
	Secretarial services	•	•		•	•
	Technical assistance	•	•	$\Gamma = 5.151$ (B)	•	•
tos!	& research assistants	I <sup>2</sup> =6.035 (A)	$\mathbf{x}^2 = 5.695 \text{ (B)}$	I <sup>2</sup> =13.650 (B)	•	<b>x</b> ²=11.879 (B)
	research funds	•	•	$\mathbf{r}^2 = 4.764 \text{ (B)}$	•	$I_{\pm}^2 6.573 (B)$

(A) indicates low group attached greater importance to factor in the selection of any academic position than do the high group.

(B) indicates high group attached greater importance to factor in the selection of any academic Note:

position than do the low group. 10 level of significance for  $\mathbb{X}^2$ - distribution,  $\mathbb{X}^2 > 4.605$ , d.f.=2.

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research funds by the group high on the total productivity and achievement scale than by the group low on this scale.

These findings indicate that faculty members at Michigan State who are considered to be most productive in research and publication as measured by the scales would look to the availability of research funds and of graduate and research assistants in the selection of an academic position. In contrast, those faculty members less active in research and publication tend to concern themselves more with the availability of physical facilities. The responses of present faculty members to the question, "What aspects of M.S.U. would serve to attract outstanding new faculty to the University?" point to similar concerns of faculty members for research facilities and resources but also indicates concern for physical facilities in general. Typical answers were as follows:

The expanding plant and equipment.

At the moment, not much in the Liberal Arts. We have rather poor library facilities for research, much ado about nothing committees. Research funds might help.

Freedom for research along with adequate facilities and funding.

New science facilities will be particularly attractive for new science faculty and should stimulate new dimensions of concern in the humanities.

Teaching and research facilities (new computer, cyclotron, etc.).

Present faculty members were found to attach greater value to the availability of research facilities than did the voluntarily terminated faculty as evidenced by the fact that availability of research funds and the library were more significant factors to present faculty members in the selection of any academic position while classroom facilities were of greater importance to the voluntarily terminated

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faculty members (Table 5.12).

Academic Position at Specific Institutions Office space was considered to be more satisfactory at Michigan State by present faculty members high in the professionalism component of the measure of productivity and achievement, than by those present faculty members low on the scale ( $\mathbf{X}^2 = 6.085$ , p < .10, d.f. = 2).

Present faculty members were asked to react to the list of factors as they related to the faculty member's position at Michigan State. The physical facilities and resources factors rated as being either unsatisfactory or very unsatisfactory, in order of frequency of mention, were technical assistance, secretarial services, availability of research funds, classrooms, library, and office space. The physical facilities and resources factors rated as being either satisfactory or very satisfactory at Michigan State University by present faculty members were office space and classrooms. It is clear from the data, however, that the faculty members at M.S.U. are generally satisfied with the physical facilities, but are somewhat less satisfied with resources for research and the availability of technical and secretarial services (Tables 5.15 and 5.16).

Responses typical of those made by the voluntarily terminated faculty members to the question, "If you are currently employed in higher education, what aspects of your present college or university tend to encourage competent staff to remain at the institution?" were as follows:

Excellent library facilities. Ample funds for teaching materials, stenographic work, and professional travel.

Virtually unlimited research equipment and facilities. Good research facilities.

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Research freedom and good research support . . . good physical facilities.

Availability of research facilities and time.

In response to the question, "What aspects of your present college or university would serve to attract outstanding new faculty to the institution?" the voluntarily terminated faculty responses were typically as follows:

Outstanding facilities of library, grants for research.

Physical facilities of office space, equipment, and stenographic are excellent.

It is worthy of note that most of the responses to the openended questions which relate to physical facilities and resources

pointed to a concern of college and university faculty members for

opportunities for research while few references were made to the need

of improving the physical facilities and resources available for instructional activities.

Reasons for Staying at or Leaving Michigan State The voluntarily terminated faculty members were asked whether the factors included in the study were inducements to leave Michigan State or were considered to be inducements to remain at the University. Table 5.18 shows that 20 or 26.3 percent of the voluntarily terminated faculty listed availability of graduate and research assistants as an inducement to leave and 18 or 23.7 percent considered the lack of technical assistance available at M.S.U. as an inducement to terminate. The facilities and resources factors thought to be inducements to remain at the University were the library with 21 or 27.6 percent of the voluntarily terminated faculty considering it an inducement to remain and 17 or 22.3 percent considering the office facilities as an inducement for staying at

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Michigan State (Table 5.17).

Present faculty members were asked to rank order the five factors which had been most important in the faculty member's decision to remain at Michigan State. Among the physical facilities and resources factors, only availability of research funds was frequently mentioned. Other physical facilities and resources factors mentioned were office space, availability of graduate and research assistants, library, technical assistance, and classrooms (Table 5.19).

The physical facilities and resources factors appear to have been even less dominant in the decisions of voluntarily terminated faculty to leave M.S.U. Only the technical assistance factor was ranked first in importance and then by only one voluntarily terminated faculty member. Other factors mentioned were availability of research funds, classrooms, office space, availability of graduate and research assistants, secretarial services, and the library (Table 5.20).

Typical responses by present faculty members to the question,

"What aspects of Michigan State University tend to encourage competent
staff members to remain at M.S.U.?" were as follows:

Availability of funds for research. Working facilities - including laboratories and computer.

Provisions of facilities one finds useful in his own work; e.g., CDC 3600 computer, etc.

Availability of most advanced computer and data processing facilities.

When asked, "On the basis of your experience, what aspects of the University have caused capable faculty members you have known to seek employment elsewhere?" present faculty members made comments as follows:

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The impression that brick and mortar have consistent priority over faculty salaries, but that brick and mortar emphasis does not extend proportionately to the erection of needed classrooms, laboratories, and other instructional facilities.

Lack of facilities; office space, secretarial services, lab equipment, etc.

Summary The degree of satisfaction with the physical facilities and resources appears to be directly related to the professional function of the individual faculty member. However, there was found to be general concern for those facilities or resources which contribute to the faculty member's professional advancement. Further, both present faculty members and the voluntarily terminated faculty members were found to be quite satisfied with physical facilities in general at Michigan State but somewhat less satisfied with the resources available for research. The data analyzed in this section suggest that by providing physical facilities and resources pertinent to the professional interests and activities of its faculty, an institution could increase morale and job-satisfaction, hence, conceivably promote productivity and achievement.

II. A Student Population of Quality, and Departments and

Colleges with Recognized Prestige are Crucial in Developing a Productive

Staff.

The factors which most directly relate to Principle II are quality of student population, calibre of associates, prestige of the University, and reputation of the department. The analysis which follows will consider the quality and prestige factors as they pertain to any academic position, conditions at Michigan State or other institutions, and reasons for leaving or remaining at M.S.U.

An Academic Position in General It is clear from the data that there is little difference between the views of the more productive and the less productive present faculty members relative to the importance of the quality and prestige factors in the selection of any academic position. It was found, however, that the present faculty members in the low group according to the total measure were more concerned with the quality of the student population in the selection of any academic position than were the high group (Table 5.2). No other statistically significant differences were found to exist between these two groups.

The high group, as determined by the rating of the department chairmen, of the voluntarily terminated faculty members attached greater importance to the prestige of the college or university in the selection of any academic position than did the low group.

( $\mathbf{X}^2 = 7.426$ ,  $\mathbf{p} < .10$ ,  $\mathbf{d}.\mathbf{f}. = 2$ ) No significant differences of opinion were found between the two groups as to the importance of the other quality and prestige factors in the selection of any academic position.

No differences were found to exist between present faculty members and voluntarily terminated faculty members in the importance they attach to the quality of student population and institutional prestige factors.

However, these data do not suggest that faculty members at Michigan State and those who have terminated place little value on these factors when considering a professional position. Rather, the data suggest that the quality of student populations and prestige factors are considered to be of importance to most faculty members in the selection of an academic position. The mean scores for these

TABLE 5.2

QUALITY OF STUDENT POPULATION AND PRESTIGE OF INSTITUTION, ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

		Measure of Pr	oductivity ar	Measure of Productivity and Achievement	
	Service Component	Professionalism Component	Advising Component	Advising Compensational	Total Measure
Quality of student					
population	•	•	•	•	I'=6.029 (A)
G Calibre of associates	•	•	•	•	•
g Prestige of university	•	•	•	•	•
E Reputation of your					
department	•	•	•	•	•

(A) indicates low group attached greater importance to factor in the selection of any academic position than do the high group. Note:

(B) indicates high group attached greater importance to factor in the selection of any academic position than do the low group.

10 level of significance for  $\mathbb{Z}^2$ — distribution,  $\mathbb{Z}^2 > 4.605$ , d.f.=2.

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cerning the lev factors, when measured on a three point scale, indicate a high degree of concern for the quality of the student population and prestige of the institution by faculty members in the selection of a professional position (Table 5.21). These findings are consistent with those of Caplow and McGee which were discussed in Chapter II.

The correctness of these conclusions is made more pointed by
the responses of present faculty members to the question, "What aspects
of M.S.U. would serve to attract outstanding new faculty to the
University?" Typical replies were as follows:

The University's research resources and the excellent progress being made in bringing outstanding students to the campus will be important in attracting outstanding staff.

The calibre of the staff, student body, national recognition of the University.

Image as a school with top student body and faculty.

Its reputation as a leading University. Its emphasis on attracting the best high school scholars. The reputation of scholars now on the faculty.

A better academic image, better graduate students, less emphasis on boosterism and more on academic climate, less on size and more on quality, more publicity for conferences on nuclear physics and chemical research, less on plumbers' conferences and farmers' week. The best gimmick we've had in the time I have been here is the program of financial aids to merit scholars. We need more of such.

Calibre of students - number of merit scholars, etc. Calibre of faculty.

Prestige of the University - not the type that is reflected in newspaper headlines or in public relation releases, but the prestige earned and demonstrated in research and teaching facilities and evaluated and accepted by various scholarly societies.

The Academic Position at Specific Institutions The data concerning the differences of opinions of present faculty members as to the level of satisfaction with the quality of student population and

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prestige of the institution factors gives credence to the conclusions drawn above. The only differences of opinion found to exist pertained to the reputation of the department. Present Faculty members high on the advising component of the productivity and achievement measure were more satisfied with the reputation of departments as determined by the degree to which they considered the factor an inducement to remain at Michigan State than were those less involved in advising (Table 5.3).

Quality of student population and prestige factors considered to be most satisfactory at Michigan State by present faculty members were calibre of associates with 74 or 82.2 percent of the group rating the factor either satisfactory or very satisfactory at M.S.U. (Table 5.16). Quality of student population was rated as either satisfactory or very satisfactory by 70 or 77.8 percent of the present faculty members and prestige of the University was given this rating by 69 or 76.9 percent of the group. Reputation of the department was thought to be satisfactory or very satisfactory by 62 or 68.9 percent of the respondents.

In support of the general high level of satisfaction by faculty members with the quality and prestige factors was the fact that calibre of associates at Michigan State was listed as an inducement to remain at M.S.U. by 28 or 36.8 percent of the voluntarily terminated faculty; prestige of the University was listed as an inducement by 24 or 31.6 percent; and 21 or 27.6 percent of the voluntarily terminated faculty members thought the reputation of their department was an inducement to stay at Michigan State University.

In contrast, however, reputation of the department was listed V

TABLE 5.3

QUALITY OF STUDENT POPULATION AND PRESTIGE OF THE INSTITUTION AT MICHIGAN STATE UNIVERSITY PRESENT FACULTY MEMBERS
(N=90)

•			Measure of Pr	roductivity an	Measure of Productivity and Achievement	
		Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
1	Quality of student					
Le	population	•	•	•	•	•
ot.	Calibre of associates	•	•	•	•	•
<b>JB</b> ,	Prestige of university	•	•	( )	•	•
I	Reputation of department	•	•	L=5.587 (B)	•	•

(A) indicates low group perceived the factor more favorably than did high group.
(B) indicates high group perceived the factor more favorably than did the low group.
(10 level of significance for I'- distribution, I'> 4.605, d.f.=2. No te:

as an inducement to leave Michigan State by 23 or 30.2 percent of the voluntarily terminated faculty members, calibre of associates was listed as an inducement to leave by 21 or 27.6 percent, and prestige of the University was listed as an inducement to leave by 18 or 23.7 percent of the voluntarily terminated faculty members (Table 5.18).

The general satisfaction of present faculty members with quality and prestige factors at Michigan State is clearly shown in the data. However, voluntarily terminated faculty members tended to exhibit a greater degree of ambivalence. The lack of consensus by the voluntarily terminated faculty members is, in all probability, a function of the type of institutions and departments at which they are now employed. They do not see these factors with the same singleness of vantage point as do the present faculty members.

The duality of perspective of the voluntarily terminated faculty members was further exemplified in the free responses to open-ended questions. Typical responses to the question, "If you are currently in higher education, what aspect of your present college or university tends to encourage competent staff to remain at the institution?" were as follows:

A	fine	Department	of Human	Growth and Family Relationships.
_	<del></del>	<del></del>		_is a strong liberal arts college.
S	tuden	t body of g	ood quali	ity drawn from good secondary schools

Responses by the voluntarily terminated faculty members to the question, "What aspects of your present college or university would serve to attract outstanding new faculty to the institution?" relevant to the quality and prestige principle were very limited. Those responses were as follows:

High quality reputation of college and university.

I think our strongest appeal is the number of able faculty members we already have.

Reasons for Staying at or Leaving Michigan State The quality and prestige factors were found to be of considerable influence in the decisions of present faculty members to remain at Michigan State. Calibre of associates was ranked first in importance in their decision to remain by more present faculty members than any other factor with 32 or 35.6 percent of the group giving a rank of first, second, third, fourth, or fifth to this factor. Other quality factors frequently mentioned were reputation of your department with 22 or 24.5 percent of the group of present faculty giving a ranking of first through fifth, quality of student population with 13 or 14.5 percent giving these rankings, and prestige of the University was ranked first through fifth by 14 or 15.6 percent of the present faculty group (Table 5.19). These same factors were, however, also important in the decisions of the voluntarily terminated faculty members to leave Michigan State University. Quality of student population was ranked first, second, third, fourth, or fifth in importance in their decision to leave by 10 or 13.2 percent, calibre of associates by 13 or 17.1 percent, prestige of the University by 3 or 3.9 percent, and reputation of the department by 9 or 11.8 percent of the voluntarily terminated faculty members (Table 5.20). The differences in the percentage of the present faculty members who considered the quality and prestige factors as important in their decision to remain at M.S.W. compared to the percentage of voluntarily terminated faculty members who ranked these factors as important in their decision to leave indicates general satisfaction

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with the quality and prestige factors both by present faculty members and by those faculty members who have voluntarily terminated.

Some of the typical responses by the present faculty members to the question, "What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?" and relevant to the quality and prestige principle were as follows:

Prestige of colleagues, departments, and the University.

Its drive for excellence in all areas - student selection, faculty selection, services to people of Michigan, international reputation.

A general high level intellectual atmosphere.

National reputation of individual departments. Conversely, I'm sure that poor reputation of some departments has caused some of my friends in other fields to leave.

The tremendous potential for development in quality is a challenge.

A major University with growing prestige.

Typical responses to the question, "On the basis of your experience, what aspects of the University have caused capable faculty members you have known to seek employment elsewhere?" were as follows:

Too many poor students continue to appear in classes. The general improvement of the student body still leaves many intellectual "bums" around.

Vast extremes among abilities of entering freshmen. There are many good students but there are many very poor students. The teachers do not enjoy their "weed-them-out" function—they would prefer a more vigorous selection of students.

The pressure to move M.S.U. into prestige science—atomic energy, space, medicine, etc., is forcing the applied sciences group out to institutions that still believe in practical applied sciences.

Lack of respect for academic respectability of their own departments and colleagues.

I feel quite strongly that lack of academic climate is the greatest factor causing loss of top quality people.

Summary The quality of student populations and prestige of the departments and the institution were found to be strong motivations to faculty in the selection of a professional position. These findings are in agreement with other studies related to the recruitment and retention of college and university faculty members. The data suggest, however, that quality of student population and prestige of the institution are crucial in the development of a productive staff only in so far as they are inducements to college and university faculties in the selection of an academic position.

## Occupational Principles

III. Administrative attitudes and practices influence mobility and faculty productivity and achievement.

Nine factors included in the total list were relevant to the administrative practices and attitudes principle. These were academic freedom, recognition for undergraduaduate teaching, policies on promotions, sabbatical leave policies, size of the University, traffic and parking, channels of communication, and relationships with department chairmen.

An Academic Position in General Differences in the importance present faculty members attach to the administrative attitudes and practices factors in the selection of any academic position are given in Table 5.4. It was found, without exception, that where significant differences exist the low group of present faculty members attach greater value to the administrative attitudes and practices factors as criteria in the selection of a professional position than do the high group. These data suggest that the staff who are more active profes-

TABLE 5.4

ADMINISTRATIVE ATTITUDES, ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

		Measure of F	Measure of Productivity and Achievement	d Achievement	
	Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
Academic freedom	•	•	•	•	•
undergraduate teaching	•	$\mathbf{r}^2_{-10.367}$ (A)	12=6.884 (A)	$I_{-2}^{2} = 5.991 \text{ (A)}$	$\mathbf{r}^2_{=11.643}$ (A)
rollices on promotions Sabbatical leave policies	<b>I</b> <sup>2</sup> =5.823 (A)	4~= 5.409 (A)	<b>1</b> ~=0. ×0 (A)	A~=7.740 (A)	(A) COO = -Y
Size of university Traffic and parking	• •	• •	• •	• •	• •
Faculty participation in academic policy	•	•	$\mathbf{r}^2 = 6.434  (A)$	X2=5.537 (A)	$\mathbf{X}^2 = 6.031 \text{ (A)}$
Channels of communications Relationships with	•	•	•	X<=5.110 (A)	•
department chairmen	•	•	•	•	•

(B) indicates high group attached greater importance to factor in the selection of any academic position than do the low group.

10 level of significance for I<sup>2</sup>- distribution, I<sup>2</sup>> 4.605, d.f.=2. (A) indicates low group attached greater importance to factor in the selection of any academic position than do the high group. Note:

sionally and who have achieved greater recognition in terms of rank, salary, and so on have a greater feeling of security and accomplishment and hence are less concerned about the administrative attitudes and practices factors included in this study than are the less productive faculty members.

A comparison of the importance attached to the administrative attitudes and practices factors by the present faculty members and the voluntarily terminated faculty members in the selection of any academic position showed that present faculty members would attach greater value to academic freedom, sabbatical leave policies, and traffic and parking than would the voluntarily terminated faculty members (Table 5.12).

The low group of voluntarily terminated faculty members, as determined by the department chairmen's ratings, were found to attach greater value to faculty participation in academic policy as a criterion in the selection of an academic position than did the high group.

(Table 5.13).

An Academic Position at Specific Institutions Whereas it was found that the present faculty members low on the productivity and achievement scales were more concerned with the administrative attitudes and practices factors in the selection of an academic position in general, the high groups were found to be more satisfied with these factors at Michigan State (Table 5.5). The perceptions of various administrative attitudes and practices at M.S.U. by faculty members were found, as was anticipated, to be a function of the professional involvement and achievements of the individual faculty. For example, faculty members low on the compensational scale were less satisfied

TABLE 5.5

ADMINISTRATIVE ATTITUDES AT MICHIGAN STATE UNIVERSITY PRESENT FACULTY MEMBERS (N=90)

			Measure of P	Measure of Productivity and Achievement	d Achievement	
		Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
	Academic freedom Recognition for	•	•	•	•	•
	undergraduate teaching	•	$\mathbf{X}^2 = 5.240 \text{ (B)}$	•	r <sup>2</sup> =10.364 (B)	<b>X</b> <sup>2</sup> =10.169 (B)
	Policies on promotion	•	•	•	I <sup>2</sup> =17.623 (B)	$I^2 = 6.533 (B)$
•	Sabbatical leave policy	•	•	•	$\mathbf{X}^2 = 7.781$ (B)	•
)LE	Size of university		•	•	•	•
αţ	Traffic and parking	I~=4.961 (A)	•	•	•	•
T.	raculty per ulcipation in academic policy	$\mathbf{x}^2 = 4.690 \text{ (B)}$	X2 6.271 (A)	•	•	•
	Channels of communication	•	$\mathbf{I}^2 = 7.640 \; (A)$	$\mathbf{X}^2 = 5.441$ (A)	•	•
	department chairmen	I <sup>2</sup> =5.520 (B)	<b>x</b> <sup>2</sup> =11,211 (B)	•	$\mathbf{X}^2 = 6.727 \text{ (B)}$	$\mathbf{X}^2 = 6.727 \text{ (B) } \mathbf{X}^2 = 5.151 \text{ (B)}$

(A) indicates low group perceived the factor more favorably than did the high group. (B) indicates high group perceived the factor more favorably than did the low group. 10 level of significance for  $\mathbb{Z}^2$ - distribution,  $\mathbb{Z}^2 > 4.605$ , d.f.=2. No te:

with the policies on promotions and present faculty members low on the professionalism component were less satisfied with recognition for undergraduate teaching. Relationships with department chairmen were found to be more satisfactory to those present faculty members who were high on all the productivity and achievement scales except advising than to the low group of present faculty members.

The administrative attitudes and practices factors ranked high in the list of factors considered to be least satisfactory at Michigan State by present faculty members (Table 5.15). Channels of communication were thought to be unsatisfactory or very unsatisfactory at Michigan State by 39 or 43.3 percent, recognition for undergraduate teaching by 37 or 41.1 percent, faculty participation in academic policies by 35 or 38.9 percent, traffic and parking by 32 or 35.5 percent, policies on promotion by 31 or 34.4 percent, and size of the University by 27 or 30.0 percent of the present faculty members. Some dichotomy was found to exist, however, since the number of present faculty members indicating as satisfactory or very satisfactory the factor of academic freedom was greater than that for any other factor (Table 5.16). Other administrative attitudes and practices factors thought to be satisfactory or very satisfactory by present faculty members were sabbatical leave policies by 73 or 81.1 percent and relationships with department chairmen by 72 or 80.0 percent.

Concern about the administrative attitudes and practices at their present institutions were expressed in the answers of voluntarily terminated faculty members to the question, "If you are currently employed in higher education, what aspects of your present college or university tend to encourage competent staff to remain at the institution?"

Typical responses included the following.

Academic freedom, participation in development of curriculum.

Great confidence in the administration, including a belief that academic freedom will be protected, staff will be treated fairly, and communication between staff and administration will remain open and free.

Attitude of administration toward teaching.

Reasons for Remaining at or Leaving Michigan State Only the factor, relationships with department chairmen, of the administrative attitudes and practices factors was listed as an inducement to remain at Michigan State by voluntarily terminated faculty members (Table 5.17). In contrast, 31 or 40.8 percent listed policies on promotions, 27 or 35.5 percent listed channels of communications, 24 or 31.6 percent listed faculty participation in academic policies, 20 or 26.3 percent listed recognition for undergraduate teaching, and 20 or 26.3 percent of the voluntarily terminated faculty members listed relationships with department chairmen as inducements to leave Michigan State University (Table 5.18).

Ranking of the factors by present faculty members as they entered into a decision to remain at M.S.U. are given in Table 5.19. It is to be noted that only academic freedom and relationships with department chairmen were mentioned frequently by the present faculty members. It is also noteworthy, however, that academic freedom and relationships with department chairmen along with policies on promotions were frequently mentioned by the voluntarily terminated faculty members as ranking high in their decision to leave Michigan State (Table 5.20). These data suggest a general concern by both groups of faculty members about administrative attitudes and practices.

The strong relationship between satisfaction and productivity and achievement was further verified by the fact that policies on promotions were found to be a greater inducement to leave Michigan State by voluntarily terminated faculty members in the low group according to department chairmen's ratings than by the group higher on this rating (Table 5.14).

The typical responses of present faculty members to the question, "What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?" which are pertinent to the administrative attitudes and practices principles are given below.

Academic freedom for faculty members and the constructive attitude of most administrators toward this principle.

Generous leave policies for research, consultation, travel, etc.

Interest of administration in new ideas.

The chance for one to progress by his own accomplishments without impediment from hide-bound conventions or policies.

Academic freedom including willingness to pioneer.

Minimal harassment by administration at any level.

I think that the principal reason why competent people remain at Michigan State is that they can do things here the way they want to do them—whether it be to do research or to teach courses. There are relatively few restraints on what one can do—little if any direction from above. In this sense, Michigan State is something of an anarchy, but it is precisely this anarchy which gives free rein to competent people who know what they want to do. Much of the strain caused by the "Project X" controversy was due to what appeared to be an extremely radical change in relationship which has existed between the administration and the faculty.

Participation in academic policies.

Confidence in a competent and dependable University administration.

A University that is not afraid to innovate.

Its reputation for fair treatment of faculty.

Some of the typical replies to the question, "On the basis of your experience, what aspects of the University have caused capable faculty members whom you have known to seek employment elsewhere?" are given below.

Discouragement over middle-level executive performance which mitigates against desired program improvements; also, disenchantment with promotion practices in a competitive profession; also, a curious "neuroticism" with respect to more "respectable" institutions.

Weak or unfair department chairmen at M.S.U.

Surly disposition of certain administrators when job offer from elsewhere was talked over with said administrator.

The impression that communication is unsatisfactory, especially on a "horizontal" plane—i.e., between departments, between colleges within the University, etc.

Insufficient faculty participation in important academic decision making.

Authoritarian administrative officials.

The inclination (in past years) for department chairmen to emphasize publishing rather than teaching as a criterion for promotion.

Poor communications, e.g., too little time devoted to determining whether or not faculty members know or understand administrative proposals, actions, thinking, and too little time devoted to determining whether or not contributions of faculty members should be encouraged in problem analysis.

Almost anything and everything. But there is, I think, an inability of many of the more capable faculty to identify with the institution, or at least with much of its leadership. The sharpness of the division between administration and faculty—or at least the perception by the faculty that the administration has no understanding of what it is about—leads to a high degree of rootlessness.

Summary The extensive responses by present faculty members to the free response questions along with the reactions to the list of factors are indicative of a high degree of concern for the administrative attitudes and practices at Michigan State. Voluntarily terminated

faculty members were found to be somewhat less concerned about these factors. The reasons for a seeming lack of concern in their present position for these factors by faculty members who have left M.S.U. are not entirely clear. Since administrative attitudes and practices were found to be major contributors to a decision to leave Michigan State, there may have been some reluctance on the part of voluntarily terminated faculty members to indicate the same kinds of dissatisfactions with their present position. In summary, it can be concluded that administrative attitudes and practices do greatly influence faculty mobility and that they influence productivity and achievement to the extent that administrative attitudes and practices are consistent with the professional goals and objectives of faculty members.

## IV. Economic Compensations and the Degree of Security Made Possible by Tenure Regulations Tend to Reduce Mobility and May Affect Faculty Productivity.

The factors included in the questionnaire which are pertinent to the security and compensations principle were salary, income potential, fringe benefits, financial assistance for publication of research, financial assistance for attending professional meetings, tenure policies, opportunity for consulting work, rank or title, and cost of housing. These factors will be considered as they relate to the principle in terms of the significance faculty members attach to the factors in the selection of an academic position, the factors at Michigan State or other specific institutions, and as reasons for remaining at or leaving M.S.U.

An Academic Position in General With the single exception of financial assistance for publication of research, the low group of present faculty members were found to attach greater value to the security and compensations factors in the selection of any academic position than did faculty members in the high group (Table 5.6). There were, however, no satistically significant differences in the importance attached by the two groups to income potential, fringe benefits, financial assistance for attending professional meetings, and rank or title as criteria in the selection of an academic position.

No differences were found to exist between the level of importance attached to the security and compensations factors by present faculty members and by voluntarily terminated faculty members in the selection of any academic position. Income potential was, however, found to be of greater importance to the low group of voluntarily terminated faculty as a criterion in the selection of an academic position than to the group high on the department chairmen's ratings (Tables 5.12 and 5.14).

These data suggest that, while compensations and security factors are important motivations in the selection of an academic position (Table 5.21), the productive faculty members tend to be concerned with the economic compensations and facilities for professional advancement while less productive staff may have concerns for tenure policies and security.

Responses by present faculty members to the question, "What aspects of M.S.U. would serve to attract outstanding new faculty?" which were pertinent to the compensations and security principle typically were as follows:

TABLE 5.6

TENURE, SALARY, AND RELATED COMPENSATIONAL FACTORS, PRESENT FACULTY MEMBERS ANY ACADEMIC POSITION (N=90)

		Measure of F	Measure of Productivity and Achievement	Achievement	
8	Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
Salary I2=	X <sup>2</sup> =5.397 (A)			•	I <sup>2</sup> =9.318 (A)
Income potential	•	•	•	•	•
Fringe benefits	•	•	•	•	•
Financial assistance for publication of research	•	•	•	•	<b>r</b> ²=4.813 (B)
of. meetings	<b>*</b> 2 0 (03 (4)	•	¥2_10_,00 (A)	42.10,00 (A) 42.11 608 (A) 42.0 635 (A)	Y2_0 \$2\$ (A)
	=0.4W) (A)	•	* = 10.440 (A)	(w) 0/0•TT= 4	
consulting work	•	•	•	$\mathbf{X}^2 = 4.620 \ (\mathbf{A})$	•
Rank and title	•	•	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	•	•
Cost of housing	•	•	1~= 4.901 (A)	•	•

Fac tors

position than high group.
(B) indicates high group attached greater importance to factor in the selection of any academic position than low group.
.10 level of significance for I<sup>2</sup>- distribution, I<sup>2</sup>> 4.605, d.f.=2. (A) indicates low group attached greater importance to factor in the selection of any academic No te:

Good beginning salaries.

Good professional environment with competitive salary scale.

Salary is high in the minds of many professors today—a significant item.

Retirement system.

Faculty are attracted by prestige of the University and the department, and by money and facilities to do what they want, or by location. Michigan State has neither location nor prestige. Therefore, it can attract only by paying higher salaries and by providing greater internal opportunities than other schools.

A drawback to older faculty, but an encouragement to new are the high starting salaries.

Salary and rank, of course, with opportunities for advancement in a reasonable time.

An Academic Position at Specific Institutions As shown in Table 5.7, salary, tenure policies, income potential, fringe benefits, and cost of housing were of the same level of satisfaction at Michigan State as viewed by both the high group and low group of present faculty members.

Financial assistance for publication of research was considered to be more satisfactory by the high group as measured by the professionalism, advising, and compensational components and the total productivity and achievement measure. A reasonable conjecture might be that this assistance was more readily available to those faculty members who are already active in research and publication than to the low group of present faculty members who have been less active in this area. The high group according to the compensational component were found to be more satisfied with the availability of financial assistance for attending professional meetings. Satisfaction with rank or title was found to be greater for the high group as measured by the compen-

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TABLE 5.7

TENURE, SALARY, AND RELATED COMPENSATIONAL FACTORS
AT MICHIGAN STATE UNIVERSITY
PRESENT FACULTY MEMBERS
(N=90)

			Measure of F	Measure of Productivity and Achievement	d Achievement	
		Service Component	Professionalism Component	Advising Component	Advising Compensational omponent	Total Measure
	Salary	•	•	•	•	•
	Income potential	•	•	•	•	•
	Fringe benefits	•	•	•	•	•
1	Financial assistance for		x2-10 318 (B) x2-7 191 (B)	¥2_7 191 (B)	$x^2 = 8.731 \text{ (B)}  x^2 = 12.151 \text{ (B)}$	$\mathbf{x}^2 = 12.151$ (B)
DJ(	Fin	•	(n) or on •	(2) 1/101-4	(1)   (t)   (	
ot o		•	•	•	$\mathbf{r}^2 = 7.016 \text{ (B)}$	•
. Pa		•	•	•	•	•
	_	•	•	•	$\mathbf{X}^2 = 7.781$ (B)	•
	Opportunities for	c		c		
	consulting work	<b>X</b> <sup>2</sup> =5.250 (B)	•	$X^2 = 4.930 \text{ (A)}$	•	$X_{A}^{2} = 6.462 (A)$
	Rank or title	•	•	•	X <sup>2</sup> =17.196 (B)	$X^2 = 6.380 (B)$
	Cost of housing	•	•	•	•	•

(A) indicates low group perceived the factor more favorably than did the high group. (B) indicates high group perceived the factor more favorably than did the low group. 10 level of significance for  $\mathbb{Z}^2$ - distribution,  $\mathbb{Z}^2 > 4.605$ , d.f.=2. Note:

sational component and the composite measure. Opportunity for consulting work was more satisfactory to the high group according to the service component and more satisfactory to the low group according to the advising component and total measure.

The satisfactions and dissatisfactions of present faculty members with the security and compensations factors at Michigan State are exhibited in Tables 5.15 and 5.16. Noteworthy is the fact that financial assistance for attending professional meetings was rated as unsatisfactory or very unsatisfactory by more present faculty members than any of the other factors included in the questionnaire. Fifty-two or 57.8 percent rated this factor as either unsatisfactory or very unsatisfactory, with cost of housing being rated unsatisfactory or very unsatisfactory by 32 or 35.5 percent, salary by 31 or 34.4 percent, rank or title by 20 or 22.2 percent, and income potential by 19 or 21.1 percent of the present faculty members. Fringe benefits ranked high among the factors considered to be satisfactory or very satisfactory at M.S.U. with 76 or 84.4 percent of the present faculty so indicating and tenure policies were thought to be satisfactory or very satisfactory by 72 or 80.0 percent of the group.

Responses by the voluntarily terminated faculty members to the question, "If you are currently in higher education, what aspects of your present college or University tend to encourage competent staff to remain at the institution?" were more limited than present faculty members' replies to a similar question as discussed above. A sample of typical responses are given below.

Good salaries, accepted at high level echelons. Chance for promotions.

Faculty rewards—salary, tuition, retirement, medical benefits, housing, offices, library, research funds, etc.

Salary and salary potential.

Reasons for Remaining at or Leaving Michigan State Few security and compensations factors were considered to be inducements to remain at or leave Michigan State University by the voluntarily terminated faculty. Fringe benefits were considered to be an inducement to remain by 17 or 22.3 percent of the group. Factors considered to be inducements to leave the University were salary and income potential, each listed by 44 or 57.9 percent of the voluntarily terminated faculty members, rank or title listed by 32 or 42.1 percent, financial assistance for attending professional meetings listed by 28 or 36.8 percent, and cost of housing listed by 21 or 27.6 percent (Tables 5.17 and 5.18).

The security and compensations factors ranked first through fifth in contributing to a decision to remain at M.S.U. by present faculty members in order of frequency of mention were salary, income potential, rank or title, tenure policies, opportunity for consulting work, and financial assistance for attending professional meetings. Those factors ranked first through fifth in contributing to a decision to leave Michigan State by voluntarily terminated faculty members in order of frequency of mention were salary, rank or title, tenure policies, income potential, cost of housing, and financial assistance for attending professional meetings (Tables 5.19 and 5.20). These data suggest that economic considerations are, for Michigan State faculty members, the principal motivations in the decision to remain at or to leave the University.

Responses typical of those present faculty members made to the

question, "What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?" and which were relevant to the security and compensations factors were as follows:

In the past, salaries have been adequate. I think this has changed and salary adjustments must be made if senior qualified staff will be retained. I think the University stands to lose many of its better staff because of salaries.

The relatively satisfactory fringe benefits.

On the whole, rather generous compensations for services rendered.

Good tenure policies.

Tenure and retirement plans.

It certainly is not salary.

A few prima donnas have been held by large salary increases and unusual facilities.

The responses relevant to the security and compensations principle and given by present faculty members in answer to the question, "On the basis of your experiences, what aspects of the University have caused capable faculty members you have known to seek employment elsewhere?" are summarized below.

Higher salaries elsewhere.

Salaries have been most important I believe.

The distinct impression that promotion and salary increases mean vastly different things in different departments and colleges, and that too many promotions materialize largely from length of repose on the faculty and unproductive congeniality.

Failure to reward good work especially in teaching. Lack of financial support for research (equipment and supplies). Very high rate of overhead on contracts makes it very difficult to compete with other institutions charging a lower rate and providing other assistance.

The financial plight of Michigan with its one industry economy.

For young people, the need for and opportunity to get higher salaries. For older faculty the need for higher compensation is

often less urgent than for younger families, but it is attractive and it is offered frequently.

The inclination (in past years) for department chairmen to emphasize publishing rather than teaching as a criterion for promotion.

Personality conflicts here, economic advantages elsewhere. In one instance, I am told, a very fine teacher was forced to leave by administrative displeasure over his failure to publish frequently enough. Nevertheless, he is now working for industry at a much higher salary.

Higher salaries and fringe benefits elsewhere.

In just about every instance, and there have been about six in the last two or three years out of a department of less than twenty, those that left did so at big increases in salary. As best I know from an extremely reliable source, some received a third increase over the best they could command if they stayed. These were good men. One would be in this survey if he had not left last summer. The replacements have been untrained and not even the best prospects at that.

Present faculty members were found to be nearly unanimous in their mention of economic compensations as a prime reason in the decisions of acquaintances to leave the University.

Summary Data reported in this section support findings of other research on college and university faculties which have found salaries to be a prime consideration in the selection of and decision to remain in an academic position. It is assumed that economic compensations enhance the possibility of institutions acquiring and retaining the services of productive faculty members since most faculty members considered salaries and other economic compensations as significant criteria on which to evaluate the professional position. The effect of tenure regulations on productivity could, however, be subject to doubt. It was found that present faculty members low on the productivity and achievement scales valued highly tenure regulations in the selection of an academic position. There is some justification for

the assumption that tenure, unless salaries are sufficiently high, may be a factor which adversely affects quality.

## V. The Nature and Extent of Work Load Affect Faculty Mobility and Productivity and Achievement

The factors included in the questionnaire and which had relevance to the professional function principle were teaching load, time for research, committee assignments, level of teaching assignment, relative teaching-research emphasis of department, choice in teaching assignment, extra-load activities such as off-campus teaching, etc., and teaching aids, i.e., closed circuit TV, audio-visual, etc.

An Academic Position in General The differences in the degree of importance attached to the professional function factors in the selection of any academic position by the two groups of present faculty members are displayed in Table 5.8. Time for research was the only factor considered to be more important to the high groups in the selection of any academic position. Those factors found to be significantly more important to the low group in the selection of any academic position were (1) teaching load by the group low according to professionalism component. (2) recognition for undergraduate teaching by the group low according to the professionalism, advising, and compensational components and the total measure. (3) level of teaching assignment by the group low according to the service component, (4) relative teachingresearch emphasis of department by the group low according to the advising component and total measure, and (5) choice in teaching assignment by the group low according to the total measure.

Differences in the importance attached to the professional

TABLE 5.8

NATURE AND EXTENT OF WORK LOAD, ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

			Measure of P	Measure of Productivity and Achievement	d Achievement	
		Service Component	Professionalism Component	Advising Component	Compensational Compenent	Total Measure
	Teaching load	•	<b>X</b> <sup>2</sup> = 5.067 (A) <b>X</b> <sup>2</sup> - 5.55 (B)	r <sup>2</sup> =6.355 (B)	•	I <sup>2</sup> = 6.288 (B)
	Recognition for under-	•	(a) t(te/ - a	(1) (C) (1)	•	(7) 20210
	graduate teaching	•	I'=10,367 (A) I'=6.884 (A)	I <sup>2</sup> =6.884 (A)	$\mathbf{X}^{2}=5.991$ (A)	X'=11.643 (A)
•		•	•	•	•	•
OLS	2	2 - 0/2 (1)				
ŋ:		47=5.905 (A)	•	•	•	•
Pac	<b>76</b>	*2 6 EDE (A)				v2_ 6 810 (4)
	emphasis of department Choice in teaching	<b>A</b> =0.00 (A)	•	•	•	(w) omo (w)
	assignment	•	•	•	•	$\mathbf{X}^2 = 5.956  (A)$
	Extra-load activities	•	•	•	•	•
	Teaching aids	•	•	•	•	•
,						

(A) indicates low group attached greater importance to factor in the selection of any academic position than do the high group.

(B) indicates high group attached greater importance to factor in the selection of any academic position than do the low group.

10 level of significance for  $\mathbb{X}^2$ - distribution,  $\mathbb{X}^2 > 4.605$ , d.f.=2. Note:

function factors by present faculty members and the voluntarily terminated faculty members are included in Table 5.12. It was found that the voluntarily terminated faculty members attach greater value to the choice of teaching assignments in the selection of an academic position while present faculty members tended to attach greater value to time for research and the level of the teaching assignment. Committee assignments were found to be less critical to the low group of voluntarily terminated faculty members than to the high group of voluntarily terminated faculty members, as determined by the department chairmen's ratings, in the selection of any academic position.

These data reflect the concern for the possibility to do research by the high group of present faculty. The differences which were found to exist, may be in part at least, a function of the productivity and achievement measures used in the study and are hence significant only to the extent that these measures reflect the objectives of Michigan State with respect to faculty productivity and achievement.

Responses typical of those made by present faculty members

pertinent to the professional function in answer to the question,

"What aspects of M.S.U. would serve to attract outstanding new faculty
to the University?" were as follows:

Opportunity for growth and development of competence in one's field.

The opportunity to teach and to do research with adequate time and a limited number of students. Quality not quantity.

An Academic Position at Specific Institutions Table 5.9 gives factors for which the chi-square distribution indicated significant differences in the ways in which present faculty members, grouped according to the various productivity and achievement measures, perceived

TABLE 5.9

NATURE AND EXTENT OF WORK LOAD AT MICHIGAN STATE UNIVERSITY PRESENT FACULTY MEMBERS
(N=90)

		Measure of F	Measure of Productivity and Achievement	Achievement	
I	Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
Teaching load	•	•	•	•	•
Time for research	•	•	•	•	•
Committee assignments	•	•	$\mathbf{Z}_{2}^{2} = 7.261 \text{ (A)}$	•	•
Level of teaching assignments	•	•	$I^{4} = 8.608 (B)$	•	•
Relative teaching-research				2 - 22 (-)	(2) 2 2 2
emphasis of department	•	•	(-) 500	$X^{-}=7.324$ (B)	X=5.512 (B)
Choice in teaching assignment	•	•	I<=10.828 (B)	•	X-=8.242 (B)
Extra-load activities	•	•	•	•	•
Teaching aids	•	•	X <sup>2</sup> =10.428 (A)	•	•

8Tot oa¶

(A) indicates low group perceived the factor more favorably than did the high group. (B) indicates high group perceived the factor more favorably than did the low group. 10 level of significance for X<sup>2</sup>- distribution, X<sup>2</sup>>4.605, d.f.=2. No te:

the professional function factors at Michigan State. The low group according to the advising component of the measure were more satisfied with their involvement in committee assignments and with the instructional aids factors at M.S.U. than were the high group. Relative teaching-research emphasis of the department was perceived to be more favorable by the high group according to the compensational component and the total measure than by groups low on these scales. The high group according to the advising component and total measure expressed greater satisfaction with their choice in teaching assignments than did the low group. Finally, the high group according to the advising component were more satisfied with their level of teaching assignment at Michigan State University than were the low group as measured by the advising component.

Time for research at M.S.U. was thought to be unsatisfactory or very unsatisfactory by 42 or 46.7 percent of the present faculty members while recognition for undergraduate teaching was rated as unsatisfactory or very unsatisfactory by 37 or 41.1 percent of the group. Those professional function factors considered to be satisfactory or very satisfactory at Michigan State by present faculty members were level of teaching assignment, 74 or 82.2 percent, choice in teaching assignment, 71 or 78.9 percent, and teaching load, 63 or 70.0 percent (Tables 5.15 and 5.16).

Consistent with findings reported earlier in the chapter are the data relative to the professional function factors summarized above.

The possibilities for research were considered to be unsatisfactory while those factors relevant to the teaching function were perceived as being quite satisfactory at Michigan State.

Voluntarily terminated faculty members tended to place less value on the opportunities for research as evidenced by the replies to open-ended questions. Responses typical of those made by the voluntarily terminated faculty members to the question, "If you are currently employed in higher education, what aspects of your present college or university tend to encourage competent staff to remain at the institution?" and which are pertinent to the professional function principle are as follows:

Opportunity to play an integral part in the education of each of the students because the school is young and the student body is relatively small—students become warm, live, human beings.

Opportunities to do those functions which one enjoys and does well.

Everyone has combined academic teaching-research responsibilities with no service and/or extension responsibilities.

Typical replies by the voluntarily terminated faculty members to the question, "What aspects of your present college or university could serve to attract outstanding new faculty to the institution?" were as follows:

No single factor is dominant unless it is the chance for sincere satisfaction with the contribution that one can make in their teaching.

Our freedom . . . we are so poor (relatively here in \_\_\_\_\_)
that we have little else to offer. Our 9-10 hour loads. Continuity
of program plus our disrespect for academic flim flam.

Freedom to develop the area of their interest with minimum restriction attached. Full support and encouragement made available.

Reasons for Remaining at or Leaving Michigan State Time for research and teaching load were considered to be more important as inducements to leave Michigan State by the high group of voluntarily terminated faculty members as determined by the department chairmen's ratings than by the low group (Table 5.13)

None of the professional function factors were listed as an inducement to remain at M.S.U. by a large number of voluntarily terminated faculty members. However, listed as inducements to leave Michigan State by voluntarily terminated faculty members were choice in teaching assignment, 25 or 32.9 percent, time for research, 21 or 27.6 percent, recognition for undergraduate teaching and relative teaching-research emphasis of the department by 20 or 26.3 percent each, and teaching load, 18 or 23.7 percent (Tables 5.17 and 5.18).

Choice in teaching assignment was ranked first, second, third, fourth, or fifth by 21 present faculty members in importance as a factor entering into their decision to remain at Michigan State. Other professional function factors according to frequency of mention were time for research, teaching load, level of teaching assignment, relative teaching-research emphasis of department, recognition for undergraduate teaching, and extra load activities (Table 5.19). Factors ranked first through fifth in importance by voluntarily terminated faculty as an influence in their decision to leave Michigan State in order of frequency were, choice in teaching assignment, level of teaching assignment and teaching load, time for research and relative teaching-research emphasis of the department, recognition for undergraduate teaching, and extraload activities (Table 5.20).

Typical of the responses by present faculty members to the question, "What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?" are as follows:

Relative freedom of faculty to decide how they will contribute to the University.

Flexible administrative arrangements for teaching in one's specialties.

It is a progressive institution providing a stimulating environment for professional work and development.

Professional involvement probably ranks high here. For example, an individual becomes involved in committees, local research, etc. and does not want to leave these before they are completed. Since such things, like a woman's work, are never done, such individuals never leave.

Reasonable teaching load leaving time for research.

Possibility to develop courses of professional recognition.

Some of the replies typical of those given by present faculty members to the question, "On the basis of your experience, what aspects of the University have caused capable faculty members you have known to seek employment elsewhere?" were as follows:

Too many committees and activities irrelevant to the professors specific teaching or research program have been significant in discouraging staff. The problem of advising and handling the extensive increase in the number of students is becoming of great concern to many staff. This problem has become especially significant with the increasing responsibility of the professor being directed toward his accomplishments in publishing as well as associated research.

Lack of opportunity to teach different specialized courses. Problem is particularly acute in the University College.

Increasing work load caused by increasing enrollments without increase in number of staff.

Research and further study is encouraged, but the increasing work load raises great difficulties. (I'm filling out this question-naire on Saturday afternoon!)

The ever-increasing class size causes many teachers to seek the 15-20 student classroom. Large lectures, discussion, and laboratories are suffocating. Small classes may not help the student (research studies are inconclusive, I know) but they sure help the teacher—and this, I assume, is what you are interested in at the moment.

They have left because other universities would provide: . . . recognition as part of the load the many extra curricular activities for which they did not receive credit at M.S.U., such as committee memberships, student advising, sponsoring groups, chaperoning parties, or work with community agencies which may be part of the requirements of the department.

Too heavy a work load, particularly service work, make it very difficult in some instances to do proper teaching and the excessive service work load make it all but impossible to do any research.

Too many choice type duties.

In a quite recent case of my acquaintance, the major factor was a growing doubt that in the future conditions at Michigan State will make it possible to conduct high quality undergraduate education. I know this is a major concern in my own case. I have an increasing doubt that Michigan State University will have a place of honor and recognition for truly outstanding undergraduate teaching. Certainly, to my knowledge, this is a matter which has received very little attention in my own college where less and less emphasis is being given to the problem of undergraduate education.

Summary The data presented above clearly indicate that both present and voluntarily terminated faculty members are concerned with the opportunity to "teach or do research in their specialty or area of particular interest." Teaching load in the form of increased enrollments and large classes has apparently caused considerable discontent among the faculty members at Michigan State. It is also evident that the more productive faculty members see research as a major segment of their professional function.

## Community Principle

VI. The Cultural, Recreational, and Educational Opportunities

Offered by the University and Immediate Community Facilitate Acquisition

and Retention of a Productive Faculty.

Factors pertinent to the community principle and included in the study were congeniality of staff, cultural opportunities in the community, recreational opportunities in the community, educational opportunities in the community, congeniality of the community, climate of area, commuting, and proximity to family.

An Academic Position in General With the single exception of educational opportunities in the community factor, the present faculty members low on the productivity and achievement scales were found to attach greater value to the community factors in the selection of an academic position than did the group high on these measures (Table 5.10). It was not unexpected, however, to find that the low group of present faculty attach greater value to congeniality of the community and proximity to family. These findings suggest that the most productive faculty members have sufficient opportunities for employment to be able to select geographic locations they prefer and hence attach little value to geographical location. Furthermore, a valid conjecture might be that productive faculty members are considered to be more successful by the community and hence are part of the "in" Therefore it is reasonable to expect that the less productive faculty members would tend to feel some estrangement from a community which may be primarily academically oriented.

Educational opportunities of the community were found to be of greater significance to present faculty members in the selection of any academic position than to the voluntarily terminated faculty members (Table 5.12). It was also found that commuting weighed more heavily in decisions of the voluntarily terminated faculty members in the low group when considering any academic position than in decisions of the high group (Table 5.14).

Responses typical of those given by present faculty members to the question, "What aspects of M.S.U. would serve to attract outstanding new faculty to the University?" were as follows:

Good and constantly improving "cultural" opportunities on the campus.

TABLE 5.10

CULTURAL, RECREATIONAL, AND EDUCATIONAL OPPORTUNITIES AND PERSONAL FACTORS, ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

		Measure of t	Measure of Productivity and Achievement	nd Achlevement	
	Service	Professionalism	Advising	Compensational	Total
	Component	Component	Component	Component	Measure
Cultural opportunities					
in community	•	•	•	•	•
Recreational opportunities					
in commity	•	•	•	•	•
Educational opportunities					
of community	•	X=6.742 (B)	•	•	I'=5.486 (A)
Congeniality of community	•	$X^{2}=6.782$ (A)	$X^2 = 5.096$ (A)	•	X~=/+.84/4 (A)
Congeniality of staff	•	•	•	•	•
Climate of area	•	•	•	•	•
Commuting	•	•	•	•	•
Froximity to family	•	•	<b>I</b> <sup>2</sup> =6.922 (A)	•	$X^2 = 7.173 (A)$

(A) indicates low group attached greater importance to factor in the selection of any academic position than do the high group. Note:

(B) indicates high group attached greater importance to factor in the selection of any academic position than do the low group.

10 level of significance for  $X^2$  distribution,  $X^2 > 4.605$ , d.f.=2.

Location of the campus.

Very pleasant aspects of physical surroundings.

Similar responses by voluntarily terminated faculty members to the question, "What aspects of your present college or university would serve to attract outstanding new faculty to the institution?" were as follows:

Location (35 miles from New York City) and in a very scientific, mathematical, and culturally inclined community.

Congeniality existing in certain departments.

. . . the fact that, though expensive, the Chicago area, particularly the North Shore has its attractions.

Climate.

Attractive geographic location.

Community-university are both part of the community itself.

The university is in a semi-rural area. Lack of congestion, country living possible, no traffic problems, beauty of nature-northern plant life and southern plant life can both abound-magnolias, dogwood, flowering shrubs, redbud--prolific floral, vegetable and tree life--peach and apple orchards covering hill-sides. These are valued by some. Faculty come to escape the city and attendant problems in areas of population concentration.

The Academic Position at Specific Institutions Very few differences of opinion between the low group and high group of present
faculty were found relative to the satisfactions of the two groups
with the community and personal factors at M.S.U. (Table 5.11). In
cases where differences were found to exist, the low group were more
satisfied with these factors than were the high group. These included
cultural opportunities in the community, with the low group according
to advising indicating greater satisfaction, and recreational and
educational opportunities in the community with the low group according

TABLE 5.11

CULTURAL, RECREATIONAL, AND EDUCATIONAL OPPORTUNITIES
AND PERSONAL FACTORS AT MICHIGAN STATE UNIVERSITY
PRESENT FACULTY MEMBERS
(N=90)

			Measure of P	roductivity ar	Measure of Productivity and Achievement	
		Service Component	Professionalism Component	Advising Component	Compensational Component	Total Measure
	Cultural opportunities in community	•	•	X <sup>2</sup> =4.810 (A)	•	•
	Recreational opportunities of community	•	•	•	•	$\mathbf{X}^2 = 5.063 \text{ (A)}$
BTOJ	Educational opportunities of community	•	•	•	•	$\mathbf{x}^2 = 5.121 \text{ (A)}$
BC 1		•	•	•	•	•
A		•	•	•	•	•
	Climate of area	•	•	•	•	•
	Commuting	•	•	•	•	•
	Proximity to family	•	•	•	•	•

(A) indicates low group perceived the factor more favorably than did the high group. (B) indicates high group perceived the factor more favorably than did the low group. 10 level of significance for  $\mathbb{Z}^2$ — distribution,  $\mathbb{Z}^2 > 4.605$ , d.f.=2. Note:

to the total measure of productivity expressing greater satisfaction.

Among the community and personal factors, climate of the area was considered to be unsatisfactory or very unsatisfactory by 28 or 31.1 percent of the present faculty members (Table 5.15). Personal and community factors considered to be satisfactory or very satisfactory by present faculty members were congeniality of staff, 73 or 81.1 percent, cultural opportunities in the community, 71 or 78.9 percent, educational opportunities in the community, 71 or 78.9 percent, congeniality of community, 67 or 74.4 percent, and recreational opportunities of community, 63 or 70.0 percent (Table 5.16).

Responses of the voluntarily terminated faculty members pertinent to the personal principle in answer to the question, "If you are currently in higher education, what aspects of your present college or university tend to encourage competent staff to remain at the institution?" were as follows:

Friendly, middle class community.

Beautiful location.

Climate. Perfect place to rear a family.

Geographical factors: (1) proximity to major academic institution, (2) proximity to Brookhaven National Laboratory, (3) congenial community with no commuting problems, (4) recreational and educational benefits of community.

Reasons for Remaining at or Leaving Michigan State No statistically significant differences were found to exist between the high and low groups of voluntarily terminated faculty members as to the influence of the community and personal factors in a decision to leave Michigan State University (Table 5.13). The community and personal factors were, however, rated high as inducements to voluntarily terminated

faculty members to remain at Michigan State (Table 5.17). Most frequently mentioned of the 46 factors were cultural opportunities of the community and congeniality of community with 29 or 38.1 percent of the voluntarily terminated faculty members listing these factors as inducements to remain. Other community and personal factors considered to be inducements to remain by voluntarily terminated faculty members were congeniality of staff by 28 or 36.8 percent, and educational opportunities of the community by 22 or 28.9 percent of the group. Climate of the area was the only community and personal factor thought to be an inducement to leave Michigan State by a sizeable number of voluntarily terminated faculty members (Table 5.18).

Consistent with the high rating given to the community and personal factors as inducements to remain at M.S.U. by the voluntarily terminated faculty members was the fact that none of the responses to the question, "On the basis of your experience, what aspects of the University have caused capable faculty members you have known to seek employment elsewhere?" by present faculty members were found to be relevant to the community principle.

Responses relevant to the community principle and typical of those present faculty made to the question, "What aspects of Michigan State University tend to encourage competent staff members to remain at M.S.U.?" were as follows:

Recreational facilities.

Educational opportunities for their children.

Pleasant campus, milieu. Friendly atmosphere.

Educational and cultural aspects of community.

The cultural atmosphere of the community of East Lansing.

Pleasant social climate. Good recreational, cultural, and educational opportunities.

Community is a very good size, not too large, not too small.

Summary The community and personal factors, although not considered to be dominant factors in the selection of academic positions by either the present faculty members or the voluntarily terminated faculty members, were considered to be highly satisfactory at M.S.U. These factors were inducements to voluntarily terminated faculty members to remain as well as contributing factors in the decisions of present faculty members to stay at Michigan State.

TABLE 5.12

FACTORS IN SELECTION OF ANY ACADEMIC POSITION VOLUNTARILY TERMINATED FACULTY
VS PRESENT FACULTY
(N=166)

Factors	Chi-Square	Direction
Secretarial service	$x^2 = 10.193$	Present faculty attach greater value
Academic freedom	$x^2 = 8.795$	Present faculty attach greater value
Classroom facilities	$x^2 = 8.131$	Voluntarily terminated faculty attach greater value
Choice in teaching assignment	$x^2 = 8.049$	Voluntarily terminated faculty attach greater value
Library service	$\chi^2 = 5.802$	Present faculty attach greater value
Level of teaching assignment	$x^2 = 5.649$	Present faculty attach greater value
Traffic and parking	$\mathbf{X}^2 = 5.578$	Present faculty attach greater value
Educational opportunities of community	$x^2 = 5.409$	Present faculty attach greater value
Sabbatical leave policies	$x^2 = 4.881$	Present faculty attach greater value
Time for research	$x^2 = 4.757$	Present faculty attach greater value
Availability of research funds	$X^2 = 4.642$	Present faculty attach greater value

Note: .10 level of significance for  $X^2$ - distribution,  $X^2 > 4.605$ , d.f.=2.

TABLE 5.13

FACTORS AS INDUCEMENT TO LEAVE MICHIGAN STATE UNIVERSITY
VOLUNTARILY TERMINATED FACULTY
(N=76)

Factors	Chi-Square	Direction
Policies on promotions	$x^2 = 9.355$	Low group see as greater inducement to leave
Time for research	$x^2 = 7.349$	High group see as greater inducement to leave
Secretarial services	$x^2 = 6.602$	High group see as greater inducement to leave
Teaching load	x <sup>2</sup> = 4.764	High group see as greater inducement to leave

Note: .10 level of significance for  $X^2$ - distribution,  $X^2 > 4.605$ , d.f.=2.

TABLE 5.14

FACTORS IN SELECTION OF ANY ACADEMIC POSITION
VOLUNTARILY TERMINATED FACULTY
(N=76)

Factors	Chi-Square	Direction
Prestige of the university	$x^2 = 7.426$	High group attach greater value
Faculty participation in academic policy	$x^2 = 6.963$	Low group attach greater value
Commuting	$x^2 = 6.207$	Low group attach greater value
Committee assignments	$x^2 = 6.148$	Low group attach greater value
Income potential	$X^2 = 5.221$	Low group attach greater value

Note: .10 level of significance for  $X^2$ - distribution,  $X^2 > 4.605$ , d.f.=2.

# TABLE 5.15 FACTORS AT MICHIGAN STATE UNIVERSITY RATED UNSATISFACTORY OR VERY UNSATISFACTORY PRESENT FACULTY (N=90)

Factor Frequency	Percent
Financial assistance for attending professional meetings	57.8
Time for research	46.7 L
Channels of communication	43.3
Recognition for undergraduate teaching 37	41.1
Faculty participation in academic policy 35	38.9
Traffic and parking	35.5
Cost of housing	35.5
Salary	34.4
Policies on promotion	34.4
Technical assistance	33.3
Climate of area	31.1
Size of university	30.0
Secretarial services	28.9
Availability of research funds 24	26.7
Classrooms	23.3
Availability of graduate & research assistants . 21	23.3
Rank or title	22.2
Library	21.1
Office space	21.1
Income potential	21.1

### **TABLE 5.16**

## FACTORS AT MICHIGAN STATE UNIVERSITY RATED SATISFACTORY OR VERY SATISFACTORY PRESENT FACULTY (N=90)

Factor Frequency	Percent
Academic freedom	87.8
Fringe benefits	84.4
Calibre of associates	82.2
Level of teaching assignment	82.2
Sabbatical leave policies	81.1
Congeniality of staff	81.1
Tenure policies	80.0
Relationships with department chairmen 72	80.0
Choice in teaching assignment	78.9
Cultural opportunities in community	78.9
Educational opportunities in community 71	78.9
Availability of housing 70	77.3
Quality of student population 70	77.8
Prestige of university 69	76 <b>.7</b>
Congeniality of community 67	74.4
Office space	73.3
Recreational opportunities of community 63	70.0
Teaching load	70.0
Reputation of your department 62	68.9
Classrooms	64.4

TABLE 5.17

FACTORS LISTED AS INDUCEMENTS TO REMAIN AT MICHIGAN STATE UNIVERSITY
VOLUNTARILY TERMINATED FACULTY
(N=76)

Factor	Frequency	Percent
Cultural opportunities in community	29	38.1
Congeniality of community	29	38.1
Congeniality of staff	28	36.8
Calibre of associates	26	34.2
Educational opportunities in community	25	32.9
Prestige of university	24	31.6
Relationship with department chairman	23	30.2
Recreational opportunities of community	22	28.9
Reputation of your department	21	27.6
Library	21	27.6
Office space	17	22.3
Fringe benefits	17	22.3

### TABLE 5.18

### FACTORS LISTED AS INDUCEMENTS TO LEAVE MICHIGAN STATE UNIVERSITY VOLUNTARILY TERMINATED FACULTY (N=76)

Factor Frequency	Percent
Salary	57.9
Income potential	57.9
Rank or title	42.1
Policies on promotions	40.3
Financial assistance for attending professional meetings	36.8
Channels of communication	35.5
Choice in teaching assignment	32.9
Faculty participation in academic policies 24	31.6
Reputation of your department	30.2
Climate of area	28.9
Cost of housing	27.6
Time for research	27.5
Calibre of associates 20	26.3
Availability of graduate & research assistants . 20	26.3
Recognition for undergraduate teaching 20	26.3
Relative teaching-research emphasis of department	26.3
Relationship with department chairman 20	26.3
Prestige of university	23.7
Teaching load	23.7
Technical assistance	23.7

**TABLE** 5.19

FACTORS IN DECISION TO REMAIN AT MICHIGAN STATE UNIVERSITY PRESENT FACULTY (N=90)

Factors	Ranked Freq.	First %	Ranked Freq.	Second	Ranked Freq.	Third %	Ranked Freq.	Fourth %	Ranked Freq.	Fifth %	
Calibre of associates	11.	12.2	9	6.7	3	3.3	€	8.9	4	7.7	
Salary.	∞•	8.9	ς,	3.3	κ	<b>5.</b> 6	4	7.7	7	7.8	
Academic freedom	. 7	7.8	13	14.4	К	3.3	7	1.1	7	2.2	
Time for research	9	<b>6.7</b>	9	6.7	ત્ય	2.2	4	7.7	!	1	
Choice in teaching assignment	. 5	5.6	9	6.7	9	6.7	4	7.7	1	1	
Reputation of your department	. 5	5.6	2	5.6	2	5.6	4	7.7	~	3.3	
Relationship with department											
chairman	7.	<b>7.7</b>	Н	1.1	n	3.3	4	<b>7.7</b>	ν.	5.6	11
4	۳.	3.3	~	3.3	ч	1.1	1	1.1	٦	1.1	1
Income potential	٠,	3.3	7	2.2	4	7.7	-4	7.7	~	2.2	
Educational opportunities in											
community	٠ س	3.3	٦	1.1	8	2.2	7	2.2	ح	5.6	
Quality of student population	۲.	2.2	K	3.3	~	3.3	~	3.3	~	2.2	
Teaching load	~	2.2	٧	5.6	۷Ŋ	5.6	ત્ય	2.2	~	3.3	
Congeniality of staff	۲.	2.2			с,	3.3	7	7.7	~	<b>5°</b> 5	
Office space	٠ ٦	1.1		1	1	1	ત્ય	2.2	~	2.2	
Recognition for undergraduate											
teaching.	٦.	1.1		1	1	!	1	! ;	1	1	
Rank or title	٦.	1.1	Cζ	2.2	~	2.2	Μ	3.3		1	
Prestige of the university	٦,	1.1	Μ	3.3	1	1	9	6.7	4	7.7	
Availability of graduate &											
research assistants	1	1	7	2.2	n	3.3	1	1	1	1	
Level of teaching assignment.	1	ì	<b>C</b> 2	2.2	~	3.3	,	;		1	
Fringe benefits	1	1	7	2.2	~	3.3	~	3.3	-	1.1	
Library	!		٦	1.1	8	2.2	8	2.2	٦	1.1	
Technical assistance	1	i i	٦	1.1	7	2.2	٦	•	1	1	

TABLE 5.19-Continued

Factors	Ranked Freq.	First %	Ranked Freq.	Ranked Second Freq.	Ranked Third Freq. %	Third %	Ranked Freq.	Ranked Fourth Freq. %	Ranked Fifth Freq. %	Fifth %
Relative teaching-research emphasis of department	-		1	1.1	н	1,1	8	3.3	8	1
Tenure policies	!	1	ч	1.1	1	1	1		1	1
community	i I	1	1	1,1	8 4	•	8	2.2	6	3.3
Upportunity for consulting work Sabbatical leave policies	     	1 1	i I	1	<b>Λ</b> α	2.2	1 1	!!	4	7.7
Extra load activities	1 1	1 1	 		r r	• •	1 1	 		1 1
Congeniality of community.	! !	!	1	!	I —	1.1	н	1.1	7	2.2
the committy	1	1	1	1	1	1	8	2.2	٣	3.3
academic policies	1 1	1 1	i i	1 1	1 1	1 1	1 1	8 B	61	3.3
Financial assistance for attending prof. meetings. Policies on promotions Climate of area	1116	10.01	1110	1112	1 1 1 1	1 1 1 1	1110	1112	4	7,17

TABLE 5.20

FACTORS IN DECISION TO LEAVE MICHIGAN STATE UNIVERSITY VOLUNTARILY TERMINATED FACULTY (N=76)

Factors	Ranked Freq.	First %	Ranked Freq.	Second	Ranked Freq.	Third %	Ranked Freq.	Fourth %	Ranked Freq.	Fifth %
Salary	9	13.2	7	9.2	9	7.9	1	1	٣	3.5
Proximity to family	٠,	9.9	1	1	Ч	1.3	-	1.3	Н	1.3
Rank or title	٠,	9.9	1		9	<b>7.</b> 9	Н	1.3	7	<b>5.</b> 6
Choice in teaching assignment.	4	5.3	7	5.3	~	5.6	Н	1.3	•	1
Academic freedom	Μ	3.9	Н	1.3	1	1	!	1	٦	1.3
Relationships with department										
chairmen	۳.	•	~	2.6	Н	1.3	~	<b>5.</b> 6	H	1.3
Policies on promotions	7	•	1	1	ત્ય	<b>5.</b> 6	Н	1.3	~	<b>5.</b> 6
Tenure policies	~		1	1	1	1	٦	1.3	٦	1.3
Quality of student population .	ч.	•	1	1	٦	1.3	7	2.6	~	3.9
Calibre of associates	ч.	•	~	3.9	7	5.6	ν.	9.9	8	2.6
Technical assistance	۲.	1.3	1	1	1	1	Ч	1.3	•	1
Time for research	ч.	•	1	1	1	1	4	5.3	Н	1.3
Recognition for undergraduate										
teaching.	٦.	1.3	٦	1.3	8	5.6	1	1	-	1.3
Relative teaching-research										
emphasis of department	۲.	1.3	!		~	5.6	~	5.6	Н	1.3
Income potential	٦.	1.3	7	9.2	8	<b>5.</b> 6	7	5.3		1
Prestige of university	٦.	1.3		;	1	1	1	1	7	5.6
Level of teaching assignment	1	1	4	5.3	1	•	ત્ય	2.6	т	3.9
Availability of research funds.	!	1	~	3.9	٦	1.3	٦	1.3	•	1
Classrooms	1	1	ત	<b>2.</b> 6	1	•	1	1	1	1
Teaching load	1	!	~	<b>5.</b> 6	С,	3.9	~	2.6	~	5.6
Size of university	1	1	8	<b>5.</b> 6	Н	1.3	-		1	1
Channels of communication	1	1	7	<b>5.</b> 6	1	1	8		~	5.6
Climate of area	1	;	~	2.6	~	<b>5.</b> 6	٦	•	٦	1.3

TABLE 5.20-Continued

Factors	Ranked Freq.	First %	Ranked Freq.	Second	Ranked Freq.	Third	Ranked Freq.	Fourth	Ranked Freq.	Fifth 8
Office space			7	1.3	1	1.3	1	1.3	:	:
Committee assignments		1	H	1.3	1		1	1	1	1
Sabbatical leave policies	!	1	٦	1.3	1	1	i	1	8	2.6
Reputation of your department	1	1	Н	1.3	-	1.3	7	5.3	~	3.9
Cultural opportunities in the							•			
community	1	1	٦	1.3	!	1	1	!	8	5.6
Congeniality of community	!	!	٦	1.3	1	•	1	1	1	•
Cost of housing	1	1	-	1.3	1	!	•	1	7	1,3
Extra load activities	!	1	•	. 1	~	<b>5.</b> 6	Н	1.3	۱ ٦	7.7
Congeniality of staff	1	1		1	~	5.6	•		ı –	1.3
Faculty participation in									l	
academic policies	!	1	1	1	7	5.6	7	1.3	1	1
Secretarial services	!	!	1	!	Н	1.3	٦	1.3	!	1
Availability of graduate &										
research assistants	1	1	1	1	ч	1.3	1	1	Н	1.3
Opportunity for consulting work	!!	!	:		Н	1.3	1	1	Н	1.3
Financial assistance for										
attending prof. meetings	1	1	1		1	!	8	2.6	!	•
Library	1		<b>!</b>	1	1	•	1		7	2.6
Other	• 16	21.0	9	7.9	m	3.9	c	3.9	8	3.9

		,
		!

TABLE 5.21

FACTORS IN SELECTION OF ANY ACADEMIC POSITION PRESENT FACULTY MEMBERS (N=90)

					Mean Score	Score				
	Advi	Advising omponent	Professionalism Component	onalism nent	Service Component	ice nent	Compen Comp	Compensation Component	Total Measure	al ire
Factors	Low	High Group	Low Group	High Group	Low Group	High Group	Low Group	High Group	Low Group	High Group
Quality of student population .	1.59	1.50	1.57	1.53	1.49	1.62		1.44	1,62	1.48
Calibre of associates	1.88	1.73	1.8		1.83	1.6%	8	 2	1.39	1.80
Office space	1,25	1.0	1,24	1.00	1,19	1.05	1.23	1.02	1,26	1.00
Classrooms	1,21	1.00	1.1	1.1	1.12	1.1	1.28	.95	1.23	1.00
Library	1.8	1.7	1.8	1.70	1.73	1.79	1.85	1.67	1.83	1.70
Secretarial services	1,28	1.33	1.36	1.25	1.20	1.44	1.36	1.26	1.32	1.30
Technical assistance	1.05	1.42	1,13	1.36	1.15	1.33	1.27	1,21	1.1	1.35
Availability of graduate &										
research assistants	1.06	1.66	1.19	1.55	1.39	1.36	1.25	1.49	1.09	1.62
Availability of research funds.	1.26	1.60	1.36	1.51	1.38	1.51	1.45	1.45	1.27	1.57
Teaching load	1.68	1.83	1.79	1.72	1.72	ਸ <b>਼</b>	1.79	1.73	1.73	1.79
Time for research	1.53	1.78	1.52	1.79	1.66	1.65	1.58	1.73	1.50	1.79
Recognition for undergraduate										
teaching.	1.70	1.32	1,66	1,33	1.57	1.44	1.66	1.36	1.7	1.31
Committee assignments	<i>L</i> .	8.	8.	.87	86	ਛ	. 85	8	.76	8.
Level of teaching assignments .	1.50	1,32	1.40	1.41	1.56	1,22	1,36	1.45	1.43	1,38
Relative teaching-research				:	•	1		1	1	(
emphasis of department	1.59	1.52	1.56	1.55	1.60	1.50	1.56	1.55	1.59	1.52
Choice in teaching assignment .	1.63	۲.	1.64	1.53	1.58	1.59	1.54	1.63	1.62	1.56

TABLE 5.21-Continued

					Mean Score	Score				
Factors	Advi	Advising omponent	Professionalism Component	onalism	Service Component	ice nent	Compensation Component	mpensation Component	Total Measure	al. ure
	Low	High Group	Low	High Group	Low	High Group	Low Group	High Group	Low	High Group
Salary	1.7	1.64	1.66	1.70	1.73	1,62	1.75	1.60	1.77	1.59
Income potential	1.7	1.65	1.67	1.70	1.72	1.64	1.79	1.58	1.7	1.66
Rank or title.	1.36	1.37	1.30	1.44	1.39	1,33	1.40	1.33	1.38	1.35
Fringe benefits, 1.e., retirement, insurance, etc.	7,50	1.29	נאינ	1.38	7.45	1,33	7.47	1,33	1.50	1,30
Financial assistance for	ì			•	<u> </u>	``	•			
publication of research	1.00	1.08	.97	1.11	.97	1.12	.97	1.11	.86	1,18
Financial assistance for			•	,	,	•			,	
attending prof. meetings	1.31	1.24	1.18	1.38	1.29	1,26	1.33	1,21	1.24	1.30
Policies on promotions	1.70	1.37	1.67	1.38	1.53	1.54	1.7	1.36	1.7	1.37
Sabbatical leave policies	1.44	1.40	1.44	1.40	1.40	1.45	1.49	1.36	1.44	1.41
Tenure policies	1.55	1.10	1.44	1.21	1.53	1.08	1.8	1.07	1.57	1.10
Opportunity for consulting										
work	&	76.	.84	<b>.</b>	<b>.</b> 8%	۴.	.97	.79	98.	.91
Extra-load activities	1.17	1.06	1,21	1.00	.93	1,26	1.1	1.12	1.08	1.15
Prestige of the university	1.56	1.50	1.49	1.58	1.50	1.56	1.52	1.53	1.56	1.50
Reputation of your department.	1.73	1.7	1.70	1.75	1.68	1.77	1.72	1.72	1.7	1.73
Size of the university	88	.87	.95	62.	۲.	83	.95	ෂ	.83	ప్ర
Traffic and parking	ස්	•65	.73	.75	.74	•74	•76	5.		.75
Congeniality of staff	1.48	1.23	1.41	1.29	1,32	1.41	1.40	1.33	1.38	1.33
Teaching aids.	1.10	•74	1.05	ੜ.	8	1.09	1.08	•78	.37	.91
Faculty participation in		1	,					1		
academic policy	1.47	1.17	1.47	1.15	1.41	1.21	1.50	1.14	1.51	1.14
Channels of communication Beletionships with depositions to the communication of the communications of th	1.52	1.24	1.46	1.30	1.3	1.49		1.21	1.43	1.34
chairman	1.86	1.78	1.76	1.89	1.74	1.92	₽.1	1.83	1.79	1.85

TABLE 5.21-Continued

					Mean Score	core				
Factors	Advising Component	sing ment	Professionalism Component	onalism nent	Service Component	ice nent	Compensation Component	mpensation Component	Total Measure	7 A
	Low Group	High Group	Low	High Group	Low Group	High Group	Low Group	High Group	Low	High Group
Cultural opportunities in	,		1						:	
Community	1.56	1.40	1.51	1.51 1.45	1.50	1.46	1.52	1.44	1.54	1.54 1.43
Community	1.24	1.14	1.20	1.18	1.27	1.10	1.15	1.23	1,25	1,14
community	1.62	1.52	1.54	1,61	1.51	1.64	1.60	1.55	1.57	1.57
Congeniality of community	1.26	96•	1.13	1.11	1.09	1.15	1.19	1.05	1.17	1.07
Availability of housing	1.33	1.16	1.29	1.19	1.25	1.24	1.31	1.18	1.36	1,13
Cost of housing	1.41	1.10	1.28	1.24	1,22	1.33	1.40	1.13	1.35	1.18
Climate of area	1.12	.85	<b>&amp;</b>	1.00	.93	.95	1.8	88	88	1.8
Commuting	1.10	& &	.99	1.00	1.1	æ.	<b>6.</b>	1.06	76.	1.03
Proximity to family	.93	67.	88.	•59	.78	89•	.76	24.	76.	.53

#### CHAPTER VI

### SUMMARY, CONCLUSIONS, AND IMPLICATIONS OF THE STUDY

The imbalance between supply and demand of college and university faculty members expected during the next decade is certain to affect the quality of the staff which various institutions will be able to attract and retain. The purposes of this study were to examine patterns of faculty mobility and characteristics of the University which may contribute to the ability of the University to attract and retain productive and scholarly faculty members. Six principles were developed which were thought to provide a workable basis for the investigation of faculty mobility and productivity and achievement at Michigan State University and which may serve as guidelines for administrative and faculty groups concerned with faculty development. A summary of the findings resulting from the research, conclusions which appear justifiable as a result of these findings, and the implications of these conclusions will be considered in order.

Summary of the Findings Comparisons of the productivity and achievement were made between the present faculty members and those who had terminated, either voluntarily or involuntarily, in the period since 1955. It was found that those voluntarily terminated faculty members who returned completed questionnaires were, as a group, slightly younger than the present faculty members. Other dissimilarities

between the two groups were in rank at the present time, years served at each rank, present salaries, student advising activities, activities in professional organizations, and public service functions. The present faculty members were more active in student advising, public service functions, and professional organizations than the voluntarily terminated faculty members. The voluntarily terminated faculty members as a group had served fewer years at each rank and a larger percentage were receiving high salaries than were the present faculty members.

Not all differences reflect the level of accomplishment or productivity, however, but may instead result from specific professional assignments and functions. The involuntarily terminated faculty members were appointed initially at somewhat lower salaries than either present faculty members or voluntarily terminated faculty members.

The groups of present faculty members and voluntarily terminated faculty members were found to be similar with respect to salary at the time of initial appointment, quantity of publication, and institutions from which highest degree was earned.

Physical facilities were considered to be quite satisfactory at Michigan State. Those present faculty members less active professionally, as measured by the productivity and achievement scales, were found to be more concerned with physical facilities such as office space while present faculty members considered to be most productive in research and publication expressed greater interest in the availability of facilities and resources for research than with physical facilities for teaching, office space, etc. Voluntarily terminated faculty members were found to be generally satisfied with the physical facilities and resources available at M.S.U. Both groups, however, tended to ignore

facilities and resources for instructional purposes in their responses to open-ended questions.

The quality of the student population and the prestige of the University were viewed in much the same way by both the low group and the high group of present faculty members. These factors were, however, found to be strong motivations to faculty members who had remained at Michigan State and to those who had left the University in the selection of any academic position. Although there were individual exceptions, most faculty members in the sample reacted favorably to factors related to the quality of the student body and the prestige of Michigan State University.

Less favorable were the reactions of the sample to the administrative attitudes and practices at the University. Faculty members who had remained were found to be greatly concerned with their lack of involvement in academic policy decisions. Low productivity groups of present faculty members would give more consideration to the administrative attitudes and practices when choosing a position than would the groups high in productivity. Faculty members who had left the University expressed less concern for administrative attitudes and practices as criteria in the selection of academic positions.

Specific professional functions were found to be important to all faculty members in the selection of or satisfaction with an academic position. However, the more productive of the present faculty members expressed greater concern for opportunities to do research as part of their professional assignment than did those low on the scales.

The cultural, recreational, and educational opportunities offered by East Lansing and the M.S.U. community were found to be considerable

inducement to faculty members to remain at the University, both present faculty members and those who had voluntarily terminated. Location, both as to geographical and educational and cultural aspects were, however, minor attractions to academic personnel in the selection of suitable professional situations.

Conclusions and Implications of the Study Subject to the limitations of the methodology of the study and the adequacy of the sample used, the findings of the study appear to justify the following conclusions.

1. Although the measures of productivity and achievement used in the study were, admittedly, subject to definite limitations, the circular "cause and effect" relationships found to exist lend validity to these measures. This conclusion was supported by findings that faculty members who were purported to be highly productive in specific functions were also found to express concern for the opportunity to continue in this function professionally. Hence, colleges and universities may be aided in the development of quality staff, according to the criteria of the institution, by three somewhat obvious steps. First, the institution must determine the objectives toward which the efforts of the faculty member will be directed. Second, the institution must select prospective faculty members on the basis of their interest in these specific objectives rather than an interest in higher education in general. It is at this step that a reduction in the conflict of interest between the purposes of the institution and a faculty member's recognition within a specific discipline might be accomplished. This phenomenon was observed in the present study as well as many other studies of faculty development. Third, the institution must provide

the physical facilities and resources necessary to allow faculty members to work toward the institutional objectives.

- 2. Michigan State University has continually asserted its interest in the undergraduate teaching function of the faculty. A conclusion, although anticipated, yet made more pointed as a result of the study, would seem to be that faculty members, in their opinion, are gaining recognition through research and other activities rather than through their teaching functions. It is not the purpose here to argue the advantages or disadvantages of research as a contributor to effective teaching, but instead to imply that if effective undergraduate teaching is to be an accepted goal of the University, provisions must be made whereby faculty members feel that they can gain recognition and advancement within the University through teaching and efforts to improve their instructional programs.
- 3. Prestige of the University and the quality of the student population appear to be less important as attractions to faculty members at Michigan State in the selection of a professional position than the study by Caplow and McGee<sup>1</sup> appeared to indicate. Faculty members are concerned with the recognition derived from identification with prestigious institutions. However, faculty members have been attracted to the University by its "spirit of innovation" and the prospects for growth and development in the future. These aspects of the University will undoubtedly remain as greater attractions to prospective faculty members in general than a prestigious institution. Specific departments within the University will continue to attract faculty members through the recognition for excellence the departments have acquired. Attempts

Caplow and McGee, loc. cit.

to increase the quality of the student population, although highly desirable, will not serve to attract or retain capable faculty members in great numbers. This conclusion is defensible because of the expressed desire of most faculty members for opportunities to conduct research and to do graduate teaching and somewhat less interest in the undergraduate teaching function.) The University will be forced to compete for faculty members devoted to the teaching of undergraduate students with highly selective liberal arts colleges which offer inducements of small classes and opportunities for more personalized instruction. The preoccupation of many faculty members with graduate education and research is one of the prices paid by institutions striving for recognition as great universities.

- 4. Tenure is of greater importance to faculty members who have been less successful in gaining recognition within the institution and within the academic discipline with which the faculty member is affiliated. This conclusion implies that a careful scrutiny be made of the assets and liabilities of faculty members at the time tenure is granted. Otherwise, the end result may be that most new appointees are eventually granted tenure and that the most capable tend to receive enticing offers from competing institutions, leaving the mediocre as the permanent tenure faculty upon which the University must depend for its stability and leadership.
- 5. Salaries are the dominant economic compensations in the attraction and retention of faculty members at Michigan State. Somewhat contrary to the opinion expressed by Duxbury, it is believed that fringe benefits such as free tuition for the employee's family, sabbatical leaves, and so on are of minor importance to faculty members

conclusion. Lack of financial support for attendance at professional meetings was considered to be an area of dissatisfaction by many faculty members. Liberalization of the policies on travel to professional society meetings might result in improved morale for that portion of the faculty who do not have access to financial assistance from sources outside the University. It is problematical, however, whether the faculty members who are most productive are limited in their attendance at professional society functions by the University travel policies. It is reasonable to conclude that high salaries are and will remain to be a major attraction to highly qualified faculty members. This conclusion implies that fringe benefits should not be expanded at the expense of salaries. Although possibly considered to be desirable by many faculty members, they do not substitute for high salaries.

6. Much of the literature dealing with satisfactions or dissatisfactions of college and university staff has stressed the role of administrative attitudes in faculty morale. The findings of the present study suggest that faculty members who are more active professionally and have achieved greater recognition in the form of rank, salary, and so on have a greater feeling of security and accomplishment and hence are more satisfied with existing administrative attitudes and practices. It is, apparently, possible for faculty members who have been most successful to identify more closely with department chairmen and other administrative officers. (Faculty dissatisfactions suggest that a need exists at Michigan State to improve lines of communication between faculty members and the administration) The import of involvement in academic policy decisions on faculty members indicates that

improvement of channels of communications, as viewed by faculty members, may be expedited through an increase in the extent to which faculty members are made to feel to have a voice in decisions dealing with academic policy.

It is not entirely clear, however, the extent to which faculty dissatisfactions with administrative attitudes and practices and channels of communications are due to existing deficiencies within the University. Although the study was not designed to differentiate attitudes of faculty members within specific departments or areas of the University, it might be reasonably concluded that faculty dissatisfaction with administrative attitudes and channels of communication is attributable to the lack of identification, either consciously of unconsciously, of faculty members with the objectives and philosophy of Michigan State University.

- 7. Although many faculty members felt that the geographical location of M.S.U. was somewhat less than ideal, the results of the study indicate that the cultural, educational, and to some extent the recreational aspects of the Michigan State University community are inducements to faculty members to remain at the University. The advantages of the University community could, perceivably then, be an asset to M.S.U. in the recruitment of high quality new staff.
- 8. To imply that the conclusions and implications of the study as discussed above completely describe the aspects of the University which may serve to attract or retain qualified faculty members and the interrelationships between faculty mobility and quality would be a gross over-simplification. Of major importance among the results of the study is the reaffirmation that what satisfies faculty members and

causes them to remain at Michigan State is a highly complex matter and that the faculty members are an extremely diverse group. The problems of recruitment and retention of a scholarly faculty oriented to the objectives of colleges such as University College differ greatly from those encountered by departments such as biochemistry which is a limited field oriented toward research. (If faculty members are to be recruited who will fulfill the expectations of the University implied in its objectives, specific expectations for particular positions must be spelled out to new faculty members as they relate to the broad aims of the University. Further, recognition and reward must be provided for in terms of achievement of these specific goals, not of general goals loosely applied to all.

Implications for Further Study Results of the study have isolated several aspects of the problem of faculty mobility and the relationships to productivity and achievement. Problem areas in which further exploration is considered to be worthwhile are as follows:

1. The study clearly shows that faculty members at Michigan State University are concerned with administrative attitudes and practices and channels of communication. It was found that faculty members high on the productivity and achievement scales were more satisfied with both channels of communication and the administrative attitudes and practices factors than were those low on these scales. A careful study of the interrelationships between faculty members' identification with the philosophy and objectives of the University and the degree of satisfaction with existing administrative policies and practices and channels of communication open to the faculty member is deemed to be desirable.

- 2. The present study utilized measures of productivity and achievement which were somewhat arbitrarily chosen and admittedly subject to definite limitations. It would be useful to determine precise methods for the measurement of faculty productivity within the various sub-divisions of the University. Furthermore, research which should prove useful to Michigan State would be to utilize these measurements to determine the level of productivity of faculty members who elect to remain at the University in contrast to the levels of productivity achieved by those who have accepted employment elsewhere.
- 3. Numerous references were made by faculty members to the size of the University and to the alleged impersonalization of instruction resulting from increased class size. This suggests that, consistent with the attempts by the University to improve undergraduate instruction, it would be desirable to study the effect of the increasing sizes of classes and resulting impersonalization of instruction on the ability of the University to attract and retain faculty members dedicated to the instructional function
- 4. The effect of tenure upon quality of faculty members has been an issue resulting in considerable discussion, especially as related to public elementary and secondary school systems. It would be worthwhile to investigate (the effect of tenure policies at Michigan State on the quality of faculty members as determined by the measures developed as was suggested above, through a comparison of faculty members who acquire tenure and remain in comparison to those who acquire tenure but later accept positions elsewhere.)

Summary A major result of the study has been the reaffirmation of the complexity of the academic market. Due to the extreme

diversification of functions performed by faculty members in a highly complex institution, isolation of conditions which explicitly describe faculty job satisfactions and the interrelationships between these conditions and faculty productivity and achievements becomes a herculear task. It is not the intent, however, to infer that the problem of studying the academic market is such that it is devoid of reward.

Rather, the writer suggests that the study of college faculties is a fertile area for further research and one which has profound implications for the future of higher education.

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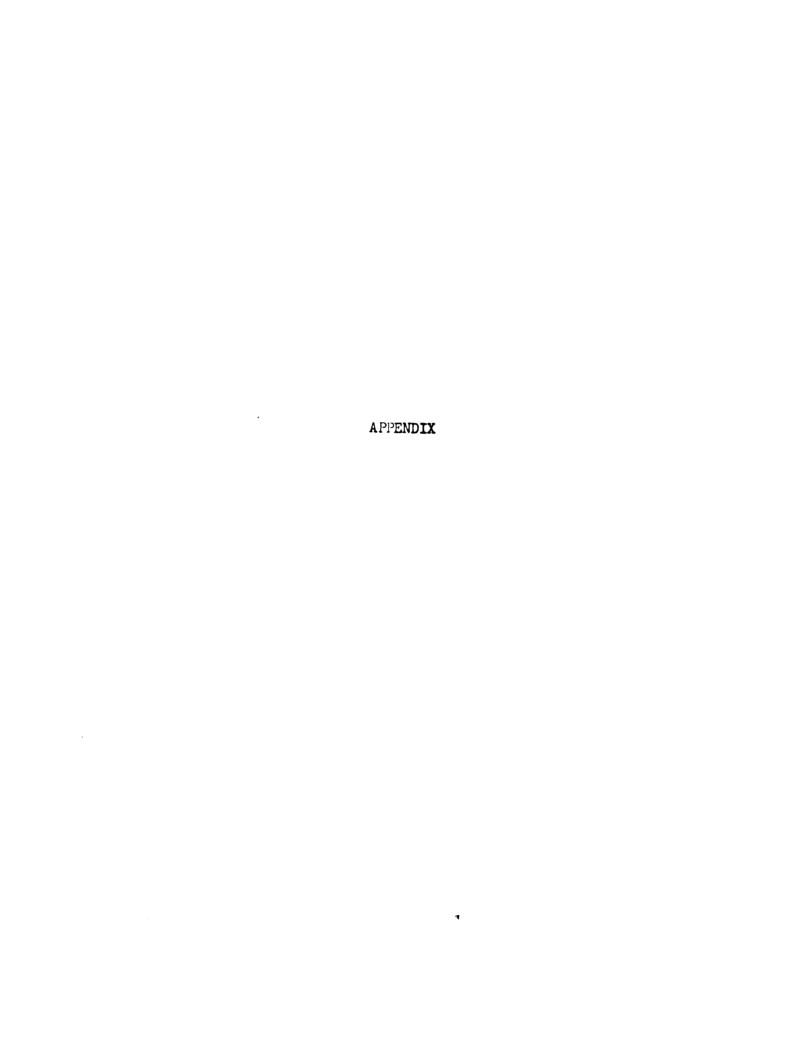
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INTERCORRELATION MATRIX - PRODUCTIVITY AND ACHIEVEMENT MEASURES

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Δge		1.0000									
Rank	~	.1017	1,0000								
Salary	3	0133	.6383	1,0000							
Publications	4	1910	.3504	.3447	1,0000						
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## MICHIGAN STATE UNIVERSITY - East Lansing, Michigan

Office of Institutional Research

January 30, 1964

MEMORANDUM TO: Department Chairmen

FROM: Paul L. Dressel, Director of Institutional Research

The policies of a university in selecting new faculty members, in giving tenure, in making promotions, and in other matters related to faculty development and recognition are sources of continual concern to university faculties and administrative officers. In a period of rapid expansion such as we see ahead, these matters will become particularly crucial. Some months ago the Office of Institutional Research was asked to look at this area and develop one or more studies of the various aspects of faculty development at Michigan State. Three inter-related studies are now being planned. The expectation is that ideas may emerge which will provide direction to the faculty development programs of the University.

The initial phase of the first study will be a follow-up of the faculty members initially appointed under tenure rules in the academic years, 1953-54 and 1954-55. This group of faculty has been selected because under present tenure policies ten years would ordinarily be the maximum period that a person could remain without acquiring tenure. The group thus identified provides a sample of sufficient size to make possible a significant study of the retention of faculty, of reasons for leaving, and of advancement and the factors involved. Both those faculty members remaining here and those who moved elsewhere are being asked to respond to a number of questions.

The investigation will seek to determine the effect of factors such as physical facilities and resources, salary, quality of the student population, prestige of the University, tenure, cultural and recreational opportunities, administrative practices, and work load upon faculty morale and achievements. The motivation for an investigation of this nature is a conviction that there exists a need to study such factors in anticipation of lending support to programs which will enhance the status of the profession and the role of the individual within the profession.

An attempt will be made to analyze statistically the faculty member's perception of a list of factors related to attraction and retention of faculty. We are soliciting your assistance in acquiring data that will make such an analysis possible. Enclosed is a list of those faculty members initially appointed to your department during the period 1953-54 and 1954-55 who have since left the University. The list was taken from the minutes of the Broad meetings and due to reorganizations some of the individuals may have been more closely allied to some other department. If such is the case, note any information which will facilitate locating these faculty members.

First, we are seeking your frank evaluation of the faculty member. Please rank each former faculty member according to the following code. If you were not acquainted with the individual an attempt to get the opinion of colleagues would be helpful. Place the appropriate code number in the space provided.

# Code:

- 1. The resignation of the faculty member represented a distinct loss to the University.
- 2. Although the faculty member's work was satisfactory, the resignation did not represent an irreplaceable loss to the University.
- 3. The faculty member was not reappointed or was otherwise encouraged to leave the University.

Second, we solicit your assistance in determining the present location of those faculty members who have terminated. Please provide the most complete information available as to the present address or institution at which the individual is located.

Your willingness to cooperate in the study is gratefully appreciated. It would be helpful if the enclosed lists could be returned to the Office of Institutional Research at your earliest convenience. The information provided will be kept in strict confidence and will be used in no way except as a basis for the statistical analysis as previously described.

Sincerely yours,

Paul L. Dressel

Paul L. Dressel, Director Office of Institutional Research

### Part A.

The following data are a summary of activities, accomplishments, and personal data related to your professional position(s) of the past several years. Information supplied will be held in the strictest confidence. Please supply all requested information and feel free to provide additional information if needed to more completely summarize your professional activities and accomplishments. Use a checkmark except in cases where specific information is requested.

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Date of initial ful	ll-time appointment at MSU	YEAR	Month (1	1-4
Department(s) to wh	nich initial appointment was mad	e	(5	5-7
Rank of Initial app	pointment at MSU			
	Professor	1		
	Associate Professor	2.		
	Assistant Professor	3	3)	8)
	Instructor	4		
	Administrative Title	5		
Present age	30 or less	1.		
J	31-35	2.		
	36-40	3.	<del></del>	
	41-45	4.		
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	61-65	8.		
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	Associate Professor	2		
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	Not in Higher Education .	0		
High <mark>est d</mark> egree held	1			
	Bachelors (Arts, Science,	etc.) 1		
	Masters (M.S., M.A., M.A.T.	,etc.) 2	······································	
	Professional Degree (M.D.	,D.V.M.,	()	11)
	Professional Degree (M.D. LL.D., etc.)	3	· · · · · · · · · · · · · · · · · · ·	,
	Doctors (Ph.D., Ed.D., etc	.) 4		
	Other	5		
Institution granting	ng highest degree		(12	2-14)
<b>Year hi</b> gh <b>es</b> t degree	vine evended			i <b>-</b> 16 )
rear urknapr asklee	: was awalutu		(12)	~ 10

	IPM No.
Salary at time of initial appointment at MCU	
Less than 5000 · · · · · · 1.	
5000-5999	
6000-6999・・・・・・・・・・ 3	
7600-7999 • • • • • • • • 4	
8000-8999 • • • • • • • • 5	(3.7)
9000-9999 6.	
10000-10999 • • • • • • • 7.	
11000-11999 • • • • • • 8.	
12000 or over • • • • • 9.	
Salary at time of initial appointment at MSU was service for	
Ten months (Academic year) 1	(18)
Twelve months 2.	
Present salary prior to any deductions	
Less than 8000 · · · · · · · 1.	
8000-8999 2.	
9000-9999	<del></del>
	<del></del>
	(19)
	<del></del> ' '
15000 or over • • • • • • 9.	<u></u>
Present salary is for service for	
Ten months (Academic year) 1	
Twelve months 2.	(20)
Number of years served in each rank at MSU and/or	
elsewhere since your initial appointment at MSU	
Professor	(21-22)
Abbutate flutesbut	(23.24)
Assistant Professor	(25-26)
Instructor 4	(2.7 <b>-2</b> 8)
Administrative Title 5.	(29-30)
Position immediately prior to initial appointment at MSU	
College or University	(31-33)
·	
Government or Industry (Specify)	(34)
Highest rank held prior to MSU	
appointment (check if applicable	
Professor 1	
Associate Professor 2.	
Assistant Professor 3	
Instructor 4.	(35)
Asst. Inst., Lect., etc 5.	(33)
Grad. Asst., Research Asst., etc. 6	
•	

Total number of research and scholarly publications or other creative works during past five years  Books  Bulletins or Monographs  Articles  Reviews or Abstracts  Papers Read at Meetings of  Learned Societies  Other Creative Works  (Chapters in books, etc.)					
	bership and offices held in learned anizations during past five years	societies and professional			
Α.	National Name of Society or Organization	Offices Held (if any)	(48-49)		
В.	State Name of Society or Organization	Offices Held (if env)	/50 F1\		
			(50-51)		
,		•			

c.	Local		IEM NO
	Name of Society or Organization	Offices Held (if any)	(52-53)
			<del></del>

Public Services

(54-57)

Please list up to four instances of consultation with business, industry, government, or other educational institutions during the past five years. If consulting activity has been within M.S.U. please specify.

Number	of	graduate	students	to	whom	you	have	served	as	principal
adviser	: 01	committe	e chairma	ın (	during	g pas	st fi	ve year	3	

<b>A.</b>	Currently enrolled or active Masters	<u>IEM No.</u> (58-59) (60-61)
В.	Awarded degree during past five years  Masters	(62-63) (64-65)
Number of graduate students minor committee member duri	to whom you have served as ng past five years	
A.	Masters	(66-67) (68 <b>-</b> 69)
Approximate number of under you have served as major ad	graduate students for whom visor during past five years	(70-72)
List major college or unive served during past five yea	rsity committees on which you have rs	(73-74)
In which one of the followi	ng functions would you consider yourself	<u></u>
	institution? Please feel free to elaborate.	
	Teaching 1	(75)
	Other (Specify) 6.	

# Part B.

25.

26.

27. 28.

The factors listed below have been found to assume varying degrees of importance as indicators of faculty satisfactions and as motivations for remaining in a position or seeking employment elsewhere.

- A. Please indicate your satisfaction or dissatisfaction with each of the following factors at Michigan State University by writing appropriate code number in the space provided in Column I.
  - B. In Column II please indicate the relative importance of each factor to you personally in the selection of and/or remaining in any academic position.

	•	_		
CODE:	Column I	Code:	Column II	
	<ol> <li>Very unsatisfactory</li> <li>Unsatisfactory</li> <li>No opinion or neutral</li> <li>Satisfactory</li> <li>Very satisfactory</li> </ol>	0. 1. 2. 3.	Not significant Slightly significant	nt ificant
<u>Factors</u>	·		Column I	Column II
Intelled	tual Climate			
1.	Quality of student population		•	
2.	Calibre of associates		•	
3.	Calibre of associates Academic freedom			
Faciliti	es and Services			
4.	Office space		•	
5.	Classrooms		•	
6.	Library		•	
7.	Library		•	
8.	Technical assistance		•	
9.	Availability of graduate and	research assistan	its	
Professi	onal Function			
10.	Availability of research fund	<b>s</b>		
11.	Teaching load			
12.	Time for research			
13.	Recognition for undergraduate			
	Committee assignments			
15.	Level of teaching assignment			
16.	Relative teaching-research em	phasis of departm	ent	
17.	Choice in teaching assignment	• • • • • • • •	• •	
Compensa	itional			
18.	Salary			
19.	Income potential			
20.	Rank or title			
21.	Fringe benefits, i.e., retire	ment, insurance,	tc.	
22.	Financial assistance for publ			
23.	Financial assistance for attemeetings			
24.	Policies on promotions		•	

Instituti	onal
29.	Prestige of the University
30.	Reputation of your department
31.	Size of the University
32.	Traffic and parking
33.	Congeniality of staff
34.	Teaching aids, i.e., closed circuit TV, audio-visual, etc
35.	Faculty participation in academic policies
36.	Channels of communication
37.	Relationship with department chairmen
Community	
38.	
39.	Recreational opportunities in the community
40.	Educational opportunities of community
41.	Congeniality of community
42.	Availability of housing
43.	Cost of housing
44.	Climate of area
45.	Commuting
46.	Proximity to family (yours or spouse's)
Other (Pl	ease specify)
47.	
48.	
49.	
50.	
51.	

Please feel free to elaborate on your responses to the list of factors.

Please indicate in rank order by writing the number of the <u>five factors</u> listed above which have been most important in your decision to remain at Michigan State University.

Number of Factor*	Rank	٦
	1	(52-53)
	2	(54-55)
	3	(56-57)
	4	(58-59)
	5	(60-61)

<sup>\*</sup>Please feel free to elaborate.

Use the space provided for response to the following questions. If additional space is required you may continue on the back of the questionnaire. Please feel free to elaborate.

1. What aspects of Michigan State University tend to encourage competent (62-64) staff members to remain at MSU?

2. What aspects of MSU would serve to attract outstanding new faculty to (65-67) the University?

3. On the basis of your experience, what aspects of the University have (68-70) caused capable faculty members whom you have known to seek employment elsewhere.

#### SURVEY OF FACULTY MEMBERS APPOINTED IN 1953-54 AND 1954-55

# Part A.

The following data are a summary of activities, accomplishments, and personal data related to your professional position(s) of the past several years. Information supplied will be held in the strictest confidence. Please supply all requested information and feel free to provide additional information if needed to more completely summarize your professional activities and accomplishments. Use a checkmark except in cases where specific information is requested.

			IBM No.
Date of initial full-tim	e appointment at MSU	YEAR	Month (1-4)
Department(s) to which i	nitial appointment was mad	ie	(5-7)
Rank of Initial appointm	ent at MSU		
	Professor	1	
	Associate Professor	2	
	Assistant Professor	3	(8)
	Instructor	4	
	Administrative Title	5.	
Present age	30 or less	1.	
•	31-35	2.	
	36-40	3.	<del></del>
	41-45	4.	
	46-50	5.	(9)
	51-55		· ·
	56-60		
	61-65	8.	<del>,</del>
	Over 65	9	
Present academic rank			
	Professor	1	
	Associate Professor	2	
	Assistant Professor	3.	
	Instructor	4	(10)
	Administrative Title	5	
	Not in Higher Education	6	
Highest degree held			
	Bachelors (Arts, Science,	, etc.) 1	
	Masters (M.S., M.A., M.A.T.	,etc.) 2.	
	Professional Degree (M.D. LL.D., etc.).	, D. V.M.,	(11)
	LL.D., etc.)		(11)
	Doctors (Ph.D., Ed.D., etc	2.) 4.	
	Other	5.	
Institution granting hig	hest degree	· · · · · · · · · · · · · · · · · · ·	(12-14)
Year highest degree was	awarded		(15-16)

	IBM No.
Salary at time of initial appointment at MSU	
Less than 5000 · · · · ·	· · · <u>1</u> ·
5000-5999 • • • • • • • • •	
6000-6999 • • • • • • • • •	
7000-7999 • • • • • • • • •	• • 4
8000-8999 • • • • • • • • •	
9000-9999 • • • • • • • • • •	
10000-10999 • • • • • • • • • •	
11000-11999 • • • • • • • • •	
12000 or over • • • • • • • •	9
Salary at time of initial appointment at MSU was ser	vice for
Ten months (Academic year)	1.
Twelve months	(18)
Present salary prior to any deductions	
Less than 8000 · · · · · ·	1
8000-8999	2
9000-9999 • • • • • • • • • • • • • • • • •	3
10000-10999• • • • • • • • • • • • • • • • • •	
11000-11999	the state of the s
12000-12999 • • • • • • • • • • • •	* * * * * * * * * * * * * * * * * * *
13000-13999	
14000-14999	<del>الله المستحديد المستحديد المستحديد المستحدد ال</del>
15000 or over · · · · · · ·	<del>کا ان پاکستان با انسان باید و کی این این این این این این این این این ای</del>
	-
Present salary is for service for	
Ten months (Academic year)	1
Ten months (Academic year). Twelve months	2 (20)
Number of years served in each rank at MSU and/or elsewhere since your initial appointment at MSU	
	1. (21-22)
Professor	
Associate Professor	
Assistant Professor	(25-26)
Instructor, , , , , , , , , , , , , , , , , , ,	(27-28)
Administrative Title	5(29-30)
Position immediately prior to initial appointment at	: MSU
College or University	(31-33)
Government or Industry (Specif	(34)
Highest rank held prior to MSU	•
appointment (check if applicate Professor	o16
Professor	• • • 1•
Associate Professor	2
Assistant Professor	3
Instructor	4(35)
Asst. Inst., Lect., etc	5
Grad. AsstResearch Asst.	.etc. 6.

Tot	IBM No.							
		Books		(36-37)				
	Monographs	(//0=//1)						
	Articles							
		Teerned Soci	ieties	(44-45)				
		Other Creative	e Works	(44 43)				
	(Chapters in books, etc.)							
	Membership and offices held in learned societies and professional							
_	anizations during pas	t five years						
A.								
	Name of Society or O	rganization	Offices Held (if any)	(48-49)				
			-					
			-					
				<del></del>				
			_	<del></del>				
				<del></del>				
_								
В.	State Name of Society or O	rganization	Offices Held (if any)	(50-51)				
		····						
	<b>41/7/6</b> /4/7/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/							
				-				
-		<del></del>						
			-					

,

. Local Name of Society or Organization	Offices Held (if any)	18M NO. (52-53)
	-	-
		The same of the constraints

Public Services

(54-57)

Please list up to four instances of consultation with business, industry, government, or other educational institutions during the past five years. If consulting activity has been within M.S.U. please specify.

Number	of	graduate	students	to	whom	you	have	served	as	principal
adviser	. 01	committe	ee chairma	an (	during	pas	st fiv	ve years	3	

	A.		IBM No. (58-59) (60-61)
	В.	Awarded degree during past five years  Masters	(62-63) (64-65)
Number of graduate stud minor committee member		to whom you have served as ng past five years	
	A.	Masters	(66-67) (68-69)
		graduate students for whom visor during past five years	(70-72)
List major college or u served during past five		rsity committees on which you have rs	(73-74)
			ar -dragger
		ng functions would you consider yourself institution? Please feel free to elaborate.	
		Teaching 1.  Research 2.  Student Advising 3.  Administration 4.  Professional Service 5.  Other (Specify) 6.	(75)

#### Part B.

The factors listed below have been found to assume varying degrees of importance as indicators of faculty satisfactions and as motivations for remaining in a position or seeking employment elsewhere.

A. Please indicate your judgment of each factor as it entered into your decision to leave Michigan State.

B. In Column II please indicate the relative importance of each factor to you personally in the selection of and/or remaining in any academic position.

### CODE: Column I

- 1. Considerable inducement to leave Michigan State
- Slight inducement to leave Michigan State
- 3. Did not influence decision
- 4. Slight inducement to remain at Michigan State
- 5. Considerable inducement to remain at Michigan State

## CODE: Column II

- 0. Not applicable
- 1. Not significant
- 2. Slightly significant
- 3. Very significant

Factor	<u>s</u>	Column I	Column II
Intell	ectual Climate		
1.	Quality of student population		
2.	Calibre of associates		
3.	Academic freedom		
	ties and Services		
4.	Office space		
5.	Classrooms		
6.	Library	<del></del>	
7.	Secretarial services	<del></del>	
8.	Technical assistance	-	
		<del></del>	
9.	Availability of graduate and research assistants	<del></del>	
	sional Function		
10.	Availabilityof research funds		
11.	Teaching load		
12.	Time for research		
13.	Recognition for undergraduate teaching		
14.	Committee assignments		
15.	Level of teaching assignment		
16.	Relative teaching-research emphasis of department		
17.	Choice in teaching assignment		
Compens	sational		
18.	Salary		
19.	Income potential		
20.	Rank or title		
21.	Fringe benefits, i.e., retirement, insurance, etc		
22.	Financial assistance for publication of research		
23.	Financial assistance for attending professional	•	
	meetings		
24.	Policies on promotions		
25.	Sabbatical leave policies		
26.	Tenure policies		***************************************
27.	Opportunity for consulting work	<del></del>	
28.	Extra-load activities, i.e., off-campus teaching, etc 152		
	<b>⊥</b> )		

. . . .

Institution	onal		
29.	Prestige of the University		
30.	Reputation of your department		
31.	Size of the University	<del></del>	
32.	Traffic and parking		
33.	Congeniality of staff	<b></b>	
34.	Teaching aids, i.e., closed circuit TV, audio-visual, etc		
35.	Faculty participation in academic policies		<del></del>
36.	Channels of communication	<del></del>	
	Relationship with department chairmen		
Community			
38.	Cultural opportunities in the community		
39.	Recreational opportunities in the community		
40.	Educational opportunities of community		
41.	Congeniality of community		
42.	Availability of housing		
43.	Cost of housing		
44.	Climate of area		
45.	Commuting		
46.	Proximity to family (yours or spouse's)	****	
Other (Pl	ease specify)		
47.	•		
48.			
49.			
50.			
51.			

Please feel free to elaborate on your responses to the list of factors.

Please indicate in rank order by writing the number of the <u>five factors</u> listed above which have been most important in your decision to leave Michigan State University.

Number of Factor*	Rank	٦
	1	(52-53)
	2	(54-55)
	3	(56-57)
	4	(58-59)
	5	(60-61)

<sup>\*</sup>Please feel free to elaborate.

Use the space provided for response to the following questions. If additional space is required you may continue on the back of the questionnaire. Please feel free to elaborate.

1. If you are currently employed in higher education, what aspects of your present college or university tend to encourage competent staff to remain at the institution?

2. What aspects of your present college or university would serve to attract outstanding new faculty to the institution?

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